NATIONAL IMMUNIZATION PROGRAM
MANUAL OF OPERATIONS

BOOKLET 1

Introduction

CHAPTER 1

The National Immunization Program

Cover Photo from DOH Regional Office I

Manual of Operations

NATIONAL IMMUNIZATION PROGRAM

Department of Health

In collaboration with the
World Health Organization

Foreword

The Expanded Programme on Immunization (EPI) is one of the pioneering programs of the Department of Health (DOH). Just two years after the World Health Organization established the program in 1974, the Philippines followed, establishing free vaccination against six common diseases.

Through the program, we have protected millions of Filipino children from deaths and disability from vaccine-preventable diseases. Immunization has also been crucial in achieving public health milestones, such as sustaining our polio-free status since year 2000 and eliminating maternal and neonatal tetanus in the country in 2017.

What was then the EPI is now the National Immunization Program (NIP). Now, we have almost doubled the number of vaccines in routine childhood immunization. We have expanded vaccination to the adolescent and adult age groups. More vaccines are also set to be offered.

Challenges come along with the expansion; foremost of which is ensuring that our health workers remain equipped with knowledge and standard procedures in carrying out immunization activities. As the NIP continues to expand, it is an opportune time that we are releasing an updated version of its Manual of Operations. I urge all our health workers to make the best use of this Manual as your guide in delivering immunization quality services. Your confidence in carrying out your duties contributes immensely to the building of public trust in the immunization program and in our health system. Building and maintenance of public trust is of utmost importance for immunization, where distrust results to hesitancy, and increasing hesitancy also increases the risk for spread of diseases and the deaths and disabilities which otherwise could have been prevented.

Immunization gives the Filipino children a good start at life and maintains good health as they progress to productive adults. With competence and compassion, let us continue delivering excellent health services such as immunization to Filipinos.

Secretary Francisco T. Duque III, MD, MSc
Secretary of Health
Department of Health, Philippines

Acknowledgements

The National Immunization Program (NIP) Manual of Operations comprehensively covers updates in the 20 years since the last publication of a similar reference material. The Manual is a result of successful collaboration of the Department of Health with its partners.

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Abbreviations and Acronyms

ADS	Auto-disable Syringe
AEFI	Adverse Events Following Immunization
AFP	Acute Flaccid Paralysis
BCC	Behavior Change Communication
BCG	Bacille Calmette Guerin
BHS	Barangay Health Station
BHW	Barangay Health Worker
BNS	Barangay Nutrition Scholar
CCT	Conditional Cash Transfer
CESU	City Epidemiology Surveillance Unit
CFR	Case Fatality Rate
CHO	City Health Office
CIC	Completely Immunized Child
CMYP	Comprehensive Multi-Year Plan
CPAB	Child Protected at Birth
CRS	Congenital Rubella Syndrome
CSF	Cerebrospinal fluid
cVDPV	Circulating Vaccine-Derived Polio Virus
DHMT	District Health Management Team
DOH	Department of Health
DOTS	Directly Observed Treatment Short-Course
DPT	Diphtheria, Pertussis, Tetanus
DRU	Disease Reporting Unit
DSO	Disease Surveillance Officer
DTP	Diphtheria, Tetanus, Pertussis
DTTB	Doctors to the Barrio
EB	Epidemiology Bureau
EPI	Expanded Program of Immunization
ESU	Epidemiology and Surveillance Unit
FDA	Food and Drug Authority
FEFO	First Expiry, First Out
FGD	Focus Group Discussion
FHO	Family Health Office
FHSIS	Field Health Service Information System
FIC	Fully Immunized Child
GIDAs	Geographically-Isolated and Depressed Areas
HC	Health Center
HepB	Hepatitis B
Hib	*Haemophilus influenza* Type b
HIV	Human Immunodeficiency Virus

HPCS	Health Promotion and Communication Services
HPV	Human Papilloma Virus
IATA	International Air Transport Association
ID	Intradermal
IEC	Information, Education and Communication
IM	Intramuscular
IPCC	Interpersonal Communication and Counseling
IPV	Inactivated Polio Virus
ITD	Intratypic Differentiation
JE	Japanese Encephalitis
KAP	Knowledge, Attitude and Practice
KII	Key Informant Interview
KRA	Key Result Area
LAIV	Live Attenuated Influenza Vaccine
LGC	Local Government Code
LIDs	Local Immunization Days
MDR	Morbidity Disease Report
MESU	Municipal Epidemiology Surveillance Unit
MHO	Municipal Health Office
MMR	Measles, Mumps, Rubella
MNT	Maternal and Neonatal Tetanus
MOP	Manual of Operations
MR	Measles-Rubella
MV	Measles Vaccine
NAEFIC	National Adverse Events Following Immunization Committee
NAS	Intranasal
NCDPC	National Center for Disease Prevention and Control
NDHS	National Demographic Health Survey
NDP	Nurse Deployment Program
NESSS	National Epidemiology Sentinel Surveillance System
NIC	National Immunization Committee
NIDs	National Immunization Days
NIP	National Immunization Program
NPEV	Non-polio Entero-Virus
NPRL	National Poliovirus Reference Laboratory
NT	Neonatal Tetanus
OPD	Out-Patient Department
OPV	Oral Polio Vaccine
PCV	Pneumococcal Conjugate Vaccine
PD	Presidential Decree

