



NATIONAL IMMUNIZATION PROGRAM
MANUAL OF OPERATIONS

BOOKLET 6

CHAPTER 7
Immunization Program Management

Chapter 7

IMMUNIZATION PROGRAM MANAGEMENT

Immunization Program Management

A. Rationale

The resources (personnel, budget, information, and logistics) for the delivery of immunization services are shared with other health services. Managing these resources and maximizing the systems will affect protection coverage of clients in our catchment areas and in the country as a whole. Understanding key governance elements within the context of our local health system will help us become better stewards of the investment our government is putting every year into the NIP.

B. Objectives

This chapter describes the key elements in managing the NIP. At the end of this section, it is hoped that we will be able to:

1. Describe the health care delivery system for immunization services and define the organizational structure supporting its operations;
2. Outline the basic considerations for developing the immunization program plan at national and subnational levels; and,
3. Specify mechanisms that can be tapped to finance the immunization program.

C. Scope and Coverage

The chapter discusses the following topics:

- Overall health care delivery system for immunization services
- Package of immunization services
- Network of facilities /and providers to deliver the package of immunization services
- Key organizational structures that support said supporting this network
- Approaches (e.g.such as routines, outreach, special campaigns or immunization activities, etc.among others)
- Planning for the Immunization Program at the national and subnational levels.

D. Immunization Service Delivery System in the Philippines

D.1 The Service Delivery Network for Immunization Services

Immunization services are delivered through a devolved health care delivery system. In 1991, the Local Government Code (LGC) transferred the primary responsibility of delivering health care to the Local Government Units (LGUs). The LGC mandates local governments at each level the following responsibilities regarding health services:

- The Department of Health (DOH) retains its role of policy formulation, regulation, technical guidance, training and orientation, planning, and evaluation. It will continue to develop strategic plans, undertake advocacy, surveillance, monitoring and research. The DOH will operate through its 18 Regional Offices (ROs) responsible for operating specialty and regional hospitals and medical centers.
- LGUs serve as stewards of the local health system and will formulate and enforce local policies and ordinances related to health, nutrition, sanitation and other health-related matters in line with national policies and standards. They shall also create a conducive environment for establishing partnerships with all sectors. Under the devolved setting, provincial governments oversee provincial and district hospitals while the municipal and city governments manage the Rural Health Units (RHUs), Main Health Centers (MHC), Health Centers (HCs) and Barangay Health Stations (BHS) and community hospitals.
- At the community level, a network of community-based health volunteers exists who assist midwives in delivering health services. These volunteers include Barangay Health Workers (BHWs) and other support groups.

Immunization providers are composed of those coming from both the public and private sectors:

- The public sector network of health care providers consists of those from the national and sub-national, provincial and municipal or city levels.
- The private sector consists of privately-operated facilities, physicians in solo or group practice, hospitals and maternity centers, diagnostic centers, employer-based out-patient facilities, secondary and tertiary hospitals, as well as traditional birth attendants and indigenous healers.

The reach of the service delivery network for immunization is expanded by partnerships with: (i) private sector partners like professional societies, private clinics and practitioners and NGOs during special immunization campaigns; and (ii) public sector partners like the Department of Education (DepEd) in providing immunization to all public school children in Grades 1 and 7 annually and the Department of Social Welfare and Development (DSWD) through its Conditional Cash Transfer (CCT) Program.

D.2 Management and Coordination of the NIP

NIP implementation is managed and coordinated at various levels by designated Immunization Program Coordinators and Cold Chain Managers while service delivery is primarily carried out by health care providers in both the public and private sectors.

- At the National Level, overall program coordination and management is lodged with the Family Health Office (FHO) through the National Medical Coordinator, assisted by the National Nurse Coordinator and National Cold Chain Manager. Other support offices involved include the Epidemiology Bureau (EB) for VPD surveillance; Procurement Service for procurement of vaccines and other commodities; the Research Institute for Tropical Medicine (RITM) for VPD laboratory confirmation and as the National Vaccine Storage; the Food and Drug Administration (FDA) for vaccine product and immunization devices registration; and, the Health Promotion and Communication Services (HPCS) for information, education and communication (IEC), advocacy and social mobilization.
- At Regional Level, there are ideally four (4) staff dedicated to the NIP. These include a Regional Medical Program Manager, a Regional Nurse Program Manager, one Regional Cold Chain Manager and one Regional Cold Chain Technician. However, not all regions have these complete personnel requirements.
- At Provincial and City levels, there should be a designated Provincial and City Immunization Program Coordinator. At present, these are usually concurrently managing other health programs. There are also some Provinces and Cities with assigned Cold Chain Managers.
- At Municipal Level, the Municipal Health Officer (MHO) is the overall NIP manager. The MHO is assisted by the nurses as supervisors, with midwives as the prime providers of immunization services. They are augmented by additional nurses deployed by the DOH under the Nurse Deployment Program (NDP) to assist in the delivery of health services.
- At Community Level, community-based volunteers are supervised by the midwives. They help identify and enlist eligible individuals for immunization; follow-up and track immunization defaulters; assist in the administration of vaccines; and, serve as guides in locating clients in their residences during special immunization activities.

