RESOURCE FROM:

STRATEGIC PLANNING AND SITUATION ASSESSMENT FOR CERVICAL CANCER PREVENTION:
PRACTICAL EXPERIENCE FROM PATH

PUBLICATION TITLE

WHO-UNICEF Guidelines for Developing a Comprehensive Multi-Year Plan

PUBLISHER

World Health Organization/United Nations Children's Fund

PUBLICATION DATE

2006

This document is available online at:
www.rho.org/HPV-strategic-planning.htm

WHO/IVB/05.20
ORIGINAL: ENGLISH

WHO-UNICEF guidelines for developing a comprehensive multi-year plan (cMYP)

Immunization, Vaccines and Biologicals

World Health Organization
unicef

WHO/IVB/05.20
ORIGINAL: ENGLISH

WHO-UNICEF guidelines for developing a comprehensive multi-year plan (cMYP)

Immunization, Vaccines and Biologicals

The Department of Immunization, Vaccines and Biologicals thanks the donors whose unspecified financial support has made the production of this document possible.

This document was produced by the
Expanded Programme on Immunization
of the Department of Immunization, Vaccines and Biologicals

Ordering code: WHO/IVB/05.20
Printed: March 2006

This publication is available on the Internet at:
www.who.int/vaccines-documents/

Copies may be requested from:
World Health Organization
Department of Immunization, Vaccines and Biologicals
CH-1211 Geneva 27, Switzerland
• *Fax:* + 41 22 791 4227 • *Email:* vaccines@who.int •

Printed by the WHO Document Production Services, Geneva, Switzerland

Contents

Acronyms

The following acronyms are used in this document.

AD	auto-disable syringe
AEFI	adverse event following immunization
AFP	acute flaccid paralysis
BCG	bacille Calmette-Guérin (tuberculosis vaccine)
cMYP	comprehensive multi-year plan
DTP	diphtheria–tetanus–pertussis (vaccine)
DTP1	first dose diphtheria–tetanus–pertussis (vaccine)
DTP2	second dose of diphtheria–tetanus–pertussis vaccine
DTP3	third dose of diphtheria–tetanus–pertussis vaccine
EPI	Expanded Programme on Immunization
FED-ARIVA	*Le projet FED régional d'appui au Renforcement de l'Indépendance vaccinale en Afrique*
FIC	fully immunized child
FS	financial sustainability
FSP	financial sustainability plan
GAVI	The GAVI Alliance (formerly the Global Alliance for Vaccines and Immunization)
GDP	gross domestic product
GIVS	Global Immunization Vision and Strategies
HepB	Hepatitis B vaccine
HepB3	third dose of Hepatitis B vaccine
Hib	*Haemophilus influenzae* type b
ICC	interagency coordinating committee
IIP	immunization in practice
IMR	infant mortality rate
JRF	Joint Reporting Form

MDG	Millennium Development Goals
MNT	maternal and neonatal tetanus
MoF	ministry of finance
MoH	ministry of health
MSL	measles
MTEF	medium-term expenditure framework
MYP	multi-year plan
NGO	nongovernmental organization
NID	national immunization day
NIP	national immunization programme
NRA	national regulatory authority
OPV	oral polio vaccine
OPV3	third dose of oral polio vaccine
PRSP	Poverty Reduction Strategy Paper
RED	reaching-every-district (strategy)
SIA	supplementary immunization activity
SNID	sub-national immunization day
SWAp	sector-wide approach
TT	tetanus toxoid
TT2+ coverage	coverage with the second or superior dose of tetanus toxoid
VPD	vaccine-preventable disease
UNICEF	United Nations Children's Fund
WCBA	women of childbearing age
WHO	World Health Organization
YF	yellow fever (vaccine)

Acknowledgements

WHO and UNICEF would like to express their sincere thanks to all the partners in the GAVI Alliance who have contributed to the development of these guidelines. In particular, WHO and UNICEF would like to thank ABT Associates Inc., FED-ARIVA, GAVI Financial Task Force members, Immunization Basics, the Program for Appropriate Technology in Health (PATH), the Bill & Melinda Gates Foundation, the World Bank and the United States Agency for International Development (USAID) who formed a working group and an editorial group, which were instrumental in achieving partner consensus on the document's ultimate scope and content.

1. Introduction

1. What is in this guide?

Multi-year planning is a key management tool for national immunization programmes, and in recent years managers have been asked to develop many different plans to reach many different immunization objectives. Developing a comprehensive multi-year plan (cMYP) presents an opportunity to consolidate existing plans into a single document that addresses global, national and sub-national immunization objectives and strategies, and that also evaluates the costs and financing of that plan. The cMYP uses the Global Immunization Vision and Strategies (GIVS) as a reference to help managers plan for their immunization programme. The cMYP guideline is a global document that gives a flexible strategy for planning, and is designed to fit within national planning processes and health sector planning.

This guide presents a series of steps to develop a cMYP. As managers review and assess the results of each step in the process, they should ensure that the plan meets national policy, priorities, and available resources. It is highly recommended that an iterative process be undertaken so that alternative strategies are costed and reviewed before a national plan is finalized.

Plans must be realistic and feasible and should also serve as a tool to review strategies, indicators and progress towards reaching those indicators. They can help prioritize current and future programme objectives, and help determine strategies that will realistically meet immunization objectives. Planning works best as a team approach that can bring together immunization partners and staff from the ministries of health, finance and planning and build national ownership. It is highly recommended that Expanded Programme on Immunization (EPI) managers involve all relevant national and international partners in the planning process of the cMYP, particularly since the future financing of the programme needs to be determined.

A key element in the creation of the cMYP is the prioritization of objectives and strategies. During this process, country teams will need to look at national disease burden data, the economic and political context, and the donor environment to prioritize objectives and tailor the cMYP so that it is an active plan for the national immunization programme, not a document to file away. One new feature of the cMYP is the costing and financing component, which helps to assess how much the programme will cost in the future, the resources currently available to implement the plan, and additional resources needed to ensure that objectives are met. An Excel-based spreadsheet tool and instruction manual accompany this cMYP guide.

This guide represents one way of developing a multi-year plan. Many countries have existing planning methods that already address many of these elements. In this case, the cMYP tool can help ensure quality and as reference for key global and national objectives. Feedback on this guide and the spreadsheet tool is highly encouraged.

Please note that the comprehensive multi-year plan and this guide do not constitute any application process. This document takes the reader through the process of planning with some examples of the steps for illustration and guidance only.

2. What is a comprehensive multi-year immunization plan?

A comprehensive multi-year plan for immunization:

- provides national goals, objectives and strategies for three to five years based upon a situational analysis;
- addresses all components of the immunization system relevant to the country;
- makes synergies between various immunization initiatives—polio, measles, maternal and neonatal tetanus (MNT), injection safety etc.—to avoid the need for separate plans;
- integrates in one plan those activities common to accelerated disease control and other initiatives and routine immunization, to avoid duplication;
- includes costing and financing assessments to be linked to the relevant planning cycle;
- encourages links with other programmes; and
- includes scenarios and strategies for financial sustainability.

In addition, a detailed annual workplan for the current year should be prepared and be done for each succeeding year during the currency of the cMYP.

3. A new approach to multi-year planning

What is new about this approach to national planning?

Most countries have been producing high quality immunization plans regularly for many years; therefore we do not recommend any fundamental changes to the form or structure of these plans. However, there are several shortcomings commonly identified: plans are based upon a review of past achievements and problems but they may not be sufficiently forward looking; there are separate plans for each initiative or target disease; or plans may be made to fit particular funding proposals.

This guide provides a new approach to planning that:

- ensures that the strategies in the plan are sufficiently comprehensive using GIVS as a framework;
- integrates and consolidates activities with other health interventions and within the immunization programme to solve shared problems;
- plans by immunization system components rather than by disease or initiative;
- evaluates the costs and financing of the cMYP to ensure financial sustainability;
- links annual workplans to the cMYP; and
- links the national immunization programme to health sector planning and financing.

Immunization programmes traditionally develop multi-year plans to guide their activities. The cMYP builds on multi-year planning, adds the critical elements of cost and financing, and draws upon the methods developed for the immunization financial sustainability plans (FSPs).[1] The cMYP also strengthens planning for links within and outside the immunization programme.

The **proliferation of immunization initiatives**, including polio eradication, measles elimination, control of MNT, and the support of the Global Alliance for Vaccines and Immunization for introduction of new vaccines and safer vaccination technologies has increased the need for coordination and a comprehensive response to planning and budgeting for the sustainability of the programme. By pulling the various pieces together into one process and document, the cMYP makes it easier for immunization programmes to set priorities, plan for implementation, and identify interactions across programmes. By assessing changes in the health sector and the political and economic situation, immunization managers can anticipate changes in funding flows or methods of service delivery in order to plan for sustainable improvements.

When should a country make its multi-year plan?

The decision to develop a cMYP should be made by each country, taking into account the timing of existing national planning instruments (e.g. health sector plans, annual budgets and medium-term expenditure frameworks). Ideally the timing should be fully synchronized with the health sector planning process. If not fully synchronized, a new cMYP should be prepared a year before the expiry of the current multi-year plan, and should not extend beyond the limit of the health sector plan.

[1] GAVI no longer will require FSPs, but will rely on the cost and financing analysis and strategy

4. What is GIVS and how can GIVS be used as a framework for multi-year planning?

In early 2004, WHO and UNICEF took the lead in developing a new strategic framework to guide partners in immunization—the Global Immunization Vision and Strategies[2] 2006–2015. Among other innovative ideas, GIVS makes the case for strong linkages between immunization and other health interventions, and addresses the need to overcome system-wide barriers that go beyond immunization and affect the whole health sector. GIVS includes vaccines now under development and proposes a 10-year vision that will not only contribute to child survival but also to reducing mortality in older age groups.

GIVS:

- commits unprecedented attention to reaching the hard-to-reach;
- encourages a package of interventions beyond immunization to reduce child morbidity and mortality;
- promotes data-driven problem solving to improve programme effectiveness;
- takes immunization beyond infants into other age groups; and
- anticipates the introduction and widespread use of new vaccines and technologies.

GIVS presents four strategic areas as a framework for strategic planning.

1) **Protecting more people in a changing world:** This area focuses on strategies and activities by which more people will be reached with existing vaccines to provide better protection. In 2003, worldwide, an estimated 27 million infants and 40 million pregnant women remained in need of immunization, but there have been encouraging recent improvements in some low-performing countries.

2) **Introducing new vaccines and technologies:** This area describes how new vaccines and technologies that are becoming available and more affordable will provide protection against more diseases. In the near future new vaccines combating diarrhoea (rotavirus vaccine), pneumonia (pneumococcus conjugate vaccine) and meningitis (meningococcus A conjugate vaccine) will be introduced, and save many more lives.

3) **Integrating immunization, other health interventions and surveillance in the health system context:** This area describes how immunization will need to be built on a stronger health infrastructure, guided by surveillance and monitoring activities. In the harder to reach areas, immunization contacts should also be better used to provide other life-saving interventions.

[2] GIVS was approved by the 58th World Health Assembly, May 2005.

4) **Immunizing in the context of global interdependence:** This area acknowledges that today certain epidemics can threaten everyone, borders are less definite, and entire populations and industries are becoming more interdependent. The strategies describe how cross-border collaboration and partner cooperation and coordination will be required more than ever to ensure a steady supply of reliable vaccine, sustained financing of vaccination, preparedness for epidemics, and reliable and consistent information on immunization.

For each of these areas, a number of strategies are described (see Annex 3), which can provide guidance for developing national strategies. GIVS is not a strategic plan as such. It rather sets a framework within which WHO and UNICEF see immunization programmes develop in the coming 10 years, and provides a menu of possible strategies from which countries can select those that are most relevant to their own situation. However, the shared vision and the strategies are intended to serve as the basis for countries to work with their immunization partners and to develop and implement strategic plans to reach the immunization goals.