PENTA	Pentavalent Vaccine
PESU	Provincial Epidemiology and Surveillance Unit
PHN	Public Health Nurse
PIDSR	Philippine Integrated Disease Surveillance and Response
PIR	Program Implementation Review
PO	Per Orem
PPV	Pneumococcal Polysaccharide Vaccine
RA	Republic Act
REB	Reaching Every Barangay
REP	Reach Every Purok
RESU	Regional Epidemiology and Surveillance Unit
RHU	Rural Health Unit
RITM	Research Institute for Tropical Medicine
RO	Regional Office
RRL	Regional Reference Laboratory
SC/SQ	Subcutaneous
SCID	Severe Combined Immuno-Deficiency Disease
SIA	Special Immunization Activity
SM	Social Mobilization
SNIDs	Sub-national Immunization Days
SWOT	Strength-Weakness-Opportunity-Threat
Tb	Tuberculosis
TBAs	Traditional Birth Attendants
TCL	Target Client List
Td	Tetanus diphtheria
TT	Tetanus Toxoid
TWG	Technical Working Group
UNICEF	United Nations Children Fund
VAPP	Vaccine-Associated Polio Paralysis
VPD	Vaccine-Preventable Disease
VVM	Vaccine Vial Monitor
WHO	World Health Organization
WPV	Wild Polio Virus

Definition of Terms

Active Immunity This is formed by stimulation of the immune system producing cellular and antibody immunity.

Adverse Event Following Immunization A medical event or incident that takes place after an immunization, but is not necessarily caused by immunization.

Advocacy Gaining and maintaining the support of political leaders, opinion leaders, and other decision-makers; for example, by making presentations and producing an information packet that describes the burden of hepatitis B disease and how this audience can support efforts to reduce it.

Anaphylaxis A severe hypersensitivity reaction that can be fatal if not given immediate medical attention and an absolute contraindication to subsequent doses of a vaccine.

Auto-Disable Syringe This is the equipment of choice for administering vaccines, both in routine immunization and mass campaigns. It is widely available at low cost and presents the lowest risk of person-to-person transmission of blood-borne pathogens (such as HepB or HIV) because it cannot be reused.

BCG vaccine BCG vaccine protects infants against tuberculosis. The letters B, C, G stand for Bacillus Calmette-Guérin. Bacillus describes the shape of a bacterium while Calmette and Guérin are the names of the people who developed the vaccine.

Behavior Change Communication (BCC) Encourages actions among target populations that directly support more effective immunization coverage and disease control; for example, providing information, motivation, and job aids so that health workers will treat parents with respect, give information clearly, and encourage parents to bring children for vaccinations as soon as they are due.

Catch-up Campaigns Catch-up campaigns are necessary to provide second opportunity for those who missed immunization and those who were immunized but failed to develop immunity. These are conducted during a period of several days or weeks over wide geographic areas.

Cold Chain The system used for keeping and distributing vaccines in good condition is called the cold chain. The cold chain consists of a series of storage and transport links, all designed to keep vaccines within an acceptable temperature range until they reach the user.The cold chain is a system of transporting vaccines within the recommended temperature range: (+2 °C to +8 °C for body, -15 °C to – 25 °C for freezer).

Communication Communication is the purposeful activity of information exchange between two or more participants in order to convey or receive the intended meanings through a shared system of signs, words, sounds and behaviors.

Control The reduction of disease incidence, prevalence, morbidity or mortality to a level that is locally acceptable as a result of deliberate efforts. Continued intervention measures are required to maintain the reduction.

Diphtheria A bacterial infection caused by Corynebacterium diphtheriae. The infection can involve almost any mucous membrane, but the most common sites of infection are the tonsils and pharynx.

DPT-HepB+Hib Combination Vaccine (PENTA) Vaccine that protects against five diseases: diphtheria, tetanus, and pertussis, hepatitis B, and Haemophilus *influenzae* type b.

Elimination Reduction to zero of the incidence of a specified disease in a defined geographical area as a result of deliberate efforts. Continued intervention measures are required.

Eradication The extinction of the pathogen that causes the infectious disease in question. Eradication is the reduction to zero of the worldwide incidence of infection caused by a specific agent, the complete interruption of transmission and the extinction of the causative agent so that it no longer exists in the environment. Hence, intervention measures are no longer needed. However, so long as a single member of the species survives, eradication has not been accomplished.

Evaluation The periodic assessment of the relevance, effectiveness and impact of the NIP in the light of its goals, objectives and strategies. Evaluation of outcomes and impact is needed to document periodically whether defined strategies and implemented activities lead to expected results. While monitoring is a continuous process, evaluation is conducted only intermittently.

Field Monitoring Visits Undertaken by NIP Program Coordinators and other partners at various levels of operations. Data are collected by conducting monitoring visits to selected health facilities by the national/ regional/provincial monitoring team.

Focus Group Discussions These are in-depth discussions, usually lasting one to two hours, in which six to ten representatives of a target audience talk about their experiences, attitudes, perceptions and feelings regarding a focused topic under the guidance of a facilitator. Participants are purposefully selected, for example, because they are mothers of fully immunized children or fathers of drop-outs.

***Haemophilus influenzae* type b Disease** *Haemophilus influenzae* type b, or Hib, is the most common cause of bacterial meningitis in children under five years of age. Diagnosis of Hib pneumonia is difficult, so efforts to identify Hib cases focus on bacterial meningitis.

Hepatitis B Hepatitis B is a viral infection of the liver. Acute infection either resolves or progresses to chronic infection, which may lead to cirrhosis or liver cancer several decades later.

HepB vaccine HepB vaccine is a cloudy liquid that is provided in single or multi-dose vials or in prefilled auto-disable (AD) injection devices. Because the HepB vaccine contains only one antigen, it is called a monovalent vaccine.

High Risk Purok <90% of children with cards have complete immunization OR >80% have no card.

Human Papilloma Virus The most common sexually transmitted infection which infects the skin and mucous membranes of the genital areas of men and women. Forty types have been consistently associated with genital warts and cancer of the cervix, vulva, vagina, penis, anus, head, neck and respiratory tract.

