



# National Objectives for Health

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**Philippines  
2005-2010**

# NATIONAL OBJECTIVES FOR HEALTH 2005-2010



Department of Health  
Republic of the Philippines

# **National Objectives for Health Philippines, 2005-2010**

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# FOREWORD

The health status of Filipinos has generally improved in the last decades as evidenced by longer life expectancy at birth, lower maternal and child mortality rates, and better health outcomes seen in the management of many important diseases. The development of the Health Sector Reform Agenda (HSRA) in 1999 has prompted the implementation of sector-wide strategies aimed at further enhancing these gains by improving the way health care is delivered, regulated, managed and financed.



The health reforms taken at the start of this century witnessed pioneering strategies in turning health policy and advocacy into action from a wider array of actors, both in and out of the health sector. Better access to quality health goods and services has been made possible through the expansion of social health insurance coverage, especially among the poor, and through the establishment of mechanisms to bring down the price of essential medicines. Greater fiscal autonomy given to national government hospitals has enabled them to pursue higher quality services while enhanced coordination among local government units has transformed their fragmented local health systems into more dynamic and effective inter-local health zones.

On top of these reforms, aggressive national health campaigns were launched resulting in better service coverage against lingering infectious diseases and higher awareness and enhanced preventive measures against rising lifestyle-related diseases. Comprehensive health education and promotion on family and reproductive health were also carried out targeting both the general public and high-risk populations. We have also witnessed the successful halting and management of newly emerging global health threats like SARS which provided valuable lessons in the current international efforts to stop the spread of highly fatal avian influenza and to reverse the course of HIV/AIDS.

Our initial efforts in health reforms have definitely yielded promising results. However, celebration of these achievements is both untimely and presumptuous even as wide regional differences in health status remain. The country today still wrestles with the double burden of disease, which further stretches the limited resources of our economy while more ferocious killers, both emerging and resurgent, are increasingly hammering our doors. A large proportion of our poor is still defenseless from the scourge of curable

illnesses and preventable deaths. Although infant and maternal mortality rates have improved over the years, the rate of decline is slow, thus, the Philippines still lags behind our close neighbors in the Southeast Asian region. Obviously, we still have to fulfill the promise of bridging the gap between the rich and the poor in terms of providing equal health opportunities, equitable access to quality health care services and better health for all regardless of ethnicity, religion, belief or rank.

Several issues hamper the health sector from realizing these most urgent tasks. There are potent barriers and multiple forces necessitating the action of more than the health sector: macroeconomic and sociopolitical issues, fragmented local health systems and private health care markets, limited capacity for quality assurance of health care products and services, many essential drugs still excessively priced out of reach for the poor, low investments in health, and the maldistribution of health professionals compounded by their massive out-migration. In the face of all these challenges, the country has to follow through with its commitment to attain the goals set in the Medium Term Philippine Development Plan (MTPDP) 2004-2010 and the Millennium Development Goals (MDGs) of ending poverty, improving access to health, education and other basic social services and attaining greater national development.

The time to act is now. The time to begin is right away. But with old problems still unresolved and new issues on the rise, a great deal remains to be done in order to address the gaps in the health sector. The Department of Health, in its visionary quest to strengthen the Philippine health system and make it a vehicle for social change, engineered the *Fourmula One for Health (F1)* as the new implementation framework for vital health sector reforms. It is designed to implement critical health interventions with *speed, precision and effective coordination* to achieve the three major goals of the health care system: *better health outcomes, more responsive health system and more equitable health care financing*. *F1* strategically focuses on cost-effective interventions which can create the most impact, while maximizing limited health resources and generating buy-in from all potential partners.

The goals and objectives stated herein reflect the major thrusts of *F1* in *health care financing* (public financing for health and social health insurance), *health regulation* (quality assurance of health goods and services, and cost containment of essential medicines), *health service delivery* (delivery of public health programs and hospital



services) and **good governance** (local health systems development, human resource development, financial and procurement management, and knowledge management).

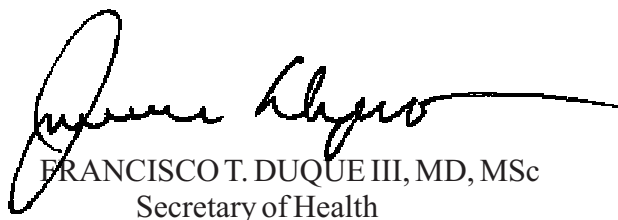
The development of the National Objectives for Health (NOH) for the period 2005 to 2010 builds on and integrates many of the lessons learned from previous experiences while ensuring that gains are sustained and institutionalized. But just like the first NOH (for the period 1999 to 2004), various health professionals and resource persons within and outside the DOH contributed to its completion. This ensures that the objectives and strategies set herein address the true needs of our people, are technically sound, and can be realistically accomplished within the next five to six years. It aims to unify the entire Philippine health sector towards improving the health of all Filipinos by spelling out a common direction and setting achievable medium-term goals for all.

In essence, the NOH provides the “road map” of key ideas, targets, indicators and strategies to bring the health sector to its desired outcomes. It also defines the collective and individual roles that the various stakeholders – policy makers, program planners and managers, service providers, local government executives, development partners, the academe and civil society – play in shaping the future of our country’s health system and in bringing better health outcomes for our people.

Thus, we enjoin each and everyone to make full use of this valuable document for the purpose of health planning, policy and program development, implementation, monitoring and evaluation. It is our fervent wish to share a common vision with you and all our partners in this exciting race towards “**Health for all Filipinos**”.

Hence, with **Formula One for Health** as our **guiding philosophy** and **strategic approach**, let us make that crucial appointment today. Let us commit ourselves to winning and meeting very soon at the finish line with victory in our faces and with health finally in the hands of our people. Working in synergy, we can overcome all roadblocks that may slow or halt our progress. Together, we will definitely share the triumph of a healthy, productive and progressive nation for all generations of Filipinos.

*Mabuhay tayong lahat!*



FRANCISCO T. DUQUE III, MD, MSc  
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AFP	Acute Flaccid Paralysis	FIES	Family Income and Expenditure Survey
AIDS	Acquired Immune Deficiency Syndrome	FPS	Family Planning Survey
ASAP	Araw ng Sangkap Pinoy	FSCAP	Federation of Senior Citizens Association of the Philippines
BCG	Bacillus Calmette Guerin	GIDA	Geographically Isolated and Disadvantaged Areas
BEMOC	Basic Emergency Obstetric Care	GMO	Genetically Modified Organism
BHERT	Barangay Health Emergency Response Team	GMP	Good Manufacturing Practices
BnB	Botika ng Barangay	GP	Garantisadong Pambata
BSNOH	Baseline Survey for the National Objectives for Health	HIV	Human Immune Deficiency Virus
BSS	Behavioral Sentinel Surveillance	HRH	Human Resource for Health
CBJA	Competency-Based Job Description Analysis	HRHIS	Human Resource for Health Information System
CDMS	Career Development and Management System	HSS	HIV Serologic Surveillance
CELF	Coalition to Eliminate Filariasis	IAEA	International Atomic Energy Agency
CEPR	Center for Economic and Policy Research	IIS	Integrated Information System
CGMP	Current Good Manufacturing Process	ILHZ	Inter-Local Health Zone
COSE	Coalition of Services for the Elderly	IPP	Individually Paying Program
CPG	Clinical Practice Guidelines	ISO	International Standards Office
CQI	Continuous Quality Improvement	JRRSS	Job Related Recruitment and Selection System
CRC	Convention on the Rights of the Child	KM	Knowledge Management
CROWN	Consistent Regional Outstanding Winners in Nutrition	LHA	Local Health Accounts
DOTS	Directly Observed Treatment Short Course	MARIA	Medical Aid to Rural Indigents Areas
EOHP	Essential Oral Health Package	MBFHI	Mother Baby Friendly Hospital Initiative
EPHF	Essential Public Health Functions	MMAQIS	Metro Manila Air Quality Improvement Sector
ESRD	End-Stage Renal Disease	MTPDP	Medium Term Philippine Development Plan
ESWM	Ecological Solid Waste Management Act	NAMRU	Naval Medical Research Unit
FCTC	Framework Convention on Tobacco Control	NBCP	National Bio-safety Committee of the Philippines
FGD	Flue Gas Desulfurization	NCORP	National Comprehensive Occupational Rehabilitation Program
		NDHS	National Demographic and Health Survey

NDS	National Disability Survey	PNS	Philippine Normal Standard
NESSS	National Epidemiology Sentinel Surveillance System	POGI	PhilHealth Organized Groups Interface
NGAS	New Government Accounting System	PPAC	Philippine Plan of Action for Children
NHA	National Health Accounts	PPAN	Philippine Plan of Action for Nutrition
NHIP	National Health Insurance Program	PPAOP	Philippine Plan of Action for Older Persons
NNHS	National Nutrition and Health Survey	PRO	PhilHealth Regional Office
NNS	National Nutrition Survey	PSY	Philippine Statistical Yearbook
NRL	National Reference Laboratory	PWD	Persons with Disability
NSCB	National Statistical Coordination Board	QAP	Quality Assurance Program
NSD	Normal Spontaneous Delivery	REB	Reaching Every Barangay
NTPS	National Tuberculosis Prevalence Survey	RSP	Rationalization and Streamlining Plan
OFW	Overseas Filipino Workers	SARS	Severe Acute Respiratory Syndrome
OPIF	Organizational Performance Indicator Framework	SEMP	Social Expenditure Management Program
OPV	Oral Polio Vaccine	SHI	Social Health Insurance
OSHC	Occupational Safety and Health Center	SSM	Sentrong Sigla Movement
OTC	Over-the-Counter Drugs	TCT	Tobacco Control Team
PAHO	Pan American Health Organization	TDNA	Training and Development Needs Analysis
PCAHO	Philippine Council for the Accreditation of Health Care Organizations	TRC	Treatment and Rehabilitation Centers
PCEG	Presidential Committee on Effective Governance	TSP	Total Suspended Particulates
PDEA	Philippine Drug Enforcement Agency	ULAP	Union of Local Authorities in the Philippines
PEM	Protein Energy Malnutrition	UPMO	Unified Project Management Office
PHS	Philippine Health Statistics		
PITC	Philippine International Trading Corporation		
PLHIS	Philippine Local Health Information System		
PMCC	Philippine Medical Care Commission		
PMS	Performance Management System		
PNHA	Philippine National Health Account		



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# 1 DEFINING THE PHILIPPINE HEALTH SECTOR

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## Description of the Country

### *Geographic Characteristics*

The Philippines is an archipelago of 7,107 islands located in the western part of the Pacific Ocean off the coast of Southeast Asia. Only 4,000 islands are named and only 1,200 are inhabited. The country has a total land area of 300,000 square kilometers and is one of the largest island groups in the world. The two largest islands are Luzon in the north and Mindanao in the south. Between these islands lies a group of small to medium-sized islands collectively called the Visayas. Manila, located in the central part of Luzon, is the capital city. Metropolitan Manila, also known as the National Capital Region (NCR), is the biggest urban center in the country. It is made up of 14 highly urbanized cities and three municipalities.

The Philippines is mountainous with narrow strips of lowland along the coast and some broad inland plains, particularly in the bigger islands. Tropical forests used to cover most of the Philippines, but very large areas are devoid of forests, causing soil erosion and flash floods. The country has an extensive coastline and many fine bays and harbors. A wide variety of tropical plants and animals can be found in its mountains, rivers and lakes and along its coastal areas. Except for a few plants, the medicinal values of these floras remain to be fully tapped. The seas surrounding the islands are considered one of the richest marine habitats in the world in terms of biodiversity and also one of the most delicate in terms of environmental protection.

The country's climate is generally hot and humid with an average temperature of 32°C. The hottest months are from March to June





when temperatures may reach 38°C. The weather from November to February is pleasantly cool and dry with temperatures around 23°C. Rains and typhoons prevail from July to October. The Philippines is prone to natural disasters brought about by volcanic eruptions, earthquakes, floods and typhoons. The tropical temperature favors the existence of disease vectors and parasites.

## *Demographic Characteristics*

Based on the National Statistics Office (NSO), the total population of the Philippines in 1980 was 48,316,503. This figure has increased to 76,485,088 in 2000, a 58 percent increase between 1980 and 2000. The population is projected to increase to 84,241,341 in 2005 and 91,868,309 in 2010 (PSY 2004). Manila and the other cities and municipalities comprising NCR have a total projected population of 11,240,743 in 2005, around 13.3 percent of the total population of the Philippines.

The population grew at the rate of 2.36 percent annually between 1995 and 2000. Projected annual population growth rate between 2000 and 2005 is 2.1 percent. Five out of the 17 administrative regions have growth rates higher than the national average: Central Luzon, Southern Tagalog, Central Visayas, Southern Mindanao and the Autonomous Region in Muslim Mindanao (ARMM). NCR has the lowest population growth rate of 1.06 percent and ARMM has the highest at 3.86 percent.

**Table 1.1 Population, Population Growth Rate and Population Density by Region Philippines, 2000**

Region	Population	Population Growth Rate (Percent)	Population Density (Person/sqkm)
NCR	9,932,560	1.06	16,091
CAR	1,365,412	1.82	70
Ilocos	4,200,478	2.15	318
Cagayan Valley	2,813,159	2.25	90
Central Luzon	8,030,945	3.20	437
Southern Tagalog	11,793,655	3.72	239
Bicol	4,686,669	1.68	258
Western Visayas	6,211,038	1.56	301
Central Visayas	5,706,953	2.79	359
Eastern Visayas	3,610,355	1.51	155
Western Mindanao	3,091,208	2.18	161
Northern Mindanao	2,747,585	2.19	170
Southern Mindanao	5,189,335	2.60	183
Central Mindanao	2,598,210	2.08	144
Caraga	2,095,367	1.63	98
ARMM	2,412,159	3.86	95
<b>Philippines</b>	<b>76,485,088</b>	<b>2.36</b>	<b>255</b>

Source: Philippine Statistical Yearbook, 2004

In 2000, the population density is 255 people per square kilometer, but this is unevenly distributed throughout the islands with 56 percent of the population living on the island of Luzon. The greatest population concentration is in NCR, with a population density of 16,091 people per square kilometer, a ratio that is 63 times the national average. The least populated areas are the Cordillera Administrative Region (CAR) and Cagayan Valley with a population density of 70 and 90 people per square kilometer, respectively.

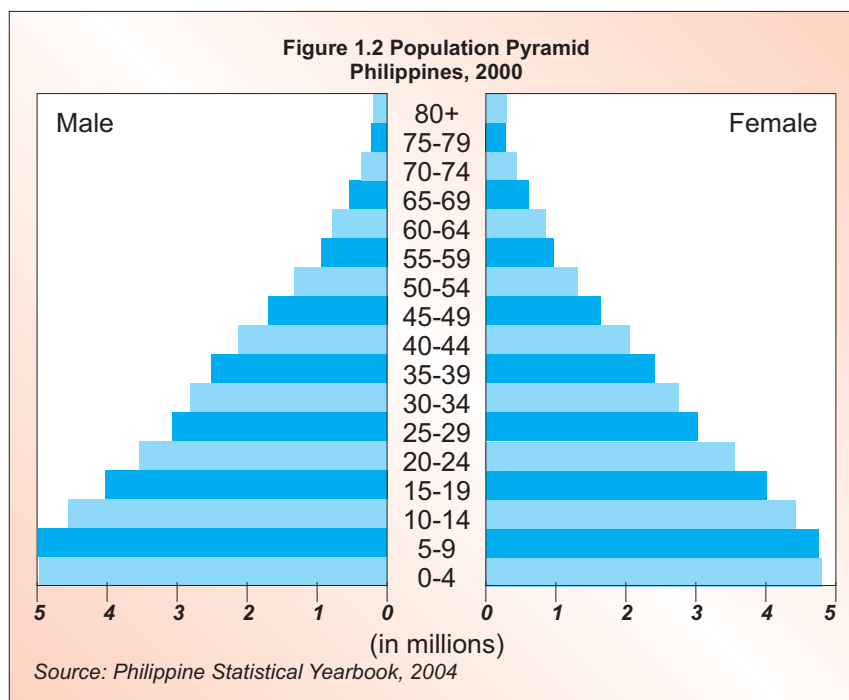
The median age of the Philippine population is 21 years old, which means, half of the population is below 21 years old. This makes the Philippines a country of mostly young people. Males outnumber females with a sex ratio of 101.43 males for every 100 females. There are more males than females in the age groups 0-19 and 25-54 years.

The age structure of the Philippine population is a typical broad base at the bottom consisting of large numbers of children and a narrow top made up of fairly small numbers of older persons. The dependency ratio is 69, which means that every 100 persons in the working age group (15-64 years old) have to support about 63 young dependents and about six old dependents. Young dependents belonging to 0-14 age group comprise 37 percent of the

population. The old dependents (65 years old and over) account for 3.8 percent, while 59.2 percent comprise the economically active population (15-64 years old). Women of reproductive age comprise around 51 percent of the total number of females in the country (NSO 2004).

Approximately 52 percent of the Philippine population lives in rural areas (NSO 2004). Urbanized areas are rapidly expanding and offer a wide range of economic, educational, recreational and other facilities. These attract migrants from rural communities. Settlements in remote frontier areas are also increasing. Rural-to-urban and rural-to-rural migration put so much pressure on providing basic social services like health care, shelter, water, sanitation and education. The congestion and pollution in urban areas are harmful to health. In frontier areas, the people's health is affected by difficult access to health services and the presence of locally endemic diseases like malaria, filariasis and schistosomiasis.

In comparison with other countries, the Philippines ranked twelfth among the countries of the world in terms of total population. The Philippines is also among the countries of



**Table 1.2 Average Annual Population Growth Rates  
ASEAN Countries, 1962-2000**

Country	Period	Growth Rate
Malaysia	1991-2000	2.6
Brunei	1991-2001	2.5
Cambodia	1962-1998	2.5
Laos	1985-1995	2.5
Philippines	1990-2000	2.3
Singapore	1990-2000	1.8
Myanmar	1973-1983	1.7
Vietnam	1989-1999	1.7
Indonesia	1990-2000	1.5
Thailand	1990-2000	1.1

Source: ASEAN in Figures, 2003

the world with a high annual population growth rate and is ranked fifth among Southeast Asian countries.

## *Socio-cultural Characteristics*

The Negritos, the first known settlers in the Philippines, arrived in the islands about 50,000 years ago. Modern Filipinos are generally descended from Indonesians and Malays who settled in the Philippines about 3,000 BC. They intermixed with more recent immigrants who include the Chinese, Indians, Spaniards and Americans. The

complex mix of peoples has created a blend of eastern and western influences that is uniquely Filipino.

The Philippines is the only predominantly Christian country in Asia. Eighty-two percent of Filipinos are Roman Catholics, 5.4 percent are Protestants, 4.6 percent are Muslims, and the rest belong to other Christian and non-Christian religions. There are two official languages: Filipino and English. Filipino, which is based on Tagalog, is the national language. English is widely used and is the medium of instruction in higher education and the language of government. There are at least 110 ethno linguistic groups, but eight major languages are spoken by majority of the Filipinos: Tagalog, Cebuano, Ilocano, Ilonggo, Bicol, Waray, Pampango, and Pangasinense. Indigenous peoples account for approximately 18 percent (15.2 million) of the population.

The presence of a well-established educational system accounts for the high literacy rate of 92.3 percent. The literacy rate among females is 92.5 percent while it is slightly lower among males at 92.1 percent (PSY 2004). In urban areas, where the people have easier access to educational facilities, including mass media and electronic communications, the literacy rate is higher compared to rural areas. Although the literacy rate is high, folk beliefs, misconceptions and practices detrimental to health are still common. Socio-cultural barriers to health are prevalent and more apparent in indigenous communities.

The family is the basic unit of Filipino society. It is usual to find extended families where the members include not just the husband, wife and their children but also grandparents, parents, siblings and other relatives. Families are close knit, strongly influenced by

tradition and have a sense of loyalty to family and the community. Special events like births and deaths and religious affairs like fiestas bring families together. The family support system is very strong, especially in times of need.

## *Government and Political System*

The Philippines is a democratic and republican state with three branches of government (executive, legislative and judicial). The Philippines has a unitary form of government and a multi-party political system. The Constitution guarantees direct election by the people for all elective positions from the President down to the members of the barangay or village councils.

The executive power is vested in the President, who is the head of state and the commander-in-chief of the Armed Forces. The President appoints the Cabinet members who assist the President in executing laws, policies and programs of the government. The lawmaking power is vested in a bicameral Congress composed of the Senate and the House of Representatives. The Senate has 24 senators directly elected nationwide by the people. The House of Representatives has 250 members elected by congressional districts and by party list system. Judicial power is vested in the Supreme Court and a system of several lower courts. The Supreme Court is composed of the Chief Justice and 14 associate justices.

The local government units (LGUs) make up the political subdivisions of the Philippines. LGUs are guaranteed local autonomy under the 1987 Constitution and the Local Government Code of 1991. As of 2004, the Philippines is divided into 79 provinces headed by governors, 117 cities and 1,500 municipalities headed by mayors, and 41,975 barangays or villages headed by barangay chairpersons (NSCB 2004). Legislative power at local levels is vested in their respective sanggunian or local legislative councils. Administratively, these LGUs are grouped into 17 regions.

## *Economic Characteristics*

The Philippines is a developing country. In 1997, the per capita gross national product (GNP) was P34,365 while the per capita gross domestic product (GDP) was P32,961. By 2003, the per capita GNP has increased to P56,109 and the per capita GDP to P52,241. The economy grew at a faster rate in the 1990s than in the 1980s. From 1988 to 1997, the country's GNP grew at an annual average of 4.1 percent while the GDP went up by an

average of 3.4 percent. It improved in 2002-2003 as GNP growth rate increased to 5.6 percent and GDP to 4.7 percent (NSCB 2005).

In 2000, the annual per capita poverty threshold was estimated at P11, 605, an 18 percent increase over the 1997 threshold of P9, 843. With this threshold, a family of five members should have a monthly income of P4, 835 to meet its food and non-food basic needs. Average annual family income reached P148, 757 in 2003, increasing by 2.5 percent over the P145,121 average in 2000. As earnings rose across all income levels, poverty among Filipino families dropped by almost three percentage points from the 27.5 percent revised estimate for 2000 down to 24.7 percent in 2003 (NSCB 2005).

Unemployment and underemployment rates have increased in the past three years. Unemployment rate stood at 10.2 percent in October 2002, it has gone up to 10.9 percent as of October 2004. Underemployment has also gone up from 15.3 percent in October 2002 to 16.9 percent in October 2004. Average inflation rate has also gone up from 3.5 percent in 2003 to six percent in 2004 (NSO 2004).

In 2003, the GDP was mainly from the service sector (43 percent), followed by the industry sector (31 percent) and the agriculture, fishery and forestry sector (18 percent). Traditionally, the economy depends on agriculture, fishing, forestry and mining. In recent years the service sector and the manufacturing sector have grown rapidly. The service sector, which include education, transportation and communication, property, health, housing and government services, account for the biggest sector of the economy. They employ the bulk of the workforce. The manufacturing sector has also grown rapidly, with the food and beverage, electrical and electronic components and production of garments, wood products and furniture as major industries. Our overseas Filipino workers (OFWs) have also contributed their share to the country's economy. From 1987 to 2002, compensation income (inflows) from overseas workers totaled P406.2 billion or 3 percent of the total GNP for the period covered.

Major imports include machinery and equipment, oil and petroleum products, chemicals and semi-processed materials. The major trading partners of the Philippines have remained to be the United States, Japan, the European community and the Association of Southeast Asian Nations (ASEAN). China is emerging as a major trading partner in recent years.

# Health Status of the Filipinos

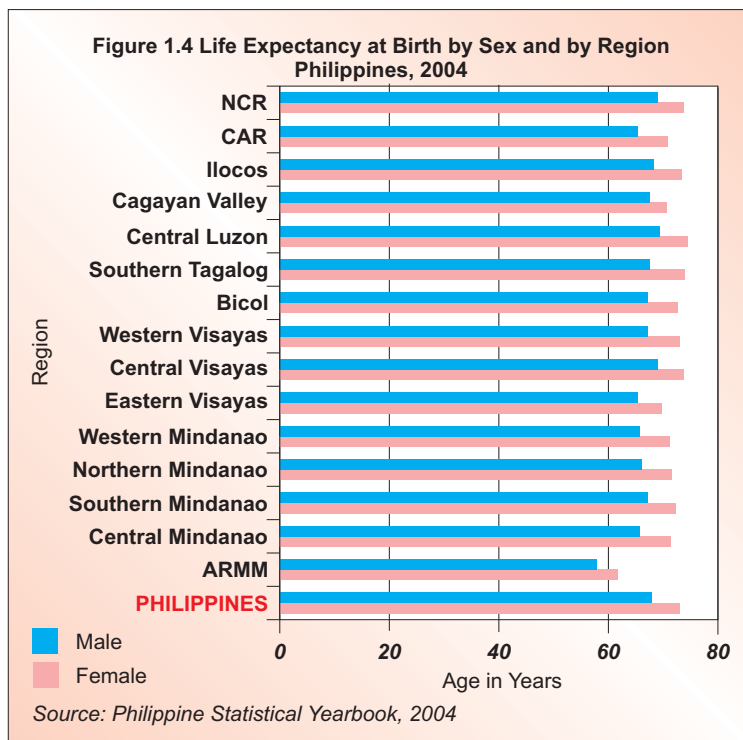
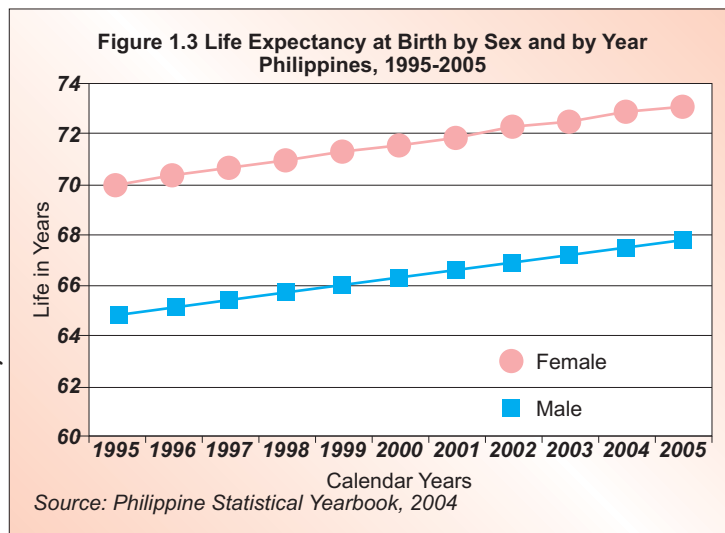
## *Life Expectancy at Birth*

The Filipino's average life expectancy at birth rose from 61.6 years in 1980 to 64.6 years in 1990. Further increase was noted during recent years to an average life expectancy of 69 years in 2000 and projected at 70.5 years in 2005. Life expectancy of females has always been higher than males in the Philippines (72.8 years for females compared to 67.5 years for males in 2004).

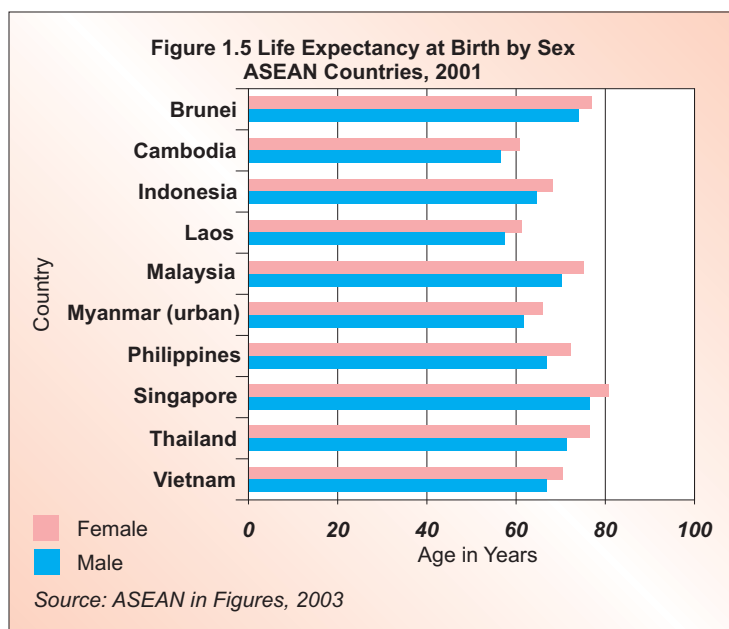
The increase in years in the lives of the Filipinos may be attributed to the improving health status of the people and other socioeconomic factors.

Large variations in the average life expectancy at birth occur among the different regions of the country. Central Luzon has the highest life expectancy at 71.7 years followed by the NCR at 71.6 years, Central Visayas at 71.2 years, and Ilocos at 70.6 years in 2004. ARMM has the lowest life expectancy at 59.3 years, followed by Eastern Visayas at 67.3 years and CAR at 67.8 years in 2004.

The rising life expectancy implies that more people will reach old age. This means a higher proportion of older persons in the general population is expected in the future. With this trend comes the increase in the occurrence of degenerative diseases and disabilities associated with an aging population. The large differences in life expectancy among the different regions mean that there is a need to prioritize health and other socioeconomic inputs in some regions, particularly those below the national average.







Average life expectancy at birth in the Philippines is comparable with Vietnam. Although it has lagged behind Brunei, Malaysia, Singapore and Thailand, life expectancy in the Philippines is better than Indonesia, Myanmar, Laos and Cambodia.

### *Crude Birth Rate and Crude Death Rate*

In 1950, the crude birth rate (CBR) was a high 31.7 births per 1,000 population. It became constant at approximately the same

level until the end of the decade. The trend decreased in the 1960s and early 1970s, reaching a low rate of 24.8 per 1,000 population in 1972. Rates from 1973 showed an upward trend, soaring to 30.7 per 1,000 population in 1979. From the 1980s to the 1990s there was again a decline in the CBR, eventually decreasing to 23.1 per 1,000 population in 2000 (PHS 2000).

The total live births in 2000 was 1,766,440 of which 918,243 or 52 percent were males and 848,197 or 48 percent were females. As in previous years, there was a higher proportion of males born in 2000 compared to females, resulting in a birth sex ratio of 108 baby boys born for every 100 baby girls born. The daily average of birth occurrence was 4,826, an addition of three babies to the population every minute (NSO 2003).

The Philippines has reduced mortality from 1950 to the present. A sharp decline of the crude death rate (CDR) was noted from the 11.2 deaths per 1,000 population recorded in 1950 to the rate of 7.3 per 1,000 population recorded in 1959. From 1960s until 2000, a slow but steady decline in the CDR was noted, from the rate of 7.8 per 1,000 population in 1960 to 4.8 per 1,000 population in 2000 (PHS 2000).

There were 366,931 deaths reported in 2000. Daily death occurrences were two deaths every three minutes. The mortality rate for males was 5.7 deaths per 1,000 male population while that for females was 3.9 per 1,000 female population. Of the number of deaths, 217,404 or 59.2 percent were males and 149,527 or 40.8 percent were females, a death sex ratio of 145 males per 100 females dying in 2000 (NSO 2004).



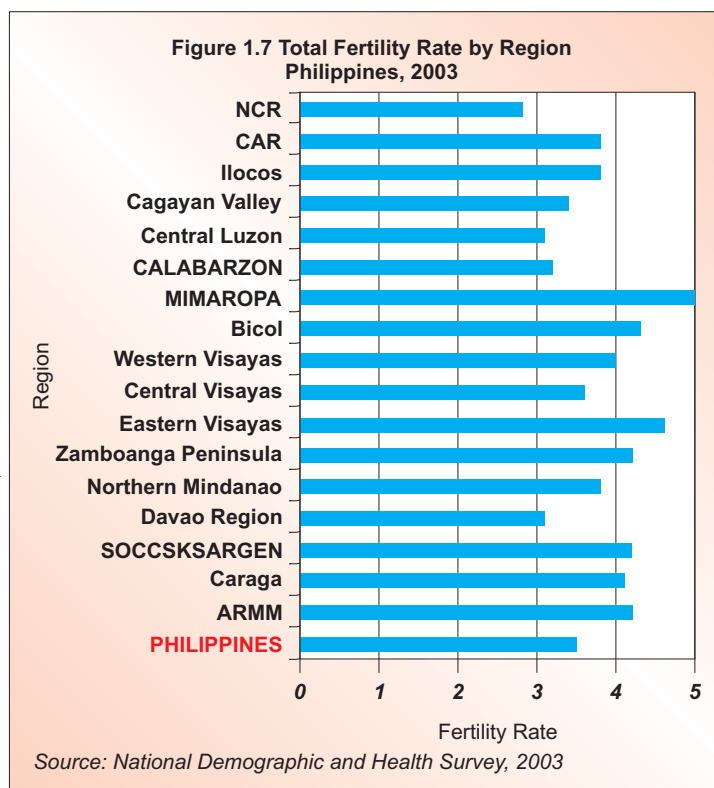
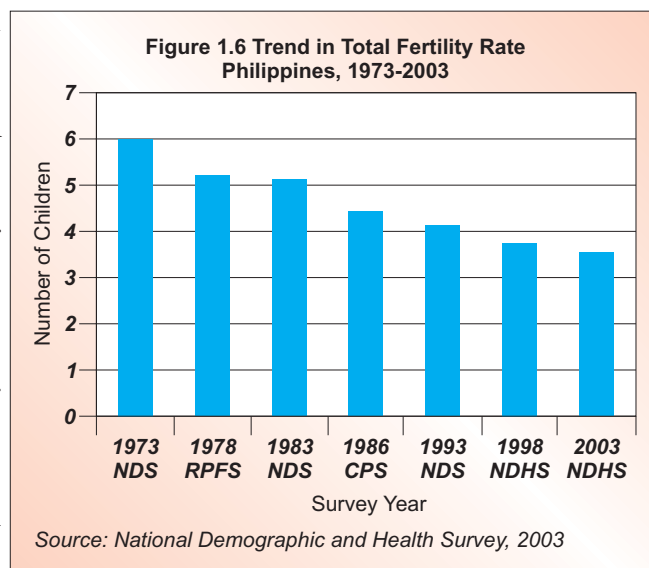
Death rates by age tend to be very high at infancy and early childhood, declining sharply by the age of 10. The rates remain low from this age. They begin to climb at around 40 years and accelerate beyond 50 years and above.

## Total Fertility Rate

The total fertility rate (TFR) refers to the average number of births that a woman would have at the end of her reproductive life. The change of the pattern of total fertility rate has important consequences for the health sector. In the short run, greater spacing between births improves the health of mother and child. A reduction in the actual number of births reduces the need for obstetrical care, immunization and other maternal and child health interventions. In the long run, declining fertility redistributes the age distribution of the population away from younger ones and toward middle and older ages.

The TFR is declining in the Philippines, estimated at six births per woman in 1973 to 3.7 in 1998 and 3.5 in 2003. Although TFR is declining in the country, the Philippines still has the highest TFR in Southeast Asia. In 2003, the TFR in Malaysia was 2.9 children per woman, with Indonesia at 2.3, Thailand at 1.9 and Singapore at 1.3 children per woman.

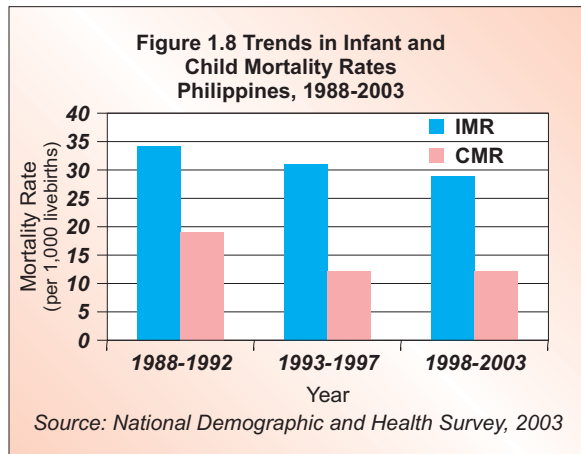
There are regional differences within the country with NCR having the lowest TFR at 2.8 children per woman while MIMAROPA having the highest TFR at five children per woman in 2003. The TFR varies with location and education. The estimated TFR in urban areas is three children per woman. In rural areas it is 4.3 children per woman. Women without education have a TFR of 5.3, almost



similar to the TFR of women with elementary education only (5 children per woman). Among those with high school and college education, the TFR is 3.5 and 2.7 children per woman, respectively (NDHS 2003).

## *Infant and Child Mortality Rates*

The infant mortality rate (IMR) and child mortality rate (CMR) per 1,000 live births in the Philippines have been declining through the years, but the rate of decline has slowed down during the 1980s. After a decade of poor performance, recent estimates suggest



improvements although the decline has not been at par with neighboring countries. The IMR was estimated at 34 infant deaths per 1,000 live births between 1988 and 1992, at 31 per 1,000 live births between 1993 and 1997 and at 29 per 1,000 live births between 1998 and 2003.

Infant mortality varies with socioeconomic and demographic factors. High IMR is noted among infants of mothers with no education, no antenatal and delivery care, and mothers aged below 20 and above 40 years.

IMR is also high among male infants, small or very small infants, birth order number seven and above and past birth interval below two years. The IMR is also lower in urban areas at 24 infant deaths per 1,000 live births compared to 36 per 1,000 live births in rural areas in 2003 (NDHS 2003). The infant death sex ratio is 142.5 male infant deaths for every 100 female infant deaths, indicating a higher risk of dying among male infants (NSO 2004).

Data from the NDHS 2003 show wide regional differences in IMR. IMR is lowest in CAR at 14 infant deaths per 1,000 live births, followed by NCR at 24 per 1,000 live births and Central Luzon and CALABARZON at 25 per 1,000 live births. The three regions with the highest IMR are MIMAROPA at 44 per 1,000 live births followed by ARMM at 41 per 1,000 live births and Western Visayas at 39 per 1,000 live births.

The three most common causes of infant deaths are: pneumonia at 2.0 infant deaths per 1,000 live births, bacterial sepsis at 1.8 per 1,000 live births and disorders related to short gestation and low birth weight at 1.5 per 1,000 live births. Other leading causes of infant deaths are: respiratory distress, congenital malformations of the heart and other perinatal conditions (PHS 2000).

The IMR in the Philippines is high compared with other neighboring Asian countries such as Singapore, Malaysia, Brunei, and Thailand, but it is better

**Table 1.3 Leading Causes of Infant Mortality  
Philippines, 2000**

Cause	Number	Rate per 1,000 livebirths	Percent Share from Total Number of Infant Deaths
1. Pneumonia	3,463	2.0	13.8
2. Bacterial sepsis of the newborn	3,174	1.8	12.6
3. Disorders related to short gestation and low birth weight	2,569	1.5	10.2
4. Respiratory distress of the newborn	2,446	1.4	9.7
5. Other perinatal conditions	2,347	1.3	9.3
6. Congenital malformations of the heart	1,596	0.9	6.3
7. Congenital pneumonia	1,359	0.8	5.4
8. Diarrhea and gastroenteritis of presumed infectious origin	1,207	0.7	4.8
9. Other congenital malformations	1,156	0.7	4.6
10. Neonatal aspiration syndrome	1,063	0.6	4.2

Source: Philippine Health Statistics, 2000

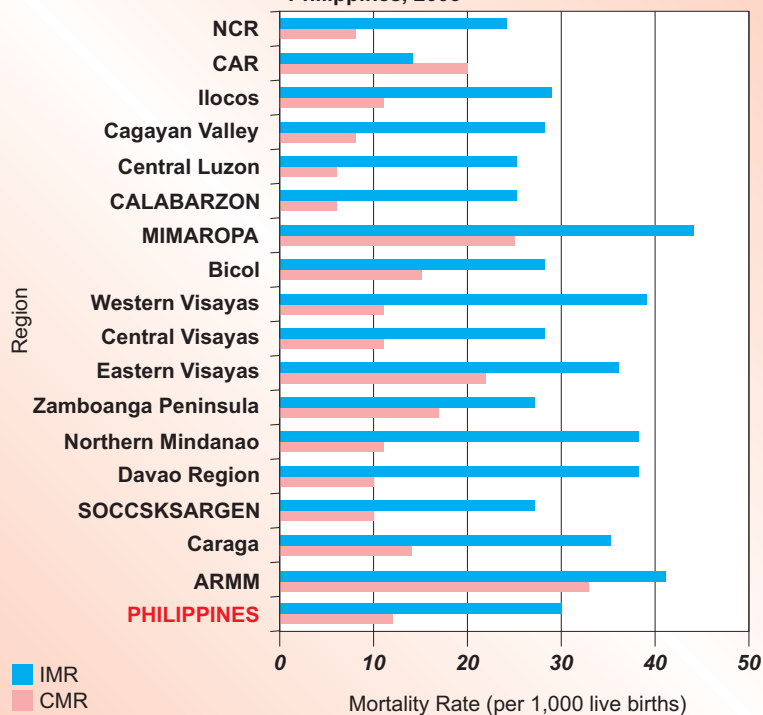
compared to Indonesia, Myanmar, Laos and Cambodia.

The child mortality rate (CMR) per 1,000 live births is also declining in the country. CMR was estimated at 19 deaths per 1,000 live births between 1988 and 1992 and went down to 12 per 1,000 live births between 1993 and 1997 and remained at that level between 1999 and 2003.

Regional data also show a wide variation among the different regions in the country. Child mortality rate is lowest in Central Luzon and CALABARZON at six per 1,000 live births, followed by Cagayan Valley and NCR at eight per 1,000 live births. It is highest in ARMM at 33 per 1,000 live births, followed by MIMAROPA at 25 per 1,000 live births (NDHS 2003).

The most common causes of child deaths are pneumonia at 37.8 deaths per 100,000 population, accidents at 17.6 per 100,000 population, and diarrheas at 16.1 per 100,000 population (PHS 2000).

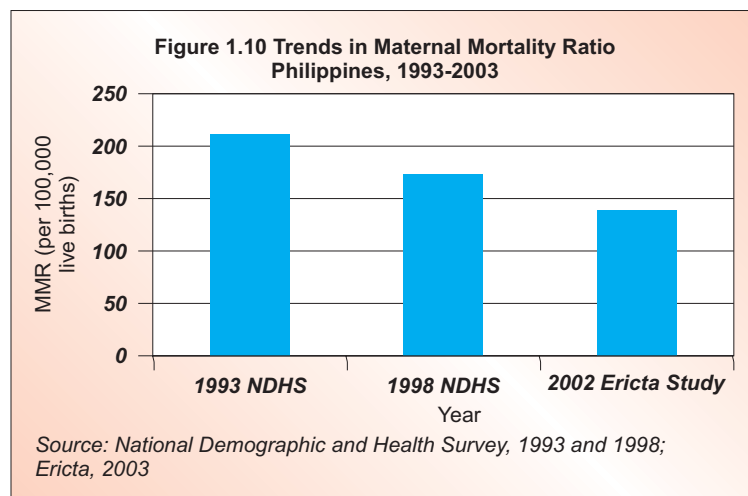
**Figure 1.9 Infant and Child Mortality Rates by Region  
Philippines, 2003**



Source: National Demographic and Health Survey, 2003

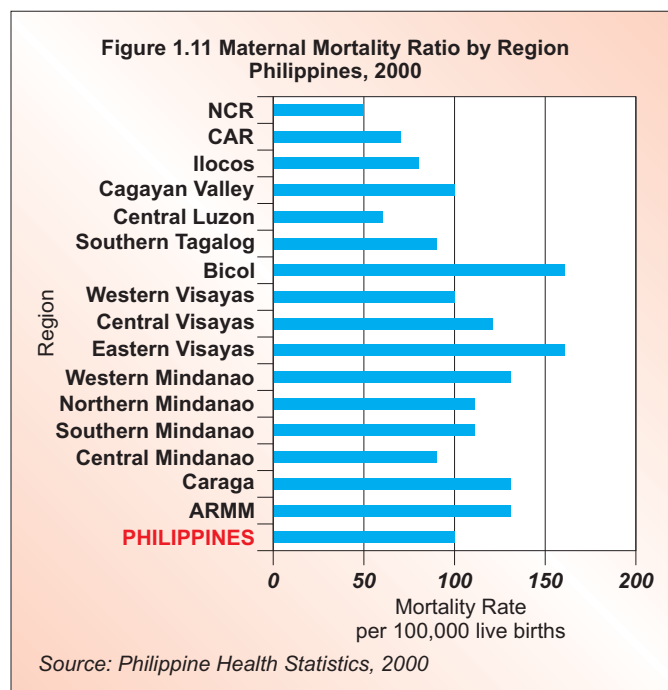
The factors associated with high infant and child mortality point to several areas that need to be addressed. These include not just improving the maternal and child health care programs but uplifting socioeconomic conditions as well.

## Maternal Mortality Ratio



Maternal mortality or deaths of women during pregnancy, at childbirth or in the period after childbirth is another important indicator of the nation's health. Based on reports from NDHS, the country's maternal mortality ratio (MMR) improved. The MMR between 1987 and 1993 was estimated at 209 per 100,000 live births. This improved to 172 per 100,000 live births based on estimates between 1991 and

1997. A recent study based on the maternal causes of deaths in the civil registry estimated the MMR at 138 per 100,000 live births in 2002 (Ericta 2003).



Among Filipino women, the lifetime risk of dying from maternal causes is one in 100. Maternal deaths made up less than one percent of the total deaths in the country, but they contribute 14 percent of all deaths in women aged 15-49 years (NSO 1998).

PHS also showed wide regional variations in MMR. In 2000, the MMR is lowest in NCR at around 50 maternal deaths per 100,000 live births followed by Central Luzon at 60 per 100,000 live births and CAR at 70 per 100,000 live births. It is highest in Bicol and Eastern Visayas at around 160 maternal deaths per 100,000 live births.

Maternal deaths are mainly due to hypertension at around 20 maternal deaths per 100,000 live births, postpartum hemorrhage also at around 20 per 100,000 live births and

complications from abortions at 10 per 100,000 live births (PHS 2000). Most of these can be prevented through quality maternal care.

The MMR in the Philippines is high compared with Brunei, Malaysia, Thailand and Singapore but better than Indonesia, Cambodia, Laos and Myanmar.

## Leading Causes of Morbidity and Mortality

As in the past, most of the 10 leading causes of morbidity are communicable diseases.

From 1995 to 2000, these included diarrhea, bronchitis, pneumonia, influenza, tuberculosis, malaria, chickenpox and measles. Leading non-communicable causes of morbidity are hypertension and diseases of the heart.

Unlike the 10 leading causes of morbidity, deaths are mainly due to non-communicable diseases. Diseases of the heart and the vascular system are the two most common causes of deaths. These made up 29.7 percent of the deaths attributed to the 10 leading causes (PHS 2000). Deaths due to communicable diseases, however, have lessened from 645 deaths per 100,000 population in 1950 to 217.9 per 100,000 in 1980 to 102.6 per 100,000 in 2000. Deaths due to accidents and injuries increased from 6.4 per 100,000 population in 1990 to 42.4 per 100,000 in 2000. In the past decade, diabetes mellitus has emerged as one of the leading causes of death. Meanwhile, deaths due to diarrhea, septicemia, measles, avitaminosis and other nutritional disorders are no longer in the top ten leading causes of deaths although these are still of serious concern.

Although progress has been made in the past decades to control communicable diseases as leading causes of deaths in the country, their burden as a cause of morbidity is still high. On the other hand, non-communicable and chronic diseases

have emerged as the major causes of death. The disease burden is gradually shifting to non-communicable diseases as the Philippines industrializes and becomes more

**Table 1.4 Ten Leading Causes of Morbidity  
Philippines, 2000**

Cause	Number	Rate per 100,000 population
1. Diarrhea	866,411	1,134.8
2. Bronchitis	700,105	917
3. Pneumonia	632,930	829
4. Influenza	502,718	658.5
5. Hypertension	279,992	366.7
6. TB Respiratory	126,489	165.7
7. Diseases of the Heart	52,957	69.4
8. Malaria	50,869	66.6
9. Chickenpox	35,306	46.2
10. Measles	23,287	30.5

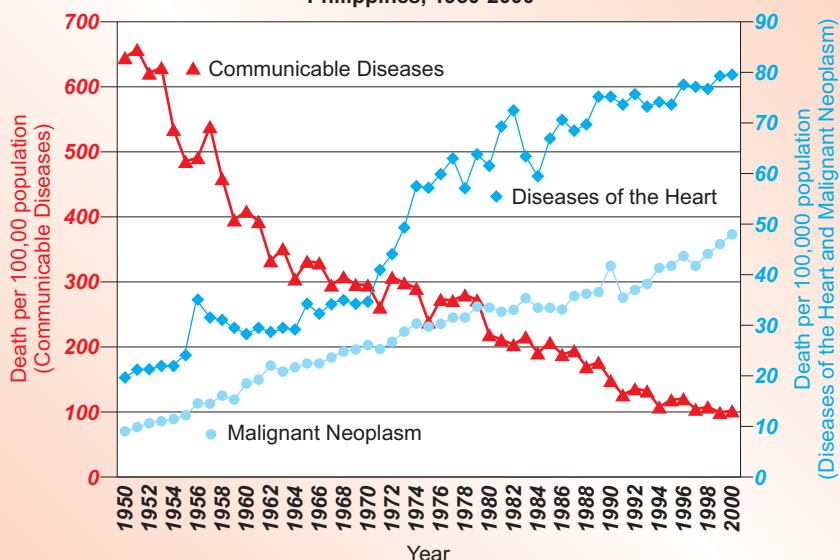
Source: Philippine Health Statistics, 2000

**Table 1.5 Ten Leading Causes of Mortality  
Philippines, 2000**

Cause	Number	Rate per 100,000 population
1. Diseases of the Heart	60,417	79.1
2. Diseases of the Vascular System	48,271	63.2
3. Malignant Neoplasm	36,414	47.7
4. Pneumonia	32,637	42.7
5. Accidents	32,355	42.4
6. Tuberculosis, all forms	27,557	36.1
7. Chronic Obstructive Pulmonary Disease and Allied Conditions	15,904	20.8
8. Certain conditions originating in the Perinatal period	15,098	19.8
9. Diabetes Mellitus	10,747	14.1
10. Nephritis, Nephrotic Syndrome and Nephrosis	7,963	10.4

Source: Philippine Health Statistics, 2000

**Figure 1.12 Mortality Trends: Communicable Diseases, Diseases of the Heart and Malignant Neoplasm  
Philippines, 1950-2000**



Source: Philippine Health Statistics, 2000

urbanized, as life expectancy increases and as the control of communicable diseases improves. This double burden of disease places a great toll on the health and economy of the people and the nation as a whole. Strategies must be in place to address current and future situations on disease burden.

**Table 1.6 Trend of Leading Causes of Mortality  
Philippines, 1975-2000**

Rank	1975	1980	1985	1990	1995	2000
1	Pneumonias	Pneumonias	Pneumonias	Heart Diseases	Heart Diseases	Heart Diseases
2	TB,all forms	Heart Diseases	Heart Diseases	Pneumonias	Diseases of the Vascular System	Diseases of the Vascular System
3	Heart Diseases	TB,all forms	TB,all forms	Diseases of the Vascular System	Pneumonias	Malignant Neoplasm
4	Diseases of the Vascular System	Diseases of the Vascular System	Diseases of the Vascular System	TB,all forms	Malignant Neoplasm	Pneumonias
5	Malignant Neoplasm	Malignant Neoplasm	Malignant Neoplasm	Malignant Neoplasm	TB,all forms	Accidents
6	Gastroenteritis and Colitis	Diarrheas	Diarrheas	Diarrheas	Accidents	TB,all forms
7	Avitaminosis and other Nutritional Deficiencies	Accidents	Accidents	Septicemia	Chronic Obstructive Pulmonary Disease	Chronic Obstructive Pulmonary Disease
8	Accidents	Avitaminosis and other Nutritional Deficiencies	Measles	Nephritis, Nephrotic Syndrome and Nephrosis	Other Diseases of the Respiratory System	Certain Conditions Originating in the Perinatal Period
9	Bronchitis	Measles	Avitaminosis and other Nutritional Deficiencies	Accidents	Diabetes Mellitus	Diabetes Mellitus
10	Tetanus	Nephritis, Nephrotic Syndrome and Nephrosis	Nephritis, Nephrotic Syndrome and Nephrosis	Measles	Diarrheas	Nephritis, Nephrotic Syndrome and Nephrosis

Source: Philippine Health Statistics, 2000



# Health Care Delivery System

## *Organization of the Health Care System*

The state recognizes health as a basic human right. It protects and promotes the right to health of the people and instills health consciousness among them. Although this provision is guaranteed by the 1987 Constitution (Article II, Section 15) and the health care system in the Philippines is generally extensive, access to health services, especially by the poor, is still hampered by high cost, physical and socio-cultural barriers.

To address these concerns, reforms in the country's health care system have been instituted in the past 30 years: the adoption of Primary Health Care in 1979; the integration of public health and hospital services in 1983 (EO 851); the enactment of the Generics Act of 1988 (RA 6675); the devolution of health services to LGUs as mandated by the Local Government Code of 1991 (RA 7160); and the enactment of the National Health Insurance Act of 1995 (RA 7875). In 1999, the DOH launched the Health Sector Reform Agenda (HSRA) as a major policy framework and strategy to improve the way health care is delivered, regulated and financed.

The Philippines has a dual health system consisting of: the public sector, which is largely financed through a tax-based budgeting system at national and local levels and where health care is generally given free at the point of service (although socialized user charges have been introduced in recent years for certain types of services), and the private sector (consisting of for-profit and non-profit providers), which is largely market-oriented and where health care is paid through user fees at the point of service. The expansion of social health insurance in recent years and its emergence as a potential major source of health financing will have a positive impact on the health care system in terms of health provider practices by both the public and private sectors and in terms of the people's health-seeking behavior.

Under this health system, the public sector consists of the DOH, LGUs and other national government agencies providing health services. The DOH is the lead agency in health. Its major mandate is to provide national policy direction and develop national plans, technical standards and guidelines on health. It has a regional field office in every region and maintains specialty hospitals, regional hospitals and medical centers. It also maintains provincial health teams made up of DOH representatives to the local health boards and personnel involved in communicable disease control.



With the devolution of health services under the 1991 Local Government Code, provision of direct health services, particularly at the primary and secondary levels of health care, is the mandate of LGUs. Under this set-up, provincial and district hospitals are under the provincial government while the municipal government manages the rural health units (RHUs) and barangay health stations (BHSs). In every province, city or municipality, there is a local health board chaired by the local chief executive. Its function is to serve as advisory body to the local executive and the sanggunian or local legislative council on health-related matters.

The passage of the 1995 National Health Insurance Act expanded the coverage of the national health insurance program to include not only the formal sector but also the informal and indigent sectors of the population. The program is founded under the principle of social solidarity where the healthy subsidizes the sick and those who can afford to pay subsidize those who cannot. The Philippine Insurance Health Corporation (PhilHealth), a government-owned and controlled corporation attached to the DOH, is the agency mandated to administer the national health insurance program and ensure that Filipinos will have financial access to health services.

The private sector includes for-profit and non-profit health providers. Their involvement in maintaining the people's health is enormous. This includes providing health services in clinics and hospitals, health insurance, manufacture and distribution of medicines, vaccines, medical supplies, equipment, other health and nutrition products, research and development, human resource development and other health-related services.

**Table 1.7 Number and Bed Capacity of Government and Private Hospitals  
Philippines, 1980-2002**

Year	Number of Hospitals			Bed Capacity			Bed per 10,000 pop
	Total	Govt	Private	Total	Govt	Private	
1980	1,607	413	1,194	81,796	39,445	42,351	18.2
1985	1,814	624	1,190	89,508	48,395	41,113	15.5
1990	1,733	598	1,135	87,133	49,273	37,860	14.0
1995	1,700	589	1,111	80,800	43,229	37,571	11.8
2000	1,712	623	1,089	81,016	42,385	38,632	10.6
2002	1,738	661	1,077	85,166	45,395	39,771	10.7

Source: Philippine Statistical Yearbook, 2004

## *Health Care Facilities*

Various health facilities serve the health needs of the Filipinos. The total number of hospitals, both government and private, increased from 1,607 in 1980 to 1,738 in 2002. Though the number of hospitals increased nationwide, the

number of beds per 10,000 population decreased from 18.2 in 1980 to 10.7 in 2002 (PSY 2004). The number of government hospitals nationwide increased from 623 in 2000 to 661 in 2002, while private hospitals slightly decreased from 1,089 in 2000 to 1,077 in 2002. Although only 661 or 38 percent of hospitals are government hospitals, these

contribute 45,395 beds or 53.3 percent of bed capacity nationwide. ARMM has the least number of hospitals, consisting of three private hospitals and 11 government hospitals in 2002. Southern Tagalog has the most number of hospitals with 176 private hospitals and 95 government hospitals (PSY 2004).

In terms of government hospital beds, NCR has the most number at 9,965 beds followed by Southern Tagalog at 6,295 beds and Central Luzon at 3,385 beds. The regions with the least number are ARMM at 870 beds, Northern Mindanao at 1,150 beds and Central Mindanao at 1,195 beds. The government hospital bed to population ratio is worst in Southern Mindanao with one bed for every 3,575 people while it is best in NCR with one bed for every 807 people (NSO 2004).

There is an increasing trend in the number of BHSs from 9,184 in 1988 to 15,343 in 2002 while there is a decreasing trend in the number of RHUs in the country from 1,962 in 1986 to 1,879 in 2001. NCR has the most number of RHUs (Health Centers) while Central Mindanao has the least number of RHUs. On the other hand, Southern Tagalog has the most number of BHSs while NCR has the least (PSY 2004). On the average, each RHU serves around 41,000 people while each BHS serves around 5,100 people.

**Table 1.8 Number and Bed Capacity of Government Hospitals by Region Philippines, 2004**

Region	Government Hospital		Bed to Population Ratio
	Number	Bed Capacity	
NCR	24	9,965	1:807
CAR	36	1,670	1:916
Ilocos	37	2,100	1:2,109
Cagayan Valley	34	1,720	1:1,754
Central Luzon	45	3,385	1:2,452
Southern Tagalog	93	6,295	1:2,206
Bicol	50	2,250	1:2,260
Western Visayas	53	2,750	1:2,466
Central Visayas	45	2,910	1:2,054
Eastern Visayas	53	2,195	1:1,851
Western Mindanao	29	1,975	1:1,749
Northern Mindanao	24	1,150	1:2,624
Southern Mindanao	32	1,615	1:3,575
Central Mindanao	21	1,195	1:2,176
Caraga	34	1,255	1:1,910
ARMM	24	870	1:2,836
<b>PHILIPPINES</b>	<b>634</b>	<b>43,300</b>	<b>1:1,860</b>

Source: National Statistics Office, 2004

**Table 1.9 Number of Rural Health Units and Barangay Health Stations by Region Philippines, 2001-2002**

Region	Rural Health Units (2001)	Barangay Health Stations (2002)
NCR	407	17
CAR	88	559
Ilocos	105	911
Cagayan Valley	93	827
Central Luzon	176	1,786
Southern Tagalog	168	2,545
Bicol	67	1,026
Western Visayas	69	1,536
Central Visayas	121	1,717
Eastern Visayas	147	800
Western Mindanao	100	650
Northern Mindanao	67	795
Southern Mindanao	64	655
Central Mindanao	51	654
Caraga	79	506
ARMM	77	359
<b>PHILIPPINES</b>	<b>1,879</b>	<b>15,343</b>

Source: Philippine Statistical Yearbook, 2004

## Human Resources for Health

Human resources for health are central to managing and delivering health services. They are crucial in improving health systems and health services and in meeting the desired health outcome targets. Human resources for health are enormous but unevenly distributed in the country. Most health practitioners are in Metro Manila and other urban

centers. Compared to most Asian countries, the Philippines is producing more and better human resources for health.

The number of physicians per 100,000 population slightly increased from 123.8 in 1998 to 124.5 in 2000, a ratio of one physician for every 803 people. The number of dentists per 100,000 population almost remained unchanged at 54.2 in 1998 and 54.4 in 2000 or one dentist per 1,840 people. The number of pharmacists per 100,000 population improved slightly from 55.8 in 1998 to 58.1 in 2000, or one pharmacist for every 1,722

**Table 1.10 Number of Local Government Health Practitioners by Region Philippines, 2002**

Region	Doctors	Dentists	Nurses	Midwives
NCR	658	540	745	1,165
CAR	85	33	159	579
Ilocos	158	96	203	1,033
Cagayan Valley	175	58	267	801
Central Luzon	297	161	382	1,573
Southern Tagalog	350	256	648	2,282
Bicol	190	85	338	1,026
Western Visayas	226	112	433	1,791
Central Visayas	229	115	379	1,473
Eastern Visayas	153	109	233	887
Western Mindanao	90	55	196	675
Northern Mindanao	99	71	189	803
Southern Mindanao	79	71	161	791
Central Mindanao	84	32	158	671
Caraga	79	54	130	613
ARMM	69	23	99	371
<b>PHILIPPINES</b>	<b>3,021</b>	<b>1,871</b>	<b>4,720</b>	<b>16,534</b>

Source: Philippine Statistical Yearbook, 2004

people. The number of nurses per 100,000 population almost remained constant from 442.7 in 1998 to 442.8 in 2000, a ratio of one nurse per 226 people (SEAMIC 2002).

In 2002, there are 3,021 doctors, 1,871 dentists, 4,720 nurses and 16,534 midwives employed by LGUs. Other health personnel employed by LGUs consist of 3,271 engineers/sanitary inspectors, 303 nutritionists, 1,505 medical technologists, 977 dental aides and 2,808 non-technical staff. Assisting these health personnel at the grassroots are 195,928 volunteer barangay health workers and 54,557 birth attendants (FHSIS 2002).

The Philippines has become a major source of health professionals to many countries because of their fluent English, skills and training, compassion and patience in caring. The country is purportedly the leading exporter of nurses to the world (Aiken 2004) and the second major exporter of physicians (Bach 2003). Although the country is producing a surplus of health workers for overseas market since the 1960s, the large exodus of nurses in the last four years has been unparalleled in the migration history of the country. While Filipino physicians have been migrating to the United States since the 1960s and to the Middle East since the 1970s in steady outflows, the recent outflows are disturbing because they are no longer migrating as medical doctors but as nurses.

Based on the baseline survey of nursing-medics in the Philippines, more than 3,500 Filipino doctors have left as nurses since 2000 and an estimated 4,000 doctors are enrolled in nursing schools all over the country (Galvez-Tan 2004). A little more than 1,500 doctors have passed the national nurse licensure examinations in 2003 and 2004.

The Philippine socioeconomic and political situations have not helped much in retaining licensed and skilled nurses and other health professionals in the country.

## Pharmaceuticals

In 1999, the pharmaceutical market in the Philippines was estimated to be around P45 to 47 billion. By 2003 it has grown to approximately P65 to 70 billion and is growing at a faster rate than the domestic economy. Filipinos have one of the highest per capita consumption of pharmaceuticals in Southeast Asia, spending around P750 to 800 per person annually on drugs and medicines (Philippine Pharmaceutical Industry Fact Book 2003). This is around 40 to 50 percent of per capita health spending.

The pharmaceutical market in the Philippines is a segmented market because of asymmetric information, income disparities and inadequacy of the regulatory system. This stems from various factors, including the massive campaign by the bigger manufacturing firms for their products, better incentives given by

**Table 1.11 Comparative Trade Prices of Branded Medicines (in peso)  
Philippines, India, Pakistan 2004**

Medicine	Manufacturer	Philippines	India	Pakistan
Ponstan 500 mg tab	Pfizer	20.98	2.80	1.46
Buscopan 10 mg tab	Boehringer	9.26	2.45	0.60
Bactrim 400/80 mg tab	Roche	14.80	0.75	1.09
Adalat Retard 20 mg tab	Bayer	37.56	1.50	3.85
Lopid 300 mg cap	Pfizer	34.66	13.17	2.89
Lasix 40 mg tab	Aventis	8.56	0.53	1.28
Plendil ER 5 mg tab	AstraZeneca	35.94	5.95	8.25
Diamicron 80 mg tab	Servier	11.00	7.57	5.00
Ventolin 50 mcg inh	Glaxo	315.00	132.38	65.88
Voltaren 50 mg tab	Novartis	17.98	0.92	3.92
Isordil 5 mg SL tab	Wyeth	10.29	0.26	0.23
Imodium 2 mg cap	Janssen	10.70	3.27	1.94
Fortum 1 g inj	Glaxo	980.00	418.72	322.75

Source: MIMS 2004, Philippines; IDR 2004, India; Red Book 2004, Pakistan

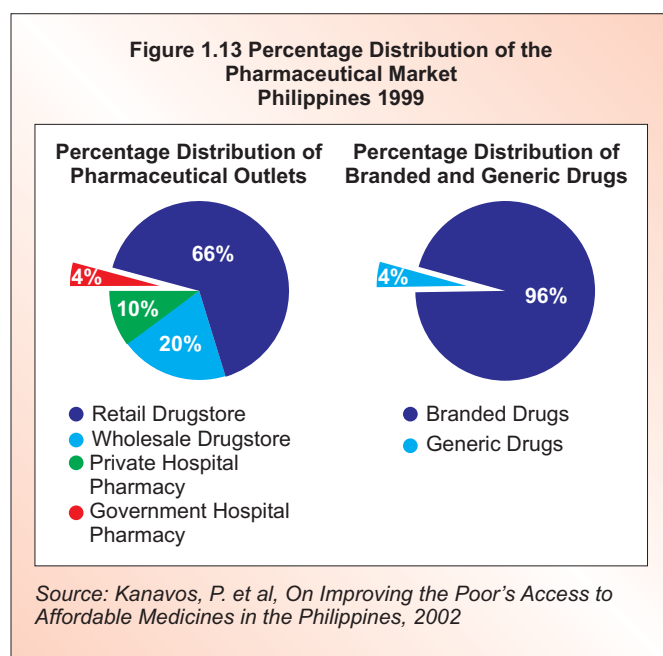
specific firms for prescribers and dispensers of a particular product, the effects of prolonged patent rights, the lack of appropriate public understanding on generics and patent issues, the shortcomings of information and education on pharmaceutical issues and a myriad of political reasons among others.

Multinational drug firms control around 70 percent of market sales. Only 30 percent are accounted for by domestic Filipino companies, with Unilab as the largest Filipino pharmaceutical company. It has the largest individual share (at around 22 percent) among both multinational and local firms. Domestic companies, with the exception of

Unilab and Chemfields, generally do not produce active substances but are limited to activities such as compounding active substances, packing and processing bulk drugs into dosage forms. Recent reports have estimated that 10,000 drugs are off-patent but only around 500 of these drugs are being manufactured by the local industry. The pharmaceutical market is dominated by expensive branded medicines, making drug prices in the Philippines among the highest in Asia (Kanavos et al 2002). The cheaper generic products account for just four percent of the total market. This shows that there are significant problems in the access to medicines by the poor.

Most drug companies use distributors such as Zuellig Pharma, Marsman and Metro Drug to deliver their products in the market. Although distribution fees vary, the cost generally ranges from 12 to 15 percent of product sales. The pharmaceutical retail market in the Philippines is made up of outlets composed of commercial drugstores, government and

private hospital pharmacies. Drugstores account for 85 percent of all drugs sold in the Philippines with the rest of the market served by private and government hospital pharmacies. A single retail chain, Mercury Drugstore, owns most of the big commercial outlets in large urban centers while single proprietors and community-based, non-government organizations own most of the small outlets in rural and small urban communities. Medicines in public facilities are accessed through government hospital pharmacies controlled by the DOH and through provincial and district hospital pharmacies and health centers controlled by local governments.



There is inadequate capacity in ascertaining the quality of medicines so the bigger distributors are able to promote their expensive branded products successfully to health professionals and the general public, and to claim better quality in comparison to more affordable and what are perceived to be inferior products. This tendency is aggravated by the high promotion and gift-giving schemes done by drug companies of expensive brands to health professionals.



# Responsiveness of the Health System

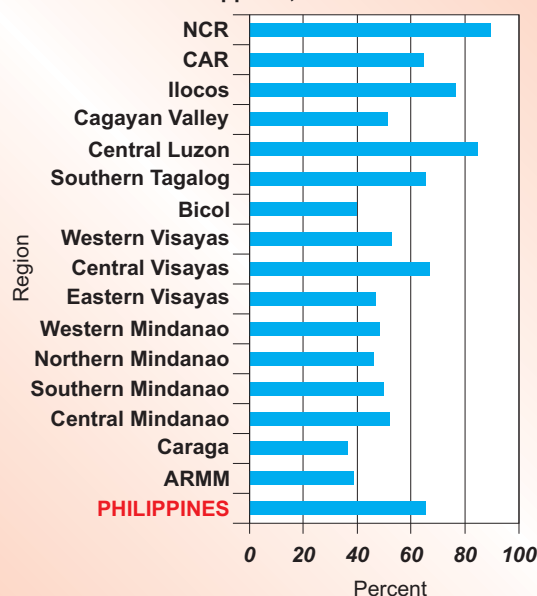
## *Medical Attendance at Births and Deaths*

The number of birth deliveries attended by trained health professionals (doctors, nurses and licensed midwives) was 1,153,836 or 65.3 percent of total births in 2000. On the other hand, 610,925 or 34.6 percent were delivered by hilots or unlicensed midwives and other untrained attendants. The regions with the highest total births delivered by trained health professionals were NCR at 89.4 percent followed by Central Luzon at 84.6 percent and Ilocos at 76.4 percent. The regions with very low medical attendance during birth delivery were Caraga at 36.1 percent, ARMM at 38.6 percent and Bicol at 39 percent (NSO 2004).

Maternal deaths attended by physicians, public health officers and hospital staff were 1,052 or 62 percent of total maternal deaths. On the other hand, 646 cases or 38 percent received no medical attention. The regions with the highest maternal deaths attended by health professionals were NCR at 81.7 percent, followed by Ilocos at 73.3 percent and CAR at 69.6 percent. The regions with the lowest maternal deaths attended by health professionals were ARMM at 41.7 percent, Bicol at 48.4 percent and Central Mindanao at 50 percent (NSO 2004).

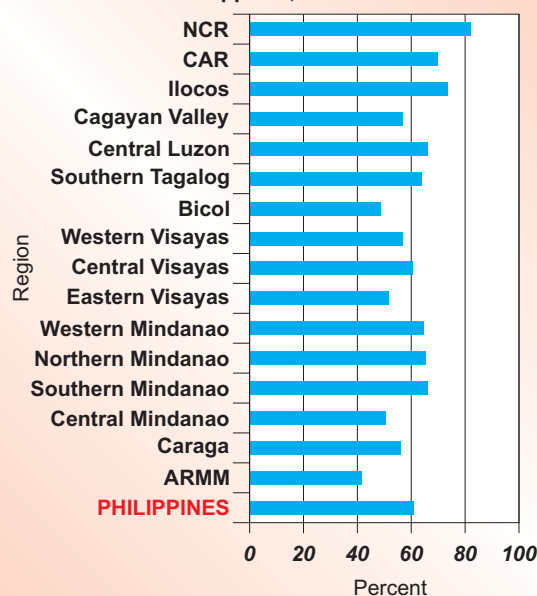
The number of deaths from all causes attended by medical or health professionals was 130,501 or 35.6 percent of 366,931 total deaths in 2000. Among the regions in the country, NCR has the highest percentage of deaths from all causes attended by medical

**Figure 1.14 Births with Medical Attendance by Region Philippines, 2000**



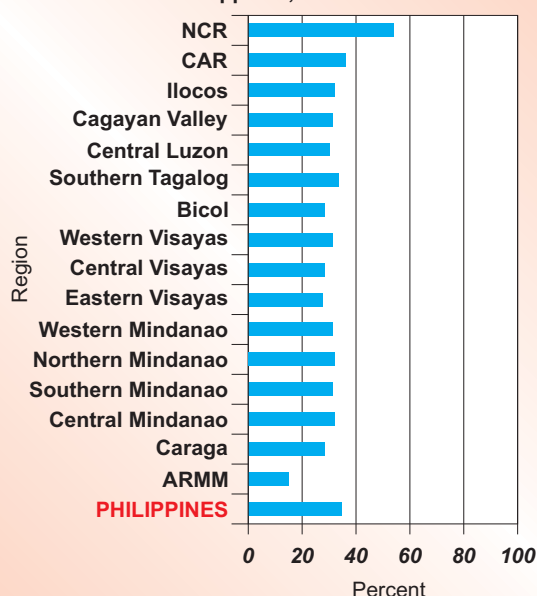
Source: National Statistics Office, 2004

**Figure 1.15 Maternal Deaths with Medical Attendance by Region Philippines, 2000**



Source: National Statistics Office, 2004

**Figure 1.16 Deaths from All Causes with Medical Attendance by Region Philippines, 2000**



Source: National Statistics Office, 2004

practitioners at 54.7 percent. ARMM has the least percentage with only 14.4 percent of deaths attended by medical practitioners.

## *Utilization of Health Facilities*

In 2000, the World Bank in collaboration with the Social Weather Station conducted the Filipino Report Card on Pro-Poor Services, a national client satisfaction survey about the performance of government agencies in terms of the people's access, utilization and satisfaction with public services. The report showed a fairly widespread use of health facilities in the country with 77 percent of the 1,200 households surveyed having used health facilities of one type or another.

The remainder of those who did not visit a health facility (23 percent) gave absence of illness as one of the reasons. A possible implication of this is that the health facilities and services are seen to be essentially "curative," with lower emphasis on the preventive aspects. Other reasons for not visiting a health facility included self-medication and high cost of medical care.

The proportion of households that visited a health facility is higher for urban (80 percent) compared to rural (72 percent) households. The largest number of visits was made in the

Visayas followed by Mindanao. Possible explanations include poorer health status in the Visayas and Mindanao than in Luzon or less effective care necessitating many repeat visits.

Government facilities were the most frequented overall (39 percent) compared to

**Table 1.12 Utilization of Health Facilities by Area Philippines, 2000**

	Philippines (%)	M. Manila (%)	Luzon (%)	Visayas (%)	Mindanao (%)
<b>Visited a health facility</b>	<b>77</b>	<b>82</b>	<b>68</b>	<b>84</b>	<b>82</b>
<b>Mainly used govt. facility</b>	<b>39</b>	<b>35</b>	<b>36</b>	<b>44</b>	<b>42</b>
Government Hospital	20	20	24	16	16
BHS	10	6	4	21	14
RHU	9	9	8	7	12
No private facility	(4)	(2)	(3)	(5)	(9)
<b>Mainly used private facility</b>	<b>30</b>	<b>46</b>	<b>28</b>	<b>27</b>	<b>24</b>
For profit	28	44	27	25	22
Non-profit	2	2	1	2	2
No govt. facility	(2)	(2)	(4)	(0.4)	(3)
<b>Traditional healers</b>	<b>8</b>	<b>2</b>	<b>3</b>	<b>12</b>	<b>17</b>

Source: Filipino Report Card on Pro-Poor Services, World Bank, 2000



the private facilities (30 percent). When disaggregated by area, private facilities (46 percent) were visited often in Metro Manila compared to government facilities, despite the large number of government hospitals located there.

Traditional healers were visited by eight percent of the population with a larger proportion of the people from Mindanao and the Visayas accessing their services compared to Metro Manila and Luzon. In the Visayas and Mindanao, there was more frequent reliance on government facilities compared to Metro Manila and Luzon.

Use of private facilities varied significantly by expenditure group and urban-rural residence. Private facilities are predominantly used by rich households and urban respondents, although they account for a significant portion of the health care facilities used by poor respondents as well. In many countries, poor people prefer to spend money on health services from the private sector if they perceive the quality to be higher than that of public services (World Development Report 2000).

## *Services Provided by Health Facilities*

Preventive health services, including immunization, health and nutrition education, family planning and routine check-up, are the mainstay of government facilities accounting for 63 percent of all services provided by government primary facilities.

Treatment of minor accidents and illnesses accounts for another 30 percent of services provided by government primary facilities. These are appropriate functions for the primary health facilities. Traditional healers are most often consulted for minor accidents and illnesses.

Sixty-six percent of all services provided by government hospitals and 69 percent of services by private clinics and hospitals are classified as routine check-ups or minor

**Table 1.13 Type of Services Provided by Health Facility  
Philippines, 2000**

	Govt Primary (%)	Govt Hospital (%)	Private Hospital (%)	Traditional Healer (%)
<b>Preventive health care</b>	<b>63</b>	<b>35</b>	<b>37</b>	<b>5</b>
Routine check-ups	34	30	31	5
Immunization	14	1	3	0
Health education	9	3	2	0
Family planning	6	1	1	0
<b>Minor illnesses and accidents</b>	<b>30</b>	<b>31</b>	<b>32</b>	<b>87</b>
Minor illnesses	29	28	31	19
Minor accidents	1	3	1	68
<b>Other services</b>	<b>8</b>	<b>34</b>	<b>31</b>	<b>7</b>
Major accidents	3	20	17	5
Pre/post natal care and deliveries	3	4	4	2
Laboratory services	2	10	10	0

Source: Filipino Report Card on Pro-Poor Services, World Bank, 2000

accidents and illnesses, confirming that clients are bypassing lower level facilities that should offer these services. This is despite government primary health facilities being most conveniently located with 94 percent of households having access to a RHU or BHS within a 15-minute walk. However, these facilities are frequently bypassed.

Public primary facilities are perceived for low quality. Those who bypass the primary health facilities are not satisfied with their services. Diagnosis is poor, resulting in repeat visits. Medicines and supplies are inferior and rarely available. The personnel are often not available, especially in rural areas, and are perceived to lack both medical and people skills. Waiting time is long, facility schedule is very inconvenient, and facilities are rundown.

At least two issues must be addressed in this context of bypassing the government primary facilities: how to improve the quality of government primary facilities to enable clients with easy access to use them and how to encourage secondary and tertiary facilities to provide specialized services for which they were created. In addition, referral mechanisms among different health facilities and across LGUs need to be strengthened.

The situation in government hospitals is worsened by the fact that many provincial and district hospitals have inadequate budgetary support after devolution and have lost managerial autonomy. More patients are forced to bypass local government hospitals and seek out better equipped and better staffed national government hospitals. Most of the national government hospitals are in urban and better off areas, worsening the inequity in access to these facilities by residents of poorer and rural areas.