Health personnel at all levels take part in the delivery of immunization services. These personnel also perform tasks in other health programs on top of the NIP. This may affect their workloads and participation in delivering immunization services.

Refer to Annex 2 for the list of roles and functions of the different stakeholders in NIP management, coordination and implementation.

D.3 National Immunization Committee (NIC)

At National Level, there is also a decision-making body called the National Immunization Committee (NIC) chaired by the DOH Undersecretary.

The NIC was set up in 1986 as the advisory / expert body to the NIP. It is composed of a mix of experts from the DOH and its allied agencies, professional societies and development partners. It is constituted on an ad hoc basis and meets at least twice a year. Its main functions are:

- Conduct policy analyses; data and evidence review to provide sound, evidenced-based technical advice and recommendations for immunization policies, guidelines and strategies related to NIP management and implementation. This includes decisions to introduce new vaccines for routine immunization.
- Review position papers, studies, international guidelines and recommendations for possible adoption in the country.
- Guide DOH in drawing up and evaluating strategic and annual work plans.
- Endorse information, communication and education materials to promote awareness and demand for immunization and inform audiences and stakeholders about NIP accomplishments.
- Advise the national authorities on effective means to monitor and evaluate the NIP.
- Promote collaboration and engagement with local, regional, national and international organizations and institutions to support NIP implementation.
- Provide advice on appropriate research and development.
- Support and provide guidance to Technical Working Groups (TWGs) and Committees formed as the need arises. These TWGs are (i) Technical, (ii) Communication and Social Mobilization, (iii) Surveillance and (iv) Vaccine, Cold Chain and Immunization Supply and Logistics.

D.4 National Immunization Technical Advisory Group (NITAG)

In addition to the bodies mentioned above, the NIP is also supported by the National Immunization Technical Advisory Group (NITAG). These are multidisciplinary groups of national experts responsible for providing independent, evidence-informed advice on policy issues related to immunization and vaccines for all population groups.

The tasks of the NITAG are as follows:

1. To review the latest position papers, studies, international guidelines and recommendations from international resources such as the WHO and the Strategic Advisory Group of Experts for Immunization (SAGE) for possible adoption in the country's policies and plans for EPI.
2. To conduct existing policy analysis, program data and evidence reviews to help develop appropriate and sustainable immunization policies, guidelines, strategies and approaches.

- To advise the DOH on policies, plan and strategies for research and development of existing and new vaccines and vaccine delivery technology.

The DOH also has established committees composed of independent experts to strengthen the Immunization program and VPD surveillance in the country. These are listed in the table below.