5. Linking the cMYP to broader health sector planning processes

The cMYP is a planning document for the immunization programme that can be influenced by other major global and national planning frameworks. For instance, it will be important to make sure that the cMYP is synchronized with the following initiatives, to the extent possible.

The fourth Millennium Development Goal (MDG), *Reduce by two thirds the mortality rate among children under five*, gives an international mandate to countries' efforts in immunization against vaccine-preventable diseases. In preparing cMYPs, reference can be made to the potential contribution that strong immunization programme performance can have in achieving this MDG.

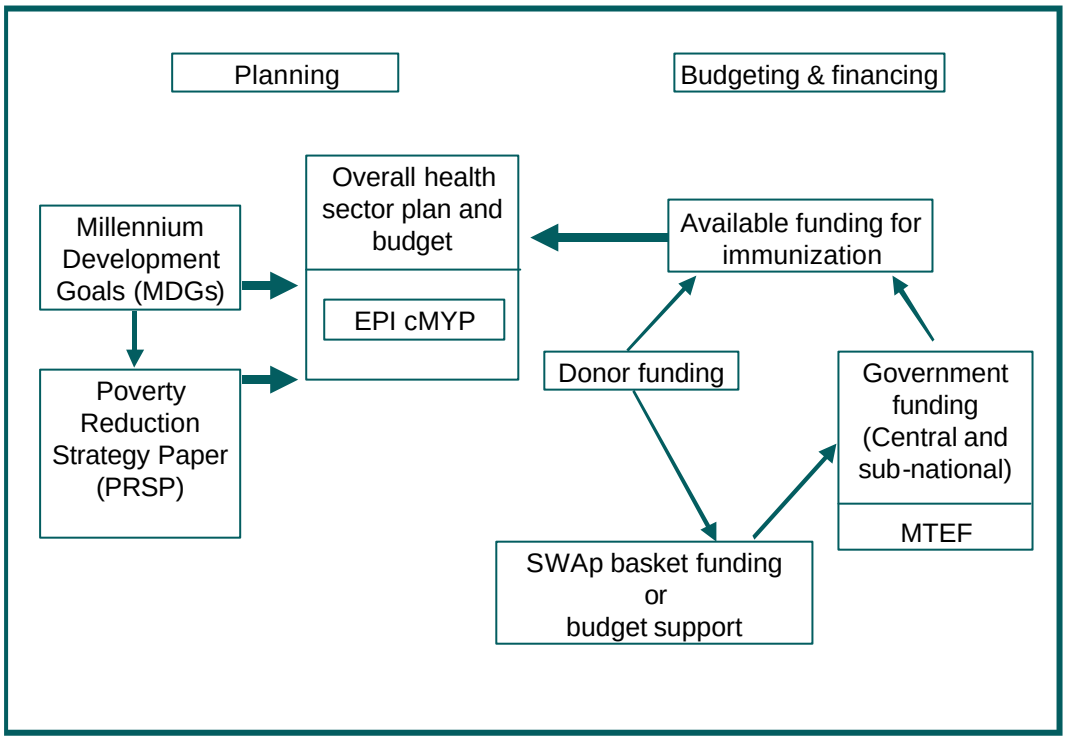
Most countries have an overall plan for the health sector, such as a national health sector plan. Many of these plans have been developed based on the MDGs and/or Poverty Reduction Strategy Papers (PRSP), which outline broad national priorities for reducing poverty. The health sector plan identifies health priorities within this context, and describes programmes and strategies to achieve measurable health outcomes. Government health programmes such as immunization should be part of the national health sector plan. As the national health sector plan is the basis for formulating the national health budget, the health sector plans will be a key document to consider while preparing the cMYP. In addition, the objectives, strategies, cost and financing information from the cMYP should be integrated within the national health plan and budget.

The resources required for the national immunization programme are determined either within the annual budget for the MoH, or as part of a three-year rolling medium-term expenditure framework (MTEF). Since government funding may be from both central and sub-national sources, the cMYP may need to take into account sub-national budgets and priorities. Decentralization has put decision-making and resource allocation in the hands of local government authorities. This may affect the total resources available at sub-national level for critical elements of the programme.

The relationships between the immunization programme planning, budgeting/financing processes and overall national processes are illustrated in Figure 1. Figure 1 shows that on the planning side, the MDGs and PRSPs provide a framework for generating the overall health sector plan, of which the cMYP is a part. On the budgeting and financing side, donor funding either is passed through the investment budget (as extra-budgetary), or is combined with recurrent government funding (through budget support or through basket funding for SWAps).

See the Glossary in Annex 1 for further explanation of terms.

Figure 1: Illustration of the planning, budgeting and financing process



6. Linking the cMYP to other health programmes

In developing the cMYP, it is useful to consider where links can be made to other health interventions as a more effective way of achieving national health goals (*see GIVS Strategic Area III*). For example, there are real benefits to combining immunization with three other interventions, namely vitamin A (VitA) supplementation, the distribution of insecticide-treated bednets for malaria prevention, and anthelminths.

Planning for such links may involve a review of other programme health plans (for malaria, nutrition) to identify areas of synergy. This can be followed by regular discussions to determine the best strategies to adopt, and to plan activities for service delivery and monitoring. The cost of integrating the national immunization programme (NIP) service delivery with other health programmes may be incremental to the NIP budget, as some costs might be included in other programme budgets. However, incremental costs such as transport of bednets may need to be included within the immunization budget if not covered elsewhere.

7. The best way to use this guide

This guide is intended to be used by national immunization staff in collaboration with immunization partners and other relevant stakeholders interested in improving the performance and financial sustainability of the programme. The planning process should be seen as an iterative process for the national immunization programme and its partners to prioritize activities based on current realities, national objectives, the health sector environment, and resource constraints. The national immunization programme will need to determine priorities: the urgent problems that need to be addressed, or whether a new vaccine can be introduced. Understanding that personnel time and financial resources are limited, the programme must prioritize the strategies and activities in order to develop a feasible plan that will achieve the stated objectives of the national immunization programme.

How to start?

- **Hold a national meeting of all immunization staff to coordinate and integrate all aspects of the NIP into one planning process.**

  It is recommended that the planning and costing process be *a team-building exercise* for the national immunization programme. The starting point is a meeting of participants from all sections of the immunization system, including those responsible for accelerated disease control (e.g. polio, measles, MNT), logistics, routine immunization, surveillance, new vaccine introduction, budgeting, communication, and social mobilization. It will be useful to involve technical partners in the initial meeting to review progress and then to facilitate the cMYP drafting process.

  Participants need to be briefed that the cMYP must contain all the immunization objectives, strategies, activities, and costs/financing for the relevant planning period. Separate plans made previously for polio, measles, cold chain and MNT need to be fully incorporated into the cMYP. In addition, the costs (campaigns, routine programme, and training) need to be included in the costing and financing process of the cMYP.

- **Hold a meeting with the interagency coordinating committee (ICC) or other relevant stakeholders meeting**

  ICC members, development partners, and other immunization stakeholders need to be involved in the development of the cMYP, and they will be interested in the results of the situational, cost and financing analysis. Involving a wider group of stakeholders will be important to: (a) facilitate the linkage between the cMYP annual plans and budgets to sector and national budgets and plans; (b) advocate for the immunization programme as a means to achieve the Child Health MDG; and, (c) mobilize additional resources necessary to reduce financing gaps. In most countries, the ICC meeting is the most relevant venue to meet and discuss with all partners. In some countries, it may be more appropriate to work with sector coordinating bodies, such as SWAp Health Partners. Engaging with the Ministry of Finance and Ministry of Planning early in this process will be important, since the cMYP includes an assessment of future programme financing, including government resources. This type of information may be difficult for EPI to ascertain without discussion with relevant ministries.

How to proceed?

The planning process begins with a situational analysis that is conducted by the national immunization programme and its partners. The situational analysis should include an assessment of the programme. The situational analysis will assist the national immunization programme and its partners to set and prioritize national objectives and milestones and develop strategies and key activities by system component to achieve those national objectives and milestones. At this point, it is useful to use the GIVS framework as a checklist to ensure that no priority area has been overlooked or to identify other types of activities that could be conducted to achieve a particular strategy. A timeline for activities should be developed and reviewed to ensure that the activities can be accomplished during the next three to five years. Given the priorities of the national immunization programme and its partners, it may be necessary to reprioritize activities to ensure that the national objectives and milestones can be met.

The next step involves the analysis of current and future costs (or resource requirements), financing, and financing gaps of the cMYP. It is likely that projections will show a gap between resource requirements and financing sources. The analysis of the financing gap will involve an identification of what is driving programme costs and the prospects for mobilizing more resources. Once the results of the cost and financing analysis are known, the question of whether the national objectives and strategies could be achieved at lower cost will arise. The answer to this question can be determined through an iterative process of evaluating alternative scenarios for achieving these objectives. The purpose of this step is to refine the cMYP to arrive at a set of strategies and activities that are more affordable and sustainable for the programme and that reflect the programme's national priorities. Once the plan is developed, it must be **approved** by the programme and its partners, **disseminated** and most importantly **implemented** on an annual basis. It is useful for the cMYP to have indicators which monitor the progress of the cMYP.

See Figures 2 and 3 below.