Since public primary facilities are mostly frequented by the poor, improving their quality, with emphasis on services demanded by the poor, would improve their health. This would also reduce inefficient use of public hospitals which should provide higher level of health services rather than primary health care.

### *Satisfaction with Health Facilities*

Overall satisfaction with or appreciation of health facilities is quite high and significantly higher for private facilities than government facilities though government hospitals get higher ratings from rural areas and from among the lower socioeconomic class.

Private facilities are ranked superior on quality aspects of health care, on par with government facilities on convenience of location and not as good on cost aspects. In other words, cost is the only categorical advantage of government facilities over private facilities. Health services provided by public facilities are used mainly by those who could not afford the widely preferred private services.

**Table 1.14 Net Satisfaction with Most Used Health Facility by Area  
Philippines, 2000**

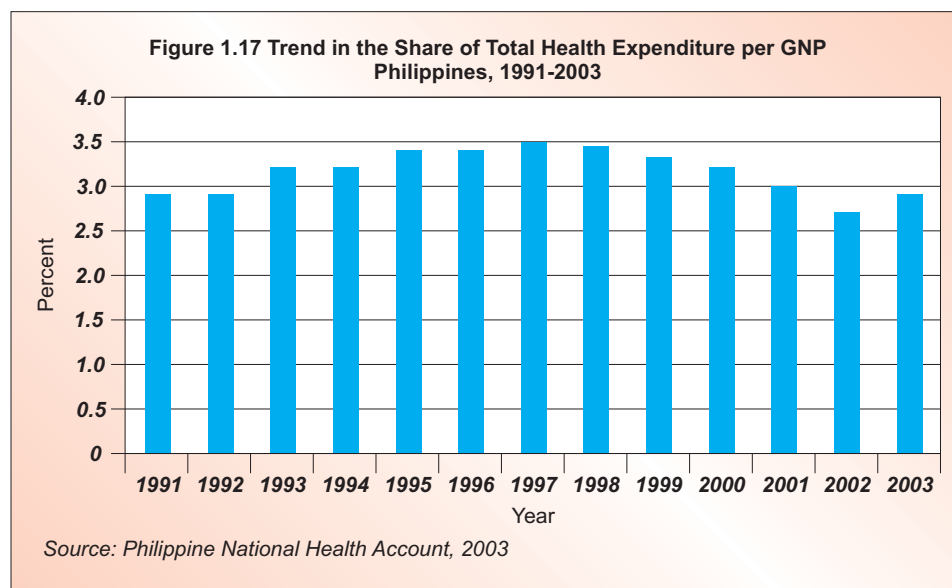
	Philippines	Metro Manila	Luzon	Visayas	Mindanao
<b>Over-all satisfaction</b>	<b>+87</b>	<b>+87</b>	<b>+88</b>	<b>+88</b>	<b>+83</b>
For-profit hospital	+96	+95	+96	+100	+93
Traditional healers	+94	+100	+88	+97	+93
Non-profit hospitals	+91	+100	+71	+100	+100
RHU	+82	+100	+90	+81	+62
Government hospital	+79	+72	+85	+70	+76
BHS	+74	+50	+59	+84	+75

*Source: Filipino Report Card on Pro-Poor Services, World Bank, 2000*

# Health Financing System

## *Levels and Trends of Health Expenditure*

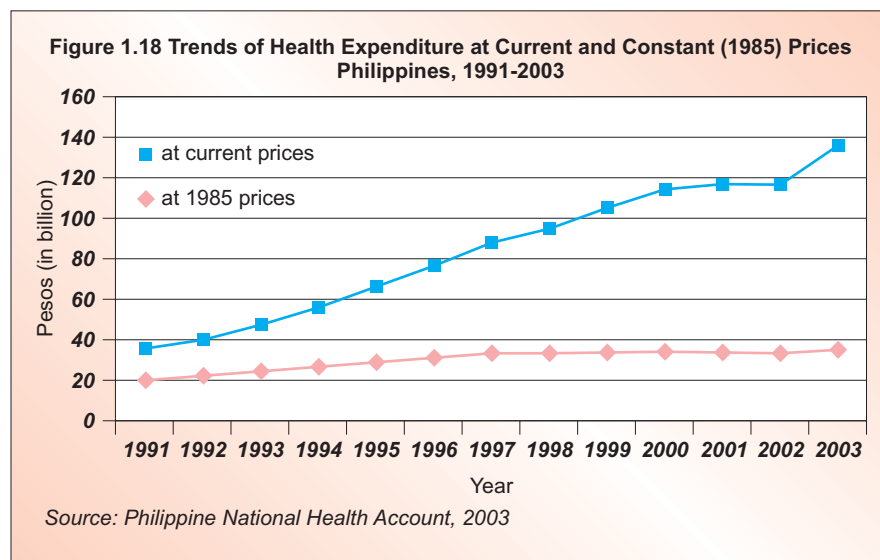
From 1991 to 1997, total health expenditure rose from 2.9 to 3.5 percent of GNP. From 1997, total health expenditure as a percentage of GNP went on a downward trend, reaching its lowest level in 12 years at 2.7 percent in 2002. The Philippine National



Health Account (PNHA) of 2003 showed a total health expenditure of P136 billion or 2.9 percent of GNP which is an improvement compared to the previous year.

Total health expenditure at current prices grew from P36 billion in 1991 to P136 billion in 2003. At constant 1985 prices, total

health expenditure increased from P21 billion in 1991 to P35.5 billion in 2003. The growth rate of total health expenditure at constant 1985 prices was negative in 1998 due to the impact of the Asian financial crisis, and in 2001 and 2002 due to the negligible



increase in investment for health.

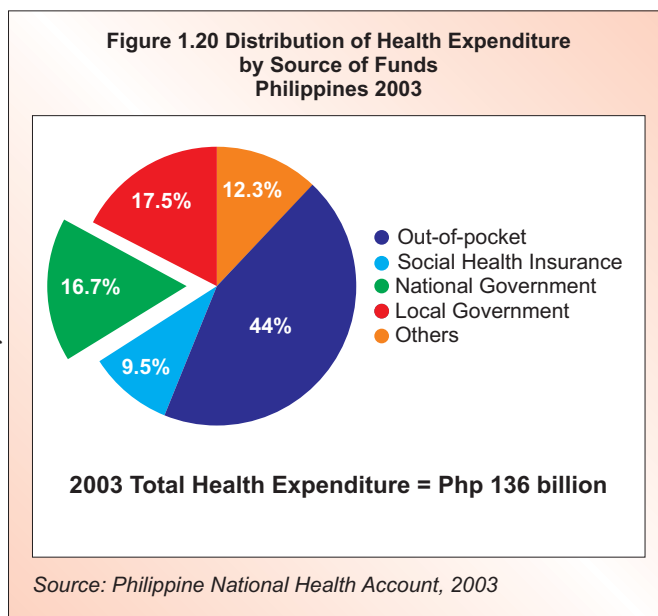
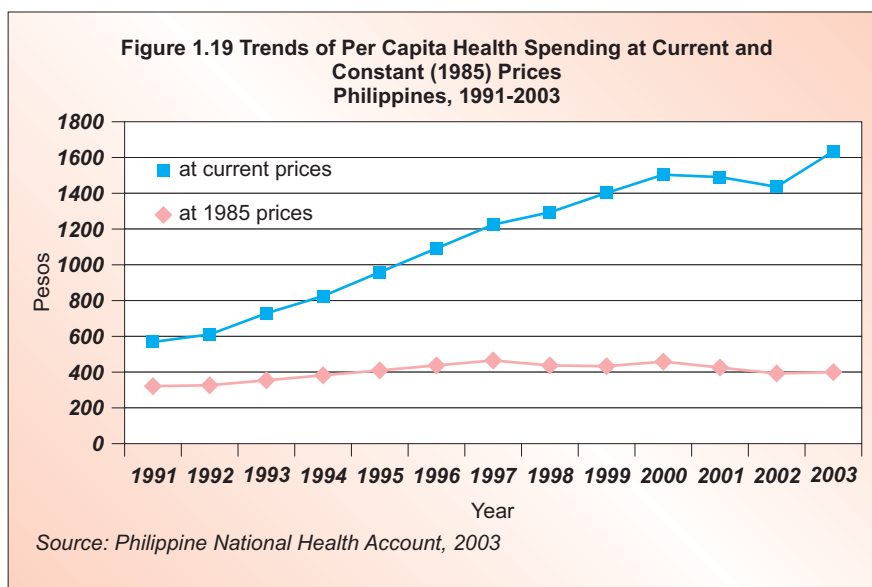
The increase in health spending from 1991 to 2000, averaging 13.8 percent a year, compared to the average annual population growth rate of 2.3 percent during that time, allowed per capita health expenditures at current prices to increase from P577 in

1991 to P1,496 in 2000. In 2001 and 2002, with population showing a faster growth rate than the rate of increase in total health expenditure at current prices, per capita health spending went down by P34, from P1,496 in 2000 to P 1,462 in 2002. It dramatically improved at P1,662 in 2003. At constant 1985 prices, the increase has been from P336 in

1991 to P454 in 1997. With the impact of the Asian financial crisis in 1997, per capita health expenditure at 1985 constant prices decreased to P435 in 1998 but slightly recovered to P454 in 2000. With the population growth rate higher than the total health expenditure growth rate during the period 2001 to 2002, per capita health expenditure at constant 1985 prices shrank to P405 in 2002 but recovered at P434 in 2003 (PNHA 2003).

## Sources of Health Financing

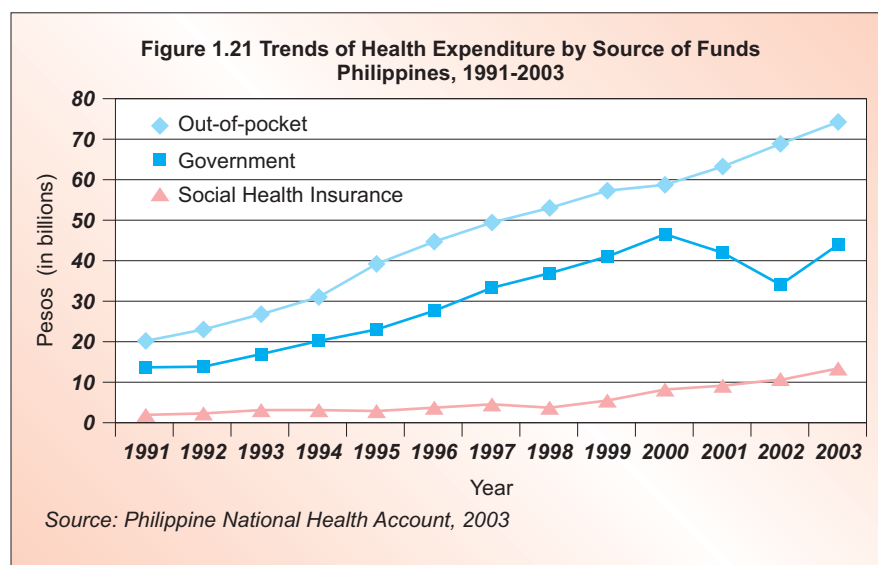
In 2003, out of the P136 billion total expenditure for health, P60 billion or 44 percent came from out-of-pocket expenditure of individual families. The burden of financing health care is still heaviest on individual families. Government's share was only P46.5 billion or 34.2 percent of total health expenditure (17.5 percent local government and 16.7 percent national government). Social health insurance accounted for P12.9 billion or 9.5 percent of total health expenditure while other sources (like private health insurance, community based financing, and employer's benefits) accounted for P14.9 billion or 12.3 percent of total health expenditure (PNHA 2003).



The various sources of funds shown in a typical national health accounts matrix are different insurance mechanisms with varying degrees of ability to pool resources and spread risk. The family, through direct out-of-pocket expenditure, is the least effective and most inefficient health insurance institution. Family income and size limit the resources that can be pooled. Moreover, since members often share or are exposed to similar health risks, the family has limited risk-pooling capacity.

The tax-financed open-access health delivery system under the national and local governments offers a larger resource pool. Since people are taxed before they realize the need for health services, government health budgets are insurance funds. But it is an inefficient form of insurance since individual contributions are often based on consumption or income rather than on health risk. Nonetheless, national and local tax-financed health care delivery systems are more effective forms of insurance than the family.

There has been limited progress made in expanding social risk pools (i.e., government budget and social insurance funds for health). In 1991, social risk pools financed only as



much as 44 percent of total health spending. The burden on individual families from direct out-of-pocket expenditure was around 47 percent of total health expenditures. With the devolution of health services and with the new national health insurance program, the share of social risk pools remained almost the same at 43 percent in

1997, lower than the share of out of pocket family spending of 46 percent. In 2003, social risk pools slightly increased in proportion at 44 percent while out-of-pocket family spending leveled at 44 percent of total health expenditure. Thus, the financial burden on individual families remained high through the years.

In terms of growth in expenditure, the National Health Insurance Program under PhilHealth is the mechanism with the most potential although it still lags behind other

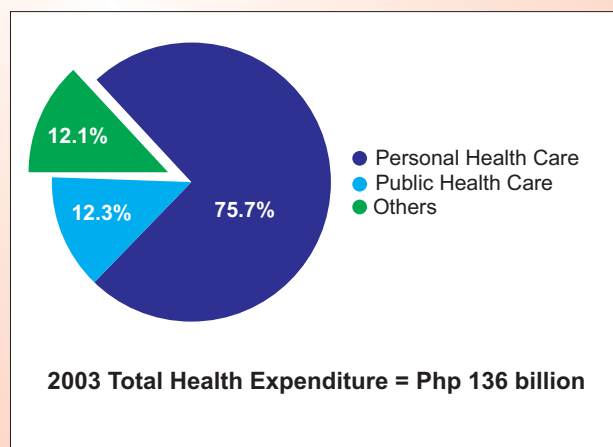
sources of funds in terms of total expenditure. In 1991 it spent only P1.9 billion or 5 percent of total health expenditure. After the National Health Insurance Act was enacted in 1995, the share of social insurance to total health expenditure remained almost the same at 4.5 percent in 1995 to 5.1 percent in 1997 with the lowest share of 3.8 percent in 1998. The share of social insurance began to take off in 2000 with around P8 billion spent or 7 percent of total health expenditure, eventually reaching P12.9 billion expenditure or 9.5 percent of total health expenditure in 2003 (PNHA 2003).

Two interrelated reasons explain the relatively slow and cautious increase in the share of social insurance to total health expenditure. One, though PhilHealth is trying to improve their services, their benefits are still low. Two, partly because benefits are low, the coverage of the informally employed sector has not expanded. Insurance is unlikely to be effective in areas where local financing is severely limited and where administrative infrastructures are weak. Between 1995 and 1998, the program managed to enroll less than 2 percent of targeted poor members whose premium contributions are fully subsidized from national and local sources. However, starting 2001 PhilHealth has made inroads in its indigency program, with coverage increasing to 31 million beneficiaries or 90 percent of targeted indigents by 2004.

## *Uses of Health Financing*

In 2003, P102.9 billion or 75.7 percent of the total health expenditure were spent on personal health care services. In contrast, only P16.7 billion or 12.3 percent were used for public health care services. This amount is almost equal to the P16.4 billion or 12.1 percent of total health expenditure for administrative and other support services needed to run the entire health system (PNHA 2003). There are signs that the Philippines is neither spending enough nor effectively for health. There was heavy spending on hospital or curative care (personal health care) and not enough for preventive and promotive health services (public health care). The subsidies for health services are poorly targeted. The large hospitals in MetroManila and other urban centers

**Figure 1.22 Distribution of Health Expenditure by Use of Funds  
Philippines 2003**



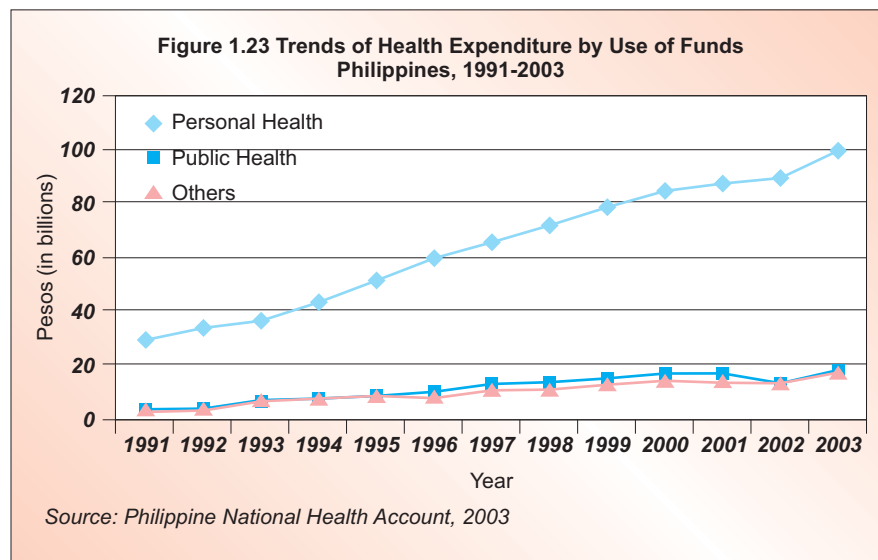
Source: Philippine National Health Account, 2003



get the biggest share of spending to the detriment of primary care services at the local level.

The increasing levels on the personal health care services reflect the influence of private and political interests over resource allocation decisions. The interest of individual families is to focus spending on health care services with benefits that accrue to the family or its members. Personal health care, being more visible and more effective in promoting patronage is more likely to receive greater attention in political decision-making. The continued dominance of family out-of-pocket spending as a financing source would suggest that a large portion of health expenditures are likely to be spent on personal health care services. Individuals and families are expected to put greater priority on services that directly benefit its members.

Public health programs and primary health care services have been declared the priority of government. But information from studies in public health programs suggest that the fragmentation of local health networks and difficulties in managing centrally-run public health programs might have rendered funds for public health less effective.



Effective program management is more important for public health programs than the resources needed to running health facilities. Spending on administration by national agencies (mainly the DOH) might be inadequate, considering that these agencies not only deliver services but also perform critical regulatory

functions like food and drugs administration. Spending on activities critical to effective leadership by government in the health sector like bio-medical research, operations and policy research and survey and monitoring did not change in absolute amounts despite the expansion of the health sector.

The absolute amount of the share of foreign assistance (i.e., loans and grants) has generally declined since the past years although between 2002 and 2003 foreign grants

increased by 153.4 percent and foreign loans increased by 18.2 percent. For some observers, the lesser the share of foreign loans and grants means less dependence on foreign assistance that can allow the DOH to have an independent agenda. On the other hand, foreign assistance is often spent to support public health services and investments in effective management. This financing source also provides the means to secure funding over periods longer than the usual budget cycle, allowing priority public health programs to pursue long-term goals. Moreover, priority public health programs become more vulnerable to the politics of the annual budget cycle, with political decisions leading to more pronounced bias for personal health care services.

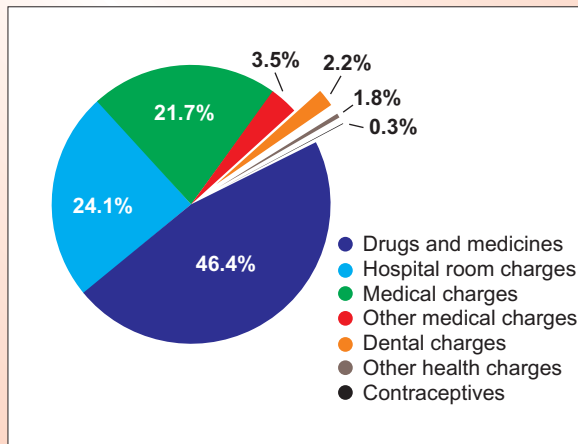
The DOH had an opportunity to focus its resources and efforts on public health concerns when the devolution was implemented. In 1993, spending on personal health (i.e., hospital-based services) dropped to P3 billion. At this point it had less than 50 hospitals to operate, allowing it to focus on national public health programs like TB control, immunization campaign, maternal care, among others. Beginning in 1995, the DOH budget picked up and then by 1997, it surpassed the level it had before the devolution. But the share given to public health declined afterwards. The DOH spends almost 70 percent of its resources to support 72 national and regional hospitals. This is not an effective way of targeting subsidies to the poor.

Local health expenditures have increased beyond what would have been required to support the cost of devolved health functions. Moreover, a significant portion is being spent on public health services. Local government spending is becoming the main source of funding for public health services. Local government facilities, especially RHUs run by municipalities, are the main channel for delivering public health programs and services. However, the overall impact of local health spending may have been weakened by administrative and technical fragmentation arising from the devolution. District hospitals designed to be the base for technical supervision are cut off from RHUs. Moreover, there are concerns that district hospitals are unable to compete with provincial hospitals for funding from provincial governments.

### *Family Expenditure on Health*

The total family income for the year 2000 is estimated at P2.2 trillion while total family expenditures is estimated at P1.8 trillion. Of the total expenditures, around P785 billion or 43.6 percent went to food consumption while P35 billion or 1.9 percent went to

**Figure 1.24 Family Expenditure on Health by Category  
Philippines, 2000**



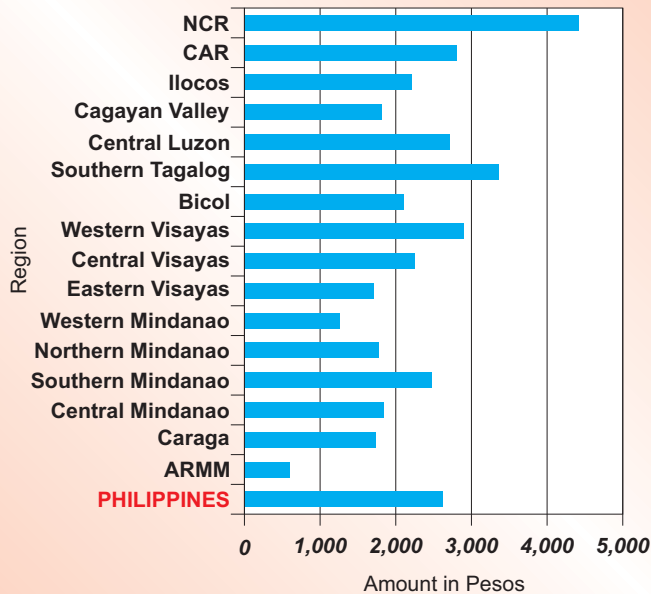
Source: Family Income and Expenditures Survey, 2000

medical care. This translates to an average of P2,660 medical care expenditures per family in 2000 (FIES 2000).

Of the total medical care expenditures, drugs and medicines accounted for 46.4 percent, hospital room charges at 24.1 percent, medical charges including doctor's fee at 21.7 percent, other medical goods at 3.5 percent and the combined expenditures for dental charges, contraceptives and other health services at 4.3 percent.

Across the regions, NCR reported the highest average total family expenditures for medical care at P4,430. Four other regions had average family expenditure for medical care that is more than the national average. These are Southern Tagalog at P3,359, Western Visayas at P2,881, CAR at P2,799 and Central Luzon at P2,701. ARMM reported the least average family expenditures for medical care at P572.

**Figure 1.25 Average Family Expenditure on  
Health by Region  
Philippines, 2000**



Source: Family Income and Expenditures Survey, 2000

## Health Provider Payment Schemes

Health professionals and health provider organizations can influence the pattern of health care in the country. They are motivated to do so because they are either profit

maximizers or aiming to reach a target income that assures them of an acceptable standard of living (Witter et al 2006).

In the Philippines, health personnel in the public sector are paid a fixed salary. They get their monthly salary even if the health practitioner has little work load or has thousands of patients to attend to. Compensation is based on a pre-set salary scale. Government health institutions are given a fixed annual budget. The budget is computed according to

the historical budget of previous years, adjusted according to the total government funds available and other factors such as inflation, regardless of the type or complexity of cases they admit. This kind of budgeting is inefficient since the health providers may be discouraged to admit the more complex cases, which are more expensive and more difficult to treat.

The private sector relies on the fee-for-service payment scheme. Services include basic physician consultations, diagnostic tests and drugs prescribed. This kind of payment scheme is direly inefficient since there is a financial incentive to over-provide services for each patient. Health providers tend to recommend too many tests, too many visits or prescribe too many drugs.

The salary payment scheme and the historical fixed budget system in the public sector encourage inefficiency and poor quality of health services. On the other hand, the fee-for-service scheme in the private sector produces a pattern of expensive and excessive use of services that are more lucrative to health providers.

The government-run social health insurance and private health insurance companies rely on retrospective reimbursement based on a fee-for-service scheme for hospital services. Private managed care organizations generally pay through a capitation scheme where the health provider is paid a fixed amount per person, regardless of the number of services provided to the patient. The social health insurance program introduced a capitation scheme for ambulatory care delivered in health centers where providers are remunerated based on the size of the population enrolled in the program.

# 2 SETTING THE VISION AND DIRECTIONS FOR HEALTH

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The continuous growth of the economy at a respectable pace over the past four years provides the Philippines with opportunities to improve basic health, nutrition and other related social services. However, poverty remains the major threat in terms of access to essential health services, particularly the increasing disparity in income distribution between the upper income groups and the lower income groups and the continuing disparity between urban and rural areas and among geographical regions of the country. Coupled to these economic and geographic disparities are other internal and external challenges that include the fiscal deficit, the peace and order situation and threat of terrorism, the continuous increase in the price of oil and consequently the price of food and other basic commodities, the emergence of severe acute respiratory syndrome (SARS) and threat of avian influenza, among other factors.

Despite the poverty situation and the other challenges to the health sector, the health of Filipinos generally improved in the past six years as evidenced by the decline in infant and maternal mortality rates, reduction in the prevalence of underweight children, and improvement of life expectancy at birth. Likewise, certain indicators imply better coverage of health and health-related services among the population. Maternal and child health care coverage increased, access to safe water and sanitation facilities improved, micronutrient supplementation and food fortification intensified, and social health insurance coverage expanded. On the other hand, several factors remain as threats to better access to quality health services by the people. Total expenditures on health as a percentage of GNP decreased, distribution of health professionals remains uneven and out-migration continues unabated, high cost of medicines persists, quality assurance of health goods and services remains inadequate, and fragmentation of health systems at local levels persists.

The Medium-Term Philippine Development Plan 2004-2010 emphasized that improving accessibility and affordability of quality social services is essential to ensuring social justice and meeting the basic needs of every Filipino. Basic health and

nutrition services, such as provision of low cost good quality medicines, micronutrient supplements, and maternal and child care are among the essential social services that shall constitute the vital government interventions aimed at raising productivity, reducing poverty, and promoting social justice. The health system shall be responsive to the needs of the population, especially the poor and shall strengthen the collaboration among the national and local governments, the private sector and non-government organizations to ensure accessibility of affordable quality health and health-related goods and services.

Within this milieu, stakeholders in health and health-related sectors must intensify and harmonize their efforts to attain its time-honored vision of health for all Filipinos and continue its avowed mission to ensure accessibility and quality of health care to improve the quality of life of all Filipinos, especially the poor.



# Basic Principles to Achieve Improvements in Health

There are basic principles that are necessary for any health system to achieve improvements in health. It includes emphasizing the integral value of health for any nation, the coordination of resources from all sectors, the articulation of the right to access to quality care, and the presence of socio-economic fundamentals.

## Basic Principles

- Fostering a strong and healthy nation
- Enhancing the performance of the health sector
- Ensuring universal access to quality essential health care
- Improving macro-economic and social conditions for better health gains

## Fostering a strong and healthy nation.

Improvements in health provide substantial economic payoffs. Improved health increases productivity and ensures better returns to the factors of production. Healthy workforce means better strength and endurance on the job, fewer

days off due to illness, and a longer working life span. Healthy children are better able to learn, have fewer absences in school due to sickness, and reap greater benefits from investments made in their education and skills development that are necessary to prepare them to become productive citizens. Healthy women contribute to the economic well-being of the family. To a large extent, the well-being and proper development of children from the womb to adulthood depends on the health of their mothers. Healthy older people mean lesser burden for treating costly degenerative and chronic debilitating diseases and a more economically productive older age group.

Moreover, poverty reduction provides a strong rationale for investments in health. The economic gains to the poor from improved health are greater than for their wealthier compatriots, since they bear a higher burden of disease. The income of the poor typically depends on physical labor, and thus illness robs them of a greater portion of their income. Since the poor usually do not have much savings, they find it difficult to recover from ill health without depleting their human and physical capital. Sickness is a major cause of financial crises among the poor. On the other hand, women have special health needs throughout their lives and improving their health can make a significant contribution to their well-being and that of their families. They face a high burden of reproductive health conditions, gender-based discrimination within households in the allocation of resources for nutrition and health care, gender-based violence, and certain environmental and occupational health hazards. Thus, investing in health for the marginalized group



provides empowerment necessary to lift them from the vicious cycle of low capital, low income, and poor health. Furthermore, the protection and promotion of good health, the management of health risk behaviors and practices, the prevention of diseases, and the promotion of individual and community responsibility for health provide the major means of reducing the costs of curative care, especially for many illnesses that are expensive to treat. Thus, promoting health and preventing illnesses can free up substantial financial resources that can be used to expand the provision of other cost-effective social services, which in turn further contribute to the development of a strong and healthy nation.

**Enhancing the performance of the health sector.** Political commitment across sectors is essential in improving the effectiveness and efficiency of health systems. Political commitment is raised through consistent involvement of both the national and local governments and their non-governmental partners in all aspects of the health system. Government must provide the leadership and stewardship to ensure that all efforts in the health sector lead to a common goal. Coupled to this, greater support to local health systems development and emphasis on strong management and administrative support systems at all levels of governance contributes to better health sector performance.

Better coordination between national policies and external donor priorities play a major role in fostering harmonization of all external development assistance with domestic priorities and resources. A clearly defined role for public-private-external partnerships in health outlines how these partnerships complement health sector financing and provision of health services and how these partnerships further improve the health of the population. In addition, a focus on improving human resources for health by increasing the number of critical frontline health professionals, correcting maldistribution and addressing brain drain, improving their management and technical skills, and providing better incentives and rewards for good individual performance further enhances the collective performance of the health sector.

**Ensuring universal access to quality essential health care.** The overall approach to health sector development is ensuring that citizens have broad access to essential promotive, preventive and curative services that are cost-effective, efficacious, and affordable. Increased access to these basic services will have a significant impact on morbidity and mortality in the short to medium term and will provide the foundation for more comprehensive health services in the long term.

Access to health care is better ensured by mobilizing more resources for health, improving efficiency in the production and allocation of health goods and services, and providing social safety nets and addressing inequities specifically among the vulnerable and marginalized groups. Resource mobilization for health can come about through enhanced revenue efforts and reallocation of more expenditure for health, with emphasis on investments that will preferentially improve the health of the poor, women, children, and other vulnerable groups. Heightened efficiency in the allocation and use of resources is achieved by focusing on the provision of health goods and services that are highly cost effective, address problems that account for a significant proportion of the burden of disease, are of proven benefit, and provide greater advantage to the poor. On the other hand, better quality and affordability of health goods and services are assured by strengthening the mandates and capability of government agencies for health regulation, developing new policy instruments and incentives to promote quality assurance and cost containment measures, and effective management of competition in the health care market.

**Improving macro-economic and social conditions for better health gains.** Further health gains are achieved by improving other socio-economic factors that are generally considered as outside the domain of the health system. Strategies geared toward reducing unemployment and income disparity, eradicating extreme poverty and hunger, ensuring universal primary education, and promoting gender equality and women empowerment are clearly contributory factors that enhance health outcomes.

Improving the economic and social conditions of the vulnerable groups increases their productivity and educability, assets they need to lift themselves from deprivation and discrimination. Such investments reduce inequity and provide them access and the immediate welfare gain of relief from physical suffering and improved health.

# Primary Goals of the Health Sector

The primary goals of the health sector are clearly identified by the WHO, the Millenium Development Goals, and the Medium Term Philippine Development Plan. Better health outcome is a definitive goal for the health system, but it is not its only goal. Responsiveness of the health system is a second goal, because ill health and treatment procedures make patients and their rights to dignity and respect for their person vulnerable. Moreover, the primacy of health to any person must allow him some control and participation in health decisions over his family. Equitable health care financing is a third goal of the health system because health and illness involves large and unexpected costs that may result in poverty for many people. Mechanisms to pool risk and to provide financial protection for the people are necessary.

**Better health outcomes.** Better health for the entire population is definitely the primary goal of the health system and its main reason for being. This means making the health status of the people as good as possible over the entire life cycle, taking

into consideration the occurrence of disabilities and premature deaths. While other factors like economic, social and environmental conditions affect health, the activities of the health sector are the ones that have direct significant impact on health status.

Although a good health system generally contributes to good health, it is not enough that the health sector settles for an improvement of the average health of the population. The greater challenge is the reduction of inequalities by improving the health of the worse-off, wherever these inequalities are caused by conditions amenable to intervention. The objective of good health is therefore two-fold: attaining the best average level of health for the entire population (goodness), and attaining the smallest feasible differences in health status among individuals and groups (fairness) (WHO 2000).

**More responsive health system.** The second goal of the health system is related to how it performs in meeting the people's expectations of how it should be treated by providers of health services. This goal is closely associated to the degree by which people are satisfied with the performance of the health system and the services it provides. Generally, the responsiveness of the health system contributes to health by promoting utilization of health services.

## Goals

- Better health outcomes
- More responsive health system
- More equitable health care financing

The general notion of responsiveness relates to the respect for human beings as persons and to how the health system meets the commonly expressed concerns of patients and their families as clients of the health system. Respect for persons includes respect for the dignity of the person, confidentiality of one's personal health information, and autonomy to participate in choices about one's own health. On the other hand, client orientation includes prompt attention in the provision of care, amenities of adequate quality, access to social support networks, and freedom to choose a health provider (WHO 2000).

It has been identified that the poor and those from the rural areas are often treated with less respect, less choice of providers, and poorer quality of amenities compared with the rich and those from the urban centers. Therefore, as with the objective of better health status, it is not only attaining the best average level of responsiveness that matters (goodness), but more challenging for the health sector is attaining the smallest feasible differences in terms of responsiveness of the health system for every individual and group in the population (fairness).

**More equitable health care financing.** Financial risk protection anchored on the fairness of the health financing system is another major goal of the health sector. Fair health care financing means that the risks each individual faces due to the cost of health care are distributed according to ability to pay rather than to the risk of illness. A health system in which individuals or families are forced into poverty through their purchase of needed health care, or forced to do without care because of the cost, is unfair (WHO 2000). Payment for health care is unfair if the system exposes the individual to large unexpected expenses in which costs have to be paid out-of-pocket at the time of utilization of health services, or if the system imposes a regressive payment scheme in which those least able to contribute pay proportionately more than the better-off.

What is relevant for achieving financial risk protection is helping people avoid the large and unpredictable costs of a serious illness by providing a risk-spreading strategy for financing health care, where revenues from the people are pooled and used to pay for care for those who get ill. This is best achieved by relying more on prepayment schemes (tax-based or insurance schemes) in place of out-of-pocket expenditure and by establishing a more progressive contribution scheme related to capacity to pay rather than to health risk or utilization of health services.

# General Objectives and Strategies to Achieve Health Goals

The strategic thrusts to achieve the three primary health goals are anchored on the current implementation of health reforms which build upon the lessons and experiences from the major health reform initiatives undertaken in the last thirty years --- from the Primary Health Care approach in the late 1970s, the Generics Act in the late 1980s, the devolution of health services in the early 1990s, the National Health Insurance Act of 1995, to the Health Sector Reform Agenda (HSRA) conceptualized in the late 1990s.

Since the inception of the HSRA in 1999, health reforms have made inroads in at least 30 provinces. In health governance, municipalities have joined together to form Inter-Local Health Zones (ILHZ) to optimize sharing of resources and maximize joint benefits from local health initiatives. In health regulation, local government units have pooled their procurements to lower the price of essential drugs. In health service delivery, key local health facilities have been upgraded to meet accreditation requirements and be entitled for capitation or reimbursements from PhilHealth. In health financing, local governments have increased contributions needed to enroll indigents into the social health insurance program. Not only is the coverage of health services being improved in these localities, invaluable lessons are also being learned to bolster confidence in the implementation of these reforms nationwide.

While these developments in the health sector have given rise to opportunities, especially in the last five years, there are also existing constraints that must be taken into account in the crafting of relevant strategic thrusts and action plans.

For years now, the DOH budget has been very restricted, with around sixty percent automatically spent for personal services alone, leaving very little to provide for operational and capital needs. Moreover, the share of health in the national budget, as well as the real value of its actual allocation, has declined. On the other hand, as local governments receive larger allocation from the internal revenue allotment, their investment for health has also increased progressively after the devolution of health services. However, most local governments spend at least 70 percent of these resources for salaries and benefits of local health personnel, also leaving very little for operational expenses and capital investment.

Furthermore, the allocation of public subsidies for health, across its major expense categories (that is, personal services, maintenance and other operating expenses and capital outlay), has remained inflexible. Also, the national government cash position has been very limited, causing delays in the release of health budgets. In addition, the way existing budgets are allocated across the various health agencies and programs has no clear bearing on performance.

Thus, while health budgets have declined in terms of its real value, the DOH continues to face the difficult mandate of steering the highly decentralized and fragmented local public health systems and private health care markets. Therefore, effectively carrying out this mandate would require new capacities especially those needed to develop novel and creative means of implementing programs, in partnership with local government units, the private sector and external development agencies.

The highly decentralized system also implies that the DOH needs to manage the total national health financing requirements from a multitude of sources that includes central and local health budgets, as well as social health insurance funds and external assistance. Relevant experiences on this undertaking have led to a deeper understanding of how social health insurance could leverage for better performance from the health system.

In the backdrop of these opportunities and constraints, the significant lessons learned from experiences in the last five years, with respect to health reforms in several localities, the growing interest and support from external development partners, the deeper understanding of the requirements of implementing reforms, the reinforcement from partner government agencies, and the revitalized political support for reforms from national leadership, however suggest that the timing for full implementation of health reforms is now.

### **Medium-Term Objectives**

- Secure increased, better and sustained investments in health
- Assure the quality and affordability of health goods and services
- Improve the accessibility and availability of basic and essential health care for all
- Improve health systems performance at the national and local levels

Vital reforms to attain the primary health goals will be organized into four major implementation components, namely: Health Financing, Health Regulation, Health Service Delivery and Good Governance in Health. The implementation will focus on four general objectives and on a few manageable and critical strategic thrusts corresponding to the health reform components.



**Health financing.** The general objective for health financing is to secure increased, better and sustained investments in health to provide equity and improve health outcomes, especially for the poor. Strategies would include: (1) mobilizing resources from extra budgetary sources; (2) coordinating local and national health spending; (3) focusing direct subsidies to priority health programs; (4) adopting a performance-based and need-based financing system; and (5) expanding the national health insurance program.

Mobilizing additional resources for health will entail increasing revenue generation capacities of health agencies without compromising access by the poor. This may include revenues from socialized user fees and charges for personal health care and regulatory services, and rationalized use of real property assets belonging to government health agencies.

Efforts to mobilize more investments for health will be coupled with measures to improve efficiency in health financing system on two accounts: one is maximizing the expected performance outputs using available resources (technical or operational efficiency), and second is properly distributing or allocating the resources where they would yield the optimum health impact (allocative efficiency).

The overall management of total health investments will be undertaken using a sector-wide approach. This implies that the management perspective covers the entire health sector, and that financing portfolio management encompasses all sources. Implementation of health programs will be financed jointly by national and local governments, PhilHealth, and official development assistance. Eventually, mechanisms to mobilize private sector resources will also be developed and implemented.

Financing of health agencies must shift into a performance-based and need-based system. This means that budget allocations and releases will be conditioned on the achievement of performance targets. Moreover, programs that require long-term financing must be supported by multi-year budgets. Direct subsidies from national and local governments must be focused on priority health programs, specifically basic and essential health goods and services used by the poor.

Health agencies and facilities with significant revenue generating capacities should not only support its own requirements but also contribute to meet the needs of non-revenue generating priority programs. However, such mechanisms will be designed and

introduced in a way that do not penalize or restrain fiscal performance among revenue generating agencies.

The national health insurance program shall be further strengthened by expanding enrollment coverage, improving benefits and leveraging payments on quality of care. As lead implementer, PhilHealth needs to recognize that changes in enrollment, benefits and provider payments need to be well orchestrated to become effective. Moreover, PhilHealth has to recognize that it operates in local markets and would have to continue engaging partners at that level.

**Health regulation.** The main objective for health regulation is to assure access to quality and affordable health products, devices, facilities and services, especially those commonly used by the poor. Strategies under this component would include: (1) harmonizing the licensing, accreditation and certification systems among health agencies; (2) issuance of quality seals for health goods and services; and (3) assuring the availability of low-priced quality essential medicines.

On the supply side, systems and processes for licensing, accreditation and certification will be harmonized and streamlined to make health regulation more rational and client-responsive. A “one-stop shop” for licensing of health facilities will be established while, on the other hand, accreditation and certification processes will be integrated into a unified “seal of approval” system. Automation of regulatory systems and processes will be strengthened and less frequent but more intensive and incentive-based regulatory procedures will be introduced. Decentralization of appropriate regulatory functions to regional offices and LGUs, as well as strengthening of enforcement mechanisms and regulatory oversight functions of the DOH central offices will be pursued.

On the demand side, a simple yet powerful instrument for government to influence consumer behavior is the “seal of approval” system on health products, devices, services or facilities. Such seals will indicate that a certain level of standard or competency has been achieved, assuring providers and consumers that fair and ethical standards are met. The presence or absence of such seals will enable consumers to make informed decisions and demand quality products and services. The use of these seals will be expanded and operationalized to include public and private health facilities, laboratories, pharmacies, and devices. These seals will be linked to incentives to meet progressively higher standards for safety, quality and effectiveness.

Consistent with the overall financing strategy, cost recovery with income retention for health regulatory agencies and other revenue-generating mechanisms will be pursued to ensure financial sustainability. However, the use of retained revenues needs to be backed by a rational and approved expenditure plan.

Also part of regulatory priorities is assuring the availability of low-priced yet quality essential medicines commonly used by the poor. Several mechanisms will be instituted. First, high quality generic pharmaceutical products will be promoted. Second, pharmaceutical distribution networks (such as national and local government hospital pharmacies, NGO-owned pharmacies, Botika ng Bayan and Botika ng Barangay) will be expanded. Third, alternative local and foreign sources of low-priced drugs will be identified. Fourth, mechanisms for pooled procurement among health facilities and across LGUs to realize economies of scale will be developed.

**Health service delivery.** Health interventions in service delivery are intended to improve the accessibility and availability of basic and essential health care for all, particularly the poor. This shall cover all public and private facilities and services. Strategic thrusts would include: (1) ensuring the availability of providers of basic and essential health services in all localities; (2) designating providers of specific and specialized services in strategic locations; and (3) intensifying the implementation of public health programs in targeted localities.

Basic and essential health service packages will be made available in all localities while specific and specialized health services will be made available by designated providers in strategic location. The quality of both basic and specialized health services will be assured through several mechanisms such as upgrading of health facilities and strengthening human resource capability to comply with licensing and accreditation requirements, instituting accepted standards of care (e.g., clinical practice guidelines or diagnostic related groups), providing specialized health services through preferred providers as incentive for delivering quality and affordable services.

Current efforts to reduce public health threats will be strengthened by undertaking “disease-free zones” initiative, implementing intensified disease prevention and control strategy and enhancing health promotion and disease surveillance. Under the “disease-free zones” initiative, areas where diseases such as malaria, filariasis, schistosomiasis, rabies, leprosy and vaccine-preventable diseases are major public health problems will

be targeted for intensive campaigns to eliminate these diseases as public health threats. Intensified disease prevention and control strategies for other priority diseases such as tuberculosis, HIV-AIDS and other communicable diseases will be undertaken in target areas and target population groups where the greatest impact from health investment could be derived.

To reinforce the “disease-free zones” initiative and the intensified disease prevention and control strategies, enhanced health promotion and disease surveillance activities will be undertaken. Disease surveillance will be intensified to ensure that the targets for disease elimination, prevention and control are attained. Health promotion interventions will be directed at the prevention and control of health hazards and health risk-taking behaviors, particularly those associated with lifestyle related diseases such as cardiovascular diseases, cancer, diabetes mellitus and chronic obstructive pulmonary diseases, among others. The protection and promotion of health among vulnerable groups will be focused toward mothers and children to improve reproductive health outcomes and eventually to drastically reduce maternal and infant mortalities.

**Good governance in health.** The objective of good governance in health is to improve health systems performance at the national and local levels. Interventions under this component are intended to improve governance in local health systems, improve coordination across local health systems, enhance effective public-private-external agency partnerships, and improve national capacities to lead and manage the health sector. Strategies would include: (1) establishing inter-LGU coordination mechanisms like inter-local health zones and other models of appropriate local health systems in the context of devolution; (2) developing performance assessment systems that cover local, regional and central health offices, (3) institutionalizing a professional career track mechanisms for human resources for health, and (4) improving management support systems to enhance the delivery of health goods and services.

The development of rationalized and more efficient national and local health systems will be pursued through strengthening networking mechanisms and referral systems, sharing of resources, organizational transformation and restructuring, and capacity building, among others.

Governance in local health systems may be improved by establishing inter-local health zones or convergence sites that will undertake integrated implementation of health

reforms. Assistance and support will be provided to targeted provinces in the areas of financing, regulation, service delivery and governance to improve local health systems performance. To track progress and compare the performance of various localities or inter-local health zones, a LGU Scorecard will be developed. Such system will also be developed and employed for assessing the performance of regional and central health offices.

A health professional development and career track system will be institutionalized where competent and dedicated health personnel will provide quality health services. To achieve this end, several strategies will be pursued, such as, improving the distribution and retention of critical health personnel especially in under-served areas, developing managerial skills of local health supervisors, improving the technical competencies of field personnel, and expanding the professional career paths of qualified local health personnel as incentive for them to remain in service, among others.

National capacities to manage and steward the health sector will be improved. Technical leadership and management capability at central and regional levels will be strengthened through retooling and retraining of personnel as well as tapping DOH Representatives to serve as vital links to LGUs. Public finance and procurement and logistics management systems will be improved through strengthening the financial management capacity at central, regional and local levels and improving the procurement, logistics and warehousing capacity in the DOH.

Monitoring and evaluation, research and knowledge management systems will be strengthened to support a more rational performance assessment system and an evidence-based health policy development and decision-making process. To support this, information and communication technology capability will be strengthened to improve connectivity of the health sector and ensure access to quality health information.

# 3 IMPROVING HEALTH SYSTEM PERFORMANCE

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The WHO defines a health system as consisting of all the activities whose primary purpose is to promote, restore or maintain health. More specifically, it includes the combination of health care institutions, supporting human resources, financing mechanisms, information systems, organizational structures that link institutions and resources, and management structures that collectively culminate in the delivery of health services to the people (Lassey 1997). Within the boundaries of a health system are formal health services provided by health professionals, and so are actions by traditional healers and home care of the sick provided by family members, all use of medication, whether prescribed by a provider or not, and other health enhancing interventions (WHO 2000). While improving health outcomes is clearly the main objective of a health system, it has other intrinsic goals. These goals are concerned with how the health system responds to the expectations of the people regarding how they are treated, and how the health system provides the financial risk protection or the fairness in the way people pay for health goods and services (WHO 2000).

Clearly, while health outcomes in the Philippines have significantly improved in the last 50 years, many challenges have remained, most of which can be attributed to issues related to improvement of health system responsiveness and financial risk protection, particularly among the poor and the marginalized sectors of society. While health technology and scientific advancements in the past decades have significantly contained many diseases, most Filipinos are still unable to receive appropriate health services due to physical, social and financial barriers. Even where health facilities are present, people continue to be helpless because services are unaffordable, quality of care is wanting, or providers are unresponsive to their health needs.

To address these problems, the DOH in coordination with other stakeholders, developed the Health Sector Reform Agenda (HSRA) in 1999 as the policy framework for reforms in the health sector. Introducing and pilot-testing the different concepts and strategies of HSRA in selected provinces between 2000 and 2005 has showcased some gains in health



systems development. However, one of the gaps in health reforms is the absence of a comprehensive operational framework to implement the reform strategies as a single package. Thus, the “Fourmula One for Health” approach was launched in August 2005 to set the directions and the implementation arrangements for strengthening the way health care is delivered, governed, regulated and financed.

Within this context, the National Objectives for Health (NOH) 2005-2010 provides the goals, objectives and strategic thrusts toward improving health sector performance for better health outcomes. Thus, to expound the means by which health system responsiveness and financial risk protection may be improved, this chapter has been divided into four sections. The first section focuses on health financing, specifically on mobilizing more investment and public spending for health, attaining better efficiency in the allocation and utilization of resources for health, and strengthening financial safety nets particularly for the poor through social health insurance. The second section centers on health regulation, specifically on assuring access to quality and affordable health goods and services with emphasis on making low-priced yet quality essential medicines widely available. The third part tackles on interventions in health service delivery aimed at improving access to basic and essential public health program packages and to specific hospital-based health services. The fourth section deals with good governance in health, particularly on interventions aimed at enhancing the stewardship functions and management support systems at both national and local levels.

# Efficient and Equitable Health Financing

Health financing system refers to various structures, methods and processes in which financial resources are made available to fund health sector activities. One of the main functions of the health system is to provide health services to the population. Provision of these services requires financial resources, which need to be mobilized and effectively used. Providing such access has long been the cornerstone of health financing system. The purpose of health financing is to make funding available, to set the right financial incentives for providers, as well as ensure that all individuals have access to effective public health and personal health care (WHO 2000).

The WHO cites three health financing functions, namely: revenue collection, pooling of resources and purchasing. **Revenue collection** refers to the process by which health system receives money from households and organizations including donors. The country's health system has various ways of generating revenues, such as taxation, social health insurance, private health insurance and out-of-pocket expenditures. Most developing countries like the Philippines rely heavily on out-of-pocket expenditures compared to the developed countries, which rely mostly on taxation and social health insurance. **Pooling of resources** refers to the accumulation and management of revenues to ensure that the risk of having to pay for health care is borne by the members of the pool and not by each contributor. Thus, financial risk associated with health interventions is shared among all members. Within the health system, pooling is a social insurance function whereby collected health revenues are transferred to purchasing organizations. **Purchasing** refers to the process by which pooled funds are paid to providers in order to deliver a specified or unspecified set of health interventions. Putting appropriate purchasing mechanism in the health system will improve responsiveness and financial fairness for providing package of health services to the people. The government, the social health insurance and private health insurance companies perform this function.

To ensure that package of health services are provided, purchasing provides the key role in which pooled funds are paid to providers through contracting, budgeting and payment mechanisms. Given this, basic decisions have to be made on how services shall be organized and delivered, and how payment system shall be designed. There are various ways of paying provider institutions and health professionals, which include fee for service, salary, capitation, per diem, per admission, line item budget, and global budget.

Each of these payment methods creates financial rewards for providers and move financial risk to different players in the system. Since the providers decide on the treatment method and the quantity of services, the incentive structure affects costs, efficiency, and quality of health services. The payment method determines the unit of service for which a payment will be made. It ranges from services rendered by a provider over a given period of time (e.g. salary) to services provided by professionals (e.g. fee for service). Physicians can be paid on the basis of fee for service, capitation or salary. Methods for paying hospitals include fee for service, per diem, case-mix adjusted per admission or global budget. In practice, two or more combinations are used as a requirement for specific health care delivery and financing system.

The objective of health financing reforms in the Philippines is to secure increased, better and sustained investments in health to ensure equity and improve health outcomes, especially for the poor. The strategic approach is to mobilize additional resources for health by increasing revenue generation capacities of health agencies without compromising access by the poor. Mechanisms to mobilize private sector resources will also be developed and implemented. This will be coupled with strategic measures to improve efficiency in the system by maximizing the expected performance outputs using the available resources. A performance-based financing system for health will be adopted, which means that budget allocation and releases will be conditioned on the achievement of performance targets. Moreover, health programs that require long term financing will be supported by multi-year budgets.

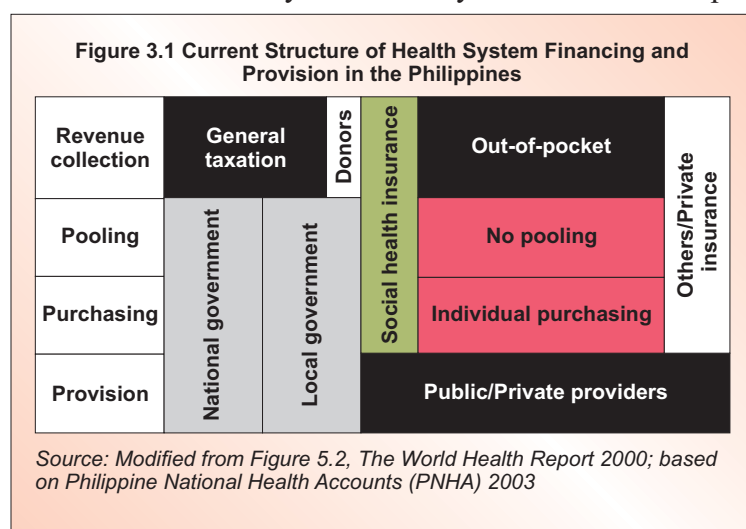
Another strategic approach is to properly allocate resources where they would yield the optimum health impact. Direct subsidies from national and local governments will be focused on priority programs, specifically basic and essential health goods and services used by the poor. On top of this, expanding enrollment coverage, improving benefits and leveraging provider payments on quality of health care will further strengthen the National Health Insurance Program (NHIP) as the flagship program for health financing.

Within this context, the overall management of total health investments will be undertaken using a sector-wide approach, which means that management perspective will cover the entire health sector and that financing portfolio management encompasses all sources of funds.

## Public Financing for Health

Based on the PNHA, resources generated from revenues are allocated to pay for three general categories of health expenditures: personal health care, public health care and administrative expenditures. In this analytic framework, personal or individual care generally involves hospital or curative care while public health services are those aimed at families and communities rather than the individual. Administrative services involve costs or expenditures in the production and delivery of health care, such as cost of training of health providers, research and development, and other indirect costs.

A graphical presentation of the current structure of health financing and provision in the country shows heavy reliance on out of pocket expenditures and individual purchasing



of health services. Notably, risk pooling is limited to adequately address the needed financial risk protection for the most vulnerable sector of the population.

Significant progress has been achieved through the changes in the organization and structure of financing the health system in the country. For one, decentralization of health services has resulted in the gradual shift in public spending from the national to

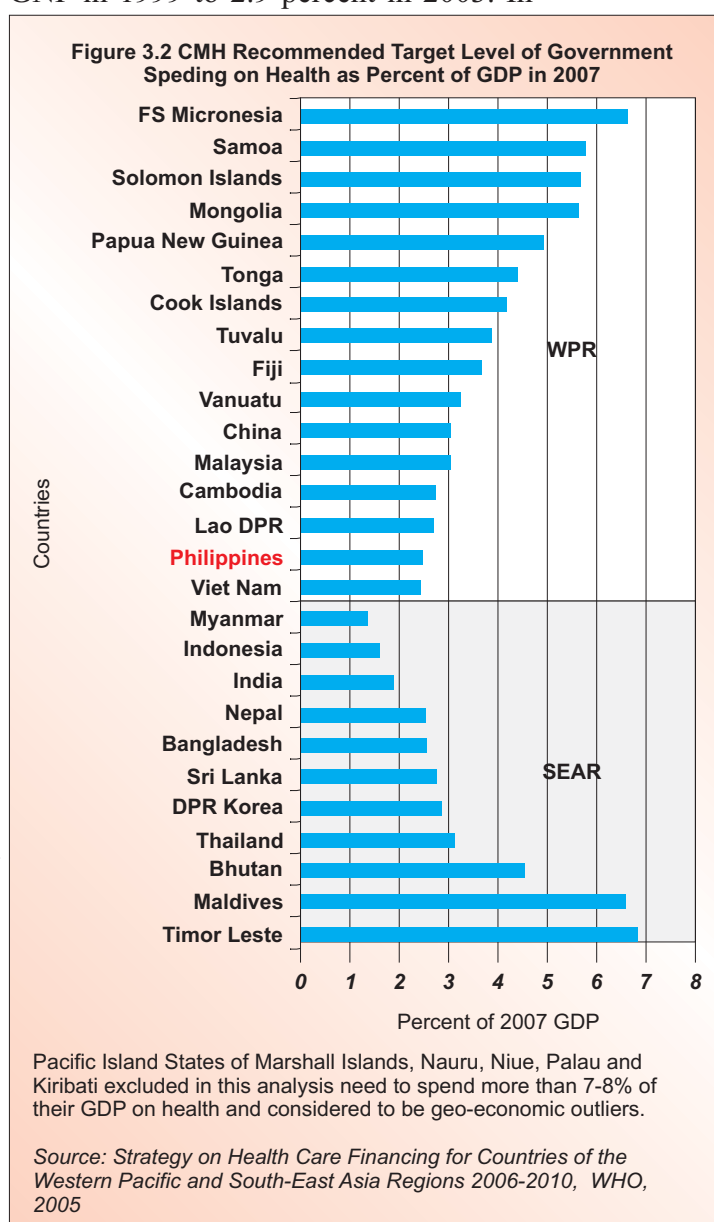
the local level. From 2001 to 2003, the LGUs spent more in health by around one percentage point annually than the national government. By 2003, LGU spending reached 23.8 billion pesos or 17.5 percent of total health spending while the national government accounted for 22.7 billion pesos or 16.7 percent. Secondly, the NHIP, which is aimed at responding to the inequities and inefficiencies in health spending by risk pooling, has made improvements in terms of expanding its membership, benefit packages, and accreditation of health facilities and professionals. Lastly, the National Health Accounts (NHA) has served as a powerful analytical tool not only for policy and planning purposes but for defining and measuring the progress of reforms in the health sector as well. The NSCB has institutionalized the regular collection of NHA data. The evaluation of macro and micro efficiency measures through the NHA has encouraged a more appropriate and efficient allocation of resources across the health system. Within the DOH, a process of developing a study for evaluating funding models has been

initiated. It critically recognizes the importance of designing new funding arrangements and adjustments to financing policies based on evidence. Development of performance based financing mechanisms within the DOH is one major effort being pursued.

Even with an established health financing system, the country still faces many challenges which range from inadequacy of the current level of resources, inefficiency and ineffectiveness in the use of available resources and the inequitable distribution of health goods and services (NSCB 2003).

**Low levels of health care expenditures.** Overall, the country spent a total of 135.9 billion pesos for health care in 2003, representing 2.9 percent of GNP. Total health care expenditures decreased from 3.3 percent of GNP in 1999 to 2.9 percent in 2003. In nominal terms, the country's total health expenditures increased from 104 billion pesos in 1999 to 117 billion pesos in 2002 and to 135.9 billion pesos in 2003. However, in real terms (based on 1985 prices), it declined from 33 billion pesos in 1999 to 32 billion pesos in 2002, and rebounded to 35 billion pesos in 2003. The total per capita health expenditures in real terms, decreased from 442 pesos in 1999 to 434 pesos in 2003. In general, health expenditures have been declining both as percentage of GNP and also as per capita spending up to 2002. This suggests that the country is not spending adequately for health care.

The Commission on Macroeconomics for Health (CMH) in 2001 cites the recommended level of government spending on health for low and medium-income countries as follows: mobilizing additional one percent of the GNP for health by 2007; and additional two percent by 2015. The 2001



NHA data for the Asia and Pacific countries shows the recommended level of government spending for selected countries. The DOH shall adopt these recommendations, using one to two percent of GNP share as benchmark for increasing government resources by 2010. Accordingly, the GNP share to total health expenditures is targeted to rise by three to five percent from 2005-2010.

**High out-of-pocket expenditures.** Out-of-pocket expenditures are direct payments (i.e., user charges) from individual families. This accounts for 44 percent of the total health expenditures in 2003. On the same year, total national and local government expenditures for health amounted to 46.5 billion pesos or 34 percent of the total health expenditures. Out of this spending, DOH budget amounted to 15.3 billion pesos, which is higher than the 1999 budget of 12.4 billion pesos. With this amount, 69.6 percent was spent on the 72 DOH hospitals. On the other hand, 66 percent of the country's 2003 expenditures for public health care came from local government spending.

**Table 3.1 Total Health Expenditures by Sources of Funds, and Selected Health Financing Statistics  
Philippines 1999-2003**

Sources of Funds	1999	2000	2001	2002	2003
<b>Actual amount (in million pesos)</b>					
Government	41,705	46,610	42,246	34,578	43,732
National	21,725	24,404	19,988	16,740	19,925
Local	19,351	22,206	22,258	17,838	23,807
Social Health Insurance	5,263	8,059	9,259	10,580	12,936
Out-of-pocket	45,085	46,536	51,134	54,811	59,793
Other Private Sources	11,676	12,249	12,459	13,835	14,897
<b>TOTAL</b>	<b>104,827</b>	<b>114,911</b>	<b>116,602</b>	<b>117,180</b>	<b>135,959</b>
<b>Share (%)</b>					
Government	39.2	40.6	36.2	31.0	34.2
National	20.7	21.2	17.1	15.8	16.7
Local	18.5	19.3	19.1	15.2	17.5
Social Health Insurance	5.0	7.0	7.9	9.0	9.5
Out-of-pocket	43.3	40.5	43.9	46.8	44.0
Other Private Sources	11.2	10.7	10.6	13.3	11.3
GNP (in billion pesos, at current prices)	3,136.2	3,556.1	3,876.6	4,223.3	4,618.3
Total Health Expenditures (in million pesos, at current prices)	104,827	114,911	116,602	117,180	135,959
% GNP share to Health	3.3	3.2	3.0	2.8	2.9
Per capita health expenditures, in pesos at current prices	1,397	1,496	1,485	1,462	1,662
Per capita health expenditures, in pesos at 1985 prices	442	454	425	405	434
Total Health Expenditure Growth Rate (%), at current prices	11.0	9.6	1.5	0.5	16.0
Population (in million)	75.0	76.8	78.5	80.2	81.8

Source: NHA Data Results, 1992-2003; NSCB, 2003

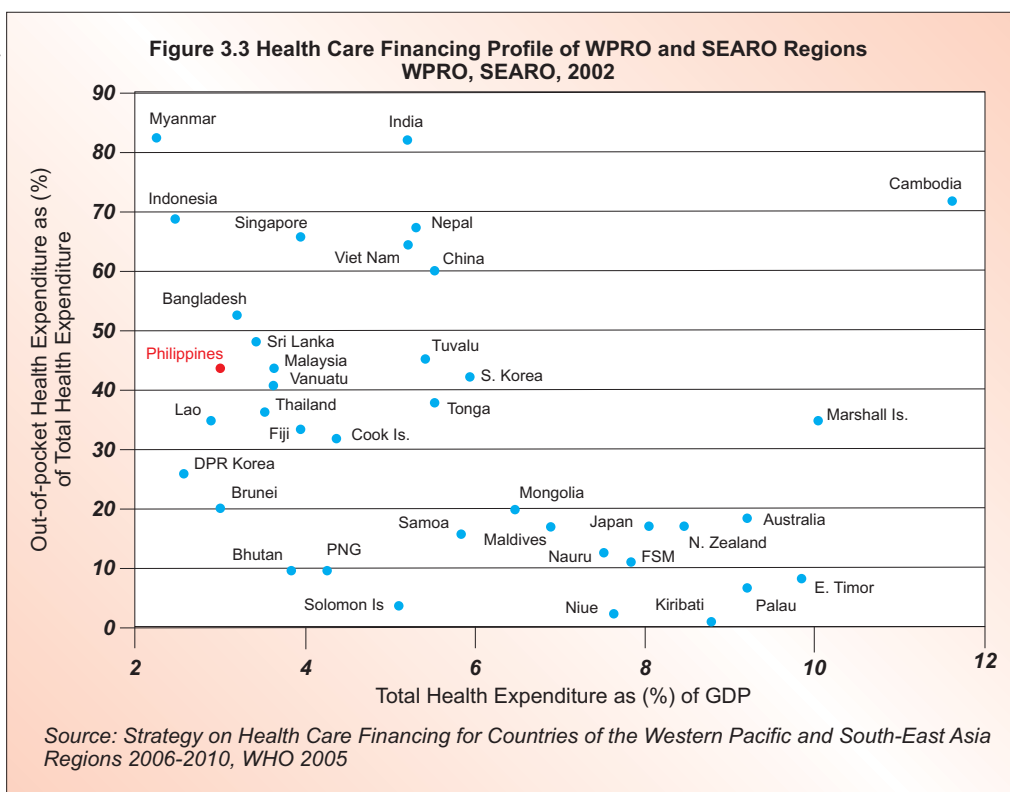
Between 1999 and 2003, the relative share of government in the total health expenditures decreased from 39 percent to 34 percent. The fall in the government's share was associated with the relative decrease in national government spending for health from 21 percent in 1999 to 16.7 percent in 2003.

The NHIP under PhilHealth almost doubled its share of the total health expenditures from 5 percent in 1999 to 9.5 percent in 2003. While the social health insurance share has significantly increased, it is still insufficient in terms of providing adequate cover for the health conditions that the population is constantly exposed.



Looking at the distribution of total health spending in the country, there are problems in the way resources for the health system is collected. The burden of paying for health care services is dominated by out-of pocket payments. This means that households rely mainly on their own resources to finance medical services. Hospitalization costs comprise the largest health expenditures. Based on the FIES 2000, family expenditures for medical care amounted to 34.6 billion pesos, which translates to 2,660 pesos medical care expenditures for each family in 2000. The expenditures for drugs and medicines accounted for the highest percentage with 46.4 percent, hospital room charges with 24.1 percent, medical charges (including doctor's fee) with 21.7 percent, and the rest for other medical goods. All in all, the biggest source of the total resources available in the health system is the household. This leaves the financial and health status of the low income group of the population vulnerable.

Looking at the health care financing profile of Asian countries, it is noted that highly populous countries such as China, Indonesia, India, Vietnam and the Philippines are spending less than 6 percent of GDP on health, of which, total out-of-pocket health spending accounts for about 50 percent or more of total health expenditures. It is also noted that these countries have yet to attain universal coverage in terms of their social insurance membership. On the far extreme, Cambodia's health spending is more than 11 percent of GDP, about 70 percent of which are out-of-pocket, which is noticeably unsustainable and inequitable. On the other hand, developed countries like Japan, Australia and New Zealand are moderate to high level spenders with low out-of-pocket payments.



**Low spending on cost-effective public health interventions.** The country's spending for public health care is not enough. The national health budget is skewed to hospital care services, being intrinsically costlier than public health interventions. More than two-thirds of the DOH budget is allocated to its tertiary hospitals. For 2003, of the total health spending, the country spent only 12.3 percent for public health compared to 75.7

percent for personal care. On the other hand, while LGU spending is continuously increasing and more than half is spent for public health programs, the cost effectiveness of this increased expenditure need to be assessed. Moreover, health expenditure for administrative capacities is also limited resulting in low absorptive capacities,

particularly for managing public health programs at the local level. For 2003, only 12 percent of the total health expenditures is spent on administrative services, resulting in poor management of the health system in the country.

Given these issues, the country is working towards a sustainable health financing system where: (a) there is clear delineation of function among major players in terms of revenue collection, pooling, purchasing and provision of health care in order to drive for greater efficiency in the system; (b) out of pocket spending is minimized and most of the health

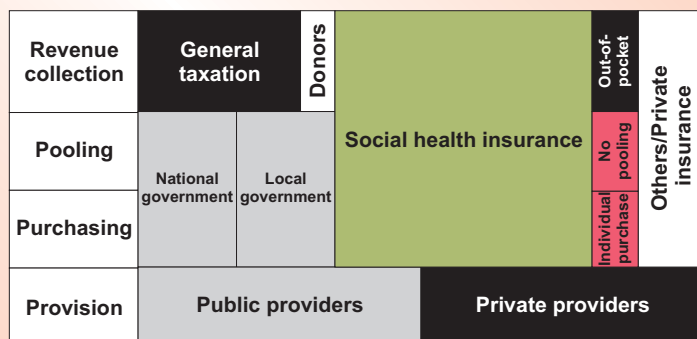
spending are sourced from social health insurance; and (c) the appropriate mix of budgeting and provider payment mechanisms that would best influence provider behavior towards delivering quality care and preventing health problems while containing costs is well-defined. This proposed health care financing system is best described in Figure 3.4.

**Table 3.2 Total Health Expenditure by Use of Funds  
Philippines 1999-2003**

Uses of Funds	1999	2000	2001	2002	2003
<b>Actual amount (in million pesos)</b>					
Personal Care	77.9	83.9	86.5	90.5	102.8
Public Health	13.9	16.5	16.5	12.7	16.7
Others	13.0	14.4	14.4	13.9	16.4
<b>TOTAL</b>	<b>104.8</b>	<b>114.8</b>	<b>117.4</b>	<b>117.1</b>	<b>135.9</b>
<b>Share (%)</b>					
Personal Care	74.4	73.0	73.6	77.3	75.7
Public Health	13.2	14.4	14.0	10.8	12.3
Others	12.4	12.6	12.3	11.9	12.1

Source: NHA Data Results, 1992-2003; NSCB, 2003

**Figure 3.4 Proposed Re-structuring of the Health Financing System  
in the Philippines**



Source: Modified from Figure 5.2, The World Health Report 2000; Projections based on Philippine National Health Accounts (PNHA) 2003

Goal: Investments in health are increased and efficiency and equity in resource allocation are improved.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Mobilization and generation of resources for health are increased	Total health expenditures as percentage of GNP	3-4 percent of GNP	2.9 percent of GNP <i>PNHA, 2003</i>
	Per capita health expenditures	2,000 pesos per capita health expenditures	1,662 pesos (at current prices) per capita health expenditures <i>PNHA, 2003</i>
	Total government health expenditures as percentage of total health expenditures	40 percent of total health expenditures 18 percent national 32 percent local	34.2 percent of total health expenditures 16.7 percent national 17.5 percent local <i>PNHA, 2003</i>
	Total social health insurance expenditures as percentage of total health expenditures	15 percent of total health expenditures	9.5 percent of total health expenditures <i>PNHA, 2003</i>
Investments for public health care are increased	Total public health care expenditures as percentage of total health expenditures	20 percent of total health expenditures 6 percent national 14 percent local	12 percent of total health expenditures 4 percent national 8 percent local <i>PNHA, 2003</i>
	Total public health care expenditures as percentage of total government health expenditures	50 percent of total government health expenditures 20 percent national 30 percent local	34 percent of total government health expenditures 10 percent national 24 percent local <i>PNHA, 2003</i>
Efficiency of health resource utilization is improved	Established performance-based financing system for hospitals, public health programs and health regulatory agencies	Institutionalized performance-based financing system	Performance-based financing strategy initiated <i>DOH, 2005</i>
	Established Sector Development Approach for Health (SDAH)	SDAH system established	SDAH system initiated <i>DOH, 2005</i>
Allocation of health resources particularly for the poor and vulnerable group is improved	Out of pocket health spending as percentage of total health expenditures	Reduction of out-of pocket spending to 20 percent of total health expenditures	44 percent out-of-pocket spending out of total health expenditures <i>PNHA, 2003</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Improved financial risk protection particularly through social health insurance	100 percent coverage of health insurance for poor families	100 percent coverage of health insurance for poor families <i>PhilHealth, 2004</i>

Strategic Thrusts for 2005-2010			
<ul style="list-style-type: none"> <li>• <b>Increase investments in health from internal and external sources</b> through development of strong partnership and policy dialogue with other agencies in order to rationalize health financing (i.e. improve targeting and coordination for the attainment of the MDG and MTPDP goals; improve efficiency and effectiveness of resource use; ascertain financial sustainability and enhance capacity for better management of available resources).</li> <li>• <b>Increase local government spending for health</b> with priority investments made for (a) public health, (b) local health systems development, (c) quality assurance and compliance with health regulations and standards, and (d) management support systems.</li> <li>• Promote <b>universal coverage</b> and establish <b>social safety nets</b> through fair financing arrangements including public subsidies for the poor and the vulnerable</li> <li>• Develop and institutionalize strategies on <b>performance-based financing schemes</b> which meet the national policy objectives</li> <li>• Improve <b>efficiency in resource allocation across levels of healthcare</b> (primary, secondary and tertiary) with stronger emphasis on primary care</li> <li>• Promote and institutionalize the <b>production of national and local health accounts</b> and its reporting as a regular policy activity through inter-sectoral and interagency collaboration</li> <li>• Strengthen the <b>national capacity for monitoring and evaluation</b> of health expenditures in order to transform results into effective health policies</li> </ul>			

## *Social Health Insurance*

Social health insurance (SHI) is one form of financing health care. It is considered as 'prospective' financing where funds are pooled or collected in advance, mainly in the form of regular contributions from insurance fund members, employers and the government (Whitaker 2004). It addresses inequities in health financing where the 'healthy pays for the sick' and 'those who can afford medical care subsidizes those who cannot'.

The country's SHI is embodied under the NHIP being implemented by the PhilHealth. PhilHealth is mandated to provide health insurance coverage and ensure affordable, acceptable, available and accessible health care services for all. PhilHealth's implementation of the NHIP is guided by the following principles:

**Allocation of national resources for health** - underscores the importance for government to give priority to health for faster economic development and the attainment of improved quality of life;

**Universality** - provides financial access to health services and aims to cover the entire population and provide a basic minimum benefit package;

**Social solidarity** - entails risk sharing among income groups, age groups, health status differences and geographic distribution;

**Equity** - provides uniform basic benefits and where access to care is considered a function of a person's health needs rather than the ability to pay; and

**Responsiveness and quality of care** - adequately meets the personal health care needs of a person at various stages of a member's life and institutionalize quality assurance programs at all levels of health service delivery.

The current structure of the country's SHI has been a product of initial endeavors from the 1960's to the innovations in health financing in the 1990's. The early 1960's laid the foundation for the country's social insurance through the National Health Service for the Philippines. The 1970's marked the establishment and implementation of Medicare from 1971 to 1995. Significant milestones in the mid 1990s was the enactment of the National Health Insurance Act of 1995 and the implementation of the Health Sector Reform Agenda, where the expansion of enrollment and improvement in benefits under

the NHIP was expected to 'not only reduce the health financing burden but also be in a better position to leverage effective and affordable services from both public and private providers' (Solon et al 2002).

From 2001 and onwards marked a series of changes and challenges for the implementation of the NHIP. The Indigent Program formerly referred to as Medicare para sa Masa was given a new name, Greater Medicare Access (GMA), and became a national priority program of the government. PhilHealth also called on the corporate

**Table 3.3 The Historical Development of SHI in the Philippines**

Milestone	Major Features/Accomplishments
Laying the Foundation	<p>The National Health Service for the Philippines was envisioned as a health care system that acknowledges social solidarity whereby the poor and rich have equal access to health care.</p> <p>The Medical Aid to Rural Indigents Areas Project (MARIA) was launched by the Philippine Medical Association (PMA) and was to be the valuable precursor of the Medicare Program as it encouraged risk-pooling in communities.</p>
Establishing Medicare	<p>Republic Act 6111 also known as the Philippine Medical Care Act of 1969 was enacted and commenced implementation in August 1971.</p> <p>The Medicare Program was designed in two (2) phases, namely:</p> <p>Phase I, where focus was on formally employed and salaried population, Medical Care Councils were set-up as information arm and fact-finders for stakeholders, and a 3-type classification of hospitals and a committee that handles abuses were established; and</p> <p>Phase II, where Medicare was pilot-tested in Bauan, Batangas and Unisan, Quezon, partnerships with the Batasang Pambansa Committee on Health and private entities such as HMOs were extended, and membership was expanded to include retirees and pensioners and overseas contract workers as well as their legal dependents.</p> <p>As a result, more LGUs were attracted to the Program and the first province-wide health insurance program was implemented in Guimaras and Bukidnon. Improvements in the information system and benefit packages were also done.</p> <p>Although Medicare ran for almost a quarter of a century, the need for improvements was recognized as evidenced by the studies that were conducted to improve the claims processing system, refine benefit packages, rationalize payment schemes, and review media campaign. Capacity building activities and computer link-ups with major hospitals were also conducted.</p>
Gearing for Health Sector Reforms	<p>RA 7875 established the Philippine Health Insurance Corporation (PhilHealth) which replaced the Philippine Medical Care Commission (PMCC). Unlike the centralized PMCC, PhilHealth's organizational structure was designed to work on a decentralized and community-based setup. PhilHealth targets the whole population compared to select sectors by the PMCC. Moreover, PhilHealth extended the breadth of its coverage by offering more outpatient care packages and getting into the fold partners other than those accredited by then PMCC. And a feature that makes the NHIP better is inclusion of quality assurance as one of its principles.</p> <p>The earliest years of NHIP can be credited for having laid the groundwork for social health insurance. The adoption of the Indigent Program was pushed and Abra became the first province and Dagupan the first city to implement said program in 1997. Soon after, PhilHealth assumed the administration of the health insurance component of the two security systems for the government- and private-employed. With the transfer was the turnover of funds and claims processing and collection functions.</p> <p>The Indigent Program became known as Medicare para sa Masa. Major thrusts during this period were the operationalization of the regional health insurance offices now called PhilHealth Regional Offices (PRO) and the consequent decentralization of core processes. The harmonization of benefits saw fruition and health care professionals' reimbursements were facilitated by the auto-credit system.</p> <p>Several improvements in benefits were realized during this period. PhilHealth launched the Outpatient Diagnostic and Consultation Package, a benefit exclusively given to members of the Medicare para sa Masa and introducing the capitation as the provider payment mechanism. The PhilHealth Capitation Fund became a cost-recovery mechanism for the LGUs as the funds could be tapped for improvement of their facilities and procurement of medical supplies and medicines. It also increased the health care facilities catering to the members through the accreditation of rural health units and health centers. It was also during this time that the Health Sector Reform Agenda (HSRA) recognized health care financing, particularly social health insurance, to be the major driver of health reforms. The strategies focused on making the benefits more attractive and increasing the membership to leverage for better program controls.</p> <p>A health insurance component of the HSRA was the Health Passport Initiative (HPI) which seeks to achieve universal coverage among the formal, informal and indigent sectors in specific localities and create an irreversible momentum for the HSRA. It is a collaborative project of DOH, PhilHealth and the LGUs.</p>

Source: PhilHealth, 2004



social responsibility of private firms in the enrollment of indigent families or the informal sector. PhilHealth even extended its arms to organized groups to form the PhilHealth Organized Groups Interface (POGI) now called Kalusugan Sigurado at Abot Kaya sa PhilHealth Insurance (KASAPI). While POGI gave valuable insights and lessons on how to deal with Organized Groups (OGs), the model was not able to fully provide answers to some of the issues of the Individually Paying Program (IPP). With the learnings from POGI, PhilHealth developed a new model and called it KASAPI. The previous model was limited to small OGs, while the second model deliberately focused on bigger OGs.