TABLE 14.
Functions of NIP Committees

National Committee for Certification (NCC) of Polio	National Verification Committee (NVC)	AFP/Polio Expert Review Committee (ERC)	National and Regional AEFI Committee (N/RAEFIC)
<p>Purpose:</p> <p>To review and sustain the polio free status of the Philippines and ensure high quality AFP surveillance at all levels. Key functions include:</p>	<p>Purpose:</p> <p>To review progress toward Measles Elimination and assess the country's achievement in meeting standards for verification. Key functions include:</p>	<p>Purpose:</p> <p>To assess progress in achieving polio eradication in the country through regular quarterly meetings. Key functions include:</p>	<p>Purpose:</p> <p>To conduct causality assessment and address other issues on the adverse effects following immunization (AEFI); respond to AEFIs. RAEFIC to conduct immediate preliminary causality assessment of reported serious AEFIs.</p>
<p>Key functions:</p> <ul style="list-style-type: none"> To work with EB and NIP to prepare documentation required for certification of poliomyelitis eradication. To review documentation provided for certification and inform the EB and NIP of additional requirements through a written report on at least an annual basis. To assess the validity of immunization and surveillance data by conducting site visits to hospitals, laboratories, outlying areas and other facilities or sites as necessary. To provide the regional commission with an annual written summary of progress toward certification, unresolved difficulties in implementing the recommended strategies and potential solutions to such obstacles. To recommend to the regional commission that the country has sustained its polio free status based on complete documentation and assurance that there is no evidence of wild poliovirus circulation. 	<p>Key functions:</p> <ul style="list-style-type: none"> Advise the DOH on requirements for verification of measles elimination Compile, review and analyze relevant information to monitor progress toward measles elimination Conduct field visits as needed to monitor progress, assess data quality and validate analyses and assessments Ensure development of annual progress report for submission to the Regional Verification Committee Monitor progress toward accelerated rubella control and congenital rubella syndrome prevention Provide programmatic guidance consistent with verification criteria and lines of evidence <ul style="list-style-type: none"> Advocate for measles elimination 	<p>Key functions:</p> <ul style="list-style-type: none"> Review all case investigation reports and other records of reported AFP cases Compile and analyze information from DOH to monitor progress toward polio eradication Provide recommendation and guidance to DOH on program implementation and quality assurance of surveillance system if standard criteria for polio eradication are not met Participate in field visits when needed to monitor progress, assess data quality and validate analyses and assessments Participate in advocacy activities and raise awareness and commitment to sustaining polio eradication Submit quarterly reports of findings, recommended strategies and potential solutions to the National Certification Committee. 	<p>Key functions:</p> <ul style="list-style-type: none"> Provide final causality assessment on AEFI investigations that have not reached conclusions, and those not classified by the regional, provincial and city AEFI Committees Review results of causality assessment done by the regional/provincial/city AEFI Committee and provide recommendations to the NIC Resolve inconsistencies, if any, from results provided by the local and regional AEFI Committees Recommend to the DOH Secretary those that require highest level consideration such as immediate withdrawal of vaccine from the market or temporary stoppage of immunization activities

E. Approaches in the Delivery of Immunization Services

E.1 Why People Use Routine Immunization Services

Immunization as a public health intervention is highly accepted among the general population and is a doable health practice. Childhood immunization only requires parents to take action about six times in the first year of a child's life and is generally accepted by families and communities.

Scheduling immunization sessions to be accessible is only half the battle – people must actually use the services. Research from many countries indicates that people will use immunization services at least once if they know what services are offered and where and when they are available. They will return if:

- They know when to come back.
- They have been treated respectfully.
- They are confident they will receive the vaccinations they come for.



Health workers should be sure mothers know when and where to return for the next vaccination

E.2 Immunization Schedules

The DOH has established the following Immunization Schedule for adoption and implementation nationwide. The following table summarizes the immunizations due for infants, children, adolescents, women and for special population groups. This schedule follows the WHO regional immunization recommendation.

TABLE 15.
DOH National Immunization Schedule (as of 2018)

	Age	24 hrs old	6 wks old	10 wks old	14 wks old	9 mos old	12-15 mos old	Other Target Groups
Vaccine								
1	BCG	X						
2	Hepatitis B	X						
3	PENTA: DTwP-HepB-Hib		X	X	X			
4	OPV (Oral Polio Vaccine)		X	X	X			
5	PCV (Pneumococcal Conjugate Vaccine)		X	X	X			
6	IPV (Inactivated Polio Vaccine)				X			
7	Rotavirus		X	X				
8	MMR (measles mumps -rubella) Vaccine					X	X	
9	MR (Measles – Rubella) Vaccine							Grades 1 and 7 in all public schools
10	Td (tetanus-diphtheria)							Grades 1 and 7 in all public schools and pregnant women
11	HPV							Female: 9-10 years old
12	Influenza Vaccine							Senior citizens: 60 years old and above
13	PPV (Pneumococcal polysaccharide vaccine)							Senior citizens: 60 and 65 years old
14	JE (Japanese Encephalitis)					X		Children (9 months)

Note: Some vaccines are not implemented nationwide.

E.3 Barriers in Accessing Immunization Services

Given the above package of immunization services, a number of obstacles as described below still prevent the targeted population from availing said services. How are these barriers seen in your communities and target clientele?