Figure 2: Process for creating a cMYP

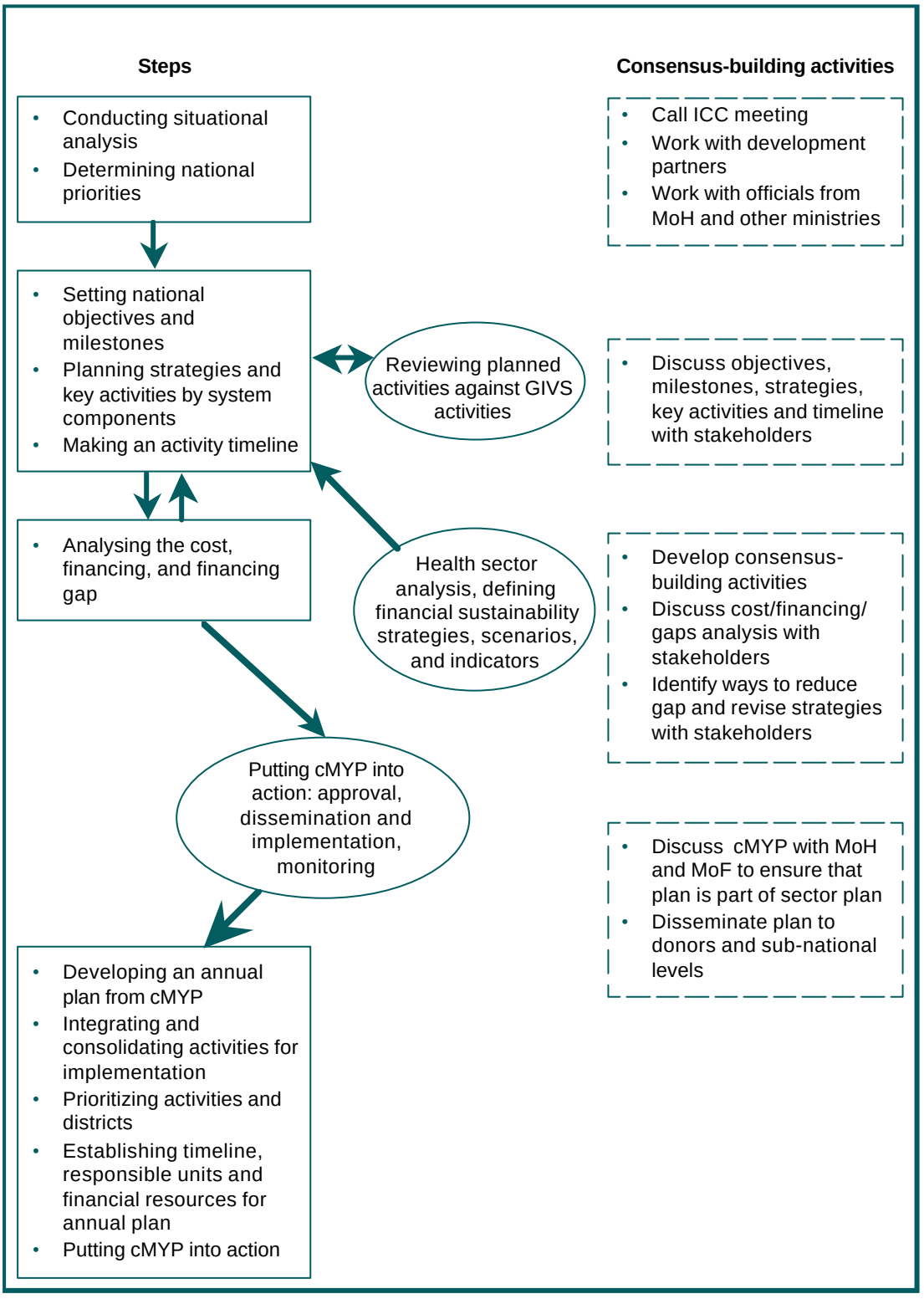
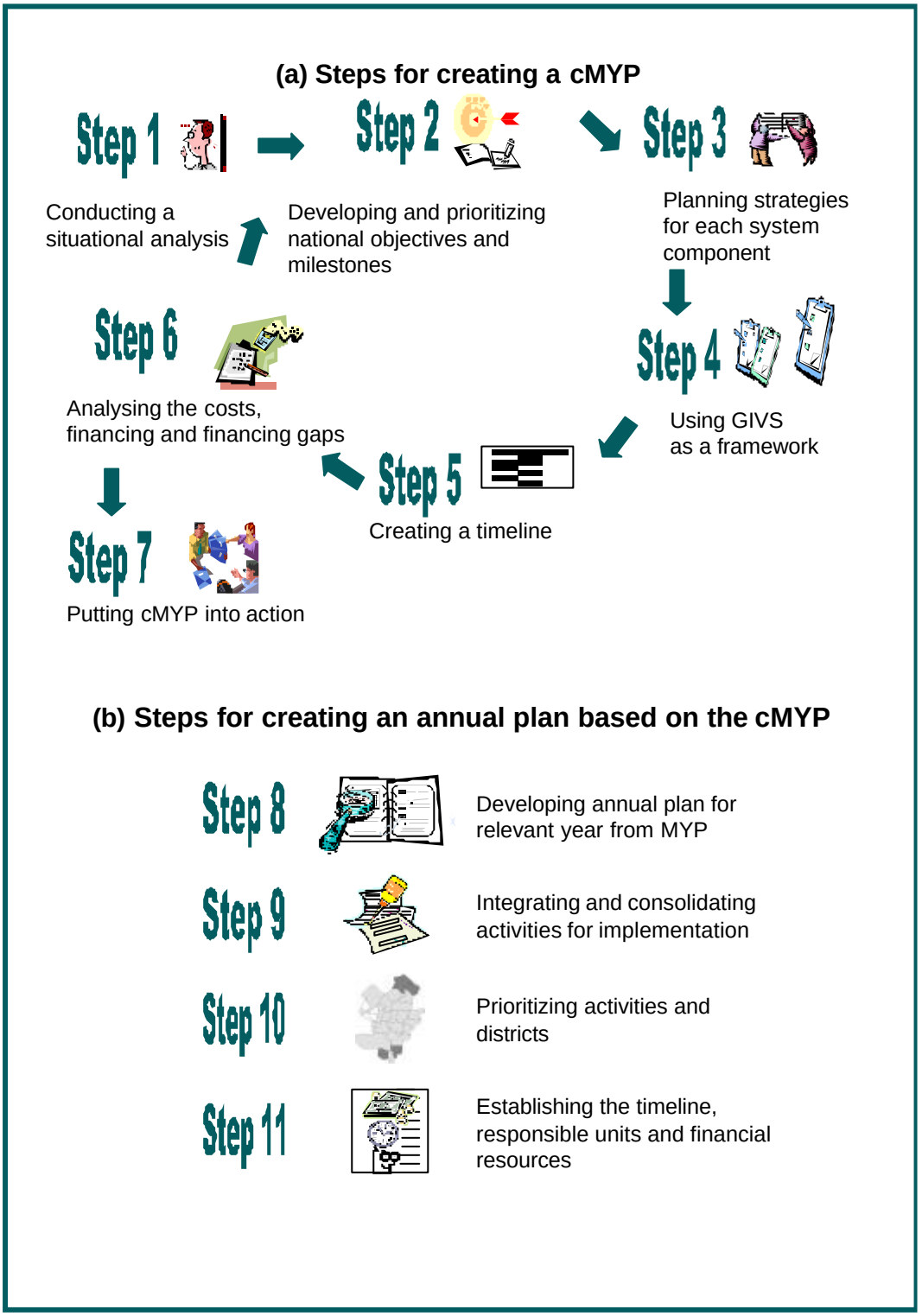


Figure 3: Steps for creating a cMYP and annual plan



2. Creating a comprehensive multi-year plan

Step 1. Conducting a situational analysis

The process begins with a situational analysis of the immunization programme that is based on an assessment of the programme. The analysis usually starts with a review of the previous years' performance in accelerated disease control initiatives and the components of the routine immunization system. Findings on the programme's strengths (e.g. 78% coverage with EPI antigens) and weaknesses (e.g. aging cold chain) are used to set programme priorities (e.g. priority to reach the remaining 22% of newborns and renew the cold chain over the next five years).

A situational analysis needs to be conducted with the participation of as many representatives of the national immunization system as possible. It can begin with a national meeting in which each representative will contribute data, and carry out roles and responsibilities. This guide describes a method of rapid situational analysis; however, it may be necessary to conduct an in-depth evaluation of the country's performance including assessments of coverage, immunization safety, waste management, data quality, logistics, personnel needs, etc.

Analysis of accelerated disease control initiatives

Table 1 shows an example of a rapid situational analysis of accelerated disease control initiatives (based on previous years' data). Each initiative of accelerated disease control (polio, measles, MNT etc.) provides basic indicators of each previous year's performance under the categories of: routine immunization, surveillance and supplementary immunization.

Analysis of immunization system components

Table 2 shows an example of a rapid situational analysis of immunization system components (based on previous years' data). For each component listed, provide national indicators of performance for each year. Data may be derived from various sources and it may be useful to indicate which source (e.g. Joint Reporting Form, etc.).

Determining strengths and weaknesses

The analysis of the review in Tables 1 and 2 may indicate areas where programme performance needs to be improved. Highlighting or circling these indicators will help to determine priorities for the comprehensive multi-year plan, as shown (by the circled data) in the example below. Once the rapid analysis is done, strengths and weaknesses of the immunization programme should be defined. It is important to establish the link with the previous MYP, and include a brief evaluation of the activities, achievements and drawbacks in the previous planning period.

Previous evaluations and assessments also help to determine national priorities for the new multi-year plan. Therefore, it is also important to refer to recommendations of previous evaluations and assessments.

Table 1: Situational analysis by accelerated disease control initiatives (*sample table for illustration only*)

Component	Suggested indicators	National status[a]		
		2002	2003	2004
Polio	*OPV3 coverage*	72%	74%	82%
	Non-polio AFP rate per 100 000 children under 15 years of age	2.5	2.5	2.5
	Extent: NID/SNID *Number of rounds* *Coverage range*			NIDs 2/*year* with 87–90% coverage SNIDs 2/*year* with 92-95% coverage
MNT	*TT2+ coverage*	50%	48%	60%
	Number of districts reporting > 1 case per 1000 live births			(30%)
	Was there an SIA? (Y/N)			Y
Measles	*Measles coverage*	60%	71%	76%
	Number of outbreaks reported	none	3	5
	Extent: NID/SNID *Age group* *Coverage*			National NID 2003 0–60months 92%
Yellow fever	*YF coverage*	36%	(38%)	40%
	Number and percentage of districts reporting > 1 suspected case		7 districts, 14%	
	Was a preventive campaign conducted? (Y/N)		Y	

[a] It is useful to include the data source (e.g. WHO/UNICEF Joint Reporting Form, GAVI Annual Report, etc.) for each data set

Table 2: Situational analysis of routine EPI by system components (*sample table for illustration only*)

System Components	Suggested indicators	National status[a]		
		2002	2003	2004
Routine coverage	DTP3 coverage	70%	72%	80%
	% of districts with > 80% coverage	20%	23%	30%
	National DTP1–DTP3 drop-out rate	10%	10%	10%
	Percentage of districts with drop-out rate DTP1–DTP3 > 10	6%	6%	4%
New vaccines	HepB3 coverage		50%	52%
Routine surveillance	% of surveillance reports received at national level from districts compared to number of reports expected		80%	95%
Cold chain/Logistics	Percentage of districts with adequate numbers of functional cold chain equipment			80%
Immunization safety	Percentage of districts that have been supplied with adequate (equal or more) number of AD syringes for all routine immunizations			50%
Vaccine supply	Was there a stock-out at national level during the last year?		Y	Y
	If yes, specify duration in months		5–12	3–12
	If yes, specify which antigen(s)		Measles	BCG
Communication	Availability of a plan			No plan
Financial sustainability	What percentage of total routine vaccine spending was financed using government funds? (including loans and excluding external public financing)	8%	10%	10%
Linking to other health interventions	Were immunization services systematically linked with delivery of other interventions (malaria, nutrition, child health) established	No	No	No
Human resources availability	No. of health workers/vaccinators per 10 000 population.			14 per 10 000
Management planning	Are a series of district indicators collected regularly at national level? (Y/N)			
NRA	Number of functions conducted			4–6 functions
ICC	Number of meetings held last year			1
Waste disposal	Availability of a waste management plan			
Programme efficiency	Vaccine wastage monitoring at national level for all vaccines			
	Timeliness of disbursement of funds to district and service delivery level			

[a] It is useful to include the data source (e.g. WHO/UNICEF Joint Reporting Form, GAVI Annual Report, etc.) for each data set.

Note the indicators used in this guide have been selected for convenience and simplicity. Countries should carefully decide which indicators to use from their monitoring systems.

Step 2. Developing and prioritizing national objectives and milestones

The aim of this step is to develop national objectives and milestones, to align them with global and regional goals, and to prioritize these objectives and milestones based on the evidence from the situational analysis and from the costing and financing analysis.

An analysis of the programme's strengths and weaknesses follows from the results of the situation analysis and links to identification of a tentative set of objectives for the immunization programme**.** The development of national objectives and milestones needs to ensure consistency with the situational analysis, previous evaluations and assessments of the immunization programme, and other national and health priorities. The objectives and milestones need to be based on the strengths of the programme and the target weaknesses that emerge from the situational analysis previously mentioned. They should address the challenges identified, such as increasing coverage, reaching the hard-to-reach, introducing new antigens, renewing the cold chain, or others.

Also, when developing objectives and milestones it is important to take into consideration and align with global and regional goals. Some countries may not be able to achieve national goals within the three to five year time frame. Under these circumstances objectives and strategies should still be developed to enable the country to achieve the goals within a longer timeframe.

A critical element for the success of the cMYP is that its strategies and milestones are prioritized based on evidence. In prioritizing, it is important to assess if the objectives and milestones provide the most benefit to the programme and if they can be attained with the available resources. First and foremost is the evidence of the benefit of the objective: the objectives of the programme need to be focused on the reduction of child mortality and morbidity. The benefit of increasing vaccination coverage is that the number of cases of disease and associated deaths will be prevented. Second, the costing and financing analysis will produce additional evidence for prioritizing objectives by assessing the availability of resources for their implementation; where there are large funding gaps, managers may need to re-evaluate whether strategies could be postponed or changed.