The Health Passport Initiative became PhilHealth Plus as PhilHealth took the lead in accelerating enrollment in the NHIP to support the mandate of achieving universal coverage by 2010. In early 2004, Plan 5/25 Program was also launched which brought in more than six million poor families or 30 million beneficiaries into the program. As of 2004, PhilHealth's membership has reached 81 percent of the population.

Improvements in the benefit package were also undertaken which included expansion of outpatient benefits, such as SARS, TB and improved maternity and dialysis packages. PhilHealth responded to the SARS problem with a SARS package for the health care providers and members. The TB-DOTS treatment package finally took off and PhilHealth started accrediting TB-DOTS clinics. In addition to the first and second normal spontaneous delivery (NSD), maternity care package now includes up to the fourth NSD. Dialysis could already be availed of by members in accredited free-standing dialysis clinics. According to the support value survey conducted by PhilHealth in 2004, the overall support value of benefits is about 62 percent, although for ward accommodation it has reached 74 percent. Aside from these, PhilHealth Plus endeavors to improve the administrative infrastructure through the establishment of service offices and the identification of funding sources for the coverage of indigent families.

On quality assurance, the 'benchbook' was developed and launched to serve as guide for health care providers in ensuring quality of care. It is meant to be the roadmap and standards to follow for a health care provider to be accredited.

Despite these developments, the program faces the following challenges in ensuring that its members have the highest financial risk protection and the highest standards of quality in health care that the program will allow:

**Sustainability of the Sponsored Program.** A major consideration is sustaining the sponsored or indigent program. Maintaining the current enrollment of 6.3 million indigent families would require fund infusion of about 8 billion pesos in 2005 alone, which is a huge resource requirement in an era of budget deficit and cuts. With the devolution, PhilHealth needs to position the Sponsored Program within the LGU health plan considering that not all local chief executives (LCEs) see health as a priority. LCEs should be made to appreciate social health insurance and the benefits they will derive from the investment they put on the program.

**Low utilization of health benefits by the indigent sector.** Utilization by sponsored members has been traditionally lower than other member-types. As of the end of 2003, utilization rate for this sector is about two percent or less than half of that for the other members. They cannot be assumed to be healthier but the relatively low support value necessitates out-of-pocket counterpart from the members. There are also inadequate or lack of health facilities in many areas and even if they do exist, there are not enough appropriate drugs and medicines available. Also contributing to low utilization is the fact that many cardholders are not fully aware of their rights and responsibilities as PhilHealth members and as to how they can access benefits from the program.

**Low collection efficiency and adverse selection among the IPP.** The Individually Paying Program (IPP) is beginning to show signs of low collection efficiency and adverse selection. Only about one third of registered members are actively paying. Further, a review of the utilization patterns of this sector confirm that they are skewed towards catastrophic care in tertiary private hospitals. As such, it is not surprising that the top causes of claims are elective procedures such as maternal deliveries, dialysis and cancer treatment. The IPP is also suffering from one major design flaw: there is only one contribution schedule. This means that a lawyer with a very lucrative profession or an actor earning millions for product endorsement is paying the same amount of contribution as a street vendor.

**Unintegrated information system.** Efficiency in operations is the ultimate objective and will be realized with the integration of the different database systems of PhilHealth, which has yet to materialize. Faster and more efficient eligibility checking to aid claims processing would require the different databases to be linked to each other. Implementation of quality assurance tools has yet to take off as it significantly slows

down processing time. Thus, there is a need to strike a balance between efficiency objectives and compliance with quality standards.

**Abuse and fraud.** The level of abuse and fraud has not been established but there is reason to believe that it exists when utilization rates are reviewed across regions. During the Medicare era, fraud level was estimated at about 31-33 percent. Recent estimates reveal that levels have gone down to about 3-4 percent but the cost equivalent would still be considerable.

**Inability to identify and select 'true' indigents.** As political officials sponsor the indigents to the program, it cannot be avoided that they would enlist their constituents who are not necessarily poor. There is thus a need to have a more “balanced” and “neutral” screening process where political accommodation is minimized. It is imperative for PhilHealth to develop a tool that would allow identification of the true poor.

<b>Goal: A sustainable, affordable and progressive social health insurance that endeavors to influence the delivery of accessible health care for all Filipinos is ensured.</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Coverage of the NHIP is increased	Percentage coverage of the total population	85 percent of total population	81 percent of total population covered <i>PhilHealth, 2004</i>
	Percentage coverage of indigents out of total eligible indigent sector population*	100 percent of indigents covered	100 percent of indigents covered <i>PhilHealth, 2004</i>
	Percentage coverage of informal sector out of total eligible informal sector population	80 percent of informal sector covered	35 percent of informal sector covered <i>PhilHealth, 2004</i>
Benefit spending and financial risk protection are increased	Average percentage of benefit support value	80 percent support value of ward rates	74 percent support value of ward rates <i>PhilHealth, 2004</i>

Notes: \* Enrolment of indigents to the Sponsored Program is on an annual basis. Percent coverage is based on official NSCB poverty estimates. \*\* NHIP Targets are for the year 2012.

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Percentage of claims with zero co-payment	30 percent of claims with zero co-payment  Zero co-payment for all Sponsored member claims	20 percent of claims with zero co-payment for all member types  30 percent of claims from Sponsored Member with zero co-payment  <i>PhilHealth, 2004</i>
	Progressivity of premium contribution	30,000 pesos salary cap by 2007 for the employed sector  Different premium rates for the Individually Paying Program	15,000 pesos salary cap for the employed sector  1,200 pesos for all Individually Paying Program members  <i>PhilHealth, 2004</i>
	Percentage of health facilities with Sentrong Sigla (SS) and/or PhilHealth accreditation	80 percent of Rural Health Units and health centers with SS/PhilHealth accreditation  100 percent of licensed hospitals with PhilHealth accreditation	55 percent of RHUs and health centers with SS/PhilHealth accreditation  89 percent of licensed hospitals with PhilHealth accreditation  <i>PhilHealth, 2004</i>
	Percentage of accredited health facilities offering out-patient benefit package	80 percent of Rural Health Units	31 percent of Rural Health Units
Benefit spending and financial risk protection are increased	Percentage of accredited health facilities offering out-patient benefit package	90 percent of Free-Standing Dialysis Clinics  90 percent of Maternity Care Clinics  50 percent of DOTs Centers  50 percent of private clinics covered	66 percent of Free-Standing Dialysis Clinics  71 Maternity Care Clinics  18 percent of DOTs Centers  To be determined  <i>PhilHealth, 2004</i>
Operational efficiency by enhancing internal processes and information systems is increased	Percentage of claims that are fraudulent	Less than 3 percent of claims are fraudulent	4 percent of claims are fraudulent
	Increase collection efficiency	95 percent of potential collection  Premium contribution posted in 7 calendar days	70 percent efficiency based on potential collection  94 percent efficiency based on collection target for year  <i>PhilHealth, 2004</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Eligibility checking	Processing time for approval of accreditation for health care institutions reduced to 15 days	Processing time for approval of accreditation for health care institutions at 90 days <i>PhilHealth, 2004</i>
	Customer satisfaction	80 percent satisfaction	68 percent satisfaction <i>PhilHealth, 2004</i>

Strategic Thrusts for 2005-2010			
<ul style="list-style-type: none"> <li>• <b>Expand membership</b> to achieve universal coverage</li> <li>• <b>Ensure responsive benefits</b> for its members at affordable premiums</li> <li>• Establish close coordination with its clients through a <b>strong partnership with all stakeholders</b></li> <li>• Provide <b>effective internal information and management systems</b> to influence the delivery of quality health care services</li> <li>• <b>Improve marketing mechanisms</b> to increase awareness of each member on the benefits that they can avail of</li> </ul>			

# Effective Health Regulation

Health regulation generally refers to the use of the coercive power of government to impose constraints on or to change behavior of individuals and organizations in the health sector. Under this definition, regulation includes the full range of legal instruments like laws, decrees, orders, rules, standards and guidelines whether issued by the government or by non-governmental organizations to which the government has delegated regulatory power. In a strict sense, the definition does not include incentives (like subsidies, grants, vouchers, tax incentives) to influence behavior of buyers and sellers. However, regulation is often more effective when appropriate incentives and efforts to influence individual behavior complement regulatory initiatives (Roberts et al 2004). Health regulation applies not only to those who produce or provide health goods and services but also to those who finance, utilize or consume them. It may cover a broad range of health goods like pharmaceuticals, medical devices and health technologies, and a wide array of health services like education of health professionals, provision of health insurance, and delivery of health care among others.

The purpose of health regulation is generally to correct imperfections in the health care markets, also called market failures. One example of such market failure is called asymmetry of information. Consumers, due to lack of information, may be unable to determine the quality of health goods and services they buy. The government may respond to such situations by imposing standards of quality to sellers of such goods and services or by providing information to buyers or requiring sellers to provide such information. Another example involves what is called external effect or externality. A customer's behavior, like cigarette smoking, may affect other people negatively, or a factory's emissions may harm people in the neighborhood. The government may respond by banning such practices or imposing limits to such behaviors. A third example of market failure involves the existence of a monopoly, where a single seller can control the entire market for a certain health product and thereby dictate its price. As a result, government may intervene by opening up the market for more competition or by regulating the price.

Another purpose of health regulation arises when health care markets cannot be relied upon to deal with inequity or unequal distribution of varying health needs. For example, the poor may not be able to get needed drugs and medicines precisely because they



cannot afford to pay. By the same token, doctors may not want to practice in depressed rural areas because of limited economic opportunities, or health insurance companies may not want to cover the chronically ill because the company will have to pay more expensive health services. Such situations may oblige the government to use regulation to promote better accessibility and affordability or to provide equity in the distribution of health goods and services.

Effective regulation, however, is a complex and challenging process that requires a demanding combination of technical expertise, administrative and legal capacity, and political support. Appropriate regulatory strategies and processes need to be developed and decisions made about what and how to regulate (Roberts et al 2004). Also, appropriate policy tools and instruments have to be chosen depending on the level of government intervention necessary to put regulation into effect. These tools can range from the least coercive such as self-regulation, which is almost totally devoid of government involvement, to the most coercive such as direct government provision of health goods and services, which permit no room to private discretion (Howlett and Ramesh 1995).

While it may seem easy to establish regulations, the technical and organizational challenges to ensure enforcement can be daunting. To promote compliance, the substance and essence of a health regulation have to be cautiously crafted, the implementation systems or processes have to be practical and simple, and sanctions or incentives have to be clearly defined. Regulatory outcomes thus depend critically on the enforcement process. Without this, health regulation is unlikely to be effective.

As a consequence of the imperfections in the health care markets and the challenges posed by applicable regulatory measures to correct such imperfections, health regulation has become a strategic area in health sector reforms and a vital approach to enhance health systems performance.

In the Philippines, the major objective of health regulation reforms is to assure access to quality and affordable health goods and services, especially those commonly used by the poor. On the supply side, the strategic approach is the harmonization of systems and processes for licensing, accreditation or certification of health products, devices, facilities and services to make health regulation rational, simple and client-responsive. On the demand side, the strategic approach is the development and implementation of a

“seal of approval” system, with quality seals printed on health products or posted in health facilities as signals to influence consumer behavior. Another strategic approach is the development of mechanisms to ensure availability of low-priced and high-quality essential medicines, specifically in unserved or underserved areas. These strategic approaches in health regulation are directed towards enhancement of health system responsiveness, particularly in regard to the needs of the poor and other marginalized sectors in the country.

## *Regulation of Health Products, Facilities and Services*

As the national health agency of the government, one of the major functions of the DOH is health regulation. In 1987, the regulatory functions of the DOH under EO 119 were lodged with the following agencies: Bureau of Food and Drugs, Bureau of Licensing and Regulation, Bureau of Research and Laboratories, Radiation Health Service, and National Quarantine Office. Despite these mandates, the DOH remains inadequate in regulating the quality of health service in the country. It was not successful in influencing accessibility, quality, and cost of health care. Major contributory factors to this situation are the immense gaps in health regulation caused by the lack of specific legal mandates, inadequate expertise and number of health regulation officers, lack of expertise and infrastructure in specialized services and laboratory facilities in specific areas, and weak health regulatory systems and processes.

Given these concerns, the HSRA pushed for the strengthening of mandates in health regulation and the enhancement of capabilities for standards development, regulation, and enforcement. In 2000, by virtue of EO 102, 'Redirecting the Functions and Operations of the Department of Health', the DOH formulated the department's Rationalization and Streamlining Plan (RSP) which outlines the new roles of the DOH in line with its strategic reforms under the HSRA.

The regulatory agencies are now composed of the Bureau of Food and Drugs (BFAD), the Bureau of Health Facilities and Services (BHFS), the Bureau of Health Devices and Technology (BHDT) and the Bureau of Quarantine (BOQ). BFAD is responsible for the regulation of food, drugs, cosmetics, household hazardous substances as well as medical devices based on RA 3720; BHFS is responsible for the regulation of health facilities and services (hospitals, clinics, laboratories and other health service establishments); and BHDT is responsible for the regulation of radiation-emitting devices and medical devices. The BHDT shall be responsible for medical device regulation as soon as the appropriate law is passed transferring this mandate to BHDT. BOQ is mainly responsible for international health surveillance and security against the introduction and spread of infectious diseases including other emerging diseases and public health emergencies of international concern.

Aside from the rationalization of the mandates of the health regulation agencies, guidelines and standards were also developed. BFAD formulated and is now

**Table 3.4 Changes in the Structure of Health Regulation**

DOH Restructuring in 1987 (per EO 119)		DOH Restructuring in 1999 (per EO 102)	
Regulatory Agency	Functions/Area of Regulation	Functions/Area of Regulation	Regulatory Agency
Bureau of Food and Drugs (BFAD)	<p>Functions:</p> <p>Policy formulation; Setting of standards; Issuance of license; Monitoring of compliance to standards</p> <p>Area of Regulation:</p> <p>Processed food, drugs, medical devices, cosmetics and household products containing hazardous substances</p>	<p>Functions:</p> <p>The same functions and area of regulation during the restructuring in 1987</p>	Bureau of Food and Drugs (BFAD)
Bureau of Licensing and Regulation (BLR)	<p>Functions:</p> <p>Formulation of policies and setting of standards for the licensing and regulation of hospitals, clinics and other health facilities, including the enforcement of laws concerning the operation of these facilities</p> <p>Area of Regulation:</p> <p>Hospitals, clinics and other health facilities</p>	<p>Functions:</p> <p>Development and dissemination of regulatory policies and standards; Issuance of permits to construct, license to operate, clearance to operate HMOs and certificate of accreditation; Ensures sustainability of health facilities' compliance with regulatory standards; Provides consultation and advisory services to stakeholders; Development and conduct of research</p> <p>Area of Regulation:</p> <p>Hospitals, clinics, laboratories, blood banks and other health facilities and services</p>	Bureau of Health Facilities and Services (BHFS)
Bureau of Research and Laboratories (BRL)	<p>Functions:</p> <p>Setting of standards and formulation of plans and policies for accreditation and licensing</p> <p>Area of Regulation:</p> <p>Laboratories, blood banks and entities handling biological products</p>		
Radiation Health Service (RHS)	<p>Functions:</p> <p>Formulation and implementation of standards for radiation facilities and devices, whether used in medicine, industry, education, research, anti-crime, military and consumer applications</p>	<p>Functions:</p> <p>Formulation, regulation and enforcement of policies, standards, rules, regulations, and guidelines on radiation device, and health-related device and technology</p> <p>Area of Regulation:</p> <p>Radiation devices and facilities and health-related devices and technology</p>	Bureau of Health Devices and Technology (BHDT)
National Quarantine Office (NQO)	<p>Functions:</p> <p>Formulation and implementation of the rules and regulations to prevent the entry and spread of quarantinable diseases into the country subject to international health regulations; Supervision over the sanitation of all ports and airports of entry including their environs and the vessels and aircraft using these entry points</p>	<p>Functions:</p> <p>Examination at ports-of-entry and exit in the Philippines of incoming and outgoing vessels and aircraft; Surveillance over their sanitary conditions, as well as over their cargoes, passengers, crew, and all personal effects; Issuance of quarantine certificates, bills of health, or other equivalent documents</p>	Bureau of Quarantine (BOQ)

implementing the Current Good Manufacturing Process (CGMP) for manufacturers of drugs and medicines. In 2003, a total of 29 drug establishments were awarded the Recognition for Commitment Award/Citation for continuously exerting efforts in upgrading their respective facilities and systems. BHFS has reviewed and revised the regulatory policies, standards, systems and procedures for the regulation of the following health facilities: clinical, dental and drug testing laboratories; hospitals; blood stations and blood collection units; dialysis clinics; medical facilities for overseas workers and seafarers; ambulatory surgical clinics; birthing homes, psychiatric care facilities, kidney transplant facilities, and drug treatment and rehabilitation centers.

BHDT revised the guidelines for radiation protection in accordance with the International Basic Safety. It initiated the adoption of International Standards for medical devices as Philippine National Standards (PNS). In 2004, ten international standards were approved as PNS, such as: General Requirements of Safety of Medical Electrical Equipment; High Frequency Equipment; Lung Ventilator; Infant Incubators; Transport Incubator, Infant Photo Therapy; Infant Radiant Warmer; ECG Machine; Anaesthetic Workstation; and Cardiac Defibrillator.

Crucial in achieving the overall goal of the regulatory bureaus is the forging of critical collaboration with partner agencies. BFAD, for instance, had drawn up Memorandum of Agreements with the Dangerous Drugs Board regarding the registration of pharmaceuticals classified as dangerous drugs and with the Bureau of Animal Industry regarding the regulation of veterinary medicines. BHDT signed a MOA with the Philippine Nuclear Research Institute (PNRI) to jointly undertake activities to implement the recommendations given by the International Atomic Energy Agency (IAEA) to harmonize and modernize the radiation protection regulation of the country pertaining to radioactive pharmaceuticals. The BHDT also forged a MOA with the National Telecommunications Commission (NTC) relative to the regulation of radiation facilities in the area of telecommunications. BHFS standards development has been facilitated with the help of professional organizations and government agencies such as DOLE, PNP, LTO, PhilHealth and other stakeholders like LGUs and facility owners.

Computerization has also contributed to the improvement of regulatory functions. The DOH Licensing Information System has made available information that helps in the monitoring of compliance. This information includes, among others, the licensing of hospitals, x-ray facilities, and hospital pharmacies. The Drug Testing Operation Management Information System (DTOMIS) is being utilized by BHFS while BFAD is implementing the BFAD Integrated Information System (IIS).

These accomplishments are part of the continuing efforts to institute reform in health regulation. However, the country still has a long way to go in terms of addressing the deficiencies in the specific regulatory mandates for health; the limitations posed by scarce resources and technical support; the issues created with the delay in decentralizing regulatory functions; and the need for critical collaboration among partner agencies that would facilitate regulatory bureaus to discharge their functions.

One of the common issues among the health regulatory agencies is the lack of quasi-judicial powers that would ensure strong and timely enforcement of the law. Regulatory functions have been limited to standards development, inspection, licensing and accreditation, assessment, monitoring and imposition of fees. The current set of mandated functions is deemed as unresponsive and needs to be enhanced so they would be able to manage the rapidly expanding areas of health regulation.

The limited resources in terms of logistics, manpower and funding have also posed constraints in improving the performance of health regulatory agencies. There are no funds for technical and operations research, which is necessary to provide the basis for standards development. There are not enough training facilities, testing laboratories and experts to handle the qualification requirements for regulation of manpower, certification/conformity testing and monitoring of regulated products. The delay in the reorganization of DOH regional offices restricted the expansion of the regulation and enforcement functions of the regulatory bureaus. It is important to set a policy that will decentralize some of the regulatory functions to the regional level and ensure that there is appropriate manpower to execute such functions.

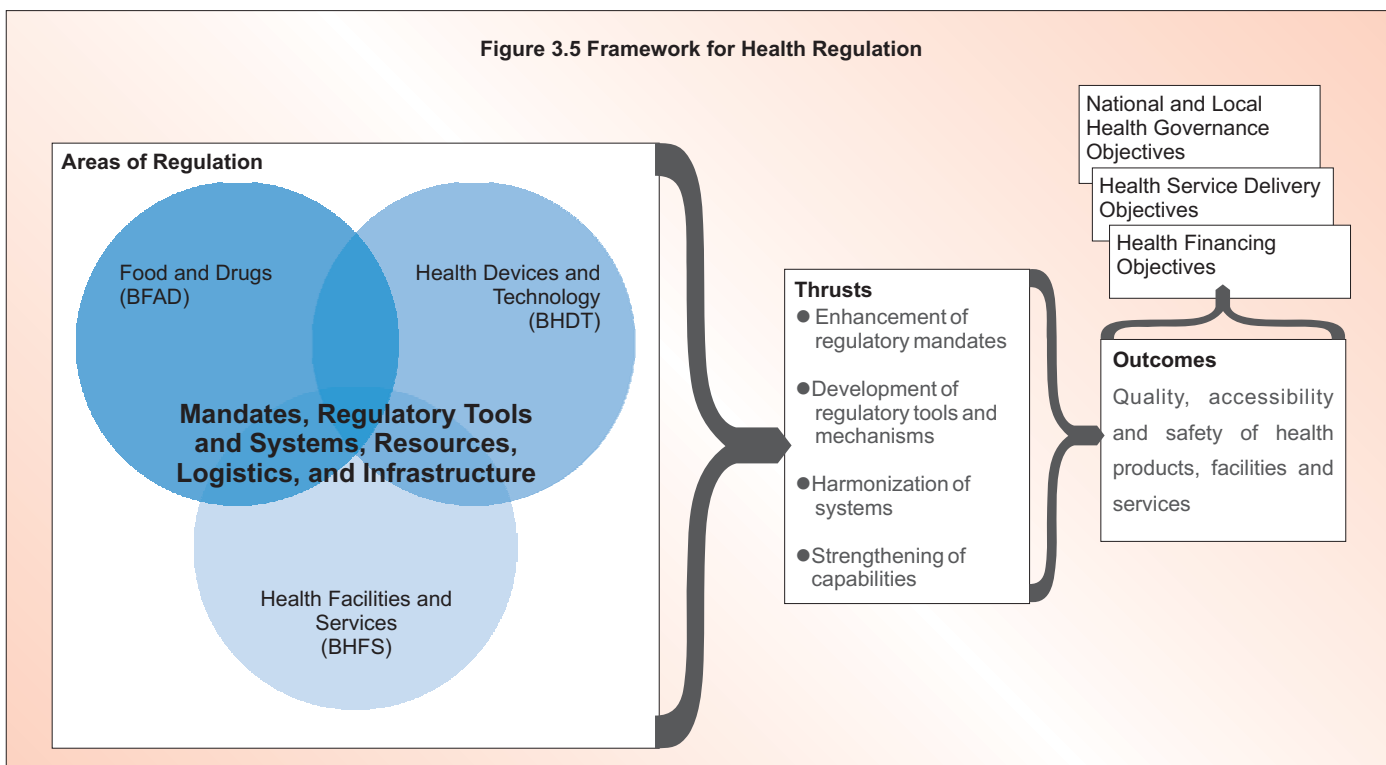
Other options to ensure enforcement of policies are deputizing local governments, creating quality assurance system at the local level, and contracting services to the private sectors. The new paradigm should be that health regulation should not be the sole responsibility of national agencies. LGUs have an important stake in protecting the health of their constituents. Short of analytical testing, there are many ways that LGUs can ensure quality, such as supplier prequalification, physical inspection, supplier performance monitoring, good storage practices, and rational drug use. This also recognizes the fact that drug quality is more than analytical testing. In this way, BFAD will be able to concentrate on more important issues such as GMP and analytical testing. However, it must be emphasized that LGUs must also be provided the needed resources to perform deputized functions.

To address concerns on the lack of funding and other technical and logistical support, it is deemed essential for regulatory agencies to be granted fiscal autonomy. This would prevent the operations of each bureau from bogging down because of financial concerns. While it is a fact that the implementation of regulatory functions is done effectively in coordination with other national and local government agencies, regulatory bureaus still

have to work out critical collaboration with many other agencies. Likewise, putting safety nets to protect the public from the impact of globalization, and international mutual recognition agreements among different regulatory bodies and the Philippines have yet to be explored. Global issues regarding health products and services, including those surrounding technical barriers to trade and dumping of substandard products from abroad, have raised serious concerns among regulators, providers and consumers resulting in a greater clamor for an improved health regulatory system in the country. The government has recognized the need to consider the harmonization of many regulatory areas (e.g. drugs, cosmetics, devices) with other ASEAN countries. One of the facets of harmonization is to allow each country to acknowledge the registration, licensing or accreditation of food, drugs, medical products and equipments issued by recognized international or local regulatory entities, thus, contributing to a more optimal use of local resources. Moreover, harmonization of systems is expected to prevent dumping and balance trade restrictions on food, health products, and devices, among others.

Given the state of health regulation, focusing resources on enhancing the core of the health regulatory bureaus (i.e. their mandates, regulatory tools, systems and resources) is expected to improve the overall state of health regulation and contribute to the objectives of the other reform areas in the health sector.

Figure 3.5 Framework for Health Regulation





**Goal: Quality, accessibility and safety of health products, facilities and services are ensured.**

**National Objectives for 2005 - 2010**

Objective	Indicator	Target	Baseline Data and Source
Access to safe and quality health products, devices, facilities and services is improved	Percentage of licensed/ accredited health facilities	100 percent of public and private health facilities licensed/accredited	To be determined
	Percentage of health facilities with Sentrong Sigla (SS) and/or PhilHealth accreditation	80 percent of Rural Health Units and health centers with SS/PhilHealth accreditation (2012 target)  100 percent of licensed hospitals with PhilHealth accreditation	55 percent of Rural Health Units and health centers with SS/PhilHealth accreditation  89 percent of licensed hospitals with PhilHealth accreditation <i>PhilHealth, 2004</i>
	Percentage of medical and health devices with "seal of approval"	75 percent of medical and health devices with seal of approval	0 percent of medical and health devices with seal of approval <i>BFAD, 2004</i>
Mandates, organizational structure and management system for health regulation are strengthened	Expanded legislative mandates for health regulatory agencies	Quasi-judicial powers and enforcement mechanisms instituted	Legislative proposals filed in Congress
	Institutionalized regulatory tools and systems	"One-stop shop" licensing and accreditation procedures instituted;  Regulatory systems and processes decentralized, outsourced, or deregulated as appropriate	Framework being developed  Not yet in place  <i>DOH, 2004</i>
	Sustained financing for regulatory agencies	Fiscal autonomy/ income retention instituted	No fiscal autonomy/ no income retention  <i>DOH, 2004</i>

**Strategic Thrusts for 2005-2010**

- **Broaden the mandates of health regulatory agencies** by strengthening their quasi-judicial powers and enforcement authority and capacity
- **Develop innovative regulatory tools and systems** such as "one-stop shop" concept for licensing and accreditation, automation of regulatory procedures, outsourcing or contracting out of regulatory services, deputizing local government units, decentralizing specific regulatory functions, and deregulating certain areas of health regulatory concerns
- **Develop systems for "seals of approval"** to assure consumers of the quality of health products and services based on harmonization of regulatory standards and systems with other ASEAN countries
- **Enhance human resource capabilities** for technical (i.e. standards development, licensing, regulation and enforcement) as well as for managerial competence (i.e. leadership and staff management)
- **Ensure sustainable financing for regulatory agencies** through fiscal autonomy (i.e., cost recovery, standardization of fee schedule, income retention, among others)

## Regulation of Essential Medicines

Globally, pharmaceuticals represent the second largest expenditures of governments and the largest out-of-pocket household expenditure for health (WHO 2004). In developed countries, it constitutes 13 percent of total health expenditures, with two-thirds of drugs being publicly financed. The picture in developing countries is much more precarious where pharmaceutical expenditures consist of 30-50 percent of total health expenditures, with two-thirds of these drugs privately financed or paid mainly out-of-pocket, highlighting its implications in terms of equitable access to quality, affordable drugs. This has resulted in a highly inequitable situation where a third of the world's population lacks access to essential drugs (WHO 2004)

In the Philippines, expenditures for drugs and medicines constitute 46.4 percent of household expenditures for medical care (FIES 2000). At the national level, the Department of Health spends roughly around 1.5 to 2 billion pesos annually on drugs and medicines out of its 9.5 billion peso annual budget while local governments allot a significant, albeit variable, amount for these commodities.

What is more alarming in the Philippine situation is the fact that local drug prices are in the range of two times to as much as 30 times higher than in Canada or other neighboring Asian countries (Lim 1997).

To address these inequities, the national government has taken steps, over time, to correct the imbalances in the Philippine pharmaceutical market.

**Table 3.5 Retail Prices (US\$) of 100 units (tablets or capsules) of 12 Commonly Used Drugs  
Selected Asian Countries and Canada, July-September 1995**

Drug Name	Strength (in mg)	Canada	India	Indonesia	Nepal	Pakistan	Philippines
Amoxycilin	250	8	9	10	8	5	22
Amoxil	250	14	10	40	9	8	29
Tagamet	200	25		56		14	95
Cotrimoxazole	48	6	5	7	3	3	20
Septin	480	6		25	3	5	53
Odofenac	50	30	2	48	2	7	25
Voltaren	50	46	2	52		18	37
Erythromycin	250	6	12	10	10	5	20
Erythrocin	250	9	11	37	11	7	35
Adalat	5	28	2	18		2	40
Inderal	40	15	8	74		28	25
Zantac	150	81	3	150	3	39	95

Source: Health Action International NEWS, December 1995, as cited in Prof. Joseph Lim's 1997 paper entitled "Issues Concerning High Drug Prices in the Philippines" (WHO Project PHL/DAP/010/VD96.999.00)

The late 1980s under the Aquino administration saw the establishment of the Philippine National Drug Program (PNDP) as embodied in Memorandum Order No. 133, supported by Executive Order No. 175 (Amending the Food, Drugs and Cosmetic Law) and Executive Order No. 174 (Amending Republic Act No. 5921 or the Pharmacy Law).

According to Memorandum Order No. 133, the principal elements of the Philippine National Drug Program are: competent, fair, honest, effective regulation through a strengthened Bureau of Food and Drugs; stronger government role in procurement, production and distribution of drugs and pharmaceuticals; wider dissemination of adequate and accurate information on drugs and medicines to both physicians and the public; and coordination of investment and trade policies to achieve self-sufficiency in good quality and affordable pharmaceuticals.

It was during this time when Republic Act 6675, more commonly known as the Generics Act of 1988, was enacted to promote, require and ensure the production of an adequate supply, distribution, use and acceptance of drugs and medicines identified by their generic name. The Act was envisioned to promote not only the local manufacture of essential drugs but also the local manufacture of drugs in their generic names, be it essential or non-essential.

However, the following reasons that caused the high drug prices in the Philippines have also helped undermine the impact of the Generics Act on lowering drug prices (Lim 1997):

1. Brand loyalty of consumers (and physicians) resulting in a sort of a “monopolistic competition” that allows drug firms to set prices above the pure competitive level, partly due to the “asymmetry of information” where the consumers know very little about the nature of the product and the variety of choices and options, while the drug manufacturers and intermediaries particularly the physicians and pharmacists know much more;
2. Prescribing patterns of physicians who tend to indicate their preferred brands while patients simply follow the brand name prescribed without trying to find out the range of differently-priced options available in the market;
3. Intensive marketing strategies on the part of pharmaceutical companies resulting in high expenditures on promotions and advertising, targeted mainly towards physicians and pharmacists;

4. Concentration of drug distribution to a few firms limit the consumer's power of choice, thus further aggravating the monopolistic situation;
5. High tariffs on pharmaceutical products and protection of the pharmaceutical industry from competition coming from imports;
6. Increasing costs of labor, electricity and other infrastructure.

Due to intensive lobbying and massive marketing campaigns on the part of the multinationals, the Generics Act failed to remove the cloud of doubt over the perceived inferior quality of local generics, thus consumers continued to patronize branded over generic products, despite the huge price differential. This huge demand for expensive branded medicines coupled with weak regulations has likewise resulted in the proliferation of counterfeit medicines, which include not only fake or substandard drugs but also genuine pharmaceutical products that are being smuggled into the country by unscrupulous businessmen and traders.

These observations, among others, prompted several reforms in the pharmaceutical sector during the Estrada administration which included the highly contested parallel importation of branded essential medicines which costs on the average 50 percent (range of 30 - 70 percent) lower than local counterparts sold and marketed by the same multinational companies. These drugs, which included ten classes of essential drugs (antibacterials, antihypertensives, antidiabetes, anti-asthma, antipsychotics, anti-epileptics, anti-diarrheals, analgesics, anti-angina and anti-cholesterol) were imported from India through the Philippine International Trading Corporation (PITC), previously an attached agency of the Department of Trade and Industry (DTI) but now under the Office of the President, and were made available in the country's national hospitals and selected local government hospitals.

This initiative was given a further boost when the Arroyo administration adopted the lowering of essential branded drug prices by 50 percent as one of its flagship programs. Aside from parallel importation, there were other strategies that were employed, such as widening and strengthening the Botika ng Barangay (BnB) networks and making home remedies available in National Food Authority rolling stores.

Other national agencies like the Philippine Charity Sweepstakes Office (PCSO) contributed funds from their coffers in support of these initiatives. The whole package of

strategies evolved to become what is now known as the Gamot na Mabisa at Abot-kaya Program (GMA 50). As a private sector response, Unilab, a Filipino pharmaceutical firm, launched a line of essential generic medicines (RiteMed) that is priced, on the average, 50 percent lower than prevailing market prices.

**Table 3.6 GMA 50 Total Program Cost (in pesos)  
Philippines, 2004**

Government Financial Counterpart	77,000,000.00
Revolving Trust Fund	30,000,000.00
Other Sources (PCSO)	45,000,000.00
<b>Total Program Cost</b>	<b>152,000,000.00</b>

Source: Project Management Unit, DOH

**Table 3.7 Distribution of Botika ng Barangays  
Philippines, April 2005**

		No. of Botika ng Barangay
<b>Luzon</b>		<b>2,054</b>
CHD I	Ilocos	258
CHD II	Cagayan Valley	215
CHD III	Central Luzon	874
CHD IV-A	CALABARZON	78
CHD IV-B	MIMAROPA	298
CHD V	Bicol	173
NCR	National Capital Region	28
CAR	Cordillera Autonomous Region	130
<b>Visayas</b>		<b>187</b>
CHD VI	Western Visayas	60
CHD VII	Central Visayas	39
CHD VIII	Eastern Visayas	88
<b>Mindanao</b>		<b>481</b>
CHD IX	Zamboanga Peninsula	121
CHD X	Northern Mindanao	195
CHD XI	Davao Region	30
CHD XII	SOCCKSARGEN	75
CHD XIII	Caraga	60
<b>Total DOH Initiative</b>		<b>2,722</b>
<b>Partners</b>		<b>1,340</b>
Botika Binhi	Nationwide	982
Health Plus	Mostly in the Visayas	358
<b>Grand Total</b>		<b>4,062</b>

The Project Management Unit (PMU 50) was created in the Department of Health to operationalize the GMA 50 Program to lower the prices of essential medicines commonly bought by the poor. In the exigency of service, the head of PMU is designated to act on all matters pertaining to the operations of the National Drug Policy (NDP) Program in addition to their other duties and responsibilities.

The achievements on this front have been quite remarkable despite the meager resources. The parallel drug importation program of the government initially started with 8 DOH hospitals until it was expanded to include all of the 72 DOH hospitals and several LGU hospitals. More recently, the PITC has started to make these drugs available in private retail outlets dubbed as “Botika ng Bayan”, selling inexpensive parallel imported branded drugs to the public (apart from the existing “Botika ng Barangay” or village pharmacies).

While initial funds poured into the parallel importation program was only a meager 107 million pesos, barely making a dent in the 65 to 70 billion peso pharmaceutical industry in the country, it has however sent a strong message to the public and to the industry that quality drugs need not be expensive and that these should be available and accessible to the country's population, particularly the poor.

However, even as the DOH promoted the use of parallel drug imports, it also encouraged the local pharmaceutical industry to improve on quality and price and increased its advocacy for local generic products. A scrutiny of the Philippine pharmaceutical industry would reveal that low cost quality generic medicines comprise only four percent of the market while the rest are

composed of high-priced branded medicines. By focusing on the development of quality low-priced local generics, it is expected that the market share of generics will increase eventually improving the availability of and access to these products. Another strategy employed was strengthening and widening the village pharmacy or BnB network, which has resulted in improving the access of the rural poor to low-cost essential medicines.

While there have been successes in the implementation of the program, there are also lessons learned from the ad hoc operations of the PMU 50, among which are:

- (1) that in order to ensure sustainability of any pharmaceutical-related program, there is a need to institutionalize permanent structures such as a pharmaceutical management and policy unit, and a multisectoral national pharmaceutical council or committee within the organizational structure of the Department of Health, to oversee the complex day-to-day processes in managing and ensuring the implementation of the government's pharmaceutical programs and policies, while clearly defining the lines of accountability and authority;
- (2) that there is a need to delineate the various roles that different stakeholders play, ranging from the supply side to the demand side, in terms of production, distribution, provision, consumption, regulation and financing, and ensure support across the whole spectrum; and

**Table 3.8 Targets of the Low-priced Medicines Program  
Philippines, 2005-2010**

		2005	2006	2007	2008	2009/2010
<b>Number of Outlets</b>						
Public	DOH Hospitals	72	72	72	72	72
	LGU Hospitals	200	300	400	500	530
	Botika ng Barangay	3,000	5,000	7,000	9,000	11,000
Private (PITC)	Botika ng Bayan	900	1,800	2,700	3,000	3,300
<b>Sales Volume (in million pesos)</b>						
Public	DOH Hospitals	1,000	1,250	1,500	1,750	2,000
	LGU Hospitals	400	480	576	691	829
	Botika ng Barangay	250	410	586	754	1,000
Private (PITC)	Botika ng Bayan	450	900	1,350	1,800	2,000
<b>Total</b>		<b>2,100</b>	<b>3,040</b>	<b>4,010</b>	<b>4,420</b>	<b>5,830</b>
Types of Medicine	Therapeutic Class	7/22	10/22	13/22	16/22	22/22

*Source: Project Management Unit, Department of Health*

- (3) that there is still room for more innovative strategies and collaborative approaches to fulfill specific mandates that will benefit the poor while addressing, in the process, the identified policy and implementation gaps.

<b>Goal: Access to low-priced and high-quality essential medicines, specifically those being availed mostly by the poor, is improved</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Availability of and access to low-priced quality essential medicines frequently bought by the poor are enhanced	Increase number of pharmaceutical outlets	72 DOH hospitals; 530 LGU hospitals; 11,000 Botika ng Barangays; 3,300 Botika ng Bayan	72 DOH hospitals; 200 LGU hospitals; 3,000 Botika ng Barangays; 900 Botika ng Bayan <i>DOH-PMU 50, 2005</i>
	Increase volume sales across various outlets	5.83 billion pesos in total sales	2.1 billion pesos in total sales <i>DOH-PMU 50, 2005</i>
	Increase number of therapeutic classes included in the program	22 therapeutic classes	7 therapeutic classes <i>DOH-PMU 50, 2005</i>
A regulatory environment that promotes a level playing field and fair competition among the various players in the pharmaceutical industries is created	Number and types of policy instruments that provide the regulatory guidelines and proper incentives that will promote competition	Development of an automated system and time-bound procedures and decision systems	To be determined
Production and utilization of essential generic drug products are increased	Increase market share of generic products	30 percent share	15 percent share of generic products in the market <i>DOH-PMU 50, 2005</i>
Proliferation of counterfeit (fake, substandard, adulterated and unregistered) drugs in the market is controlled	Decrease incidence and volume of counterfeit medicines	Establishment of partnership with third party organizations (at least one per region) and improvement of detection system along the distribution chain	To be determined
Sufficient and sustainable financing of the national pharmaceutical program are ensured	Percent of essential medicines covered by social health insurance and other schemes	Institutionalization of the formulary system (PNDF) and Drug Price Reference Index (DPRI)	To be determined



### Strategic Thrusts for 2005-2010

- **Institutionalization of a pharmaceutical management and policy unit** within the health department that would provide technical support to the whole health sector
- **Advocacy, management and sharing information on pharmaceutical programs, policies and guidelines** among key stakeholders, particularly among the consumers
- Enhancement of national institutional and international linkages in the **development of price and patent monitoring systems** and in increasing **collaboration for research and development**
- Transfer of knowledge and technology on the **revolving drug system** and **integration of the health statistics database with the systems** for drug inventory, drug price monitoring and drug procurement
- Review of options for legally possible **procurement and distribution methods** while maintaining and improving existing pharmaceutical distribution networks
- **Rationalization of the national quality assurance system** with regard to national monitoring for counterfeits and increase of **incentives for GMP-compliant manufacturers**
- **Incorporation of key indicators for drug selection and procurement into auditing and accounting rules** while continuously assessing and monitoring these indicators through established systems

# Appropriate Health Service Delivery

A health care delivery system generally consists of the organizations and individuals providing health care services and the mix of activities and interactions among them. It commonly provides a wide array of preventive, promotive, curative, and rehabilitative health care. In the Philippines, public health programs, such as maternal and child care, prevention and control of infectious diseases, and promotion of healthy lifestyle, as well as basic ambulatory curative care are usually delivered at the primary care level consisting of rural health units, health centers and private clinics. On the other hand, hospital-based services in both public and private sectors are categorized into several levels: first level referral hospitals are non-departmentalized hospitals providing general clinical and nursing services for patients requiring care on a 24-hour basis; second level referral hospitals are departmentalized hospitals providing specialty clinical care; and third level or end-referral hospitals are hospitals providing the highest level of medical care that includes specialized and sub-specialized treatment, surgical procedures and intensive care (Dorotan and Mogyorosy 2004).

Various health professionals like doctors, nurses, dentists, midwives and health technicians among others deliver health services at the different levels of care. In some countries, including the Philippines, volunteer community health workers and traditional healers are important partners in the delivery of primary health services. How these health care providers do their work and interact at the different levels of the health care system are what determines how health care services are ultimately delivered to those who need them.

In the past two decades, governments in many developed and developing countries are re-examining their role in health service delivery. Despite remarkable improvements in preventing and controlling communicable diseases, in giving access to health care and in providing other public health activities that respond well to direct government involvement, publicly delivered health goods and services are plagued by crucial problems related to efficiency and equity.

In terms of allocative efficiency, resources often flow disproportionately to highly-urbanized areas and to hospital-based curative care. Inattention of public officials to the cost of such health services hinders the health system from identifying and delivering

more cost-effective services, leaving primary care interventions such as preventive and promotive health services largely under-funded. In terms of technical efficiency, resources within public facilities are often poorly used, with health services commonly unresponsive to patient's needs. Pressures brought by cost escalation, low productivity, waste, and in some cases, fraud, further aggravate this. In terms of equity, although fair distribution of health resources is a major justification for public delivery of most health goods and services, the public health system is rarely targeted toward the people who needed them most, particularly the poor and the vulnerable sectors of society (Preker and Harding 2003).

Assessments of health systems in developing countries have traced the failures of delivering even the basic health services to 'overextended governments trying to do too much with too few resources and limited capability' (Preker and Harding 2003). For this reason, there is increasing understanding that effective reforms in health service delivery 'lies in matching the government's role to its capabilities, while making better use of the private sector in areas where the state has no comparative advantage' (Preker and Harding 2003).

In the Philippines, reforms in health service delivery are aimed at improving the accessibility and availability of basic and essential health care for all, particularly the poor. The strategic approach is to make such basic and essential health service packages available in all localities and to support this with specialized health services delivered by designated providers in strategic locations. Current efforts to reduce public health threats is intensified by undertaking 'disease-free zone initiatives' for endemic diseases like malaria, filariasis, schistosomiasis, rabies and leprosy; implementing intensified disease prevention and control strategies for tuberculosis, HIV-AIDS and vaccine-preventable diseases; and enhancing health promotion and disease surveillance.

To improve the delivery of basic and essential, as well as specialized health service packages, another strategic approach is the rationalization and critical upgrading of health facilities. This includes the parallel revitalization of primary health facilities such as the rural health units and health centers together with the rationalization of the hospital system consisting of first level, second level, and third level or end-referral hospitals. Coupled to this is the expansion of government health facility networking and patient referral system to eventually include private health facilities. The parallel upgrading and

the expansion of referral system are necessary to prevent patients from bypassing primary health facilities that leads to congestion of third level and end-referral hospitals with primary care patients.

With the financial safety net provided to the poor by the expansion of social health insurance coverage, public hospitals at the local and national levels are eventually restructured into fiscally and managerially autonomous government facilities. As financially sustainable government facilities, the dependence of these hospitals on direct public subsidies is reduced. This, eventually, will free-up government resources for the delivery of more cost-effective public health programs.

## *Delivery of Public Health Programs*

The WHO has defined “public health” as publicly funded or publicly owned health services. However, its concept, definition, strategies and approaches vary among countries. Despite these variations, public health is considered as one of the core elements in a government's efforts to ensure the improvement and promotion of its people's welfare (WHO 2003).

From hygiene and sanitation to control of communicable diseases, public health has evolved to address other emerging issues such as the effects of globalization and new technologies, among others. Unfortunately, there is evidence that current public health systems and services are not able to cope with these new challenges. Thus, there are current efforts to identify essential public health functions (EPHF) in order to define more clearly and systematically the core areas for public health work (WHO 2003). More recently, the Americas and some countries in the western Pacific region have identified EPHF aimed at improving the ability of national health authorities to fulfill their steering role in health (PAHO, WHO 2003). These functions include monitoring of health status, epidemiological surveillance, health promotion and personal empowerment, social and intersectoral participation, strategic public health planning, regulation and financing, evaluation of the effectiveness, access to and quality of health services, and research and development in public health (PAHO 2003).

In the context of the Philippine health system, public health is often associated with the various program packages for the prevention, management and control of diseases, and the promotion and protection of health. These health program packages cater to the various levels of health care delivery (from community-based to tertiary level facilities), to various population groups (mothers and infants, children and adolescents, adults and older persons), and to specific diseases (tuberculosis, malaria, cardiovascular diseases, cancer).

Since the implementation of health sector reforms, initial steps leading to an integrated approach to implementing public health programs have been undertaken. The National Center for Disease Prevention and Control (NCDPC) was created in 2000 pursuant to the reorganization of the Department of Health. The merger of several offices into the NCDPC removes the barrier in pursuing the integration of functions, targets and concerns related to the management and delivery of public health programs.

To ensure quality management of public health programs, critical facilities and collaborative efforts with other institutions and agencies have been established. These efforts include, the identification and setting up of national reference facilities like TB Reference Laboratories in selected regions, Newborn Screening Center at UPM-National Institutes of Health, and SARS Management at Research Institute for Tropical Medicine (RITM) and San Lazaro Hospital (SLH). Collaborating Centers were also established to highlight support and learning opportunities that can be shared in areas with similar problems, e.g., Collaborating Centers for Malaria Control in Davao and Agusan del Sur. Similarly, specific health offices and facilities with specialized services and capabilities are designated as Training Institutes or Centers for a particular program or concern like TB management at SLH and RITM, and maternal care at Fabella Memorial Hospital.

Major technical policies and guidelines were also developed and disseminated to health workers to improve delivery of health services. Some of these guidelines and protocols, which have direct impact on health outcomes, include Integrated Management of Childhood Illnesses (IMCI), TB-Directly Observed Treatment Short Course (DOTS), and SARS Management. There are also important laws, such as Anti Smoking Law, Salt Iodization, Clean Air Act, Food Fortification Law, that were enacted and have influenced individual and community behavior as well as institutional practices.

The role of the private sector in public health service delivery became more evident with the mainstreaming of TB-DOTS among the private service providers as well as making family planning and maternal and child health services available in strategically located privately-managed clinics. The issuance of Executive Order 187 in 2003 providing for a comprehensive unified policy for DOTS has further boosted the national thrust for more active involvement of the private sector. Inter-agency technical expert groups like the National Immunization Committee and the National Infectious Disease Advisory Committee, which serve as technical advisory groups for the Secretary of Health, also have adequate private sector representation.

The national campaigns for collective local health action such as the Door-to-Door Patak Polio, Ligtas Tigdas, SARS management and control, Healthy Lifestyle, Child Care Management (Garantisadong Pambata) were successfully conducted and supported by the different stakeholders. These efforts increased people's awareness for good health practices and empowered health workers to deliver services to the people particularly those living in hard to reach areas.

Several other factors pushed for the progress made in public health. First is the inclusion of key public health programs in the Medium Term Philippine Development Plan (MTPDP) as well as in international commitments like the Millennium Development Goals (MDGs). These commitments facilitated the allocation of technical and management resources to put the appropriate health systems in place.

Second is the strong technical relationship between the DOH and the LGUs that has been evident during the conduct of the specific health program mobilization. Trained and capable health program coordinators and local counterpart staff are readily available to provide the support and services whenever immediate or long-term health actions are needed. The continuing national and local technical sharing and arrangements facilitated the establishment of a functional coordinating network and delivery structure for public health programs.

Third is the major role that local leadership played in achieving health goals and targets. Leaders who put health as priority agenda in their developmental undertakings facilitate the allocation of resources and carry out innovative strategies and health management schemes that would work out in their locality. These local health undertakings are valuable experiences that further boost efforts towards attaining local effectiveness and efficiency.

Lastly, the resources and investments provided by funding agencies for public health programs served as vital inputs to develop projects and deliver services requiring multi-agency support. These projects have served as opportunities to test new concepts and strategies that would generate viable approaches and systems to improve health status. These donors, in coordination with their national and local partners, have continuously generated experience-based learning and directions to address health needs.

Despite these achievements and opportunities, the health care delivery system has yet to address the following issues and challenges such as policy and program planning, financing, management support, and networking.

Field experiences have shown that national and local governments are at times unclear on the operational definition of “devolved health services”. The perceived exclusivity of devolved health services as an LGU mandate does not conform to certain service delivery functions of DOH. This vague characterization of “devolved health services” at



times becomes the source of misunderstandings and conflicts among national, regional, provincial and municipal health workers, affecting the over-all effectiveness and efficiency of the health care delivery system.

The integration of public health and hospital programs has remained weak. The lack of an integrated framework and mechanisms has largely contributed to this condition. Appropriate tools and mechanisms to guide regional health offices and LGUs in the implementation of all public health programs are wanting. A comprehensive Public Health Development Plan, which should contain an integrated national planning framework, as well as components on advocacy, human resource development, research, and monitoring and evaluation, has yet to be formulated. Likewise, appropriate tools to assess LGU performance in implementing and integrating public health programs, as well as uniform program standards to guide private health providers have to be developed.

Most packages of health interventions that were developed are premised on a vertical implementation approach without considering the existing variations in client and service provider's perspectives and local situations. As a result, the efficient and effective use of time and resources both for clients and providers is not fully maximized.

The inadequacy of resources in terms of funding is a major constraint faced by both national and local health agencies. The 2003 National Health Accounts showed a decrease in spending for public health programs from 14.4 percent in 2000 to 13.1 in 2003. A large share of the government budget goes to tertiary hospital care. The double burden of disease from both infectious and degenerative causes has overloaded the health system, draining resources for health. The lack of fund becomes more evident in the low quality or unavailability of medicines and supplies in health facilities, the prevailing deterioration of equipment and facilities, and the migration of trained and capable health workers to other countries. These are factors greatly affecting the delivery of quality services to the people.

The present management support systems for public health programs are poorly organized. If not properly attended to, the initial successes in managing the health programs will be put in jeopardy. For instance, the marked drop in fully immunized child (FIC) coverage has been attributed to problems in the procurement and distribution of necessary vaccines. The limitations or inappropriateness of the annual budget system in procuring certain logistic requirements such as TB drugs also puts the patient's

therapeutic compliance at risk. These clearly illustrate that inefficiency and inadequacy of certain management support systems have a direct impact or link in the pursuit of health status improvement.

Currently, the private sector has minimal involvement in the delivery of public health programs. The role and contribution of the private sector in health promotion and disease prevention is not yet fully harnessed. The stewardship and governance functions of DOH and local governments on ensuring both the operation of the public and private health care delivery systems are still wanting in some aspects. Some issues from the private sector's perspective must be immediately addressed, these are: (1) instituting policies conducive for private sector involvement, (2) providing incentives for socially-oriented private sector projects, and (3) developing mechanisms for stakeholder collaboration in the delivery of public health programs.

<b>Goal: An efficient, effective and integrated delivery system for public health programs to achieve better and equitable health outcomes is instituted</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Investments for public health programs are increased and efficiency in the allocation of resources for public health interventions are improved	Percent of budget allocation for public health programs	17 percent of DOH budget  22 percent of LGU health expenditures	15 percent of DOH budget <i>DOH Budget 2005</i>  18 percent of LGU health expenditures <i>PNHA 2003</i>
	Performance-based financing system for selected public health programs is in place	Performance-based financing system is in place	No system in place as of 2005
Managerial expertise and technical leadership on public health programs are improved	Percent of program managers at national and local levels with management training and expertise	100 percent of senior staff (SG 22 up) with Masters Degree related to management	To be determined
	Number of integrated functional expert groups and technical advisory groups established for priority public health programs	4 core functional expert groups and 6 technical advisory groups	38 expert groups and technical advisory groups <i>NCDPC, NEC, NCHP 2005</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Number of functional Collaborating Centers and Reference Facilities established for priority public health programs	1 functional Collaborating Center per major program  1 functional Reference Facility per major program	To be determined
Access of vulnerable population to quality public health programs and services is enhanced	Number of public health packages or services developed and made available at all levels of care	1 full integrated package of services per population group (eg. Infant, children, women and elderly)	To be determined
	Number of public health program packages included in PhilHealth benefit packages	8 packages	3 packages (e.g., TB-DOTS, MCBP, RHU-OPB)  <i>PhilHealth 2005</i>
Private sector participation in public health programs (in terms of financing and/or provision) is increased and sustained	Number of public health programs or packages with active private sector participation	6 programs	3 programs or packages ( TB-DOTS; non-communicable diseases; and filariasis)

Strategic Thrusts for 2005-2010
<ul style="list-style-type: none"> <li>• Mobilizing <b>more resources for public health programs to support cost-effective public health interventions</b> geared towards eliminating selected diseases as major public health threats</li> <li>• Developing <b>essential public health program packages</b> for all levels of health care delivery and for all stages of the life cycle</li> <li>• Enhancing the Department of Health's <b>technical leadership on public health programs</b> and improving <b>management efficiency</b> at all levels (national, regional, provincial, city and municipal levels) of the health sector</li> <li>• Establishing an appropriate <b>performance-based financing mechanism</b> and other innovative financing arrangements for priority public health programs</li> <li>• Strengthening <b>public-private collaboration</b> in health service delivery and financing</li> </ul>

## *Delivery of Hospital Services*

The hospital system, as an integral part of healthcare delivery in the Philippines, is composed of the public and private hospital sectors, classified into primary, secondary and tertiary levels according to their service capabilities. Reforms in the hospital sector are directed towards the development of a Philippine Hospital System that includes 1,728 licensed hospitals, of which, 1,061 are private hospitals and 667 are government owned. Among the government hospitals, 72 are DOH hospitals, 5 are military hospitals and 590 are local government hospitals. Total hospital beds in the Philippines is 85,040 with 45,395 (53 percent) of these beds in government hospitals. The 72 DOH hospitals have a total number of beds reaching 23,755, about 28 percent of the total beds in the country (BHFS 2003).

The country has an average ratio of 1,000 people per hospital bed. Based on the licensing report on the number of beds according to category of health facilities, the government owns most of the beds in infirmary facilities and in the first and third level referral hospitals while the private sector owns most of the beds in birthing homes, second level referral hospitals, and acute, chronic and custodial psychiatric care facilities.

While there have been efforts in the past to integrate the dual hospital system into a cohesive one, much remains to be desired in this respect. The interface between the public and private hospital systems needs to be further elucidated and the areas of engagement strengthened.

The Filipino Report Card (World Bank 2000) showed that among 1,200 sample households, respondents ranked private facilities as superior on quality aspects, at par with government facilities on convenience of location, and not as good on cost aspects (cost of medicines and supplies, cost of treatment, and flexibility of payment). Simplistically, this implies that cost is the only categorical advantage of government facilities over private facilities. In terms of client satisfaction, the Report also states that “overall satisfaction” or “appreciation” of health facilities was significantly higher for private facilities than government. Government hospitals get higher ratings from rural areas and among the lower classes.

In general, the following characterization of the state of government-owned hospitals might help to explain the perceptions noted by the respondents in the above report: poorly equipped and poorly staffed local government hospitals (provincial and district

hospitals); congested regional and national hospitals (due to patients by-passing primary and secondary level facilities); inadequate hospital networking and patient referral systems; heavy reliance on direct subsidies from national and local governments; and uncoordinated implementation of public health programs in hospitals (HSRA Monograph 1999)

While there are a number of leading government hospitals offering quality specialized services, particularly in urban areas like the NCR, the private hospital sector is generally perceived as more advanced and client-centered, thus much of the reform efforts in the past focused on developing and upgrading systems among government hospitals to make them more responsive to their clients' needs and expectations.

Given this reality, work towards the achievement of the objectives of hospital reforms has been steadfast, albeit a struggle for the health sector. The reforms are focused on addressing the disparity between public and private health facility performance as well as rural-urban inequities as exemplified by the following accomplishments of the sector in this respect:

**Rational upgrading of critical capabilities in selected LGU and DOH hospitals.** In line with the Philippine Hospital Development Plan, the upgrading of critical capabilities is being done at two levels, namely: upgrading of equipment in selected provincial and district hospitals, and the upgrading of selected DOH regional hospitals and medical centers to sub-specialty level.

The upgrading of hospital equipment is consistent with the upgrading of national and regional hospitals to meet the standards of the DOH licensing or PhilHealth accreditation as well as facilitating the implementation of the Inter- Local Health Zone Referral System. This has been accomplished in selected DOH hospitals, and provincial and district hospitals. Development of subspecialty capabilities in heart, lung, and kidney diseases have been initiated in selected DOH regional hospitals and medical centers.

**Expanding hospital financing mechanisms.** To ensure fiscal autonomy for government hospitals, hospital financing mechanisms such as revenue enhancement and income retention were expanded while improvements in hospital financial management systems were implemented. Ninety per cent of DOH hospitals and some LGU hospitals like Pangasinan Provincial Hospital, Misamis Oriental Provincial Hospital, Bukidnon

Provincial Hospital, Silay Provincial Hospital, carried out the following revenue enhancement strategies:

- a. Establishment of revolving funds from revenue generating areas (e.g. pharmacy, laboratory)
- b. Increase PhilHealth reimbursements by advocating voluntary and NGO sponsored enrollment and making the hospitals attractive to PhilHealth members (in 2004 , 46 percent of the total MOOE of DOH hospitals was reimbursed from PHIC)
- c. Generate income from private wards
- d. Implementation of proper patient classification to identify truly indigent patients as recipients of government subsidy or private sector sponsorship
- e. Establishment of innovative income generating activities that are non-patient care sources such as renting out available spaces for medical clinics or commercial establishments
- f. Resource sharing with LGUs (e.g. city government subsidies)

Income retention is implemented in DOH hospitals since 2003 through a special provision in the annual General Appropriations Act. This strategy has resulted in a 20 percent increase of income compared with the preceding year in 33 out of 68 DOH hospitals, raising a cumulative income of 1.2 billion pesos from January to December 2003 (NCHFD). In 2004, cumulative hospital income reached 1.5 billion pesos or an increase by 25 percent compared to previous year's income.

Among local government hospitals, varied strategies are employed through the resolutions of their respective Sangguniang Panlalawigan. The provincial hospitals in Pangasinan and Misamis Oriental were allowed to retain their income above a set target, the provincial hospital in Capiz was allowed to place income in a trust fund while Bulacan Provincial Hospital was allowed to retain income but budget was not increased.

**Restructuring LGU hospitals into a corporate set-up.** Continuing provision of technical assistance to carry out LGU mandate for corporate restructuring based on the concept of 'economic enterprise' as embodied in the 1991 LGC was undertaken in La Union Medical Center and Benguet General Hospital.

**Strengthening government and private hospital networking.** To achieve the vision of forming a Philippine Hospital System, the public-private hospital network is being expanded. Aside from the formalized hospital network for service (patient referral) such as the St. Luke's Medical Center and National Children's Hospital's agreement to share in the use of specialized diagnostic equipment, other hospital networks were formed like the hospital network for training and research between Iloilo Provincial Hospital and Iloilo Doctor's Hospital and the hospital network of the Metro Manila DOH hospitals.

The NCHFD through the Integrated Community Health Service Program (ICHSP) developed a manual on the Inter-Local Health District Referral System. The manual offers the standard two-way referral system which is now institutionalized in six ICHSP pilot provinces in various regions.

Integrated Hospital Operations and Management Program (IHOMP) addressed the need to utilize an evidenced based data for decision making and planning by improving the quality of the hospital information system. Its strategy is the parallel improvement of the standard manual systems and the computerization of the process through the use of the Hospital Operations and Management Information System Software (HOMIS). This was pursued in 19 DOH hospitals and 24 LGU hospitals. The HOMIS was initially participated in by a couple of private hospitals. This, however, was not sustained.

**Integrating public health program concepts into hospital services.** Thirteen hospitals created a Public Health Unit to coordinate all the public health programs being implemented in their hospitals. Majority provided comprehensive health care services that included promotive and preventive health services through the implementation of the hospitals as Centers of Wellness Program. The revenue enhancement program has greatly contributed in converting a number of hospitals into Centers of Wellness specifically in the context of a clean and green and culture friendly hospitals. Likewise, the Mother-Baby Friendly Hospitals Initiative (MBFHI) is being continued. In the year 2002, there were 1,427 MBFHI certified hospitals, 757 (68 percent) out of the 1,110 private hospitals and 670 (98 percent) out of 686 government hospitals.

These accomplishments have been made possible by certain enabling factors that facilitated the attainment of the above reforms in the hospital system. Among these are: (1) political will of local chief executives; (2) effective managerial skills of hospital chiefs; (3) government hospital's felt need to survive fiscal difficulties; (4) support of the private sector to government initiatives; and (5) strong sense of social responsibility



However, despite these positive developments, there remain to be major challenges that would affect the expedient and effective implementation of reforms in the hospital sector. Some of the challenges identified are the following:

**Establishing legal mandate for structural reforms.** This has been a long and arduous process. A number of legal options were explored (i.e. passage of congressional legislation and executive orders), however, appropriate adoption or approval has yet to be realized. For instance, in May 2004, the Executive Order for the conversion of ITRMC and QMMC into a government owned and controlled corporation was presented to the Presidential Committee on Effective Governance (PCEG). The Committee referred the issue to Congress for the amendment of the hospital's legal charter.

**“Change management” challenges for the required reforms.** This includes overcoming unfounded fears on threats to security of tenure or plain resistance to change on the part of health workers and providers.

**High cost and limited technical expertise for hospital reforms.** The government has no funds to address needed upgrading in infrastructure, equipment and manpower. To illustrate, the cost of backlog and proposed infrastructure projects of DOH hospitals is about 3 billion pesos. This includes projects under the 2004 Zero Infra Backlog, Fire Safety Projects for compliance with the Fire Code of the Philippines and the proposed mental health facility projects (NCHFD 2004). The cost of unimplemented laws regarding upgrading, re-nationalization and establishment of hospitals is 4 billion pesos (NCHFD 2005).

Most DOH hospitals monitored were not able to implement their action plan pertaining to hospital reforms due to inadequate technical knowledge or skills. Most of the hospitals that were provided with technical assistance were the ones able to accomplish their plans.

**Difficulties in establishing an integrated hospital information system for efficient and effective planning and decision-making.** The NCHFD has the mandate to develop mechanisms for the improvement and standardization of definitions, recording, collection and reporting of hospital statistics from the national and local government and private hospitals. Consequently, through the IHOMP, NCHFD required the implementation of these manual standards prior to the use of the computerized version of said standards which is the HOMIS. The use of the HOMIS has been limited to DOH and

some LGU hospitals due to budgetary constraints. The lack of information on aggregate hospital incomes (broken down into various sources) has led to an inaccurate picture of health service status in the country and inefficient hospital planning and budgeting as well as inappropriate costing and pricing of services.

<b>Goal: An efficient, effective and integrated delivery system for hospital services to achieve better and equitable health outcomes is instituted</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Client-responsiveness and quality of service in hospitals are improved	Percentage of clients satisfied with health services in public hospitals	70 percent of clients	59 percent of clients <i>3rd Quarter 2005 Social Weather Station Report</i>
	Percentage of public and private hospitals compliant with DOH standards for Continuous Quality Improvement (CQI)	70 percent of hospitals complying with 80 percent of the DOH standards for CQI	To be determined
	Percentage of public and private hospitals with PhilHealth accreditation	Not less than 93 percent of government hospitals Not less than 89 percent of private hospitals	93 percent of licensed public hospitals 89 percent of licensed private hospitals <i>PhilHealth 2004</i>
	Number of Clinical Practice Guidelines (CPGs) developed and linked to hospital financing	40 CPGs (10 each for 4 major specialty areas)	9 CPGs <i>NCHFD, 2003</i>
Access to specialized services in sub-national health facilities is improved	Number of specialized centers/services established in public hospitals	5 regional hospitals and medical centers with subspecialty capabilities in heart/lung/kidney diseases are developed	Centers with subspecialty capabilities are concentrated in Metro Manila <i>NCHFD, 2004</i>
		5 national reference laboratories for different specialized fields are operationalized  Development of national and subnational blood centers, trauma centers, burn centers and cancer centers is initiated	
	Utilization rate of specialized health services among indigent sector	To be determined	To be determined

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Efficiency in public hospitals is improved	Percentage of public hospitals implementing performance-based financing scheme for patient care services and activity-based financing for special programs	100 percent of DOH hospitals and at least 50 percent of ILHZ core referral hospitals in convergence sites	To be determined
	Percentage of public hospitals implementing proper costing and pricing of health goods and services	100 percent of DOH hospitals and at least 50 percent of ILHZ core referral hospitals in convergence sites	14 DOH hospitals and 3 LGU hospitals are implementing unit costing <i>NCHFD, 2004</i>
Governance of public hospitals is effective	Percentage of public hospitals with corporate restructuring mechanisms	72 DOH hospitals 17 Provincial hospitals	4 specialty hospitals 1 LGU hospitals <i>NCHFD, 2004</i>
	Percentage of public hospitals with fiscal autonomy	100 percent of DOH hospitals and 50 percent of provincial/district hospitals in convergence sites	100 percent of DOH hospitals and none among LGU hospitals <i>NCHFD, 2004</i>
	Percentage of public hospitals with rationalized hospital development plan	100 percent of DOH hospitals and 100 percent of convergence sites	2 DOH hospitals with rationalized hospital development plan <i>NCHFD, 2004</i>
A seamless healthcare delivery system is ensured	Integrated two-way referral system among public-private and national-local health facilities	100 percent of DOH hospitals and at least 50 percent of ILHZ core referral hospitals in convergence sites with integrated two-way referral system	1 DOH hospital have two-way referral system NCR DOH hospitals have an established networking system <i>NCHFD, 2003</i>
	Integrated hospital database network and reporting system	All DOH hospitals and all convergence sites have unified hospital database network and reporting system	17 DOH Hospitals and 20 LGU Hospitals are implementing Integrated Hospital Operation and Management Program <i>NCHFD, 2003</i>
	Integrated public health concepts in hospital care services	All hospitals (DOH, LGU and private hospitals) in all convergence sites implements a comprehensive health care services that included promotive and preventive health services	Mother Baby Friendly Hospital Initiative was fully implemented in 68 percent of private hospitals and 98 percent of government hospitals in 2002. <i>NCHFD, 2003</i>

### Strategic Thrusts for 2005-2010

- **Rationalizing and upgrading provincial and district hospital facilities and services** in parallel with developments in regional and national hospitals
- **Expanding performance-based hospital financing systems** in national and local government hospitals
- **Pursuing corporate restructuring, fiscal and managerial autonomy or other appropriate institutional and organizational structures** to improve governance and financing mechanisms of national and local government hospitals
- **Enhancing hospital networking and referral system** encompassing public-private as well as national-local inter-phasing of health services
- **Expanding integration of appropriate public health concepts into hospital services**

# Good Governance in Health

In the context of health sector reforms in the Philippines, good governance in health generally refers to the enhancement of the stewardship functions and the improvement of management support systems of both the national and local governments in terms of their collective responsibility for the overall performance of the health system. Stewardship as a function of the government requires the vision, policy directions, technical leadership and influence primarily provided by the DOH at the national level. It also requires the leadership and political authority of LGUs in terms of their greater role in the delivery of health services in a devolved health system mandated by the Local Government Code (LGC) of 1991. Although the government in general, remains the prime mover, stewardship is also a responsibility of other stakeholders outside of the public sector in their role as purchasers and providers of health services who must ensure that as much improvement as possible in health status of the population result from their efforts.

Better health sector performance also requires improving management support systems in health, particularly in the public sector. Government health facilities and institutions have a perceived reputation for being too bureaucratic and ineffective in terms of their management systems and processes. The devolution of health services creates opportunities for shifting from the highly centralized and more complex policy and decision making at the national level to a more focused and community-responsive action at the local level. Consequently, it also creates new challenges for the government in overseeing that local actions are in accordance with overall national health policies and goals.

Another challenge for good governance in the health sector is in ensuring dependability and probity in decision-making and public transactions were opportunistic behaviors, sheer inefficiencies and unresponsiveness to client needs might be particularly tempting and rewarding. Good governance entails setting up the policies and the systems for transparency and accountability, mustering the political will to enforce the rules, and providing the right incentives to ensure positive behaviors of players in the health system.

Good governance also necessitates a clear knowledge of what is happening in the health system in order to develop policies, programs and strategies that support the overall

health goals and objectives. The health sector, in general, gathers large amount of information from those collected and compiled by thousands of health personnel most of which are never used. A good health intelligence and knowledge management system needs to be selective in the information it generates to avoid inefficiencies and wastage of limited resources. It is critical that knowledge is disseminated to provide support for policy and decision-making, to build constituency of public support for health policy, to form part of capacity-building program, and to inform and influence behavior and events within the health system (WHO 2000).

Investment in human resources for health is also critical in ensuring better health sector performance. Good governance requires that the health system is able to ensure the quantity and quality of health professionals needed to run the system. Good governance also requires that the health system is able to deploy and retain health professionals in areas where they are needed. All of these require the recruitment of the right mix of skilled and motivated staff, the provision of the right incentives, working environment and career development opportunities (WHO 2000).

The aim of governance reforms in the health sector is to improve health systems performance at national and local levels. The overall approach is the development of rationalized and more efficient national and local health systems through strengthening networking mechanisms and referral systems, sharing of resources, organizational transformation and restructuring, and capacity building, among others.

At the local level, the strategic thrusts consist of improving coordination among local government units and enhancing public-private partnership. Along this line, inter-local health zones will be organized and strengthened based on local conditions and needs and within the context of local autonomy as mandated by the LGC. Assistance and support from the national government and development partners in the areas of financing, regulation, service delivery and governance will be provided to improve local health systems performance. To track progress and compare performance among localities or inter-local health zones, a performance assessment system (LGU Scorecard) will be developed and employed. Another strategic approach is the institutionalization of a health professional development and career track at the local level. To achieve this, the distribution and retention of critical health personnel in unserved and underserved areas will be ensured; management skills of local health supervisors and technical

competencies of field personnel will be enhanced; and professional career paths of qualified local health personnel will be expanded.

At the national level, capacities to manage and steer the health sector will be improved through several strategic approaches. First, technical leadership and managerial capability at central and regional levels will be strengthened through retooling and retraining of DOH personnel. Second, public finance management systems will be enhanced by developing a comprehensive and integrated financial management information system and by improving accountability and audit systems. Third, supply management systems will be upgraded by building up procurement, logistics and warehousing capacity at the central, regional and local levels. Fourth, information and communication technology capability will be updated to improve connectivity of the health sector and ensure access to quality health information. Fifth, monitoring and evaluation, research and knowledge management systems will be strengthened to support a more rational performance assessment system and an evidence-based health policy development and decision-making process.



## *Local Health Systems Development*

Local Health System refers to all organizations, institutions and resources devoted to undertaking local health efforts intended to improve the health status of local populations. Given such definition, the Philippine health system is mainly a collection of different local health systems serving different localities (Taguiwalo 2004).

The country's local health system is a work in progress as it continues to evolve not only to ensure the improvement of the health status of the population but also to ensure fairness in accessing health care and public satisfaction in health system performance. The reforms within the health sector have altered the country's health structure and systems with the end in view of attaining these objectives. The implications of these changes within the local health system can be aptly characterized in three phases, namely: pre-devolution phase, devolution phase, and health sector reform implementation phase.

The pre-devolution period covers the era prior to the enactment of the LGC. It was in this period that the Philippine health care system was administered by a central agency and a unified health service delivery network was in place through the establishment of District Health Systems (DHS). The DHS is a well defined administrative and geographic area, either rural or urban, and all institutions and sectors whose activities contribute to improve health.

The second phase covers the period of the implementation of the LGC to establish local autonomy. This period marked the devolution of most of the national government social services including health to the various levels of local government (i.e., province, city, and municipality). The devolution of health services weakened the DHS, resulting in a fragmented health service delivery system. This situation and the inadequate regulatory mechanisms and poor health care financing compromised access to health services and hampered the improvement of the country's health status.

Beset with these problems, the government developed and implemented the Health Sector Reform Agenda (HSRA) in 1999. The HSRA has five integrated reform areas, one of which is the development and strengthening of local health systems capacities. Its implementation though has its own challenges. Of primary concern is the lack of an integrated implementation framework of the reform areas. As a result, an

implementation strategy, called “Fourmula One for Health”, consisting of four components, namely: health financing, health service delivery, health regulation and governance, with all the major flagship programs and projects to carry out reforms under each component was developed in July 2005.

**Table 3.9 Implications of the Devolution and the HSRA on the Local Health System**

Implications on:	Period		
	Pre Devolution (Before 1991)	Post Devolution (1991 - 1999)	Implementation of HSRA (1999 - onwards)
Structure	Highly centralized; The DOH carried out its policies and programs via its regional offices, provincial offices, district offices, rural health units and barangay health stations.	Provision of health was devolved to the local government units; DOH maintained its regional offices and retained its regulatory functions, the administration of regional hospitals, medical centers and specialized health facilities, and the provision of technical assistance to LGUs.  In a span of 2 years, 62 percent of 70,000 DOH employees; 12,580 rural health units, health centers, barangay health stations; and 595 public hospitals were transferred from DOH to LGU administration.	DOH started restructuring its central organization and its regional offices, now referred to as Center for Health Development.  Focus on Inter LGU collaboration for an efficient health care delivery system. Collaboration with the private sector is poor or not present.
Governance	The national government provided the source of resource, policy direction, and technical and administrative supervision to all health facilities nationwide.	Provincial government managed provincial and district hospitals;  Cities assumed responsibility for city health offices and hospitals; and  Municipalities took responsibility for the administration of primary health care and other national program field service through the municipal health offices, rural health units and barangay health stations. The primary health care system was strengthened through the enactment of Barangay Health Worker's Benefits and Incentives Act of 1995 (RA 7883).	Provincial, City, and Municipal governments continued to perform their devolved functions.  Local Health Boards were mobilized to recommend to the local governments the establishment of functional Inter-Local Health Zones (ILHZ) that would integrate health care service delivery and allow resource-sharing.
Integration	Highly integrated because the system is centralized. There was a unified health service delivery network administered by the regional health office.	Integration became a challenge because of the separate administrative controls.  There was a breakdown in the referral system, health management information, training and human resource development, and drug procurement system.	Integration of the various reform areas at the ILHZ continued to be a challenge not only at the local but at the national level as well.  <i>table continued on next page</i>

Sources: DOH (1999), Bossert, et al (2000), DOH (2000), DOH (2002), Solon, et al (2003), Taguiwalo (2004)

The Local Health System serves as the venue for the integration of all the reform efforts. Specifically serving as the focal point of the 'convergence' of these reforms is the Inter-Local Health Zones (ILHZ). The ILHZ is similar to the DHS, in which individuals, communities and all other health care providers in a well-defined geographic area or catchment area participate together in providing quality, equitable and accessible health

**Table 3.9 Implications of the Devolution and the HSRA on the Local Health System**  
(continued from previous page)

Implications on:	Period		
	Pre Devolution (Before 1991)	Post Devolution (1991 - 1999)	Implementation of HSRA (1999 - onwards)
Local Health Spending	Considering that the budget allocations were coming from the national government, LGUs had very minimal fiscal control.	There was a backlog in capital spending. The IRA did not match the cost of health care spending.  Adversely affected by fiscal decentralization were the provincial (maintaining hospitals at the provincial, district and municipal levels) and municipal governments (absorbing barangay and municipal health office functions).	There is inequity in public health spending among LGUs as manifested by the large unmet needs for health services among the poorest households and communities particularly in the poorest localities.
Health Service Delivery	Centralized and unified health service delivery network where health services are delivered through a district health system consisting of a district hospital as the core referral hospital and a network of rural health units, health centers and barangay health stations as primary level facilities. These primary level facilities are backed-up by secondary and tertiary level referral facilities at the regional and national levels.	Deterioration of local health services; poor availability of drugs; prohibitive cost of available drugs; declining quality in hospital care. Several reasons for these problems were: <ul style="list-style-type: none"> <li>● Inappropriate health delivery system such as poor hospital facilities, fragmented primary health system, ineffective delivery mechanism for public health program, maldistribution of health human resources and others.</li> <li>● Inadequate health regulatory mechanisms such as gaps in regulatory mandates, lengthy and laborious regulatory systems and processes and inadequate human resources and facilities resulting in poor quality of health care, high cost of privately provided health services, high cost of drugs and others.</li> <li>● Poor health care financing such as inadequate funding, inefficient sourcing and ineffective allocation.</li> </ul>	Provincial, City, and Municipal governments continued to perform their devolved functions.  Local Health Boards were mobilized to recommend to the local governments the establishment of functional Inter-Local Health Zones (ILHZ) that would integrate health care service delivery and allow resource-sharing.