Human Papilloma Virus (HPV) vaccine HPV vaccine is used for prevention of ano-genital warts, cervical, vulvular, vaginal and anal cancer and penile intraepithelial neoplasia.

Immunity The protection from disease through the formation of antibodies.

Immunization The process whereby a person is made immune or resistant to an infectious disease, typically by the administration of a vaccine. Vaccines stimulate the body's own immune system to protect the person against subsequent infection or disease.

Inactivated Vaccines Produced by growing the bacteria or virus in culture media which are then subjected to heat or chemical agents. In fractional or subunit form of these vaccines, organisms are treated to be able to derive those components needed to produce the vaccines. Both inactivated or subunit preparations must contain sufficient antigenic mass to stimulate desired response since it is incapable of replicating inside the host.

Influenza Influenza is caused by a virus that attacks mainly the upper respiratory tract – the nose, throat and bronchi and rarely also the lungs. The infection usually lasts for about a week.

Influenza Vaccine The influenza vaccine, also known as flu shot, is an annual vaccination using a vaccine that is specific for a given year to protect against the highly variable influenza virus.

Injection safety The safe handling of all injection equipment, routine monitoring of the availability and use of safe injection equipment, and correct disposal of contaminated injection equipment (injection equipment reused in the absence of sterilization and that have been associated with infection such as Hepatitis B and C virus and HIV).

Japanese Encephalitis Japanese encephalitis (JE) is caused by a virus carried by mosquitoes. It is found in Asia, Pacific Islands and Northern Australia. JE is the most important form of viral encephalitis in Asia, causing an estimated 15 000 deaths in 2001, mostly among children.

Live Attenuated Vaccines Derived from wild viruses or bacteria which are modified or weakened in laboratories. Immunity is elicited by replication of the attenuated organism in the vaccinated person. The immune response to a live attenuated vaccine is identical to that induced by natural infection.

Low Risk Purok >90% of children with cards have complete immunization.

Master List A master list is very useful when there are uncertainties about the true number of children in a purok, and when their true immunization status is not known.

Measles Measles is characterized by a variety of symptoms, including 3C's cough, coryza (runny nose), conjunctivitis, fever, rash, ear infections, and brain inflammation.

Measles-Rubella (MR)/Measles-Mumps -Rubella (MMR) Combination Vaccines In the Philippines, the NIP uses combination vaccines for measles and rubella (MR) or for measles, mumps, and rubella (MMR). MR and MMR vaccines are provided in powder form with diluents and must be reconstituted before they can be used.

Monitoring The systematic and continuous process of examining data, procedures and practices.

Mop-up Strategies Strategy used occasionally when control activities have succeeded in reducing the incidence of disease and in containing the disease geographically, but some children still remain unreached.

Multi-Dose Vial Policy All opened WHO-prequalified multi-dose vials of vaccines should be discarded at the end of immunization session, or w/n 6 hours from opening, whichever comes first. UNLESS the vaccine meets the criteria, the opened vial can be kept and used for up to 28 days after opening.

Mumps Mumps, sometimes called infectious parotitis, is an infection caused by a virus, affecting primarily the salivary glands. Mumps is mostly a mild childhood disease, often affecting children between 5-9 yrs. old.

Passive Immunity Passive immunity is acquired through the administration of products derived from human or animals providing short-term protection, usually a few weeks or months.

Pertussis Also called whooping cough, is a highly contagious, acute bacterial disease affecting the respiratory tract.

Pneumococcal Conjugate Vaccine (PCV) Contains serotypes 1, 3, 4V, 5, 6A, 6B, 7, 9F, 14, 18, 18C, 19A, 19F and 23F. For adults aged >50 years old. Not approved for those between ages 6-49 years old.

Pneumococcal Disease An infection caused by the Streptococcus pneumoniae (S. pneumoniae) bacterium, also known as pneumococcus. Infection can result in pneumonia, infection of the blood (bacteremia/sepsis), middle-ear infection (otitis media), or bacterial meningitis.

Pneumococcal Polysaccharide Vaccine (PPV) Contains serotypes 1, 2 , 3, 4, 5, 6B, 7F, 8, 9N, 9V, 10A, 11A, 12F, 14, 15B, 17F, 18C, 19A, 19F, 20, 22F, 23F and 33F. For children above 2 years of age and adults >50 years old.

Pneumococcal vaccine A vaccine against Streptococcus pneumoniae. Types include: pneumococcal polysaccharide vaccine and pneumococcal conjugate vaccine. It is on the WHO's List of Essential Medicines, a list of the most important medication needed in a basic health system.

Polio A disease of the central nervous system caused by three closely related polioviruses: types 1, 2, and 3.

Polio Vaccine Protects against the virus that causes polio. Two polio vaccines, vaccines against poliomyelitis (polio), are used throughout the world to provide immunity to poliovirus. One uses inactivated (dead) poliovirus and the other uses attenuated (weakened) poliovirus.

Qualitative Methods Focus group discussions (FGDs) and in-depth interviews, which you can use to discover reasons why people act as they do. The methods selected depend on the nature of the questions to be answered and the type of respondents.

Quantitative Methods Quantitative data are useful for decision-makers in taking action and in providing baseline for evaluating results. These methods are helpful in prioritizing causes and calculating the scope of problems identified through qualitative methods An example of quantitative method is a knowledge, attitude, and practice (KAP) survey.

Reaching Every Purok (REP) Strategy A Strategy first introduced in 2013 as the next step after the Reaching Every Barangay (REB) Strategy in responding to continued significant immunity gaps among disadvantaged puroks or sitios in a barangay.