Table 3 shows an example, with:

1) a list of problematic areas of the NIP and/or national health priorities in the first column;
2) NIP objectives towards the problematic areas of the NIP and/or national health in the second column;
3) NIP milestones to achieve the national objectives in the third column;
4) a list of regional and global goals, if these are available, in the fourth column; and
5) the order of priority of the NIP objective in the fifth column.

Table 3: National priorities, NIP objectives and milestones, regional and global goals, and order of priority (*sample table for illustration only*)

Description of problems and other national priorities	NIP objectives	NIP milestones	Regional and global goals (until 2010)	Order of priority
30% of districts w/ DTP3 coverage > 80%	80% DTP3 in every district by 2007	**2005:** 50% districts achieve DTP3 coverage of >= 80% **2006:** 70% districts achieve DTP3 coverage of >= 80% **2007:** **2008:** **2009:**	By 2010 or sooner all countries will have routine immunization coverage at 90% nationally with at least 80% coverage in every district	1
No stock-outs	No stock-outs anywhere in the country by 2006	**2005**: 80% districts with no stock-outs **2006**: 100% districts with no stock-outs		2
50% DTP wastage rate	20% DTP wastage rate by 2008	**2005:** 40% DTP wastage rate **2006:** 30% DTP wastage rate		4
10% DTP1–DTP3 drop-out rate	5% DTP1–DTP3 drop-out rate by 2007	**2005:** 80% districts achieve DTP1–DTP3 drop-out rate of <= 5% **2006:** 90% districts achieve DTP1–DTP3 drop-out rate of <= 5%	By 2010 or sooner all countries will have routine immunization coverage at 90% nationally with at least 80% coverage in every district	3
Improve coverage in the hard-to-reach areas	No districts with < 50% DTP3 coverage by 2007	**2005:** < 5 districts with < 50% coverage **2006:** < 3 districts with < 50% coverage		1

Step 3. Planning strategies for each system component

Having decided upon the objectives, milestones and priorities, the aim of this step is to determine appropriate strategies and key activities to achieve the objectives. **Table 4** below is divided into five parts; each part corresponds to a system component:

1) Service delivery (Table 4a)
2) Advocacy and communication (Table 4b)
3) Vaccine supply, quality and logistics (Table 4c)
4) Surveillance (Table 4d)
5) Programme management (Table 4e).

To prepare **Table 4** do the following.

1) List all national objectives (take from Tables 3a and 3b) in the first column of Tables 4a, 4b, 4c, 4d, 4e).
2) Write a brief description of strategies needed to achieve these objectives according to the system component in the second column.
3) Write key activities for each strategy in the third column.

Check to see if some system-wide barriers to immunization can be addressed by including key activities in Tables 4a–4e. It is acknowledged that system barriers primarily need to be addressed through overall health sector development efforts; however, certain activities implemented by the programme can help alleviate some barriers.

More detailed examples of Tables 4a–4e can be found in Annex 2 and are for illustration only. The lists of key activities are not exhaustive and the tables are not complete. Each country may wish to add more and different activities according to the real situation in their countries.

Table 4a: Service delivery *(sample table)*

Objective *(1)*	Strategy *(2)*	Key activities *(3)*
Polio interrupted by 2005	SIAs	1. Two polio NIDs < 5 per year
		2. Include VitA in plans for polio NIDs
80% coverage DTP3 by 2006	RED strategy implemented in every district	3. Establish national database of district indicators
80% coverage all antigens by 2007	Plan to reach all areas at least four times a year	4. Micro-planning workshops
		5. Hire or purchase vehicles for mobile visits

Table 4b: Advocacy and communications *(sample table)*

Objective *(1)*	Strategy *(2)*	Key activities *(3)*
Polio interrupted by 2005	Polio ICC expanded	6. Broaden agenda and participation at polio ICC
80% coverage DTP3 by 2006	Strengthen ICC	7. Broaden agenda and participation of ICC
80% coverage all antigens by 2007	Greater NGO involvement	8. Conduct a meeting with the NGOs to discuss participation

Table 4c: Surveillance *(sample table)*

Objective *(1)*	Strategy *(2)*	Key activities *(3)*
Polio interrupted by 2005	AFP surveillance combined with other VPDs	9. Active surveillance in all districts
	Measles and polio laboratorylinks	10. Combine measles/polio laboratory support, training, supplies
Measles mortality reduced by 95% by 2007	Active measles surveillance combined in other VPDs	11. Active surveillance for AFP, measles and MNT in all districts

Table 4d: Vaccine supply, quality and logistics *(sample table)*

Objective *(1)*	Strategy *(2)*	Key activities *(3)*
AD syringes use 100% by 2007	Exclusive use of ADs in every district	12. Implement AD "bundling" policy with every vaccine in every district.
	Proper AD use in every district	13. Improve district reporting of AD use

4e: Programme management *(sample table)*

Objective *(1)*	Strategy *(2)*	Key activities *(3)*
Fill all vacant district posts by 2006	Develop recruitment plan with budget	14. Cost priority district post vacancies
		15. Determine priority districts for filling vacancies
		16. Review total health service needs in human resources plan

Step 4. Using GIVS as a framework

The aim of this step is to compare and check national activities against those outlined in the GIVS document *(see page 3)*. While not all GIVS key activities may be appropriate for every country, this step may help to identify other kinds of activities that could be conducted to achieve particular national strategies. There may be strategies that may have been overlooked in the initial stages of developing the cMYP. Here are two examples: (1) Reaching hard-to-reach populations is a national commitment. It will be necessary to include all relevant strategies. (2) A new activity to conduct school immunization for TT to achieve the strategy for "Protection of persons outside the infant age group" might be identified. In this case, Table 4a (Service delivery) may be modified. Also remember to include these activities when conducting the costing of the plan.

The four main areas of GIVS are:

1) protecting more people in a changing world;
2) introducing new vaccines and technologies;
3) integrating immunization, other health interventions and surveillance in the health systems' context; and
4) immunizing in the context of global interdependence.

The GIVS activities are provided in the form of a checklist in Annex 3. Annex 3, columns 1 and 2, provides the strategies and key activities listed in the GIVS document. For each GIVS activity listed in column 2, one can indicate whether any modifications need to be made to the national plan by ticking *Yes, No, Not applicable*, or *New activity needed.*

Step 5. Creating a timeline

The aim of this step is to create a timeline for the key activities. A sample table (Table 5) is included in this section, and the full Table is in Annex 4. In column 1, all key activities from Tables 4a–4e can be listed so as to decide in which year(s) each activity will be carried out. At this stage, it is necessary to involve staff from the sub-national (province or state) level. Ideally they should be invited to a meeting to review the draft cMYP as well.

Table 5: Activity timeline *(sample table)*

Key activities	Year 1	Year 2	Year 3	Year 4	Year 5
Service delivery					
1. Two polio NIDs for children < 5 per year	■	■			
2. Include VitA in plans for polio NIDs	■	■	■	■	■
3. Establish national database of district indicators	■	■	■	■	■
4. Micro-planning workshops		■			
5. Supervisory follow-up priority districts	■	■			
6. Hire or purchase vehicles for mobile visits		■			
Advocacy and communications					
7. Broaden agenda and participation at polio ICC	■				
8. Broaden agenda and participation of ICC	■	■	■	■	■
9. Broaden agenda and participation of NGOs	■	■	■	■	■
10. Include MNT in key messages on routine	■	■	■	■	■
11. Use surveillance data to advocate for YF in high-risk districts	■				
Surveillance					
12. Active surveillance in all districts	■				
13. Combine measles/polio laboratory support, training, supplies	■				
Vaccine supply, quality and logistics					
14. Implement AD "bundling" policy with every vaccine in every district.	■				
15. Improve district reporting of AD supply and use	■				
16. Replace 30% of cold-chain equipment every year for three years		■	■	■	
Programme management					
17. Develop liaison processes to facilitate transfer of costing information to national budgeting decisions.	■				

Step 6. Analysing the costs, financing, and financing gaps in the cMYP

The aim of this step is to estimate the current and future cost and financing of the cMYP objectives, and to conduct scenarios and identify strategies that will improve the financial sustainability of the programme. An Excel-based tool and instruction manual have been developed for this analysis, which provide much more detailed guidance than described below. Countries that have completed an immunization financial sustainability plan (FSP) will be familiar already with the process of estimating costs and financing.

Health sector analysis

It is essential to make a qualitative assessment of the environment in which an immunization programme operates in order to understand how the availability of resources and the patterns of service delivery might be affected in the future. For instance, the health sector competes with many other sectors for limited government resources. Within the health sector, the immunization programme competes with other priority health programmes for funding. By having a better sense of whether government financing for health is increasing or decreasing overall, the team preparing the cMYP can estimate the availability of future financing for immunization more reliably.

In addition, many governments are pursuing strategies across all sectors, aimed at improving financial management and transparency of national planning and budgeting processes. New procedures and mechanisms can have an impact on the availability immunization funding, because they provoke discussions and decisions about national priorities and funding.

Finally, reforms can affect the organization of the immunization programme, delivery of services, and financing of the programme. It is important to have adequate knowledge of the critical reforms that will have an impact on the programme.

Estimating costing and financing of the cMYP

Costing the cMYP is a key step in the planning process of the national immunization programme and provides the key financial information to reach programme objectives. Immunization services can realize their potential for improving the health of children only with adequate and reliable funding. It is broadly recognized that strategic planning for immunization requires credible information about how much is being spent, on what and from what source, and how much will be needed in the future.

When costing the cMYP, the starting point is the information about programme objectives and strategies from previous steps in the development of your cMYP. These will be translated into projected future costs, based on assumptions about the inputs and activities required to achieve programme objectives and targets. Costing will also help to estimate and analyse the gap between future resource requirements and available financing over the time horizon covered. The steps to follow include the following:

1) **Estimate current programme costs** by type of cost (such as personnel, training, vaccines, operations and maintenance, etc.).

2) **Project future resource requirements** over the cMYP time horizon (up to five years).

3) **Estimate current programme financing** (both sources and amounts). Sources usually include national and sub-national government, GAVI, major donors, and NGOs.

4) **Project future financing levels and patterns** over the cMYP time horizon (up to five years).

5) **Estimate financing gaps** by comparing resource needs with available financing, **conduct alternative scenarios** to reduce funding gaps, and **identify strategies** for improving financial sustainability**.**

To generate the estimates of future financing, it is suggested that individuals preparing the cMYP have discussions with representatives from the Ministry of Health, Ministry of Finance, Ministry of Planning, major donors, and NGOs to determine their future commitments to the programme. In countries where NGOs provide a substantial level of immunization services, it will be important to estimate their future support for the programme, to the extent possible.

It may be difficult for national government and partners to make financing commitments for the later years of the projection period. Thus, some of the financing gap in later years will be related to uncertainty in financing. Because the cMYP will be translated into annual plans and updated periodically, this issue should resolve itself over time.

In many countries, provinces or regions vary in terms of geography, population density and socioeconomic levels. These differences at the sub-national level affect programme performance and the amount of resources required to achieve objectives. Further, in countries with decentralized planning processes, revenue generation and resource allocation for programme operational costs are based at the sub-national level. For these reasons, it is useful to estimate resource requirements at the sub-national level, in addition to those at the national level. This is particularly important when planning strategies to reach the unreached. Information from sub-national and district level can be used to estimate varying resource requirements. The instruction manual accompanying the Excel tool provides additional guidance on estimating sub-national costs and finances.