Sources: DOH (1999), Bossert, et al (2000), DOH (2000), DOH (2002), Solon, et al (2003), Taguiwalo (2004)

care with inter-LGU partnership as the basic framework. The aim of establishing a functional ILHZ is to harmonize the preventive and curative aspects of health care (re-integration of hospital services and primary health care) to ensure a holistic delivery of health services. This is achieved through the integrated governance, management, financing, resource sharing and provision of health services among the local government units and partner agencies. Thus, essential to a functioning ILHZ are integrated local health plans, effective referral systems, universal coverage of health insurance, improved quality of hospital and rural health unit services, appropriate health information system, improved drug management system, developed human resources, effective leadership through inter-LGU cooperation, financially viable or self sustaining hospitals, integration of preventive health care and curative hospital care (DOH 2002).

To date, 39 LGUs have already signed the Pledge of Commitment to implement health reforms in their areas. Activities have already been initiated in 30 out of the 65 targeted convergence sites and 73 ILHZs have been established in both convergence and non convergence sites.

Key to the progress of ILHZs in convergence sites are the leadership of dynamic and reform oriented local chief executives; creativity and innovativeness of provincial, city and municipal health officers; elements of convergence that are already in place or ongoing prior to the implementation of health reforms; collaborative effort between DOH, PhilHealth and LGU staff; and the presence of technical assistance and capability-building efforts (Solon 2003). The documentation and dissemination of LGUs' best practices on projects and programs under HSRA have served not only as references for local chief executives but also worked as an effective advocacy tool for developing local health systems. The implementation of the Philippine Local Health Information System (PLHIS) in 6 provinces (i.e., Bulacan, Iloilo, Agusan del Sur, Ilocos Norte, Camiguin and Negros Oriental) has also contributed timely and accurate data for local health system planning to both DOH and LGUs. The PLHIS is a web-based, data collection system which is directly accessible from local government units or convergence sites.

To ensure equitable access to health care, the concept of a health system model for geographically isolated and disadvantaged areas (GIDAs) is being developed as an approach to support the implementation of local health systems development. The GIDA is being linked or integrated to a nearby functioning ILHZ in order to address the health

care needs of the isolated and disadvantaged communities and vulnerable groups separated from the mainstream of socio-economic activities. So far, local health system development was initiated in four GIDAs. One of the GIDA sites, San Juan/San Pedro in Southern Leyte, won the WHO Sasakawa Award on Primary Health Care.

To ensure quality health care, services and facilities, the Quality Assurance Program (QAP) was developed in 1998. The objectives are to institutionalize QAP through capability building, developing a cadre of quality experts, advocates and practitioners; to establish mechanisms to coordinate, support and monitor QA efforts, develop and implement an effective information and advocacy campaign, and make clients active partners in health. The program's two main strategies were the certification or recognition of rural health units, health centers and barangay health stations that have met established criteria under QAP; and capability building to internalize continuous quality improvement (CQI) of health services in these facilities.

In 1999, QAP was renamed Sentrong Sigla Movement (SSM) and the certification component was expanded to include LGU-run hospitals. The elements of the SSM were paced over three (3) phases, namely: Phase I (1999-2002), the certification element proposed to use input quality standards; Phase II (2003-2007), process quality standards; and Phase III (2008-2010) outcome or impact quality standards. Presently, 58 percent of Rural Health Units and Health Centers have been certified with Sentrong Sigla (SS) seals. This reflected the remarkable efforts of LGUs to deliver quality health services. It equally demonstrated the willingness of the LGUs to provide quality health service through public investments. The SSM also served as a good baseline to advocate for a higher degree of certification, which is more focused on processes and systems. The first phase of the SS certification was successful in terms of advocacy and eliciting LGU participation in raising the quality of health care in public health facilities and motivating local chief executives to utilize local resources to fund basic equipment, amenities and supplies of local health facilities.

Despite these achievements, the local health system is faced with issues and problems that remain to be a challenge to its development.

**Poor integration of health sector reform activities and programs in the convergence sites.** Aside from the poor coordination on the implementation of health reforms, a strategic approach to integrate these reform areas in the ILHZs has been wanting. A review of the HSRA implementation progress noted that health regulation at the local

level remains inadequate. Activities to ensure presence of accredited drug retailers and medical equipment through the so-called BFAD and BHDT quality seals have been notably absent at convergence sites. Furthermore, the review noted that none of the convergence sites have reached the 85 percent enrollment target for social health insurance. Focus has been made on the enrollment under the Indigent Program but the expansion of enrollment of individually paying members remained to be a gap. It has also been observed that the public health reforms focused mostly on municipal health facilities. As a result, there is a need to secure the link between centrally and locally provided public health programs.

**Limited resources allocated for site development activities and absence of convergence sites development units.** While a Local Health Assistance Division (LHAD) has been created at the Center for Health Development (CHD), the unit is currently ad hoc in nature. They are yet to be integrated as part of the organic structure of the regional health office. This would synchronize functions and staff complement between the DOH and its regional offices, and ensure appropriate resource allocation with the end in view of enhancing the CHD's capacity to provide technical assistance to LGUs.

**Non-functional Local Health Boards.** The Local Health Boards are essential in the establishment of functional ILHZs. They serve as the recommending body for the creation of ILHZ to the local chief executives. Less than half of the provinces have functional local health boards and more than half for the cities and municipalities. Given their critical contribution to the decision making process, there is a need for the local health boards to be more responsive towards the development of the local health systems through the ILHZs.

**Table 3.10 Status of Local Health Boards  
(as of January 2005)**

	Provincial	City	Municipal
Functional	49%	56%	61%
Non-functional	20%	23%	23%
Incomplete/Unavailable Data	31%	20%	15%
<b>TOTAL NO. of LGUs</b>	<b>79</b>	<b>116</b>	<b>1,400</b>

*Source: Bureau of Local Health Development, Department of Health, 2005*

**Limited networking and collaboration between the private and public sectors.** A policy to integrate the market model in the private provision of health care with the public health care system does not exist. There is a need to develop policies that would integrate both systems to one functioning system. The cooperation between the private and public sector is poor or not present (Both 2005).

**Use of information technology in decision making has yet to be optimized at the local level.** While the PLHIS has contributed to the performance of some LGUs within the convergence sites, the utilization of the system remains to be weak in most local health zones as well as local government units.

<b>Goal: Functional local health systems in the context of local autonomy are institutionalized.</b> <b>Governance mechanisms and management support systems for inter-LGU cooperation are developed.</b>			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Governance and stewardship for local health system are improved.	Percentage of functional ILHZ in health reform convergence sites	100 percent of ILHZ in convergence sites are functional	48 percent of ILHZ in convergence sites are functional <i>BLHD, 2004</i>
Healthcare management and service capabilities of local health facilities are upgraded.	Percentage of RHUs with Sentrong Sigla certification	85 percent of RHUs are Sentrong Sigla certified	58 percent of RHUs are Sentrong Sigla certified <i>BLHD, 2004</i>
	Percentage of ILHZ core referral hospitals in convergence sites with PhilHealth accreditation	95 percent of ILHZ core referral hospitals in convergence sites are PhilHealth accredited	126 core referral hospitals are PhilHealth accredited <i>BLHD, 2004</i>
Access of marginalized and vulnerable population to quality health services is enhanced.	Number of GIDAs in functional ILHZ in convergence sites	At least 80 percent of GIDAs in functional ILHZ in convergence sites	73 percent <i>BLHD, 2004</i>
Responsiveness of health services to attain clients' expectations is ensured.	Percentage of clients satisfied with health services in RHUs/BHSs	More than 82 percent for RHUs More than 74 percent for BHSs	RHUs 82 percent BHSs 74 percent <i>Filipino Report Card on Pro-Poor Services World Bank, 2000</i>
	Percentage of clients satisfied with health services in provincial/district hospitals	More than 79 percent for government hospitals	Government hospitals 79 percent <i>Filipino Report Card on Pro-Poor Services World Bank, 2000</i>



### Strategic Thrusts for 2005-2010

- Intensification of **advocacy on local health systems development** including development of **local health systems models and documentation of best practices**
- Development of governance and management support **mechanisms to sustain local health systems**
- **Capacity building** in terms of stewardship, technical leadership, financing, resource mobilization and sharing, and public-private partnership and networking

## Health Human Resource Development

The WHO refers to human resources for health (HRH) as “the people who provide health services to the entire population” (WHO 1993). In the Philippine context, health human resources refer to “health personnel, also called health manpower, and the totality of their skills, knowledge and capabilities for national health development” (DOH 1995). The term also refers to those engaged in the delivery of various health services to promote and maintain the well-being of the people, and thus include “professionals, paraprofessionals, community health workers, support health workers, support personnel and traditional healers” (DOH 1995).

The Philippine Regulation Commission (PRC) tracks the number of registered health professionals, however, there are no existing accurate statistics on health personnel in the Philippines that would account for those who are no longer currently practicing the profession, including the deceased, those who are pursuing other careers aside from their registered profession or those who have immigrated to practice the profession abroad or otherwise. Likewise, there are no existing data that would account for the total number of

support health workers, support personnel or traditional healers in the country.

Health human resource development (HHRD), from the national government perspective, entails the triad of HRH planning, production and management. In this perspective, HHRD incorporates functions that in other sectors would fall in the larger and separate field of human resource management, pertaining to a range of activities from recruitment to deployment, to utilization and retention of health personnel, highlighting the importance of ensuring an adequate national supply of health care providers and retaining them in the service of the country (Rebullida and Lorenzo 2002).

**Table 3.11 Number of Registered Health and Allied Health Professionals  
Philippines, 2004**

Health Professions	Registered for 2004	Cumulative Total Registered
1. Dentist	1,039	46,360
Dental Hygienist	0	6
2. Medical Technologist	1,558	47,846
Medical Laboratory Technician	96	3,672
3. Midwife	1,818	135,786
4. Nurse	10,013	364,557
5. Nutritionist-Dietician	282	12,107
Dietician	0	1,410
6. Optometrist	56	9,559
7. Pharmacist	1,631	50,748
Chinese Druggist	0	485
8. Physician	2,133	103,891
9. Physical Therapist	1,143	18,388
Occupational Therapist	157	2,159
Physical Therapy Technician	0	78
Occupational Therapy Technician	0	119
10. Radiologic Technologist	253	5,649
X-ray Technician	59	8,403
11. Sanitary Engineer	34	2,339

Source: Professional Regulation Commission, 2004

While the evolution and development of HRH in the Philippines could be traced to the early 1900s with the production of physicians, pharmacists and midwives (1902-1914), dentists (1915) and nurses (1919), the production and development of approximately 10,000-20,000 manpower stock per health professional per year did not vary until the 1950s when the first Filipino doctors and nurses started pursuing specialized training in the United States but eventually ended up finding lucrative job opportunities abroad (Lorenzo and Angluben 1999).

From the 1960's and onwards, there were three major ensuing policy changes that defined a particular phase in the development of HRH in the country.

Since the 1990s, concerns regarding HRH have been increasingly recognized. A HRH plan was made in 1994 but was not implemented as the plan was overtaken by the rapid

changes in HRH trends (e.g. immigration of health workers, globalization, increases in the number of schools, etc.). Hence, the lack of a unifying and comprehensive national plan embracing all health professionals that will look into the needs of HRH poses a major obstacle in HR management and development.

In 2004, activities towards developing a master plan have been underway. A thorough analysis of the HRH situation in the preparation of the HRH Master Plan (HRHMP) showed the following findings:

**Table 3.12 Historical Development of HRH in the Philippines (1960s-onwards)**

Policy Era	Milestones/Characteristics
Primary Health Care Era (1960s-1980s)	<ul style="list-style-type: none"> <li>Midwives became the second most numerous health professionals (next to nurses), providing primary care not being provided by doctors and nurses in underserved areas</li> <li>Community-based, step-ladder health curriculum set-up at the UP School of Health Sciences in Palo, Leyte for prospective health workers specially trained to serve remote and underserved areas</li> <li>DOH established the Innovative Health Sciences Education Partnership Program (IHSEPP) to ensure responsiveness of health sciences education to health needs of the communities</li> <li>Development and training of community-based primary health workers encouraged by the WHO</li> </ul>
Health System Decentralization Era (early 1990s)	<ul style="list-style-type: none"> <li>The 1991 Local Government Code devolved the delivery of basic health services to the local government units</li> <li>Lack of specialty trained physicians and nurses that affected licensing and accreditation of public and private hospitals</li> <li>Magna Carta for Public Health Workers passed, standardizing basic salaries and additional benefits; widespread demoralization occurred among those working in LGUs that could not provide all the stipulated salary scale and benefits</li> <li>Fragmentation of healthcare delivery affecting equitable access to quality healthcare</li> </ul>
Health Sector Reform Era (late 1990s, onwards)	<ul style="list-style-type: none"> <li>Local health systems development is the health sector reform area most affected by human resource management factors</li> <li>Integration of hospital care with public health services; strengthening of the two-way referral system</li> <li>Competencies and function of health staff needed to be developed to ensure a seamless health care system</li> </ul>

Source: Rebullida and Lorenzo, "Health Human Resource Development: Policies and Effects on the Health Professions", National Institutes of Health, University of the Philippines Manila, 2002

**Weak and inadequate HRH information system.** There are incomplete or non-existent data on HRH in the private sector, HR distribution, HR employment (domestic and international), and on other relevant aspects of HRH. Furthermore, there is no adequate data on skill and skill mix requirements to justify staffing standards for health facilities and institutions.

**No rational basis for authorizing the opening of health sciences courses as to location, type of programs, number of enrollees, etc.** The high demand for nurses abroad resulted in not only an unusual increase in schools offering nursing but also of medical and allied professionals taking nursing as second course.

**There is an existing distribution imbalance.** Health professionals, especially private practitioners tend to concentrate in urban sites, while an increasing number of them are leaving the country for more lucrative opportunities overseas.

**Inappropriate education and training.** Evaluation of the curriculum of health science professionals revealed that the learning curricula were more content-based than problem or situation-based and that there is an adherence to western educational and health systems leading to mismatch between training and actual practice.

**Unmanaged HRH immigration.** HRH, notably those in the nursing profession as well as sub-professional caregivers, are leaving the country in droves. In the last 3-5 years, we have seen the “second course phenomenon”, wherein health and non-health professionals re-enrolled to obtain nursing degrees due to the perceived increased demand for nurses in the global market.

Of particular concern to the country is the immigration of Filipino workers to first world countries resulting in the loss of millions of skilled and unskilled Filipino workers supposedly a temporary measure to address local employment issues (lack of employment opportunities, underemployment, low wages) but has persisted over the years (Lorenzo et al 2005). Factors identified that account for such phenomenon includes: colonial mentality, economic need, professional and career development, and attraction of a better quality of life or a higher standard of living (Alburo and Abella 2002).

According to the Department of Foreign Affairs, there is an estimated 7.2 million Filipino immigrants all over the world, with overseas deployment rate increasing 5.32 percent annually from 1995-2000 (DFA 2001). The Philippines is the biggest health

service provider of nurses globally (Lorenzo 2005). Not surprisingly, nurses represent the most number of Filipino health professionals leaving the country in favor of top country destinations such as Saudi Arabia, the United States of America and the United Kingdom in the last decade. Other destinations include Libya, United Arab Emirates, Ireland, Singapore, Kuwait, Qatar and Brunei (POEA 2003).

Responses to HRH issues in the past were more often stopgap measures. To address the perennial lack of health workers in far-flung areas, the Department of Health spearheaded the implementation of programs to deploy needed human resources such as:

**Doctors to the Barrios (DTTB) Program** - deployment of physicians in “doctorless” municipalities. With some support from the business sector, DOH provided salary and other incentives to attract doctors to work in hard to reach municipalities. LGUs were required through Memorandum of Agreement (MOA) to provide counterpart support, at the very least, accommodation or equivalent cash allowance.

**Leaders for Health** - a modification of the DTTB Program. This track provides opportunities for a masteral course to doctors assigned in selected regions. This is implemented with funding support from Pfizer and in coordination with Ateneo de Manila Graduate School of Business.

**Rural Health Placement Team** - These are non-medical health professionals assigned in selected underserved areas to complement existing human resource for health. The team consists of nurses, midwives, dentists, medical technologist and others.

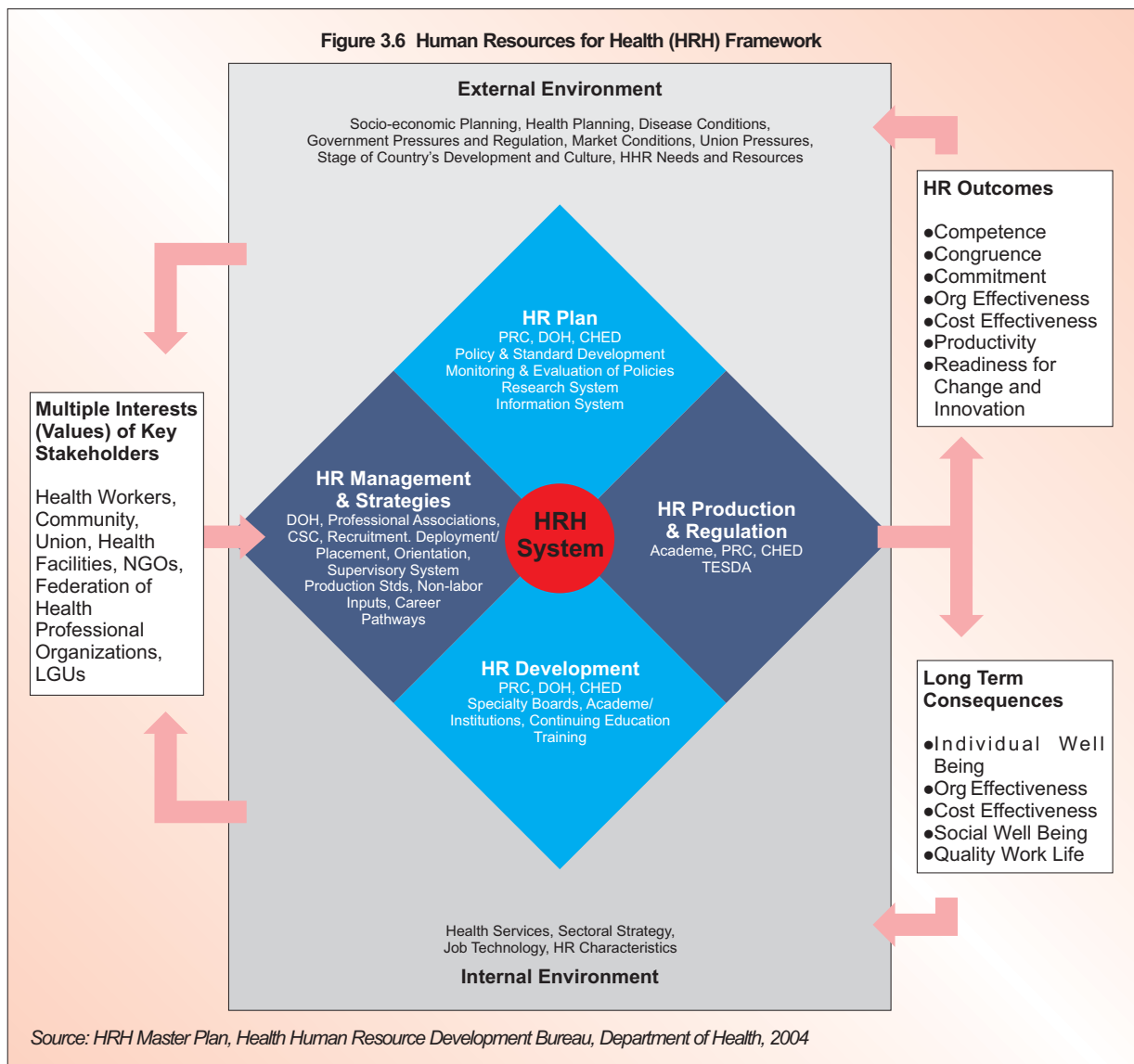
**Specialists to the Province** - The program is sponsored by Unilab and is implemented in coordination with the Philippine Society of Anesthesiologists and the Philippine College of Surgeons. Teams of surgeon-anesthesiologist are fielded in district and provincial hospitals to complement existing health professionals and build the competencies of hospital staffs.

**Residency Consortia** - DOH teaching-training hospitals and medical centers pool together medical specialists in order to provide services in non-teaching and training hospitals and to develop their capability to offer residency programs.

Other means to address the lack of qualified doctors were done through the passage of enabling laws. The current law on midwifery incorporated provisions that would allow midwives, under certain conditions or situations, to perform life-saving procedures,

usually reserved for doctors like suturing of lacerations, giving intravenous fluids, etc. (R.A. 7392, Sec. 23 Art. III).

However, in order to address the complex and multi-faceted issues on HRH, a comprehensive approach is needed. This brings into focus the need to institutionalize HRH systems that will ensure that an adequate number of competent health workers who can efficiently and effectively deliver health services are in place where they are needed. HRH systems that have been developed or are being developed include the following: (1) HRH Information System (HRHIS); (2) Job Related Recruitment and Selection System (JRRSS); (3) HR Planning (HRP); (4) Career Development and Management System (CDMS) including individual career planning, establishment of career path, succession planning, and retention planning; (5) Performance Management System



(PMS); (6) Training and Development Needs Analysis (TDNA); and (7) Competency-based Job Description Analysis (CBJA). The development of these systems is governed by the HRH Framework that applies to the whole health sector.

There is not a single agency that is responsible for the development and management of HRH in the country thus, a multi-sectoral approach involving various agencies and organizations in the health sector is necessary. Among the agencies involved in HRH are the academe, professional societies, and local governments, the Commission on Higher Education, the Technical Skills Development Authority, the Professional Regulation Commission, the Civil Service Commission, the Departments of Health, Labor and Employment, Interior and Local Government, and Foreign Affairs. LGUs employ more than half of the health workforce and have an important role in the development and implementation of local HRH systems.

Goal: Adequate, competent and committed human resources for health are ensured.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Technical and managerial competence of health professionals are enhanced.	Competency standards developed for HRH (at par with international standards)	Standards are set for managerial competence for supervisory positions in the health sector;  Standards are set for technical competence of health professionals	The set standards were limited to central office (CO - DOH) managers and supervisors  <i>HHRDB, 2004</i>
	Number of managerial and technical staff retooled and retrained on health sector reform priorities and strategies	All provincial health officers and technical coordinators in convergence sites;  All DOH regional directors and technical coordinators;  All DOH central office directors and technical coordinators	Two (2) introductory courses held in 2004  <i>HHRDB, 2004</i>
Implementation of a comprehensive HRH policy framework, strategic plan and systems are strengthened.	Coordinating mechanisms developed among HRH stakeholders	A functional network of government agencies, academic institutions, professional groups, NGOs and private sector involved in HRH is in place	Networks deal with specific HRH aspect, e.g. production (TWG on Medical Curricula) or limited number of stakeholder-members  <i>HHRDB, 2004</i>



National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	HRH systems adopted in Inter-Local Health Zones (ILHZs)	At least five (5) HRH systems are in place in all ILHZs in priority convergence sites	HRH systems are in place in ILHZs in ICHSP areas <i>HHRDB, 2004</i>
HRH distribution and complementation in unserved/underserved areas are ensured.	Percentage of met needs based on request from underserved and/or unserved areas to be provided with health workers	70 percent underserved and/or unserved areas provided with health workers	60 percent underserved and/or unserved areas provided with health workers <i>HHRDB, 2004</i>
	Number of mechanisms to facilitate production of specialists (e.g. residency consortia)	1 residency consortia established	Drafted policy on anesthesia residency consortia <i>HHRDB, 2004</i>
HRH outmigration and retention of returning health workers are addressed.	"Managed HRH Migration" policies and strategies developed and implemented	Comprehensive policies on HRH out-migration and retention of returning health workers developed and instituted	No integrated policies are developed and/or implemented at present <i>HHRDB, 2004</i>

Strategic Thrusts for 2005-2010
<ul style="list-style-type: none"> <li>Adopting and implementing a <b>comprehensive and multi-disciplinary HRH Plan</b></li> <li>Developing <b>HRH policies, systems, guidelines and standards</b> responsive to the healthcare needs of the people</li> <li>Developing <b>policies and strategies to address the out-migration of HRH</b> as well as the <b>retention and utilization of returning health professionals</b></li> <li>Sustaining <b>incentive mechanisms</b> or schemes for <b>HRH distribution and complementation in underserved areas</b></li> <li>Making <b>education, training and skills development of HRH more appropriate towards addressing local needs</b> and developing technology-based innovations to optimize capacity building for health service delivery</li> </ul>

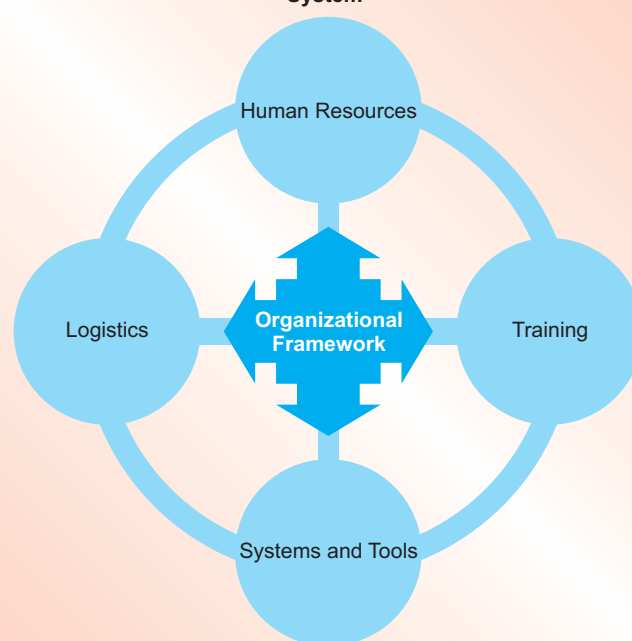
## *Financial, Procurement and Logistics Management*

Past experiences showed that delivery of health goods and services have been compromised at times because of inefficient and ineffective financial, procurement and logistics management. In light of fiscal challenges facing the country, improving the efficiency of the public sector contributes to the government's ability to achieve macro-stability, improve delivery of public services and ultimately, reduce poverty. As the lead agency for health, the DOH must not only manage health expenditures and allocate scarce resources efficiently but also invest in management systems that will adequately support the implementation of health programs and the delivery of health services.

To efficiently and effectively manage finances and logistics in support of the health sector goals, all elements of a functional management support system, human resources, systems and tools, training and logistics should complement each other. The health workforce has to be equipped with the appropriate competencies and skills; systems and tools need to be improved and established; and logistics, such as hardware, software and physical infrastructure, must be made available at the right quantity and quality, at the right time, and at the right place.

There are current challenges in the health management support system that hamper the efficient administration of limited health resources. Examples of these are: (1) the highly inconsistent implementation of financial, procurement and logistics processes, procedures and guidelines at both national and local levels; (2) the lack of integration of the procurement, logistics, warehousing and financial management systems; (3) inadequate skills on the management of procurement and logistics systems at the central and local levels; (4) inadequate capacity to accept, store and distribute health products; (5) the lack of a budgeting system that follows medium-term budget planning which prevent resource gaps in implementing multi-year

**Figure 3.7 Framework for a Functional Management Support System**



Source: DOH, 2005

priority health programs and activities; (6) poor monitoring and evaluation of financial, procurement and logistics management; and (7) absence of an efficient information system that link DOH offices and LGUs.

To address these challenges, the Philippine government has initiated reforms in financial and procurement management. These reforms utilize strategic management and performance management, and focus on financial and procurement outcomes in relation to service effectiveness, instead of processes and procedures. Financial management has been enhanced through the implementation of the following programs and systems that contribute to good policy formulation, rational budget allocation and transparency:

- (a) Organizational Performance Indicator Framework (OPIF) intended to measure the agency's performance in the implementation of programs, projects and activities with emphasis on major final outputs
- (b) Social Expenditure Management Program (SEMP) designed to handle soft loan project that aims to improve the basic social services by enhancing performance (efficiency, quality and equity) and improving governance (transparency and accountability)
- (c) New Government Accounting System (NGAS) developed by COA to ensure correctness, reliability, completeness and timeliness in recording government transactions. The new system also generates financial reports, in accordance with generally accepted accounting principles.
- (d) Work and Financial Plan (WFP) Database shows annual plans of programs and projects and the resources allocated to them. The database facilitates the tracking of program implementation and budget utilization.

Republic Act 9184, or the Government Procurement Reform Act, institutionalized procurement planning functions and a procurement monitoring system in Centers for Health Development and DOH hospitals. Full implementation of the law will have a significant impact on the lowering of procurement costs, generating substantial savings, and ensuring that goods and services are available at service delivery points.

Other contributions to management reforms include: the establishment of information technology systems (Computerized Payroll System, Check Monitoring System, Supply Chain Management System, and other management information systems), and the

development of DOH hospital income retention and utilization guidelines. Further development of management support systems and guidelines is anchored on defined strategic approaches such as those stipulated in DOH Administrative Order No. 174 s. 2004, the “Implementing Guidelines for Refocusing HSRA Implementation.” These strategic thrusts provide the direction and focus for management support.

In spite of these advances and reforms in health sector financial, procurement and logistics management, more interventions need to be in place to ensure efficient allocation and optimum use of health resources. These include: (1) establishment of an integrated financial management system to shift from financial to performance auditing; (2) building capacity of institutions that play different roles in the procurement and supply management process; (3) institutionalization and integration of programs and systems at all levels of the DOH and LGUs to improve coordination among agencies; reduce duplication of programs and activities and mismatch of resources to expected output; and allow for more effective monitoring and evaluation for financial, procurement and logistics management; (4) setting-up a system of control that will minimize corrupt practices, enforce penalties and sanctions, and establish a system of accountability and transparency for those who are entrusted with government resources; (5) improving approaches for budget formulation and efficient resource allocation to priority goals and needs; (6) enhancement of measures for payment of expenditures, internal control and audit, accounting and reporting, and fiscal discipline; and (7) establishment of a unified project management office (UPMO) that will manage day-to-day operations and financial flow of external assistance to maximize collective usefulness and efficacy of different funding mechanisms that reinforce over-all health reform priorities such as budget support, sector wide approach and government budget allocation.

<b>Goal: Efficiency and effectiveness of financial, procurement and logistics management systems to support health program implementation are ensured</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Financial, procurement and logistics management systems are improved.	Compliance to standard procedures for financial and procurement transactions, and material management processes	100 percent compliance to standard procedures for financial, procurement and supply management transactions	Developed public financial management reforms  OMS, DOH, 1999

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Improved systems and tools for financial, procurement and material management transactions	<p>100 percent of personnel trained on procedures and policies (operational, managerial and executive levels)</p> <p>Integrated procurement, logistics and financial management system implemented</p> <p>Central and regional warehouses refurbished</p> <p>Procurement, logistics and financial management, and warehousing manuals developed and used at all levels</p> <p>Management support monitoring and evaluation system installed</p> <p>Assets management system implemented</p> <p>Availability of health goods and services at the right time and place</p>	<p>To be determined</p> <p>To be determined</p> <p>To be determined</p> <p>To be determined</p> <p>To be determined</p> <p>To be determined</p> <p>To be determined</p>
	Reduced transaction time and costs	<p>Reduce time for processing financial transactions by 50 percent</p> <p>Reduce the time for processing procurement of goods and services by 50 percent</p> <p>Reduce the spoilage and expiry of program commodities (drugs, vaccines, supplies, etc.) by 50 percent</p> <p>Reduce loss of government properties and assets by 50 percent</p>	<p>To be determined</p> <p>To be determined</p> <p>To be determined</p> <p>To be determined</p>
Transparency and accountability in all transactions are promoted	Developed policies, programs and systems to promote transparency in government transactions	<p>Work and financial data base system functional at all levels</p> <p>e-NGAS functional at all levels</p> <p>Financial and budget allocation and utilization system in place</p>	<p>HPDPB work plan, FS and IMS e-NGAs implementation</p> <p>e-NGAS functional at DOH central office; pilot testing in CHD and hospitals</p>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
		Financial flash/regular reporting in place at all levels  100 percent compliance to Government Electronic Procurement System at all levels  Materials management tracking and inventory system in place  Internal audit system institutionalized at the CHDs, retained hospitals, sanitararia, and treatment and rehabilitation centers  Integrity Development Committees/Program in place at all levels  Partnership with civil society for procurement and supply management forged  Internal controls enhanced	100 percent at central office      Internal audit system in place at the central office
	Ensured access to available public documents	Official documents readily accessible  Integrated information system in place/installed  Posting of financial and procurement opportunities and results	Accessible by request or through electronic means

### Strategic Thrusts for 2005-2010

- Creation of a **positive environment for better financial, procurement and logistics management** system in the health sector through the **appropriate mix of incentives and controls**
- Establishment of **innovative approaches in financial, procurement and logistics management systems** and strengthening its implementation through collaboration with the various providers of health care, and integration of the systems among implementing agencies.

## Knowledge Management

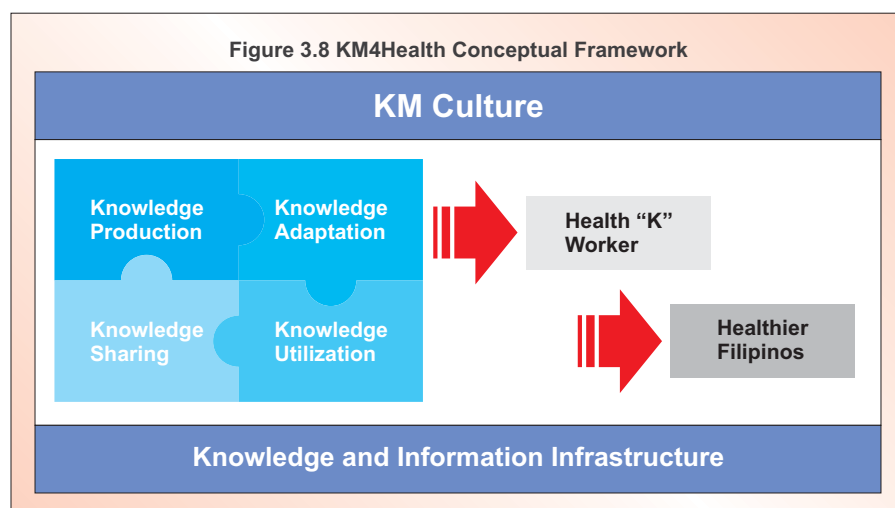
Knowledge management (KM) refers to establishing an environment in which people are encouraged to learn, share and use knowledge together to achieve an organization's goal. It is a means to maximize efficiency and encourage innovation to create comparative advantage and achieve desired goals. In KM, more emphasis is placed on the learning process and on the culture of learning and sharing. It is primarily focused on people and on how they utilize their knowledge, experiences, skills and judgments to make decisions to achieve organizational goals.

The health sector has recently adapted a KM framework, the KM4Health Framework, that highlights four core concepts: knowledge production, adaptation, utilization and sharing. These concepts are interdependent and interrelated, evolving and dynamic.

Knowledge production refers to the creation of new knowledge as well as the acquisition of knowledge created by other entities. Knowledge adaptation is the tweaking and refining of the knowledge for easy integration and utilization by the stakeholders especially the various health knowledge workers.

Knowledge sharing pertains to different modalities wherein knowledge is disseminated and distributed such as newsletters, policy briefs and portals. It also includes interpersonal communication, fora, as well as innovative knowledge sharing practices such as communities of practice. Knowledge utilization is the application of the knowledge to improve health sector performance. The translation of health research result into a health policy is one example of knowledge utilization.

KM culture refers to the environment within which all these are happening. Included in



this context are values, beliefs and guiding principles used by health stakeholders in their interaction and exchange of experiences, learnings and knowledge.

KM as an emerging tool in the Philippine health sector will facilitate the acquisition,



sharing and exchange, and utilization of learnings and knowledge for more informed policies and responsive service delivery

At present, the Philippine situation is still largely focused on health information management. Health information management ensures the reliability and availability of timely information at national, sub-national, local and at the facility level.

Despite these developments, the following issues and challenges need to be addressed to better create an environment where planning and policy decisions are knowledge based:

**Weak health research and information systems.** The Philippines has an active health research environment where government agencies, non-government organizations, public and private hospitals, academic institutions and private agencies have some form of research activities. A closer look, however, would reveal that these researches are uncoordinated, fragmented and duplicated which precludes the optimal use of time, effort and resources (Acuin 2001).

The Philippine National Health Research System (PNHRS) is a collaborative effort of the Philippine Council for Health Research and Development (PCHRD) and the DOH to improve the current status of Philippine health research system. The main focus is on integration and creating synergy to address the perennial concerns such as lack of resources for research, unsynchronized research agenda, maldistributed and under-capacitated researcher pool, and underutilized research information.

**Gaps in the management of health information.** There are several sources of health information in the country. These information are collected by various agencies both government and private through routine information systems, population surveys and special studies. There are, however, weaknesses in the management of such information. For instance, timeliness and completeness are two major limitations in generating health information. Disseminated and published reports are critical ingredients in knowledge sharing and utilization. Most of the bigger surveys are published every 3 to 5 years. Official published reports are oftentimes delayed by more than two years as in the case of the Field Health Service Information System (FHSIS) and the Philippine Health Statistics (PHS). This is brought about by non-compliance and incomplete submissions of report by some LGUs and private health facilities, and the delay in the submission of civil registry records to NSO or DOH by the LGUs. In some cases, important indicators

are not reported. The 2003 National Demographic and Health Survey (NDHS) failed to include the maternal mortality ratio (MMR) due to sampling limitations.

There are also information systems that lack complete information for knowledge-based decisions. In the case of the National Epidemiology Sentinel Surveillance System (NESSS), private facility data sources are not included. Furthermore, while several systems have been developed to generate vital information, these information systems have yet to be integrated. For instance, hospital systems such as Hospital Epidemiology Program (HEP) and Hospital Operation and Management Information System (HOMIS) have been initiated by DOH to better manage a wide range of activities ranging from planning to procurement and staffing. However, the systems are run independently by DOH hospitals and have yet to be linked to the central office.

Given the gaps in the management of health information, there is a need to standardize health indicators and health information requirements in order to eliminate inefficiencies and reduce cost in data collection. A compendium of health indicators should be made in order to have a unified definition of health indicators and terminologies. Likewise, there is a need to standardize health information requirements and ensure the appropriate systems (whether automated or manual) are properly linked from the local to the national levels.

**Inability to use health information to ensure knowledge-based policies and programs.** The Department of Health (DOH) has embarked on major computerization of frontline and management support transactions to adequately manage increasing demand for more efficient services from its clients. Automation of systems translates into savings for the government if human resource handling the complex manual procedures is considered. These automated systems range from administrative systems (financial, procurement, document tracking) to public health (FHSIS, NESSS) and hospital systems (HOMIS).

Capacities were likewise upgraded through training in complicated areas of programming, systems and network administration. A total of 2,444 personnel were trained over the last four years (2000-2004), which is distributed as follows: office automation training (1,670), trouble shooting (263), database management (157), GIS (176), and web site development (178).

The main challenges are ensuring that data, information, researches, and best practices within the health sector are facilitated to reach provincial, regional and national policy makers, and how such information will be translated into use for policy making and program implementation. Other than enhancing information systems, inherent to addressing this challenge is the establishment of feedback mechanisms to increase capacity in making evidenced-based decisions within the various levels of governance. Specifically, at the local level, increasing the knowledge among LGUs on how other local health systems are performing compared to theirs will create a competitive environment and benchmarking that may effect positive changes in health outcomes and over-all client satisfaction for their constituents.

The lack of information technologies is also a concern most especially at the local level. The high cost of computer hardware and internet connection facilities are preventing most LGUs to procure IT equipment. This is aside from the cost of building capacity to operate health information systems, which is a major sustainability issue.

**Low investments for health research and development systems.** Little is invested in research, monitoring and surveillance by the national and local governments. A study conducted by the Center for Economic and Policy Research (CEPR) in 1996 revealed that of the estimated PhP 3 billion of resources allocated for research and development, PhP 422 million (17 percent) was channeled to health research and development. This amount accounted for 0.57 percent of the total health resources, which is less than the 2 percent recommendation of WHO.

**Table 3.13 Major Sources of Philippine Health Information**

Lead Agency	Major Sources	Description, Frequency and Latest Available Data	Limitations and Common Problems
National Statistics Office (NSO)	National Demographic and Health Survey (NDHS)	NSO household- based survey collected every 5 years. Rich source of health information on KAP data in relation to major illnesses, utilization of health facilities, age-specific mortalities and morbidities (NDHS, 2003)	High cost of conducting national population surveys  Important indicators are sometimes not reported (MMR in NDHS 2003)
	Maternal and Child Health Survey (MCHS)	NSO household-based regular surveys among female members aged 15 to 49 years who have surviving children below three years of age (MCHS, 2001)	
	Family Planning Survey (FPS)	NSO based survey that collects data on prenatal and postpartum care, protection at birth against neonatal tetanus, breastfeeding, and immunization (FPS, 2004)	

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**Table 3.13 Major Sources of Philippine Health Information**  
(continued from previous page)

Lead Agency	Major Sources	Description, Frequency and Latest Available Data	Limitations and Common Problems
Food and Nutrition Research Institute (FNRI)	National Nutrition Survey (NNS)	FNRI based survey collected every 4-5 years assesses the food and nutrition situation of the country and various population groups. The comprehensive survey is composed of dietary, anthropometrics, biochemical and clinical components. (NNS, 2003)	High cost of conducting the survey especially the clinical phase
National Statistical Coordination Board (NSCB)	National Health Accounts (NHA)  Local Health Accounts (LHA)	Annual tracking of all sources of finances for health and how funds are utilized (NHA, 2003)  The LGU data system is more responsive to the requirements of the LHA than that of the National Government Agencies	Categorization of sources and uses of funds being harmonized with international standards  Needs to improve estimates of out-of-pocket expenditures  Local Health Accounts not yet institutionalized  Initial estimates available for years 1998-2000 are for six (6) provinces only
Department of Health (DOH)	Special surveys contracted-out or DOH special studies and researches          Field Health Service Information System (FHSIS)	Baseline Survey for National Objectives for Health (BSNOH) is a special survey conducted to establish baseline for NOH 2000-2004. Comprised of nationwide community, household, health institutions, health providers, schools and workplace surveys. (BSNOH, 2000)  Other studies such as National Tuberculosis Prevalence Survey (NTPS 1997), National Disability Survey (2004), National Diabetes Survey (2003), etc  Major Health Information System of the Philippine health system that collects health accomplishments, delivery of health services, and morbidity reports from RHUs to National Epidemiology Center, DOH (FHSIS, 2002)	High cost of conducting national baseline surveys and special studies  No regional or provincial disaggregation  Low dissemination of the results  Passive reporting system of notifiable diseases only  Delayed publication due to non-compliance of some LGUs or incompleteness of data Information underutilized at LGU levels and national program planning  Indicators have not been standardized; frequent changes in what is to be reported

Table continued  
on next page

Sources: NSO, FNRI, DOH, NSCB

**Table 3.13 Major Sources of Philippine Health Information**  
(continued from previous page)

Lead Agency	Major Sources	Description, Frequency and Latest Available Data	Limitations and Common Problems
	National Epidemiology Sentinel Surveillance System (NESSS)	NESSS is a hospital-based system for monitoring 14 infectious diseases with epidemic potential (cholera, typhoid, malaria, hepatitis A and B, dengue, diphtheria, leptospirosis, measles, meningococcal disease, neonatal and non neonatal tetanus, pertussis and rabies).	Private facility data sources not comprehensively covered Laboratory diagnosis is costly
	HIV serologic surveillance (HSS) and Behavioral Sentinel Surveillance (BSS)	Active HIV serologic surveillance (HSS) among high risk groups in key cities that started in 1993 combined with prevalence of risk behaviors among the most at risks population in 2005	Limited to 10 sentinel sites due to - Funding is external; Limited funding from national and local government
Varied GO/NGO and professional groups	National disease registries	AIDS, cancer, diabetes, kidney disease, etc	Scope is limited as bigger networks have not been formed

Sources: NSO, FNRI, DOH, NSCB

**Goal: Knowledge management in the Philippine health sector is institutionalized as a tool for policy development and decision making**

**Access to explicit and tacit health information and knowledge is improved**

**National Objectives for 2005 - 2010**

Objective	Indicator	Target	Baseline Data and Source
Quality, timely and relevant health information at all levels is ensured	Standardized and harmonized health data requirements and indicators	Standardized definitions of health indicators nationwide  Standardized health data requirements for every level of health facilities  Harmonized system of health data generation among different government agencies	Begun later part of 2004 and finalization 2005  <i>NEC, 2004</i>
	Compliance to a standard health information reporting system of all public and private health facilities	80 percent of LGU and private sector facilities with accurate and complete FHSIS reports  80 percent of LGU and private sector facilities with timely reports	All health facilities ran by LGU and/or government agencies are submitting complete reports except ARMM  For timeliness, only 50 percent are submitting reports on scheduled date  <i>NEC, 2004</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Number of health personnel trained on health information systems	At least 1 health personnel per LGU trained on data generation, basic health information system or database administration	At present, all health facilities have trained personnel in-charge of FHSIS <i>NEC, 2004</i>
	Number of staff in health facilities (up to the level of the RHU) who are computer literate	At least 1 staff per health facility who is computer literate	To be determined
Access to and sharing of health knowledge and information is increased	Interoperability standards developed and adapted by health sector stakeholders (e.g. private hospitals, PhilHealth, pharmaceutical and other health-related industries, etc.)	Framework for a National Health Information Infrastructure (NHII) developed  Repositories for essential and codified health information established	To be determined
	Health sector portal established	Health sector portal established that will integrate and harmonize health information from different sources (e.g. routine reports, vital registries, surveys, researches)	To be determined
	Established networks to facilitate knowledge sharing and exchange (e.g. Increased <EVIpnet>, PNHRs)	At least one functional network and communities established per domain	Structural organization of PNHRs already in place
	Physical infrastructure for health information system established	At least 1 functional computer for health information management is available in every municipality  Health facility routine health related reports encoded in electronic format in all municipalities	To be determined
Health policy development and decision-making, including clinical management decisions, are evidenced-based	Essential health researches, data and information, best practices are published/disseminated	2-3 health data and information published/disseminated	<i>Health information publications; Completed ENHR studies; Research/policy advocacy foras NEC/HPDPB-DOH</i>
	Essential health researches, data and information are used for policy and program development	5-10 health researches and information used for policy and program development per year	

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Health systems performance measures among LGUs are institutionalized	Data generated from standard health indicators utilized for measuring LGU performance	

Strategic Thrusts for 2005-2010			
<ul style="list-style-type: none"> <li>• Improve capacities in health knowledge and information production</li> <li>• Enhance knowledge utilization and application</li> <li>• Improve exchange and sharing of knowledge</li> <li>• Improve information and knowledge infrastructure</li> <li>• Transform health workers into health knowledge workers</li> </ul>			



# 4 REDUCING THE BURDEN OF DISEASE

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The overall health status of Filipinos has improved in the past several decades. Infant mortality rate, maternal mortality ratio, life expectancy at birth and other vital indicators of health have shown improving trends. However, improvements in health have not been at par with expectations as compared with neighboring Southeast Asian countries. Communicable diseases dominate the leading causes of morbidity while non-communicable and lifestyle-related diseases dominate the leading causes of death. The diminishing incidence of communicable diseases as major causes of death reflects the ability of the health system to deliver health technologies and services needed to cure them. However, the persistence of communicable diseases as major causes of morbidity reflects that not enough is being done to deliver preventive and promotive health services needed to stop the occurrence of such diseases. On the other hand, the increasing prevalence of non-communicable diseases, for which cures are either too expensive or not yet available, reflect that the existing resources and capacity of the health system will have to be stretched out unless strategies toward prevention and early detection are emphasized. On top of this double burden of disease from both communicable and non-communicable causes are environmental and occupational hazards and behavioral risk factors that may lead to diseases, disabilities or deaths among vulnerable groups, as well as emerging and reemerging diseases that have potential as global public health threats.

Against this background, relying entirely on treatment as a means to conquer diseases is expensive and ineffective if attempts at prevention and promotion strategies are not given their full measure in the quest for attaining better health outcomes. It makes sense that the best strategy to bring down the cost of health and ensure access to quality health care is preventive and promotive health services without prejudice to the application of effective curative care when this becomes necessary. Likewise, intensifying surveillance systems to track down diseases and epidemics and to map out behavioral and environmental health risk factors are critical to ensure that targets for disease elimination, prevention and control are attained.

Within this context, the National Objectives for Health (NOH) 2005-2010 was developed to provide the goals, objectives and strategic thrusts for preventing and

controlling major communicable and non-communicable diseases, for managing major health risks, and for protecting vulnerable population groups. Ultimately, these objectives and strategic thrusts are expected to pave the way for attaining better health outcomes for Filipinos. To underscore these strategic thrusts, this chapter has been divided into four sections. The first section focuses on the prevention and control of communicable diseases; the second tackles the prevention and control of non-communicable and lifestyle-related diseases; the third presents the promotion and protection of family health and the health of highly vulnerable groups; and the fourth covers the management of health risks and the promotion of a healthy environment .

It is the target of NOH 2005-2010 to maintain the country free of poliomyelitis and emerging diseases such as SARS and avian influenza. Targeted for elimination as major public health problems are leprosy, malaria, filariasis, schistosomiasis and rabies. Intensified disease prevention and control measures are the strategic thrusts for tuberculosis, HIV/AIDS, vaccine preventable diseases and other major communicable diseases. Strengthened health promotion measures and healthy lifestyle campaigns are the strategic approaches for cardiovascular diseases, cancer, diabetes mellitus and other major degenerative diseases. Preventive health measures and management of health risks from dietary factors, environmental conditions, physical inactivity, tobacco smoking and substance abuse are also pursued to combat major public health threats. Improvement in the quality of life of Filipino families and highly vulnerable groups such as children, women, older persons, persons with disabilities, indigenous people and the poor are also targeted through the reduction of their vulnerability to specific diseases and conditions peculiar to the age group or the situation they are in and by empowering them with the knowledge and means to adopt positive health-seeking behaviors, to protect themselves from diseases, and to live healthy lives.

# Prevention and Control of Communicable Diseases

Eight of the 10 leading causes of morbidity in the Philippines are infectious in nature. Among them are pneumonia, diarrhea, bronchitis, influenza, tuberculosis, malaria, chicken pox and measles (FHSIS 2002). However, advances in the fields of medicine, health technology and health care delivery have reduced the number of deaths due to these communicable diseases. A few communicable diseases like pneumonia and tuberculosis continue to cause a significant number of deaths across the country and persist to be among the 10 leading causes of mortality.

It has been proven that most communicable diseases can be prevented and controlled, or even eradicated successfully by appropriate strategies and technologies such as immunization, improved sanitation and personal hygiene, better nutrition, early treatment and steady supply of antibiotics made available at the community or at first level health facilities. The eradication of poliomyelitis in the Philippines and the continuous decline in the incidence of measles, tetanus, diphtheria and pertussis were brought about by the successful nationwide immunization campaign undertaken over the years. Improved sanitation, better nutrition and appropriate management with oral rehydration resulted in the reduction of deaths from diarrheas, while early diagnosis and treatment with appropriate antibiotics resulted in the reduction of deaths from pneumonia, especially among children. The elimination of leprosy as a major public health threat was brought about by early detection of cases and provision of multi-drug therapy.

On the other hand, tuberculosis continues to plague a sizeable segment of the population, although in recent years effective case finding, disease management with Directly Observed Treatment Short Course (DOTS) strategy, and partnership with the private sector have made inroads in the prevention and control of the disease. The advent of the HIV/AIDS problem in the 1980s continues to have the greatest potential to grow into a major epidemic, even with the slow rate of increase in the number cases in the Philippines. Mosquito-borne diseases, such as malaria, dengue and filariasis, are ever-present danger in endemic areas. Although malaria is no longer a leading cause of death, it has remained among the leading causes of morbidity in the country, especially in rural areas. The surge in dengue cases occurring in cyclical outbreaks every three to five years remains a threat to public health. Efforts to eliminate filariasis are hindered by the limited

resources for the annual mass treatment in endemic areas. In recent years, the threats of emerging and re-emerging infections like SARS, avian influenza, meningococemia and mad cow disease have caused heightened concern among the population.

Although the burden of communicable diseases continues to decline in the past decades, the burden on the cost of public health care is still heavy and the financial strain on the family of those affected is also still considerable. The fight against communicable diseases has not yet run its full course, and the economic and social cost will remain high in the coming decades. However, with the availability of cost-effective health technologies and strategies for prevention and control, it is projected that over the coming years more children will grow into adulthood with less risk from fatal infections and less people will die from communicable diseases.

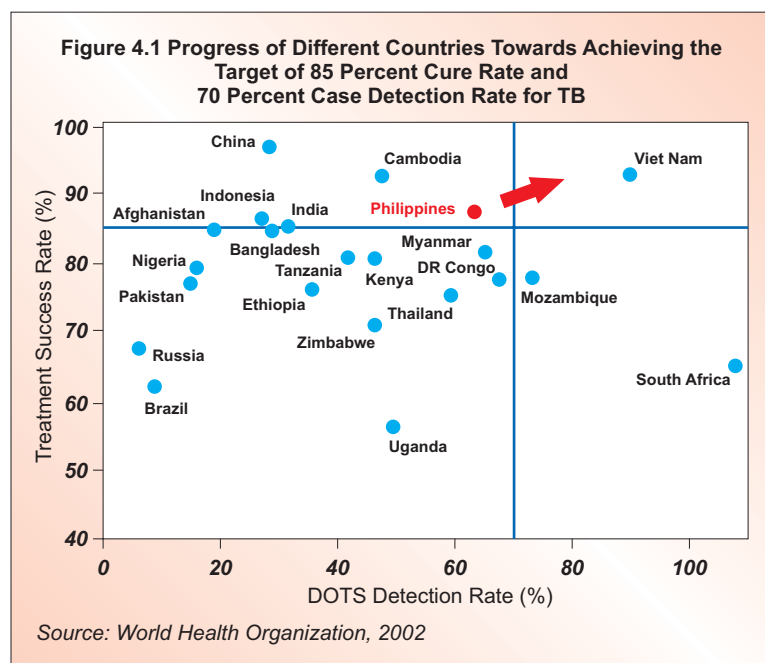
Elimination of certain communicable diseases, such as the vaccine-preventable diseases, leprosy, malaria, filariasis and even tuberculosis, as major public health problems is possible by improving the quality of public health work, patient care and disease surveillance, and providing adequate and efficient resource allocation. As the health sector eliminates certain communicable diseases as major public health threats, it becomes more necessary to intensify disease surveillance and health promotion activities. Pursuing such goal has become necessary so that the health sector may, in due course, focus its efforts and shift its limited resources towards the prevention and control of emerging burdens of disease, most of which are non-communicable in nature. Concerted efforts by the national and local governments, the private sector and other stakeholders play a crucial role in providing financial, technical and political support to national and international initiatives to rid the world of deadly but preventable communicable diseases.

# Tuberculosis

In 2000, tuberculosis was the sixth leading cause of morbidity and mortality in the Philippines. The burden of the disease is made more serious by the fact that the country

has the 8th highest TB incidence in the world and the 3rd in the Western Pacific Region in 2003.

The control of TB, an airborne infection, is achieved mainly by rendering infectious smear-positive cases non-infectious soon after diagnosis is made and by curing as many TB cases identified. These measures reduce disease transmission and minimize the physiological and socio-economic impact of TB on the patient, his family and community. Only Vietnam, among the countries with high TB prevalence, has



attained the global target of 85 percent cure rate and 70 percent case detection rate (WHO 2002). The Philippines has already achieved the 85 percent cure rate target but the case detection rate is still at 61 percent. This means that the country is on the verge of achieving the 70/85 global target for tuberculosis.

The burden of disease from TB is disproportionately high for the poor, elderly, and male although death is highest among older persons. Since TB principally affects the productive age group, it is estimated that the country loses some P26 billion annually due to premature deaths from TB. This staggering burden of disease and economic consequences may well overwhelm the benefits of targeting any group beyond the poor or the elderly, according to the study “Measuring the Burden of Disease and Economic Consequences of TB in the Philippines” (Peabody 2003).

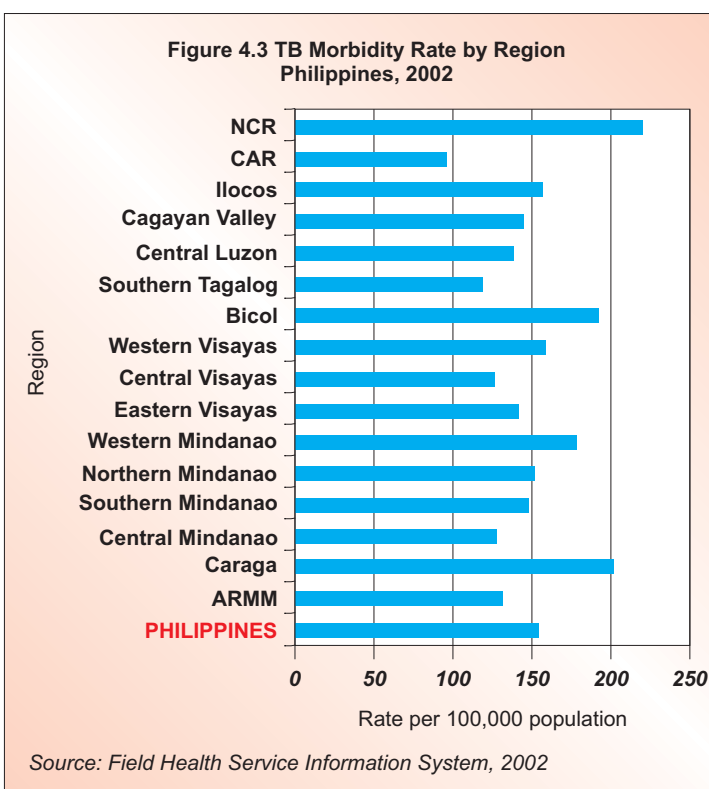
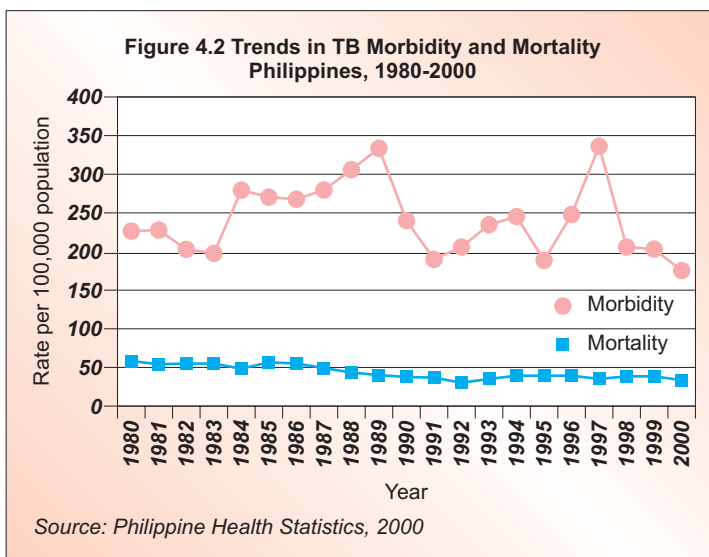
The case detection rate for smear-positive cases of TB increased by 36 percent between 1997 and 2003. It went from 45 percent in 1997 to 61 percent in 2003. Cure rate after completion of standard treatment regimens also improved by 42 percent, that is, from 60 percent in 1997 to 85 percent in 2002. These gains are attributed to the nationwide implementation of the DOTS, the primary strategy endorsed by the WHO to control TB.

DOTS PLUS was also implemented as a project to manage patients with multi-drug resistant TB.

The management of TB in children is still in its initial stage of implementation in the DOTS approach in the country. Data for this are not incorporated in the cases of TB, with private practitioners managing most of these cases. However, the high BCG immunization coverage of 90.8 percent among infants cannot be overemphasized due to the protection it provides to individuals from contracting TB (NDHS 2003).

The TB death rate has leveled off since 1990, with 38.2 deaths per 100,000 population reported for that year and only slightly improving to 36.1 deaths per 100,000 population in 2000. Tuberculosis accounted for 26,000 to 28,000 deaths annually. The number of reported cases, on the other hand, seems to increase or decrease, depending on the level of support from the LGUs in TB case finding. Morbidity rate from TB was 240 cases per 100,000 population in 1990 and improving to 174.6 cases per 100,000 population in 2000, with wide annual variations during the decade. An average of 155,000 cases had been reported annually from 1990 to 2000 (PHS).

Regional and provincial variations in the magnitude of TB have been noted. NCR reported the highest case notification rate for TB at 221.3 cases per 100,000 population followed by Caraga at 203.1 and Bicol at 194.1 while CAR has the lowest case notification rate at 95.6 followed by Southern Tagalog at 118.1 and Central Visayas at 125.6 cases per 100,000 population (FHSIS 2002).



In response to the alarming situation, many local governments allotted budgets, although often insufficient, to buy anti-TB drugs. Seventy percent of the estimated 150 million pesos annual requirement for anti-TB drugs was met by the DOH. The national government also mobilized foreign grants to buy drugs, and PhilHealth firmed up its policies for the TB out-patient benefit package for drugs. This support for adequate drug supply has motivated clinics and hospitals to upgrade their facilities to qualify as TB control service providers. As such, these health facilities avail of the logistics assistance and insurance benefits derived from being PhilHealth-accredited DOTS centers.

Aside from the adequacy of drugs and supplies, a total of 6,468 frontline health workers and 192 supervising personnel were trained between 1999 and 2004 to ensure correct diagnosis and treatment of TB cases nationwide. This included health personnel of the 50 Public-Private Mix DOTS (PPMD) units in 29 municipalities and cities and 16 provinces.

Only 24 percent of Filipinos correctly identify the cause of TB as microbes, germs or bacteria. Although the rate of awareness and belief that TB can be cured is high, the 2003 NDHS revealed that misconceptions on the cause of TB are still common. Most cite smoking, alcohol drinking and fatigue as the causes of the disease. These misconceptions could result in incorrect self-management of the early symptoms of the disease and consequent low case detection rate, and to non-compliance with standard drug regimens resulting in problems in treatment completion and drug resistance.

Gaps in the availability or adequacy of drugs occur at health facilities. While majority of LGUs cannot afford to purchase anti-TB drugs, purchases at the national level, though adequate in amount, have encountered difficulties in the timely distribution of anti-TB drugs at regional and provincial distribution centers.

Goal: Morbidity and mortality from tuberculosis are reduced.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Case detection rate for smear positive TB is increased	Case detection rate of sputum positive cases*	70 percent	61 percent <i>NTP Accomplishment Report, DOH, 2003</i>
Cure rate of smear positive TB is increased	Cure rate of sputum positive cases*	More than 85 percent	85 percent <i>NTP Accomplishment Report, DOH, 2002</i>

\*Millennium Development Indicator



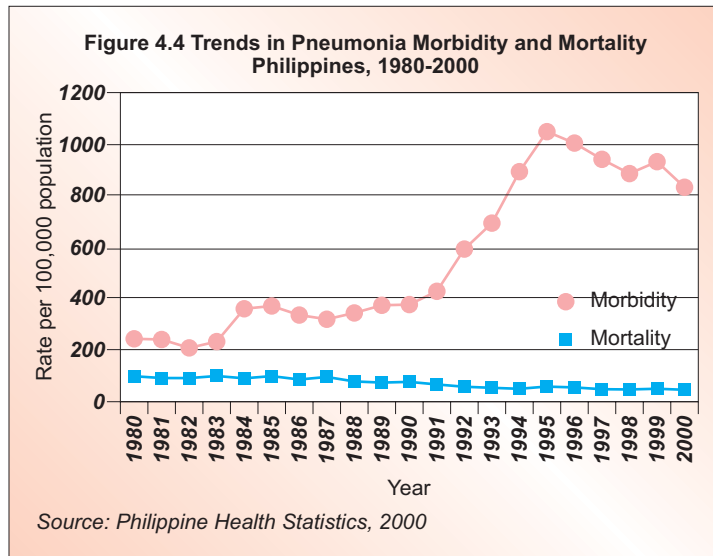
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Mortality rate from TB is decreased	Mortality rate from TB per 100,000 population*	19.6 deaths per 100,000 population	36.1 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>
Morbidity rate from TB is decreased	Morbidity rate from TB per 100,000 population*	137.3 cases per 100,000 population	174.6 cases per 100,000 population <i>Philippine Health Statistics, 2000</i>

\*Millennium Development Indicator

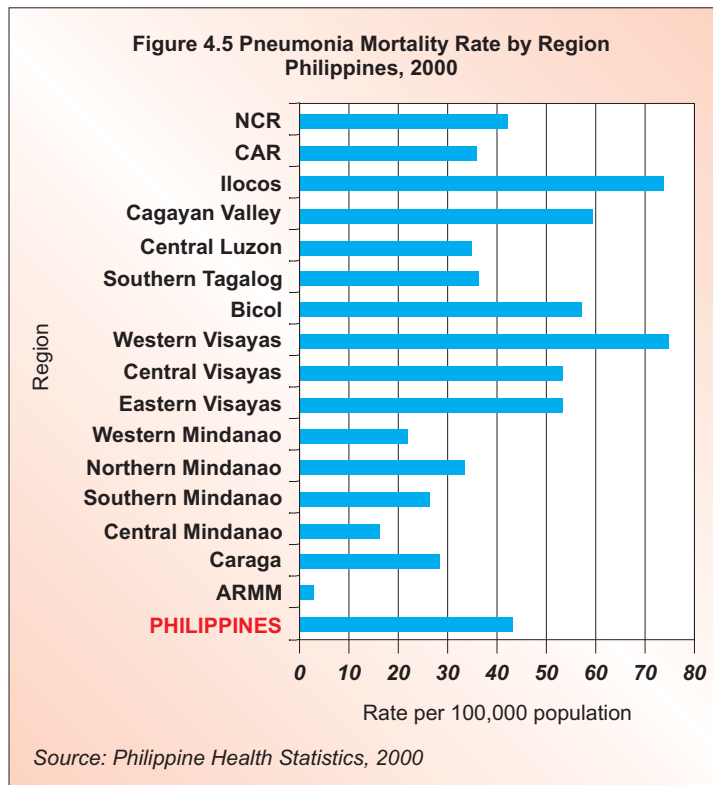
Strategic Thrusts for 2005-2010
<ul style="list-style-type: none"> <li>• <b>Pursue multi-agency financing</b> for the assurance of <b>adequate anti-TB drug supply</b> in accredited clinics to encourage health workers to improve smear (+) TB case detection and promote desired health seeking behavior by TB patients.</li> <li>• <b>Implement quality assurance measures</b> and <b>effective monitoring systems</b> in the implementation of DOTS and DOTS PLUS, with emphasis in laboratory diagnosis, to improve TB control program efficiency.</li> <li>• <b>Organize the participation of both government and private health providers</b> in TB control in all provinces, cities and municipalities to expand the coverage for case detection and treatment.</li> <li>• <b>Intensify public information and education</b> on the correct etiology of TB, diagnosis using sputum examination, and treatment with combination of drugs, and about affordable services at the DOTS centers.</li> <li>• <b>Ensure BCG immunization of infants</b> to decrease their susceptibility from contracting tuberculosis and <b>incorporate the management of primary TB in children</b> through DOTS.</li> </ul>

## Pneumonia and other Acute Respiratory Infections

Pneumonia remains in the list of the leading causes of morbidity and mortality in the Philippines. It ranked third among the causes of morbidity and fourth among the causes of death in 2000.



There was an increase in the morbidity trend for pneumonia from 1990 to 1996. This may be due to improved case finding and reporting with the intensification of the program to control acute respiratory infections during this period. The morbidity trend decreased slightly from 1997 to 2000 but the number of cases remained high at 829 cases per 100,000 population in 2000. On the other hand, there is a decreasing trend of mortality from pneumonia in the general population from 1990 to 2000 despite the high number of cases per year. The mortality rate from pneumonia decreased from 64.7 deaths per 100,000 population in 1990 to 42.7 deaths per 100,000 in 2000 (PHS). This reflects improvement in the diagnosis and treatment of cases.



The region with the highest reported mortality rate from pneumonia is Western Visayas (74.6 deaths per 100,000 population) followed closely by Ilocos (73.7 per 100,000) and Cagayan Valley (59.2 per 100,000) with ARMM having the lowest reported death from pneumonia at 2.5 deaths per 100,000 followed by Central Mindanao (15.6 per 100,000) and Western Mindanao (21.3 per 100,000) (PHS 2000).

Death rate from pneumonia among children under-five years of age followed a downward trend since the 1980s. The death rate from pneumonia decreased by around 83.6 percent during a twenty-year period, from 401.93 per 100,000 under five years old

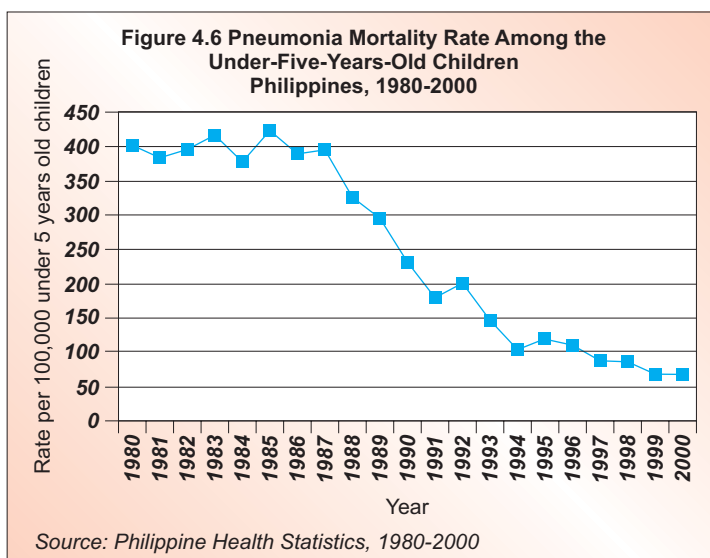
children in 1980 to 66.11 per 100,000 in 2000 (PHS). On the other hand, morbidity rate among under-five years old children went up from 4,899.23 per 100,000 in 1999 to 5,076.17 per 100,000 in 2002 (FHSIS).

The 2003 NDHS revealed that only 46 percent of children below five years of age who had the symptoms of acute respiratory infection were taken to a health facility or health care provider for treatment. This is a 12 percentage point reduction from the 58

percent reported in the 1998 NDHS. This may imply that the reduction in deaths from pneumonia among young children may have been due to improved knowledge and skills in managing the fewer pneumonia cases that have been brought to the health facility.

Management of pneumonia and other childhood infections has improved in 16 of the 17 regions that applied the Integrated Management of Childhood Illness (IMCI). IMCI is a strategy used in providing holistic health care services among the under five-year-old children ranging from detailed history taking, physical examination, diagnosis and treatment of diseases and conditions. The promotion of IMCI through regular in-service and pre-service training of frontline health personnel is supported by international and local funding agencies. The IMCI strategy requires that appropriate drugs for pneumonia are available at the health service outlets at any given time. DOH and PhilHealth-accredited clinics, health centers and hospitals generally provide patients with the necessary drugs at low cost. However, not all health facilities are able to carry out IMCI appropriately and consistently due to shortage of drugs. This is due to the limited local sources of drugs or to failures in the drug distribution system at the regional and local levels.

Although the drugs necessary to treat pneumonia are available over the counter, general consultations and treatment services for older children, adults and older persons with pneumonia needs improvement to multiply the gains that have been achieved in pneumonia control among the younger age groups.



Goal: Mortality from pneumonia and other acute respiratory infections is reduced.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Mortality from pneumonia among children under 5 years old is reduced.	Mortality rate from pneumonia among under five-year-old children	33 per 100,000 under five-year-old children	66.11 per 100,000 under five-year-old children <i>Philippine Health Statistics,</i>
	Percentage of under five-year-old children with symptoms of ARI who sought treatment from a health facility or health provider	90 percent	46.3 percent <i>National Demographic and Health Survey, 2003</i>
Mortality from pneumonia among older persons is reduced.	Mortality rate from pneumonia among 60-year-old persons and older	400 per 100,000 older persons	453 per 100,000 older persons <i>Philippine Health Statistics, 2000</i>
Mortality from pneumonia among the general population is reduced.	Mortality rate from pneumonia among all age groups	21 per 100,000 population	42.7 per 100,000 population <i>Philippine Health Statistics, 2000</i>

Strategic Thrusts for 2005-2010
<ul style="list-style-type: none"> <li>• <b>Improve the quality and reliability of implementation of the Integrated Management of Childhood Illness (IMCI)</b> in all health care units through training, supervision and monitoring.</li> <li>• Continue medical, nursing and midwifery <b>education on pneumonia diagnosis and management.</b></li> <li>• <b>Promote timely and appropriate management</b> for pneumonia and acute respiratory illness among the general population to avoid further complications of the disease.</li> <li>• <b>Ensure availability of affordable drugs</b> for pneumonia patients, especially for young children and older persons, at the local level.</li> </ul>

## Vaccine-Preventable Diseases

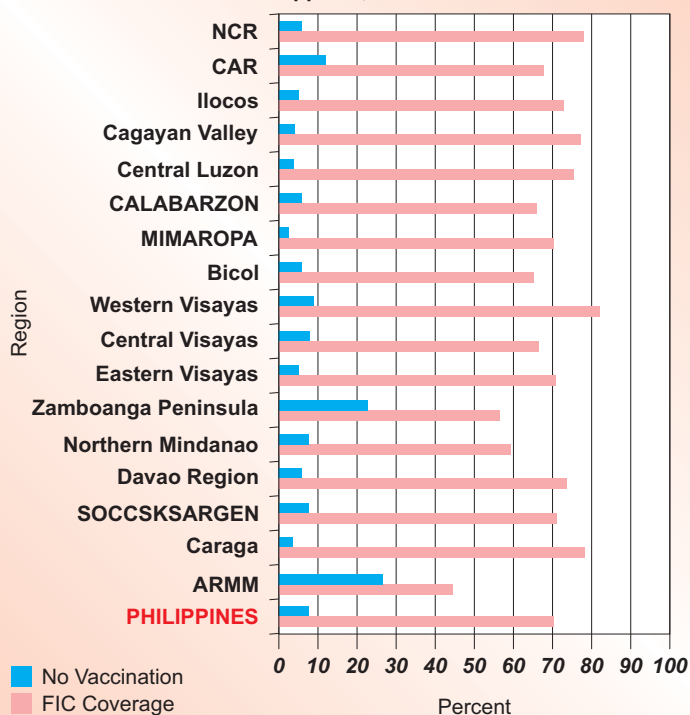
When the Expanded Program on Immunization (EPI) was first carried out in the Philippines in the 1980s, it covered six vaccine-preventable diseases that include tuberculosis, diphtheria, pertussis, tetanus, poliomyelitis and measles. Hepatitis B immunization was later incorporated into the program. However, monitoring of fully immunized children (FIC) in the country includes only the following: one dose of BCG, three consecutive doses of DPT vaccine, three consecutive doses of OPV and one dose of measles vaccine. Hepatitis B vaccine is not yet included in the monitoring of FIC.

The level of FIC has decreased from 90 percent coverage in 1996 and 1997 to 69.8 percent in 2003. The region with the highest coverage of FIC is Western Visayas (81.4 percent) followed by Caraga (77.6 percent) while the lowest FIC coverage was reported in ARMM (44 percent) and Zamboanga Peninsula (56.1 percent) (NDHS 2003). The decline in immunization coverage is dangerous, considering that the gains in morbidity and mortality reduction recorded for the different vaccine-preventable diseases need to be sustained to pursue disease elimination goals in the next six years.

It is alarming that 7.3 percent of infants were not covered with any form of vaccination in 2003. The highest percentage of infants with no vaccination at all was reported in ARMM (26.3 percent) followed by Zamboanga Peninsula (22.6 percent). The lowest percentage of infants with no vaccination was reported in MIMAROPA (2.0 percent), Caraga ((3.3 percent) and Central Luzon (3.5 percent) (NDHS 2003).

Immunization services remain widely accepted and sought in most parts of the country. Local governments, non-government organizations and national agencies have remained enthusiastic supporters of all immunization drives.

**Figure 4.7 Fully-Immunized Child (FIC) Coverage and Children With No Vaccination at All by Region Philippines, 2003**



Source: National Demographic and Health Survey, 2003

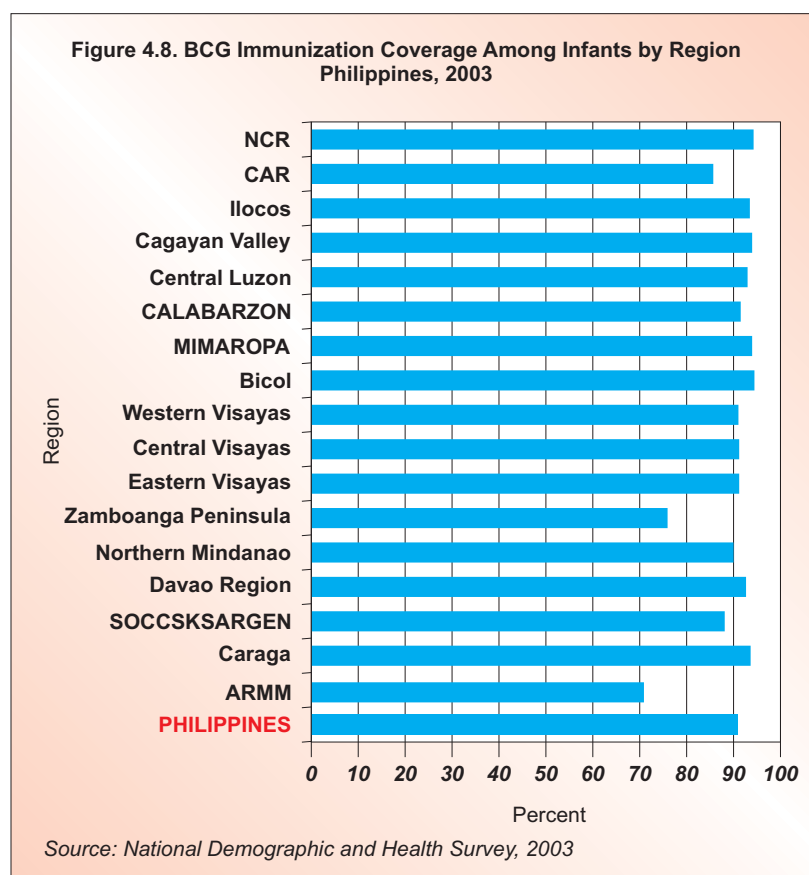
However, significant pockets of hard-to-reach rural villages and mobile urban poor population have not been provided immunization through routine services. Moreover, the surveillance network for vaccine-preventable diseases has not filtered down to a significant number of community-level implementing units and immunization reporting by implementing partners has not been as timely and complete as recommended by the DOH. Private sector practitioners do not, as a rule, comply with government immunization policies and in reporting their immunization coverage. These issues need to be addressed to prevent resurgence of virtually eliminated vaccine-preventable diseases, and to avoid delay in the nationwide disease elimination efforts.