- Lack of information
- Poor services
- Time constraints
- Social, cultural, or political barriers
- Misinformation
- Distance

E.4 Strategies to Increase the Use of Routine Services

To address the identified barriers, there are different strategies we can use to increase access. These strategies focus on:

- Reaching the unreached
- Reducing drop-outs
- Limiting missed opportunities

1. Types of Routine Immunization Delivery Schemes

There are three types of Routine Immunization Delivery Schemes:

- 1.1. Fixed Facility, referring to the regular delivery of vaccinations in a health facility on specified days of the week and hours of the day. Larger facilities may give vaccinations at any time whenever eligible clients drop in.
- 1.2. Outreach is the delivery of services to people who cannot come to health facilities or who can do so only with difficulty. Trips to outreach sites are usually completed within a day and are made by health facility staff on foot or using motorized vehicles or other forms of transport. Monthly visits provide timely protection for children, although less frequent visits may be for far-flung areas where travel is difficult, or staff resources are limited.
- 1.3. Mobile Strategy entails a trip of more than a day to deliver services in remote areas or geographically isolated and disadvantaged areas (GIDA). There is usually no other way to reach the site except by an organized mobile team. Vaccination teams may spend several days traveling to these areas. Costs are higher compared to the fixed site as more time and resources are needed to reach them. This immunization delivery is usually integrated with other health services.



Health facility providing routine immunization services



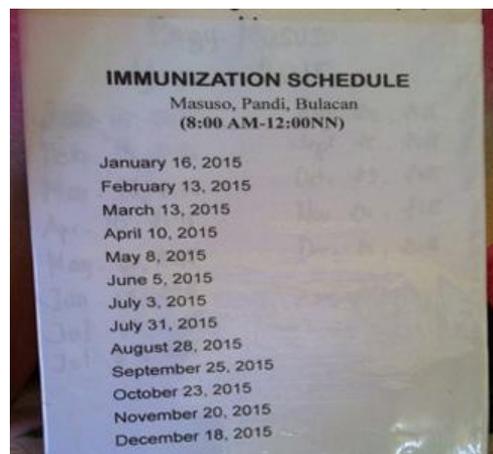
An outreach immunization activity setting



A Mobile Immunization team

2. How to Reach the Underserved

Population who are unreached and underserved are not only those in GIDAs or in mountainous / island barangays. There are segments in the population even within geographically accessible areas that remained unreached. Access is impeded by difficulty in scheduling visits, lack of information and lack of opportunities, which can be solved by improving scheduling, raising awareness or expanding outreach.



2.1 Improve Immunization Schedules

- a. Schedule immunization sessions during times convenient for parents.
- b. Assess at least once a year the facility's immunization schedule and adjust if necessary to reflect the current needs of the community.

One indicator of good management is the number of vaccination sessions that are actually held compared to the number planned.

2.2 Raise awareness

Families and clients need to know about immunization services before they can use them.

2.3 Target Services to Meet Urban Needs

Although vaccination coverage rates often appear higher in cities than in rural areas, these figures may mask pockets of much lower coverage in high-risk areas such as urban slums. Reaching underserved populations in urban areas is particularly important epidemiologically because:

- Population density increases the intensity of disease transmission. Epidemics occur more frequently in urban than rural areas, resulting in infection of younger children, more severe illness, and higher mortality.
- Chains of transmission, particularly of measles and pertussis, often begin in cities and towns and spread to rural areas.

Poor sanitation and poor nutrition found in densely populated slum areas weakens residents' resistance to disease and increases their risk of severe illness and death.

2.4 Improve and Expand Outreach

Ensure that immunization outreach is effective: well-planned, organized, and supported. Maximize limited resources and ensure continuity of services by integrating services and mobilizing community resources.



Pockets of communities in urban areas may have low vaccination coverage and high disease transmission.



3. Reducing Drop-Outs

Drop-outs are people who begin the vaccination schedule but do not complete it. They have at least periodic access and motivation to use immunization services, but they stop for one reason or another as described above. With the increased use of expensive vaccines like Hep B, Pentavalent, and combination vaccines against multiple diseases, monitoring drop-outs and devising strategies to prevent them merit greater attention.

Understand the Problem - Never-Reached or Drop-Outs?