Scenario-building using the costing tool

Scenarios evaluate the cost and financing of alternative ways of achieving programme objectives. The Excel tool can be used to evaluate and compare alternatives in order to decide on the most feasible approach for the programme. Cost estimates for each scenario need to be based on assumptions about the inputs required to achieve targets. For example, if a country is interested in reducing mortality and morbidity by introducing combination vaccines, it will be important to compare the additional resources required with available funding. In addition, the costs of alternative scenarios need to be compared against the original cost of achieving programme objectives, to see whether any of the new scenarios provide cost savings or reduce funding gaps. Alternatives should be compared for their feasibility and affordability, while still considering possible additional benefits. Even if the programme is to receive GAVI grant funding, information on alternative scenarios can help prepare for when funding ends and government and partners become responsible for financing.

Interpreting cost, financing and gap results

The results of the cost, financing and gap analysis can be further evaluated in order to have a comprehensive picture of financial sustainability prospects. For example, NIP strategies and activities can be considered affordable if the projected funding gap with government and partner financing is small enough that it can be realistically filled, taking into account constraints in financing the health sector. Drivers of programme costs can be identified to determine whether strategies can be made more efficient. For example, one of the more important cost drivers is vaccine costs. By reducing vaccine wastage, the NIP can reduce the overall resource requirements for vaccines.

When evaluating alternative scenarios such as introducing a new vaccine, it is important to associate these costs with the benefits of the programme improvements being considered. The benefits of immunization programmes over the five years of the cMYP include: number and percentage of target population vaccinated; disease cases prevented; and lives saved from vaccine-preventable diseases.

Additional disease cases and deaths will be prevented as programme improvements are introduced. For example, if routine coverage for measles is increased, fewer children will contract the disease and fewer measles deaths will occur. In addition, with the introduction of underutilized vaccines such as hepatitis B, a reduction in the number of hepatitis B cases and associated deaths will decline. The numbers of disease cases prevented through vaccinations differ by type of vaccine due to variation in vaccine efficacy as well as the age-specific incidence of diseases.

When information on number of disease cases and deaths averted is available, the programme managers and policy-makers can estimate the relative cost–effectiveness of programme improvements. The cMYP Excel tool does not yet calculate the benefits associated with a new vaccine or programme improvement.

Developing financial sustainability strategies

If a large financing gap exists for a programme, it will be important to identify how this can be reduced to improve financial sustainability, which is defined as:

> *Although self-sufficiency is the ultimate goal, in the nearer term sustainable financing is the ability of a country to mobilize and efficiently use domestic and supplementary external resources on a reliable basis to achieve current and future target levels of immunization performance in terms of access, utilization, quality, safety and equity.* [3]

This definition emphasizes the partnership between country and partner contributions to the programme, as well as the need to improve reliability and efficiency of programmes.

Strategies for achieving greater financial sustainability need to be tailored to a country's situation, but will likely include efforts to:

- **mobilize additional resources** from national and external sources; and
- **increase the reliability** of resource availability; and
- **improve programme efficiency** to minimize additional resources needed.

It is important to include key stakeholders in the assessment and selection of financial sustainability strategies. Engagement of stakeholders in the process can be an important way of identifying new ideas, and supporting implementation of strategies. The cMYP needs to include these strategies in the relevant tables, and the costs of implementing these studies needs to be evaluated as well.

The cMYP is a key instrument for programme and resource planning and for advocating among the Ministry of Health, Ministry of Finance, international donors and development partners to support programme expansion and improvement. Financial sustainability strategies can form the basis of advocacy for the programme. To be effective, advocacy must be rooted in the strategies that are developed to achieve the programme's financial sustainability objectives. In some cases, many of the stakeholders for the immunization programme will become target audiences for the advocacy messages. During the development of the cMYP there are many opportunities for formal and informal interaction with stakeholders.

A recommended reference for identifying financial sustainability strategies is ***http://www.who.int/immunization_financing/options/en/***. For further information on advocacy, please see ***http://www.gaviftf.org/docs_activities/advocacy/fs/***

[3] This definition of financial sustainability was adopted by the GAVI Board in June 2002.

Financial sustainability indicators and targets

It is recommended that a small number of indicators and related targets be chosen for monitoring and evaluation of programme financial sustainability. Indicators and targets may be chosen to evaluate reliability, efficiency, adequacy and self-sufficiency. A set of possible indicators is provided in Annex 5. Indicators from this list are suggested, but other indicators tailored to a country's specific situation could be chosen.

Reliability

Reliability means that financial resources allocated for the programme are available at the right time and place. Reliability can break down when budgetary allocations are made, but funds are not released when needed. An indicator and target of reliability might be:

- *indicator – the share of local government allocations for immunization that is expended*;
- *target – 90% or more of local government allocations for immunization programme inputs are expended during each of the first two years of the cMYP and 95% or more during each of the last three years.*

Efficiency

Efficiency means that the maximum quantity of output is achieved for a given level of expenditure. An indicator and target of efficiency would be:

- *indicator – vaccine wastage rate*;
- *target – the wastage rate is reduced by 2 percentage points per year to arrive at 10 percentage points lower than in the base year by the end of the cMYP.*

Adequacy of resources

Adequate resources means that efforts to mobilize financing from national and external sources are successful in obtaining the funding needed to achieve programme objectives. An indicator and target of adequacy of resources might be:

- *indicator – sub-national government spending for per diems for outreach and for community mobilization activities;*
- *target – sub-national governments mobilize at least 90% of the funds planned for outreach and community mobilization in the first year of the cMYP.*

Self-sufficiency

Finally, the ultimate goal is financial self-sufficiency for the immunization programme. To move toward self-sufficiency as the programme expands and improves, national contributions to meeting programme costs would have to grow. Hence, an indicator of self-sufficiency could be:

- *indicator – the growth rate of the national contribution to the resource requirement of the programme;*
- *target – MoH spending on immunizations is increased by 7% per year and sub-national government spending on immunizations by 5% per year over the life of the cMYP.*

Step 7. Putting the cMYP into action: approval, dissemination, implementation

A complete cMYP will include the following elements.

- A situational analysis has been completed.
- National objectives and milestones are clearly defined.
- Strategies and key activities are delineated and reflect a prioritization exercise.
- The GIVS framework has been consulted and strategies are revised accordingly.
- A timeline for activities with roles and responsibilities of national immunization programme and partners is realistic with given personnel.
- The strategies and key activities are costed, financing sources are documented and an analysis for increasing financial sustainability is described. The Excel tool is completed.

Once the multi-year plan is ready, it is important to ensure that the plan will be put into action.

- **Get approval/endorsement** from higher levels in the national structure according to country mechanisms.
- Discuss the cMYP with the **ministry of health** and **the ministry of finance** to ensure the plan is part of the broader health sector plan.
- Present and discuss the plan with the **ICC and partners.**
- **Disseminate the plan** to all sub-national levels and others involved in the planning process.

For the plan to be widely accepted, dissemination needs to be adequately planned. A variety of dissemination methods can be used including: a workshop with key stakeholders, short accessible versions of the plan widely distributed etc.

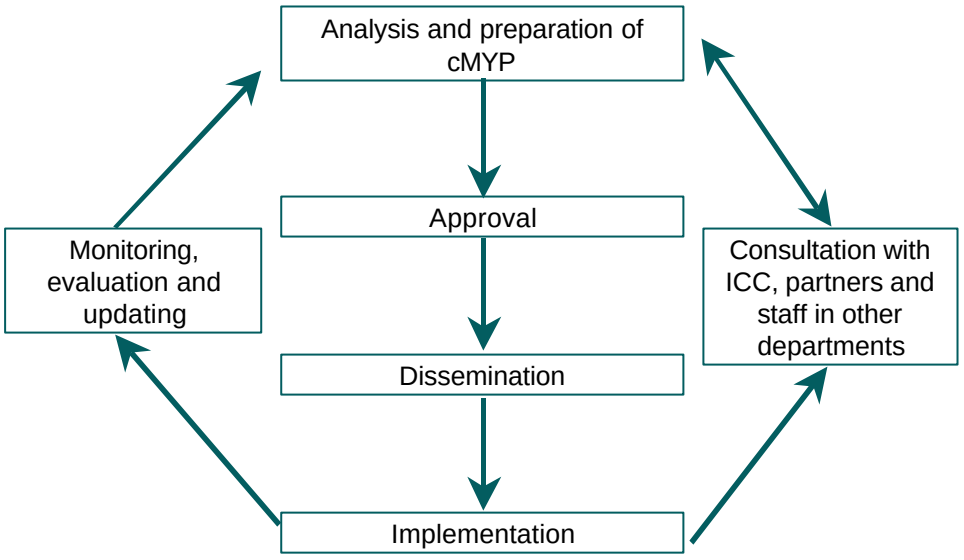
- **Review the multi-year plan annually** when preparing the annual plan.
- **Prepare for a new multi-year plan** one year before the expiry of the current plan or earlier if the current plan has become outdated.

The following checklist will ensure that all steps have been followed and that the process for developing the cMYP has been **comprehensive**.

- Have your partners been involved throughout the development of the plan?
- Is there consensus between the national immunization programme and its partners on strategies to achieve national objectives?
- Are national priorities clearly reflected in this plan?
- Have other programmes been consulted regarding areas of collaboration?
- Has the GIVS framework been used as a checklist?
- Does the plan realistically reflect the political and socioeconomic environment in the country?
- Has the plan been costed and have alternative scenarios been evaluated?

- Is the financing required for accomplishing activities sufficient, and if not, has the plan prioritized activities, given financial constraints?
- Is it clear how progress from year to year will be monitored?

Figure 4: Stages in cMYP planning



Adapted from *Strategic Health planning: Guidelines for developing countries*, Nuffield Institute, 2002.

3. Creating an annual plan

Every year, an activity plan or workplan should be prepared for the forthcoming year. The annual plan should be developed with full involvement of the sub-national level, ideally at an annual review and planning meeting.

If the comprehensive multi-year plan is new, it is useful to start the annual planning soon after the multi-year planning process to ensure appropriate linkages with the cMYP.

For subsequent years do a situational analysis as outlined in Section 2, Step 1, and revise activities according to current situation.

Step 8. Developing the annual plan for the relevant year of the cMYP

1) Conduct a situational analysis *(see Section 2, Step 1)*.
2) From the cMYP timeline *(Table 5)* copy all activities listed under the year in question as shown in Table 6, column 1.
3) Refer again to GIVS every year and include new activities according to national needs.

Step 9. Integrating and consolidating activities for implementation

In Table 6, column 2, include activities that can be integrated and/or consolidated. Note that some activities cannot readily be combined. Nevertheless, they should also be listed in column 2, Table 6.

Integrating activities

The aim of integration is to conduct joint activities between immunization and other health priorities. The national health plan may indicate which health interventions should be linked. There may also be further details in the strategic plans of other departments, for example malaria, nutrition, maternal and child health. The first step will usually be discussions between the groups that intend to work together. This may be followed by joint planning, and sharing of resources.

Consolidating activities

The aim of consolidation is to identify common problems in the immunization system and to share responsibilities to carry out corrective activities. For example, an obstacle for polio eradication will often affect measles mortality reduction, neonatal tetanus elimination and routine immunization coverage, and various teams can contribute to solving the problem. Review all the key activities and decide which can be consolidated.

For example, you may decide to consolidate assessment of the status of districts, micro-planning workshops and district supervisory visits into one activity. Write those in column four (consolidated and integrated activities).

Step 10. Prioritizing activities and districts

Once you have decided on the activities, the next step is to set priorities for their implementation. One approach is to analyse district level data to select priority districts. Annex 6 provides an example of an analysis using coverage and surveillance data for each district. This analysis will help to decide which districts need to be prioritized for time of implementation and/or for allocation of resources.

Indicate in the "where" column whether an activity will be carried out in all districts, or in selected priority districts. Another approach is to prioritize activities such that the activities that impact the whole country should be implemented before the area-specific activities.