To ensure universal, adequate and regular supply of potent vaccines for implementing units, the DOH, with assistance from the UNICEF, has institutionalized a Vaccine Independence Initiative. In addition, a vaccine production plant has been set-up at the Research Institute for Tropical Medicine (RITM). When fully operational, the plant is expected to produce adequate supply of high quality and affordable vaccines. Success for BCG production trial runs has been noted and large-scale production has been started. Production of human Hepatitis-B and rabies immunoglobulin and anti-tetanus

serum will soon follow. Moreover, safe injection practices using auto-disable syringes have been introduced and non-functional cold chain equipment at the regional, provincial and city levels have been replaced. These efforts will ensure that nationwide immunization programs are carried out and sustained.

### Tuberculosis

Tuberculosis is caused by *Mycobacterium tuberculosis* and is one of the top causes of morbidity and mortality in the country. The risk of developing the disease is highest in children under three years old, but the



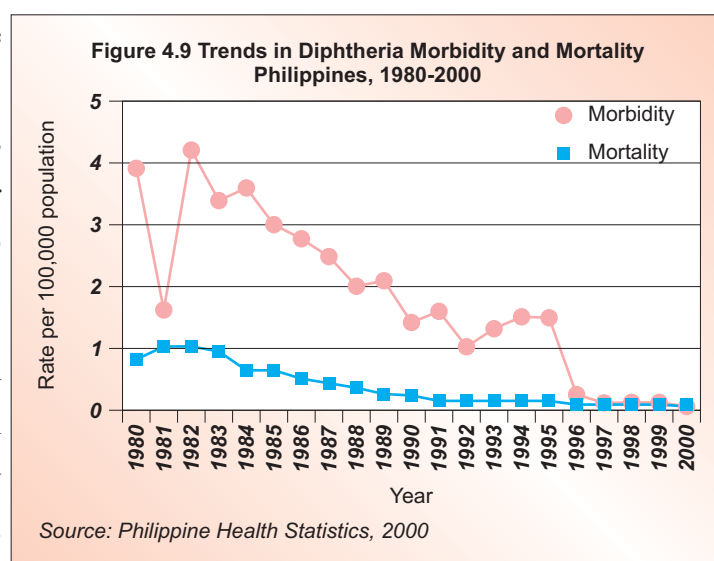
true scope of the disease among children is unknown. An infected child has a 10 percent chance of developing the disease in later childhood or in adulthood. Most child deaths result from a severe form of the disease known as TB meningitis.

BCG vaccine given immediately upon birth provides the greatest possible protection from tuberculosis. BCG coverage among infants is 90.8 percent as reported in the NDHS 2003. The highest BCG immunization coverage was reported in NCR and Bicol at 94.4 percent and the lowest coverage was noted in ARMM at 71 percent and Zamboanga Peninsula at 76 percent.

## Diphtheria

Diphtheria is caused by *Corynebacterium diphtheriae*. The immunization for diphtheria is incorporated in the administration of diphtheria, pertussis, tetanus (DPT) vaccine, which is ordinarily given for three consecutive monthly doses among infants. The coverage for the three DPT doses as reported in the NDHS 2003 is 89.9 percent for DPT 1, 85.9 percent for DPT 2 and 78.9 percent for DPT 3.

Although not all children have been covered with DPT vaccines, the relatively high coverage in the past decade has virtually eliminated the disease as a major public health problem in the country. The morbidity

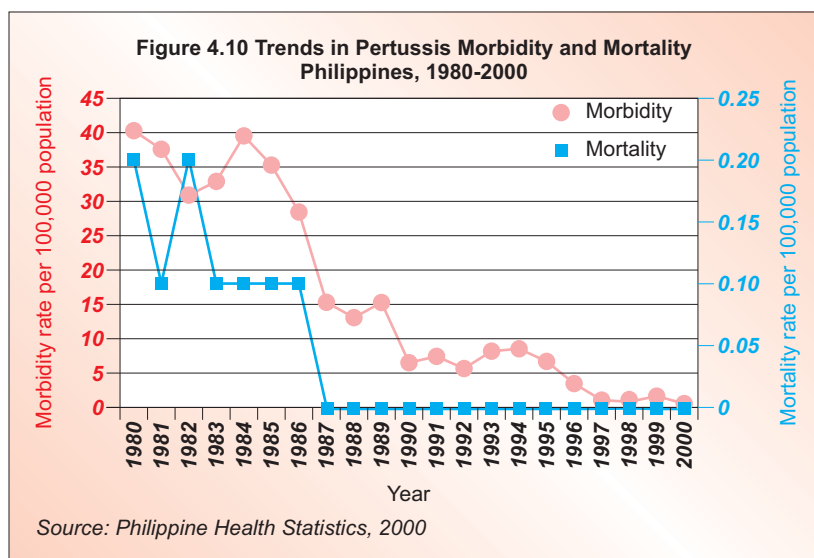


and mortality data for diphtheria show decreasing trends through the years with only 25 cases and 24 deaths reported nationwide in 2000 (PHS). (Note: Due to the statistically negligible number of cases and deaths they are reflected as zero rates per 100,000 population).

## Pertussis

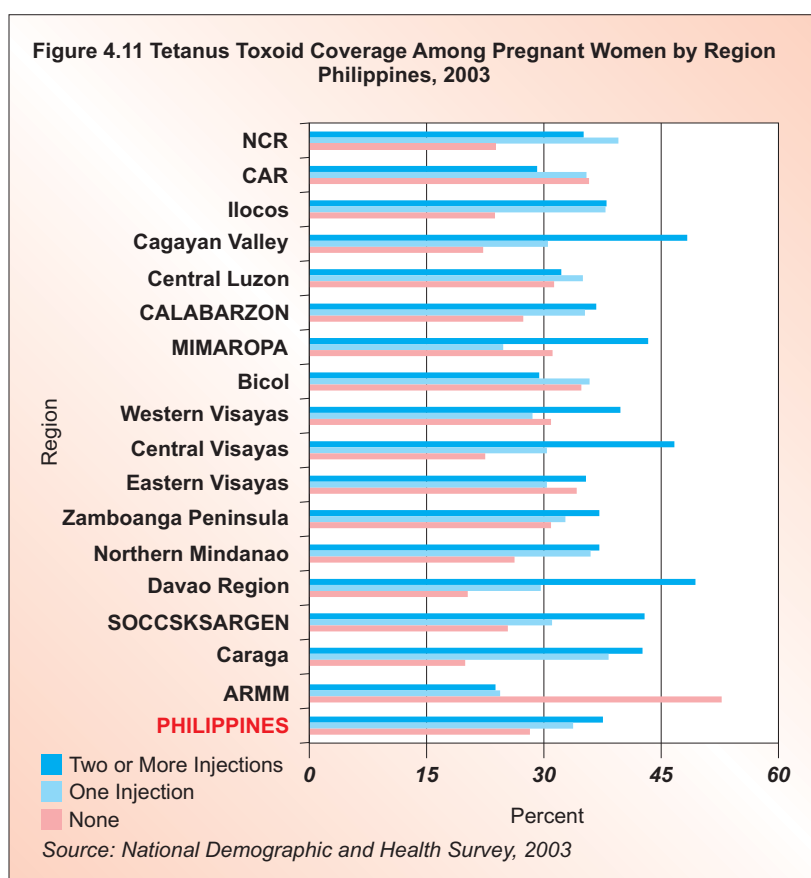
Pertussis is caused by the microorganism *Bordetella pertussis*. It is also covered in the DPT immunization for infants. Despite the incomplete immunization coverage of some children for this disease, the morbidity and mortality rates are also decreasing with only 942 cases (or a morbidity rate of 1.2 cases per 100,000 population) and only two deaths





reported in the country in 2000 (PHS). With this negligible number of cases and deaths, the disease is also practically eliminated as a major public health problem in the country. (Note: Due to the statistically negligible number of deaths they are reflected as zero rate per 100,000 population).

## Tetanus



Tetanus infection is caused by the organism *Clostridium tetani*. It is a concern among all age groups although intervention is focused on the administration of tetanus toxoid among women of reproductive age to increase the passive immunity of newborns who are prone to neonatal tetanus due to unsanitary practices in umbilical cord cutting and dressing upon birth. Tetanus is also covered in the DPT immunization for infants.

The coverage of more than two doses of tetanus toxoid (TT2 plus) among pregnant women in the country in 2003 is 37.3 percent. The highest percentage of coverage is reported in

Davao Region at 49.1 percent followed by Cagayan Valley at 47.9 percent. The lowest coverage is noted in ARMM at 23.4 percent, followed by CAR at 28.7 percent (NDHS 2003).

The number of cases of neonatal tetanus, which is the cause of the greatest number of deaths from tetanus in the past, has continued to decrease in recent years from 174 cases

**Table 4.2 Neonatal Tetanus Cases by Region Philippines 2002**

Region	Number of cases
NCR	2
CAR	1
Ilocos	0
Cagayan Valley	14
Central Luzon	3
Southern Tagalog	1
Bicol	15
Western Visayas	10
Central Visayas	11
Eastern Visayas	9
Western Mindanao	20
Northern Mindanao	9
Southern Mindanao	0
Central Mindanao	16
Caraga	0
ARMM	6
<b>Philippines</b>	<b>117</b>

Source: Field Health Service Information System, 2002

reported in 1995 to 117 cases in 2002 (FHSIS).

The country needs to sustain the elimination level of neonatal tetanus as a public health problem at a level of less than one case per 1,000 live births.

The latest data reflects a neonatal tetanus rate of

0.07 per 1,000 live births in 2002.

The region with the highest reported case of neonatal tetanus in the Philippines in 2002 is Western Mindanao with 20 cases, followed by Central Mindanao with 16 and Bicol with 15.

A decreasing trend in tetanus death rate has been noted in the general population from 2.0 deaths per 100,000 population in 1980 to 1.0 death per 100,000 since 1997 to 2000. The morbidity rate has also

decreased considerably from 6.2 cases per 100,000 population in 1980 to a level of only 0.4 case per 100,000 in 2000, but underreporting of cases has been noted.

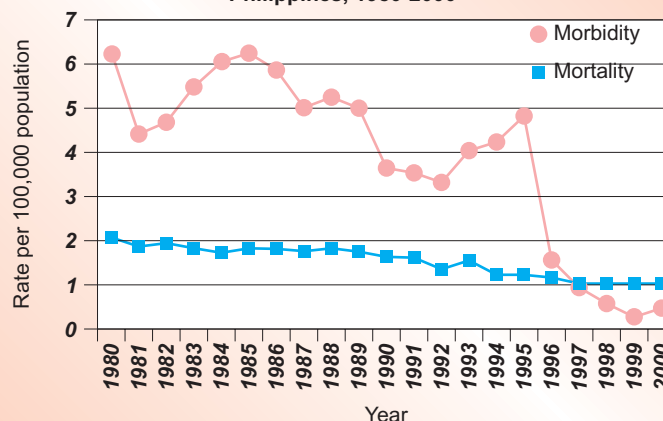
The vaccination of pregnant women with tetanus toxoid and safer birthing practices especially in the umbilical care of newborns have helped in the decline of neonatal tetanus as a major public health problem in the Philippines. Moreover, the routine vaccination of infants with DPT, better wound management, and advancement in medical care have also greatly contributed to the lowering of tetanus cases in the general population.

**Table 4.1 Number and Rate per 1,000 live births of Tetanus Neonatorum Philippines 1995-2002**

Year	Number of cases	Rate per 1,000 live births
1995	174	0.106
1996	185	0.115
1997	183	0.110
1998	155	0.095
1999	178	0.110
2000	113	0.064
2001	113	0.066
2002	117	0.070

Source: Field Health Service Information System, 1995-2002

**Figure 4.12. Trends in Tetanus Morbidity and Mortality in the General Population Philippines, 1980-2000**



Source: Philippine Health Statistics, 2000

## Poliomyelitis

In October 2000, the Philippines was declared polio-free. Poliomyelitis is considered eradicated if zero wild poliovirus is reported for at least three consecutive years with good quality surveillance for acute flaccid paralysis (AFP). Good quality AFP surveillance means that there should be a non-polio AFP rate of one case per 100,000 population below 15 years old; at least 80 percent adequate stool specimen collection; at least 80 percent of AFP cases reported are investigated within 48 hours; and at least 80 percent of AFP cases are followed-up after 60 days. Surveillance for the possibility of recurrence of wild poliomyelitis virus in 2003 and 2004 yielded negative results.

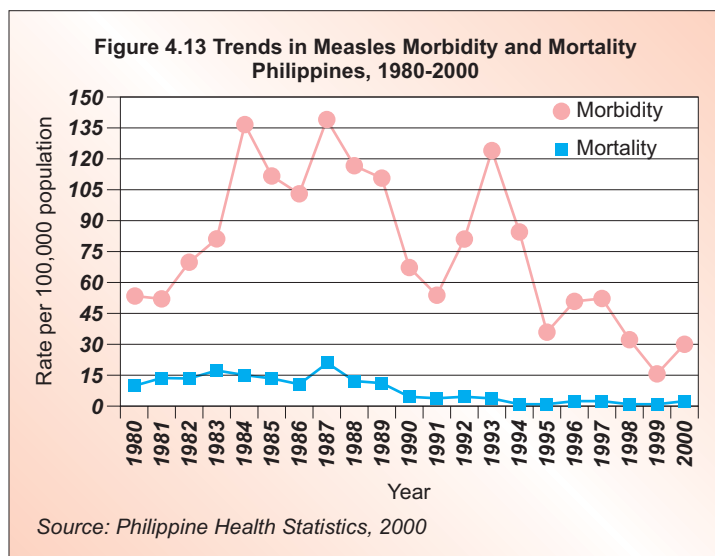
With the eradication of poliomyelitis in the Philippines, disease surveillance must be strengthened and coverage of OPV vaccines among infants continued. Efforts must be made to prevent the entry of poliomyelitis from countries that have not yet eradicated the disease.

## Measles

Measles or rubeola is caused by the measles virus, a single stranded RNA virus of the genus Morbillivirus. From the late 1980s to 2000, the mortality rate from measles has been constantly going down from a peak level of 21.2 deaths per 100,000 population in 1987 to 1.9 deaths per 100,000 population in 2000 (PHS). A decreasing trend for morbidity rate is also noted but there are periods of resurgence of cases every two to three years.

The routine immunization of at least 95 percent of infants is still the most important

strategy to control measles in the Philippines. Interventions like supplemental immunization of the target population are also conducted to attain the goal of eliminating measles as a public health problem by 2008. This means bringing the level of measles to less than one confirmed case per million population per year, excluding the imported cases and with excellent surveillance of all fever and rash cases and chain of transmission.

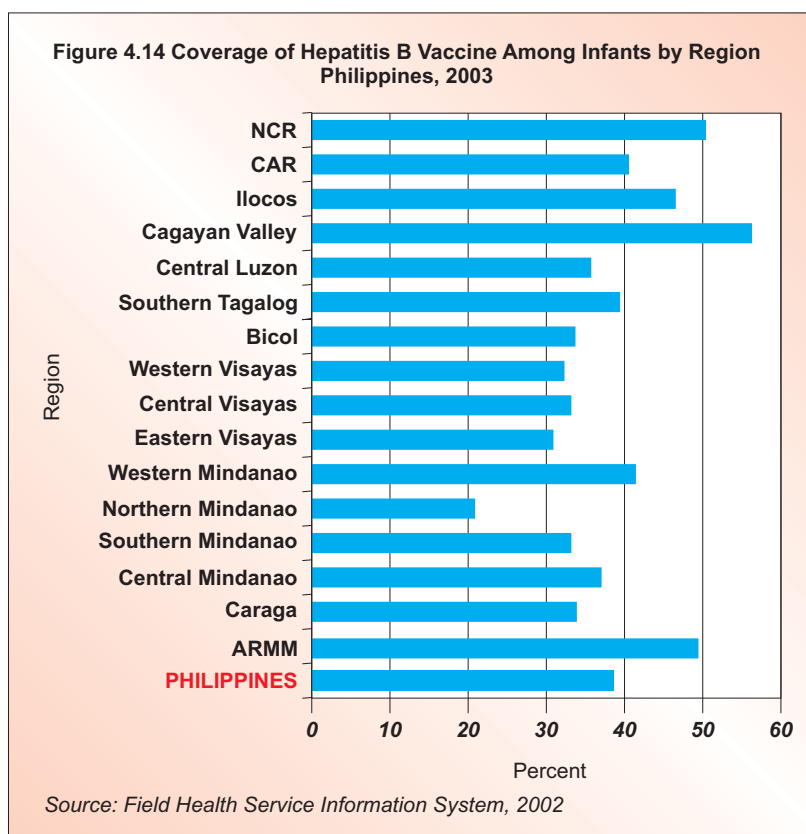


After the two successful nationwide supplemental measles campaigns (Ligtas Tigdas door to door campaign) in 1998 and in 2004, wherein children less than eight years old underwent supplemental measles immunization, the number of measles cases in the country dropped from 14,664 in 1997, a peak year, to 3,025 by the end of 2004. The supplemental immunization addressed the large number of unvaccinated children and the build-up of susceptible children over the years.

## Hepatitis B

Hepatitis B virus is a major cause of the development of liver malignancy. Immunization upon birth ensures the greatest protection of individuals from acquiring Hepatitis B infection that may develop into a chronic liver disease. Among all the vaccines covered under the Expanded Program on Immunization, Hepatitis B immunization has the lowest coverage. This is mainly due to the higher cost of Hepatitis B vaccines compared with the other vaccines and the limited resources of government to cover all infants.

The 2002 FHSIS reported that only 38.5 percent of infants in the Philippines received the complete three doses of Hepatitis-B vaccine. Cagayan Valley has the highest vaccination coverage for Hepatitis-B at 56.4 percent, followed by NCR at 50.4 percent and ARMM at 49.4 percent. Hepatitis B vaccination coverage is lowest in Northern Mindanao at 20.6 percent, followed by Eastern Visayas at 30.9 percent.



**Goal: Polio-free status of the Philippines is maintained.**

**Neonatal tetanus elimination level is maintained.**

**Measles, diphtheria and pertussis are eliminated as public health problems.**

**Morbidity and mortality from tuberculosis and hepatitis B are reduced.**

*(Polio is considered eradicated if there is zero wild poliovirus reported with good quality surveillance for three consecutive years. Neonatal tetanus is considered eliminated as a public health problem if there is less than one case per 1,000 live births. Measles is eliminated as a public health problem if there is less than one case per million population nationwide with excellent surveillance.)*

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Children below one year old are immunized against vaccine-preventable diseases	Coverage of fully immunized children (FIC)	95 percent in every barangay	69.8 percent <i>National Demographic and Health Survey, 2003</i>
	Measles immunization coverage*	95 percent in every barangay	79.7 percent <i>National Demographic and Health Survey, 2003</i>
	Hepatitis-B vaccination coverage among children under one year old	70 percent in all provinces	38.5 percent <i>Field Health Service Information System, 2002</i>
	BCG immunization coverage among children below one year old	95 percent	90.8 percent <i>National Demographic and Health survey, 2003</i>
The elimination level of neonatal tetanus is maintained	Neonatal tetanus case per 1,000 live births	Less than one case per 1,000 live births	0.07 case per 1,000 live births <i>Philippine Health Statistics, 2002</i>
	Coverage of pregnant women given at least 2 doses of Tetanus Toxoid (TT2+)	80 percent	37.3 percent <i>National Demographic and Health Survey, 2003</i>
Polio-free status of the Philippines is maintained	Number of wild poliovirus detected	Zero	Zero <i>EPI Surveillance Annual Report, 2004</i>
Measles is eliminated as a public health problem	Measles case per one million population	Less than one case per one million population (less than 100 cases nationwide)	3,025 cases nationwide <i>EPI Surveillance Annual Report, 2004</i>
Cases of the other vaccine preventable diseases are reduced	Incidence rate of diphtheria	Less than 0.03 case per 100,000 population	0.03 case per 100,000 population <i>Philippine Health Statistics, 2000</i>

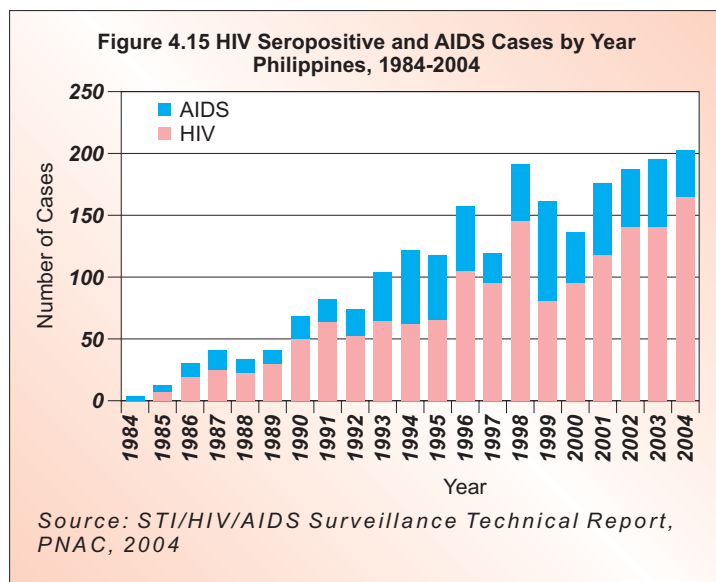
\*Millennium Development Goal

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Incidence rate of pertussis	Less than one case per 100,000 population	1.2 cases per 100,000 population <i>Philippine Health Statistics, 2000</i>
	Morbidity rate of tuberculosis	137.3 cases per 100,000 population	174.6 cases per 100,000 population <i>Philippine Health Statistics, 2000</i>

Strategic Thrusts for 2005-2010
<ul style="list-style-type: none"> <li>• <b>Intensify the Reaching Every Barangay (REB) Strategy</b> to achieve at least 95 percent full immunization coverage for infants in all barangays.</li> <li>• <b>Pursue supplementary tetanus toxoid immunization</b> activities at sub-national levels, especially among high-risk populations such as pregnant women among indigenous groups, in areas with armed conflict, among mobile poor population, etc., to ensure high tetanus toxoid coverage among pregnant women.</li> <li>• <b>Provide second opportunity for measles immunization</b> nationwide to ensure high measles coverage and reduce disease incidence toward elimination.</li> <li>• <b>Integrate surveillance system</b> for measles and neonatal tetanus with AFP (polio) surveillance at national and sub-national levels.</li> <li>• Work for the <b>participation of the private sector</b> in implementing the minimum standard immunization doses, reporting and case surveillance to enhance disease elimination efforts.</li> <li>• <b>Pursue vaccine self-sufficiency</b> wherein the country is able to produce or procure good quality vaccines enough to cover the target population for the immunization.</li> <li>• <b>Sustain efforts in advocacy and promotion</b> for the full immunization of children in all barangays.</li> </ul>

## *HIV/AIDS and other Reproductive Tract Infections*

Since the time the first AIDS case in the country was reported in 1984 until the end of 2004, a cumulative total of 2,205 HIV-positive cases have been reported to the national registry. This figure is compatible with the estimated low prevalence of HIV/AIDS in the country which is 0.03 case per 100,000 population (FHSIS 2003). Of the total HIV-positive cases registered, 1,529 or 69 percent were asymptomatic while 676 or 31 percent were AIDS cases. Of the total full-blown AIDS cases, 263 or 39 percent already resulted in death. Majority (63 percent) of registered cases were males and 90 percent of them were in the 20 to 49 years age group. Only two percent were children aged 10 years or younger. Six hundred forty (38 percent) were overseas Filipino workers (OFWs). As to mode of transmission, 85 percent were sexually transmitted, most of which through heterosexual transmission (PNAC 2004).



HIV/AIDS surveillance and reporting in the Philippines have their limitations because of the policies of upholding voluntary testing and confidentiality and, therefore, caution must be exercised in the interpretation of HIV/AIDS data.

Knowledge of the cause, modes of transmission and preventive measures is high among the risk groups, and many have taken the precautions prescribed by HIV/AIDS counselors and educators. As for the general

population, the 2003 NDHS revealed that 95 percent of women and 96 percent of men are aware of AIDS and 88 percent of women and 89 percent of men believe that there is a way to avoid AIDS. There is also moderate level of knowledge among Filipino men and women regarding the reduction of risk in contracting the AIDS virus by using condom (men 62.4 percent and women 48.4 percent) and limiting sex to one uninfected partner who has no other partners (77 percent for both men and women).

The low prevalence of HIV/AIDS in the country is due to the wide-ranging health promotion interventions that government and non-government organizations, which have appropriately focused on known vulnerable populations like OFWs, female sex



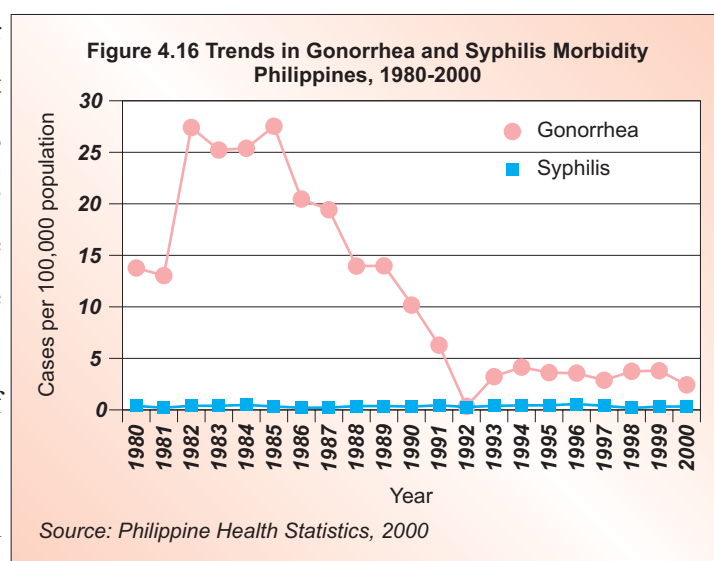
workers, men having sex with men, injecting drug users, among others. The current socioeconomic and political uncertainties increase the vulnerability of some segments of society to high-risk behavior such as prostitution and drug use. Efforts are focused on the effective use of disease and risk behavior surveillance among these vulnerable groups.

Since sexual intercourse is the leading mode of transmission of HIV in the Philippines, the incidence and trend of other sexually transmitted infections (STIs) or reproductive tract infections (RTIs) need to be tracked and controlled. HIV/AIDS has co-morbidity with other RTIs such as gonorrhea, syphilis and herpes. Based on the PHS 2000, the reported cases of gonococcal infection caused by *Neisseria gonorrhea* has significantly decreased from 27.4 cases per 100,000 population in 1985 to 2.5 cases per 100,000 population in 2000. In the case of syphilis, which is caused by *Treponema pallidum*, the reported cases have remained low, ranging between 0.1 to 0.4 case per 100,000 population through the years.

Data for the other RTIs like *Herpes simplex* type II and *Chlamydia trachomatis* are not available. The reporting and tracking of cases for the RTIs are difficult, often under-reported, due to the stigma attached to the diseases and the issue of confidentiality. Like in other diseases of public health concern, private health facilities do not report cases of RTIs for registry purposes.

The 2003 NDHS reported that among men aged 15-49 years who ever had sex, there is an average of 1.9 percent who reported to have RTI, abnormal genital discharge, genital sore or ulcer. Stigma and discrimination often discourage persons infected with RTIs from availing appropriate treatment from health professionals. NDHS findings indicated that among men aged 15-49 years with symptoms of RTI, only 33.4 percent sought advice and treatment from health facilities or health professionals while 53.6 percent did not seek any advice or treatment.

Despite the apparent low and slow progression of the HIV epidemic in the country, it is a major public health concern. With an increasing rate of risk behaviors and fertile socio-



cultural milieu, a single case can grow into hundreds and thousands over time. Other RTIs help in the spread of HIV/AIDS. Their prevention and control can be used as an effective strategy in curbing the HIV/AIDS epidemic.

<b>Goal: Transmissions of HIV/AIDS and other reproductive tract infections are contained and their impact mitigated.</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
The prevalence of HIV/AIDS among the general population is contained	Prevalence rate of HIV/AIDS per 100,000 population	Less than one case per 100,000 population	0.03 per 100,000 population <i>Field Health Service Information System, 2003</i>
	Prevalence rate of HIV/AIDS among pregnant women ages 15 to 24 years*	Less than one percent	To be determined
The prevalence of HIV/AIDS among the high risk or more vulnerable population is contained	Prevalence rate of HIV/AIDS among the high risk or more vulnerable population	Less than 3 percent	Less than 3 percent <i>HIV/AIDS Sentinel Surveillance System, 2004</i>
The incidence of gonorrhea among the high risk or more vulnerable population is reduced	Incidence rate of gonorrhea among the high risk or more vulnerable population	12 percent or less	23 percent <i>HIV/AIDS Sentinel Surveillance System, 2004</i>
The transmission of RTIs in the general population and among the vulnerable groups is reduced	Condom use rate*	3 percent	1.9 percent <i>National Demographic and Health Survey, 2003</i>
	Condom use rate at last high-risk sex*	80 percent	40 percent <i>HIV/AIDS Sentinel Surveillance System, 2004</i>

\*Millennium Development Goal Indicator

<b>Strategic Thrusts for 2005-2010</b>
<ul style="list-style-type: none"> <li>• <b>Extend disease surveillance and diagnostic facilities to more sites</b> to expand service coverage and improve case detection.</li> <li>• <b>Prevent mother-to-child transmission</b> of HIV/AIDS. In the absence of any intervention, an estimated 15-30 percent of mothers with HIV infection will transmit the infection during pregnancy and delivery and 10-20 percent through breast milk.</li> <li>• <b>Prevent and control STI-HIV/AIDS transmission among workers dealing with human body, human parts and tissues, and human fluids</b> such as allied medical and paramedical health personnel, embalmers, mortuary workers, tattoo artists through education and capability building, both in public and private facilities.</li> <li>• <b>Promote safe sex and other positive behavior</b> relevant to the control of HIV-AIDS and RTIs among the vulnerable and general population.</li> </ul>

### Strategic Thrusts for 2005-2010

- **Address the stigma and discrimination against the vulnerable groups** by the general population by promoting local government-initiated and community-based programs. Through this, **prevention by caring**, which entails respect for human dignity, gender sensitivity, preserving confidentiality; and **provision of adequate and appropriate information, education and health service** to control HIV/AIDS at the community level can be enhanced. This would give the persons living with HIV/AIDS (PLWHAs) a free environment to share their experiences and would give the community a better view of how HIV transmission could be prevented.
- **Strengthen collaboration of DOH with LGUs and NGOs to reach out and provide acceptable, accessible and affordable medical and social services** to the following "hidden" vulnerable or marginalized groups such as registered female sex workers, freelance female sex workers, male sex workers, injecting drug users, OFWs, children with HIV/AIDS, people with HIV/AIDS, incarcerated persons, retardates and men having sex with men
- **Research and development** to advance the management of HIV/AIDS and other reproductive tract infections.
- **Improve the central management of the multi-agency, multi-sector STI-HIV/AIDS program** through a regular review of roles and responsibilities and by installing a comprehensive monitoring and evaluation system.

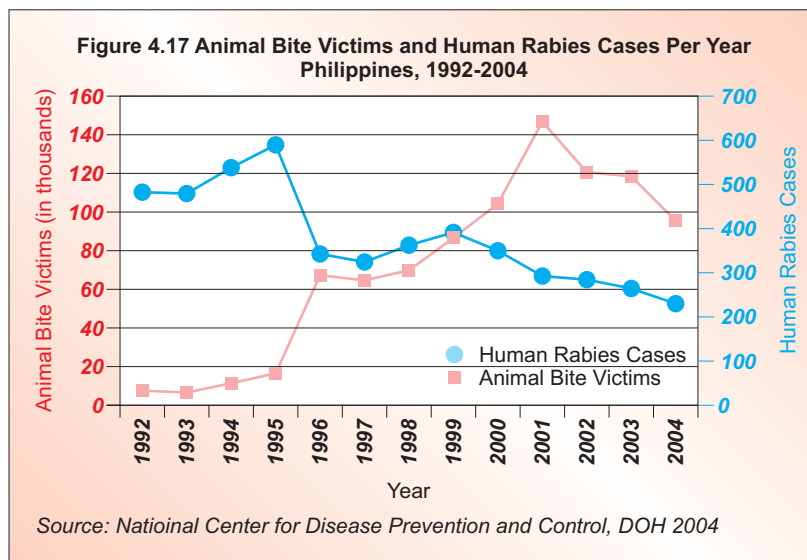
## Rabies

Although rabies is not among the leading causes of disease and death in the country it has become a public health problem of significance for two reasons: it is one of the most acutely fatal infections which causes the death of between 200-500 Filipinos annually, and the Philippines ranked number six among the countries with the highest reported incidence of rabies in the world.

Based on the report from NCDPC (2004), the six regions with the most number of rabies cases are Western Visayas, Central Luzon, Bicol, Central Visayas, Ilocos and Cagayan Valley. Since the Philippines is highly endemic of rabies, voluntary pre-exposure

prophylaxis among people who are at risk, like pet owners, animal handlers, health personnel working in anti-rabies units and children below 15 years old, is a must. Data shows that 53.7 percent of animal bites patients are children.

The trend for animal bite cases has increased from 1992 to 2001 but decreased in the year 2002-2004. The increasing number of patients who



are consulting the health centers for animal bite cases is due to the increasing level of awareness on rabies. On the other hand, the human rabies cases have been decreasing from 1995 to 2004. This is due to early provision of post exposure vaccination to dog bite victims.

Dogs remain the principal animal source of rabies. Although a great majority of animal bites are non-infected with the rabies virus, animal control and other public health measures are undertaken because of the high case fatality rate for rabies.

It is hard to make a definite early diagnosis of rabies, and the disease almost always leads to death even when vaccination and medical management are given as soon as the symptoms have set in. Further, the cost of post-exposure vaccination against rabies can be prohibitive. There is yet no way of immediately segregating those who had acquired

rabies infection from those who had been bitten by non-rabid sources. Thus, all efforts should be made to contain rabies at its source, with universal immunization of dogs and responsible pet ownership as major preventive measures.

While dog immunization is the responsibility of the Department of Agriculture (DA), responsible pet ownership can be promoted and enforced by the local governments. However, since other non-pet animals can also transmit rabies and not all dogs can be protected, post-exposure vaccination as early as possible is the next public health measure to carry out. Post-exposure vaccination is mainly the shared responsibility of the local government and the DOH.

In 2004, there were 95,568 animal bite victims reported with 88 percent of them bitten by dogs. Of this animal bite victims, 55,582 or 58 percent had post-exposure vaccination and the other 40,000 or so had no vaccine protection at all. During the same year, 228 (0.2 percent of the total animal bite cases) were confirmed cases based on the appearance of the unequivocal signs and symptoms of rabies which include death for most.

The interagency network for the control of rabies is most active in municipalities that acknowledge rabies as a priority health concern. The network consists of the DA as the lead agency which is in charge of dog immunization and dog control measures, the DOH which is responsible for the management of animal bites, including increased availability of human anti-rabies vaccines, and the Department of Education and LGUs which are in charge of promoting responsible pet ownership. However, local ordinances that are necessary to enforce compulsory dog immunization and responsible pet ownership are either not enacted or weakly enforced in most LGUs and rabies control program has not been integrated among the regular health services provided by local health facilities. In addition, the volume of human anti-rabies vaccines annually available in public health facilities through purchases by the DOH can cover only 10 percent of dog bite victims. The price of anti-rabies vaccines in private facilities, like other drugs, is market-driven.

**Goal: Rabies is eliminated as a public health problem.**

*(Rabies is eliminated as a public health problem at less than 0.5 cases per million population.)*

<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Incidence of rabies is reduced	Incidence rate of rabies per million population	2.5 cases per million population	3.4 cases per million population <i>NCPDC, 2002</i>
Voluntary pre-exposure coverage is increased	Number of volunteers who received prophylaxis	5 million	50,900 nationwide <i>NCDPC, 2005</i>
Increase dog immunization coverage	Number of dogs immunized	5 million dogs nationwide	1,100,000 dogs nationwide <i>Department of Agriculture, 2004</i>
Rabies elimination level is achieved in endemic areas	Number of provinces with less than 0.5 cases per million population	7 provinces	0 province <i>DOH, 2004</i>

<b>Strategic Thrusts for 2005-2010</b>
<ul style="list-style-type: none"> <li>Pursue the <b>three-pronged approach in rabies control</b> which includes dog immunization, responsible pet ownership and dog-bite victim immunization in all local government units.</li> <li><b>Increase national and local budgets for the purchase of post-exposure human vaccines</b> to reduce mortality secondary to rabies. Consider national budget legislation to enable DOH to buy in bulk the vaccine requirements for low-income municipalities with high incidence of rabies.</li> </ul>

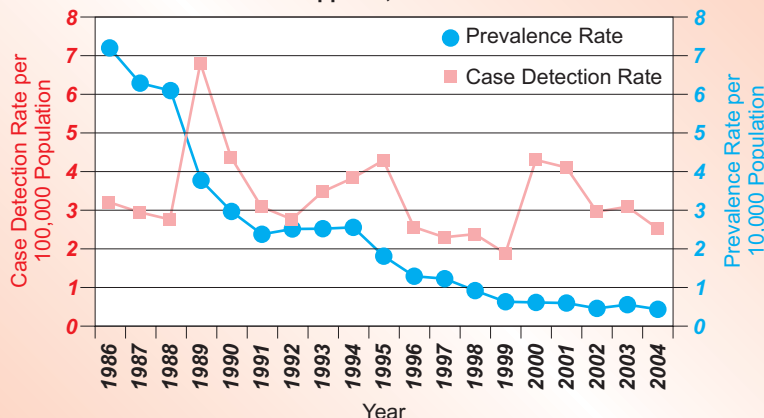
## Leprosy

The national prevalence rate of leprosy has consistently been less than one per 10,000 population since 1998. This is the level at which leprosy is considered eliminated as a public health problem. The case detection rate has continued to decrease from 1989 to 2004. Surveillance in 2004 revealed that the prevalence of leprosy has gone down to 0.38 case per 10,000 population.

Despite the low prevalence rate of leprosy at the national level since 1998, 29 provinces were noted to have sub-national prevalence rates above one case per 10,000 in the year 2000. All of these 29 provinces were targeted for leprosy elimination by 2004. However, five provinces did not meet the target and remained to have more than one case of leprosy per 10,000 population in 2004. There are also eight cities that have leprosy prevalence rate above one case per 10,000 population.

The combined advantages of strong political will of national and local government officials to achieve leprosy elimination and the free and adequate anti-leprosy drugs provided by WHO and the American Leprosy Mission made leprosy elimination possible in 24 more provinces between 1999 and 2004. On the other hand, a significant number of frontline public health workers are new and lack skills in the diagnosis and treatment of leprosy since it has become rare to see a case. Active and accurate case detection is necessary to firm up elimination strategies. In addition, the participation of private practitioners in the elimination program is limited by the lack of referral mechanisms at the local level and the depletion of funding support for advocacy and information campaigns.

**Figure 4.18 Prevalence Rate and Case Detection Rate of Leprosy Philippines, 1986-2004**



Source: National Center for Disease Prevention and Control, DOH, 2004

**Table 4.3 Provinces with Leprosy Prevalence Rate Above One Case per 10,000 Population Philippines, 2004**

Provinces	Prevalence Rate (per 10,000 population)
Basilan	1.33
Sulu	1.33
Ilocos Sur	1.30
Ilocos Norte	1.12
Siquijor	1.06

Source: National Center for Disease Prevention and Control, DOH, 2004

**Table 4.4 Cities with Leprosy Prevalence Rate Above One Case per 10,000 Population Philippines, 2004**

Cities	Prevalence Rate (per 10,000 population)
Candon	1.76
Iligan	1.70
Vigan	1.52
Isabela	1.39
Cagayan de Oro	1.10
Oroquieta	1.10
Laoag	1.06
Puerto Princesa	1.01

Source: National Center for Disease Prevention and Control, DOH, 2004



**Goal: Leprosy is eliminated as a public health problem in the Philippines, specifically at the sub-national level (provinces, cities and municipalities).**

*(Leprosy is eliminated as a public health problem at a level of one case per 10,000 population.)*

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Leprosy elimination is achieved in remaining endemic areas	Number of provinces and cities with less than one case of leprosy per 10,000 population	Prevalence rate of less than one case per 10,000 population in five provinces as follows:  Basilan Sulu Ilocos Sur Ilocos Norte Siquijor  Prevalence rate of less than one case per 10,000 population in eight cities as follows:  Candon City Iligan City Vigan City Isabela City Cagayan de Oro City Oroquieta City Laoag City Puerto Princesa City	Five provinces and eight cities with prevalence of more than one case of leprosy per 10,000 population  <i>National Center for Disease Prevention and Control, DOH, 2004</i>
Leprosy elimination level in all other provinces and cities is maintained	Prevalence rate of leprosy per 10,000 population	Prevalence rate of less than one case per 10,000 population in all other provinces and cities	Less than one case per 10,000 population  <i>National Center for Disease Prevention and Control, DOH, 2004</i>

#### Strategic Thrusts for 2005-2010

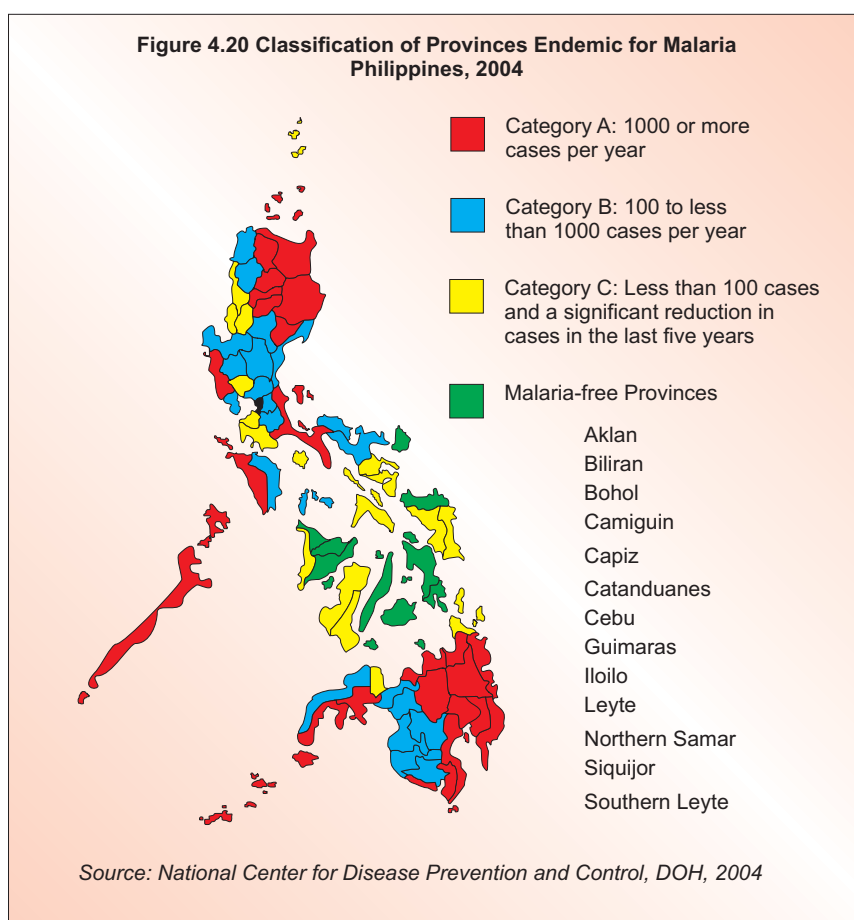
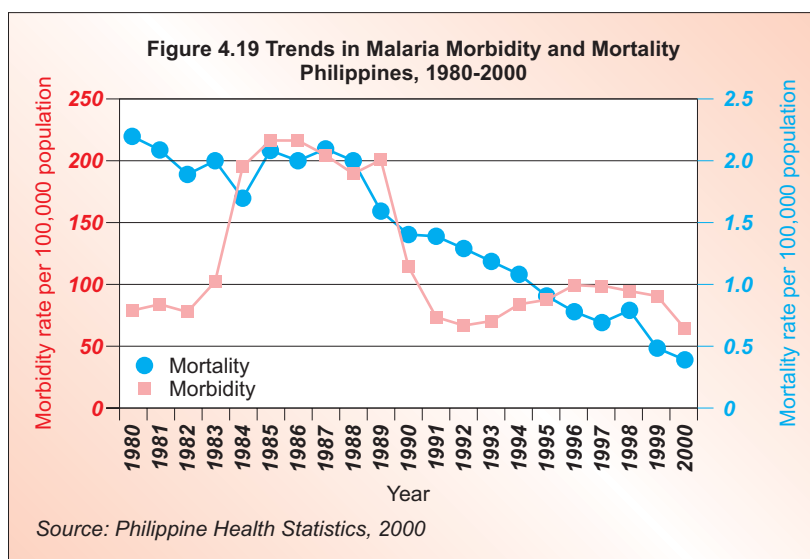
- **Ensure the availability of adequate anti-leprosy drugs or multiple drug therapy (MDT)** nationwide through the DOH as these are not available in the market.
- **Prevent and reduce disabilities from leprosy** through Rehabilitation and Prevention of Impairments and Disabilities (RPOID). This entails capability building of health workers in quality diagnosis and case management of leprosy cases, including the prevention and management of impairments and disabilities at the peripheral level; while treatment of complications will be at the referral level.
- **Improve case detection and post-elimination surveillance system** using the WHO protocol in all LGUs targeted for leprosy elimination and in areas where elimination (less than one case per 10,000 population) has been achieved. This will ensure timely reporting and recording of leprosy cases as well as quality monitoring and evaluation at all levels.
- **Integration of leprosy control in other health services at the local level.**
- **Strengthen the collaboration with partners and other stakeholders** in the provision of quality leprosy services and for social mobilization and advocacy activities for leprosy.

## Malaria

Malaria is the most common and most persistent mosquito-borne infection in the Philippines although cases and deaths have gone down. Endemic areas are usually rural, hilly or mountainous, and hard to reach. High-risk groups consist of upland subsistence farmers, forest-related workers, indigenous peoples and settlers in frontier areas, and migrant agricultural workers. Disease transmission is perennial and generally higher during the rainy season than the dry season.

The incidence rate of malaria decreased from 101 cases per 100,000 population in 1996 to 67 per 100,000 in 2000, a 34 percent reduction within four years. Mortality rate from malaria has remained below one death per 100,000 populations since 1995 (PHS 2000). The case detection rate for malaria has also continued to decrease from 1996 to 2000.

Provinces have been categorized according to the number and trend of cases. Category A refers to highly endemic provinces, Category B are those classified moderately endemic, Category C are low endemic provinces and Category D are those declared as malaria-free. There are 26 Category A provinces which



continue to carry the burden of at least 90 percent of all malaria cases in the country despite the reported sustained treatment of all confirmed cases of malaria, and the 100 percent coverage of blood smear examination for the clinically diagnosed malaria patients. The 13 malaria-free provinces composed of Aklan, Biliran, Bohol, Camiguin, Capiz, Catanduanes, Cebu, Guimaras, Iloilo, Leyte, Southern Leyte, Northern Samar and Siquijor continue to be malaria free as of 2003.

Several international health and business organizations support malaria control initiatives in different parts of the country such that quality assurance measures are done for various program components: clinical and laboratory diagnosis, drug supply management and case treatment.

Population groups in malaria-endemic areas are often geographically and socio-economically marginalized and rely on the local government for medical assistance. However, the procurement of first-line anti-malaria drugs by local governments is not assured. On the other hand, the drugs bought by the national government are only for the few cases requiring second-line drugs (artemisinines). It is probable that the second-line drugs distributed by the national government are routinely used in place of the unavailable first-line drugs (chloroquine plus sulfadoxine-pyrimethamine). The risk is that the practice may hasten the development of resistance to second-line drugs.

There are signs that the level of drug-resistant cases of malaria is increasing in some areas. Further investigation by DOH and medical institutions is necessary to confirm and address this problem.

**Goal: Malaria burden is significantly reduced in endemic areas and the malaria-free status for 13 provinces is maintained.**

*(A province is considered malaria-free when there is no reported indigenous case for three consecutive years).*

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Malaria cases are reduced by at least 70 percent in 26 Category A provinces	Morbidity rate of malaria per 100,000 population in 26 provinces*	15 cases per 100,000 population in 26 Category A provinces	50.3 cases per 100,000 population <i>Field Health Service Information System, 2002</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Malaria deaths are reduced 50 percent in 26 Category A provinces	Mortality rate of malaria per 100,000 population in 26 provinces*	0.05 death or less per 100,000 population in 26 Category A provinces	0.11 death per 100,000 population <i>Field Health Service Information System, 2002</i>
Morbidity and mortality are reduced by at least 50 percent in Category B and Category C provinces	Morbidity rate and mortality rate of malaria per 100,000 population in Category B and Category C provinces*	Morbidity: 2.6 cases or less per 100,000 population Mortality: 0.04 death or less per 100,000 population	Morbidity: 5.1 cases per 100,000 population Mortality: 0.07 death per 100,000 population  <i>National Center for Disease Prevention and Control, DOH, 2003</i>
Transmission of malaria in the general population is reduced	Proportion of population in malaria-risk areas using insecticide treated bed nets*	To be determined	To be determined
	Proportion of children under-five years old sleeping under insecticide treated bed nets*	To be determined	To be determined
Malaria-free status is achieved in more provinces	Number of provinces declared as malaria-free	13 provinces maintained as malaria-free 5 more provinces declared as malaria-free	13 provinces are malaria-free <i>DOH Administrative Reports, 2004</i>

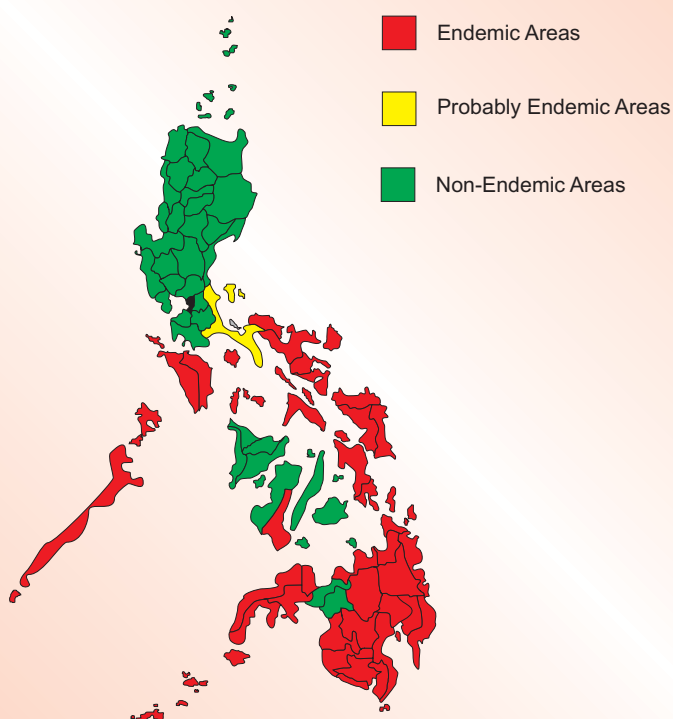
\*Millennium Development Goal Indicator

Strategic Thrusts for 2005-2010
<ul style="list-style-type: none"> <li>• <b>Ensure the availability of anti-malaria drugs to endemic areas through centralized procurement and distribution</b> in collaboration with LGUs which provides direct service delivery to the populace.</li> <li>• <b>Promote effective and regular use of insecticide-treated bed nets</b> in households located in all endemic barangays</li> <li>• <b>Plan and implement malaria control measures with specific target population groups</b> such as indigenous people, night shift and forest workers, especially in Category A endemic localities.</li> <li>• <b>Promote early diagnosis, management and referral of malaria cases</b> using standard DOH treatment protocols.</li> <li>• <b>Mobilize local government and community resources for malaria case surveillance</b> in areas where malaria has been eliminated and <b>case detection and case management in 26 Category A provinces.</b></li> </ul>

## *Filariasis*

Filariasis is a chronic parasitic infection transmitted by a mosquito. Although filariasis is not a killer disease, it is considered the second leading cause of permanent, long-term disability among infectious diseases. With recent progress in the detection and cure of filariasis, the International Task Force for Disease Eradication has identified it as one of the eradicable diseases and has called for its global elimination as a priority.

**Figure 4.21 Classification of Provinces Endemic for Filariasis  
Philippines, 2004**



Source: National Center for Disease Prevention and Control, DOH, 2004

Through the cooperative efforts of the DOH, local governments, civil society groups and international agencies, the Philippines has developed in 2001 a system for mapping out the areas endemic for filariasis, which identified 189 municipalities in 39 provinces in 10 regions of the country as endemic areas. Majority (76 percent) of the filariasis endemic areas are poor municipalities.

The prevalence rate of filariasis went down from 9.7 cases per 1,000 population in 1998 to 7.7 per 1,000 in endemic areas in 2002. To ensure that further reduction of cases would lead to elimination, the first round of

mass treatments began in 2000 as pilot study in five selected municipalities. The lessons and experiences gained from this pilot study enabled local, national and international agencies to pursue mass treatment for 83 percent of target population in 2001, 74 percent of target in 2002 and 89 percent of target in 2003. However, there has been no prevalence data gathered since and after the implementation of annual mass treatment for three consecutive years (2001-2003) in 30 endemic provinces.

Experiences in other countries show that mass treatment against filariasis would lead to disease elimination only if a consistently high treatment coverage rate of at least 85

percent would be achieved for at least five consecutive rounds. More intensified social preparation is necessary to ensure high coverage for every mass treatment schedule.

Inter-agency collaboration for advocacy, training, resource mobilization, public information and endemic mapping empowered the affected population groups to access appropriate information and services to prevent and control filariasis in their locality. International donors have promised to make available one of the drugs (albendazole) used for annual mass treatment in endemic areas in 30 provinces. WHO, JICA, AUSAID, and the Global Alliance to Eliminate Lymphatic Filariasis (GAELF) provided financial and technical assistance to support other activities in the elimination program.

To complement this, a consortium of advocates for filariasis elimination, called Coalition to Eliminate Filariasis or CELF Philippines, was formed. The coalition supports national and local efforts for filarial elimination. In addition, the issuance of Executive Order No. 369 in October 2004 directed LGUs to support annual mass treatment of the exposed population through budget allocation, provision of logistics and human resource. The EO strengthened the implementation of the program. However, without provisions for assured and continuous availability of anti-filarial drug (diethylcarbamazine citrate) in the next five years, there is a risk that current efforts to eliminate filariasis would be interrupted, and previous elimination efforts can be nullified.

**Goal: Filariasis is eliminated as a public health problem in the Philippines.**

*(Filariasis is considered eliminated as a public health problem if the prevalence rate of microfilaria is less than one case per 1000 population)*

<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Filariasis cases in endemic provinces are reduced	Prevalence rate of microfilaria per 1,000 population in endemic provinces	Less than one case per 1,000 population in endemic provinces	7.7 cases per 1,000 population in endemic provinces  <i>National Center for Disease Prevention and Control, DOH, Compilation of Reports, 1960-2002</i>
The coverage of annual mass treatment of population in endemic provinces is increased	Percent coverage of target population in endemic provinces	At least 85 percent of target population annually, in all established endemic areas (39 provinces)	Average of 82 percent mass treatment coverage in 30 endemic provinces  <i>National Center for Disease Prevention and Control, DOH Regional Reports, 2001-2003</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Filiriasis elimination level is achieved in endemic areas	Number of provinces with prevalence rate of less than one case per 1,000 population	6 provinces	0 province <i>National Center for Disease Prevention and Control, DOH, 2004</i>

Strategic Thrusts for 2005-2010			
<ul style="list-style-type: none"> <li>• <b>Pursue annual mass drug administration using two drugs</b> in all endemic areas for at least five consecutive years.</li> <li>• Secure government (national and local) commitment to <b>make funding available to support filariasis elimination activities</b>, especially for the drugs used for mass treatment.</li> <li>• <b>Intensify health information and advocacy campaigns</b> in the prevention and control and elimination of filariasis.</li> <li>• Halt the progression of the disease thru <b>disability prevention</b>.</li> <li>• <b>Integration of mass drug administration with other deworming programs</b> in fiariasis endemic provinces.</li> </ul>			



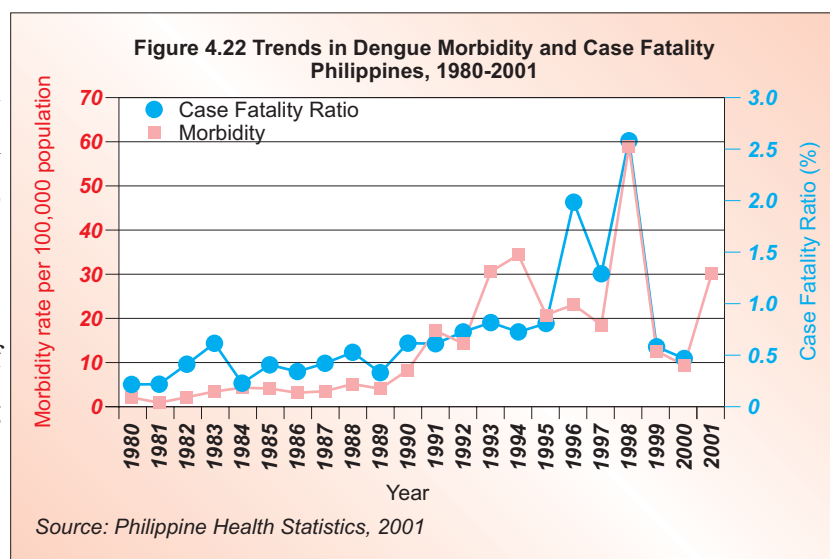
## Dengue

Dengue fever and the more severe form, dengue hemorrhagic fever, are caused by any one of the four serotypes of dengue virus. In the Philippines, the day-biting female *Aedes* mosquito transmits the viral disease to humans. The mosquito vectors breed in small collections of water such as storage tanks, cisterns, flower vases, and backyard litter. The disease affects all ages but most cases are among children 0-15 years old.

The morbidity rate of dengue fever in 2001 is much lower at 30 cases per 100,000 population compared to the highest ever recorded rate of 60.9 per 100,000 in 1998. The case fatality ratio for dengue fever and dengue hemorrhagic fever in 2000 is also lower at 0.5 percent compared to the highest recorded ratio of 2.6 percent in 1998. While there were 12 outbreaks of dengue fever in 1998, there was an average of one to three outbreaks a year during the period 1999-2004. The sudden increases in the incidence of dengue in 1993, 1998 and 2001 were expected because of the cyclical nature of the disease --- the reason why dengue remains a threat to public health despite low incidences reported in recent years. Dengue cases usually peaks in the months of July to November and lowest during the months of February to April.

As for risk-reduction interventions, the number of households practicing

removal of mosquito breeding places increased to 70 percent in 2003 from 66 percent in 1998 (NDHS 2003). Mosquito vector control is the main strategy recommended by the DOH for the prevention of dengue. Seasonal but consistent mass media campaigns for the application of household control measures have increased the awareness of susceptible populations about dengue and have empowered communities, households and individuals to take precautions against it. Fogging with insecticide is not a recommended preventive and control measure and is very expensive as it ideally should be carried out every 3-7 days during the two to three months of peak transmission season. It is recommended only when there is an impending outbreak or epidemic.



Proactive dengue control campaigns and interventions to prevent epidemics, initiated in the past years by the DOH and local health offices with community support, have resulted in a dramatic fall in the number of dengue cases reported after the 1998 pandemic. However, no single best remedy can control the disease. There is yet no vaccine to prevent dengue, nor any specific drug regimen to cure it. Dengue control requires the combined effects of sound and timely environmental management, personal protection measures, early diagnosis, effective clinical management and logistics support to local health systems.

Goal: Morbidity and mortality from dengue infection are reduced.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Morbidity from dengue infections is reduced	Incidence rate of dengue per 100,000 population	Less than 10 cases per 100,000 population annually	13 cases per 100,000 population <i>National Epidemiologic Sentinel Surveillance System, 2004</i>
Mortality from dengue fever and dengue hemorrhagic fever is reduced	Percentage of deaths from dengue over the number of cases (case fatality ratio)	Less than one percent	1.7 percent <i>National Epidemiologic Sentinel Surveillance System, 2004</i>
Strategic Thrusts for 2005-2010			
<ul style="list-style-type: none"> <li>Continue implementing <b>timely mass media and community-based information campaigns</b> on dengue control.</li> <li>Make available <b>early diagnosis and quality clinical care for dengue cases at all levels of care</b>. This is achieved by continuing the training of clinic-based and hospital-based health care providers and improving the case referral networks.</li> <li>Institute <b>risk-reduction interventions</b> such as <b>environmental sanitation</b> and <b>removal of mosquito breeding places</b>, specifically during the peak season for the disease.</li> </ul>			

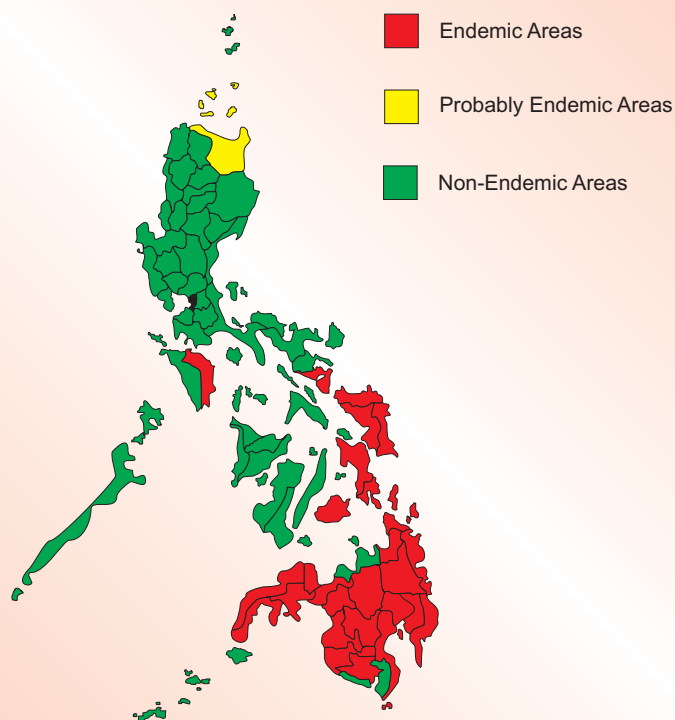
## Schistosomiasis

Schistosomiasis is endemic in 12 regions in the Philippines effectively affecting 28 of the 79 provinces in the country. The number of identified endemic areas has increased in the previous years due to active surveillance of human cases and snail vector surveillance through environmental mapping of areas with positive snail colonies. An example of this is the identification of schistosomiasis in Gonzaga, Cagayan in 2001, but the endemicity in the area has not yet been established.

The morbidity rate for schistosomiasis has declined from 17.5 cases per 100,000 population in 1997 to 5.6 per 100,000 in 2000. The case fatality ratio has also continued to decline from 0.9 death per 100,000 population in 1980 to 0.3 per 100,000 in 1997 and has reached a plateau since then.

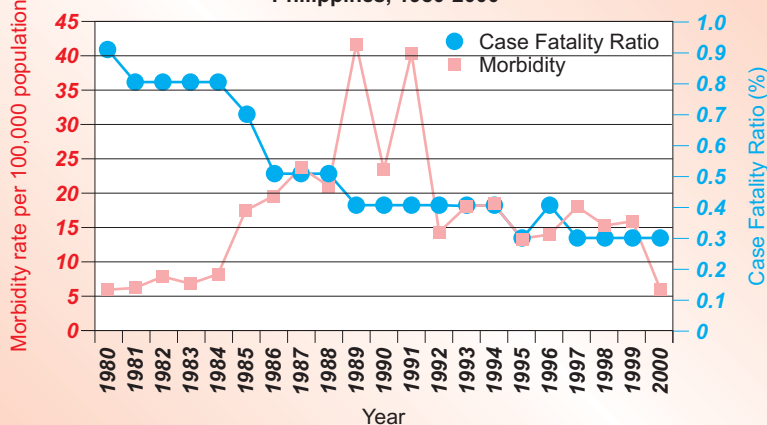
Considering that schistosomiasis had been eliminated in most Southeast Asian countries, the Philippines should pursue schistosomiasis elimination based on reliable information on the prevalence, extent of endemicity of the disease and factors promoting and inhibiting schistosomiasis transmission in the different endemic localities.

**Figure 4.23 Classification of Provinces Endemic for Schistosomiasis Philippines, 2004**



Source: National Center for Disease Prevention and Control, DOH, 2004

**Figure 4.24 Trends in Schistosomiasis Morbidity and Case Fatality Philippines, 1980-2000**



Source: Philippine Health Statistics, 2000

There is no operational schistosomiasis surveillance and information system that can serve as guide for DOH or other agencies to coordinate plans to support local government initiatives to eliminate schistosomiasis. Foreign-assisted projects are specific to one endemic locality, like the agricultural advancement project in Catubig and the mass treatment project in Lanao del Sur. Many endemic areas in the Philippines have served as national and international laboratories for the study of various environmental and pharmacological interventions related to the control of schistosomiasis. It is time for national and local governments to work on schistosomiasis elimination using international, national and local resources.

**Goal: Schistosomiasis is eliminated as a public health problem in all endemic provinces.**

*(Schistosomiasis is considered eliminated as a public health problem if the prevalence rate is maintained at less than 1.0 percent for at least five consecutive years)*

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Prevalence rate of schistosomiasis is reduced in endemic provinces	Prevalence rate of schistosomiasis at provincial level (based on a WHO-assisted survey)	50 percent reduction in 20 endemic provinces	To be determined
Coverage of mass treatment of population in endemic provinces is increased	Number of endemic provinces conducting mass treatment with social and environmental interventions	At least seven endemic provinces	To be determined
Schistosomiasis elimination level is achieved in endemic areas	Number of provinces with prevalence rate of less than 1 percent for 5 consecutive years	9 provinces	0 province

**Strategic Thrusts for 2005-2010**

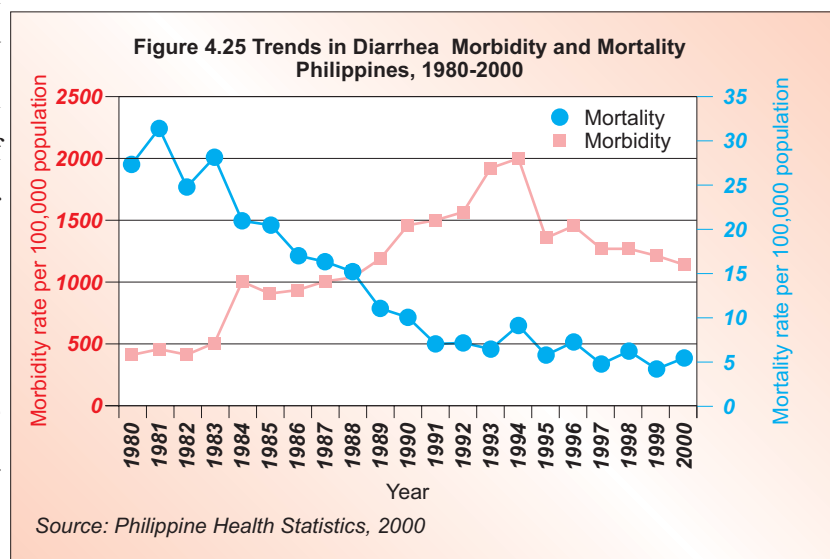
- **Shift from control to elimination strategies.** The progress of the schistosomiasis elimination program will be demand-driven and depends highly in the commitment of communities and local governments.
- **Develop the capacity of local health personnel and stakeholders** in the elimination of schistosomiasis and improve the implementation of schistosomiasis initiatives through building of networks and linkage with collaborating institutions and program partners.
- **Ensure the availability of reliable information, financial support and logistics** crucial to schistosomiasis elimination through collaboration with other national agencies and international development partners.
- **Secure presidential directives, local legislation and international support** necessary to eliminate schistosomiasis from the country.
- **Intensify surveillance of human cases and surveillance of snail vector** through environmental mapping of areas with positive snail colonies. **Conduct of rapid epidemiological surveys** in response to suspected cases in new areas.

## Food-borne and Water-borne Diseases

Food-borne and water-borne diseases are usually manifested as diarrhea, the leading cause of morbidity in the Philippines. This group of diseases is caused by infectious organisms like viruses, bacteria and parasites. However, some forms are secondary to chemical food poisoning. These diseases are transmitted from person to person through soiled hands and through food and water contaminated by human waste via the oral-fecal route. The incidence of food-borne and water-borne diseases peaks during the rainy season and is usually high in areas where sanitation and hygienic practices are poor.

Diarrhea morbidity rate decreased from 1,352 cases per 100,000 population in 1995 to 1,135 per 100,000 in 2000. Death rate from diarrhea significantly decreased from 27.2 deaths per 100,000 population in 1980 to 5.3 per 100,000 in 2000 (PHS).

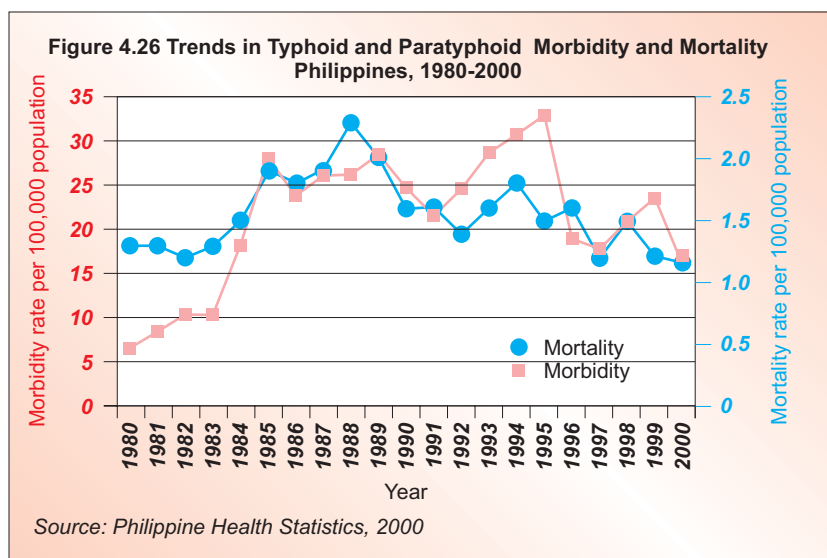
The decline in the incidence of diarrhea cases is accompanied by reports to the National Epidemiology Center (DOH) of significant reduction in the number of food-borne and water-borne infection outbreaks in the past years. Outbreaks of cholera averaged less than one per year, between 2000-2003 compared to 12 outbreaks a year in 1998. In 2000, a total of 303 cholera cases (0.4 case per 100,000



population) were reported in nine of the 17 regions in the country: NCR (131 cases), Western Mindanao (80 cases), Caraga (32 cases), Western Visayas (18 cases), Central Luzon (15 cases), Central Mindanao (11 cases), CAR (5 cases) and Cagayan Valley and Northern Mindanao (one case each).

The morbidity trend for typhoid and paratyphoid fever is also decreasing over the years from 33 cases per 100,000 population in 1995 to 17.1 per 100,000 in 2000. On the other hand, death trend has remained constantly low from 1980 to 2000 (PHS).

Diarrhea case management has improved and preventive measures against the disease have become evident. The 2003 NDHS reported a high level of knowledge among



Filipino mothers (92 percent) in the use of oral rehydration solution (ORS) for treating their children with diarrhea. There are also an increasing proportion of children with diarrhea who were taken to a health facility by their parents or caregivers for treatment (11 percent in 1998 and 32 percent in 2003). The unmistakable symptom for early diagnosis and the simple technology

for case management of diarrheas have saved the lives of many children, the population group most vulnerable to these diseases.

Improvement of water supply and sanitary facilities are factors that contribute to the decline of diarrhea cases. The 2003 NDHS reported that 87 percent of households live within 15 minutes from safe water supply. Moreover, 96 percent of urban households and 85 percent of rural households have sanitary toilet facilities. However, improper children's stool disposal is still common in both urban and rural areas. Twenty one percent of mothers dispose their children's stools by throwing them outside their dwelling, throwing them outside the yard, or rinsing them away (NDHS 2003).

Breastfeeding is another factor that contributes to the decline of diarrhea specifically among infants. Breastfeeding has been advocated not only as the best source of nutrition for infants but also as a means to reduce diarrhea morbidity and mortality among the same age group. The proportion of children ever breastfed nationwide is 87 percent (82 percent among urban children and 91 percent among rural children). The prevalence of breastfeeding has not changed since 10 years ago (87-88 percent). However, the percentage of exclusive breastfeeding among children four to five months old has decreased from 20 percent in 1998 to 16.1 percent in 2003 (NDHS 2003). It is observed that breastfeeding practices continue to be inversely proportional with the level of education and income earning capacity of women.

Bad feeding practices among children suffering from diarrhea still persist among caregivers. Only two percent of children with diarrhea are given more fluids than usual, 13 percent are given the same amount of fluids and 84 percent are given less fluids. In

addition, only six percent of children are given more food than usual, 35 percent are given same amount of food, 17 percent are given somewhat less, and 42 percent are given less food or none at all (NDHS 2003).

Although improvements in morbidity and mortality rates for food-borne and water-borne diseases have been noted, the burden of diarrheal diseases is still high and reflects poor access to safe water supply and sanitation facilities by the more susceptible population groups. While it is noted that the number of water and sanitation facilities has increased, the availability of these facilities in the rural areas and among the poorer sector of the urban population did not change significantly.

Goal: Morbidity and mortality from food-borne and water-borne diseases are reduced. Outbreaks of food-borne and water-borne diseases are reduced.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Morbidity and mortality rates of diarrhea among all age groups are reduced	Morbidity rate from diarrhea per 100,000 population	750 cases per 100,000 population	1,135 cases per 100,000 population <i>Philippine Health Statistics, 2000</i>
	Mortality rate from diarrhea per 100,000 population	Less than one death per 100,000 population	5.3 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>
Number of outbreaks of food-borne and water-borne diseases is reduced	Number of cholera, typhoid and paratyphoid fever outbreaks confirmed by NEC-DOH	Cholera outbreak: zero  Typhoid and paratyphoid fever: average of less than one outbreak per year	Cholera outbreak: less than one outbreak per year  Typhoid and paratyphoid fever outbreak: less than one outbreak per year  <i>National Epidemiology Center, DOH, 2004</i>
Strategic Thrusts for 2005-2010			
<ul style="list-style-type: none"> <li><b>Regulate and monitor food and water sanitation practices</b> at the local level through enforcement of national and local legislations, application of appropriate technical standards and participation of non-government agencies.</li> </ul>			



### Strategic Thrusts for 2005-2010

- **Sustain inter-agency collaboration to fast-track sanitation infrastructure development** in poor urban areas and in rural areas with low access to safe water and sanitation facilities.
- **Promote personal hygiene, food and water sanitation practices** and the principles of environmental health.
- **Promote the use of ORS** in the management of diarrhea to prevent dehydration, especially among infants and children.
- **Promote breastfeeding** and other good feeding practices for infants and children.
- **Continue training of health personnel** in the early diagnosis and treatment of food-borne and water-borne diseases.
- **Continue nationwide information campaign** for the prevention and control of food-borne and water-borne diseases.

## *Soil-Transmitted Helminthiasis and other Parasitoses*

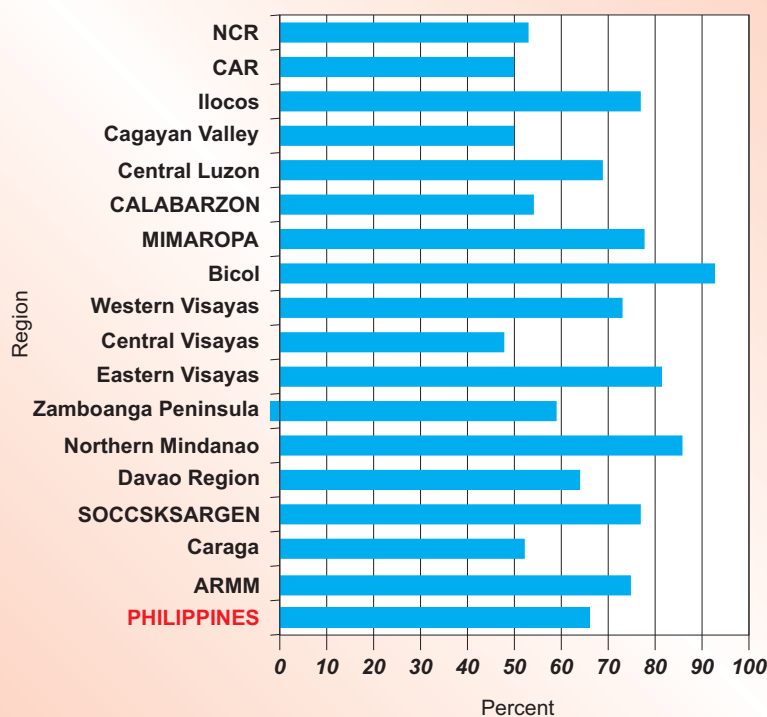
Soil-transmitted infections persist in areas where personal hygiene and environmental sanitation practices are poorly carried out and where cases remain untreated and become continuing sources of infection. A high prevalence of helminthiasis is also generally associated with areas that are basically agricultural and low in the economic and human development scale. The three major causes of intestinal parasitism in the Philippines are ascariasis or roundworm infection, trichuriasis or whipworm infection, and hookworm infection. Other causes of parasitoses that continue to affect some areas are paragonimiasis, capillariasis, echinostomiasis, heterophyidiasis, and taeniasis or tapeworm infection.