AREA A. 50% of children have access to immunization services using PENTA1 coverage as an indicator. 42% complete the three-dose series of PENTA. The drop-out rate therefore is 16%:

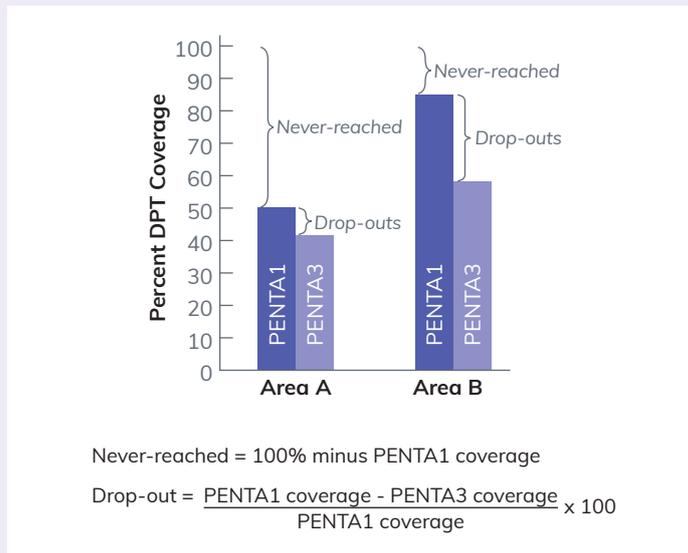
$$\left(\frac{50\% - 42\%}{50\%} \right) \times 100 = 16\%$$

In Area A, planners should give priority to raising PENTA1 coverage by reaching the 50% of children who have never been reached. Reducing drop-outs would, at best, result only in a gain in PENTA3 coverage from 42 to 50%.

AREA B. 85% of children have received PENTA1. 58% complete the three-dose PENTA series. The drop-out rate is 32%:

$$\left(\frac{85\% - 58\%}{85\%} \right) \times 100 = 32\%$$

In Area B, reaching the last 15% of the population that has never been reached is likely to be labor-intensive and expensive. On the other hand, following up on drop-outs and persuading them to complete the series could raise coverage of PENTA3 from 58% to 85%. Unless additional information indicates otherwise, Area B should give priority to reducing drop-outs.



4. Limit Missed Opportunities

A missed opportunity occurs when a client, present in a situation in which vaccinations should be available, does not receive all of the vaccines for which s/he is eligible. Missed opportunities delay protection and increase the risk of getting the disease.

4.1. Improve Screening

Advise mothers / care givers to always bring with them their own and their children's vaccination cards everytime they visit the health facility.

4.2. Give all vaccines due

Some studies have found that health workers fail to give 30% to 40% of vaccinations that are due at the time of clients' visits. For example, a 9-month-old child may be given PENTA and OPV but not measles vaccine, despite being eligible for all three vaccines.

- Correct the following misconceptions:
 - o That giving too many vaccines at once will harm the child, when, in fact, vaccines are as safe and effective in combination as they are individually provided.
 - o That giving measles vaccine should be delayed thinking that it must be the last vaccination given to the child.
- Improve the set-up, flow of services and interaction with clients inside the health facility. Sometimes, missed opportunities reflect an organizational problem. For example, a mother arrives during a busy session, a health worker or volunteer checks her child's card and determines that the child is eligible for PENTA3, OPV3, and measles vaccine. The health worker gives the child PENTA3 and returns the card to the mother, assuming that the mother will go to a nearby table for the next vaccination. Instead, the mother leaves the facility thinking that she is finished. The child's card shows that three vaccines have been given that day, but the child has received only one.

4.3. Eliminate false contraindications

- Distinguish between false and true contradictions to vaccination.
 - o There are few true contraindications to vaccination. These include prematurity, low birth weight and breastfeeding are not reasons to withhold a vaccination.
 - o Children with low-grade fever, a cold, diarrhea, vomiting, or other mild illness can safely and effectively be vaccinated.
 - o Moreover, malnourished children must be immunized because they are much more likely to die from VPD than well-nourished ones.
- Be familiar with the DOH protocol allowing vaccination of children with HIV infection as described in the previous chapter.

4.4. Clarify the policy on usage of multi-dose vaccine vials

The DOH supports an Open Vial Policy – meaning that health workers should always open a vial of vaccine even for only one client.

E.5 Supplemental Immunization Activities (SIAs)

Supplemental strategies are used to reach children who may not have been vaccinated or have not developed sufficient immunity after previous vaccinations.

Strategies differ according to the epidemiology of the disease. Some of the common features are: (i) the target age group is expanded, (ii) all children are vaccinated regardless of their immunization status, (iii) immunizations do not need to be marked on vaccination cards, (iv) volunteers are used, and (v) civil society is mobilized. Examples include the polio national immunization days (NIDs) and measles campaigns.

Remember, however, that supplemental immunization strategies should not replace routine services.



Using local transport to move vaccine.