Rotavirus A leading cause of severe diarrhoeal disease and dehydration in infants and young children throughout the world.

Rotavirus vaccine Protects children from rotaviruses, which are the leading cause of severe diarrhea among infants and young children.

Rubella An infection caused by a virus. Congenital rubella syndrome (CRS) is an important cause of severe birth defects.

Safety Box Use to prevent risk of infection to you as service providers and the community at large, the safe disposal of used needles and syringes is a critical component of any immunization program. Injection equipment should be discarded immediately after use.

Shake Test It is performed if the vaccine indicates exposure to sub-zero temperatures, or if you suspect that a freeze-sensitive vaccine (PENTA, IPV, Td and Hep B vaccine) has been frozen.

Social Mobilization (SM) A process of gaining and maintaining the involvement of a broad range of groups/sectors (e.g. holding a series of meetings with representatives of private companies, other government agencies, and NGOs to discuss how they can support polio eradication as well as routine immunization). Social mobilization also includes mobilizing the public to participate in immunization activities.

Supervisory visits Visits organized and undertaken by a designated supervisor (usually the nurse) to the frontline immunization service providers giving focus on their performance and providing them with the necessary counseling, guidance in improving their performance.

Supplemental Immunization Strategies Used to reach children who have not been vaccinated or have not developed sufficient immunity after previous vaccinations.

Supportive Supervision A process that promotes sustainable and efficient program management by encouraging two-way communication between health providers and supervisors, employing a participatory approach in problem-solving and decision-making.

Target Client List A basic recording tool which is very important in monitoring and reporting different community health programs.

Tetanus A common cause of neonatal and maternal mortality whenever maternal protection with tetanus toxoid is low and proper umbilical cord care practices are not followed. Tetanus, also known as lockjaw, is caused by a bacillus (*Clostridium tetani*) that is present in the soil and in animal and human feces.

Tetanus Diptheria (Td) Vaccine Td, or tetanus-diphtheria toxoids adult dose vaccine, is the same vaccine as Dt, but with a lower diphtheria toxoid dose. It is suitable for children > 5 years old and adults, including pregnant women. Td has the added advantage of protecting against diphtheria and tetanus.

Tuberculosis An infection caused by *Mycobacterium tuberculosis*. It usually attacks the lungs, but other parts of the body can also be affected, including the bones, joints, and brain.

Vaccination Derived from “vacca,” the Latin word for the cowpox virus used in 1796 by Edward Jenner, a British physician to prevent smallpox. He inoculated a young boy with a relatively harmless disease material to protect him from a more dangerous disease and called the process “vaccination.” Since then, vaccination has become one of the most important preventive health interventions of all time.

Vaccine Preventable Disease Surveillance A process of systematic collection, consolidation, analysis, interpretation and dissemination of data on VPDs for policy development, guidelines formulation, decision making, planning for public health intervention, advocacy and health promotion, program implementation and program monitoring, assessment and evaluation.

Vaccine Vial Monitor (VVM) An essential tool in cold chain management. It indicates if the vaccine has passed the discard point.

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A. Background of the National Immunization Program (NIP)

The last version of the Manual of Operations (MOP) for the Expanded Program on Immunization (EPI) was issued in 1995. As a reference, it guided health workers to deliver immunization services based on national protocols and standards. It also helped EPI managers and supervisors coordinate different program components at various levels of the health system.

EPI eventually became the National Immunization Program (NIP), which covered wider segments of the population. To date, the NIP provides immunity against 14 vaccine-preventable diseases (VPDs) from only six in 1976. It expanded its population coverage beyond infants and pregnant women to include school children, adolescents/youth, senior citizens and those in special situations. Advances in immunization technology resulted in safer vaccination equipment and use of combined vaccines which are easier to administer. The national government budget for NIP increased from PhP 3 million in early 2000 to almost Php 4 billion in 2016.

B. Purpose and Objectives of this Manual

This MOP will guide the design, implementation and monitoring of the NIP at various levels of administration. Specifically, it aims to:

1. Explain the rationale and foundation of the NIP's design, development and implementation as an effective public health intervention in preventing illness and death;
2. Define the package of good-quality immunization services for specific segments of the population to ensure increased and sustained immunity against common VPDs;
3. Describe the strategic approaches to increase access to immunization services in the country and the principles, key features, guides and steps which can be used or adapted locally;
4. Specify the support management systems, key elements, accompanying forms and tools to implement the NIP; and
5. Provide essential information on the various components of the NIP that can be used to develop training modules, communication and advocacy materials, plans and other technical products.

C. Intended Users of the Manual

This MOP is primarily designed and developed for use by the following:

- Public and private sector Immunization service providers offering vaccinations in any health care facility at various levels of health care: hospitals, Rural Health Units (RHUs)/Health Centers, lying-in/birthing clinics and in other strategic facilities like Barangay Health Stations (BHS)/health center in school campuses and outreach posts, among others;
- Local Immunization Program Coordinators at province, city and municipal levels;
- Department of Health (DOH) National and Regional Immunization Program Coordinators including other concerned DOH offices and units (surveillance, health promotion and communication, procurement service, and reference laboratories, among others); and,
- Local, national and international development partners (like professional societies, NGOs and donors).

D. Scope and Limitation

This Manual has 10 chapters.

The first four chapters give a background and brief history of the NIP. They also summarize the different vaccine-preventable diseases (VPDs) in the country and the vaccines for these VPDs.

Chapters 5 to 10 deal with the specific components of the NIP. They provide details on the principles/rationale, procedures, steps and tools to be used. Each chapter describes the rationale, objective, scope and coverage of the NIP component. At the end of each chapter are annexes (forms, templates and other materials) related to the procedures described.