Step 11. Establishing the timeline, responsible units and financial resources

Once the cMYP has been costed, the costing tool will show the total budget for each year.

Using the budget for that year (taken from the costing tool), include costs for each activity in the annual plan *(Table 6)*.

- For certain activities (e.g. polio NIDs), the costing tool would contain detailed cost information that can be included directly in the cost column of Table 6.
- For other activities, include an estimated cost, ensuring that the total costs of these planned activities do not exceed the ceiling allocated for that year .

Having decided on priority activities and districts, indicate timeline, and persons/ units responsible.

Annual planning at sub-national levels

The national plan provides the broad parameters on which the country should base its immunization activities. The sub-national and district plans should include details on implementation.

- **Provincial or state-level plans** should follow the process and structure of the annual national plan.
- **District micro-plans** should contain detailed activities for service delivery based on local problem-solving. Micro-planning at district level is explained in a separate guide.

Annual planning and review meetings

At the end of each year, an immunization planning and review meeting should be conducted with the participation of national and sub-national immunization managers, other relevant departments and partner agencies. These meetings should be used as an opportunity to evaluate the previous annual workplan, to discuss achievements and problems, and to develop the forthcoming annual workplan based on available data and resources.

Checklist for annual workplan

1) Do the activities and budget of the annual plan match the MYP?
2) Are roles and responsibilities clearly delineated for each strategy?
3) Have you consolidated activities to avoid duplication/fragmentation?

Table 6: Annual workplan *(sample table)*

Activities	Consolidated and integrated activities*	Where	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Unit responsible	Cost US$	Funds available		Shortfall
																	Govt.	Partners	
Service delivery																			
1. Two polio NIDs per year for children < 5	Two polio NIDs + VitA + combine with measles in 2007																		
2. Include VitA in plans for polio NIDs																			
Advocacy and communication																			
3. Broaden agenda and participation at polio ICC	Plan next ICC meeting with broad agenda, routine, measles, MNT, new vaccines, links with other interventions etc.																		
Surveillance																			
4. Active surveillance in all districts	Using the AFP surveillance network expand the number of sites integrating measles and MNT active surveillance. Link results to district reports and district database at national level.																		
Vaccine supply, quality and logistics																			
5. Implement AD "bundling" policy with every vaccine in every district	Develop national "bundling" policy																		
Programme management																			
6. Include session plan review in supportive supervision	Include session plan review in supportive supervision.																		

* Blank cells in column 2 represent an activity that has been consolidated.

Annex 1:
Immunization financing glossary

Capital costs: The cost of any resource that has a value over US$ 100 and is not consumed or replaced every year. Its value is depreciated over its lifetime. Examples include vehicles, cold chain equipment and other immunization-specific equipment.

Community financing: Refers to many different community-based mechanisms for funding services, including micro-insurance, community health funds and revolving funds for drugs.

Cost–benefit analysis: Seeks to value and compare all costs and benefits (measured in dollars or other currencies) that result from alternative interventions. It can be used to compare two or more different health programmes, such as malaria control and immunization, to see which provides the most benefits per unit cost. That is, it is used to determine which programmes offer the most efficient use of resources.

Cost–effectiveness analysis: Compares different ways of achieving the same objective in an effort to identify the least expensive way of achieving that objective. Cost-effectiveness is measured using one outcome, such as number of lives saved or number of children vaccinated.

Costing: This is the process of determining how much your programme costs during one year.

Cost per capita: This indicator links total immunization cost or resource requirements to total population in the country and provides a sense of affordability of the immunization programme.

Cost per dose: This indicator links total immunization cost or resource requirements to the total number of vaccines doses administered.

Cost per DTP3 child: The cost per DTP3 is used as an approximation of the value of resources required to immunize a child with three doses of DTP3 and is based on the total number of children under one year of age that received their third dose of DTP vaccine.

Costs: The value of the resources, both monetary and non-monetary, used to produce a good or service.

Debt relief: Refinancing or cancellation of the principal and/or interest payments on loans to developing countries.

Decentralization: The transfer of authority and responsibility for public functions from the central government to provincial or district governments.

Effectiveness: The degree to which an activity or programme achieves its objectives. For example, a highly effective polio programme eliminates polio. An ineffective programme does not decrease the prevalence of polio.

Efficiency: The ability to achieve objectives for the least cost.

Expenditure: The amount of money spent on a good or service during a particular period of time. For example, the amount of money spent on vaccines in a year.

Financial plan: The document that results from the financial planning process. A financial plan can help you plan strategically and use your finances efficiently.

Financial sustainability: GAVI's definition is the following. Although self-sufficiency is the ultimate goal, in the nearer term, sustainable financing is the ability of a country to mobilize and efficiently use domestic and supplementary external resources on a reliable basis to achieve current and future target levels of immunization performance in terms of access, utilization, quality, safety and equity.

Financial sustainability plan (FSP): A structured approach, first developed for use in GAVI countries, to assess a programme's financing challenges and describe the strategic approach by a government and donors to supporting medium-term and long-term programme objectives.

Financing: Refers to the amount and sources of money for an activity or programme. Interchangeable with "funding."

Financing gap: The difference between the amount of financing you need to run your programme to achieve programme objectives and the financing you expect to have available from government and partners.

Financing sources: Agencies that provide funding for an immunization programme, including governments, multilateral and bilateral agencies and private donors.

GAVI: A public–private partnership that includes national governments, UNICEF, WHO, the vaccine industry and other partners that focuses on increasing access to vaccines and strengthening of immunization programmes in developing countries.

Health sector: The portion of a nation's economy and services that deal with health.

Health sector strategic plan (HSSP): A plan for delivering health services that describes overall goals and objectives, prioritizes programmes and serves as a framework for more detailed planning.

Highly Indebted Poor Countries II (HIPC II): A programme of accelerated debt relief managed by the World Bank. Countries that meet certain criteria and adhere to requirements may receive HIPC II debt relief.

ICC (interagency coordinating committee): An ICC is a committee of immunization partners involved in funding and providing immunization services in a country.

Indicators: Measures established to determine how well a programme is performing. Indicators are usually monitored at regular intervals and compared to a standard, or baseline.

Inflation rate: The percentage increase, usually calculated annually, in the prices of goods and services.

Medium-term expenditure framework (MTEF): The medium-term expenditure framework is a tool for linking policy, planning and budgeting over the medium term (usually three years).

Micro-plans: Detailed planning documents developed at the sub-national, generally district level.

Millennium Development Goals: The United Nations adopted eight goals, aiming at eradicating extreme poverty and hunger; achieving universal primary education; promoting gender equality and empowering women; reducing child mortality; improving maternal health; combating HIV/AIDS, malaria and other diseases; ensuring environmental sustainability; and developing a global partnership for development.

Multilateral agency: An agency, such as WHO or the African Development Bank, whose membership and governance structure comprises several countries and that acts independently to fulfil its mandate.

Poverty Reduction Strategy Paper (PRSP): A document that describes a country's macro-economic, structural and social policies and programmes in an effort to promote growth, reduce poverty and identify external financing needs. PRSPs are prepared by governments in association with development partners such as the World Bank and the International Monetary Fund.

Programme-specific costs: Costs that apply only to immunization services, such as vaccines, in-service training and direct programme management.

Recurrent costs: Costs that must be paid every year, such as expenditures for salaries, vaccines, fuel, equipment maintenance, staff training and costs of monitoring and disease surveillance. Also called operational costs.

Resource mobilization: The process of obtaining the money, personnel and equipment necessary to run an immunization programme.

Resource requirements: Financial (e.g. money) or non-financial (e.g. trained staff) inputs needed for the immunization programme to operate at anticipated levels.

Sector-wide approach (SWAp): An organizational approach used by some governments in which donor support and funding is pooled to support a comprehensive vision for the health sector.

Shared costs: Cost of resources that are shared among multiple health services, such as the costs of health facilities and staff that provide immunization services as well as other health services.

Social mobilization: Refers to actions, such as advocacy and community education, that raise awareness among people and influence them so that they have their children immunized.

Sub-national: Levels of government below the national or central government.

Supplementary immunization activities (SIAs): Immunization activities conducted in addition to the routine immunization programme. For example, campaigns to eliminate polio.

UNICEF: United Nations Children's Fund, a United Nations agency that focuses on the rights of children worldwide. One of UNICEF's priorities is childhood immunization.

Unit cost: The cost per item; in this case, the cost per dose of vaccine.

Useful life: In capital costs, the length of time a product (e.g. vehicle or refrigerator) can be anticipated to operate before it is likely to need replacement.

User fees: Fees charged to users of goods or services. For example, fees charged to patients for curative services. User fees are not recommended for immunization.

WHO: World Health Organization, the United Nations' agency for health.

Annex 2:

Planning strategies and activities for each system component

Table A: Service delivery (*sample table*)

Objective (1)	Strategy (2)	Key activities (3)
Polio interrupted by 2005	SIAs	1. Two polio NIDs per year for children < 5
		2. Include VitA in plans for polio NIDs
80% coverage all antigens by 2007	RED strategy implementated in every district	3. Establish national database of district indicators
		4. Micro-planning workshops
		5. Supervisory follow-up priority districts
	Plan to reach all areas at least four times a year	6. Hire or purchase vehicles for mobile visits
	Add vitamin A with routine measles	7. Monitor use of VitA for infants with routine measles dose
	Distribution of insecticide treated nets with routine and TT and measles SIAs	8. Pilot distribution of insecticide treated nets with measles vaccine and routine TT
		9. Joint planning with malaria department
	Develop annual training plan	10. Training needs assessment
		11. Adapt Immunization in practice publication
	AEFI monitoring	12. Training on AEFI for district managers
		13. Include AEFI in national database for district monitoring
Measle mortality reduced by 95% by 2007	SIAs	14. Measles keep-up campaign for children < 5 in 2007
	Integration with VitA	15. Include VitA in measles SIA
Eliminate MNT by 2005	SIAs in high-risk areas	16. Assess MNT risk status of all districts
		17. TT SIA in 10 high-risk districts per year for 200 000 WCBA
		18. Include VitA in plans for MNT high-risk districts
	Routine TT in every district	19. Including routine TT in district micro-plans
	Uniject in TT SIAs	20. Pilot TT Uniject use in MNT high-risk districts
Expand HepB by 2007	HepB in RED strategy for every district	21. Monitoring HepB in every district
	Study birth-dose strategies	22. Pilot HepB birth dose use in selected hospitals

Table A: Service delivery (*sample table*) (cont'd...)