The recently concluded nationwide survey on soil-transmitted helminthiasis (STH) among children aged 12-71 months old done by the DOH, UP and UNICEF in 2003 showed a cumulative prevalence rate of 66 percent. The prevalence rate among these children ranged from 48 to 93 percent with Bicol having the highest prevalence rate and Central Visayas having the lowest prevalence rate. Out of the 17 regions in the country, 16 have a prevalence rate of more than 50 percent. Moreover, of the 25 provinces targeted for reduction of STH prevalence to less than 50 percent by 2004, only six were able to achieve their disease reduction target.

Studies have shown that STH-infected children are prone to acquire other infections. There is a need to sustain mass deworming for three consecutive years to immediately control intestinal parasitism and other parasitoses among these infected children at the critical time of their growth and development.

Mass deworming of pre-school and school-aged children has been conducted in the past. The strategy has

**Figure 4.27 Prevalence of Soil-Transmitted Helminthiasis Among Children Aged 12-71 Months by Region Philippines, 2003**



Source: DOH-UP-UNICEF STH Data, 2003

been integrated in the “Garantisadong Pambata” being conducted twice a year nationwide. The control of STH has also been integrated into the mass treatment programs for filariasis and schistosomiasis in endemic areas. But not all children have been covered due to the high cost of deworming drugs like albendazole or mebendazole. The WHO, UNICEF, the academe and the National Institutes of Health provided the logistical and technical assistance that enabled and motivated local governments to pursue the campaign against soil-transmitted infections down to the most remote barangays.

The high cost of sustained mass deworming treatment for STH hinders most local governments to pursue control measures for this group of diseases. When the selective treatment approach is considered, there are not enough microscopists or laboratory technicians at the local level available for the purpose. The lack of confirmatory procedures at the field level also accounts for the inability to submit regular reports or information necessary for disease surveillance.

<b>Goal: Morbidity and other health effects of soil transmitted helminthiasis and other parasitoses are reduced.</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Prevalence of soil-transmitted helminthiasis and other parasitoses among children is reduced	Percentage of STH cases among children 1- 12 years old	Less than 50 percent among children 1- 12 years old	66 percent among children 12- 71 months old  <i>DOH UP, UNICEF STH Data, 2004</i>

<b>Strategic Thrusts for 2005-2010</b>
<ul style="list-style-type: none"> <li>• <b>Initiate mass deworming locally and integrate with other national programs.</b> LGU initiated mass deworming programs that are integrated with mass treatment programs for filariasis and schistosomiasis is the best way to control soil-transmitted helminthiasis. Mass deworming should be carried out for at least 3 consecutive years among the target population.</li> <li>• Continue the <b>integration of deworming programs with nationwide immunization campaigns</b>, and on a regular or routine basis, with other programs targeting children.</li> <li>• <b>Pursue strong advocacy, social preparations and mass media campaign</b> that will precede and support the mass treatment schedules.</li> <li>• <b>Promote personal hygiene and sanitation practices</b> like hand washing, proper food preparation, proper footwear practices and proper human waste disposal.</li> <li>• Expand the <b>provision of safe water and sanitation services</b>.</li> </ul>

## *Dental and Periodontal Infections*

The two main oral health problems in the Philippines are dental caries (tooth decay) and periodontal diseases (gum diseases). These conditions are brought about by the interplay of microorganism, substrate and susceptibility of the host. Poor oral hygiene causes gum disease and together with dietary sugars it may cause tooth decay. Both conditions cause pain and suffering that may lead to the impairment of function, and their psychosocial impact significantly diminishes the quality of life of an individual.

While the prevalence of dental caries is high for any age group, the incidence of periodontal disease increases with age. Neither condition directly causes disability or death. However, oral infections can be a source of infection in other parts of the body and can cause functional limitations significant enough to affect work performance, nutrition, social interactions, income and self-esteem.

About 92.4 percent of Filipinos have dental carries and 78 percent have periodontal disease according to the 1998 National Monitoring and Epidemiological Dental Survey, There is no recent survey of a similar kind but it is very likely that current prevalence of dental caries and periodontal disease remains to be high.

In terms of DMFT (decayed, missing, filled teeth) Index, the Philippines ranked second worst among 21 WHO Western Pacific countries. Dental caries and periodontal disease are significantly more prevalent in rural than urban areas. This is not surprising considering that in a survey with the members of the Philippine Dental Association in 1998, 88.4 percent of respondent dentists claimed that their practice was based in an urban area, 10.9 percent were in suburban centers while only 0.7 percent were in a rural location. However, the prevalence of dental caries and periodontal disease is also high in urban areas.

In 2003, the National Policy on Oral Health was formulated and disseminated as guide in the development and implementation of oral health programs. It is focused on promotive, preventive, curative and restorative dental health care of the populace.

Oral health services are being integrated in every life stage health program of the DOH. An oral health program for children under 5 years old, the “Orally Fit Child,” was developed and

**Table 4.5 Prevalence of Dental Caries and Periodontal Disease  
Philippines, 1987, 1992, 1998**

Year	Prevalence of Dental Caries (%)	Prevalence of Periodontal Disease (%)
1987	93.9	65.5
1992	96.3	48.1
1998	92.4	78.3

*Source: Fourth National Monitoring and Evaluation Dental Survey, 1998*

**The Minimum Essential Oral Health Package (EOHP) of Services for Children 2-6 Years Old**

1. Supervised tooth brushing drills
2. Dental check-up as soon as the first tooth appears and every 6 months thereafter
3. Oral urgent treatment (OUT)
  - removal of unsavable teeth
  - referral of complicated cases
  - treatment of post extraction complications
  - drainage of localized oral abscess
4. Application of Atraumatic Restorative Treatment (ART)

disseminated nationwide for implementation. The “Orally Fit Child” criteria include the following: the child has healthy gums; caries-free or carious teeth has been filled; no dental plaque; and no handicapping dento-facial anomalies. The minimum Essential Oral Health Package (EOHP) services have also been initiated to improve oral health among children 2-6 years old.

The important role of oral health in improving the quality of life and in the socio-economic development of the country is poorly appreciated. Oral health is not a priority of the government, international agencies, lawmakers, organizations, communities, families and individuals in terms of financial support, personnel in every level of health care delivery, and partnership and collaboration for oral health. These have fragmented dental health programs, which resulted in poor oral health outcomes.

**Goal: The oral health of the general population is improved.**

**National Objectives for 2005 - 2010**

Objective	Indicator	Target	Baseline Data and Source
The prevalence of dental caries is reduced	Prevalence rate of dental caries	85 percent	92.4 percent <i>NMEDS 1998</i>
The prevalence of periodontal disease is reduced	Prevalence rate of periodontal disease	60 percent	78.3 percent <i>NMEDS 1998</i>
The proportion of orally fit children under 6 years old is increased	Percentage of orally fit under six children	Increase by 20 percent	To be determined

**Strategic Thrusts for 2005-2010**

- **Integrate oral health services**, including **preventive services** and the **provision of minimum essential health care packages for the different age groups (life cycle stages)**, with the other health services and promote financial risk protection for dental health services in the populace.
- **Include basic oral health services for children, women and the elderly in all licensing and accreditation criteria** for all outpatient and inpatient health facilities catering to the general population under the Sentrong Sigla Certification and PhilHealth.
- **Intensify advocacy campaigns** to create the awareness among the general population that oral health is a principal component of an individual's health and well being and **improve knowledge, attitude and behavior of mother and children under 6 years old on good oral hygiene practices** in the promotion of Orally Fit Child.
- Collaboration and linkage with the health partners for **integrated approach to oral health** and the **provision of critical logistic for the essential oral health packages** among preschoolers, school children and the general population.

## *Emerging and Re-emerging Infections*

Emerging infectious diseases are newly identified or previously unknown infections while re-emerging infections are secondary to the reappearance of a previously eliminated infection or an unexpected increase in the number of a previously known infectious disease. Both types can cause serious public health problems if not contained as close as possible to its source.

National agencies and LGUs in the Philippines are able to respond appropriately to threats and incidences of emerging and re-emerging infections through the institutionalized systems for disease surveillance, epidemiological investigation and epidemic response in the DOH and the long-established interagency disaster response mechanisms. Protocols for surveillance, case investigation, outbreak investigation, contact tracing and response have been defined.

The inherent unpredictability of the occurrence of a variety of previously known infections and unknown diseases can limit the responsiveness of even the most organized health system. Mass media interest in new diseases can be double-edged. While wide media coverage is an advantage for information dissemination and social mobilization, miscommunication or too much sensationalism can lead to behaviors that can be more detrimental to public health. Examples would be a drug supply shortage secondary to panic buying or acts of discrimination against individuals with relatively unknown disease. These concerns have to be factored in all preparedness and response plan for emerging and re-emerging diseases.

### **Severe Acute Respiratory Syndrome (SARS)**

Early in 2003, SARS caused an epidemic which originated in China and spread to other Asian countries and to a few North American and European states. Its causative agent is a new corona virus transmitted by droplet spread from one person to another. Since there is no specific treatment for SARS, fatality rate can be high. As soon as the Global Alert was sounded off by WHO,

the Philippines mobilized resources for screening, quarantine and isolation procedures.

One case of SARS was reported to have slipped the cordon but was eventually referred to

#### **Reported SARS Cases, Philippines March 17, 2003 to August 21, 2003**

##### **SARS Suspects:**

- Total Admission: 93
- Total Discharged: 93

SARS Cases:	12
SARS Deaths:	2
SARS Recovered/Cured:	10

the central referral hospital where isolation and rapid contact tracing resulted in the effective containment of the infection. Eleven other cases were confirmed during the period, and no other SARS suspects or cases were reported since August 2003.

During the 2003 SARS outbreak in the Philippines, core groups at the regional and strategic sub-regional levels were organized and trained. Community-based groups called Barangay Health Emergency Response Teams (BHERT) were organized and trained to respond to any situation similar to that of a SARS threat. Protocols on triage and screening for SARS, response at outpatient settings, and infection control were also developed. Drugs, medical equipment, personal protective equipment, and supplies for life-support in the management of SARS were procured and hospital infrastructures for appropriate infection control and management of cases were strengthened.

A hospital referral network for SARS and other severe emerging infections was institutionalized. The RITM was designated as the national referral center for SARS. Three other hospitals were designated as sub-national referral hospitals, namely San Lazaro Hospital for Luzon, Vicente Sotto Memorial Medical Center in Cebu for the Visayas and Davao Medical Center for Mindanao. The rest of the regional hospitals were designated as satellite referral centers.

### **Meningococemia**

In 2004, an unusual increase in meningococcal disease, manifesting as meningococemia occurred in the Cordillera Administrative Region (CAR). Because case fatality at the start of the outbreak was high at 50 percent, public anxiety prevailed over sober measures to control the outbreak. This resulted in hoarding of medicines needed in the treatment of actual cases and adverse socioeconomic consequences secondary to fear and misconceptions about disease transmission. Although generally under control, there are still occasional reports of meningococemia in CAR, which can be a potential source for another outbreak.

### **Avian Influenza**

Avian influenza or bird flu, caused by the highly pathogenic H5N1 influenza virus has affected at least eight countries in Asia leading to outbreaks of severe disease and mass deaths and destruction of chickens. The virus that caused such destruction is known to have the capacity to be transmitted from infected chickens to cause severe disease and



high mortality in humans. A greater concern is that the present situation could give rise to another influenza pandemic.

There has been no report of bird flu in the Philippines, thus far. The greatest risk of spread of the avian influenza virus in the country rests on the entry of live poultry carrying the virus from countries with avian influenza. Strict implementation of the ban on importation of all poultry and their products from affected countries need to be sustained. The role of migratory birds in the transmission of the disease cannot be ignored thus, efforts need to be exerted to monitor, if not prevent, their contact with the domestic poultry. Taking into consideration the long coastline and the proximity of some countries to the Philippines, entry of avian influenza is possible through smuggling, barter trading and sale in the markets of birds and poultry from countries with avian influenza.

The Philippine preparedness and response plan for avian influenza has been put in place. Information campaigns and continued vigilance are among the actions that are undertaken to address this concern. The objective is to keep the Philippines free of avian influenza.

### **Mad Cow Disease**

There is fear that imported meat, primarily beef products, could be contaminated by virus causing mad cow disease (bovine spongiform encephalopathy) which could be passed on to humans as delayed-onset, insidious encephalopathy. The disease has been found in herds of cattle in Europe, Japan and other countries with which the Philippines has trade relation. The DA, in collaboration with other agencies that include the DOH, has established a monitoring and surveillance systems to prevent the spread of the disease in the country.

<b>Goal: The public health, economic and social impact of emerging infections with potential for outbreaks and high mortality are reduced.</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
All cases of emerging and re-emerging infection are isolated	Proportion of cases isolated out of the total number of cases known	100 percent	100 percent for SARS  National Epidemiology Center, 2003

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Contact tracing and quarantine for all cases of emerging and re-emerging infection are implemented	Proportion of contacts traced out of the total number of contacts known	100 percent	100 percent for SARS <i>National Epidemiology Center, 2003</i>
Death and casualty from any emerging and re-emerging infection are minimized	Case fatality ratio	Less than 10 percent	Less than 10 percent for SARS <i>National Epidemiology Center, 2003</i>

Strategic Thrusts for 2005-2010	
<ul style="list-style-type: none"> <li>• <b>Pre-emptive planning and organizing at national, regional, provincial, city or municipal levels</b> to ensure preparedness for emerging infections with potential for causing high morbidity and mortality, with efforts to integrate prevention and control measures that are applicable for SARS and other emerging infections.</li> <li>• <b>Integrate surveillance of emerging infections with existing surveillance systems</b> for other diseases.</li> <li>• <b>Train adequate health personnel</b> of the national and local governments and other partner organizations for surveillance, response and management of disease outbreaks.</li> <li>• <b>Secure adequate resources</b> and develop systems to utilize these resources efficiently when outbreak occurs.</li> </ul>	

# Prevention and Control of Non-Communicable Diseases

The rapid rise of non-communicable diseases represents one of the major health challenges to global development in this century. In 2001 alone, non-communicable diseases accounted for almost 60 percent of deaths in the world and 47 percent of the global burden of disease. Based on current trends, by 2020 these diseases will account for 73 percent of deaths and 60 percent of the disease burden. Underdeveloped and developing countries suffer the greatest impact of non-communicable diseases. The increase in these diseases is disproportionately high in poor and disadvantaged populations and is contributing to the widening health gaps among countries. In 1998, 77 percent of deaths and 85 percent of the disease burden from non-communicable diseases were borne by underdeveloped and developing countries.

In the Philippines, the increase in life expectancy, rapid urbanization and lifestyle trends have resulted in a considerable change in the health profile. Recent statistics attest to this. The life expectancy of Filipinos in 2005 has gone up to 70.5 years. The process of aging brings out myriad degenerative diseases. In 2002, hypertension and heart diseases rank fifth and sixth as the leading causes of morbidity in the country, respectively. Moreover, seven out of 10 leading causes of deaths are lifestyle-related diseases (such as cardiovascular diseases, cancer, chronic obstructive pulmonary diseases, accidents, diabetes, kidney disorders), accounting for 57.8 percent of all causes of mortality in the Philippines in 2000.

As the country's per capita income increases, the social and economic challenges similarly increase and so do the health hazards and risk behaviors of a big segment of the population. Four of the most prominent non-communicable diseases are linked by common preventable risk factors related to lifestyle. These are cardiovascular diseases, cancer, chronic obstructive pulmonary diseases and diabetes. The risk factors involved are tobacco use, unhealthy diet and physical inactivity among others. In a study conducted by FNRI in 2003, it was found that 90 percent of Filipinos have one or more of these risk factors: smoking, obesity, hypertension, high blood sugar and abnormal blood cholesterol levels.

While lifestyle-related diseases account for the bulk of non-communicable diseases in the country, there are other non-communicable diseases that need to be addressed. One group of diseases affects the kidney, such as nephritis, nephrotic syndrome and nephrosis. The causes of these diseases are varied. They can be hereditary or acquired and may be due to infections, autoimmune conditions, drug reactions, poisons, or injuries. Many of the kidney diseases leading to death are secondary to degenerative diseases like diabetes and cardiovascular diseases, but will be presented separately because their control entails a different public health approach.

Another problem is related to mental disorders which are increasing rapidly. Although there is insufficient data to completely describe the prevalence of mental disorders in the country, the WHO hints that due to the ever changing lifestyle of the people worsened by economic woes and social instability, the burden of mental disorders and disabilities is something that must be given serious attention.

The Philippines faces another key health issue: the rapid rise in the incidence of accidents and injuries, making them the fifth leading cause of death in 2000. Collectively, “accidents” and “injuries” include transport accidents, accidental falls, drowning, exposure to smoke, fire and flames, other-inflicted injuries and intentional self-harm among others.

There are other non-communicable diseases that may not directly cause death but nonetheless impact adversely on public health and the quality of life of Filipinos. These include nutritional disorders which are either due to under-nutrition or over-nutrition. Nutritional deficiencies such as protein-energy malnutrition and micronutrient deficiencies usually affect the more vulnerable population like children, pregnant and lactating women. On the other hand, over-nutrition leading to obesity is increasing among children under five years old and among older population groups.

For a country with minimal resources for health care, the cost of treating these diseases would be enormous and could drain vital resources. Intervention at family and community levels is essential for prevention because the causal risk factors are deeply entrenched in the social and cultural framework of the society. Action to prevent these diseases should focus on controlling risk factors in an integrated manner. Promotion of healthy diet and nutrition, control of tobacco use, and promotion of regular physical activity should be given the highest priority in the national strategy for the prevention

and control of lifestyle-related diseases. A supportive environment that can provide material, human and political resources to promote, adopt and maintain behavioral change towards a healthy lifestyle should be created. Moreover, upgrading the capability of health facilities at all levels for early detection, diagnosis and management of these diseases is imperative. Sustainable financing schemes to allow patients to have access to health services and essential drugs, particularly for long-term care, should be put in place.

## *Lifestyle-Related Diseases*

Diseases of the heart, diseases of the vascular system, diabetes mellitus, chronic respiratory diseases and malignant neoplasms are among the leading causes of death in the Philippines. As lifestyle-related diseases, they are similar in many ways.

First, it is difficult to reverse the state of health of an individual diagnosed with any of these diseases. Unlike communicable diseases, which have specific causative biologic agents and which are mitigated or cured through the application of a specific or a combination of treatment regimen like vaccines and antibiotics, degenerative diseases are usually caused by a combination of factors that has yet rendered cure or elimination virtually impossible. Once acquired, these become lifetime chronic diseases that can be stabilized only through a combination of behavioral, medical or surgical interventions. The most rational and most efficient public health approach to these diseases is prevention.

Secondly, every individual is bound to experience any of these diseases to a certain degree after reaching a certain age. The age of onset and rate of progression of these degenerative diseases depend on factors that can be influenced by the socio-economic and physical environment, by the health care system and by the person's behaviors and practices. Public health measures should aim to arm every individual with information and motivational tools to promote health and prevent the early onset and stall the advancement of these diseases.

Lastly, these degenerative diseases share many risk factors that lead to their onset and progress. The major risk factors identified by experts include high salt and high fat diet, stressful and sedentary lifestyle, and smoking. These factors, together with the interplay of the individual's genetic and physical endowment and exposure to critical levels of disease-causing agents and environmental hazards, increase a person's susceptibility to developing degenerative diseases.

A set of public health measures to address the multiple factors contributing to the development of these diseases had been appropriately identified and is promoted as “Healthy Lifestyle.” The healthy lifestyle approach includes the promotion of proper diet and nutrition, increased physical activity, and smoking prevention and cessation among others.

To prevent and control lifestyle-related diseases, several activities and programs have

been instituted. The nationwide launch of the Mag-HL (Healthy Lifestyle) Tayo Campaign in mid-2003, the enforcement of laws passed in 2003 and 2004, Republic Act 9211 on tobacco industry regulation and Republic Act 9335 on increasing taxation for tobacco and alcohol, respectively, together with the formal organization of the Philippine Coalition for the Prevention and Control of Non-Communicable Diseases in April 2004 have yet to bear fruit. The combined effects of these initiatives, if sustained and pursued by local governments and other stakeholders, are expected to break the alarming trend of life-threatening diseases like heart and vascular diseases, cancer, COPD and diabetes mellitus.

### **Cardiovascular Diseases**

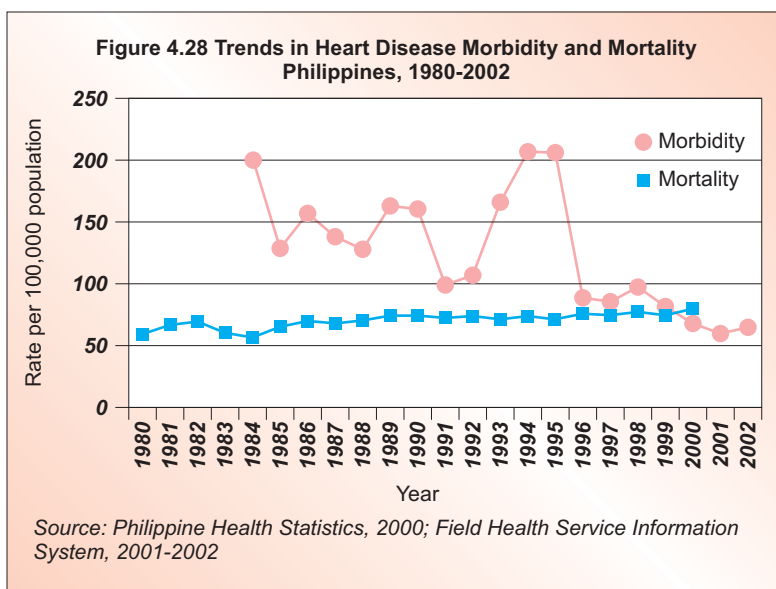
Cardiovascular diseases (CVDs) can develop at anytime throughout the life cycle of individuals. Congenital heart diseases (CHDs) and malformations can be present at birth. Rheumatic fever (RF) and rheumatic heart disease (RHD) may set in during childhood and adolescence. Arteriosclerotic changes in blood vessels may start developing in early adulthood and may progress to hypertension (HPN), coronary artery disease (CAD) or ischemic heart disease (IHD) which may result into myocardial infarction (MI) or heart attack. Cerebrovascular accident (CVA) or stroke may happen in uncontrolled hypertension especially among the elderly.

The development of CVDs is multifarious. Some are acquired and some are inherited. Others are due to environmental causes. Still others are due to cross-reactions with infectious agents like the case of RF and RHD. Among the most predominant risk factors in the development of CVDs are smoking, physical inactivity and obesity. Lifestyle modification is necessary to prevent and control the development of CVDs. Noncompliance to medications and not following suggested lifestyle modification like low fat and low salt diet, mild to moderate exercise and smoking cessation among persons with CVDs lead to complications and eventual demise from the disease.

The prevalence of HPN among adults 20 years old and above has slightly increased from 21 percent in 1998 to 22.5 percent in 2003. Among the same age group the mean systolic pressure and diastolic pressure have not changed that much between 1998 and 2003 (NNS).

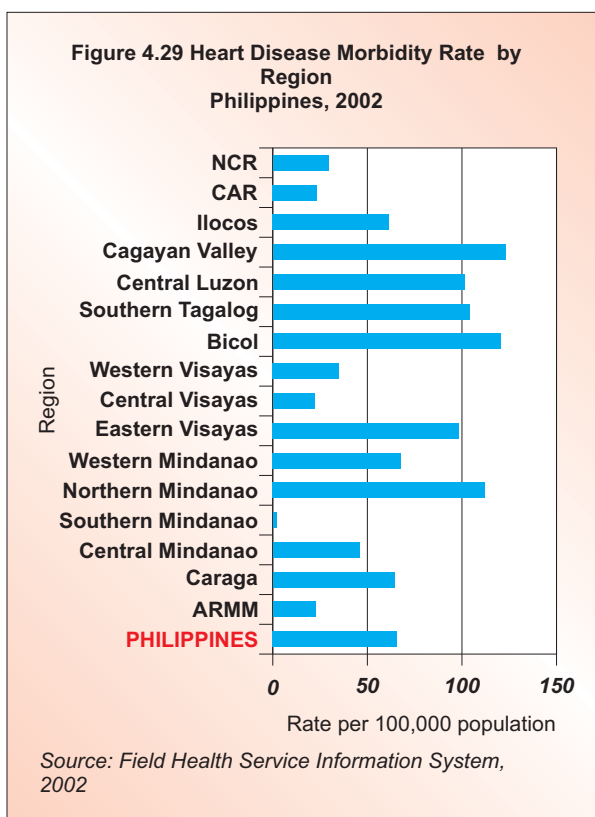
The mortality trend for heart diseases has been rising slowly for the past decades, although the morbidity trend shows that the number of reported cases is decreasing in





recent years (which may be due to underreporting of cases). The mortality rate for heart diseases increased from 60.8 deaths per 100,000 population in 1980 to 79.1 deaths per 100,000 population in 2000 (PHS).

In 2002, the region with the highest morbidity rate for heart diseases is Cagayan Valley at 122.9 cases per 100,000 population, followed by Bicol at 120.4 per 100,000 and Northern



Mindanao at 112.2 per 100,000. On the other hand, the region with lowest morbidity rate is Southern Mindanao at 2.0 cases per 100,000 population, which may be due to underreporting (FHSIS 2002).

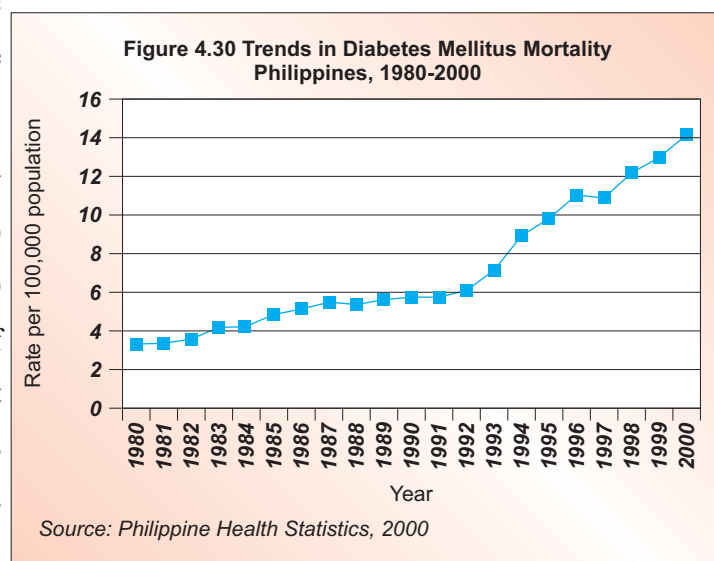
Prevention and control of heart diseases entail application of appropriate measures at different stages of the development of the disease. The first step is the promotion of healthy lifestyle and the application of preventive measures before the illness begins. The second step is protection through early diagnosis and prompt treatment. This is important so that illness may not progress and lead to disability or death. Rehabilitation to limit disability and prevent early death is the third step in managing the disease.

## Diabetes Mellitus

There are two types of diabetes mellitus (DM). DM Type 1 usually sets in among the young due to lack of insulin while DM Type 2 usually sets in among the older group secondary to decreased activity of the insulin produced which results in increased sugar level in the blood. The signs and symptoms of DM include polydipsia or frequent intake of water due to thirst, polyphagia or frequent intake of food due to hunger, and polyuria or frequent urination. Other symptoms are blurring of vision and difficult wound healing.

DM can be determined through examination of the blood sugar level. Once diagnosed to have DM, the person will have the disease for life. There is no known cure for this disease, but the blood sugar level can be controlled by insulin injections among DM Type 1 patients. For DM Type 2 patients, the management can start with lifestyle modification by lessening their intake of salty, fatty and sweet foods, avoidance of smoking, alcohol and stress, and undergoing regular exercise to maintain normal body weight. If the blood sugar level cannot be adequately controlled, DM type 2 patients can be given oral hypoglycemic agents and insulin injections. Patients may develop end-organ damages secondary to the elevated blood sugar level such as nephropathy that may lead to end-stage renal disease, neuropathy that leads to decrease sensation in the limbs, and retinopathy that may lead to blindness. Other complications include hypertension and heart disease. Patients may go into diabetic coma or die as a result of multi-organ damage if treatment is not given.

The mortality trend for DM is slowly increasing from 3.4 deaths per 100,000 population in 1980 to 14.1 deaths per 100,000 population in 2000. Prevention and control of the different risk factors in the development of this disease should be pushed and persons with a family history of diabetes mellitus should undergo lifestyle modification.



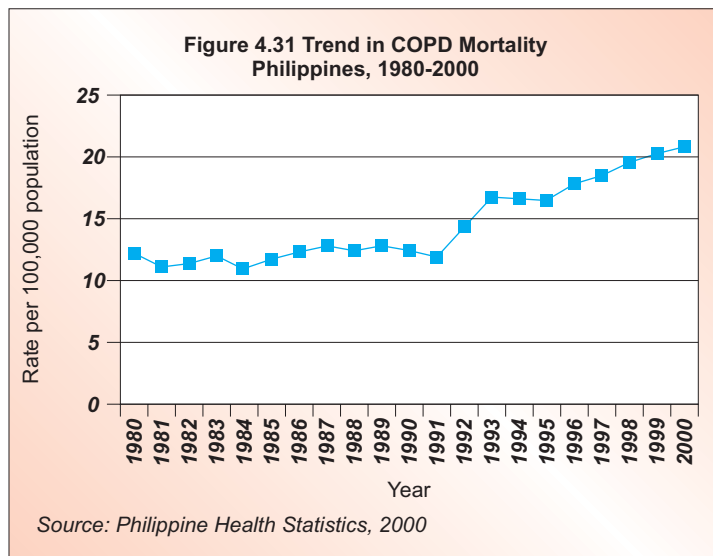
### Chronic Respiratory Diseases

Chronic respiratory diseases (CRDs) include asthma and the chronic obstructive pulmonary diseases (COPD) such as chronic bronchitis and emphysema. COPDs are adverse results of one or a combination of the following: infections, genetic susceptibility, occupational hazard or environmental pollutants like smoke.

Asthma is due to the person's sensitivity to specific external allergens or from internal non-allergenic factors. Most extrinsic asthma begins in children and starts with signs of atopy such as eczema and allergic rhinitis. Most cases of asthma, especially in adults, are preceded by severe respiratory infections. Allergens that may precipitate asthma attacks include pollen, animal dander, house dust, molds, feather and cotton tree or kapok

pillows, food additives with sulfites, or other sensitizing substances. Others that may worsen asthma attack include irritants, emotional stress, fatigue, endocrine changes, temperature and humidity changes and exposure to noxious fumes.

Attacks of CRDs may vary from gradually increasing respiratory distress to sudden or acute respiratory distress with feelings of suffocation, inability to speak, chest tightness, wheezing and cough with thick, clear or yellow sputum. Other signs and symptoms include chest and supra-clavicular indrawing, alar flaring, tachycardia, tachypnea, hyperresonant lung fields and diminished breath sounds. Cyanosis, confusion and lethargy indicate respiratory failure that may lead to death. Management of CRDs



includes the administration of bronchodilators like short-and-long acting beta 2 agonist, steroids and ipratropium bromide that are inhaled, taken orally or intravenously.

The mortality trend for COPD is slowly increasing from 12.3 deaths per 100,000 population in 1980 to 20.8 deaths per 100,000 in 2000. This may continue to increase if the risk factors for this disease remain unabated.

## Malignant Neoplasms

Cancer is largely considered a lifestyle-related disease. Many chemical, biological, radioactive, and other naturally occurring and synthetic substances, as well as predisposing factors and high-risk behaviors like smoking, diet, sexual activity, pollution and occupational exposure have been linked to cancer.

Many different types of cancers have been identified. In the Philippines, the most common sites of reported deaths from cancer are the trachea, bronchus and lung (8.4 deaths per 100,000 population), breast (4.4 per 100,000) and leukemia (2.9 per 100,000). Among males, the leading sites are the lungs, prostate, colorectal area and liver. Among females, the leading sites are the breast, uterus, cervix and lungs. Among children, the leading cancers are the leukemias and lymphomas.

There is a yawning gap in locally relevant scientific information on the relationship between the purported cancer agents and the predisposition of Filipinos for the disease.

Despite this, the relationship of tobacco smoking to many forms of cancer has been firmly established. This is why tobacco control is one of the cornerstones of cancer prevention. Another well-established correlation is between infection with hepatitis B and the development of liver cancer in later life. For this reason, hepatitis B immunization at birth has been included in the expanded program on immunization.

Another cornerstone of cancer prevention and control is early detection through the promotion of self-assessment techniques. Early detection of cancer can greatly affect the outcome of clinical management. When discovered early in their course and given appropriate treatment, a high percentage of malignancies can undergo remission.

**Table 4.6 Mortality Rates of Leading Cancer Sites  
Philippines, 2000**

Rank	Site of Malignant Neoplasm	Mortality Rate (per 100,000 population)
1	Lung, trachea and bronchus	8.4
2	Breast	4.4
3	Leukemia	2.9
4	Lip, oral cavity and pharynx	2.5
5	Colon	2.2
6	Stomach	2.0
7	Uterus	1.5
	Prostate	1.5
8	Lymphatic tissue	1.3
9	Cervix uteri	1.2
10	Rectum, recto-sigmoid junction and anus	0.8

*Source: Philippine Health Statistics, 2000*

Screening for breast cancer, which is the most common form of malignancy among Filipino women, is being promoted through self-breast examination campaign called “sariling salat sa suso,” and through clinical breast examination done by the physician. Forty-four percent and five percent of women in the Philippines practice these methods of breast cancer screening, respectively (BSNOH 2000). Mammography is also being recommended every five years among women more than 50 years old to detect non-palpable breast masses.

Pap smear, when conducted every three years, can reduce the incidence of cervical cancer up to 90.8 percent, and when done at an annual interval can reduce it further up to 93.5 percent (Sherries 1993). A study conducted by the UP-DOH Cervical Cancer Screening Research Group found out that the visual examination of the cervix aided by acetic acid wash is the most cost-effective screening method for cervical cancer. The DOH now recommends this method for early detection of cervical cancer (Cordero 2003).

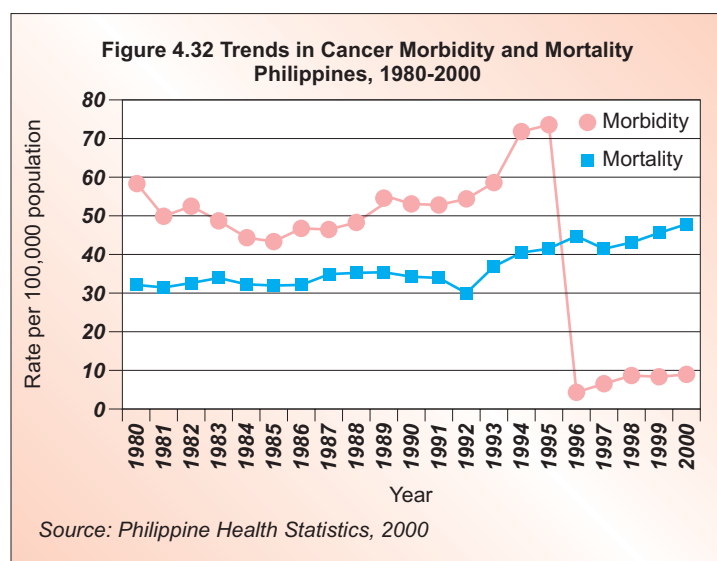
Digital rectal examination every five years is also used as a screening tool for prostatic and colorectal malignancy among males older than 50 years old. However, only about two percent of the target population submits to the procedure (BSNOH 2000).

Economic factors, non-awareness of the gravity of cancer upon first presentation and fear of being diagnosed with cancer are usually the reasons for late diagnosis (Ngelangel 1993). Increasing the awareness and submission of the populace to the many screening procedures developed for the different kinds of malignancies can improve treatment outcome and lessen the mortality for the disease.

Cancer is known to produce unbearable pain to patients in the last stages of the disease. To improve the quality of life during this stage, patients need effective pain relief therapy. Since morphine is not readily available, the DOH has continued to ensure that even poor patients have access to this pain relief medication. Morphine sulfate tablets are distributed to hospitals and hospice care facilities for cancer patients through the CHDs and the Philippine Cancer Society following rules and regulations mandated by the law for regulated substances.

A variety of treatment modalities continue to be developed for each specific form of cancer, but the cost of treatment can be staggering. This is why public health interventions are focused on health promotion, disease prevention and early detection.

Malignant neoplasm or cancer has been among the top ten leading causes of death in the Philippines since the 1970s. Cancer incidence has been slowly but steadily increasing over the past years. Cancer is the third leading cause of death in the country, accounting for 9.9 percent of all deaths in 2000 (PHS).



The reported cases of malignant neoplasms has been increasing up to 1995 but an abrupt decrease in the number of cases was noted in 1996 due to a change in the system of reporting, malignancies were removed among the notifiable diseases in the Field Health Service Information System. The morbidity rates have remained underreported thereafter at 4.0 to 9.0 cases per 100,000 population. On the other hand, the trend in reported deaths from all kinds of malignant neoplasm is increasing over the years

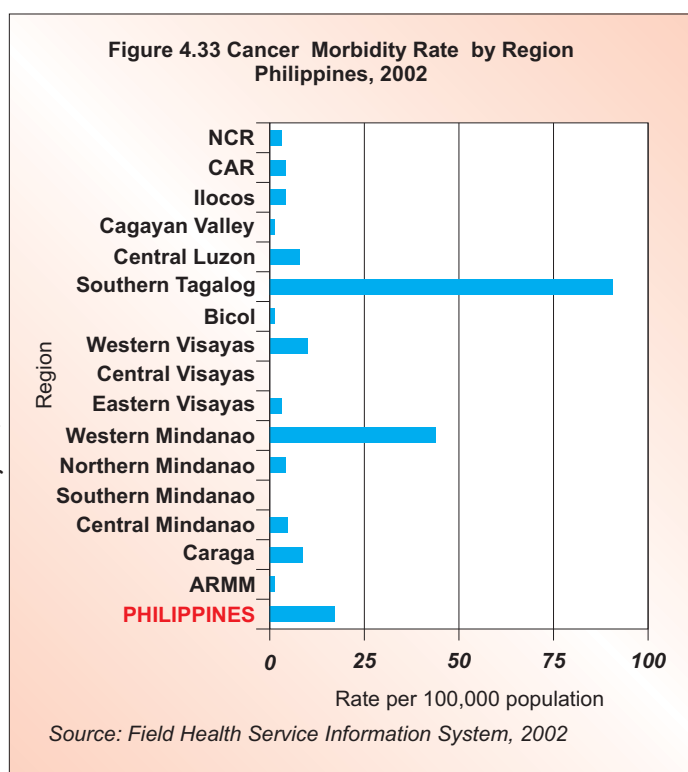
reaching 47.7 per 100,000 population in 2000.

In 2002, the region with the highest morbidity rate for cancer is Southern Tagalog at 89.9 cases per 100,000 population, followed by Western Mindanao at 15.4 per 100,000 and Western Visayas at 9.6 per 100,000. The large variation in the data may be due to underreporting in some regions.

The scale of lifestyle changes required in order to delay the onset and avert the course of degenerative diseases renders them difficult to control. Health sector managers would need more than the seasonal mass media campaigns for people to get rid of old habits and make correct choices for health. The healthy lifestyle campaign should be clear, consistent and competitive enough to overcome the effects of contradictory information and persuasions from the commercial sector.

The health management paradigm that shifts from directly fighting lifestyle-related diseases to fighting off the risk factors and risk behaviors acquired by the individual has proven to be a difficult challenge to health care providers. The means and control switches are with the patient, not with the health care provider. The prerequisite education and training of most health practitioners do not include the development of skills for behavior modification nor is their school training adequate for the challenging task of counseling patients.

The life long maintenance of the cost of medicines could drain resources of patients. Access to these drugs is crucial in ensuring reduction in co-morbidity, mortality and disability rates of these lifestyle-related diseases. There is a need to strengthen networking and collaboration among the various stakeholders to ensure sharing of technologies, resources and expertise to prevent and control lifestyle-related diseases. This has been shown time and time again during advocacy activities and development of guidelines and management protocols.





**Goal: Morbidity and mortality from lifestyle-related diseases are reduced and the quality of life of those who are suffering from such diseases is improved.**

**National Objectives for 2005 - 2010**

Objective	Indicator	Target	Baseline Data and Source
Mortality from degenerative or lifestyle-related diseases is reduced.	Mortality rate from heart diseases per 100,000 population	Less than 79.1 deaths per 100,000 population	79.1 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>
	Mortality rate from vascular diseases per 100,000 population	Less than 63.2 deaths per 100,000 population	63.2 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>
	Mortality rate from COPD per 100,000 population	Less than 20.8 deaths per 100,000 population	20.8 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>
	Mortality rate from diabetes mellitus per 100,000 population	Less than 14.1 deaths per 100,000 population	14.1 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>
	Mortality rate from all forms of malignant neoplasm per 100,000 population	Less than 47.7 deaths per 100,000 population	47.7 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>
Morbidity from diseases of the heart and vascular system is reduced.	Morbidity rate from heart and vascular diseases per 100,000 population	Less than 65.7 cases per 100,000 population	65.7 cases per 100,000 population Field Health Service Information Service, 2002
	Prevalence rate of hypertension	13.9 percent	22.5 percent <i>NNS, 2003</i>
Risk factors associated with lifestyle-related diseases are reduced.	Prevalence rate of adults with high fasting blood sugar	2.1 percent	3.4 percent <i>NNS, 2003</i>
	Prevalence rate of central obesity (or high waist-hip ratio) among females	38.4 percent	54.8 percent <i>NNS, 2003</i>
	Prevalence rate of high total serum cholesterol among adults	5.2 percent	8.5 percent <i>NNS, 2003</i>



National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Proportion of adults and older persons with sound practice on dietary fat and sugar intake	Increase to 50 percent	3.1 percent of adults avoided fat and 2.3 percent avoided sweets  6.6 percent of older persons avoided fat and 3.7 percent avoided sweets  <i>Baseline Survey on the NOH, 2000</i>
	Proportion of obese among;  children 0-5 years old: schoolchildren: adolescents: adults:	Reduce obesity to:  1 percent 1 percent 3 percent 3 percent	Proportion of obese:  1.4 percent 1.3 percent 3.5 percent 4.3 percent  <i>National Nutrition Survey, 2003</i>
	Proportion of adults with high physical inactivity	Reduced high physical inactivity to 50.8 percent	60.5 percent of adults  <i>National Nutrition Survey, 2003</i>
	Prevalence rate of tobacco smoking among;  general population: adolescents aged 13-15 years: adult male : adult female:	Less than:  34.8 percent 15.0 percent 40.0 percent 8.6 percent	34.8 percent 15.0 percent 56.3 percent 12.1 percent  <i>FNRI, GYTS, WHO and CDC, NNS 2003</i>
	Prevalence rate of alcohol intake among:  adolescents: adults: older persons:	Less than:  30 percent (adolescents) 46 percent (adults) and 22 percent (older persons)	30 percent (adolescents) 46 percent (adults) and 22 percent (older persons)  <i>BSNOH, 2000</i>
Early detection and screening for degenerative or lifestyle-related diseases are increased.	Proportion of women of reproductive age and older who practice monthly breast self-examination	Increase to 50 percent	44 percent  <i>Community Survey BSNOH, 2000</i>
	Proportion of women 35-40 years old who have breast examined by a physician every 1 to 3 years	Increase to 20 percent	5 percent in their lifetime  <i>Community Survey BSNOH, 2000</i>
	Proportion of males aged 50 years and older submitting to digital rectal examination at least every 3 years	Increase to 20 percent	2 percent  <i>Community Survey BSNOH, 2000</i>

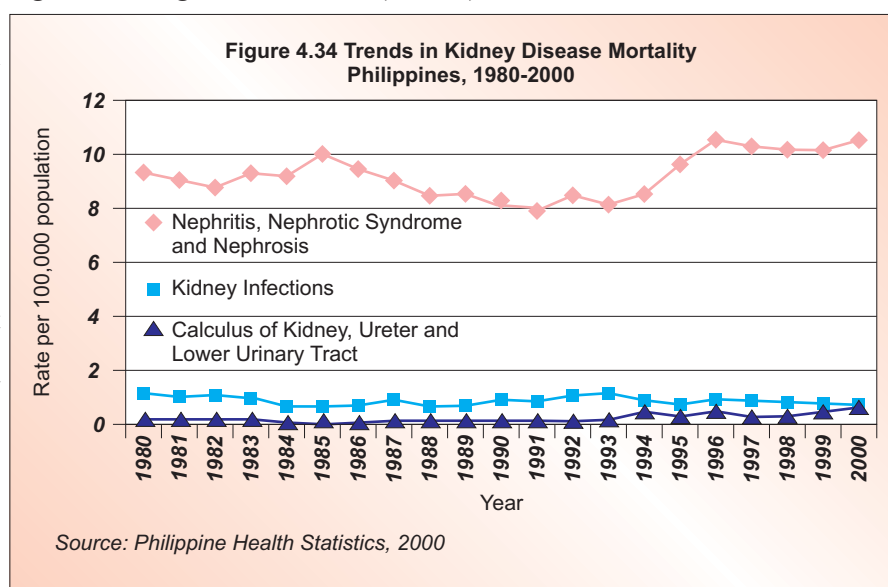
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Proportion of women 18-65 years old who have one Pap smear or visual acetic acid screening at least every 3 years	Increase to 50 percent (with Pap smear or visual acetic acid screening)	5 percent with Pap smear <i>Community Survey BSNOH, 2000</i>

Strategic Thrusts for 2005-2010			
<ul style="list-style-type: none"> <li>• <b>Implement sound, long-term and sustained Healthy Lifestyle promotion programs</b> using community-based approaches, with DOH supplementing local campaigns with regular mass media campaigns and CHED improving medical and paramedical curricula in the area of healthy lifestyle and behavior modification.</li> <li>• <b>Promote information, education and advocacy campaigns</b> in the reduction of risk factors, early detection and management, and improvement in the quality of life of people with lifestyle-related diseases.</li> <li>• <b>Translate and implement provisions of the tobacco laws as local ordinances and develop community infrastructure supportive of healthy lifestyle</b> (sports centers, green parks, smoking cessation clinics, etc.).</li> <li>• <b>Pursue training of clinicians and other frontline health care providers</b> in health promotion, screening, early diagnosis, treatment, rehabilitation and palliative care.</li> <li>• <b>Manage risk behaviors and risk factors</b> by establishing more smoking cessation clinics, finding and treating more patients with rheumatic heart disease, providing more training opportunities for diet counseling and smoking cessation programs, and organizing and counseling for healthful physical activities.</li> <li>• <b>Strengthen networking and collaboration</b> among GOs, NGOs and various stakeholders to ensure sharing of technologies, resources and expertise and to maximize efforts towards the prevention and control of lifestyle-related diseases.</li> <li>• <b>Support and implement financial risk protection measures</b> for persons with lifestyle-related diseases by lowering the cost of essential drugs and provision of better social health insurance benefit packages.</li> </ul>			

## Diseases of the Kidney and the Urinary Tract

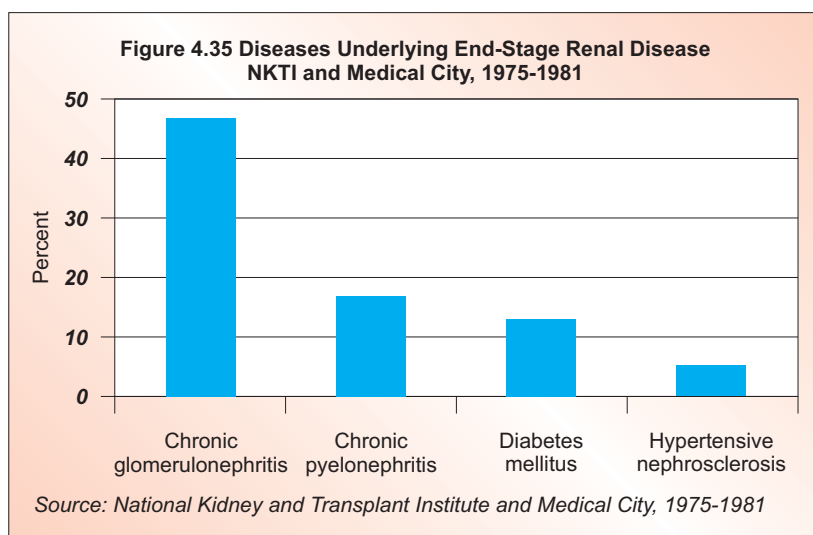
Nephritis, nephrotic syndrome and nephrosis can be signs of infections, systemic conditions, autoimmune and chronic or degenerative diseases affecting the kidney. They can also be secondary to prolonged medication, exposure to poisons or traumatic injury. The causes are varied. They can be hereditary or acquired and may be secondary to other leading causes of death manifesting as end-stage renal disease (ESRD).

There are problems in obtaining routine countrywide data reflecting the prevalence of kidney diseases. However, the mortality trends for diseases of the kidney and urinary tract are generally increasing at a slow phase. Studies indicate that around 9,500 Filipinos develop fatal diseases of the kidneys annually. Nephritis,



nephrotic syndrome and nephrosis accounted for 7,963 deaths registered in 2000. This translates to a death rate of 10.4 per 100,000 population, the tenth highest among the causes of death in the country. In addition, kidney infections and calculi at any portion of the urinary tract had mortality rates of 0.8 and 0.5 per 100,000 population, respectively, during that year (PHS 2000).

A significant proportion of ESRD is secondary to the top causes of chronic illness in the country. Studies by two leading hospitals in Metro Manila indicate that the most common underlying diseases for ESRD are chronic glomerulonephritis, chronic pyelonephritis, diabetes mellitus and hypertensive nephrosclerosis. In short, deaths from renal causes are the



consequences of prolonged or uncontrolled assault of infectious or metabolic agents on the kidneys and are regarded as degenerative. ESRD is expected to increase proportionately with the incidence of degenerative or lifestyle-related diseases. Unless these underlying diseases are controlled, prevalence of ESRD will remain high. Since the cost of treatment is prohibitive, deaths from ESRD will also be staggering.

In 2000 the estimated cases of ESRD in the Philippines was 122 cases per million population, of which only 46 percent received dialysis treatment while 17 percent availed of kidney transplantation.

Hemodialysis is the treatment to stave off permanent renal impairment in some patients. It is a palliative procedure for patients waiting for renal transplantation secondary to permanent renal damage. Most cities in the Philippines have nephrology departments and hemodialysis units. There are 180 hemodialysis centers and 41 peritoneal dialysis centers nationwide. Administrative Order No. 124 s. 2004 “National Policy on Kidney Transplantation from Non-related Donors” provided the technical and ethical guidelines for patient care. These guidelines include setting up of the Renal Disease Registry and the regulation of kidney transplantation from living, non-related donors.

On the preventive side, healthy lifestyle promotion to control degenerative diseases has been set into motion. Heightened awareness on the ill effects of tobacco smoking, environmental pollutants and the abuse of drugs and medicines favor the control of renal diseases. Success in this effort is expected to eventually lead to reduction of ESRD.

The rate by which modern technology for renal disease management has advanced commercially should pave the way for reducing the cost of care for patients afflicted with ESRD. Only then could hemodialysis be effective in improving the quality of life of renal disease patients. On the other hand, ethical and legal issues can beset organ donation in a poor country like the Philippines. The challenge is to improve the quality of life of transplant recipients while upholding the right of organ donors to the highest attainable health status.

**Goal: Morbidity and mortality from kidney diseases are reduced and the quality of life of persons suffering from such diseases is improved.**

**National Objectives for 2005 - 2010**

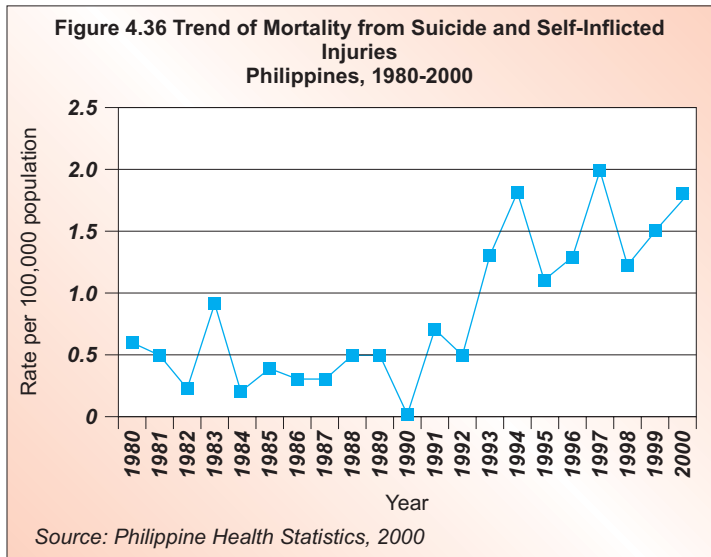
Objective	Indicator	Target	Baseline Data and Source
Deaths from kidney diseases secondary to nephritis, nephrotic syndrome and nephrosis are reduced.	Mortality rate from nephritis, nephrotic syndrome and nephrosis per 100,000 population	Less than 10 deaths per 100,000 population	10.4 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>

**Strategic Thrusts for 2005-2010**

- **Promote healthy lifestyle** (promote physical activity and maintenance of normal body weight, prevent excesses in food, drinks and alcohol intake, and avoid smoking and substance abuse).
- **Strengthen research and development and renal disease information system** towards identifying high-risk groups, preventable risk factors, effective preventive measures and behavioral influences for early detection and successful case management.
- **Institute and campaign for better insurance benefit packages** that are responsive to the needs of ESRD patients.
- **Ensure collaboration and partnership among stakeholders** in the prevention and control of kidney and urinary tract diseases and the promotion of quality of life and financial protection of persons with ESRD.

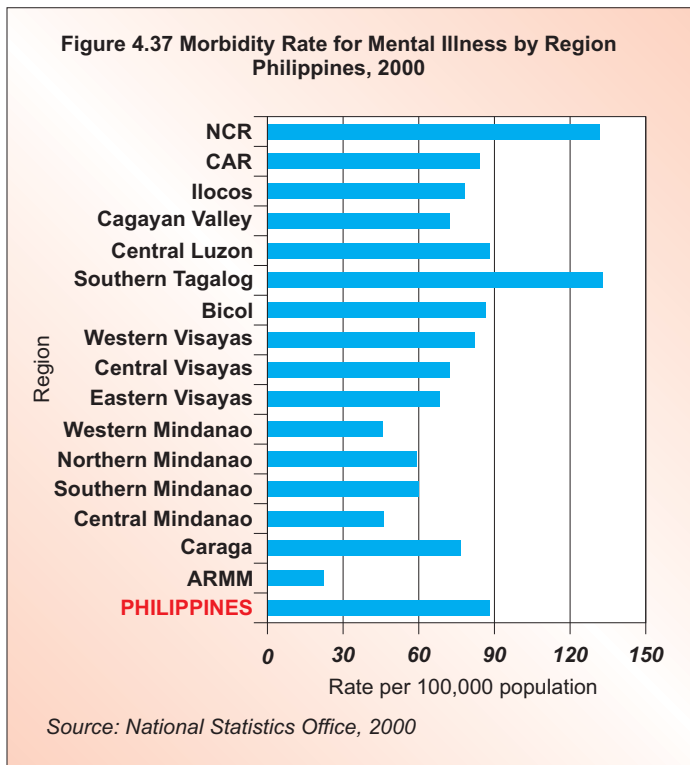
## Mental Health and Mental Disorders

The WHO defines mental health as a state of well being that enables a person to realize his or her own abilities to cope with the normal stresses of life. It emphasizes that mental



health is more than just the absence of psychiatric disorder or illness but also includes a positive state of mental well being.

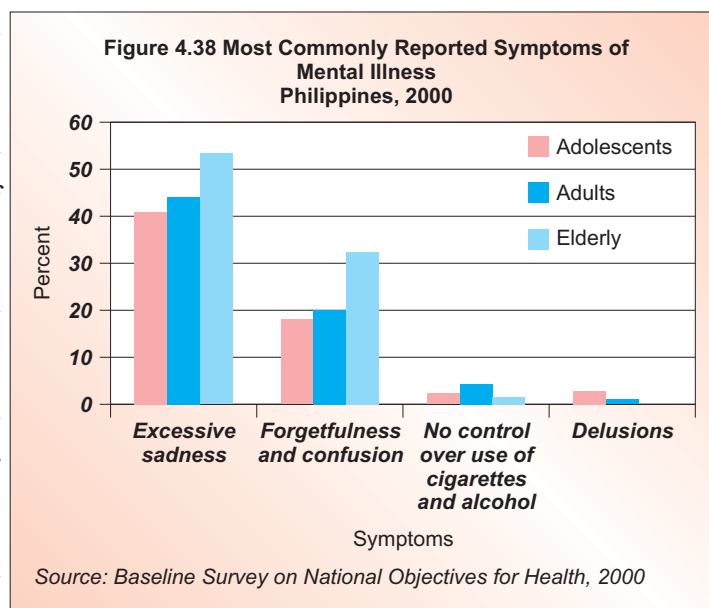
Mental illness is not a fatal disease. Even those who have been mentally ill for most of their lives rarely die of mental illness. However, there is a growing concern for the increasing trend of mortality rate from suicide and self-inflicted injuries which has reached a level of 1.8 deaths per 100,000 population in 2000 (PHS).



The public health impact of mental illness lies in the fact that it can cause disability for prolonged periods. In a disability survey by the National Statistics Office in 2000, it was found that mental illness is the third most common form of disability after visual and hearing impairments. In this survey, the prevalence rate of mental illness in the Philippines was 88 cases per 100,000 population in 2000. The region with the highest prevalence rate of mental illness is Southern Tagalog at 132.9 cases per 100,000 population, followed by NCR at 130.8 per 100,000 population and Central Luzon at 88.2 per 100,000 population.

This report is strengthened by the Social Weather Stations Survey commissioned by DOH in June 2004 which revealed that 0.7 percent of total households have a family member with mental disability. In another study, the Baseline Survey for the National Objectives for Health (BSNOH) conducted in 2000, the more frequently reported

symptoms of mental health problem cited by the sampled household respondents were excessive sadness, confusion and forgetfulness, no control over the use of cigarettes and alcohol, and delusions. Excessive sadness, forgetfulness and confusion increase with age while cigarette and alcohol abuse affect adults and adolescents more than they do the older persons. The prevalence of mental illness, since it can be chronic, is reportedly highest among the older age groups.



Related to mental illness is the problem of drug abuse. The Dangerous Drugs Board in 1998 estimated that there are about 1.8 million regular users and 1.6 million occasional users of dangerous drugs in the country or around 2.5 percent regular users and 2.2 percent occasional users. The first dangerous drug of choice is methamphetamine hydrochloride or *shabu* and the second is marijuana.

Other predisposing factors in the development of mental illness include familial or hereditary mental disorders like schizophrenia, and disorders related to psychosocial development. Some mental illnesses are due to inability to cope with stress brought about by daily living such as migration, urbanization, industrialization, poverty and abuses. The distressing experiences of vulnerable population like children and other persons in difficult circumstances can make them susceptible to mental illness.

Persons who are socially deprived are least likely to obtain help for mental and physical trauma, according to a United Nations report. About two thirds of people known to have mental disorders do not obtain help from health professionals. The WHO identified that stigma, discrimination and neglect have prevented care and management from reaching persons with mental disorders.

Psychiatric patients in the Philippines are usually managed in a mental hospital setting. There is now a shift in the management of persons with mental disorders at psychiatric wards in university and private hospitals. Community-based mental health care is also encouraged.



Several policies were made to address mental health and mental disorders in the country. Since substance abuse is the leading direct and indirect cause of mental illness among the economically productive age group, the passage of RA 9165 (Comprehensive Dangerous Drugs Act) would impact positively on the control of mental illness in the country. In 2001, the National Mental Health Policy was issued by the DOH, prescribing the framework toward the attainment of optimum state of mental health for all Filipinos. The policy aims to raise the professional and public awareness that mental health is an integral component of total health care. The National Mental Health Policy needs to be translated into action programs by the various partner agencies with the DOH taking the lead in mobilizing partners and ensuring implementation.

The social stigma associated with mental illness is a major cause for non-use of health and psychosocial services by Filipinos. The lack of understanding of mental illness and the importance of mental health among Filipinos is as serious as the lack of a regular and useful database on the prevalence, manifestations, causation and risk factors of mental illness in the country.

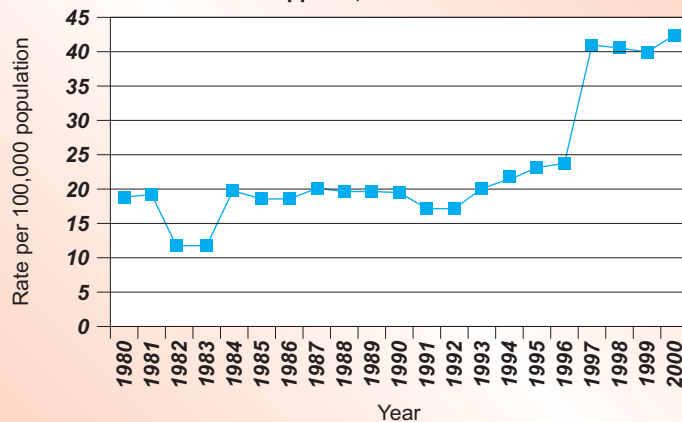
<b>Goal: Mental health is promoted in the general population, the risks and prevalence of mental disorders are reduced, and the quality of life of those who are suffering from such conditions is improved.</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Prevalence of mental illness is reduced.	Prevalence of mental disorders per 100,000 population	Less than 88 cases per 100,000 population	67,294 cases nationwide, equivalent to 88 cases per 100,000 population <i>National Statistics Office, 2000 Philippine Statistical Yearbook 2004</i>
	Percentage of households with family member having any form of mental disorder	Less than 0.7 percent of households	0.7 percent of households <i>SWS-DOH, 2004</i>
Mortality from suicide and intentional self-harm is reduced.	Mortality rate from suicide and intentional self-harm per 100,000 population	Reduce to 1.5 deaths per 100,000 population	1.8 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Risk for mental disorders is reduced.	Prevalence rate of substance abuse among:  Adolescents Adults Older Persons	Reduce to:  5 percent 7.5 percent less than 0.3 percent	10 percent 15 percent 0.3 percent  <i>BSNOH, 2000</i>

Strategic Thrusts for 2005-2010	
<ul style="list-style-type: none"> <li>• <b>Strengthen advocacy and public information campaign on mental health</b> by developing individual, household, community and institutional resources (professionals, families, peer support, etc.) to promote awareness in the prevention, control and management of mental disorders.</li> <li>• <b>Establish database and information system</b> to determine the magnitude of mental illness, its epidemiological characteristics and knowledge and practices regarding mental health to serve as basis for turning the program around from being institutional and treatment-focused to being <b>preventive, family-focused and community oriented</b>.</li> <li>• <b>Integration of mental health into the provision of other public health services nationwide.</b></li> <li>• <b>Develop model programs for prevention of substance abuse and risk reduction for mental illness</b> that can be replicated in different LGUs in coordination with other agencies involved in mental health and substance abuse.</li> <li>• <b>Develop a financial package</b> for mental health services and treatment of persons with mental disorders.</li> <li>• <b>Advocate for positive health-seeking behavior</b> to increase the proportion of high-risk population (victims of violence and disaster, overseas Filipino workers, children in need of special protection and adolescents, etc.) who seek help for personal and emotional problems.</li> </ul>	

## Accidents and Injuries

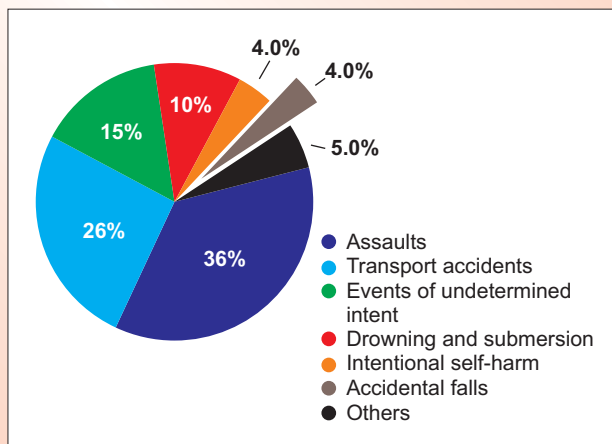
**Figure 4.39 Trends in Mortality from Accidents and Injuries  
Philippines, 1980-2000**



Source: Philippine Health Statistics, 2000

Accidents and injuries are the fifth leading cause of death in the country in 2000, and are among the neglected disease conditions of public health importance. Accidents are unintentional, unexpected and undesirable events. Injuries are either intentional or unintentional events, that result in damage or harm to a person. Most accidents and injuries can be avoided. Their effects can be lessened through measures like road safety education, installation of adequate walkways, streetlights and signs, and home safety management.

**Figure 4.40 Causes of Accidents and Injuries  
Philippines, 2000**



Source: Philippine Health Statistics, 2000

The mortality rate from accidents gradually increased from 18.7 deaths per 100,000 population in 1980 to 23 per 100,000 in 1996. An abrupt increase is observed since then, reaching a level of 42.4 deaths per 100,000 population in 2000, almost double the mortality rate observed in 1996 (PHS).

In the Philippines, 36 percent of all causes of deaths from accidents and injuries are due to assaults, followed by deaths from transport accidents at 26 percent. Other deaths from accidents and injuries are secondary to drowning, suicide, accidental falls, forces of nature, legal interventions, fire, and other undetermined causes.

**Table 4.7 Casualties and Case Fatality Rate from Traffic Accidents  
Philippines, 1998-2003**

Year	Number of Casualties			Case Fatality
	Fatal	Non-Fatal	Total	
1998	940	1,863	2,803	34%
1999	719	2,150	2,869	25%
2000	704	1,719	2,423	29%
2001	627	1,399	2,026	31%
2002	714	3,034	3,748	19%
2003	800	4,177	4,977	16%

Source: Philippine Statistical Yearbook, 2004

Despite the abrupt increase in the incidence of injuries from traffic accidents in recent years, the trend in case fatality rate is noted to

be going down. This may be attributed to several factors like the enactment of Republic Act 8750 in 1999 requiring the mandatory use of seat belts among motorists and the improvement of capability of health facilities to respond to such cases.

The Philippines is also among the top five countries in terms of the number of natural disasters, accounting for about 25 percent of natural calamities that are reported annually, resulting in injuries and loss of lives. The variety and frequency of natural disasters and emergencies occurring in the country can exhaust logistical resources required to mobilize different agencies to respond promptly and adequately to emergencies.

The issuance of Presidential Decree 1566 (Strengthening the Philippine Disaster Control Capability and Establishing the National Program in Community Disaster Preparedness) in 1978 paved the way for the institutionalization of a disaster management structure from the national government down to the barangay level. This became the basis for DOH's efforts to develop the capacities of both government and private health institutions in the field of emergency and disaster response. National and local health authorities have a network with the National Disaster Coordinating Council, Bureau of Fire Protection, Philippine National Red Cross, Philippine National Police, Philippine Coast Guard, private hospitals, and the academe for emergency and disaster response.

Goal: Morbidity and mortality from accidents and injuries are reduced.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Mortality secondary to accidents and injuries is reduced.	Mortality rate from accidents and injuries per 100,000 population	40 deaths per 100,000 population	42.4 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>
	Mortality rate from transport accidents per 100,000 population	6 deaths per 100,000 population	7.4 deaths per 100,000 population <i>Philippine Health Statistics, 2000</i>
Database for accidents and injuries is established.	National database for specific accidents and injuries	Database established by 2010	None

### Strategic Thrusts for 2005-2010

- **Establish database for all forms of accidents and injuries** to serve as basis for implementing appropriate prevention strategies, improving emergency preparedness, and instituting financing policies and appropriate health packages.
- **Review and implement regulations related to accidents and injuries** to improve inter-agency response to emergencies.
- **Strengthen networking and coordination** to harmonize policies and programs and to optimize resources available for emergency and disaster response in the country. The strengths of disaster agencies and health facilities need to be consolidated to improve quality and scope of response.
- **Provide adequate emergency equipment** to strategically located health facilities, and give **appropriate personal protective devices** to medical emergency response teams. Although people are great assets in disasters, they should be equipped and safe.
- **Strengthen advocacy and information campaign** in the prevention and control of accidents and injuries in households, workplaces and communities.

# Promotion and Protection of Family Health

In Filipino culture, the family is traditionally the first emotional and social support mechanisms and the first providers of education and health care. Typical in this setting is the love and guidance provided by the family for the development of their children and the care of their elderly. With demographic, social and economic changes, variations in family composition, structure and practices have emerged. There are more challenges that create stressful situations affecting the family's ability to nurture and care for their children, their elderly and other vulnerable members. There is a need for a wide range of government and non-government programs to help families discharge their economic and social functions and cope with the pressures imposed on them by the rapid socioeconomic change.

Most families see health as an end with medical and technological interventions as means aimed at keeping or taking disease agents and risk factors away from their individual members. Measures to protect and promote the health of an individual vary as one goes through the different stages of life. Because of this, the life cycle approach is used as the basis for designing health programs and delivering health services to specific age groups and to vulnerable groups of the population with special health needs.

The life cycle approach to protect and promote health covers the several stages of life: from the womb to infancy, from childhood to adolescence, and from adulthood to old age. It is a given that every stage carries health risks, predispositions and physiologic characteristics peculiar to each. A minimum package of health services specific for each stage should be made available to ensure a positive state of well being of the individual. One factor that should be stressed is the vital role of the family in the full spectrum of a person's health and development.

Individuals belonging to a specific vulnerable group also belong to a specific life stage. As such, the minimum basic health package for an individual with known vulnerability generally depends on the stage of life the individual is in. Also steps should be taken to alleviate health and health-related concerns of special categories of population for which specific health packages should be developed through the government's various programs. This acknowledges two things: the reality that vulnerable groups are under circumstances much different from most others and the fact that government and health care system are responsible to provide forms of social accommodation to population with special needs to succeed in the overarching goal of "Health for All."

Tackling health issues of specific vulnerable groups require more focused preventive efforts and understanding of their needs and differences that set them apart from the mainstream. The two major challenges are to build better information systems to get a more accurate profile of their health status and to translate the information into health strategies and interventions that will reach out to these groups. The protection of their right to health is important for them to meet their full development and productivity.

There are specific health services that are essential only for a certain stage in the life cycle such as antenatal and postnatal care for the mother and the unborn; newborn screening and immunization for infants and children; and degenerative disease screening for adults and older persons. On the other hand, there are health services that are included in all of the life stages like the management of illness, first aid, oral dental care, mental health and the protection against environmental and occupational health hazards. Specific health services are also included in the health package for vulnerable groups.



## Mothers and their Unborn

In the Philippines, there are about three million women getting pregnant every year. In developing countries, about 85 percent of all pregnancies are expected to progress to full term. The NDHS 2003 revealed that about 44 percent of women are pregnant with their first child at ages 20-24 years and 6.1 percent at ages 15-19 years. Because all pregnancies are considered at risk, all deliveries should be attended by professional and skilled health workers in health facilities to ensure that pregnancy outcome is safe and uneventful as far as possible.

In 2003, the mean number of children ever born to a Filipino woman upon reaching the age of

**Table 4.8 Wanted Fertility Rate, Total Fertility Rate and Mean Number of Children Ever Born to Women Age 40-49 Years by Region  
Philippines, 2003**

Region	Wanted Fertility Rate	Total Fertility Rate	Mean Number of Children Ever Born to Women Age 40-49 Years
NCR	2.0	2.8	3.2
CAR	2.7	3.8	4.7
Ilocos	3.0	3.8	3.9
Cagayan Valley	2.6	3.4	4.1
Central Luzon	2.4	3.1	4.1
CALABARZON	2.3	3.2	3.8
MIMAROPA	3.6	5.0	5.1
Bicol	2.6	4.3	5.5
Western Visayas	2.7	4.0	4.9
Central Visayas	2.6	3.6	4.4
Eastern Visayas	2.9	4.6	5.4
Zamboanga Peninsula	2.6	4.2	4.9
Northern Mindanao	2.8	3.8	4.8
Davao Region	2.2	3.1	4.6
SOCSCSARGEN	3.0	4.2	5.0
Caraga	2.8	4.1	5.4
ARMM	3.7	4.2	5.2
<b>Philippines</b>	<b>2.7</b>	<b>3.5</b>	<b>4.3</b>

Source: National Demographic and Health Survey, 2003

40-49 years is 4.3 with an average total fertility rate (TFR) of 3.5 children per woman. MIMAROPA has the highest TFR of 5.0 followed by Eastern Visayas at 4.6 while NCR has the lowest TFR of 2.8. The actual fertility rate of 3.5 exceeded the desired fertility rate of 2.7 by almost one.

The high fertility rate coincides with the low contraceptive prevalence rate of 47.3 percent among all Filipino women of reproductive age (15-49 years old) and 70.6 percent among married women. The age group 35-39 years has the highest percentage of using contraceptives while the 15-19 years old have the lowest percentage of ever using any contraceptive method.

Among currently married women in 2003, it was found that 48.9 percent use any form of contraceptive method and 51.1

**Table 4.9 Percentage of Married Women and All Women Age 15-49 Years Who Ever Use Any Contraceptive Method by Age Group  
Philippines, 2003**

Age Group	Percentage of Married Women	Percentage of All Women
15-19	36.8	4.0
20-24	61.0	31.8
25-29	71.5	56.6
30-34	75.8	66.5
35-39	76.5	69.7
40-44	72.2	66.5
45-49	67.7	63.1
<b>TOTAL</b>	<b>70.6</b>	<b>47.3</b>

Source: National Demographic and Health Survey, 2003

**Table 4.10 Percentage of Currently Married Women Age 15-49 Years Who Ever Use Any Contraceptive Method Philippines, 2003**

Contraceptive Method	Percentage of Married Women
<b>Any method (traditional or modern)</b>	<b>48.9</b>
<b>Modern method</b>	<b>33.4</b>
Female sterilization	10.5
Male sterilization	0.1
Pill	13.2
IUD	4.1
Injectables	3.1
Male condom	1.9
Mucus/Billings/Ovulation	0.1
LAM	0.3
<b>Traditional method</b>	<b>15.5</b>
Calendar/Rhythm/Periodic abstinence	6.7
Withdrawal	8.2
Other	0.6
<b>Not currently using</b>	<b>51.1</b>

Source: National Demographic and Health Survey, 2003

percent do not use any form of contraceptive method at all. Of all the currently married women who use any form of contraception, 33.4 percent use any modern method of contraception and 15.5 percent use any traditional method of contraception.

This situation leads to more pregnancies and deliveries among Filipino women. Pregnancy is a physiologic process that entails risks to both the mother and the unborn. At greater risk are women getting pregnant below 18 years old and those who are more than 35 years old. Chronic illnesses such as iron deficiency anemia, tuberculosis, hypertension, cardiovascular disorders, diabetes in pregnancy are risks that could harm the mother and the unborn.

Based on the 2004 NOH targets, of the four maternal risk reduction targets monitored through the NDHS 1998 and 2003, none were achieved, though a lesser proportion of women seem to be at risk. The percentage of pregnant women with at least four prenatal visits decreased from 77 percent in 1998 to 70 percent in 2003. In addition, pregnant women who received at least two doses of tetanus toxoid also decreased from 38 percent in 1998 to 37 percent in 2003. However, births attended by health professionals increased from 56 percent in 1998 to 60 percent in 2003. There was also a notable

**Table 4.11 Health-Related Practices Affecting Maternal Health Philippines, 1998 and 2003**

Maternal Health Practice	NDHS 1998	NOH Targets 2004	NDHS 2003
Pregnant women with at least 4 prenatal visits	77%	80%	70%
Pregnant women with at least 2 doses of tetanus toxoid	38%	80%	37%
Births attended by professional health providers	56%	80%	60%
Women with at least 1 postnatal visit within one week of delivery	43%	80%	51%

Source: National Center for Disease Prevention and Control, DOH, 2005

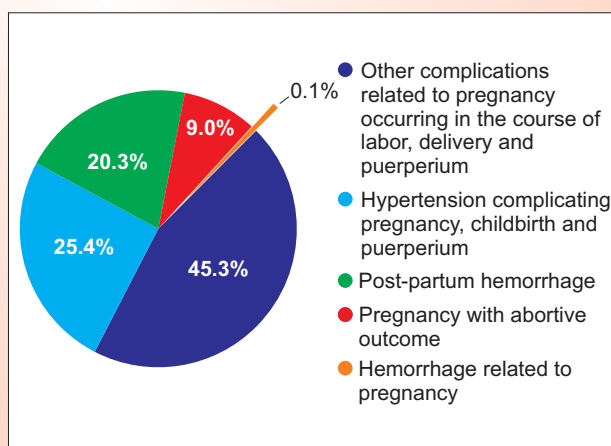
increase in the percentage of women with at least one postnatal visit from 43 percent in 1998 to 51 percent in 2003. In addition, only 77 percent of pregnant women received iron supplementation during pregnancy while only 45 percent of postpartum women received a dose of Vitamin A.

The Philippines intends to reduce the maternal mortality ratio (MMR) by

three-quarters by 2015 to achieve its millennium development goal. This means an

MMR target of 90 deaths per 100,000 live births in 2010 and 52 deaths per 100,000 live births in 2015. The MMR in the Philippines has declined from an estimated 209 per 100,000 live births in 1987-93 (NDHS 1993) to 172 in 1998 (NDHS, 1998). The Philippines finds it hard to reduce maternal mortality and lessen the disparities seen across regions. Similarly, perinatal mortality reduction has been minimal. It went down by 11 percent in 10 years from 27.1 to 24 perinatal deaths per thousand live births (NDHS 1993 and 2003).

**Figure 4.41 Percentage Distribution of the Main Causes of Maternal Mortality Philippines, 2000**



Source: Philippine Health Statistics, 2000

The PHS 2000 revealed that 25 percent of all maternal deaths are due to hypertension, 20.3 percent to postpartum hemorrhage, and nine percent are due to pregnancy with abortive outcomes.