This Manual does not contain a chapter on Cold Chain Management. This will be contained in a separate Manual. All readers and users of this Manual are encouraged to refer to the revised Cold Chain Management Manual.

This Manual will serve as a general reference on the basic principles for adapting the NIP approaches and components to each locality or area of assignment. Users are encouraged to refer to the reference documents referred to in various chapters of this Manual.

E. Overview of the Manual Contents

The contents of this Manual were sourced from:

- DOH administrative orders, policies and guidelines issued related to the EPI and NIP. These include documents related to the administration of newly-introduced vaccines, the Reach Every Purok (REP) strategy
- Technical documents issued by the DOH and the World Health Organization (WHO) such as the VPD Surveillance Training Manual, Basic Vaccinology Handbook for Doctors, WHO Immunization in Practice and the Immunization Guideline for Mid-Level Managers.

This manual was reviewed in a series of meetings among NIP staff, other DOH offices (Research Institute for Tropical Medicine (RITM), Epidemiology Bureau (EB)) and World Health Organization (WHO) staff. It was then pre-tested among selected provincial/city/municipal coordinators and immunization providers such as RHU physicians, nurses and midwives. The results were used by national and selected regional NIP Coordinators to finalize the Manual.

Part 1. The Basics of the National Immunization Program

Chapter 1 ***The National Immunization Program***
Chapter 1 describes the demographic-socio-economic environment and the devolved nature of the health care delivery system in which the immunization services are delivered. It also highlights the benefits of immunization, summarizes the NIP's legal basis and policy framework and outlines the key milestones since the introduction of vaccines against six VPDs in 1976.

Chapter 2 ***Vaccine Preventable Diseases (VPDs) in the Philippines***
Chapter 2 describes the basic features of the common VPDs in the Philippines - their manifestations, mode of transmission and how each can be treated, controlled, eliminated or eradicated.

Chapter 3 ***VPD Surveillance***
Chapter 3 deals with keeping track of VPDs as a separate system in monitoring NIP implementation. This Chapter does not repeat the guidelines on VPD surveillance in the Philippine Integrated Disease Surveillance and Response (PIDSR) Manual. The purpose is to provide information needed by NIP Coordinators/Managers for the overall management of the NIP.

Chapter 4 ***The Vaccines***
Chapter 4 defines what vaccination is and lists down the various types and classification of vaccines. It describes how these vaccines shall be given in terms of timing, spacing and where in the body the vaccine shall be administered. The key features of the vaccines are summarized in a table for easy reference.

Chapter 5 ***Conducting an Immunization Session***

This chapter describes the standards and steps in giving vaccines to individuals at the health facility or in an outreach activity.

This Chapter is intended for health staff providing immunization at the hospital, RHU/MHC, BHS/HC and private facilities and during outreach or special immunization activities. This is also intended for health care supervisors to check whether health staff follow the right procedures and steps in administering vaccines to their clients.

The *Reaching Every Purok* guidelines will be a useful reference in conducting immunization in a given locality. Kindly refer to these guidelines for details.

Chapter 6 ***Injection Safety and Waste Management***

Chapter 6 highlights the importance of injection safety in providing quality immunization services. This will be useful for health care providers as they need to observe safety protocols in carrying out immunization services. The Chapter is also a reference for health facility managers and supervisors to ensure proper storage of immunization supplies and equipment, injection safety and the proper disposal of used syringes and needles. This Chapter also lists the steps in the management and reporting of Adverse Effects in Immunization (AEFIs).

Chapter 7 ***Immunization Program Management***

Chapter 7 lists the key governance elements necessary for the effective and efficient NIP implementation. These include the organizational support structure and roles and functions at various levels of administration. Key strategic approaches to increase immunization services are also described such as planning, budget allocation and financing.

Chapter 8 ***Monitoring, Supervision and Evaluation***

Chapter 8 guides NIP coordinators and managers in tracking the status of NIP implementation. It describes the key indicators to be monitored and the tools and checklists to be used.

Chapter 9 ***Health Promotion***

Chapter 9 gives an overview of key principles and steps in conducting behavior change communication among recipients of immunization services as well as stakeholders involved in NIP implementation. The Chapter also describes the content and communication channels that can be used to provide information and messages to these recipients.

Chapter 10 ***Mobilizing Community Support***

Chapter 10 explains the importance of community participation in achieving the NIP's goals. This Chapter is useful for Program managers, supervisors and health care providers in dealing with different questions, issues and concerns community members may raise regarding immunization and the NIP.

Chapter 1

THE NATIONAL IMMUNIZATION PROGRAM

CHAPTER 1

The National Immunization Program

A. Rationale

Chapter 1 walks you through the NIP's four- decade development since its official launching in 1976.

The chapter covers the benefits of immunization, its legal and policy framework, and its objectives, various program components and how they operate.

Key milestones are also described as well as the current state of the program. Finally, the continuing challenges that the NIP faces are also described.

B. Objectives

After reading Chapter 1, it is hoped that we will be able to:

1. Describe the legal and policy framework that supports the NIP;
2. Outline key milestones in the Program's history and evolution and describe in brief its current status of implementation; and,
3. Describe the overall direction and key strategies being carried out to achieve the NIP's goal and objectives.

C. Scope and Coverage

Chapter 1 covers the following topics:

- Benefits of immunization and its effectiveness as a public health intervention
- Laws and policies that serve as the mandate and support for the NIP
- International conventions on immunization to which the country is a signatory
- List of vaccines introduced in the Philippines over the past 40 years
- Status of NIP implementation over the past 20 years
- Key program goals that must still be achieved
- Goals, objectives, and key strategies that need to be pursued in the next six years as contained in the NIP Strategic Plan for 2017-2022.