Objective (1)	Strategy (2)	Key activities (3)
Introduce Hib vaccine by 2007		
YF vaccine coverage equal to measles coverage by 2008		
AD syringes use 100% by 2007		
No stock-outs nationally by 2006		
New communications plan implemented in 2006		
Increase national funding for vaccines by 10% per year		
Fill all vacant district posts by 2006		
All AD syringes disposed of safely by 2008		

Table B: Advocacy and communications (*sample table*)

Objective (1)	Strategy (2)	Key activities (3)
Polio interrupted by 2005	Polio ICC expanded	1. Broaden agenda and participation at polio ICC
80% coverage DTP3 by 2006	Strengthen ICC	2. Broaden agenda and participation of ICC
80% coverage all antigens by 2007	Greater NGO involvement	3. Conduct a meeting with the NGOs to discuss participation
Measles mortality reduced by 95% by 2007		
Eliminate MNT by 2005	MNT advocacy	4. Include MNT in key messages on routine strengthening
Expand HepB by 2007		
Introduce Hib vaccine by 2007		
YF vaccine coverage equal to measles coverage by 2008	YF advocacy for health workers	5. Include YF in key messages for routine strengthening
AD syringes use 100% by 2007		
No stock-outs nationally by 2006		
New communications plan implemented in 2006	Communications plan	6. Develop key message for routine strengthening
		7. Include messages on improving outreach in communication plan
		8. Develop key message for routine strengthening
Increase national funding for vaccines by 10% per year		
Fill all vacant district posts by 2006		
All AD syringes disposed of safely by 2008		

Table C: Surveillance (*sample table*)

Objective (1)	Strategy (2)	Key activities (3)
Polio interrupted by 2005	AFP surveillance combined with other VPDs	1. Active surveillance in all districts
	Measles and polio laboratory links	2. Combine measles/polio laboratory support, training, supplies
80% coverage DTP3 by 2006		
80% coverage all antigens by 2007		
Measles mortality reduced by 95% by 2007	Active measles surveillance combined in other VPDs	3. Active surveillance for AFP, measles and MNT in all districts
	Measles and polio laboratory links	4. Combine measles/polio laboratory support, training, supplies
Eliminate MNT by 2005	Active surveillance in high-risk districts	5. Active surveillance for AFP, measles and MNT in all districts
Expand HepB by 2007		
Introduce Hib vaccine by 2007	Hib burden study	6. Establish sentinel sites for Hib surveillance
YF vaccine coverage equal to measles coverage by 2008	Active surveillance in selected districts	7. Improve active surveillance for YF in selected districts
	Expand YF labs	8. Combine YF with measles/polio laboratory support, training, supplies
AD syringes use 100% by 2007		
No stock-outs nationally by 2006		
New communications plan implemented in 2006		
Increase national funding for vaccines by 10% per year		
Fill all vacant district posts by 2006		
All AD syringes disposed of safely by 2008		

Table D: Vaccine supply, quality and logistics *(sample table)*

Objective (1)	Strategy (2)	Key activities (3)
Polio interrupted by 2005		
80% coverage DTP3 by 2006		
80% coverage all antigens by 2007		
Measles mortality reduced by 95% by 2007		
Eliminate MNT by 2005		
Expand HepB by 2007		
Introduce Hib vaccine by 2007		
YF vaccine coverage equal to measles coverage by 2008		
AD syringes use 100% by 2007	Exclusive use of ADs in every district	1. Implement AD "bundling" policy with every vaccine in every district
	Proper AD use in every district	2. Improve district reporting of AD use
No stock-outs nationally by 2006	Replace 30% of cold-chain equipment every year	3. Select and purchase equipment to replace 30% of cold chain each year
	Vaccine demand monitoring linked with supply	4. Monitor stock management in every district
		5. Monitor district stock in national database
New communications plan implemented in 2006		
Increase national funding for vaccines by 10% per year		
Fill all vacant district posts by 2006		
All AD syringes disposed of safely by 2008	Network of incinerators and waste management system	6. Test sample incinerators, buy incinerators for 50% of districts by 2006, establish collection/management systems

Table E: Programme management (*sample table*)

Objective (1)	Strategy (2)	Key activities (3)
Polio interrupted by 2005		
80% coverage DTP3 by 2006		
80% coverage all antigens by 2007		
Measles mortality reduced by 95% by 2007		
Eliminate MNT by 2005		
Expand HepB by 2007		
Introduce Hib vaccine by 2007		
YF vaccine coverage equal to measles coverage by 2008		
AD syringes use 100% by 2007		
No stock-outs nationally by 2006		
New communications plan implemented in 2006		
Increase national funding for vaccines by 10% per year	Integration of planning into national budgeting processes	1. Develop liaison processes to facilitate transfer of costing information to national budgeting decisions
		2. Building financial planning and management capacity
		3. Review vaccine usage for outreach and costing including AD syringes and safety boxes
Fill all vacant district posts by 2006	Develop recruitment plan with budget	4. Cost priority district post vacancies
		5. Determine priority districts for filling vacancies
		6. Review total health service needs in human resources plan
By 2006, all districts to review session plans regularly to ensure efficient use of sessions and reduce vaccine wastage	Quarterly review of session plans	7. Include session plan review in supportive supervision
All AD syringes disposed of safely by 2008		

Annex 3:

Using the GIVS framework as a checklist

Note: The table below contains only activities that are relevant to a country situation; it does not include all the acitivities mentioned in the GIVS document*.

* GIVS – Global Immunization Vision and Strategy 2005–2016. Geneva, World Health Organization; New York, UNICEF, 2005 (WHO/IVB/05.05).

GIVS framework checklist

GIVS strategies	Key activities	Activity included in cMYP			
Strategic Area 1: Protecting more people in a changing world		**Yes**	**No**	**Not applicable**	**New activity needed**
Strategy 1: Use a combination of approaches to reach everyone targeted for immunization	Strengthen national commitment to ongoing immunization services through policy and strategy development that also includes human resources and financial planning				
	Formulate and implement costed comprehensive multi-year national strategic plans, budgeting and annual workplans based on data analysis and problem solving				
	Sustain high vaccination coverage, where it has been achieved				
	Develop national strategies to immunize children who were not immunized during infancy				
	Where and when appropriate, include supplementary immunization activities as an integral part of the national plans				
Strategy 2: Increase community demand for immunization	Engage community members, NGOs and interest groups in immunization advocacy and implementation				
	Assess the existing communication gaps in reaching all communities and develop and implement a communication and social mobilization plan				
	Provide regular, reliable and safe immunization services that match demand				
Strategy 3: Ensure that the unreached are reached in every district at least four times a year	Micro-planning at the district or local level				
	Reduce the number of immunization drop-outs (incomplete vaccination) through improved management, defaulter tracing				
	Develop and update supervisory mechanisms and tools				
	Provide timely funding, logistic support and supplies for programme implementation in every district				
Strategy 4: Vaccinate beyond the traditional target group	Define target populations and age groups for vaccination appropriate to the national situation				
	Assess the cost-effectiveness of different schedules and strategies				

GIVS framework checklist *(cont'd...)*

GIVS strategies	Key activities	Activity included in cMYP			
Strategic Area 1: Protecting more people in a changing world		**Yes**	**No**	**Not applicable**	**New activity needed**
Strategy 5: Improve vaccine, immunization and injection safety	Procure vaccines only from sources that meet internationally recognized quality standards				
	Ensure long-term forecasting for existing and new vaccines by improving vaccine management skills				
	Achieve national self-reliance in quality assurance and regulatory oversight				
	Introduce, sustain and monitor safe injection practices, including the use of auto-disable syringes and other safe methods of vaccine administration				
	Establish surveillance and response to adverse events following immunization				
	Be responsive to potential vaccine safety issues and address these urgently				
Strategy 6: Improve and strengthen vaccine management systems	Achieve accurate demand forecasting at national and district levels to ensure the uninterrupted supply of assured quality vaccines, AD syringes and safety boxes				
	Build capacity for effective vaccine management through training, supervision and the development of information systems				
	Increase access and coverage through a "safe chain" approach which includes taking vaccines beyond the cold chain, using a VVM-based vaccine management system				
	Move towards coordinated and sector-wide financing and management for transportation and communications				
Strategy 7: Evaluate and strengthen national immunization programmes	Conduct regular immunization programme evaluations at local, district and national levels and provide feedback on performance				
	Perform operations research and evaluation of "what works" to improve the delivery of immunization and to make systems more effective, efficient and equitable				

GIVS framework checklist *(cont'd...)*

GIVS strategies	Key activities	Activity included in cMYP			
Strategic Area 1: Protecting more people in a changing world		**Yes**	**No**	**Not applicable**	**New activity needed**
Strategy 8: Strengthen country capacity to determine and set policies and priorities for new vaccines and technologies	Strengthen capacity to assess disease burden and cost–effectiveness of new vaccines and technologies				
	Ensure long-term financial requirements from national governments and supporting partners are understood and committed prior to the introduction of new vaccines				
Strategy 9: Ensure effective and sustainable introduction of new vaccines and technologies	Integrate the introduction of each new vaccine into countries' multi-year sector-wide plans and provide a financial analysis				
	Ensure adequate training of health workers and vaccine managers at all levels and prepare the logistics and reporting systems				
	Produce appropriate information, education and communication (IEC) materials to ensure good understanding of the benefits of new vaccines or technologies				
	Ensure that within five years of introduction the coverage of the new vaccine reaches the same level of coverage as that for other vaccines given at the same time				
	Expand surveillance of diseases that can be prevented by new vaccines				
Strategy 10: Promote research and development of vaccines against diseases of public health importance	Produce local evidence to influence and prioritize public and private investments in new vaccines and technologies				

GIVS framework checklist *(cont'd...)*

GIVS strategies	Key activities	Activity included in cMYP			
Strategic Area 3: Integrating immunization, other linked health interventions and surveillance in the health systems context		**Yes**	**No**	**Not applicable**	**New activity needed**
Strategy 11: Strengthen immunization programmes within the context of health systems development	Conduct regular analysis of district-wide data, to document key factors for the success and failure of immunization activities				
	Participate actively in collective efforts to shape sector-wide policies and programmes				
	Use the experience gained in health systems development as an opportunity to position immunization services in a way that ensures the maximum benefit for all people				
Strategy 12: Improve human resources management	Make an inventory of human resource needs				
	Plan for and provide sufficient, adequately paid and trained human resources				
	Ensure that supportive supervision to these health workers is resourced, prioritized, reliably conducted and monitored				
	Motivate health workers in inaccessible or insecure areas to reach all eligible populations				
Strategy 13: Assess and develop appropriate interventions for integration	Develop and field-test potential joint interventions				
	Tailor integrated packages of interventions to local needs and feasibility				
Strategy 14: Maximize the synergy from integrated interventions	Include joint interventions in multi-year and annual plans				
	Formulate and implement as part of these plans integrated training plans				
	Implement interventions jointly with special emphasis placed on outreach and mobile teams in situations where they represent the best means of contact between hard-to-reach populations and health services				
	Monitor and evaluate the incremental efficiency, effectiveness and impact of combined interventions and their means of delivery				

GIVS framework checklist *(cont'd...)*

GIVS strategies	Key activities	Activity included in cMYP			
Strategic Area 3: Integrating immunization, other linked health interventions and surveillance in the health systems context		**Yes**	**No**	**Not applicable**	**New activity needed**
Strategy 15: Sustain the benefits of integrated interventions	Create a management structure that facilitates coordination and efficiency without disregarding programme-specific needs				
	Establish joint financing, monitoring and evaluation functions				
	Pool the resources needed to cover operational and other costs				
	Remain attentive to community-perceived needs				
	Advocate for further synergy and explore additional linkages				
Strategy 16: Strengthen monitoring of coverage and case-based surveillance	Expand the existing surveillance systems (such as polio and measles surveillance) in order to progress towards effective case-based surveillance for VPDs				
	Improve coverage monitoring of vaccines and other linked health interventions				
Strategy 17: Strengthen laboratory capacity through the creation of laboratory networks	Expand the existing laboratory networks				
	Assure the training, equipment, reagents and quality control procedures				
Strategy 18: Strengthen the management, analysis, interpretation, use, and exchange of data at all levels	Improve data management through regular training, monitoring and feedback at the local level				
	Regularly review district indicators of performance				
	Develop better tools (e.g. computer software) for monitoring coverage of vaccines and linked interventions and disease surveillance				
	Monitor the quality and performance of coverage monitoring and surveillance systems				
	Collaborate with civil authorities in advocating for increased registration of births and deaths				
Strategy 19: Provide access to immunization in complex humanitarian emergencies	Include immunization-related issues in rapid situation assessment of complex emergencies				
	Incorporate immunization services in emergency preparedness plans and activities				
	Re-establish immunization services in populations affected by complex emergencies				
	Include VPDs in integrated surveillance and monitoring systems established in response to complex emergencies				