1. Accelerated Disease Control. Accelerated disease control strategies differ by disease.

- 1.1. For polio, population immunity levels must be rapidly increased in order to interrupt chains of poliovirus transmission. Thus, National Immunization Days (NIDs) have to be implemented. In the Philippines, NIDs were implemented that resulted in the eradication of polio in 2000. Sub-national immunization days (SNIDs) and even local immunization days (LIDs) can be conducted to reach children who were missed in previous campaigns and not reached by routine services.
- 1.2. For tetanus, SIAs are focused on high-risk areas, although these cannot interrupt transmission because tetanus is not a contagious disease. In the Philippines, SIAs were undertaken from 2009 to 2013 in 10 identified maternal-neonatal tetanus high risk areas.

2. Catch-up Campaigns

- 2.1. Catch-up campaigns are necessary to provide a 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.
- 2.2. Follow-up campaigns are held after catch-up campaigns to reach children in a narrower age range. In the Philippines, a series of five Measles Catch-up and Follow-up campaigns were implemented every four years beginning 1998.

3. Mop-up Strategies

This strategy is used occasionally when control activities succeeded in reducing the incidence of disease and in containing the disease geographically, but some children still remain unreached.

- 3.1. Mop-up activities are often targeted at high-risk children who live in poor urban areas, hard-to-reach rural areas, and areas with transient populations.
- 3.2. Mopping-up requires intensive vaccination efforts, including door-to-door visits. As in other SIAs, screening is not required.

4. Outbreak Response

- 4.1. When a VPD outbreak occurs or is suspected, decide if an immediate vaccination campaign is needed. If so, decide which populations to target. These may be those who are at risk in terms of age and location.
- 4.2. Use as inputs local epidemiological data for decisions about target groups, age range, geographic scope, and type and duration of response activities.

5. Special Populations

Internally displaced population and people (IDPs) in other emergency situations are often more susceptible to infection because of unsettled conditions, lack of services, population movement, and crowded living conditions.

For example, the Department of Health (DOH) with support from development partners launched a mass vaccination campaign in areas affected by the Super Typhoon Yolanda (Haiyan) on November 22, 2013. The polio and measles vaccinations were given to one million children from 6 months to under 5 years old - the age group being the most vulnerable for contracting these deadly diseases.



E.6 Senior Citizen Immunization

As mandated by Republic Act (RA 994) or the “Expanded Senior Citizens Act”, DOH provided pneumococcal and influenza vaccines to indigent senior citizens identified through the National Household Targeting System for Poverty Reduction (NHTS-PR) by the Department of Social Welfare and Development (DSWD) beginning 2012. That same year, a public-private partnership between the Philippine Health Insurance Company (Philhealth) and global health care company Merck Sharpe and Dohme (MSD) offered discounted pneumococcal vaccines to all PhilHealth Lifetime members or their dependents aged 60 years old and above. The nationwide provision of annual influenza vaccine and pneumococcal vaccine to all senior citizens is still underway.

E.7 School-Based Immunization

DOH collaborated with the Department of Education (DepEd) and Department of Interior and Local Government (DILG), and carried out a school-based immunization strategy to deliver childhood immunization to school-aged children. Under Department Memorandum (DM) 2015-0146, vaccines such as Td, MR, and HPV were given to public-school pupils in Grades 1, 4 and 7. HPV vaccine, although initially introduced to school children, was given as community-based vaccine to children aged 9-10 years old in 20 priority provinces. This was contained in DM No. 2015-0316. DOH identified this as the most appropriate strategy for the HPV vaccine delivery.

F. Crafting a Comprehensive Immunization Plan

The DOH developed the comprehensive multi-year plan (CMYP) for the NIP covering the period 2017-2022. We should be able to formulate your own annual Immunization Program Plan and integrate it to your overall regional, provincial, city, municipal Health Plan. This is different from the micro-plans that the RHU / BHS staff draw up as part of the Reach Every Purok Strategy within their respective catchment barangays / puroks.

In this section, we will walk through the basic steps and considerations in developing a yearly comprehensive operational plan for the Immunization Program.

The plan is organized by program component, encourages an interactive analysis and joint problem-solving process, and provides guides to bring services to hard-to-reach and special population groups. This planning process is usually carried out after the year-end Program Implementation Review (PIR).

Overall Planning Process

The planning process has six (6) major steps: (1) data analysis, (2) interactive problem-solving, (3) combination and integration of activities, (4) checking completeness and setting priorities, (5) drawing up an activity timeline and budget, and (6) reviewing the entire plan.

Steps in Crafting a Comprehensive Immunization Plan