D. The Benefits of Immunization

VACCINES SAVE LIVES. The increase in life expectancy during the 20th century was largely due to increased child survival and reduced deaths due to infectious diseases. This was brought about largely by immunization.

- Immunization saves lives, prevents diseases and reduces direct and indirect health costs.
- Vaccines are cost-effective and are a core component of any preventive services package.
- Vaccines protect children from VPDs that once were top killers and disablers worldwide. These include diphtheria, whooping cough, tuberculosis, small pox, polio and measles.
- Vaccines continue to give protection against more diseases among various age groups as new vaccines are developed and tested.
- Vaccines also prevent the spread of these diseases among families, loved ones and neighbours, resulting in healthier communities.
- Immunization prevents disease transmission from one generation to another, freeing the next generation from the threat of disease.
- Vaccination not only benefits the health and welfare of the whole population but is also a source of high investment return to the government. Health is fundamental to economic growth for developing countries and vaccinations form the foundation of public health programs. Good health can promote social development and economic growth. The yearly return on investment in vaccination is estimated to be between 12 to 18%, but the economic benefits of improved health continue to be largely underestimated (WHO Bulletin, 86(2), February 2008).

E. Consequences of Non-Vaccination

What happens when children are not vaccinated?

- Unvaccinated children can develop diseases resulting in prolonged or long-term disabilities, affecting their full physical, emotional and social development and well-being.
- Sick children are unable to go to school, which can hamper their becoming fully productive individuals.
- Prolonged treatment and out-of-pocket spending burdens families with medical expenses and lost time at work. This can eventually lead to a lower quality of life for individuals and families.

In addition, VPDs are re-emerging and new infectious diseases are affecting the country. This makes it important for various sectors to become involved in immunization activities and services to achieve and sustain the desired herd immunity in the population.

F. Legal Basis of the National Immunization Program

The Philippine Immunization Program is mandated and supported by the following laws and policies.

- The fundamental law of the land – the 1987 Philippine Constitution – says that "The State shall adopt a comprehensive approach to health development which shall endeavor to make essential goods, health and other social services available to all people at affordable cost. There shall be priority for the needs of the underprivileged, sick, elderly, disabled, women, and children" (*Article XIII, Section 11, 1987*)
- Presidential Decree (PD) No. 996 (September 16, 1976) provides for compulsory basic immunization for infants and children below eight years old
- Presidential Proclamation No. 6, implementing the Expanded Program on Immunization (EPI), in response to the United Nation's goal of universal child immunization by 1990.
- Proclamation No. 46 (September 16, 1992) reaffirmed the Philippines' commitment to universal goal of eradicating polio by 2000 through child and mother immunization.
- RA No. 7846 (An Act requiring compulsory immunization against Hepatitis B for infants and children below eight years old, amending for the purpose Presidential Decree No. 996, December 30, 1994)) listed down basic immunization services to be provided. These include vaccination against: (i) tuberculosis (TB), (ii) dipththeria, pertussis and tetanus (DPT), (iii) poliomyelitis (administered orally), (iv) measles, (v) rubella, (vi) Hepatitis-B in newborns within 24 hours after birth, and (vii) provision of other basic immunization services for infants and children below eight years of age.
- DOH AO No. 39, s. 2003 (April 21, 2003) guided the nationwide implementation of the EPI.
- RA No. 10152 (July 2, 2011) otherwise known as the Mandatory Infants and Children Health Immunization Act of 2011 mandated the adoption of a comprehensive, mandatory and sustainable immunization program against VPDs among all infants and children under the age of five years. These include vaccines against: (a) Tb; (b) DPT; (c) Poliomyelitis; (d) Measles; (e) Mumps; (f) Rubella or German measles; (g) Hepatitis B; (h) H. Influenza Type B (HIB); and (h) other types as may be determined by the Secretary of Health.

G. A Brief History of the Immunization Program in the Philippines

The immunization program has been carried out in the Philippines over the past 40 years, with the following milestones:

- The immunization program was officially launched in 1976. The BCG vaccine against TB was administered to school entrants. This was followed by vaccines against poliomyelitis, diphtheria, tetanus, pertussis (DPT) and measles.
- A comprehensive program implementation review was conducted in 1986. The review revealed that coverage was still less than optimal.
- In 1989, the country achieved for the first time the universal child immunization goal of 90% - one year ahead of the target date.
- The Philippines together with other nations pledged to attain three immunization global goals by 1995: (i) eradication of poliomyelitis, (ii) elimination of neonatal tetanus (NT) and (iii) control of measles.
- The Philippines reached polio-free status in 2000. The country also completed the second validation for the declaration of NT elimination in 2014.
- Supplementary immunization campaigns (SIA) against measles were conducted beginning 1998, followed by nationwide campaigns in 2004, 2007, 2011 and 2014.
- In the past three years, the country increased the scope and coverage of the NIP by adding new vaccines for children and women and including other age groups like school children, adolescents / youth and the elderly.

The list on the next page shows the different vaccines provided since 1976.