Critical actions to reduce the number of maternal deaths should address the following: delay in seeking care, delay in making referral and delay in providing appropriate medical management. Other factors that contribute to maternal deaths include closely spaced births, frequent pregnancies, poor detection and management of high-risk pregnancies, poor access to health facilities brought about by geographic distance and cost of transportation, and lack of competence of health staff in handling obstetrical emergencies.

Among the Filipino women incurring the highest health risks during pregnancy are: (1) pregnant women less than 18 years old and those more than 35 years old; (2) women who had received only up to elementary education; (3) women in the 20 percent poorest households; (4) women in areas with armed conflict; (5) women victims of domestic violence; and (6) pregnant women with concurrent chronic illness (iron-deficiency anemia, tuberculosis, cardiovascular disease, diabetes mellitus, etc.).

#### **Essential Health Care Package for Mothers and their Unborn**

1. Antenatal registration
2. Tetanus toxoid immunization
3. Micronutrient supplementation
4. Treatment of diseases and other conditions
5. Early detection and management of complications of pregnancy
6. Clean and safe delivery
7. Support to breastfeeding
8. Family planning counseling
9. STD/HIV/AIDS prevention and management
10. Oral care

Services that ensure the health and welfare of the mother and the unborn are in place in the health system. Essential prenatal and postnatal services should be easily accessible to the mother and the unborn as these are available at the primary level. Maternal care benefit package in public health facilities includes pre-pregnancy, prenatal and post-natal services. Criteria for health facility accreditation by the DOH and the PhilHealth are heavy on maternal and child care. While PhilHealth is accrediting more basic level services, not all poor families are enrolled in the PhilHealth indigency program. Uncertainty about the cost of care compounded by transport difficulties have kept women from seeking the medical care they need.

Medical and nursing curricula have sufficient coverage while midwifery is almost exclusively for maternal and child care. In addition, service providers, majority of whom are midwives, have been trained on the various aspects of health care for women which include clinical care, health education and counseling, family planning, and nutritional assessment, among others.

Technical assistance is available at the DOH. In the last five years, policies, standards and guidelines pertaining to the mother and the unborn were updated. Among these are safe motherhood policy, family planning policy, essential care practice guidelines on pregnancy, childbirth, post-natal care, newborn care, management of complications of pregnancy and childbirth and management of abortions and its complications. In addition, a policy that mandates health facilities to conduct a maternal death review has been passed. International health agencies like UNICEF, UNFPA and WHO are assisting in the local application of these new initiatives.

Since the poor, uneducated women are most at risk, it is important for rural health units and first level referral hospitals to administer adequate and appropriate emergency obstetric interventions. However, many rural health facilities are unable to provide these because of lack of obstetrical supplies and equipment and lack of local competencies due to the rapid turnover of doctors and shortage of medical staff. Volumes of studies and experience have consistently pointed out that illiteracy, poverty and peace and order problems are the main obstacles to maternal and child health. However, not enough literature, strategies, practical models and funding assistance have effectively filtered down to reach the high risk groups and further improve the delivery of health services for the mother and the unborn.

**Goal: The survival, health and well-being of mothers and their unborn are ensured.**

**National Objectives for 2005 - 2010**

Objective	Indicator	Target	Baseline Data and Source
Maternal mortality is reduced	Maternal mortality ratio per 100,000 live births*	90 maternal deaths per 100,000 live births	172 maternal deaths per 100,000 live births <i>NDHS 1998</i>
Perinatal mortality is reduced	Perinatal mortality rate per 1,000 live births	18 perinatal deaths per 1,000 live births	24 perinatal deaths per 1,000 live births <i>NDHS 2003</i>
Low birth weight infants are reduced	Percentage of low birth weight infants out of total live births	10 percent	12 percent <i>NDHS 2003</i>
Risk factors associated with maternal morbidity and mortality are reduced	Prevalence rate of iron deficiency anemia among the pregnant	38 percent	43.9 percent <i>National Nutrition Survey 2003</i>
	Total contraceptive prevalence rate	80 percent	48.9 percent <i>NDHS 2003</i>
	Modern natural and artificial contraceptive prevalence rate	60 percent	33.4 percent <i>NDHS 2003</i>
	Percentage of deliveries assisted by skilled birth attendants and in a health facility*	70 percent	53.9 percent <i>NDHS 2003</i>
	Percentage of post-partum first visit within the first week of delivery	80 percent	51 percent <i>NDHS 2003</i>

\* Millennium Development Goal Indicator

**Strategic Thrusts for 2005-2010**

- Launch and **implement the Basic Emergency Obstetric Care or BEMOC strategy** in coordination with the DOH. The BEMOC strategy entails the establishment of facilities that provide emergency obstetric care for every 125,000 population and which are located strategically. The strategy calls for families and communities to plan for childbirth and the **upgrading of technical capabilities of local health providers**.
- **Improve the quality of prenatal and postnatal care.** Pregnant women should have at least four prenatal visits with time for adequate evaluation and management of diseases and conditions that may put the pregnancy at risk. Post-partum care should extend to more women after childbirth, after a miscarriage or after an unsafe abortion.
- Reduce women's exposure to health risks through the **institutionalization of responsible parenthood and provision of appropriate health care package to all women of reproductive age** especially those who are less than 18 years old and over 35 years of age, women with low educational and financial resources, women with unmanaged chronic illness and women who had just given birth in the last 18 months.
- Advocate for **resource generation and allocation for health services provided for the mother and the unborn**, particularly with LGUs, NGOs, and partner agencies and the private sector.

## Newborns, Infants and Children

Around 2 million babies are born in the Philippines each year. The number of children aged 0 to four years old run up to around 10 million, and children aged five to 10 are another 10 million. Newborns refer to infants during the first month of life. Infants are those that are still below one year old. On the other hand, children refer to the age group between one year old to less than 10 years old.

Disease patterns among the three age groups of children vary, but infectious diseases like pneumonia, diarrhea, septicemia and meningitis are still among the leading causes of mortality. The top cause of death among newborns is pneumonia at the rate of two deaths per 1,000 live births closely followed by bacterial sepsis at 1.8 deaths per 1,000 live births. Other causes of mortality in the newborn are related to pregnancy, events during the delivery of the baby and congenital malformations. Conditions originating in the perinatal period and allied neonatal conditions is the eighth leading cause of mortality in the Philippines.

**Table 4.12 Leading Causes of Death Among Infants, Under Five Year Old Children and Children Aged 5 to 9 Years  
Philippines, 2000**

Infants 0-12 months old		Children 1-4 years old		Children 5-9 years old	
Causes of death	Rate per 1,000 live births	Causes of death	Rate per 100,000 children 1-4 years old	Causes of death	Rate per 100,000 children 5-9 years old
Pneumonia	2.0	Pneumonia	37.76	Accidents	17.82
Bacterial sepsis of the newborn	1.8	Accidents	17.63	Pneumonia	7.03
Disorders related to short gestation and low birth weight	1.5	Diarrhea and gastroenteritis of presumed infectious origin	16.14	Malignant neoplasm	3.97
Respiratory distress of the newborn	1.4	Measles	11.50	Congenital anomalies	2.85
Other perinatal conditions	1.3	Congenital anomalies	9.01	Diarrhea and gastroenteritis of presumed infectious origin	2.19
Congenital malformations of the heart	0.9	Malignant neoplasm	4.88	Other diseases of the nervous system	2.15
Congenital pneumonia	0.8	Meningitis	4.67	Meningitis	2.14
Diarrhea and gastroenteritis of presumed infectious origin	0.7	Septicemia	4.54	Diseases of the heart	1.87
Other congenital malformations	0.7	Chronic obstructive pulmonary disease and allied conditions	4.43	Tuberculosis, all forms	1.55
Neonatal aspiration syndrome	0.6	Other protein-calorie malnutrition	4.38	Septicemia	1.41

Source: Philippine Health Statistics, 2000



Among children 1-4 years of age, the number one cause of death is pneumonia at the rate of 37.76 deaths per 100,000 followed by accidents at 17.63 deaths per 100,000 and diarrhea at 16.14 deaths per 100,000 population. Accidents are identified as the top cause of mortality among older children five to nine years old followed by pneumonia and malignant neoplasm.

The NDHS 2003 showed that there is a decreasing trend in childhood mortality in the past 15 years. Under-five mortality has declined from 52, then 43 to 40 deaths per 1,000 live births as reported in the 1993 NDS, the 1998 NDHS, and the 2003 NDHS, respectively. Infant mortality rates from the three surveys also show a protracted decline from 34 to 31 to 29 deaths per 1,000 live births (NDHS 2003).

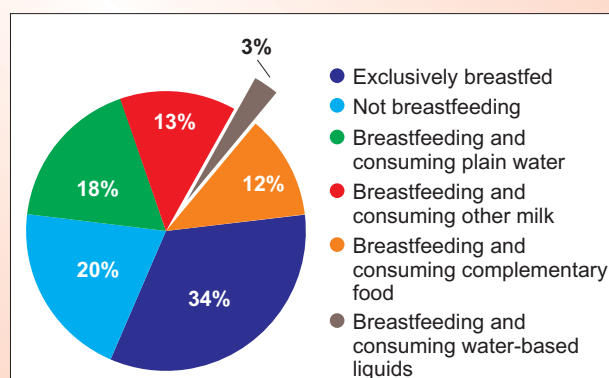
**Table 4.13 Early Childhood Mortality Rates**  
Philippines, 1993, 1998, 2003

Neonatal, post-neonatal, infant, child and under-five mortality rates for five-year periods preceding the survey						
Years Preceding the Survey	Approximate Calendar Years	Neonatal Mortality (NN)	Post-neonatal Mortality (PNN)	Infant Mortality	Child Mortality	Under-five Mortality
0-4	1998-2003	17	12	29	12	40
5-9	1993-1997	17	14	31	12	43
10-14	1988-1992	18	16	34	19	52

Source: National Demographic and Health Survey, 2003

To improve the health and nutrition of infants, the promotion of exclusive breastfeeding up to six months of age has been pushed in the past years. However, it was found out in the NDHS 2003 that only about 34 percent of children under six months old have been exclusively breastfed and 20 percent of infants have not been breastfed at all. The major reason for stopping breastfeeding is that the mothers perceived that there is insufficient milk for the infant (31 percent) followed by inability to breastfeed due to the work of the mother (17 percent) and due to nipple or breast problem (17 percent).

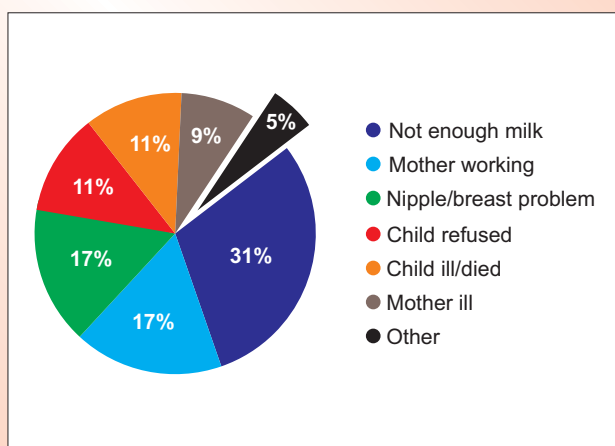
**Figure 4.42 Breastfeeding Practices among 6-month Old Infants**  
Philippines, 2003



Source: National Demographic and Health Survey, 2003



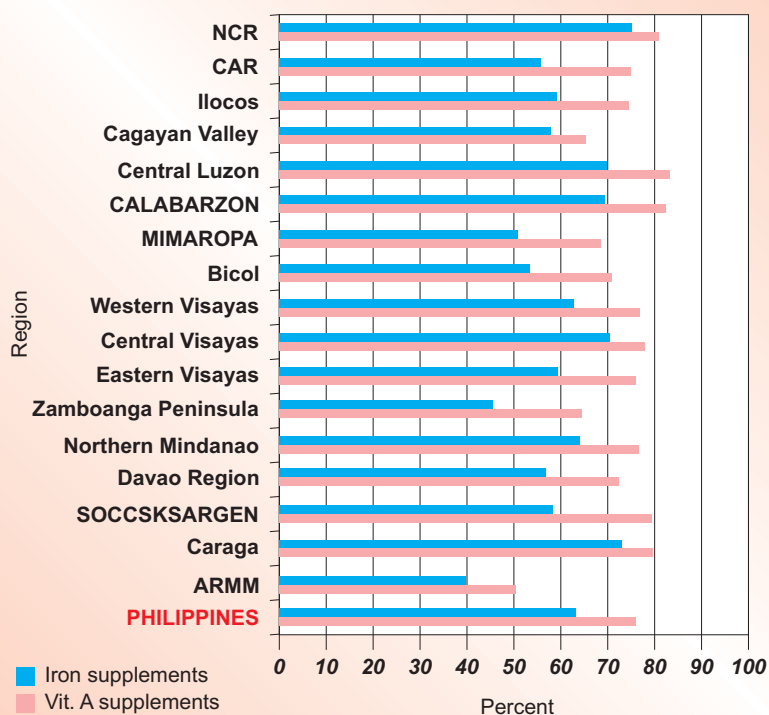
**Figure 4.43 Reasons for Not Breastfeeding or for Stopping Breastfeeding Philippines, 2003**



Source: National Demographic and Health Survey, 2003

Another major intervention to address the health and nutritional needs of infants and children and improve their growth and survival is micronutrient supplementation. The twice-a-year distribution of Vitamin A capsules through the “Araw ng Sangkap Pinoy” (ASAP), now integrated in Garantisadong Pambata (GP), or Preschoolers Week is the approach adopted to provide micronutrient supplements to 6-71 months old preschoolers on a nationwide scale. While the Micronutrient Guidelines provide for

**Figure 4.44 Coverage of Iron and Vitamin A Supplementation Among Under Five Children Philippines, 2003**



Source: National Demographic and Health Survey, 2003

the giving of iron supplements to specific target groups, the availability of iron supplements depend on the capability of LGUs to procure the drugs. The iron and Vitamin A supplementation among under five years old children has reached about 63.3 percent and 76.0 percent, respectively, at the national level. Under-five years old children in NCR received the highest rate of iron supplementation (75.2 percent) while the lowest rate came from ARMM (39.7 percent). Regarding Vitamin A supplementation among the under-five children, Central Luzon has the highest coverage at 83.2 percent while

the lowest is again reported in ARMM at 50.5 percent. With Vitamin A supplementation, the risk of death from measles is reduced by about 50 percent, from diarrhea by about 40 percent and overall mortality by 23 percent.

Food fortification is also being pushed to improve the nutritional status of the populace, specifically the children. The addition of essential nutrients to a widely consumed food product at levels above its natural state is a cost effective and sustainable intervention to address micronutrient deficiencies. The Food Fortification Act of 2000 provides for the mandatory fortification of staples, namely: flour with iron and Vitamin A; cooking oil and refined sugar with Vitamin A; and rice with iron, and the voluntary fortification of processed foods through the “Sangkap Pinoy Seal.” On usage of fortified products, 52.7 percent of households have at least one product with a Sangkap Pinoy Seal at home. The household utilization of iodized salt also increased to 56 percent. In relation to this, the prevalence of iodine deficiency disorders (IDD) has decreased among school children 6-12 years old based on urinary iodine excretion level (UIE) from 35.8 percent in 1998 to 11.1 percent in 2003 (NNS 2003).

The prevention and control of vaccine-preventable diseases among newborns, infants and children has also improved with the Expanded Program on Immunization that aims to protect them against TB, polio, diphtheria, pertussis, tetanus, measles and hepatitis B. Although there is a notable reduction in the morbidity and mortality from the vaccine preventable diseases, the vulnerability of the non-immunized population has increased due to the decline in the coverage of fully-immunized children (FIC) from 90 percent coverage in 1996 and 1997 to 69.8 percent in 2003. This may lead to upsurge of epidemic proportions in the future if the situation remains unabated.

The health of the newborn, infant and child is foremost in the human development agenda. The government's commitment to preserve and protect children's health is embodied in international covenants and national programs: the Philippine Plan of Action for Children of 1991 (PPAC), the Philippine National Strategic Framework for Plan Development for Children 2000-2025, also known as Child 21, and the Millennium Development Goals (MDG). These documents set the blueprint for a holistic and integrated approach to promote the rights of the Filipino child, including health, through sector-specific plans of action. The DOH laid down its counterpart plan, named Children's Health 2025, which is a plan of action to ensure the health of Filipino children. The adoption of the Integrated Management of Childhood Illnesses which combines curative with preventive intervention is also considered a factor in the decline in childhood mortality.

Evidence of political will and support are shown with the recent passage of laws such as the Early Childhood Development Act of 2000 and the Newborn Screening Act of 2004. A parallel presidential issuance, Executive Order (EO) 286, directed all national government agencies and other partner agencies to actively support and implement programs which initially covered 100 nutritionally depressed municipalities in the country.

The quality of health care has been promoted by the DOH Sentrong Sigla (SS) certification program and the PhilHealth facility and professional accreditation programs. This made the rural health units (RHUs) providers of quality health services along with private medical clinics. The benefits of accreditation for quality and co-financing by the PhilHealth through insurance coverage for the poor are beginning to be evident in the local government-run health centers. Many LGUs are now allocating and spending more for health. Since the bulk of services being delivered by the RHU-BHS system are for child care, children can be better cared for at the primary level.

Essential Health Care Package for the Newborns, Infants and Children	
1.	Newborn resuscitation
2.	Newborn routine eye prophylaxis
3.	Prevention and management of hypothermia of the newborn
4.	Newborn screening
5.	Immediate and exclusive breastfeeding
6.	Complementary feeding at six months
7.	Birth registration
8.	Birth weight and growth monitoring
9.	Full immunization
10.	Micronutrient supplementation and use of fortified foods
11.	Oral care
12.	Developmental milestone screening
13.	Psychosocial stimulation
14.	Nutritional screening and counseling
15.	Disability detection
16.	Integrated management of common childhood illness
17.	Counseling on injury prevention and use of safe toys

Enforcement of laws that support child health and welfare, such as the Milk Code (Executive Order 51) and the Rooming-In and Breastfeeding Act, need to be strengthened. The much-publicized Mother Baby Friendly Hospital Initiative of the 1990s is backsliding. Enforcement of this program can be incorporated into the regulatory and accreditation functions of the DOH and PhilHealth.

Children make up one fourth of the country's total population, but they are the least empowered to act on their own to protect their health. The quality of

life and health of majority of children still depends on good caring practices. Diseases in varying degrees affect the health and survival of children from different age groups. There are conditions or illnesses peculiar to newborns and infants that do not affect the other ages. The DOH prescribed distinct essential health packages for each age group. The health care packages are meant to be the minimum set of health care activities

recommended for the intended beneficiary. Each set may be expanded depending on the individual infant's or child's need.

Goal: The survival, health and development of infants and children are ensured.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Neonatal mortality is reduced	Neonatal mortality rate per 1,000 live births	10 deaths per 1,000 live births	17 deaths per 1,000 live births <i>NDHS, 2003</i>
Infant mortality is reduced	Infant mortality rate per 1,000 live births*	17 deaths per 1,000 live births	29 deaths per 1,000 live births <i>NDHS, 2003</i>
Under-five mortality is reduced	Mortality rate among children 0 to 4 years old*	32 deaths per 1,000 live births	40 deaths per 1,000 live births <i>NDHS, 2003</i>
Morbidity and mortality from vaccine-preventable diseases are reduced	Measles case per one million population	Less than one case per one million population (less than 100 cases nationwide)	3,025 cases nationwide <i>EPI Surveillance Annual Report, 2004</i>
	Neonatal tetanus case per 1,000 live births	Less than one case per 1,000 live births	0.07 per 1,000 live births <i>Philippine Health Statistics, 2002</i>
	Percentage of fully immunized children (FIC)	95 percent in every barangay	69.8 percent <i>National Demographic and Health Survey, 2003</i>
	Percentage of one-year-old children immunized against measles*	95 percent in every barangay	79.7 percent <i>National Demographic and Health Survey, 2003</i>
	Percentage of one-year-old children immunized against Hepatitis-B	70 percent in all provinces	38.5 percent <i>Field Health Service Information System, 2002</i>
Levels of various forms of malnutrition are reduced	Proportion of low birth weight infants	10 percent	12 percent <i>NDHS, 2003</i>
	Percent of children underweight for age	Preschool children (0-5 years old): 21 percent or less  Schoolchildren (6-10 years old): 24 percent or less	27.6 percent  26.6 percent <i>NNS, 2003</i>

\* Millennium Development Goal Indicator

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Percent of obese children	Preschool children (0-5 years old): 1 percent School children (6-10 years old): 1 percent	1.4 percent 1.3 percent <i>NNS, 2003</i>
	Proportion of children under 6 months that are exclusively breastfed	50 percent	33.5 percent <i>National Demographic and Health Survey, 2003</i>
	Prevalence of iron-deficiency anemia (IDA)	Infants (0-11 months old): 59 percent	66 percent <i>NNS, 2003</i>
	Prevalence of Vitamin A deficiency (VAD)	Preschool children: Less than 40 percent	40 percent <i>NNS, 2003</i>
	Prevalence of iodine deficiency disorder (IDD) based on urinary iodine excretion	School children (6-12 years old): Less than 11 percent	11 percent <i>NNS, 1998</i>
Morbidity and mortality of common diseases among children under five years old are reduced	Mortality rate of pneumonia among under 5-year-old children	33 deaths per 100,000 under 5 year old children	66.11 deaths per 100,000 under 5 year old children <i>Philippine Health Statistics, 2000</i>
	Mortality rate due to diarrhea among under 5-year-old children	Less than one death per 100,000 under 5 year old children	5.3 deaths per 100,000 under 5 year old children <i>Philippine Health Statistics, 2000</i>
	Percent of orally fit under six children	Increase by 20 percent	To be determined
	Prevalence rate of soil-transmitted helminthiasis and other parasitoses among children	Less than 50 percent among children aged 12 to 71 months old	66 percent among children 12 to 71 months old <i>DOH-UP, UNICEF STH Data, 2003</i>

### Strategic Thrusts for 2005-2010

- **Develop local capacity to deliver the whole range of essential health packages for children.** Pursue the Sentrong Sigla initiative to ensure quality of health services at the peripheral levels, and identify priority areas for health systems development.
- **Implement programs and projects that favor disadvantaged children.** These programs should be able to address the needs of children with disabilities, children in areas of armed conflict, street children, children among indigenous peoples, among others.

### Strategic Thrusts for 2005-2010

- Apply the **Reaching Every Barangay (REB) strategy for immunization** to reach every child.
- **Intensify health education and information campaigns** at the ground level to increase the proportion of mothers (and caretakers) practicing behaviors that promote children's health, such as breastfeeding, ensuring child's immunization, oral rehydration for sick children, knowledge of danger signs of common childhood diseases and control of child labor and other child abuse practices.
- **Enhance medical, nursing and midwifery education** with cost-effective life-saving strategies such as the **Integrated Management of Childhood Illness and the Basic Emergency Obstetric Care**.
- Pursue the **implementation of laws and policies for the protection of newborns, infants and children** such as Early Childhood Development Act of 2000, Newborn Screening Act of 2004, Executive Order 286 for the Bright Child Program, Executive Order 51 also known as the Milk Code, the Rooming-In and Breastfeeding Act, etc.

## Adolescents and Youth

The age groups referred to as “adolescent” and “youth” overlap. Adolescence is defined by the WHO as the period of life between 10 and 20 years old while the youth refers to those who are between 15 and 24 years old. The term, “young people” refers to both age groups, meaning those aged 10 to 24 years.

Young people account for a little over 30 percent of the total Philippine population (around 26 million). Having passed childhood, young people have developed physiologic resistance against common acute infections and are at the peak of their health. Mortality from all causes for this age group is 0.87 per 100,000 population, that is, one-fifth the level for the entire Filipino population of 4.8 deaths per 100,000 population (PHS 2000).

The natural physiologic advantage the young people have gained can be offset by the natural psychosocial tendency at their age to try to get the most out of life. By the age of 19 years, 12 percent of young people are already sexually active, and by age 24 years, 45 percent of women are already mothers. Women aged 15-24 years are the age group with the highest unmet need for family planning services at 26 percent. Smoking prevalence among adolescents is 21 percent, and 41 percent admitting to social drinking. Random drug testing of public and private high school students yields screening positivity rates

**Table 4.14 Leading Causes of Death Among Young People Aged 10 to 24 Years  
Philippines, 2000**

Rank	Causes of Mortality	Total Number of Deaths	Death Rate per 100,000 Young People	Percent of Young People from the Total Deaths in the Population
1	Accidents and injuries, all causes	7,285	30.68	22.52
2	Cardiovascular diseases, all forms	2,548	10.73	2.34
3	Malignant neoplasm, all forms	1,451	6.11	3.98
4	Tuberculosis, all forms	1,124	4.73	4.08
5	Pneumonia	1,012	4.26	3.10
6	Nephritis, nephrotic syndrome and nephrosis	657	2.77	8.25
7	Other diseases of the nervous system	454	1.91	1.23
8	Meningitis	362	1.52	21.11
9	Septicemia	334	1.41	8.22
10	Epilepsy	307	1.29	38.76

Source: Philippine Health Statistics, 2000

ranging from 3 to 10 percent. Drug use rate is estimated to be higher among college students.

In 2000, accidents and injuries are the most common cause of death among young people at the rate of 30.68 deaths per 100,000 persons aged 10-24 years old. More than one-fifth or 22.52



percent among all those who died of accidents and injuries of all forms are adolescents and youth. About one-third or 2,194 cases of fatal injuries are registered under assault, accounting for 11 percent of total deaths among adolescents and youth. The other non-infectious causes of death among adolescents and youth include cardiovascular diseases, malignant neoplasm, diseases of the kidney, diseases of the nervous system and epilepsy. Infectious causes of death in this age group include tuberculosis, pneumonia, meningitis and septicemia.

Concerted efforts by agencies concerned are needed to address the health issues and concerns of young people. Toward this end, the DOH has developed the Adolescent and Youth Health Program to provide quality health care for young people and to better collaborate with other agencies regarding health-related concerns. The National Youth Commission in collaboration with other concerned sectors provided the national framework for youth development known as The Medium Term Youth Development Plan for 2005-2010. It shall serve as a guiding framework for a unified and concerted action among youth groups and youth-serving agencies and institutions in youth development and empowerment.

Adequate information is available for the design of local, regional and national health programs for young people. The State of the Philippine Population Report II, entitled “Pinoy Youth: Making Choices, Building Voices” by the Commission on Population, provides the elemental facts and figures useful in the assessment, restructuring and enrichment of programs designed to meet the needs of young people in the areas of education, employment, adolescent health and development and reproductive health. On the other hand, the UP Population Institute undertook a study known as “Young Adult Fertility Survey 3” which provided quantitative and qualitative data on the nature and magnitude of sexuality and related knowledge, attitudes, views and practices of the youth.

The DSWD, the lead agency for adolescent and youth development, spearheaded the “Pambansang Ugong ng Kabataan” (PUNK) 2001 project with the aim of ensuring the welfare of the youth. Various international groups and NGOs (UNFPA, Save the Children, Plan Philippines, etc.) have begun implementing youth development programs in coordination with DSWD and local government units.

The DOH Adolescent and Youth Health Program handbook serves as an information guide for health workers and local governments on the implementation of health-related

**Essential Health Care Package for Adolescents and Youth**

1. Management of illness
2. Injury and violence prevention
3. Counseling on substance abuse
4. Nutrition and diet counseling
5. Mental health
6. Fertility awareness, family planning, responsible sexual behavior and management of reproductive tract infections
7. Oral care
8. Healthy lifestyle advocacy

programs for young people. This is enhanced by the Clinical Practice Guideline on AYHP, a clinical guide intended for the out-patient and in-patient care which may also be used as reference by any individual who is concerned about the health of adolescent family members or friends.

One challenge regarding health care provision for young people is the fact that measures to prevent disease and reduce mortality entail lifestyle changes. Healthy Lifestyle programs for the control of degenerative diseases have been focused on adults and older persons when the decision to adopt healthy lifestyles begins when a person is forming his personality and life choices. Another challenge for the health system is how to capture young people for health promotion and disease prevention at a stage when they generally do not feel sick at all.

Interventions to prevent assaults, violence and criminal activities among young people, which are not within the scope of work of health care providers, are the major determinants of health, safety and survival of the youth. The challenge is for health care managers and health providers to influence the development of national and local policies that favor the promotion and protection of the health of young people.

Goal: The total health and well-being of young people are promoted.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Mortality among young people (10-24 years old) is reduced	Mortality rate per 100,000 young people	0.7 deaths per 100,000 young people	0.9 deaths per 100,000 young people <i>Philippine Health Statistics, 2000</i>
	Mortality rate from accidents and injuries	25 deaths per 100,000 young people	29.2 deaths per 100,000 young people <i>Philippine Health Statistics, 2000</i>
Maternal mortality among young women (10-24 years old) is reduced	Maternal mortality ratio among young women per 100,000 live births	0.5 deaths among young women per 100,000 live births	0.6 deaths among young women per 100,000 live births <i>Philippine Health Statistics, 2000</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Pregnancy rate among young women (15 to 19 years old)	5 percent	7 percent <i>NDHS, 2003</i>
Malnutrition among adolescents is reduced	Percentage of obese adolescents	3 percent	3.5 percent <i>NNS, 2003</i>
The health-seeking behavior of young people is increased	Percentage of young people seeking preventive and promotive health services	90 percent	80 percent sought consultation at least once for a particular illness  <i>Community Survey, BSNOH, 2000</i>

Strategic Thrusts for 2005-2010	
<ul style="list-style-type: none"> <li>• <b>Develop models for adolescent-friendly health services</b> and adolescent-friendly environments. A comprehensive <b>young people's health care package</b> needs to be designed and implemented in coordination with other government agencies.</li> <li>• <b>Organize and build the capability of young people to promote healthy lifestyles</b>, including sound reproductive health practices, injury prevention and the promotion of sound policies on work to improve their health and quality of life.</li> <li>• <b>Strengthen fertility awareness activities among high school teachers and students</b> to reduce the proportion of unplanned pregnancies and unmet need for family planning among young people.</li> </ul>	

## Adult Men and Women

**Table 4.15 Leading Causes of Deaths Among Adults Aged 25-59 Years  
Philippines, 2000**

Rank	Causes of Mortality	Total Number of Deaths	Death Rate per 100,000 Adult People	Percent of Adult People from the Total Deaths in the Population
1	Cardiovascular diseases, all forms	35,171	121.15	32.36
2	Accidents and injuries, all causes	18,080	62.28	55.88
3	Malignant neoplasm, all forms	16,103	55.47	44.22
4	Tuberculosis, all forms	11,925	41.08	43.27
5	COPD	3,692	12.72	23.21
6	Diabetes mellitus	3,542	12.20	32.96
7	Pneumonia	3,514	11.87	10.77
8	Gastric, duodenal, peptic and gastrojejunal ulcers and other diseases of the digestive system	3,446	11.26	36.70
9	Nephritis, nephrotic syndrome and nephrosis	3,270	11.26	41.06
10	Chronic liver diseases and cirrhosis	2,814	9.69	59.75

Source: Philippine Health Statistics, 2000

In 2000 the Filipino adult aged 25-59 years made up 38 percent of the Philippine population. This is the longest and most productive stage in the life cycle. The leading causes of death in this age group are dominated by lifestyle-related diseases topped by cardiovascular diseases at 121.15 deaths per 100,000

adult people followed by accidents and injuries (62.28 per 100,000 adult people) and malignant neoplasms (55.47 per 100,000 adult people). Tuberculosis and pneumonia are the only infectious diseases that remained in the leading causes of death among Filipino adults aged 25-59 years old (PHS 2000).

There are about 116,952 deaths among adults aged 25-59 years in 2000 and they comprise 31.9 percent of all deaths in the Philippines. The proportion of adults dying from the leading causes of deaths among the general population is quite alarming. Adults aged 25-59 years comprise about 56 percent of those who die of accidents and injuries, 44 percent of those who die of malignant neoplasms, 43 percent of those who die of TB and 32 percent of those who die of cardiovascular diseases. This situation must be addressed because this age group supports the younger and older population in the society.

### Adult Men

In the Philippines, adult men aged 25-59 years have relatively poorer health status, highest level of health risk behavior, and lowest use of health services compared to other

age groups. The number of Filipino males aged 25-59 years old is close to 16 million or about 19 percent of the total population and 38 percent of the total male population. However, data available in 2000 show that they account for 22 percent of total deaths in the general population

**Table 4.16 Leading Causes of Death Among Adult Males Aged 25-59 Years  
Philippines, 2000**

Rank	Causes of Mortality	Total Number of Deaths	Death Rate per 100,000 Adult Males	Percent of Adult Males from the Total Deaths in the Population
1	Cardiovascular diseases, all forms	22,745	156.60	64.67
2	Accidents and injuries, all causes	15,703	108.11	86.85
3	Tuberculosis, all forms	8,497	58.50	71.25
4	Malignant neoplasm, all forms	8,180	56.32	50.80
5	Gastric, duodenal, peptic and gastrojejunal ulcers and other diseases of the digestive system	2,591	17.84	75.19
6	Chronic liver diseases and cirrhosis	2,431	16.74	86.39
7	COPD	2,392	16.47	64.79
8	Pneumonia	2,207	15.19	62.81
9	Diabetes mellitus	2,128	14.65	60.08
10	Nephritis, nephrotic syndrome and nephrosis	1,959	13.49	59.91

*Source: Philippine Health Statistics, 2000*

and 68 percent of total deaths for age group 25-59 years old. This is more than double the number of deaths among women in the same age group.

The leading causes of death for the total male population only slightly differ from those of the entire Filipino population. But diseases that are more fatal to Filipino males than females are quite different. Although chronic diseases of the liver and ulcers of the digestive tract do not figure among the leading causes of death for the general population, they are significant causes of death among the Filipino male population.

If the sex differentials are examined, a higher percentage of males die because of the 10 leading causes of mortality identified among adults aged 25-59 years. A significantly larger proportion of males than females succumbed to accidents and injuries (86.85 percent), chronic liver diseases (86.39 percent), digestive diseases (75.19 percent), TB (71.25 percent), COPD (64.79 percent) and cardiovascular diseases (64.67 percent). Furthermore, the mortality from all causes was 3.9 deaths per 100,000 adult females compared with 5.7 deaths per 100,000 adult males in 2000.

There are diseases that are primarily of male concern like the occurrence of benign prostatic hyperplasia and prostatic malignancies. The death rates for these diseases are still low among males aged 25-59 years at 0.72 deaths per 100,000 for prostatic

malignancy and 0.06 per 100,000 for prostatic hyperplasia. However, the incidence of these two diseases increases as the male adult grows older. It is therefore important to advocate early detection through regular digital rectal examination among the male population. Also, among adults aged 25-59 years who die of acute pancreatitis, about 92.68 percent are males. This cause of death is usually associated with alcoholic binges among the male population.

DOH data on seropositive cases of HIV point out that 85 percent of all who tested positive were males from 19 to 49 years old. There is yet inadequate sex-disaggregated national data on illegal drug use and alcoholism, but these have been known to result in diseases and socio-economic problems among the male population. The higher prevalence of smoking among males than females correlates well with the fact that two of three who die of lung cancer are males. The common denominator seems to be that certain behavioral patterns among men can be modified to prevent or trim down the occurrence, complications and fatal outcomes of the diseases predominantly affecting them.

Some risk factors leading to disease in men have been studied: smoking, diet preferences and nutrition, reproductive health habits, risk-taking behavior and occupational activities. Although the information was generated for the purpose of monitoring and controlling the occurrence of diseases or other unhealthy conditions, all these information may be brought together to focus health intervention on men, specifically Filipino adult males between 25-59 years of age. In addition, the Healthy Lifestyle initiative and tobacco control movement have made a head start towards behavior modification.

### **Adult Women**

Not all females will pass through the stage of pregnancy and motherhood either by choice or biological reasons. The objectives for pregnant and lactating women are discussed under the section on mothers and their unborn. There are other health needs of the Filipino adult female that must be addressed such as their reproductive health, gender issues and diseases affecting this segment of the population aged 25-59 years old.

Cardiovascular diseases are the leading causes of death among adult Filipino women in 2000 with a rate of 85.67 deaths per 100,000 adult females followed by malignant neoplasms with a rate of 54.62 per 100,000 adult females. The leading causes of death

among females are mostly degenerative and lifestyle-related in nature. TB and pneumonia are the only infectious diseases included in the leading causes of mortality among Filipino females. The only disease among the 10 leading causes of mortality among women that has higher percentage among females than among

**Table 4.17 Leading Causes of Death Among Adult Females Aged 25-59 Years  
Philippines, 2000**

Rank	Causes of Mortality	Total Number of Deaths	Death Rate per 100,000 Adult Females	Percent of Adult Females from the Total Deaths in the Population
1	Cardiovascular diseases, all forms	12,426	85.67	35.33
2	Malignant neoplasm, all forms	7,923	54.62	49.20
3	Tuberculosis, all forms	3,428	23.63	28.75
4	Accidents and injuries, all causes	2,377	16.39	13.15
5	Diabetes mellitus	1,414	9.75	39.92
6	Nephritis, nephrotic syndrome and nephrosis	1,311	9.04	40.09
7	COPD	1,300	8.96	35.21
8	Pneumonia	1,297	8.94	36.91
9	Gastric, duodenal, peptic and gastrojejunal ulcers and other diseases of the digestive system	855	5.89	24.81
10	Goiter, thyrotoxicosis, hypothyroidism and other endocrine and metabolic disorders	460	3.17	55.62

*Source: Philippine Health Statistics, 2000*

males are goiter, thyrotoxicosis, hypothyroidism and endocrine and other metabolic disorders wherein 55.62 percent of those who die of the said diseases are females (PHS 2000).

The health care environment has been women- and child-oriented since the 1920s. In 2000, about 19.1 percent of the total population is made up of adult females aged 25-59 years. Almost every civic and social sector in the Philippines is dominated by females. However, being a woman carries a lot of vulnerabilities in society, and this may continue to be so in the future.

There are many lifestyle-related and degenerative diseases that have a female preponderance such as malignancies of the reproductive tract and the breast. These diseases have caused a significant number of deaths among women in 2000. Malignant neoplasms are the second leading causes of death among adult Filipino females. These diseases when caught at the early stage, can greatly improve the treatment outcome and survival of patients. Among adult females aged 25-59 years, the death rates are 13.64 per 100,000 for breast cancer, 4.09 per 100,000 for uterine malignancies, and 3.88 per 100,000 for cervical cancer. Also, more Filipino females than males die of thyroid problems at the level of 58 percent. However, in terms of deaths due to infectious



diseases like TB and pneumonia, only 28.75 percent and 36.91 percent of those who die of the said diseases are females. It can also be noted that there are lesser percentages of females who die due to accidents and injuries.

International conventions on the rights of women to quality reproductive health care have clearly acknowledged the vital role of men in family planning. On another front, HIV/AIDS experts have declared that men hold the key to reducing HIV transmission and “the power to change the course of the AIDS epidemic.”

In the same way that the role of men has been acknowledged as vital in the pursuit of goals to improve the health of women and the family, the challenge is to direct the health sector toward issues and problems that cause diseases and deaths among men at levels unusually higher than among females. In a health care environment that has been women- and child-oriented since its inception, and in a sector that is now dominated by females, ways must be found to shift health planning and administration towards regarding men as specific beneficiaries of health care and for men to participate more actively in the health promotion and health care programs for the community, family and among men themselves.

Current health care provided to adults is disproportionately medicine-oriented and clinic-based. The identified causes of mortality and morbidity among adult men clearly show that majority are preventable, and the more appropriate, high-impact and long-term interventions could be the modification of the political, socio-cultural and psychosocial environments. The Healthy Lifestyle program has not retrained its focus

**Essential Health Care Package for Adult Males and Females**

1. Healthy lifestyle advocacy
2. Management of illness
3. Counseling on substance abuse
4. Nutrition and diet counseling
5. Mental health
6. Reproductive health (family planning, responsible sexual behavior and management of reproductive tract infections)
7. Oral care
8. Screening and management of lifestyle-related and other degenerative diseases

towards adolescent and adult men even if past studies have shown them to have a higher propensity to indulge in risky behaviors.

The essential components of the health care package for adult men are similar to the health services provided to women, except for gender-specific services related to the reproductive system. This needs to be evidence-based, taking

into consideration the complex health care system network that can be linked with other health-supportive sectors: education, mass media, labor sector, etc. These services must be provided to ensure optimum health and prevent mortality and morbidity among adult men and women in the general population.

Goal: The total health, well-being and quality of productive life of adult men and women are promoted.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Mortality among the adult males is reduced	Mortality rate per 100,000 adult males	5.3 per 100,000 adult males	5.7 per 100,000 <i>Philippine Health Statistics, 2000</i>
	Mean life expectancy for adult males	70 years	67.8 years <i>Philippine Statistical Yearbook, 2004</i>
Mortality among the adult females is reduced	Mortality rate per 100,000 adult females	3.5 per 100,000	3.9 per 100,000 <i>Philippine Health Statistics, 2000</i>
	Mean life expectancy for adult females	75 years	72.8 years <i>Philippine Statistical Yearbook, 2004</i>

Strategic Thrusts for 2005-2010	
<ul style="list-style-type: none"> <li>• <b>Improve the overall participation of men in the health care system.</b> Men should be made to actively participate in the development of health services appropriate to their needs and in setting up the organizational system that will provide health care for them.</li> <li>• <b>Develop male-focused information systems and strategic communication plans</b> that will be used to harness local and national government and non-government resources towards effectively addressing the health care needs of men, aside from their participation in reproductive health programs.</li> <li>• <b>Develop and implement a health package for the Filipino adults.</b> Focus on gender-specific packages responsive to the different health needs of adult men and women</li> <li>• <b>Improve the health-seeking behavior of the Filipino adult</b> through health education and information campaigns.</li> <li>• Intensify the <b>implementation of policies and laws that promote and protect health</b> and improve the quality of life of adult Filipinos.</li> </ul>	

## *Older Persons*

Like most developing nations, the Philippines is a country in transition in socio-economic development, demography and epidemiology. Population aging is a demographic phenomenon indicated by a steady increase in the number and proportion of the elderly and a corresponding decline in the proportion of younger age groups. This is due to an increase in life expectancy, mortality reduction and fertility reduction that are brought about by advances in medical technology and medical care as well as by improved socio-economic conditions.

There are an estimated five million older Filipinos aged 60 years old and above. Older persons comprise a little over six percent of the total population, but the proportion is expected to be more than 10 percent by 2020 as the number of older persons doubles by that time (NEDA, Philippine Population Projections 1980-2030).

The elderly population suffers from the double burden of degenerative and communicable diseases because the natural aging process also includes the aging of the body's immune system. The leading causes of mortality for this age group are non-communicable diseases: diseases of the heart, diseases of the vascular system, and cancer. On the other hand, the leading causes of morbidity are infectious in nature, such as influenza, pneumonia and TB (PHS 2000). Other common health-related problems among older persons are difficulty in walking and chewing, hearing and visual impairment, osteoporosis, arthritis and incontinence. Disabilities and impairment in function increase with age and adversely affect the quality of life of older persons.

The leading causes of death among older persons differ from that of the general population in a few ways. Mortality rate from most specific leading causes ranges from double to 12 times that for all age groups, with older persons accounting for 49.1 percent of all deaths. When diseases are ranked according to which of these caused death among older persons more than other age groups, significantly most of the COPD fall on older persons at 70 percent among all age groups. The diseases that show greater percentage of the elderly population dying from are: cardiovascular (66 percent), pneumonia (65 percent), peptic ulcer and other gastro-intestinal disorders (56 percent), diabetes mellitus (52 percent), and TB (51 percent). The percentage of the elderly population dying of malignancies, kidney diseases and septicemia are also significant. However, the

mortality rate for accidents is only one-tenth than that for all age groups. Alzheimer's Disease and Parkinson's Disease are diseases of old age though they are not prominent causes of death in the country.

RA 9257 (The Expanded Senior Citizen's Act of 2003)

provides for higher

health care subsidies for older persons from both the private and public sectors. This law is the main instrument by which older persons would be empowered to seek and demand for the highest quality of care available. The Philippine Plan of Action for Older Persons (PPAOP) 1999-2004 was formulated by several government and non-government organizations to ensure that the present and future needs of the growing number of older persons in society, both in terms of human development and service delivery would be met. The Inter-agency Committee is chaired by the DSWD and co-chaired by the DOF, with the DOH, GSIS, SSS, DOLE, Coalition of Services of the Elderly (CSE), Federation of Senior Citizens' Association of the Philippines (FSCAP), Philippine Retirement Authority (PRA) as members among others.

The Office of Senior Citizens' Affairs, national and sub-national organizations of older persons have kept watch over their rights to health and have been actively involved in drawing up plans for the implementation of laws and programs in their favor. On the other hand, even if several laws (General Appropriations Act, Senior Citizen's Act and Expanded Senior Citizen's Act) have provided specific appropriations for welfare programs for the older persons, government agencies are unable to comply faithfully with the law because funds are inadequate.

**Table 4.18 Leading Causes of Death Among Older Persons Aged 60 Years and Above Philippines, 2000**

Rank	Causes of Mortality	Total Number of Deaths	Death Rate per 100,000 Old People	Percent of Old People from the Total Deaths in the Population
1	Cardiovascular diseases, all forms	71,874	1,547.35	66.13
2	Pneumonia	21,069	453.59	64.56
3	Malignant neoplasm, all forms	17,898	385.32	49.15
4	Tuberculosis, all forms	14,081	303.14	51.10
5	COPD	11,268	242.58	70.85
6	Diabetes mellitus	5,587	120.28	51.99
7	Gastric, duodenal, peptic and gastrojejunal ulcers and other diseases of the digestive system	5,280	76.73	56.24
8	Accidents and injuries, all causes	3,972	85.51	12.28
9	Nephritis, nephrotic syndrome and nephrosis	3,774	81.25	47.39
10	Septicemia	1,795	38.64	44.20

Source: Philippine Health Statistics, 2000

**Essential Health Care Package for Older Persons**

1. Management of illness
2. Counseling on substance abuse
3. Nutrition and diet counseling
4. Mental health
5. Oral care
6. Healthy lifestyle advocacy
7. Screening and management of chronic debilitating and infectious diseases
8. Post-reproductive health care

Institutional preparations for the provision of health care needs for the growing number of older persons have barely begun. A list of essential health care package for older persons had been drawn up but services have remained inadequate. Although health facilities, especially hospitals, have noted higher use of health services by older

persons, most buildings and facilities have not been provided with reasonable accommodation for the special needs of older persons such as ramps to complement stairways, bed with adjustable heights, adequate support bars, etc. This is on top of the lack of geriatrics specialists in the country.

**Goal: A healthy and productive lifestyle and a better quality of life for older persons are promoted.**

**National Objectives for 2005 - 2010**

Objective	Indicator	Target	Baseline Data and Source
Morbidity among older persons is reduced	Morbidity rate from all causes per 100,000 older persons	Reduce by 50 percent	To be determined
	Mean life expectancy	72 years Male: 70 years Female: 75 years	70.5 years Male: 67.8 years Female: 72.8 years  <i>Philippine Statistical Yearbook, 2004</i>

**Strategic Thrusts for 2005-2010**

- Redefine the **minimum health care package for older persons**. The package should consist of health services **tied up with pre-financed sources of care** in order to improve accessibility by older persons.
- **Build the capacity of health human resources** toward the promotion, prevention, cure and supportive care for older persons.
- Integrate into current licensing and accreditation requirements, **building, facilities, equipment and personnel standards appropriate for care of older persons**.
- **Develop community-based and institution-based models of health care for older people**.
- Pursue the implementation of **laws and policies for the protection and improvement of the quality of life of older persons** such as the RA 9257 or The Expanded Senior Citizens' Act of 2003.

## Vulnerable Population Groups

Provision of health services should be biased towards the poor and the marginalized. About 26.54 million Filipinos are poor as reported in 2000. Concerted efforts in alleviating the condition of the greatest segment of Philippine society will produce the greatest impact in the health status of the country. The Medium Term Philippine Development Plan identified several vulnerable groups for poverty alleviation and provision of essential social and health services, as follows: children in need of special protection, youth with special needs, women in specially difficult circumstances, persons with disabilities, older persons, dysfunctional families, indigenous people, and victims of calamities and disasters. There are also other vulnerable groups such as the migrant workers, the urban poor and the rural poor.

Even if the health sector uses the life stage framework to ensure that recommended health care services and health status objectives would cover all individuals, these vulnerable sectors are recommended to be priorities for health intervention. These are the population groups more vulnerable to disease because of one or a combination of factors other than poverty: stage of physiologic development, socio-cultural behavioral patterns and lack of access to mainstream health services.

### Children in Need of Special Protection

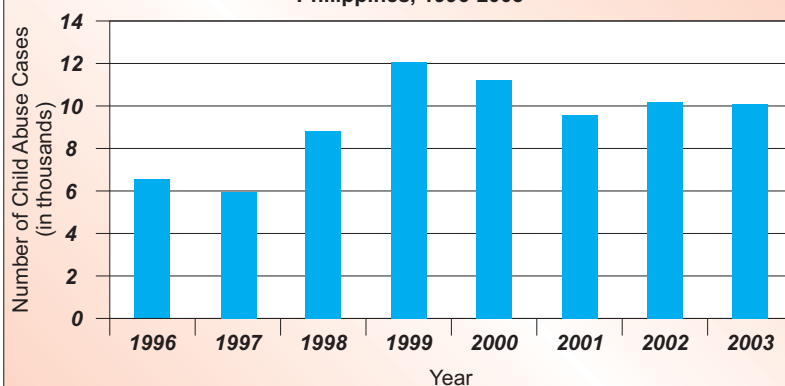
About six million children need special protection and support for their education and health. The number of reported cases of child abuse served by the DSWD has increased from 6,441 cases in 1996 to

**Table 4.19 Estimated Number of Selected Vulnerable Population Groups  
Philippines, 2004**

Vulnerable Population	Estimated Number*
Children under 1 year old	2 million
Children 1-4 years old	10 million
Children 5-9 years old	10 million
Young people 10-24 years old	26 million
Women of reproductive age (15-49 years old)	20 million
Pregnant women	3 to 4 million
Older persons	5 million
Persons with disabilities (PWD)	8 million
Indigenous people	13 million
Farmers, peasants and fisherfolks	7 to 10 million
Workers, formal sector	30 million
Workers, informal sector	30 million
Children laborer	4 million
Urban poor	5 to 7 million

\* From various sources and adjusted to 2004 estimated 84 million total population

**Figure 4.45 Reported Cases of Child Abuse Served by DSWD  
Philippines, 1996-2003**



Source: Philippine Statistical Yearbook, 2004

10,044 cases in 2003 (PSY 2004). The increase may be due to more active reporting of cases, but this proves the grim reality that many Filipino children are abused.

Among the victims of child abuse, the most common cause is sexual abuse with 4,097 cases reported in 2003. This is more than double the 1,756 recorded sexual abuse cases among children in 1996. There are also 1,370 cases of physical abuse or maltreatment, 268 cases of child labor and 208 cases of victims in armed conflict in the year 2003.

A considerable number of children who become victims of abuse as commercial sex workers come from dysfunctional families. They have also significant tendencies toward alcoholism and domestic violence. Most of them act as breadwinners of their families and miss out on opportunities to attend school. They are exposed to physical and psychosocial hazards and are prone to sexually transmitted diseases. The DSWD is in charge of rehabilitating the children who are in special circumstances in collaboration with other government agencies like the Department of Justice (DOJ), Philippine National Police (PNP) and the DOH.

### **Youth with Special Need**

Among the youth with special needs are youth offenders who face the adult world of law, detention and criminal justice. Filipino youth offenders are often from marginalized groups, including street youth drug users, dysfunctional families and out-of-school youths. Around 10 percent of adolescents are drug abusers and some become youth offenders when not rehabilitated.

The Convention on the Rights of the Child (CRC) was ratified in the Philippines in 1990 and has led the way for domestic provisions in protecting the rights of accused and detained youth offenders. In the Philippines, “there continues to be a shocking discrepancy between the youth justice system on paper and that exercised in practice. Key provisions of international and domestic law such as: access to social workers and legal counsel, detention as a 'last resort,' and prompt charging are regularly violated. There are persistent reports of child detainees being ill-treated by officials as well as by complainants and adult detainees. Children are often detained before trial for periods largely exceeding explicit domestic standards and are frequently detained in the same cells or facilities as adults. Confusion about whether or not a suspect is a minor leads to inappropriate treatment and, on occasion, sentencing. Conditions of custody sometimes feature severe over-crowding and conditions which may violate minimum standards for the treatment of prisoners” (Amnesty International 2003).



Another emerging concern is sexual and physical abuse of young girls. According to NYC-SWS, two percent (about 0.4 million) of young girls nationwide have experienced sexual abuse while three percent (about 0.6 million) have suffered physical abuse by a family member. On the average, these were first experienced at age 15 years. Another study by UP Center for Women's Study and UNICEF in 1996 revealed that majority of child abuse involved adolescents between 11 and 17 years old, more typically involving young girls.

### Women in Especially Difficult Circumstances

Differences in gender roles put women in a disadvantaged position, limiting their access to resources, including education, and their ability to promote and protect their health. There is a clear sign that gender interacts with poverty, literacy and other forms of discrimination to worsen women's ill health and impinge on their human rights.

Women make up 49.6 percent of the Philippine population. They tend to outlive men by an average of five years. On the other hand, women have comparatively greater rates of illness which seriously compromise their quality of life. Data show that these differences arise early and persist throughout their lives.

The number of women does not guarantee equal rights. While major changes in society have given more opportunities for women, they have more complex, often difficult struggles to maintain the balance between family, household and economic responsibilities. The inequalities between women and men in all phases of life in the social and cultural dimensions call for a health care system sensitive to the needs of women, especially those with special needs.

There were 29,387 and 21,892 women in especially difficult circumstances served by the DSWD in 2002 and 2003, respectively. Most cases in 2003 were seen at the NCR and the least number of cases were reported in Caraga. Note that there was no report received from ARMM (PSY 2004).

The alarming number of women in especially difficult circumstances should be taken into consideration in providing health services in the country. The difficult circumstances some Filipino women are exposed to are discussed below.

**Table 4.20 Number of Women in Especially Difficult Circumstances Served by DSWD by Region Philippines, 2002-2003**

Region	2002	2003
NCR	7,167	6,100
CAR	2,239	989
Ilocos	1,529	1,361
Cagayan Valley	2,181	1,619
Central Luzon	737	395
Southern Tagalog	4,483	2,632
Bicol	865	727
Western Visayas	435	473
Central Visayas	3,951	2,510
Eastern Visayas	1,299	162
Western Mindanao	2,317	1,135
Northern Mindanao	680	1,454
Southern Mindanao	330	2,215
Central Mindanao	262	396
Caraga	912	21
ARMM		
<b>Philippines</b>	<b>29,387</b>	<b>21,892</b>

Source: Philippine Statistical Yearbook, 2004

**Women in Armed Conflict Situation.** In the Philippines, militarization is still a serious social, political and economic problem. Thousands of people have suffered from the continued armed and violent confrontations in parts of the country, particularly in the south. Most unprotected in these situations are women who are left alone at home doing household chores and caring for children. The unstable conditions cause inadequate basic government services. Public health personnel are not available and medical supplies are inadequate. As a result, women in armed conflict situation have poor health, leading to high rates of maternal and infant death.

**Women Victims of Domestic Violence.** Getting accurate statistics on violence against women is hard because it is often seen as a “private matter.” The “culture of silence” prevails in the home when it is confronted with problems related to domestic violence such as physical battering, verbal abuse and sexual assault. Revelations of violence in the family bring about shame and scandal. Victims are pressured to bear their fear, pain and rage in silence for the sake of the family. The incidence of domestic violence is estimated from one out of 10 pregnant and lactating mother (1993 Safe Motherhood Survey) to 11 out of every 12 women in depressed urban communities (Random Survey of Three Depressed Communities in Metro Manila in 1991, Ramos-Jimenez, 1996). Despite the passage of the Anti-Rape Bill in 1997, the number of repeated rape cases has not decreased. There were 7,400 rape cases in 1996 and 7,800 in 1997 compared to 5,400 in 1995.

**Women in Prostitution.** Prostitution, considered the oldest and a lucrative profession, is prohibited by Philippine law and tradition. There were various and technical ways of engaging in the sex industry. Prostituted women can reap enormous profits especially if they are below 25 years old and accessible through internet. Struggling female students, young women migrants from depressed rural areas and urban poor communities who lack skills to compete in business-oriented market often find themselves in the lowest and marginalized jobs in both domestic and international labor market. As a result, they become prey to male employers and costumers and susceptible to all kinds of sexually transmitted infections.

**Women in Prison.** In the Philippines, studies and research have indicated that a lot of women have been convicted for the murder or manslaughter of husbands or boyfriends who were abusive. Women have also been incarcerated for drug-related cases. In some instances, unjustly, because they become “conspirators” for being the partners,

daughters or sisters of drug peddlers, or because, out of despair or poverty, they become couriers for traffickers. Issues confronting women in prison are many and complex. Poor or non-existent medical care is one. Further, a considerable percentage of women who are in prison are in their reproductive age. Because a big percentage of them are mothers, separation from their children makes it doubly hard to cope. Sexual abuse of women in prison is yet another pressing issue. Mental health care is also another area requiring immediate attention because of the isolation that women in detention are subjected to.

**Single Women.** Due to our society's norms and traditions, single women are often dictated about what they are to do and how they should conduct themselves. If a single woman is seen asking for reproductive health services, she will be condemned and be the center of discussions in their community. She is being deprived of access to family planning and other reproductive health services because of misled culture and gender insensitivity among health providers and the people in the community.

**Solo Parent.** Female-headed households are increasing. Census figures show that the proportion of these households rose from 10 percent in the 1960s to around 14 to 15 percent at present. Available data further show increasing marital separations and out-of-wedlock births. Whereas female household heads in earlier periods were mostly widows, a considerable 16 percent of them today are younger, separated, abandoned or unmarried (Philippine Plan for Gender-Responsive Development, 1995-2025). By law, a single parent is defined as one who cares for a child alone either from death of spouse, physical and mental incapacity of spouse, imprisonment of the spouse for at least a year, legal separation from spouse for at least a year, annulment of marriage and abandonment of spouse for at least a year. RA 8972 provides for benefits and privileges to single parents and their children, appropriating funds for the purpose. This law is to be carried out by the DSWD and various government agencies. Solo parents can avail of comprehensive packages of programs or services. This includes livelihood, self-employment and skills development, employment-related benefits, psychosocial, educational, health and housing services.

There are several factors that lead to poor health among women. These include low social status of women, reproductive risks, inadequate gender-sensitive services and facilities for women, environmental hazards and contaminants. Increased participation of women in the workforce is considered risky because of reproductive health risks at

work, especially during pregnancy and lactation. A 1995 World Bank report on the Asia Pacific region pointed out that 30 percent of women above 15 years old are in low paying, low quality and low status occupation. Furthermore, a 1995 Human Development Report stressed that while women represent 41 percent of all workers in developing countries, women's wages are 30-40 percent less than men.

Their low social status in the family and community, their shorter educational periods, their heavy commitments to care for their family members are some factors preventing them from using health services for general care and adopting fertility control measures.

Malnutrition is more common among women than men. Because of their sex and physiologic state, women are more susceptible to anemia than men. This condition is particularly severe among pregnant and lactating mothers in difficult circumstances. Other major causes of morbidity and mortality in women include breast and cervical cancer. HIV/AIDS and other STDs, the transmission of which is sometimes a consequence of sexual violence, have a devastating effect on women's health, particularly the health of adolescent girls and young women. They often do not have the power to insist on safe sex and responsible sex practices and have little access to information and services for prevention and treatment. The consequences of HIV/AIDS and STDs reach beyond women's health to their role as mothers and caregivers and their economic contribution to their families.

Despite the fact that many problems beset the country and put women in a disadvantaged position, the following factors contributed to the gradual improvement of services for women in difficult circumstances: deployment of medical teams in armed conflict areas to deliver critical health services; provision of temporary shelter to displaced families in cooperation with welfare agencies and LGUs; establishment of women and children protection units (WCPUs) in 44 DOH hospitals including eight specialty hospitals; passage of relevant laws supportive of women's cause related to anti-trafficking, sexual harassment in the workplace, and violence against women and children; establishment of more substitute home for women in especially difficult circumstances, among others.

These achievements were due to several factors: presence of strong multi-sectoral involvement on women; strong political will in support of women's cause; presence of assertive women NGOs and other civic groups; implementation of the Women in Nation Building Act that provided for the GAD budget; and commitment of the Philippine

government to international conventions like the Beijing Platform of Action, the Convention for the Elimination of Discrimination Against Women, and the Conference on Population and Development in Cairo.

### **Differently-abled Persons**

The WHO estimates that 10 percent of the world population may be disabled. If this is true for the Philippines, around eight million Filipinos could be suffering from one or more forms of disability. Disability may be a result of or may predispose one to diseases and injuries. But more than this, it has considerable economic implications, manifesting as either loss of productivity or income that can lead to social dependency.

There have been several attempts to determine the prevalence of disability in the country. However, the definitions, scope and methodology used by the different surveys varied such that results of each were as diverse as they were incomparable, leaving policy makers with virtually no information to use in planning for appropriate health interventions for persons with disability (PWD).

The DOH commissioned a survey conducted by the Social Weather Stations in 2004 for PWDs and the result revealed that around seven percent of the households under the study have at least one family member who is disabled. Of the disabled members, 42 percent have orthopedic disability, followed by chronic disability (32 percent), visual/communication disability (13 percent) and mental disability (11 percent). The disabilities found under the study were claimed to be due to illness (62 percent), inborn (11 percent), accident (2 percent) and due to environmental events (2 percent). Ninety-one percent of the household heads of families with disabled members would like to register their family member with disability at the DOH. Among households with disabled members, 74 percent claimed that they did not receive any kind of assistance and the rest stated to have received some form of assistance from the government and private donors.

The government has worked to ensure that the role and contributions of Filipinos with disabilities in nation building are given the appropriate attention by the international community. The Philippines was the main sponsor of resolution 56/115 on the “Implementation of the World Programme of Action Concerning Disabled Persons: Towards a Society for all in the 21st Century” in 1982 and the proclamation of the Asian and Pacific Decade of Disabled Persons (1993-2003).

More specific laws have been passed to uphold the rights of disabled persons. The Accessibility Law or Batas Pambansa No. 844 was passed to increase the mobility and access of qualified disabled persons to jobs and recreational facilities. RA No. 7277, otherwise known as “An Act Providing for the Rehabilitation, Self-Development, and Self-Reliance of Disabled Persons and Their Integration into the Mainstream of Society and for Other Purposes”, was passed in September 1995. This mandated the DOH to institute a national health program on prevention, recognition and early diagnosis of disability and early rehabilitation of the disabled.

It also required the DOH to set up rehabilitation centers in provincial hospitals, and render an integrated health service for PWDs in response to seven different categories of disability. These categories are: psychosocial disabilities, disabilities due to chronic illnesses, learning disabilities, mental disability, visual disability, orthopedic and related disability, and communication disability. The DOH implemented the third batch of registration for persons with disabilities in 2004. About 536,623 or about 12.69 percent of the estimated 4,229,308 PWDs nationwide have registered by end of the year.

Twenty-one hospitals under the DOH are maintaining rehabilitation centers. Of the 1,492 towns about 112 (7.5 percent) have had their frontline health workers trained in community-based rehabilitation. Newborn screening, now mandated by law, has been implemented. Hearing screening tests were administered to two percent of neonates. Visual acuity tests were conducted in 36 percent of public schools. The National Anti-Poverty Commission and other government agencies supported the activities for PWDs as one of the basic sector agenda, while the PhilHealth developed a health financing package for PWDs.

Difficulties with the assessment and diagnosis of disability or impairment by public health personnel are one of the constraints cited by regional coordinators handling the Philippine Registry for Persons With Disabilities. There had been a lack of national consensus on standard definitions about types of disability and methods of collecting information. There are not enough facilities nationwide that deliver community-based or institution-based rehabilitation services, and their number is not improving through the years. There were 19 recorded institutions that distribute social services to the disabled, elderly persons and special groups in 1996, but they have gradually decreased to 12 in 2003.



## Rural and Urban Poor

Almost three out of four (70 percent) of the total number of poor reside in the rural areas.

Almost five out of ten families living in the rural areas (46.9 percent) are poor based on

the poverty level. On the other hand, only two out of 10 families (19.9 percent) living in the urban areas are poor. The regions with the highest percentage of rural poor families are ARMM (67.3 percent), Bicol (61 percent) and Central Mindanao (56.1 percent). Four ARMM provinces are among the top ten poorest provinces in the country (FIES 2000).

The average annual income of families in the country was P144,039 in 2000. Lowest average income was reported in Masbate with P61,611. Other provinces belonging to the lowest five were Agusan del Sur, Basilan, Eastern Samar, and Sarangani. Of the 20 provinces with the lowest

average family income, 16 are among those with lowest female literacy as well. These provinces with double risks should be priorities for national government assistance in the areas of health and human development.

The rural-urban differential for the entire country is quite significant. The average family income among urban residents is P204,977 while it is P85,373 among rural residents. The average family income among rural residents is only 41 percent of that among urban residents. Regional differences do not demonstrate the significantly large inter-provincial and rural-urban differentials. On average, 55.5 percent of the families belong to the lowest ninth and tenth income deciles (FIES 2000).

In another study, families belonging to the bottom 30 percent expenditure class heavily rely on traditional

**Table 4.21 Poverty Incidence Rates (in Percent) of Families by Region, Urban-Rural, Philippines, 2000**

Region	Rural	Urban	TOTAL
NCR		8.74	8.74
CAR	49.8	13.1	36.6
Ilocos	42.1	26.5	37.1
Cagayan Valley	29.7	28.8	29.5
Central Luzon	19.8	17.7	18.6
Southern Tagalog	36.0	17.5	25.3
Bicol	61.0	39.3	55.4
Western Visayas	53.4	26.4	43.6
Central Visayas	50.6	23.7	38.8
Eastern Visayas	50.0	27.1	43.6
Western Mindanao	55.1	27.8	46.6
Northern Mindanao	55.6	31.4	45.7
Southern Mindanao	48.5	27.6	40.0
Central Mindanao	56.1	35.8	51.1
Caraga			
ARMM	67.3	61.3	66.0
<b>Philippines</b>	<b>46.9</b>	<b>19.9</b>	<b>33.7</b>

Source: Family Income and Expenditure Survey, 2000

**Table 4.22 Provinces with Lowest Average Family Income (in Peso) Philippines, 2000**

Rank	Province	Average Family Income
1	Masbate	61,611
2	Agusan del Sur	67,104
3	Basilan	67,497
4	Eastern Samar	71,527
5	Sarangani	73,294
6	Romblon	73,396
7	Sultan Kudarat	75,756
8	Maguindanao	76,438
9	Biliran	76,838
10	Bohol	77,291
11	Sulu	77,598
12	Western Samar	78,409
13	Syquijor	79,119
14	Northern Samar	80,114
15	Surigao del Norte	80,261
16	Misamis Occidental	80,829
17	North Cotabato	82,098
18	Lanao del Sur	83,413
19	Marinduque	84,842
20	Tawi-tawi	85,240

Source: Family Income and Expenditure Survey, 2000



healers (40 percent), whether they are urban or rural residents. This is the same group that relies on local government health care facilities and practically do not have other sources of health care. The situation shows how critical it is that the lower income class municipalities and provinces are assisted by the national government and non-profit private organizations in the delivery of health care for the poor. Poverty and ill health are compounded in areas where external assistance is limited or obstructed because of political unrest. The situation among the urban and rural poor is almost similar. Although most health facilities are located in the urban areas, many urban poor cannot afford the health services in those facilities.

The household budget of the rural poor is very limited. As a result the demand for health services is also low. On top of financial difficulties in accessing health services, physical access to health facilities especially in geographically isolated rural areas and island communities confront the rural poor.

**Table 4.23 Selected Health Indices in Urban and Rural Areas  
Philippines, 2003**

Health Indicators	Rural Areas	Urban Areas
Neonatal mortality	21 per 1,000 livebirths	14 per 1,000 livebirths
Infant mortality	36 per 1,000 livebirths	24 per 1,000 livebirths
Under-five mortality	52 per 1,000 live births	30 per 1,000 live births
Total fertility rate	4.3	3.0
Child births at home	77 percent	45.5 percent

Source: National Demographic and Health Survey, 2003

Based on the NDHS 2003, the women's fertility rate is 4.3 in rural areas while it is 3.0 in urban areas. About 45.5 percent of all childbirths are delivered at home in urban areas while it is 77.0 percent in rural areas. The other health indices in urban areas are: neonatal mortality at 14 per 1,000

live births; infant mortality at 24 per 1,000 live births; and under-five mortality at 30 per 1,000 live births. That of the rural areas are as follows: neonatal mortality at 21 per 1,000 live births; infant mortality at 36 per 1,000 live births; and under-five mortality at 52 per 1,000 live births (NDHS 2003).

### Indigenous Peoples

The National Commission on Indigenous Peoples stated that the indigenous peoples constitute a significant segment of Philippine society. Having successfully resisted western colonial influence, they now live in the dignity of their indigenous culture which is the hallmark of their identity. These communities are composed of 110 ethnolinguistic groups found in the various parts of the archipelago. On account of centuries-long

isolation, they have generally fallen behind the mainstream population in terms of socio-economic development.

Indigenous peoples are defined as a group of people or homogenous societies identified by self ascription and ascription by others, who have

continuously lived as organized community on communally bounded and defined territory, and who have, under claims of ownership since time immemorial, occupied, possessed and utilized such territories sharing common bond of language, customs, traditions and other distinctive cultural traits, or who have through resistance to political, social and cultural inroads of colonization, non-indigenous religions and cultures became historically differentiated from the majority of Filipinos. They are likewise peoples who are regarded as indigenous on account of their descent from the population which inhabited the country, at the same time of conquest, of the establishment of present state boundaries, who retain some or all of their own social, economic, cultural and political institutions, but who may have been displaced from their traditional domains or who may resettled outside their ancestral domains.

RA 8371, otherwise known as the Indigenous People's Rights Act or IPRA, provides that IPs have the right to an informed and intelligent participation in the formation and implementation of any project, government or private, that will impact on their ancestral domain, and that they have the right to participate in decision-making in all matters which may affect their rights, lives and destinies. Thus, due to these mandates, the health sector always make sure that IPs and the local government concerned are meaningfully consulted, informed and involved with regard to the planning and implementation of various health programs that affects IPs to make them culturally sensitive and appropriate. The problem encountered in the implementation of health programs among the IPs lies more on the geographic isolation and inaccessibility of their location to health facilities and health providers. At the same time, traditional health practices and beliefs without proven scientific value and untrained traditional healers continue to be part of their health delivery system. This becomes a concern in terms of delivering essential health services developed for the mainstream population. The development of appropriate traditional and alternative health care with proven scientific value is necessary.

**Provinces with Significant Number of Indigenous Peoples**

Abra	Sultan Kudarat
Ifugao	North Cotabato
Mountain Province	Agusan del Norte
Kalinga	Agusan del Sur
Apayao	Zamboanga del Norte
Cagayan	Zamboanga del Sur
Davao City	Lanao del Sur
Davao del Norte	

## Migrant Workers

**Table 4.24 Number of Overseas Filipino Workers who are Working or had Worked Abroad During the Past Six Months by Age Group and by Sex Philippines, October 2002**

Age-group	Male	Female	TOTAL
15-19	2,000	6,000	8,000
20-24	35,000	79,000	114,000
25-29	111,000	137,000	248,000
30-34	83,000	98,000	181,000
35-39	90,000	69,000	159,000
40-44	95,000	52,000	147,000
45 years and over	137,000	61,000	198,000
Not reported	<500	<500	1,000
<b>Philippines</b>	<b>554,000</b>	<b>502,000</b>	<b>1,056,000</b>

Source: Philippine Statistical Yearbook, 2004

The National Statistics Office reported in October 2002 that there are about 1,056,000 overseas Filipino workers (OFWs) who were working or have worked abroad for the past six months. There are more males than females going abroad with the highest number among the age bracket of 25-29 years.

There were more land-based than sea-based OFWs who were deployed during the year 1991-2003, according to the report by the Philippine Overseas Employment Administration. From 1998-2003 the Philippines deployed more than 800,000 OFWs annually.

**Table 4.25 Overseas Filipino Workers Deployed Annually Philippines, 1991-2003**

Year	Land-based	Sea-based	TOTAL
1991	489,260	125,759	615,019
1992	258,436	32,783	291,219
1993	550,872	145,758	696,630
1994	565,226	154,376	719,602
1995	488,621	165,401	654,022
1996	484,653	175,469	660,122
1997	559,227	188,469	747,696
1998	638,343	193,300	831,643
1999	640,331	196,689	837,020
2000	643,304	198,324	841,628
2001	662,648	204,951	867,599
2002	682,315	209,593	891,908
2003	651,938	216,031	867,969

Source: POEA, 2004

The working conditions encountered by OFWs predispose them to various physical, psychological, social and mental health problems. Illnesses and deaths among OFWs are largely due to risks involved in their jobs. More than 38 percent of HIV-positive cases reported in the Philippines in the year 2001 were OFWs. Of these cases, 17 percent were employed in the entertainment industry and one percent were in travel services. Inadequate facilities and industry hazards pose dangers, resulting in accidents and injuries. On top of these, beatings and physical assault, sexual abuse and socio-cultural stress are other hazards encountered by OFWs. Mental breakdown among OFWs results from fear of deportation and severe penalties, loneliness,

homesickness, and family problems, among others.

## Victims of Disasters and Calamities

Environmental and man-made disasters and calamities sometimes plunge the Philippines into panic and fear. Disasters like typhoons, flooding, volcanic eruptions, earthquakes, tidal waves or tsunamis have caused deaths, hunger, disease and damage to

properties and livelihood. There are also sporadic cases of disasters due to the disruption of peace and order and terrorism in specific areas.

A killer earthquake of magnitude 7.7 rocked the country in 1990 affecting Baguio City and neighboring provinces with a death toll of about 1,000 people and thousand others injured. During the Mount Pinatubo eruption in 1991, about 800 people were killed and 100,000 became homeless. The country has also experienced severe flooding in the aftermath of successive typhoons in December 2004, resulting in the death of more than 1,000 people and several thousands more left homeless and injured. These are a few examples of the innumerable disasters and calamities affecting the country every year.

The National Disaster Coordinating Council and its local government counterpart address these untoward events. The health sector is tasked to rescue the victims and treat the injured. The rehabilitation of the victims back to their normal routine is always a challenge not only for the health sector but for society in general. Emergency preparedness and rapid response systems are needed to address these situations.

The national government has established special commissions and inter-agency mechanisms to coordinate and mobilize line agencies and local governments to provide basic social services to vulnerable groups. There are national commissions or councils for children's welfare, women's rights, adolescent and youth development, persons with disabilities, older persons, indigenous peoples, disaster coordination, among others. On top of this is the National Anti-Poverty Commission and other government agencies which have conducted numerous studies and developed programs and strategies to combat poverty and its links to ill health. The challenge is how to translate national program strategies and information into local plans of action to bring health care services to vulnerable groups. This also requires political will enough to muster locally and externally sourced funds to provide health goods and services over and above those for the general population.

There is a need to ensure that the essential health package for each stage in the life cycle will also reach the vulnerable and special population groups. Health services should not differ that much from those routinely administered to the general populace. The only difference depends on the manner and venue of delivery of such services. There are laws and policies that have been enacted to protect vulnerable groups and improve their

quality of life. The health sector needs to ensure that these regulations are imposed and the programs and projects for these groups materialize.

<b>Goal: The health and nutritional status and quality of life of vulnerable population groups are improved.</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Morbidity among vulnerable population groups is reduced	Morbidity rate per 100,000 population (specific for each vulnerable group)	Reduce by 50 percent	To be determined
Mortality among vulnerable population groups is reduced	Mortality rate per 100,000 population (specific for each vulnerable group)	Reduce by 50 percent	To be determined
Specific health service packages for vulnerable population groups are developed	Number of health packages developed for specific vulnerable group	To be determined	To be determined

<b>Strategic Thrusts for 2005-2010</b>
<ul style="list-style-type: none"> <li>• Develop and implement <b>health package for vulnerable groups</b> and ensure their <b>enrollment into the National Health Insurance Program</b></li> <li>• <b>Improve the health-seeking behavior of vulnerable groups</b> through advocacy and health education campaigns.</li> <li>• <b>Make health services available and accessible to vulnerable groups</b> and implement appropriate community-based health programs and projects for them.</li> <li>• Emphasize <b>maternal and child health programs</b>, especially for children and women in special circumstances.</li> <li>• Promote <b>traditional and alternative health care</b> that is appropriate to the vulnerable groups, especially to indigenous people, and educate them against misconceptions, malpractices and superstitions.</li> <li>• Integrate <b>responsible parenthood, substance abuse prevention, prevention and control of infectious diseases, and lifestyle-related and degenerative diseases</b> into family health programs.</li> <li>• <b>Improve health facilities and institutions that cater to the needs of vulnerable groups</b> such as rehabilitation centers, mental health institutions, prisons and correctionals, half-way house, retirement centers, home for the elderly, etc.</li> <li>• <b>Strengthen emergency preparedness and response capability at the local level</b> for victims of calamities, disasters, accidents, injuries and other forms of violence.</li> <li>• Intensify the <b>enforcement of laws and policies for the protection of the vulnerable segment of society</b> and improvement of the quality of their lives.</li> <li>• <b>Increase awareness of special conditions and problems inherent among vulnerable population groups</b>, including locating and enumerating vulnerable peoples and identifying health care needs specific to each vulnerable group.</li> <li>• Collaborate with other agencies and NGOs to <b>improve education, livelihood and skills of children and adults among vulnerable groups</b> as entry point and corollary to health care provision.</li> </ul>

# Management of Health Risk Factors and Practices

People all over the world are exposed during their lifetime to an infinite number of risks to their health, resulting in some cases to disease, disability or death. According to the WHO (World Health Report 2002), the leading health risk factors in terms of the burden of disease they cause are: underweight, unsafe sex, high blood pressure, tobacco consumption, alcohol consumption, unsafe water, sanitation and hygiene, iron deficiency, indoor smoke from solid fuels, high cholesterol and obesity. Collectively, these health risks account for more than one-third of all deaths worldwide.

In poor countries alone, underweight is most prevalent among children under five years old and accounts for 170 million cases and three million childhood deaths a year. Other nutritional risks are iron deficiency, which affects an estimated two billion people and causing almost a million child deaths a year; Vitamin A deficiency, which is the leading cause of blindness in children; and iodine deficiency, which is a major cause of mental retardation. In contrast, in developed countries around 300 million people are clinically obese and more than half a million people die from obesity-related diseases a year. Obesity leads to increase in blood pressure and cholesterol levels and raises the risks of heart diseases, stroke, diabetes mellitus and cancers.

In addition, almost two million deaths worldwide are attributed to unsafe water, sanitation and hygienic practices, mainly through diarrhea. Most of these deaths are among children in developing countries. Another environmental related risk factor is indoor smoke from solid fuels for cooking and heating. This risk factor is estimated to cause around one-third of all lower respiratory infections and one-fifth of chronic obstructive pulmonary disease. Meanwhile, more people are being exposed to tobacco and alcohol through increasing marketing in poor and developing countries. This practice poses serious long-term risks to health. Tobacco smoking has been known to cause cancers and cardiovascular diseases. Smokers have death rates two to three times higher than non-smokers. On the other hand, alcohol was estimated to cause around one-third of liver disease, motor accidents and intentional injuries.

In the Philippines, most of the leading causes of morbidity and mortality are related to these health risks. In 2002, out of the leading causes of morbidity, respiratory infections

such as pneumonias, bronchitis and bronchiolitis ranked first, third and sixth respectively. Diarrhea ranked second while malaria ranked eighth. The prevalence of these diseases is clearly linked with environmental health risks. Respiratory infections are more frequent in households using biomass fuels and those with inefficient ventilation. Diarrhea is more prevalent in areas with poor sanitation and no access to safe water. Malaria is more prevalent in areas where there are breeding grounds for the vector mosquito.

On the other hand, most of the leading causes of mortality like heart diseases, strokes, cancers, and diabetes mellitus, which ranked first, second, third and ninth, respectively, are associated with health risks that include smoking, unhealthy diet, sedentary lifestyle, and alcohol abuse. As to work-related illness, WHO estimates that in developing countries like the Philippines, up to 40 percent of occupational diseases lead to chronic ailments and 10 percent to permanent disability. Also more than 16 percent of occupational accidents and injuries lead to death. Other health risk factors in the country are diet and nutrition-related. While malnutrition has ceased to be a major cause of disease and death in the Philippines, reports have indicated that malnutrition is still significant. Dietary consumption patterns are also important in relation to the nationwide effort to curb the incidence of lifestyle-related and other degenerative diseases.

The interplay of all these health risk factors can lead to disease, disability and death. Without proper risk assessment and risk management that include monitoring and surveillance of these health risks and corresponding preventive and promotive action, the burden of disease from these health risks is expected to escalate in the coming decades.



## *Environmental Health Risks*

Rapid population growth and urbanization have serious environmental and health implications. With the emergence of modern environmental hazards (e.g., improperly disposed hazardous substances from industries and households, vehicular and industrial emissions) and the persistence of traditional hazards (e.g., lack of access to fundamental resources such as safe water, sanitation and housing), Filipinos face the burden of both communicable diseases, which are closely linked with traditional hazards, and non-communicable diseases, which are associated with modern hazards. Under these circumstances, impoverished communities that have yet to acquire the basic needs essential for healthy living like water, food, shelter and sanitation facilities experience greater difficulties and risks.

Moreover, forces of natural calamities like typhoons, floods, volcanic eruptions and earthquakes are other major environmental hazards that are common in the Philippines. These hazards are more difficult to control and mitigate. Although environmental disasters happen naturally, man-made environmental degradation cannot be discounted as a major culprit in some instances. Because diseases, disabilities and deaths are dire consequences of these hazards, the health sector is usually left to handle the management and rehabilitation of victims.

### **Water Supply and Sanitation**

Households with access to safe drinking water have increased for both urban and rural households (NDHS 1998 and 2003). The proportion of households within 15 minutes from water supply facilities increased from 86.2 percent in 1998 to 87 percent in 2003. The proportion of households with water supply coming from safe sources also increased from 81.7 percent in 1998 to 89.3 percent in 2003. Piped water supply into dwelling, plot or yard has increased from 36.8 percent in 1998 to 39.6 percent in 2003. In urban towns outside Metro Manila, piped water supply coverage leaped from 77.6 percent in 1998 to 88.1 percent in 2000. Within Metro Manila, the result of privatization of the water distribution system has been encouraging as the service coverage by the two concessionaires increased from 67 percent in 1997 to 90 percent in 2001.

There is also the issue of drinking water quality and sustainability of water resources. The principal source of water in most towns outside Metro Manila is ground water. The

**Table 4.26 Source of Drinking Water and Type of Sanitation Facility by Residence Philippines, 2003**

Household Characteristics of Source of Drinking Water and Sanitation Facilities	Residence (%)				Total (%)	
	Urban		Rural			
	1998	2003	1998	2003	1998	2003
Source of Drinking Water						
Piped into dwelling	46.6	50.9	14	16	30.2	34.3
Piped into yard/plot	7.8	4.8	5.4	5.9	6.6	5.3
Public tap	11.4	11.1	11.7	15.2	11.6	13.1
Open dug well	1.9	0.7	11.2	8.7	6.6	4.5
Protected well	24.8	18.6	40	35.3	32.5	26.6
Developed spring*	1.9	0.9	15	8.1	8.5	4.3
Undeveloped spring*		0.6		6.1		3.2
River/stream/pond/lake/dam/rainwater	0.5	0.3	1.5	2.4	1.1	1.3
Tanker/truck/peddler	3.3	2.2	0.9	0.8	2.9	1.5
Bottled water/refilling station	1.6	9.8	0	1.3	0.8	5.7
Type of Sanitation Facility						
Flush toilet: own	71.1	76.7	48.1	53.6	59.5	65.7
Flush toilet: shared	16.3	15.9	12.1	10.7	14.2	13.4
Close pit	4.9	1.5	9.6	10.7	7.3	5.9
Open pit	2.4	0.8	9.7	6.8	6.1	3.7
Drop/overhang	1.4	1.1	2.9	2.8	2.1	1.9
No toilet/field/bush	4	3.9	17.5	15.4	10.4	9.3
Others	0	0.1	0.1	0.1	0.1	0.1

\* Developed spring and undeveloped spring were reported as combined data in 1998

Source: National Demographic and Health Survey, 1998 and 2003

unabated water extraction from the ground has resulted in the rapid decline of quality due to pollution and saline intrusion of ground water and the unsustainable depletion of this resource.

Coupled with access to safe drinking water is the issue of access to sanitary toilet facilities. The percentage of population with access to sanitation facilities has increased from 81 percent in 1998 to 85 percent in 2003 (NDHS

1998 and 2003). Households with access to sanitary toilet facilities have increased for both urban and rural areas.

Household coverage for public sewerage system has not improved in the past 20 years. Outside Metro Manila, sewerage services are almost non-existent. There are only three public sewerage systems that operate and provide limited residential coverage. This has left urban population with few options for safe excreta disposal. Urban households have responded by building their own sanitation facilities like septic tanks. However, there is general non-compliance in the use of effluent disposal systems required by national regulations.

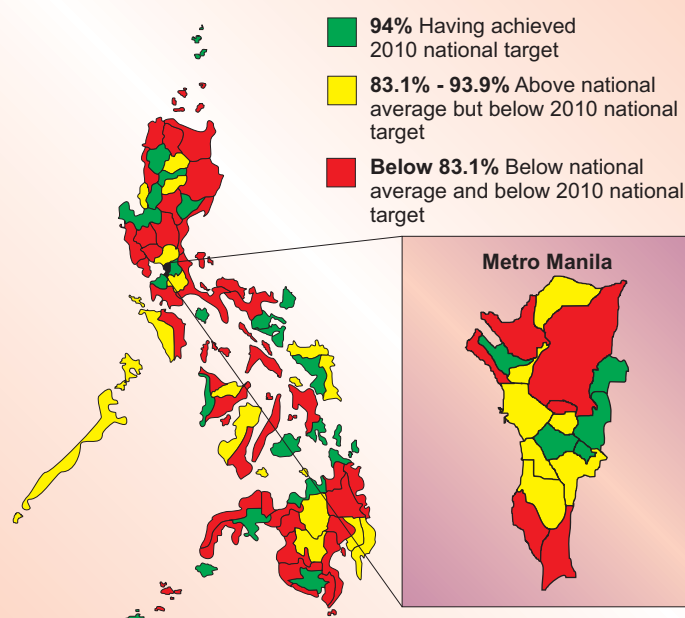
In terms of households with access to safe water supply, the provinces with the highest coverage are Southern Leyte, Rizal, Pangasinan, Cavite and Surigao del Norte while those with the lowest coverage are Zamboanga Sibugay, Sulu, Masbate, Batangas and Pampanga. Coverage of households with sanitary toilet facility is highest in the

provinces of Batanes, Agusan del Norte, Ilocos Sur, Pangasinan and Siquijor while coverage is lowest in the provinces of Sulu, Zamboanga Sibugay, Pampanga, Masbate and Western Samar. The only region that has achieved more than 90 percent coverage of households with sanitary toilet is the Ilocos Region. On the other hand, three regions have achieved an average of more than 90 percent coverage of households with access to safe water supply, namely, CAR, Ilocos and Northern Mindanao (FHSIS 2002).

There are knowledge, policy, capacity and financing gaps that must be addressed to lessen the constraints and improve water and sanitation services. Investments and political support are not tied with the needed reforms. There is a need for government subsidy targeting the poor since water and sanitation services are not actually reaching them. For the past years, the government has engaged the private sector more aggressively in financing water and sanitation projects. However, the lack of an economic regulator that can set the appropriate price for services provided discourages investments that rely on the collection of user fees.

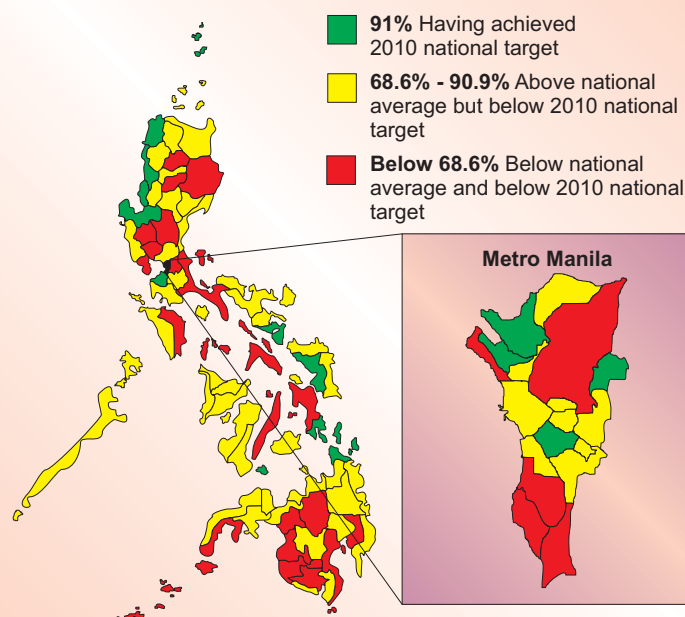
There is also the issue of water resources not being safeguarded. The World Commission reported that during the past century, while the world population tripled, the aggregate use of water has increased six fold. The

**Figure 4.46 Household Access to Safe Water by Province Philippines, 2002**



Source: Field Health Service Information System, DOH, 2002

**Figure 4.47 Household Access to Sanitary Toilets by Province Philippines, 2002**



Source: Field Health Service Information System, DOH, 2002

relative scarcity of water is even worsened by the deterioration of the quality of water supply. People seem contented with their poorly constructed and badly maintained sewerage system. As a result, indiscriminate disposal of inadequately treated effluent and untreated sludge is widespread, with serious consequences for both water quality and public health.

Access to safe water should always be linked with sanitation and personal hygiene as an approach to addressing water-related diseases such as diarrheal diseases, cholera, typhoid fever, Hepatitis A, skin diseases and dengue fever, among others. In general, water piped into dwelling has been associated with the lowest prevalence of disease while households with doubtful sources of water supply have been associated with the highest. Likewise, skin diseases and diarrhea are more common among households without toilets.

### **Food Sanitation**

Food-borne diseases are usually caused by infectious organisms like viruses, bacteria and parasites and, in most instances, manifest as diarrhea. These diseases are transmitted from person to person by means of soiled hands and food contaminated by human waste through the oral-fecal route. The incidence of food-borne diseases peaks during the rainy season and is usually high in areas where sanitation and hygienic practices are poor.

Although improvements in morbidity and mortality rates for food-borne diseases have been noted, the burden of diarrheal diseases is still high and reflects poor access to safe water supply and sanitation facilities by the more susceptible population groups. While the number of water and sanitation facilities has increased, the availability of these facilities in the rural areas and among the poorer sector of the urban population has not significantly changed.

An emerging issue relative to food safety in the country is the issue on street foods. With the rapid urbanization of the country and the fast-paced lifestyle of the urban population, comes its inevitable popularization. In a study conducted by Barth, it was found that the purchase of non-household food preparations accounted for about 30 percent of all food expenditures. These purchases were usually from the immediate neighborhood selling street foods. In a study conducted by the Food and Nutrition Research Institute (FNRI), selected street foods have been found to have significant nutritional value, but the public has to be guided on the choices and be educated on the danger that these foods can pose to

health if they are not prepared well. Several other studies have shown the presence of microorganisms in the commonly vended street foods.

The problem at the moment is that there is no local standards upon which microbial levels in street foods may be assessed and even provide basis for monitoring efforts. There has to be a nationwide attempt to require registration or licensing of street food vendors. The street food industry needs a recognized body that will coordinate efforts by various agencies relative to this sector and at the same time serve as anchor in policy formulation and provision of technical assistance. Training courses provided by LGUs to street food vendors have yet to be reviewed and regulated. The government has already recognized the economic contributions of this informal sector. It needs to come up with a comprehensive package of services to address problems and uplift its status as a major source of food for people.

The occurrence of food-related issues with the recent emergence of diseases like the avian influenza and bovine spongiform encephalopathy (BSE) and the perennial presence of food and water-borne diseases in the top ten causes of morbidity and infant mortality prompted the DOH to create in 2003 the Food Safety Committee. It coordinates efforts to address food safety issues. The Committee is chaired by the Bureau of Food and Drugs and co-chaired by the National Center for Disease Prevention and Control. The Committee is tasked to draw up the research agenda and review existing health policies on food safety, recommend improvements on the existing training curricula on food safety, ensure the promotion and implementation of food safety initiatives, and develop health promotion and information strategies and materials.

Another issue on food safety is the emerging use of biotechnology in food production and processing. The government saw the need to create the National Bio-safety Committee of the Philippines (NBCP), a multidisciplinary, inter-agency body that studies and evaluates existing laws, policies and guidelines on biotechnology and recommend measures for its effective utilization and prevention of possible pernicious effects on the environment. In 1991, the NBCP issued a guideline covering the importation, transport and contained use of GMOs. In 1998, it issued another guideline covering the planned release of GMOs into the environment.

Through the National Bio-safety Framework Project, the government organized a National Coordinating Committee (NCC) composed of representatives from the DENR, DA, DOST, DOH, DTI and other relevant government agencies, to advise and guide the

formulation of its national bio-safety framework and to prepare for the eventual enforcement of the Cartagena Protocol on Bio-safety.

## Air Pollution

Air quality has progressively worsened in the last 25 years. The DENR monitors total suspended particulates (TSP), particulate matter 10 microns in diameter or smaller (PM10), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>), carbon monoxide (CO), lead (Pb) and ozone (O<sub>3</sub>).

The reported levels of PM10, lead, sulfur dioxide and oxides of nitrogen in the air have not exceeded levels that are detrimental to health. However, a health risk assessment conducted by DOH in 2000 showed that the total excess deaths attributable to air pollution with PM10 level above 50 ug/m<sup>3</sup> in Metro Manila alone was estimated to be from 230 to 350 people. Main sources of air pollution in and around the population centers in the Philippines are emissions from mobile sources or vehicles, and from stationary sources such as power plants and factories. Area sources like refuse burning, road dust and open cooking are widespread and difficult to estimate.

**Table 4.27 Status of Selected Pollutants  
Philippines 2003-2004**

Pollutants	Status
Total Suspended Particulates (TSP)	Safe guideline TSP values have always been exceeded since the late 1980s. A temporary reduction in values from 2001 to 2002 may be attributed to improved automotive technology and the switch to natural gas use in power plants and industries.
Particulate matter 10 microns or less (PM10)	Majority of PM10 levels in Metro Manila stations are below 24-hour guideline values (150ug/m <sup>3</sup> ). (PM10 is mainly composed of soil-cement mixture whose levels can be mitigated with road improvements.)
Carbon monoxide (CO)	Most come from gasoline engines. The emission from mobile sources in NCR comprises one-fourth of the total CO production.
Ozone (O <sub>3</sub> )	29% of the 1-hour daily ozone values and 93% of the 8-hour daily ozone values were above the National Ambient Air Quality Guideline Value (NAAQGV) (Urban Air Quality Group, 2003)
Lead (Pb)	Ambient levels are down due to the reduction of lead in gasoline since January 2001 from a level of 0.483 in 1997 to 0.039 in 2000.
Sulfur dioxides (SO <sub>2</sub> )	Levels detected at the Manila Observatory in 2003 were below the NAAQGV of 180mg/m <sup>3</sup> ppm for a 24-hour contact and 80mg/m <sup>3</sup> for a 1 year contact. (SO <sub>2</sub> is commonly produced in coal/oil burning in power plants, processing of sulfur-containing fuel in internal combustion engines and in the production of sulfuric acid.)
Oxides of nitrogen	Levels detected at the Manila Observatory in 2003 were below the NAAQGV of 150mg/Nm <sup>3</sup> ppm for a 24-hour contact.

Source: National Air Quality Status Report, 2003-2004.

In 2001, there were 3.9 million registered vehicles in the country, a threefold increase within the past two decades. Of these vehicles, 70 percent are gasoline-fueled and 30 percent are diesel-fueled. In addition, there was a proliferation of motorcycles and tricycles. This is significant because majority of motorcycles still use the two-stroke engine that uses a technology of



incomplete combustion of the gasoline thereby producing more air pollutants.

The major types of industry contributing to air pollution from stationary sources are thermal power stations, cement manufacturing plants and oil refineries. The economic benefits of meeting the power generation requirements have to be balanced against the human development and health goals.

**Table 4.28 Industrial Air Pollution Sources  
Philippines, 2001**

Industry	National (Total Number)	Metro Manila Airshed	
		Number	Percent
Cement	19	8	42
Oil Refining	3	3	100
Air-polluting power plants and others	2,800	737	28

*Source: Environmental Management Bureau, DENR, 2001*

Of the 737 power generation sources, nearly two-thirds do not have the necessary air pollution control facilities. Based on recent estimates, oil and coal-fired power plants emit 223,000 metric tons (MT) of SO<sub>2</sub> annually. Existing pollution control measures in power plants target mainly particulate matter. Only the latest coal-fired power plants are equipped with flue gas desulphurization (FGD) systems to control SO<sub>2</sub> emissions. The preferred sources of power are clearly geothermal and hydroelectric. However, only 43 percent of power generated comes from these lesser polluting sources, while 57 percent comes from plants using coal (Philippines Energy Plan 2002-2011, Department of Energy).

As to indoor air pollution, the DOH conducted a baseline health profile of communities in Metro Manila in 1999. Ambient standards for PM<sub>10</sub> exceeded in nine out of 19 study areas (47 percent). Indoor monitoring showed that 42 percent of households exceeded the standards. While vehicular traffic could be a major source, results indicate that smoking inside the house and cooking with kerosene, wood and charcoal were primary contributors in these households. An earlier study conducted in 1995 in urban slums in Metro Manila found similar results.

### **Solid Wastes**

The volume of solid wastes for disposal has reached serious proportions, particularly in Metro Manila and other urban centers. The amount of wastes dumped in the oceans is greater than the volume of fish taken out. Each year, around 100,000 marine mammals die from ingesting waste or from being entangled in plastics that are thrown into the sea.

The disposal of solid wastes is a major public health problem in the country. A common means of disposal is the use of open dumpsites. Metro Manila alone generates one-



fourth of the total municipal solid wastes (MSW) in the country. Filipinos have barely learned to recycle wastes or turn them into compost. The Ecological Solid Waste

**Table 4.29 Solid Waste Management Indicators  
Philippines, 2003**

Indicator	National	Metro Manila
Per capita MSW generation rate (kg/day)	0.30-0.71	0.32-0.71
MSW generated (tons/year)	10 million	2.5 million
Collection efficiency	Urban: 70% Rural: 40%	83%
Percentage waste recovered and reused	13%	25%
Percentage MSW composted	10%	
Percentage MSW recycled and sold	5%	6%-12%
Percentage MSW disposed in controlled dumps		30%
Number of disposal facilities (open and controlled dumpsites, sanitary landfills)	909	8
Sanitary landfills	1	
Number of materials recovery facilities (MRF)	829	220
Percentage of LGU budget allotted to SWM facilities	1%-2%	
Per capita allocations in LGUs (pesos)	P12 to P250	P64 to P1,164

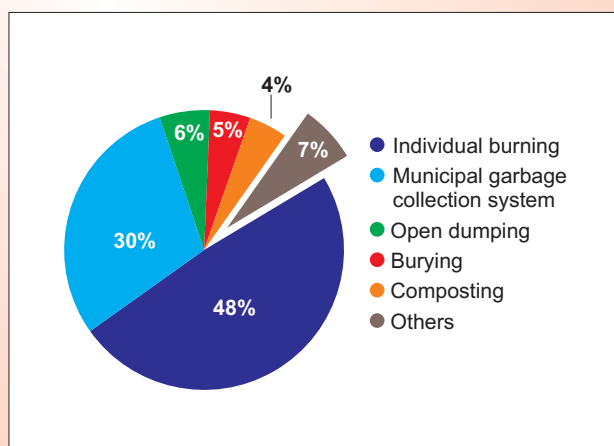
Source: National Solid Waste Management Commission, 2003

Management Act of 2004 prescribes the exclusive use of sanitary landfill by 2007. However, the necessary waste management infrastructures have yet to be put in place to drastically modify current unsafe and unsanitary practices.

A 1997 study showed that the means of solid waste collection and disposal by households nationwide includes individual burning (48 percent), municipal garbage collection system (30 percent), open dumping (6 percent), burying (5 percent), composting (4 percent), and others (7 percent)(Environmental Management Bureau 1997).

In Metro Manila, sources of wastes are: households (74.1 percent), restaurants (7.5 percent), shops (9.4 percent), markets (7.6 percent), institutions (0.8 percent), street sweepings (0.4 percent) and river clean-up (0.14 percent). About 90 percent of the wastes are collected by municipal collection system, of which 25 percent are illegally dumped, 30 percent are collected in sanitary landfills, 33 percent are disposed in open dumps, and two percent are recycled. Of the remaining wastes that are not collected, six percent are self-disposed by households and four percent are recycled by households. Uncollected solid wastes generally are disposed into the river system.

**Figure 4.48 Solid Waste Collection and Disposal  
Philippines, 1997**



Source: Solid Waste Management Bureau, 1997

### Toxic Chemicals and Hazardous Wastes

All chemicals are toxic to some degree, with health risk primarily a function of the severity of the toxicity and the extent of exposure. However, most chemicals have not

been adequately tested to determine their toxicity. Only 2 percent of chemicals produced commercially have complete health hazard assessment while only 14 percent of all chemicals have sufficient information to support even a partial hazard assessment.

While agriculture remains a major contributor to the economy, data showed that the incidence of poisoning by pesticides is 32 percent of the total poisoning cases reported and it is estimated that about 8-10 percent of the poisoning cases die every year as a result of intentional, accidental and occupational exposures. A total of 27 children from Bohol died because of ingestion of pesticide-contaminated food. Furthermore, chronic exposures have been linked to other health effects, such as polyneuropathy, dermatitis, behavioral changes and damage to organ systems.

Another important area of concern is the mining activities in the country. Small-scale gold mining activities intensified in Southern Philippines providing livelihood to about 120,000-200,000 people at one time. Crude methods were applied in small-scale mining operations, which included the use of toxic chemical mercury for amalgamation. Exposures to mines spillage and tailings in several municipalities of Marinduque have resulted in elevated blood lead levels, anemia and abnormal hematological results among the residents. Aside from this, a review of morbidity and mortality statistics showed a relatively high incidence of leukemia, aplastic anemia and blood dyscrasia for a 10-year period.

Further exposures to toxic chemicals from geothermal plants and other power generation operations should not be underestimated. There should be regular monitoring on the health conditions among the affected communities.

Several thousand potential hazardous waste-generating industries nationwide produce an estimated 2.4 million metric tons of hazardous wastes a year. The 1,079 hazardous waste generators registered with the Environmental Management Bureau (EMB) produce 278,393 tons of hazardous wastes a year. These wastes were classified and found to include inorganic chemical wastes, alkali wastes, putrescibles, acid wastes and oil.

The other side of the problem is that there is only 28 hazardous waste treatment facilities registered nationwide. Only 21 are operating full time. About half of the registered hazardous wastes generated each year (approximately 140,000 tons per year) are treated off-site and 3,600 tons or 2.5 percent are recycled. No landfill facilities for hazardous

wastes are available in the country. As a result, hazardous waste generators store their wastes or dispose them either partially treated or untreated. Approximately 50,000 or 36 percent of all hazardous waste treated off-site are stored on-site or off-site due to the lack of proper treatment and landfill facilities.

In 1999, there are 13 industrial waste incinerators and 43 operational hospital incinerators in the country. At that time, 50 percent of medical wastes are incinerated while the rest are disposed of improperly. The country has limited capacity to operate incinerators and monitor their emissions, allowing unregulated operation of incinerators which is potentially dangerous. For the past few years, there has been an intense debate over the use of incinerators in waste management, leading to a prohibition on their use imposed by the Clean Air Act of 1999.

Environmental health has never been given more attention than at present. The Clean Air Act (CAA) of 1999, the Ecological Solid Waste Management Act (ESWM) of 2000, and the Clean Water Act (CWA) of 2004 are paving the way for the country for reforms in managing air pollution, solid wastes, and water quality in all bodies of water.

The CAA bans the use of incinerators. LGUs must promote, encourage and carry out a comprehensive ecological solid waste management program. The DOH must promote the use of state-of-the-art, environmentally sound and safe non-burn technologies for the handling, treatment, thermal destruction, utilization and disposal of municipal, biomedical and hazardous wastes.

With the CWA it is expected that sewerage systems in highly urbanized areas will improve. In response to the proliferation of water refilling stations and the rampant illegal dumping of sludge and septage in bodies of water, the DOH spearheaded the drafting of rules and regulations that LGUs may use to monitor and regulate the water business and to regulate the collection, handling and disposal of sludge and seepage.

With the passage of the ESWM Act, a National Solid Waste Management Commission (NSWMC) was created under the Office of the President. It is composed of government and non-government representatives and oversees the smooth implementation of the CAA and ESWM laws. The DOH, a permanent member of the Commission, is responsible for the advocacy and information dissemination on the potential health implications of improper solid waste handling, storage, treatment and disposal.

However, the requirements of these laws are not proportional to the resources required to carry them out. Funding support from international organizations is used to enable the health sector to work toward its goals. A strong inter-agency collaboration, the presence of active and vigilant NGOs, and active partnership with the academe facilitate the interchange of information and resources for drawing up relevant environmental policies, programs and services.

New studies reveal that there is a lack of awareness among community members and local government authorities regarding the provisions of the more recent environmental laws like the CAA, ESWM, and CWA. This means that there is a low level of awareness about the impact of environmental problems on people's health. Local and national environmental health programs must go further than providing safe water and sanitary toilets in communities for a comprehensive disease prevention and control program. The Code on Sanitation, though it served as the bastion of public health in the past decades, imposes obstacles with its outdated provisions. Exacting a fine of P1, 000 for example, does not provide a deterrent for non-compliance with the provisions of the code. For this reason, there is an urgent need to promote and enforce the more recent environmental laws.

The capacity of the national, regional and local levels to address environmental health problems needs to be strengthened. More personnel need to be trained in environmental epidemiology, environmental health impact assessment and environmental toxicology, economic valuation of environmental health, among others. Regional and provincial laboratories need to be staffed by adequately trained personnel and equipped with modern facilities, equipment and supplies to function.

<b>Goals: Environmental health conditions in the country are improved. Morbidity and mortality from environmental health hazards are reduced.</b>			
<b>National Objectives for 2005 - 2010</b>			
Objective	Indicator	Target	Baseline Data and Source
Household access to safe water is increased	Percentage of households with access to safe water (at national level, urban and rural areas)	94 percent (national) 98 percent (urban) 90 percent (rural)	89.3 percent (national) 96.1 percent (urban) 81.8 percent (rural)  <i>National Demographic and Health Survey, 2003</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Percentage of households with doubtful water sources practicing boiling and chlorination to make water safe for drinking	More than 27 percent (boiling) More than 1.7 percent (chlorination)	27 percent (boiling) 1.7 percent (chlorination)  <i>National Demographic and Health Survey, 2003</i>
Access to safe food sources is increased	Percentage of food establishments complying with minimum sanitation standards	To be determined	To be determined
Household access to sanitary toilet facilities and sewerage system is increased	Percentage of households with sanitary toilet facility (at national level, urban and rural areas)	91 percent (national) 96 percent (urban) 86 percent (rural)	85 percent (national) 94.1 percent (urban) 75 percent (rural)  <i>National Demographic and Health Survey, 2003</i>
	Percentage of households with sewer connection	41 percent for Metro Manila 20 percent for other highly urbanized cities	7 percent for Metro Manila <i>MWSS, 1998</i>
Health care waste segregation, treatment and disposal are improved	Percentage of healthcare facilities disposing infectious and hazardous wastes according to approved means	80 percent	51 percent in NCR <i>DOH, 1997</i>
	Number of approved healthcare waste treatment facilities at the regional level	At least one per region	3 in Southern Tagalog 1 in NCR <i>DENR, 2002</i>
	Number of healthcare facilities served by approved disposal facilities	At least one per region	To be determined
	Percentage of healthcare facilities practicing proper waste segregation	100 percent of DOH hospitals	60 percent of DOH hospitals <i>DOH 2004</i>
Compliance to air quality standards is increased	Percentage of industrial establishment complying with air quality standards	70 percent	54 percent <i>National Air Quality Status Report, EMB, 2003</i>
	Percentage of motor vehicles complying with emission standards	80 percent	To be determined

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
Use of alternative fuel is increased	Percentage of public utility buses using compressed natural gas (CNG)	5 percent	To be determined by LTO
	Percentage of households using wood and charcoal for cooking	Reduce to 60 percent	80 percent <i>DENR, 2002</i>

Strategic Thrusts for 2005-2010			
<ul style="list-style-type: none"> <li>• <b>Develop environmental health indicators, appropriate information system and operational guidelines.</b> Reliable monitoring is the foundation for sound policy and needs to be established as a priority. In the Philippines, deficient air quality monitoring stations provide limited information on pollutant levels. The Metro Manila Air Quality Improvement Sector Development Project (MMAQISDP) should model air quality monitoring for the rest of the country. Along with this, the integration of environmental health and environmental health-related indicators (including children's environmental health indicators) for a clearer assessment of goals and targets. This also includes the establishment of a food and water-borne disease surveillance system and an accidents and injuries registry.</li> <li>• <b>Develop technical assistance packages for stakeholders.</b> Investment plans and technical assistance packages should be developed for the LGUs. These plans and packages will include developing capacities for economic valuation and health financing.</li> <li>• <b>Develop a comprehensive communication package for environmental and occupational health concerns.</b> This will support stronger advocacy campaigns that will push for the local and nationwide implementation of environmental laws through sustainable measures like low-cost waste treatment technologies available in the market, and use of cleaner fuels to prevent indoor and outdoor air pollution.</li> <li>• <b>Strengthen capacity building.</b> To sustain all moves to improve environmental health, capability building and training interventions will be pursued at all levels. Strengthening of collaboration among and between partners is another way to build capacities.</li> <li>• <b>Support environment-friendly infrastructure development projects.</b> This includes construction and upgrading of regional and provincial laboratories for the use of environmental and occupational health programs.</li> <li>• <b>Manage health care waste.</b> Enhance collaborative efforts with other government agencies regarding management of health care waste.</li> </ul>			

## *Occupational Health Risks*

Of the 217 million cases of occupational diseases 30-40 percent may lead to chronic diseases and 10 percent to permanent work disability (WHO 2002). Of the 120 million cases of occupational accidents and injuries, 200,000 fatalities are expected yearly. Without preventive action, the burden of occupational diseases and injuries will escalate. Most of these conditions lead to reduced working capacity or permanent disability. Workers in the highest risk industries such as mining, forestry, construction and agriculture are often at an unreasonable high risk and may lead in extreme cases to high prevalence of work disability and premature deaths. Small-scale industrial and service enterprises often have few resources, heavy workloads and multiple tasks for one worker. Work takes place in an environment that does not always meet required standards. Family members of the workers and entrepreneurs including children, pregnant women and elderly people, share the work in small-scale enterprises, home industries, small farms and cottage industries.

In 2000, a total of 3,028 establishments submitted their annual medical reports for 1999 to the Bureau of Working Conditions of the Department of Labor and Employment (BWC-DOLE) in compliance with Rule 1960 of the Occupational Safety and Health Standards. Poor ergonomic conditions and physical hazards were the first and second most common types of hazards in these establishments. A study conducted under the National Comprehensive Occupational Rehabilitation Program (NCORP) showed that the most common screening symptoms reported by workers were pain in the arms, legs or joints (43 percent), back pain (24 percent), trouble sleeping (16 percent), headache (11 percent) and feeling tired or having low energy (10.9 percent).

Of the injuries acquired at the workplace, the most common was muscle strain (78.4 percent), followed by abrasions or cuts (62.3 percent), fracture (38.3 percent) and sprain (25.2 percent). The most common body parts injured were the right thigh (68 percent), back (28.1 percent), feet (26.4 percent), knee (25.5 percent) and leg (22.9 percent). Compensation for injury was borne mainly by the employer (95 percent). The patients bore 23 percent of expenses while the GSIS, SSS and ECC could only help out with seven percent, four percent and another four percent, respectively, of the total expenses incurred by those injured on the job.



Unfortunately, no epidemiologic survey has been done to find out estimates of the number of workers exposed to the highest risks and with the highest need for government intervention in the field of occupational health and industrial safety. Altogether, they are estimated to form the majority in the working age group, particularly among the so-called informal sectors that include agriculture, mining, forestry and construction. An assessment of the environmental and work hazards related to one gold mining operation in Benguet showed that among 88 workers in the survey, only 23 had not suffered injuries from accidents. Prevalence of accidents was 74 percent. The most prevalent injuries were lacerations, crushing injuries, bruises and fractures.

The health sector can build upon inter-institutional mechanisms for the surveillance, investigation and response measures for residents affected by industrial mining activities in different parts of the country. For the past years the DOH has undertaken toxic vigilance activities to be able to respond to the health needs of the workers and community residents in industrial mining activities in Marinduque, Davao del Norte, Camarines Norte, Negros Occidental, Zamboanga del Norte and Bukidnon.

Baseline data generation was initiated through the National Occupational Health Survey which covered problems like noise-induced hearing loss among workers in selected industries, and mercury and pesticide exposure among small-scale workers in the country. Results of the studies are being used for the development of policies, standards and guidelines. Labor unions have also provided inputs to policy formulation.

The Healthy Workplace initiative and the Araw Mo Pare Ko Campaign for the transport sector are inter-sectoral collaboration and community-based advocacy campaigns in line with the government's thrust of advancing the economy through people empowerment. This has given impetus to the proactive establishment of occupational health programs by some companies and industries.

One of the factors hampering effective inter-agency collaboration for occupational health is the unclear delineation of functions among the line agencies. The inter-agency committee for the occupational health sector, chaired by the OSHC, has not been used fully as a venue for streamlining various agencies' activities related to occupational health. Pertinent provisions of the Labor Code and the Industrial Hygiene Chapter of the Code on Sanitation have not been well disseminated nor given a chance to work through organized campaigns championing the rights to health by the working class.

<b>Goals: Occupational health conditions in the country are improved. Morbidity and mortality from occupational health hazards are reduced.</b>			
<b>National Objectives for 2005 - 2010</b>			
Objective	Indicator	Target	Baseline Data and Source
Morbidity, disability and mortality from adverse occupational conditions are reduced	Percentage of workers with illness, disability and death resulting from occupational hazards compared to the total number engaged in work with known occupational hazards	To be determined	To be determined
An occupational health information system is established	Percentage of cities and municipalities with occupational health information systems	40 percent	To be determined
Occupational health programs at the local level are established	Percentage of health facilities providing special clinical assessment and treatment services to workers	40 percent	8.51 percent <i>BSNOH, 2000</i>
	Percentage of health centers with stress management services	40 percent	19.15 percent <i>BSNOH, 2000</i>

<b>Strategic Thrusts for 2005-2010</b>	
<ul style="list-style-type: none"> <li>• <b>Protect individuals, families, workers and communities from exposure to occupational and environmental hazards, disease agents or stressors</b> that could affect their health, through public health and environmental interventions.</li> <li>• <b>Set up healthy and safe workplaces</b> in national agencies and LGUs. Key local health workers (provincial health officers, city health officers, municipal health officers, rural health physicians and public health nurses) will be trained on the prevention, recognition and management of occupational health-related diseases in coordination with the DOH.</li> <li>• <b>Strengthen infrastructure, human resource capabilities and systems for the registration of occupational diseases and injuries.</b> Information on informal sectors needs to be sought out proactively to make occupational health programs responsive to needs of workers.</li> <li>• <b>Review, update and strengthen laws, standards and regulations related to occupational health</b> to make them relevant and practical for more decisive enforcement by LGUs and the labor sector.</li> </ul>	

## Nutritional Health Risks and Disorders

The vicious cycle of malnutrition, poor economic productivity and poverty can still be observed among many Filipino communities to this day. While malnutrition has ceased to be a major cause of disease and death in the country, the latest National Nutrition Survey (NNS) conducted in 2003 indicates that malnutrition is still significant.

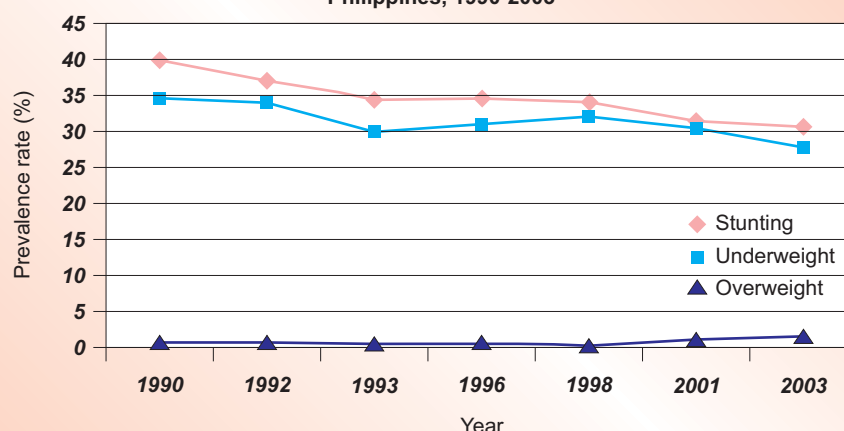
Dietary consumption patterns are also important in determining interventions to improve child feeding practices and in relation to the nationwide effort to curb the incidence of lifestyle-related and other degenerative diseases like cardiovascular diseases, diabetes mellitus, malignant neoplasms and kidney diseases.

### Protein Energy Malnutrition (PEM)

Based on the 2003 NNS, there has been improvement in the nutritional status of children 0-5 years old. Among children in this age group, those that were underweight for age decreased from 32.0 percent in 1998 to 27.6 percent in 2003 while those that were short for age also decreased from 34.0 percent in 1998 to 30.4 percent in 2003. However, there is an increase of those that were found to be overweight for age from 0.4 percent in 1998 to 1.4 percent in 2003.

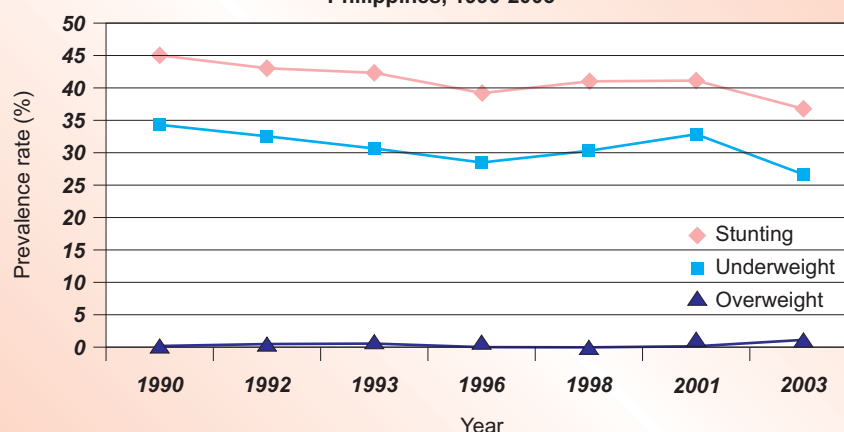
There is also an improvement in the nutritional status of schoolchildren aged 6-10 years old in 2003 as compared to the report in 1998. In this age

Figure 4.49 Trends in the Prevalence of Underweight, Stunting and Overweight Among 0 to 5 Years Old Children Philippines, 1990-2003



Source: National Nutrition Surveys, 1990-2003

Figure 4.50 Trends in the Prevalence of Underweight, Stunting and Overweight Among 6 to 10 Years Old Children Philippines, 1990-2003



Source: National Nutrition Surveys, 1990-2003

group, there is a decrease of those underweight for age from 30.2 percent in 1998 to 26.7 percent in 2003 and those that are short for age from the 40.8 percent reported in 1998 to 36.5 percent in 2003. There is also an increase of overweight for age among this age group from negligible in 1998 to 1.3 percent in 2003.

The 2003 FNRI Food Consumption Survey revealed that the food intake in Filipino households had general improvements in quantity and quality. There is a general increase in the mean one day per capita energy and nutrient intake particularly on energy, protein, calcium, vitamin A, thiamin, riboflavin and niacin. Energy and protein have adequacy of 98 percent and 99 percent, respectively. Approximately 70 percent of the total energy intake is from carbohydrates and 57 percent of protein intake is from plant sources. On the other hand, the NDHS noted a decrease in the prevalence of exclusive breastfeeding among children four to five months from 20 percent in 1998 to 16.1 percent in 2003.

### Vitamin A Deficiency (VAD)

Exophthalmia, nightblindness, eye sensitivity to bright light, dryness of skin membranes, low resistance of the body to infections and blindness in severe cases are some of the manifestations of Vitamin A Deficiency. This deficiency is measured by

**Table 4.30 Prevalence of Vitamin A Deficiency Among Children, Pregnant and Lactating Women Philippines, 1993, 1998 and 2003**

Age group	1993	1998	2003
6 months-5 years old	35.3	38.0	40.1
Pregnant women	16.4	22.2	17.5
Lactating women	16.4	16.5	20.1

Source: National Nutrition Surveys, 1993, 1998 and 2003

taking the level of plasma retinol or Vitamin A in ug/dL. In the NNS, the level of VAD among children 6 months to 5 years old has increased from 38.0 in 1998 to 40.1 percent in 2003. This has also been found to be increasing among lactating mothers from 16.5 percent in 1998 to 20.1 percent in 2003.

### Iron Deficiency Anemia (IDA)

**Table 4.31 Prevalence of Iron Deficiency Anemia Among Children, Pregnant and Lactating Women Philippines, 1993, 1998 and 2003**

Age group	1993	1998	2003
6-11 months	49.2	56.6	66.0
1-5 years old	25.1	29.6	29.1
6 months-5 years old		31.8	
6-12 years old	42.0	35.6	37.4
Pregnant women	45.7	45.7	43.9
Lactating women	43.9	45.6	42.2

Source: National Nutrition Surveys, 1993, 1998 and 2003

The prevalence of Iron Deficiency Anemia (IDA) has increased among six to eleven month old children from 56.6 percent in 1998 to 66.0 percent in 2003 and also among six to twelve year old children from 35.6 percent in 1998 to 37.4 percent in 2003. However, it has slightly decreased among one to five year old children from 29.6 percent in

1998 to 29.1 percent in 2003. IDA has also decreased among pregnant women from 45.7 percent in 1998 to 43.9 percent in 1998 and among lactating women from 45.6 percent in 1998 to 42.2 percent in 2003.

### Iodine Deficiency Disorder (IDD)

IDD is the most common cause of preventable mental retardation in the country. It impedes the learning ability among children and affects the reproductive functions among women. The prevalence of IDD among schoolchildren decreased from 35.8 percent in 1998 to 11.4 percent in 2003. This situation may reflect the increase in the actual consumption of iodized salt from 23 percent in 1998 to 66 percent in 2003 (NNS 1998 and 2003). In addition, the prevalence of persons with goiter in the country has remained steady at 6.7 percent since 1993 and has not changed up to 2003.

**Table 4.32 Prevalence of Iodine Deficiency Disorder Among Children, Pregnant and Lactating Women Philippines, 1998 and 2003**

Age group	1998		2003	
	Median UIE (ug/dL)	Prevalence of IDD	Median UIE (ug/dL)	Prevalence of IDD
6-12 years old	71	35.8	201	11.4
Pregnant women			142	18.0
Lactating women			111	23.7

Source: National Nutrition Surveys, 1998 and 2003

### Nutritional Risk Factors

Diet interventions among adults are advocated primarily for the control of cardiovascular diseases and diabetes mellitus. For this purpose, awareness and practice on the dietary intake of fat and sugar by adults were determined and data for the lipid and glucose profiles of Filipino adults were reviewed. The 2003 NNS revealed that the mean total cholesterol of Filipino adults was 184.4 mg/dl, which is within normal levels; and the proportion of adults with high cholesterol (level of over 240 mg/dl) was 8.5 percent. The mean fasting blood sugar (glucose) or FBS level of Filipinos was 80.6 mg/dl, which is within normal; and the proportion of adults with FBS level of more than 125 mg/dl was 4.6 percent.

**Table 4.33 Prevalence of Nutritional Risks Blood Examination Parameters Related to Degenerative Diseases in percent Philippines, 1998 and 2003**

Nutritional Risk Blood Examination Parameters	1998	2003
With High Total Cholesterol	4.0	8.5
With High LDL Cholesterol	2.0	11.7
With Low HDL Cholesterol	65.4	54.2
With High Triglycerides	0.8	0.7
With High Fasting Blood Sugar Level	3.9	4.6

Source: National Nutrition Survey, 1998 and 2003

Increasing the intake of fruits and vegetables to reduce the health risk is being promoted. The per capita intake of vegetables has slightly increased from 106 grams per day in 1993 to 111 grams per day in 2003 while the per capita per day intake of fruits has decreased from 77 grams per day in 1993 to 54 grams per day in 2003.

The WHO recommendation is 400 grams of fruits and vegetable per day. Translated, it is equivalent to 3 servings of fruits per day and 2 servings of vegetables per day.

Through a community survey in 2000 (BSNOH), it was found that only 3.1 percent of adults and 6.6 percent of older persons avoided fatty foods and only 2.3 percent of adults

**Table 4.34. Per Capita Vegetables and Fruits Intake per Day  
Philippines, 1987, 1993 and 2003**

Food taken	1987	1993	2003
Vegetable (g/day)	111	106	111
Green and yellow (g/day)	29	30	31
Others (g/day)	82	76	80
Fruits (g/day)	107	77	54

*Source: National Nutrition Surveys, 1987, 1993 and 2003*

and 3.7 percent of the elderly avoided sweets. These data mean that not enough has been done in terms of increasing awareness regarding the correlation of fatty foods and sweets in the development of disease, particularly cardiovascular diseases and diabetes mellitus.

To provide the impetus for improving the nutritional status and reducing nutritional risk factors among the

general population, and specifically among children and mothers, the Philippine Plan of Action for Nutrition (PPAN) was formulated. The PPAN, as the country's blueprint for action for nutrition improvement has five impact programs, namely: home, school and community food production; nutrition education; micronutrient supplementation; food fortification; and food assistance. These impact programs are complemented by other health programs such as immunization, reproductive health and safe motherhood programs, environmental health initiatives and deworming of children.

In addition, the enactment of RA 8976 or the Food Fortification Act of 2000 was a milestone in the mass provision of micronutrients. The law provides for the mandatory fortification of staples like flour with iron and vitamin A, cooking oil and refined sugar with vitamin A and rice with iron and the voluntary fortification of processed foods for the Sangkap Pinoy Seal. Major flour millers and oil refiners are now fortifying their products. The National Food Authority is distributing iron-fortified rice to marginalized population groups. More sugar millers are seeking technical assistance in food fortification. Fifty-six brands of staples have qualified for the Diamond Sangkap Pinoy Seal, and 53 percent of households were found to have purchased at least one product with a Sangkap Pinoy Seal.

The integration of vitamin A distribution with other maternal and child health programs has assured the mechanism for the twice a year single doses of vitamin A capsules for children six months to 71 months old. With adequate Vitamin A supplementation, the risk



of mortality from measles is reduced by about 50 percent, from diarrhea by about 40 percent and overall mortality by 23 percent.

Annually, the performance of local government nutrition and health workers is assessed. The yearly awarding of Consistent Regional Outstanding Winners in Nutrition Awards (CROWN) to LGUs and the Nutrition Honor Award to outstanding barangay nutrition scholars have provided non-monetary incentives to implement local nutrition programs effectively and efficiently.

The availability of iron supplements largely depends on the capability of LGUs to buy the preparations in adequate quantities. The rising prevalence of iron-deficiency anemia among infants deserves a review of the prevalence of iron deficiency among pregnant women, and the procedures for delivery (birthing). Anemia in the newborn may adversely affect his ability to withstand disease and chances for survival. The provision of iron supplements needs serious consideration by local governments and national agencies and non-government partners.

In the meantime, the universal acceptance and compliance to the provisions of the food fortification law will need to be worked out by designated national agencies. The complexities of the food industry such as the existence of strong industry alliances like the sugar block, the rice cartel and the quedan (sugar refiners who do not own sugar) continue to challenge the food fortification law.

Nutrition programs barely consider the increasing need to modify the dietary intake, eating habits and food production priorities to reduce the risk factors for the development of the top causes of death like cardiovascular diseases and diabetes mellitus.

<b>Goals:</b> Protein energy malnutrition and iron deficiency anemia are reduced. Vitamin A and iodine deficiencies are eliminated as public health problems. Obesity among children and adults are controlled. Nutritional risk factors and their health-related effects are controlled.			
National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
The levels of various forms of malnutrition are reduced	Percentage of low birth weight infants	10 percent	12 percent <i>NDHS, 2003</i>



National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Percentage of children underweight for age	Preschool children (0-5 years old): 21.58 percent or less*  Schoolchildren (6-10 years old): 22.64 percent or less	27.6 percent  26.7 percent <i>NNS, 2003</i>
	Prevalence of stunting among children	Preschool children (0-5 years old): 25.36 percent or less  Schoolchildren (6-10 years old): 30.48 percent or less	30.4 percent  36.5 percent <i>NNS, 2003</i>
	Percentage of obese children 0-5 years old schoolchildren adolescents adults	1 percent or less 1 percent or less 3 percent or less 3 percent or less	1.4 percent 1.3 percent 3.5 percent 4.3 percent <i>NNS, 2003</i>
	Prevalence of iron-deficiency anemia (IDA)	Infants (0-11 months old): 41.70 percent Children (1-5 years old): 15.10 percent Children (6-12 years old): 25.50 percent Pregnant women: 38 percent	66.0 percent 29.1 percent 37.4 percent 43.9 percent <i>NNS, 2003</i>
	Prevalence of Vitamin A deficiency (VAD)	Preschool children: 14.90 percent or less Pregnant women: 10.92 percent Lactating women: 15 percent	40.1 percent 17.5 percent 20.1 percent <i>NNS, 2003</i>
	Prevalence of Iodine Deficiency Disorder (IDD)	School children: 0 percent Pregnant women: 0 percent Lactating women: 20.0 percent	11.4 percent 18.0 percent 23.7 percent <i>NNS, 2003</i>
Increase the proportion of children 4-5 months old that are exclusively breastfed	Percentage of children 4-5 months old that are exclusively breastfed	50 percent	16.1percent <i>NDHS, 2003</i>
Decrease the proportion of population below minimum level of dietary consumption	Proportion of population below minimum level of dietary consumption*	46.0 percent	56.9 percent <i>NNS, 2003</i>

National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Mean one-day per capita food consumption	Greater than 886 grams	886 grams <i>NNS, 2003</i>
	Mean one-day per capita energy intake	Greater than 1,905 kcal	1,905 kcal <i>NNS, 2003</i>
	Chronic energy deficiency among pregnant women	20.86 percent	26.6 percent <i>NNS, 2003</i>
Increase the availability of fortified staple goods	Percentage of salt iodization; rice fortified with iron; flour fortified with Vitamin A and iron; sugar fortified with Vitamin A; and oil fortified with Vitamin A	100 percent fortification	90 percent salt iodization and 0 percent fortification of the other staple goods <i>DOH 2004</i>
Reduce nutritional risk factors associated with life-style related diseases	Per capita vegetables intake	160.2 grams/day	111 grams/day vegetable intake <i>NNS, 1998</i>
	Mean one-day per capita salt intake	To be determined	To be determined

### Strategic Thrusts for 2005-2010

- **Strengthen collaboration and partnership among the stakeholders** for health to support the strategies recommended by the Philippine Plan of Action for Nutrition (PPAN). Strengthen partnership with the private sector, civil society and non-government and other stakeholders.
- **Target the nutritionally at-risk and vulnerable.** Priority will be given to areas with high prevalence of undernutrition and micronutrient deficiencies and to children 0-5 years old, adolescent females and pregnant and lactating mothers.
- **Encourage family-driven response to malnutrition.** Families and household members will be recognized as primarily duty bearers of their family's nutrition welfare.
- **Sustain support for local partners.** Program implementors at the local level should be trained and given tools for them to be well equipped for an effective and efficient delivery of services.
- **Increase investments for nutrition** and related services through counterparting or cost sharing with partners and other stakeholders.
- **Integrate nutrition concerns in development of local policies and programs including anti-poverty measures.** Malnutrition is caused by many factors, hence there is a need to integrate nutrition concerns into other sectors and institutions.
- **Enforce, promote and monitor the implementation of existing nutrition laws and ordinances.**

\* Millennium Development Goal Indicator

## *Addictive Substances*

Substance abuse is regarded as the nation's public enemy number one. It is a public health concern, a socio-cultural problem, an economic burden and a peace and order problem rolled into one. It affects many Filipino households from all income groups and geographic origins. Substance abuse predisposes individuals in developing lifestyle-related diseases. Dangerous drugs abuse is a direct and indirect cause of mental illness among the economically productive age group. On the other hand, tobacco smoking is one of the major risk factors in the development of chronic respiratory illness, malignant neoplasm and cardiovascular diseases. Excessive alcohol intake can lead to chronic liver disease and related disorders. Control of substance abuse would create a positive impact on the socio-economic and health outcomes in the country.

### **Drug Abuse**

In 1998, the Dangerous Drugs Board (DDB) estimated that there are about 1.8 million regular users and 1.6 million occasional users of dangerous drugs in the country, that is around 2.5 percent and 2.2 percent of the total population, respectively. The first dangerous drug of choice is methamphetamine hydrochloride or shabu followed by marijuana (BSNOH 2000).

RA 9165 or The Comprehensive Dangerous Drugs Act of 2002 highlighted the responsibility of the DOH in developing policies and standards for the licensing and accreditation of drug testing laboratories, and drug treatment and rehabilitation facilities. The DOH was also given the mandate to train and accredit substance abuse physicians and paramedical workers. As such, the administration of all government-managed drug treatment and rehabilitation centers would be transferred to the DOH. The DDB would retain overall policy and oversight functions while the Philippine Drug Enforcement Agency (PDEA) would be responsible for enforcing all legal provisions related to dangerous drugs.

Under the new law mandatory drug testing are required for: applicants for driver's license; applicants for firearm's license and for permit to carry firearms outside of residence; officers and members of the military, police and other law enforcement agencies; all candidates for public office whether appointed or elected both in the national and local governments; and all persons charged before the prosecutor's office

with criminal offense, having an imposable penalty of imprisonment of not less than six years and one day.

Within two years from the passage of RA 9165, the DOH has shown its capacity and decisiveness to take up the additional mandate. The DDB has approved the rules and regulations for Drug Testing Accreditation, Accreditation Standards and Manual of Operations; the rules and regulations for Treatment and Rehabilitation Center Accreditation; and the corresponding Manual of Operations. The national reference laboratory (NRL) for drug tests was set up at the East Avenue Medical Center. The NRL conducts proficiency tests to drug testing laboratories and provides technical support to the training of drug testing laboratory chiefs (mostly pathologist and physicians) and analysts (medical technologist and chemists) of drug testing laboratories.

The computerized Drug Test Operations Management Information System (DTOMIS) has been implemented since November 2003 to track drug testing results from various laboratories all over the country. In 2004, the DOH managed to upgrade the system and provide better service and present better drug testing data management. According to DTOMIS report in 2004, about 0.14 percent of total clients required for mandatory drug testing are confirmed as positive cases for dangerous drugs abuse. These cases mostly come from NCR, followed by Southern Tagalog, Central Luzon, Western Visayas and Central Visayas. The random drug testing for high school students conducted in 2004 in six regions of the country revealed Davao Region to have 2.94 percent of confirmed positive cases for dangerous drugs abuse followed by NCR at 1.17 percent.

Executive Order 273 series of 2004 mandated the transfer of all government drug treatment and rehabilitation facilities and personnel from the other agencies like the National Bureau of Investigation and the Philippine National Police to the DOH. At the same time, screening of prospective sites for development of Treatment and Rehabilitation Centers in selected regions is in the process. To enhance the regulation of the prescription of dangerous drugs as mandated by RA 9165, the DOH has developed new yellow prescription pads bearing the seal of the DOH. The new pads are carbonized and exhibits new security features not found in the old pads. Related to this, the licensing of physicians for the prescription of regulated drugs is continually implemented by BFAD. All these entail additional resources, services and oversight functions for the DOH.

Limited logistics (personnel and budget) hamper program implementation for prevention and control of dangerous drugs abuse. There is a huge gap in training requirements among frontline regulatory and service provision personnel. The current inter-office task force of about 10 DOH officials needs to be replaced by a regular organization. In addition, there is a need to strengthen cooperation between government agencies with similar interests. Existence of “cartel-like” practices in the drug testing industry can only be addressed by strong competition from the government sector.

### **Tobacco Smoking**

Report from the WHO stated that there is as much as 3.4 percent annual increase in the number of people smoking in developing countries. One-third of the world's total male population smokes cigarettes. Thus, tobacco smoking is really a global concern.

According to the 2003 NNS, 35 out of 100 Filipinos (34.8 percent) are smokers. Despite the concerted anti-smoking campaigns of the DOH and other medical organizations, adult male smokers even increased from 53.8 percent in 1998 to 56.3 percent in 2003. The prevalence for adult female smokers has slightly decreased from 12.6 percent in 1998 to 12.1 percent in 2003.

The Global Youth Tobacco Survey reported that there are approximately four in 10 students aged 13-15 years (42.8 percent in 2000 and 41.9 percent in 2003) in the Philippines who had ever smoked cigarettes (i.e., even one or two puffs). It was also found out that adolescent boys were significantly more likely to have ever smoked than adolescent girls. About one in eight students who had ever smoked took their first cigarette before 10 years of age: 12.9 percent in 2000 and 12.7 percent in 2003.

The spread of the tobacco epidemic is facilitated by a variety of complex factors with cross-border effects, including trade liberalization, foreign direct investment and other activities such as global marketing, transnational tobacco advertising, promotion and sponsorship and the international movement of contraband and counterfeit cigarettes. Negotiations were done under the auspices of the WHO to develop the Framework Convention on Tobacco Control (FCTC), the first public health treaty ever. The FCTC is an evidence-based treaty that reaffirms the right of all people to the highest standard of health and was developed in response to the current globalization of the tobacco epidemic. On September 23, 2003 the Philippines became a signatory to the FCTC and

on February 22, 2005 the Senate Committee on Foreign Relations filed Resolution No. 195 concurring in the ratification of the FCTC.

The FCTC negotiations have unleashed a process that has resulted in visible differences at the country level, foremost of which is the passage of two landmark legislation, RA 9211, otherwise known as the “Tobacco Regulation Act of 2003” and RA 9334 which increases the excise tax rates of tobacco products. As mandated by law, the Inter-Agency Committee (IAC) on Tobacco was created, with the DTI as the Chair and the DOH as vice chair. The IAC is a venue for government agencies to synchronize their efforts in the field of tobacco control and to monitor the implementation of RA 9211. At the DOH level, the Tobacco Control Team (TCT) consisting of offices concerned with tobacco control was created to ensure the implementation of relevant provisions of the law. The WHO continues to support initiatives in tobacco control in the areas of capability building, advocacy and surveillance projects. The FCTC Alliance Philippines is an ally of the DOH in the smoking cessation programs.

On the other hand, inadequate financial and human resources remain the top constraints in the implementation of programs and projects. The tobacco industry is a force to reckon with as far as curtailing the health promotion and advocacy initiatives of the DOH. As a proof of the influence they wield, the tobacco industry, represented by Philip Morris is a member of the IAC. In addition, the TCT was reorganized several times. There appears to be less coordination in so far as integration of all DOH initiatives on tobacco control is concerned. The Centers for Health Development that ideally should be part of the TCT were not aware of central office policies on tobacco control, including the laws.

At the level of the ASEAN, tobacco is included in trade liberalization under the Common Effective Preferential Tariff Schemes in the light of ASEAN Free Trade Area instruments despite the repeated appeals of the DOH to place tobacco in the exclusion list.

### **Alcoholism**

Alcoholic liver disease develops among persons who chronically take alcohol. Alcohol is toxic to the heart and the brain even at moderate amount. Chronic alcohol intake can also predispose a person to develop peptic ulcer disease and cancers and has teratogenic effects on the fetus. Moreover, alcohol intake is identified as one of the factors involved in the commission of crimes and violence in the country.

Alcoholism adversely impact on health. Health facilities cater to the management and treatment of alcohol-related diseases. Rehabilitation centers cater to alcoholic persons who suffer severe behavioral and social conditions. Individuals can participate in the Alcoholic Anonymous, an organization that helps alcoholics in their quest to control their urge towards alcohol.

According to the findings of BSNOH 2000, about 30 percent of adolescents, 46 percent of adults and 22 percent of the elderly in the Philippines are alcohol drinkers. It is more common among males than females. Peer influence (82 percent) and curiosity (17 percent) were the foremost reasons adolescents drink alcoholic beverages.

The prevention and control of alcoholism among Filipinos is still the best form of health service that can be offered to combat this physically, psychologically and economically incapacitating practice. In addition, the imposition of “sin taxes” for alcoholic products is expected to produce a positive impact in the control of alcoholism in the Philippines.

<b>Goals: Prevalence of substance abuse and their health-related effects are reduced.</b>			
<b>National Objectives for 2005 - 2010</b>			
<b>Objective</b>	<b>Indicator</b>	<b>Target</b>	<b>Baseline Data and Source</b>
Prevalence of substance abuse is reduced	Prevalence rate of dangerous drugs abuse among adolescents, adults and older persons	5 percent (adolescents); 7.5 percent (adults); Less than 0.3 percent (older persons)	10 percent (adolescents); 15 percent (adults); 0.3 percent (older persons)  <i>BSNOH, 2000</i>
	Prevalence rate among those required by law to undertake drug testing	0.15 percent (screened); 0.07 percent (confirmed)	0.37 percent screened (+); 0.14 percent confirmed (+)  <i>DTOMIS, 2004</i>
Detection of dangerous drug abuse is increased	Number of person covered for drug testing	At least 3.5 million annual average	2,786,245  <i>DTOMIS, 2004</i>
Rehabilitation and treatment of persons with substance abuse is increased	Number of regional drug treatment and rehabilitation (DTR) centers in the country	13 additional regions	4 regions  <i>DOH, 2004</i>
	Percentage rate of admission to DTR centers	Annually increase by at least 3 percent	To be determined



National Objectives for 2005 - 2010			
Objective	Indicator	Target	Baseline Data and Source
	Percentage rate of DTR completion	To be determined	To be determined
	Number of smoking cessation clinics established in public and private facilities	72 DOH retained hospitals; 60 percent of provincial hospitals; 60 percent of CHOs and MHOs; and 50 percent private hospitals	72 DOH retained hospitals; 0 provincial hospitals; 0 CHOs and MHOs; and 0 private hospitals  <i>DOH, 2004</i>

Strategic Thrusts for 2005-2010
<ul style="list-style-type: none"> <li>• <b>Develop and promote education and advocacy campaigns</b> to reduce the demand for dangerous drugs, tobacco and alcohol and increase awareness of the population about the adverse effect of their usage.</li> <li>• <b>Enhance the regulatory functions</b> exercised by the Bureau of Health Facilities and Services and the Bureau of Food and Drugs with regard to dangerous drugs.</li> <li>• <b>Pursue drug testing in schools and workplace.</b> Under this thrust the drug testing of high school and tertiary level students nationwide (baseline) and evaluation survey in 2010 will be accomplished. The drug testing in schools and in the workplace will be institutionalized as provided for by law and locally produced drug testing kits will be developed to make it more affordable.</li> <li>• Transfer of NBI treatment and rehabilitation centers (TRCs) to DOH, supervise TRCs operated by the PNP, <b>develop a model DOH-TRC with integration of mental health services and establish TRCs in regions where there are none.</b></li> <li>• <b>Maintain and manage the Integrated Drug Testing Operations and Management Information Systems.</b> Establish data management systems to determine the magnitude of substance abuse and to monitor yellow prescription pads and rehabilitation services among others.</li> <li>• <b>Establishment of smoking cessation clinics</b> in public and private facilities.</li> </ul>

# 5 FORGING PARTNERSHIPS IN HEALTH

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The health system consists of all activities whose primary purpose is to promote, restore or maintain health (WHO 2000). It is the combination of health care institutions, supporting human resources, financing mechanisms, information systems, organizational structures that link institutions and resources, and management structures that collectively culminate in the delivery of health services to patients (Lassey et al 1997). To achieve such ends the health system has to carry out the following functions:

**Service Provision.** Service provision involves the delivery of relevant and acceptable package of health care to the population. The package of health service should cater to both personal and non-personal health care needs. In addition, such services should be of quality and made accessible to all.

**Resource Generation.** Resource generation involves investment in people, facilities and equipment that are necessary in the efficient and effective delivery of health services.

**Financing.** Financing relates with raising, pooling and allocating revenues to purchase health goods and services.

**Stewardship.** Stewardship ensures that the benefits go to the entire population. It determines and acts towards the correct mix of resources and level of financing that, in turn, produces the appropriate types of services that yield desired health outcomes.

The Philippine health system strives to perform all these functions. Similar to other health systems, it is complex and dynamic, consisting of various stakeholders: the DOH, as the lead government agency for health, LGUs, other government agencies, international partners, academic community, professional organizations, civil society and even individuals and families. The system is in a continuing state of reform, constantly adjusting to fundamental changes that resulted from the devolution of health services and the expansion of social health insurance in the country in the 1990s. It is also evolving to respond to several socio-economic, political and cultural developments at the local and global levels.

The attainment of national health goals in this complex and dynamic system has significantly progressed given a well-defined, commonly-shared vision and framework for health and better harmonization of efforts among the various stakeholders. Harnessing and forging a stronger partnership gives the necessary synergy to reach the shared vision of improved health. Sustaining partnerships and fostering harmony, while a complex process, is possible. This entails conscious efforts among all stakeholders of making partnership work for everyone's gain. Such partnership should be firmly rooted in these basic principles:

**Multi-sectoral.** Health is not an exclusive domain of actors in the health sector. Participation of other sectors in health initiatives is crucial and necessary in achieving desired health outcomes. Good coalition building with other sectors should be sustained in order to deliver necessary services across target beneficiaries. While formal and non-formal linkages exist among stakeholders, there is a need for a common framework that illustrates the system and structure of governance and health leadership.

**Inclusive.** Partnership in health should encompass all stakeholders. Institutions and organizations, no matter how large and complex or simply focused on only one aspect of health, as well as individuals regardless of their socio-economic, religious and ethnic background, have strengths or comparative advantages that they can contribute towards the betterment of health in the Philippines.

**Performance-based.** Specific performance indicators and contributions of partners need to be agreed upon for more focus and greater efficiency. Commitments to health goals and objectives are measurable not only through signed documents of commitment but by the resources put into it and by the outcomes and impacts they produce.

**Empowering.** Health, for most Filipinos, is a personal matter. Illness and medical care can threaten a person's dignity. People become vulnerable because of their inability to control the resultant effects of an illness or injury. To address this issue, partnership in health should abide by the principle that health systems have the responsibility of ensuring that people are treated with respect and in accordance with human rights. In essence, the partnership should enable each person to make choices with regard personal health. An empowered individual will make the best decision regarding such matter.

# Partners in Health

## Department of Health

As the lead government agency for health, the DOH carries out the critical function of being the steward of the health sector. “Good stewardship involves setting of health policies, regulation, monitoring and evaluation and exerting influence over the whole sector” (WHO 2000). As a good steward, the DOH constantly works for an environment that is conducive to collaboration, striving to open channels among all members of the health sector for collaborative activity.

The implementation of the 1991 Local Government Code had changed the health service delivery functions and responsibilities of the DOH. As enunciated in the Organizational Performance Indicators Framework (DOH 2000 and 2006), the DOH has to perform these essential functions as “servicer of servicers”:

- 1) Development of health policies and programs;
- 2) Enhancement of partners' capacity through technical assistance;
- 3) Leveraging performance for priority health programs among these partners;
- 4) Development and enforcement of regulatory policies and standards;
- 5) Provision of specific programs that affect large segments of the population; and
- 6) Provision of specialized and tertiary level care.

As a result of mandated policy shift, the Department's constituency has shifted from the level of “individuals” to “partners” for health such as LGUs, development partners, NGOs, POs, and civil society (Reengineering for Reforms 2000). The DOH specifically works hand in hand and ensures commitment of support to health initiatives coming from the LGUs. Such scheme ensures the synchronicity of local health programs with the national health goals. The DOH highly recognizes local government autonomy which could fuel innovative health program interventions from local partners.

## Local Government Units

Under a devolved setting, the LGUs also serve as stewards of the local health system and therefore they are required to formulate and enforce local policies and ordinances related to health, nutrition, sanitation and other health-related matters in accordance with

national policies and standards. They are also in charge of creating the environment conducive for establishing partnerships with all sectors at the local level.

The primary responsibility of the LGUs and its constituent local partners however is on the direct provision of health services. Service provision entails the efficient generation and utilization of three principal resource inputs: human resources, physical capital, and consumables (WHO 2000). Human resource input relates to necessary knowledge and skills transfer to and among health workers complemented by effective personnel motivation tools. Physical capital in health provision pertains to infrastructure necessary in order to deliver the service, be it facilities, equipment and devices. Consumables, on the other hand, pertain to commodities that are vital components of health related interventions, such as drugs, medicines and syringes. Nonetheless, resources can also include expenditure items that have no direct correlation with clinical care. These may be in the form of buildings, vehicles, information materials and other items that are incidental in delivering health and health-related services. Essentially, LGUs are concerned with the following:

- 1) Provision of promotive, preventive, curative and rehabilitative health programs and services;
- 2) Operation and maintenance of health facilities; and
- 3) Establishment of management support systems that will enhance the provision of services.

In the provision of these services, LGUs must ensure that funds are available to undertake all essential health activities. All of the abovementioned inputs have corresponding money values, which are borne by both public and private sources. The sources may be the national government, the LGUs themselves through their Internal Revenue Allotment and other sources. In general, these sources answer for the annual spending for health of the LGUs.

### **Other National Government Agencies**

The DOH works with other agencies of government in achieving optimum positive health outcome. Inter-agency partnerships affect the widest cross-section of health beneficiaries. Of all the line agencies in the executive branch of government, the DOH interrelates most with the following: Department of Social Welfare and Development

(DSWD), Department of Interior and Local Government (DILG), Department of Labor and Employment (DOLE), Department of Education (DepEd), and National Anti-Poverty Commission (NAPC). Inter-agency coordination is also forged with the Department of Budget and Management (DBM), Department of Finance (DOF) and National Economic and Development Authority (NEDA). Each agency mentioned has its own competencies and resources that contribute to the effective and efficient delivery of health services. Partnerships between the DOH and these agencies are crucial most especially in the light of health sector reform.

### **Congress of the Philippines**

The appropriation and allocation of government budget are within the purview of legislative power. Although funding for health operations at the national and local levels receives priority attention from Congress, the challenge is to bring necessary health and health-related programs to the attention of policy-makers. This is where partnerships with senators and congressmen become crucial. Moreover, many of the efforts in Philippine health reforms necessitate the enactment of enabling laws. Thus, to ensure that health legislations are supportive of health sector priorities, Congress opens its doors to operative networks and cooperation venues with DOH and other stakeholders in the health sector. DOH officials and technical staff are invited to participate in public hearings on health and health related legislative bills. On the other hand, legislators and their staff take part in cooperative activities that are facilitated by DOH in order to foster strong alliances. These types of undertakings ensure synchronicity between health laws and health sector priorities.

### **International Organizations**

The assistance of international organizations to the health sector mostly come in the form of grants, loans and technical assistance. For example, a number of infrastructure projects as well as capability building activities for health workers are undertaken through the assistance of international donors and partners. At present, a sector development approach for health (SDAH) between the government and international development partners is being initiated to ensure generation of necessary resources and optimization of investments to move the Philippine health sector forward.

## **Academic and Research Institutions**

Academic and research institutions have been steady partners of the DOH. The necessary knowledge in health service provision sometimes cannot be derived from practice. The pragmatic aspect of learning should also be coupled with the application of accepted principles and theories. Such type of learning can only emanate from partnerships with the academe and research community. Partner institutions can provide evidence through researches and studies that can serve as basis for informed decisions and sound health policies. Also, such partnerships provide opportunities for transfers of technology from both local and international knowledge sources.

## **Non-Government Organizations (NGO), People's Organizations (PO), and Socio-Civic Groups**

NGOs and POs have assumed a broad role in health service delivery through program development, management, policy advocacy and local service delivery. NGOs in the country represent a great force and resource in terms of reaching underserved populations and extending coverage in high-risk areas. Maximizing their potential through different partnership arrangements will answer the issue of limited government resources. These groups have the capacity to organize and mobilize communities and therefore can serve as good advocates of health programs and direct providers of services especially in areas where government personnel and services are inadequate.

## **Media**

Media plays an important role in echoing national programs across the population. The most important aspect of health promotion is ensuring that health information are both collected and disseminated with the widest reach. Such end is achievable only through strong partnership with media entities. In certain situations, the DOH derives feedback from the field and vice versa through monitored reports by the media. Effective media relations are necessary for the health sector to cope up with the dynamism of health service provision.

## **Private Partners**

A major portion of health services in the country is privately provided. Business and industry's role are generally on the production of health goods and services for use by health providers and consumers. As such, one of their crucial responsibilities is to



produce goods and services based on standards set by the government and ensure product safety for all patients and consumers. They also contribute to the protection of health by providing safety measures in work places and maintaining a healthy environment for their workers. Direct private providers of care such as health and allied professionals have the responsibility of providing a whole spectrum of frontline services ranging from promotive and preventive to curative and rehabilitative health services. Thus, forging public-private partnerships are crucial elements in health sector development and in attaining better health outcomes.

### **Individuals and Families**

Individuals and families are key partners in the health sector as they remain largely responsible for ensuring their own personal health as well as maintaining healthy homes and communities. Seeking health services when one needs it most starts with the individual and the family. Practicing healthy lifestyle and healthy habits also rest with them. For these reasons, they are the most crucial partners and stakeholders in attaining the country's health goals.

# Managing Effective Partnerships

For partnership in health to work and be sustainable, there are fundamental building blocks: a more facilitative and enabling environment need to be fostered; institutional support systems have to be in place; and a spirit of trust and commitment needs to be encouraged to enhance the full potential of all partners. Only then can there be synergy of efforts to attain common goals.

## **Environment Conducive to Collaboration**

A supportive and nurturing environment is central to managing and sustaining partnership. This calls for the effective exercise of the leadership and stewardship role by the Department of Health for a wide array of actors and players under a fully decentralized setting. Moreover, a conducive and level playing field can come about upon the articulation of a sound and comprehensive policy framework with clear strategic directions. Such directions should be supported with a comprehensible set of programs and projects which can be operationalized at various levels. This environment should generate buy-in and create a sense of belongingness and involvement of everyone in the health sector for effecting system-wide changes.

## **Effective Support Systems**

Achieving mutual goals and outcomes entails that all partners agree on and operate within a common set of management support processes that will make working together more efficient. This includes systems and operating procedures for program and project management, financial and logistics management, sharing of information through updated and relevant information database as well as clear reporting and feedback mechanisms. A functional monitoring and evaluation system linked to performance and incentives will further ensure attainment of these mutual goals.

## **Trust and Commitment among Partners**

The potential of partnership is limitless particularly if partnership is anchored on trust. Trust and commitment among partners can be fostered through sharing of resources and responsibilities as well as complementation of efforts - from planning, development of goals, setting of strategies to evaluation of progress. Such sharing arrangement is

essentially grounded in open communication and continuing interpersonal processes particularly in a sector-wide context.

Collaboration and shared responsibilities have brought about welcome developments in health care delivery. However, all efforts should consider the dynamism of the health sector and of the broader and wider socio-political and economic arena. Headways achieved should serve as inspirations, guideposts or milestones towards realizing the most responsive health system that the country can ever have. All positive efforts are to be relentlessly fostered and nurtured to realize sustained Health for all Filipinos as enunciated in this National Objectives for Health.

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