Milestones of the Immunization Program in the Philippines: Vaccines Introduced by the Program

1976 BCG first administered among school entrants
DPT introduced in priority areas

1979 BCG and DPT provided nationwide; OPV and tetanus toxoid (TT) for pregnant women provided in high risk areas

1980 OPV and TT provided nationwide

1982 MV provided among 35% of the eligible population

1983 MV provided nationwide

1992 Hepatitis B provided among 40% of eligible population

2005 Hepatitis B provided nationwide

2010 MMR administered in selected areas
PENTA: DTwP-HepB-Hib in three selected regions

2012 PENTA administered Nationwide
Rotavirus vaccine provided among children in indigent families
Anti-Influenza Vaccine and PPV 23 provided for indigent senior citizens
2013 Td and MR vaccines provided in high schools in selected high risk provinces and cities
MMR second dose provided for children 12 – 15 months of age

2014 PCV 13 vaccine introduced in five seleted regions
HPV vaccine introduced in pilot areas in CAR and Region 7

2015 PV vaccine provided in the National Capital Region, Regions 3, 6 and 7
Td and MR vaccines provided in all public schools: Grades 1 (6-7 years) and Grade 7 (11-12 years)
HPV vaccine provided in 20 priority provinces among females age 9 – 10 years
PCV 13 provision expanded to 14 regions (excluding NCR, 4 A and 4 B)

2016 Switch from tOPV to bOPV
IPV provision expanded to 6 regions
Td and MR vaccines provided in all public schools
HPV vaccination expanded to 48 provinces

2017 MV was replaced with MMR
TT vaccine for CBAW was replaced with Td
Anti-Influenza Vaccine and PPV 23 provided for all senior citizen at ages 60 to 65 years

H. Implementation Status of the National Immunization Program

1. Reduction of Death and Illness Due to VPDs.

The significant reduction of mortality and morbidity rates due to diphtheria, pertussis, TB and measles from 1989 to 2009 shows that vaccines are effective in curbing deaths and illnesses among newborns, infants and children.

Over the past 25 years, illness due to diphtheria, pertussis, NT and TB dropped beginning 1995-1997. This continued until 2016. Figure 1 shows the morbidity rates for diphtheria and tetanus from 1997 to 2016. Illness due to measles however continued to rise, with the last notable increase from 2013 to 2014.

Deaths due to diphtheria, pertussis, NT and measles significantly dropped from 1989 to 2015. Deaths from pertussis and diphtheria were zero since 1989 and in 1996, respectively. Deaths due to tetanus continuously dropped over the years. Deaths due to measles dropped to zero only starting in 2006. However, deaths from measles rose in 2013-2014 in several provinces due to large measles outbreaks.

2. Philippine Commitment to International Declarations on Immunization.

The Philippines is a signatory to four international declarations on immunization. These are:

Polio Eradication. The Philippines was certified polio-free since 2000 and has remained so to date. However, it continues to be high-at-risk for wild polio virus (WPV) importation and emergence of vaccine-derived polio virus.

Maternal-Neonatal Tetanus Elimination (MNTE). MNTE in the Philippines has been validated for 16 regions except for ARMM in 2015. National MNTE validation has been achieved in 2017.

Measles Elimination. This continues to be a challenge for the NIP. There was an increased incidence of Measles during the outbreak of 2013-2014. Case Fatality Ratio (CFR) among laboratory and epidemiologically confirmed measles cases increased. However the situation has improved since then, in 2014 with supplemental immunization activities (SIA) among school age children.

Accelerated Hepatitis B Control. Coverage at birth improved from 2009 to 2015. However, there is still a need to maximize vaccination of newborns.

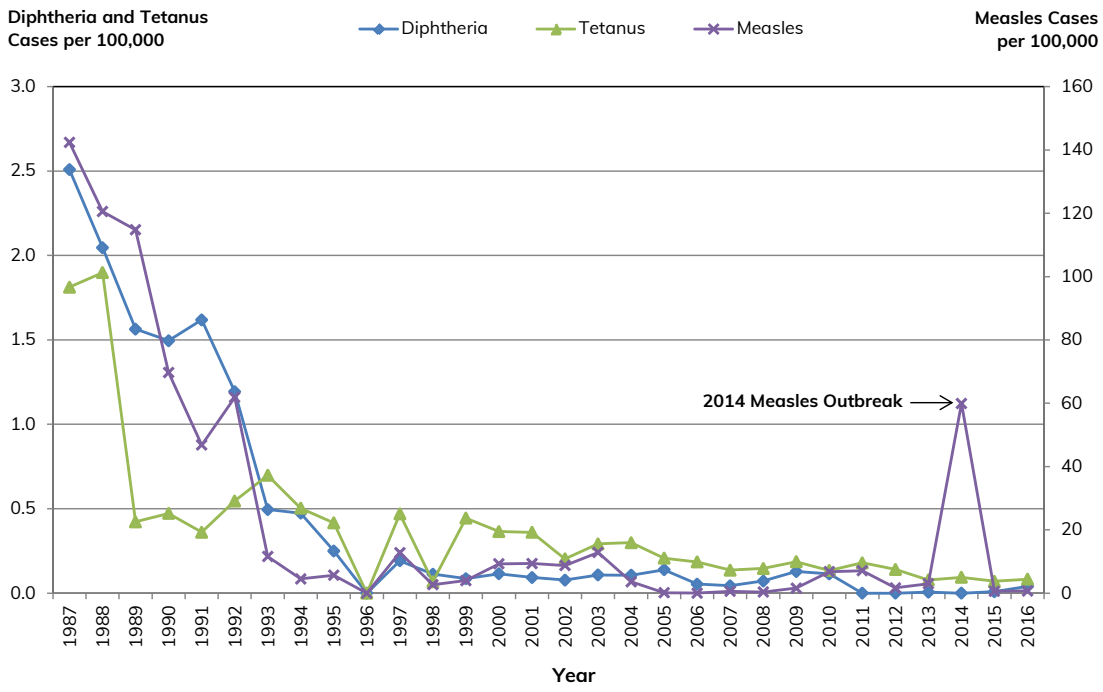
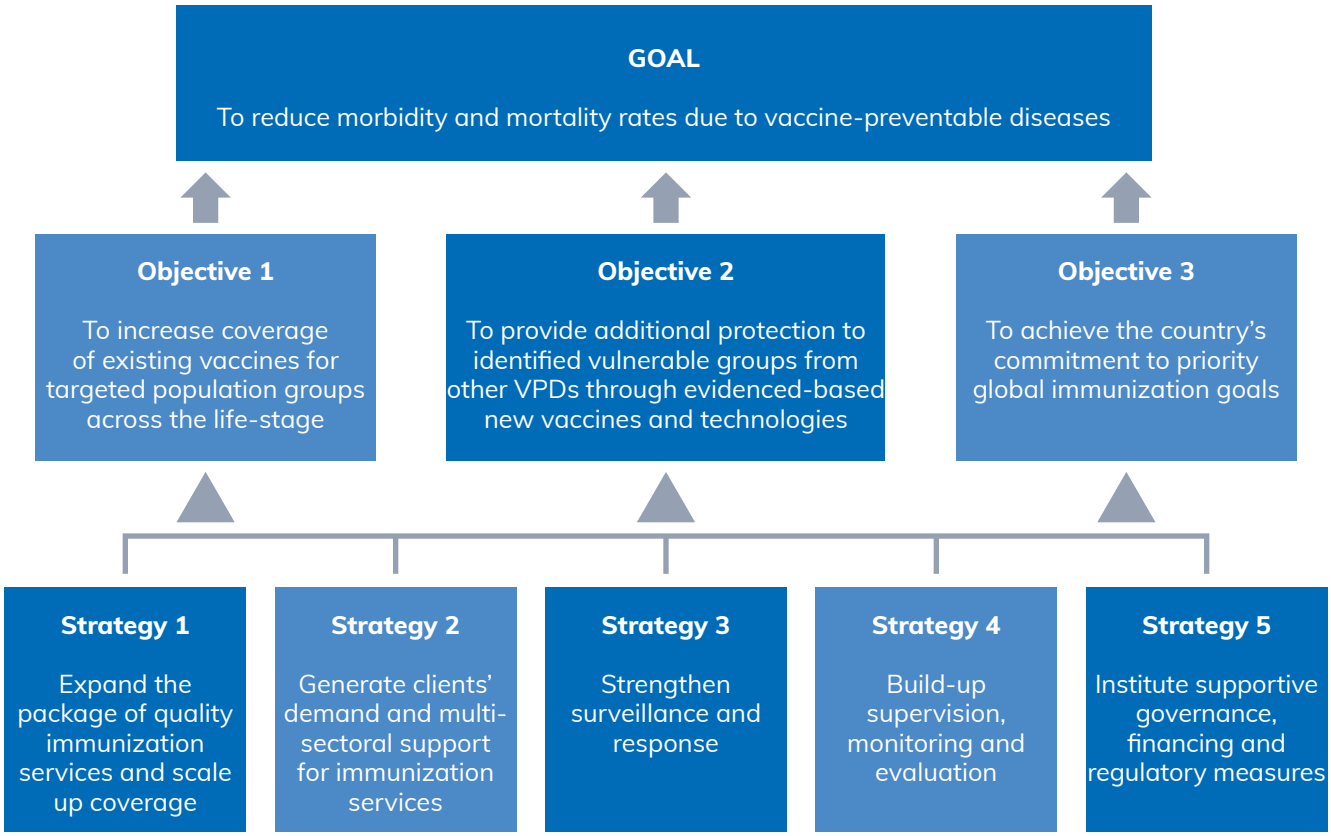


FIGURE 1.
Morbidity Rates Due to Detected Vaccine-Preventable DIseases, the Philippines 1997 to 2016

I. National Immunization Program Goal, Objectives, Strategies

The 2016-2021 comprehensive multi-year strategic plan contains the following goal, objectives, strategies to be pursued by the National Immunization Program.



J. Vaccine Management and Logistics

The NIP is also responsible for managing the demand of vaccines and other immunization supplies and the timely delivery of those supplies to health facilities in the regions. Vaccines are purchased through the mechanism of self-procurement through the local bidding process and through UNICEF's supply division.

In recent years, the Philippines experienced multiple stockouts of different vaccines. These stockouts were brought on by difficulties in the transition from vaccine procurement through UNICEF to self-procurement. These included delays in the release of funds and delays in ordering of the vaccines.

J.1 Roles and Responsibilities at Central / National Level

To address stockouts, DOH units, stakeholders and partners involved in the NIP have the following roles and responsibilities:

1. NIP must ensure reliable demand forecasting of vaccines including the needed buffer stock at national and sub national levels.
2. NIP must work with reliable suppliers, selected through competitive bidding, who must ensure timely delivery of the vaccines from national to regional level.
3. DOH must ensure timely availability of the NIP budget for vaccine procurement and the necessary approvals for new vaccines.
4. NIP must ensure there is good coordination and communication with all the relevant stakeholders such as the Department of the Budget and Management (DBM), COBASC, Material Management Division (MMD), Research Institute for Tropical Medicine (RITM), Food and Drug Administration (FDA), and the United Nations Children's Fund (UNICEF).
5. NIP should have written and documented procedures for all related activities, which must be subject to regular performance evaluation.

J.2 Roles and Responsibilities of the Regional and Provincial Levels

1. Respective units must properly manage stock assigned to them and ensure the physical count of vaccines and other logistics and supplies such as syringes. Safety boxes must be updated monthly.
2. They must ensure the timely request of vaccines using updated forms such as vaccine ordering form, temperature monitoring, and vaccine stock records. Avoid overstocking of vaccines.
3. There must be timely reporting of the stock data to the national level.
4. There must be proper logistics distribution plan from the region and province to lower level facilities and units.