GIVS framework checklist *(cont'd...)*

GIVS strategies	Key activities	Activity included in cMYP			
Strategic Area 4: Immunizing in a context of global interdependence		**Yes**	**No**	**Not applicable**	**New activity needed**
Strategy 20: Ensure reliable global supply of affordable vaccines of assured quality	Ensure long-term forecasting for existing and new vaccines through close collaboration between international agencies, donors and vaccine manufacturers				
Strategy 21: Ensure adequate and sustainable financing of national immunization systems	Strengthen national capacity for financial planning both within the immunization programme itself and the Ministry of Health as a whole				
	Commit increased and sustained national budget allocations for vaccines, on the basis of improved understanding of the value of vaccines in public health				
	Encourage local and district level contributions to health services and immunization programmes through interaction with local businesses and interests				
	Coordinate immunization financing through the ICCs to ensure adequate and appropriate donor support to national governments				
Strategy 22: Improve communication and information dissemination	Produce quality and timely information on the benefits of immunization				
Strategy 23: Define and recognize the roles, responsibilities and accountability of partners	Ensure that immunization remains high on the national health agenda				
Strategy 24: Include vaccines in global epidemic preparedness plans and measures	Develop country-specific epidemic preparedness and prevention plans relevant to specific diseases				

Annex 4:
Activity timeline

Timetable of activities (*Sample table*)

Key activities	Year 1	Year 2	Year 3	Year 4	Year 5
Service delivery					
1. Two polio NIDs per year for children < 5					
2. Include VitA in plans for polio NIDs					
3. Establish national database of district indicators					
4. Micro-planning workshops					
5. Supervisory follow-up in priority districts					
6. Hire or purchase vehicles for mobile visits					
7. Monitor use of VitA for infants with routine measles dose					
8. Pilot distribution of insecticide treated nets with measles vaccination and routine TT					
9. Joint planning with malaria dept.					
10. Adapt WHO materials					
11. Training needs assessment					
12. Training on AEFI for district managers					
13. Include AEFI in national database for district monitoring					
14. Measles keep-up campaign for children < 5 in 2007					
15. Include VitA in measles SIA					
16. Assess MNT risk status of all districts					
17. TT SIA in 10 high-risk districts per year for 200 000 WCBA					
18. Include VitA in plans for MNT high-risk districts					
19. Including routine TT in district micro-plans					
20. Pilot TT Uniject use in MNT high-risk districts					
21. Monitoring HepB in every district					
22. Pilot HepB birth dose use in selected hospitals					

Timetable of activities (*Sample table*) (cont'd...)

Key activities	Year 1	Year 2	Year 3	Year 4	Year 5
Advocacy and communications					
23. Broaden agenda and participation at polio ICC					
24. Broaden agenda and participation of ICC					
25. Broaden agenda and participation of NGOs					
26. Include MNT in key messages on routine					
27. Use surveillance data to advocate for YF in high-risk districts					
28. Develop key message for strengthening routine YF immunization					
29. Include messages on improving outreach in communication plan					
30. Develop key message for strengthening routine immunization					
Surveillance					
31. Active surveillance in all districts					
32. Combine measles/polio laboratory support, training, supplies					
33. Active surveillance for AFP, measles and MNT in all districts					
34. Combine measles/polio laboratory support, training, supplies					
35. Active surveillance for AFP, measles and MNT in all districts					
36. Establish sentinel sites for Hib surveillance					
37. Improve active surveillance for YF in selected districts					
38. Combine YF with measles/polio laboratory support, training, supplies					
Vaccine supply, quality and logistics					
39. Implement AD bundling policy with every vaccine in every district					
40. Improve district reporting of AD supply and use					
41. Replace 30% of cold-chain equipment every year for three years					
42. Monitor stock management in every district					
43. Monitor district stock in national database					
44. Buy incinerators for 50% of districts by 2006, establish collection/management systems					

Timetable of activities (*Sample table*) (cont'd...)

Key activities	Year 1	Year 2	Year 3	Year 4	Year 5
Programme management					
45. Develop liaison processes to facilitate transfer of costing information to national budgeting decisions					
46. Build financial planning and management capacity					
47. Review vaccine usage for outreach and costing including AD syringes and safety boxes					
48. Cost priority district post vacancies					
49. Determine priority districts for filling vacancies					
50. Review total health service needs in human resources plan					
51. Include session plan review in supportive supervision					

Annex 5:

Recommended financial sustainability indicators

Recommended financial sustainability indicators

Dimension of financial sustainability	Indicator	Unit	Explanatory notes
Self-sufficiency	National operating expenditures: National expenditure on the immunization programme-specific operating costs as a share of GDP after adjustment for debt service in a specific year. [Expenditure on programme-specific operating costs/(GDP-debt service).]	%	This indicator captures the recurrent cost financing effort by the national government, relative to the size of the economy ("ability to pay"). GDP and debt service figures are readily available through ministries of finance and international databases.
Self-sufficiency	National capital expenditures: National expenditure on immunization programme-specific capital costs as a share of gross domestic product (GDP) after adjustment for debt service over a 5-year period. [Expenditure on programme-specific capital costs/(GDP-debt service).]	%	This indicator captures the capital financing effort by the national government, relative to the size of the economy ("ability to pay"). GDP and debt service figures are readily available through ministries of finance and international databases.
Self-sufficiency	Programme-specific recurrent expenditures paid for with national resources within the past fiscal year divided by total programme-specific expenditures.	$,%; real spending per capita for trend analyses	Note: loans taken on a commercial basis that are used to pay for immunization costs (that is, actually disbursed) would be considered national resources, since principal and interest must be repaid in full at commercial rates. "Concessional" loans used to pay costs would be considered to be part national resources and part external. The shares would be determined by the "grant" proportion of the loan as estimated by the lender.
Self-sufficiency	Programme-specific capital expenditures paid for with national resources within the past fiscal year divided by total programme-specific capital expenditures.	$,%; real spending per capita for trend analyses	
Self-sufficiency	Plan of Action for Demand Generation (Communications Plan) implemented.	Y/N	Where information is a barrier to families presenting infants for immunization, the conception and implementation of a communications plan may be needed to generate demand to increase coverage.
Self-sufficiency	Share of caretakers (mothers, fathers and in-laws) knowledgeable about at least one benefit of immunization services.	%	

Recommended financial sustainability indicators *(cont'd...)*

Dimension of financial sustainability	Indicator	Unit	Explanatory notes
Mobilization and use of adequate resources	Budget Line Item, policy, or SWAP performance requirement enforced or met.	Y/N	
Mobilization and use of adequate resources	Multi-year financial plan agreed to by the ICC that shows on what funds are expected to be spent and from where the funds are expected to come.	Y/N	This indicator calls for the "sources and uses of funds" budget that goes along with the multi-year strategic plan that is a requirement of the application for GAVI Fund support. Hence, countries that have made successful GAVI applications already have completed it. However, non-Fund eligible countries may wish to adopt it. The financial plan called for would be expected to include: (a) a 5-year budget, with (b) financing sources indicated, corresponding to (c) the multi-year strategic workplan and performance targets, with (d) commitments from development partners, and (e) have approval in writing from the ICC.
Mobilization and use of adequate resources	Donor expenditures and pledges: Donor actual expenditure in the past year expressed as a percentage of the gap between total costs estimated for the multi-year strategic plan and expected national expenditures.	%	This indicator, which seeks to capture the extent to which donors are contributing to the programme, applies only to the basic portion of the immunization programme* shown in the cMYP. A cMYP, including its financial plan, is one of the requirements of the application for GAVI support and must have the agreement of the ICC. A second element of this indicator is the written pledges of the donors for financial support of the programme for future years, also expressed as percentages of the gap between projected cMYP costs and expected national contributions.
Mobilization and use of adequate resources	Plan to set aside or allocate funds to replace or upgrade capital items essential to the immunization programme (e.g. cold chain).	Y/N	Part of such a plan might be a depreciation schedule.
Mobilization and use of adequate resources	Well established financial planning process involving all financiers.	Y/N	This indicator might be demonstrated by documenting that joint planning and budgeting sessions are held involving the immunization programme management and external ICC members. This indicator relates to the agreed financial plan.
Mobilization and use of adequate resources	% of districts with access to services within 5 kilometres or travel of 20 minutes or less, irrespective of travel mode.	%	For countries where geographic coverage with health facilities is 100% (such as is the case in many middle-income countries), this indicator could be replaced by the percentage of health centres providing immunization activities.

* The basic immunization programme costs would be expected to include the projected programme-specific costs of the basic EPI antigens, added antigens under GAVI Global Fund support (hepatitis B, Hib, and yellow fever), polio eradication activities, targeted coverage expansion, and improved immunization safety measures.

Recommended financial sustainability indicators *(cont'd...)*

Dimension of financial sustainability	Indicator	Unit	Explanatory notes
Reliability of resources	The amount budgeted for the programme within the last fiscal year expressed as a share of actual total expenditures (domestic and international together and separately).	%	Share means the percentage of the amount budgeted actually expended. We propose spending versus budgeted here, although we realize that there is another step between budgets and spending where problems may arise. That step is often called "allocation", where budgeted (planned) funds actually are made available. If budgeted funds are not expended, then they may not have been allocated or, once they were allocated, they may not have been spent. The indicator will tell managers that one or the other problem has occurred, but not specifically which one. That will require additional investigation.
Reliability of resources	The amount budgeted for recurrent costs within the last fiscal year expressed as a share of actual domestic expenditures on recurrent costs of the immunization programme.	%	
Reliability of resources	The amount budgeted for capital costs within the last fiscal year expressed as a share of actual domestic expenditures on the capital costs of the immunization programme.	%	
Reliability of resources	Actual district recurrent expenditures expressed as a share of the amount budgeted.	%	Note that: (1) this indicator may not apply to countries that do not have decentralized systems and (2) it may be difficult to aggregate at a regional, provincial, or national level. One way to aggregate would be to calculate the percentage of districts that expended say, 0–50% of the amount budgeted, 51–75%, 76–90%, and 90% or higher.
Reliability of resources	Existence of laws, statutes, regulations and/or official decrees specifying amounts or allocations to be dedicated to immunization programmes.	Y/N	This indicator is related to, but different from, the next indicator. This indicator focuses on legal instrument specifying *amounts* to be dedicated to immunization programmes, where the next indicator focuses on the *existence* of a legal instrument on funding of the immunization programme.

Recommended financial sustainability indicators *(cont'd...)*

Dimension of financial sustainability	Indicator	Unit	Explanatory notes
Efficient use of resources	Purchase of quality vaccines with use of international procurement mechanism or direct procurement with price differential of less than 10% from international price for which the country is eligible.	Y/N	Different countries are eligible for different vaccine prices, depending on the "tier" they qualify for. Thus, when prices obtained are compared to international prices, a "fair" comparison must be made.
Efficient use of resources	Existence of a training plan (that includes training in both (1) conducting financial assessments and (2) efficient use of resources) that has been used to conduct training sessions during the past 1–2 years.	Y/N	We suggest that there be specialized training in financing-related topics separate from but complementary to other training, such as in vaccine management.
Efficient use of resources	Existence of an accounting system for the immunization programme or a broader accounting system where expenditures can be disaggregated by programme.	Y/N	
Efficient use of resources	Trends in wastage rates over time, by antigen, particularly for OPV, DTP and TT.	**%**	The argument could be made that wastage of more-expensive vaccines like hepatitis B or combination vaccines would be more important to track, given the financial implications of their wastage. [Note: We will consult with experts in immunization programme planning to clarify technical points about wastage that affect this indicator.]
Efficient use of resources	Trends of vaccine stock-outs, by region.	#,%	

Annex 6:
District data analysis

District data analysis

		Coverage data						Surveillance			Coverage calculations						
District name	Province name	Target population under 1 year of age	% district coverage reports received at national level (out of reports expected)	DTP1	DTP3	Measles vaccine	TT2+ Coverage pregnant women	% zero reports received at national level (out of reports expected)	Reported NT cases	Reported measles cases	Not immunized DTP3	Not immunized measles	Drop-out rates DTP-DTP3	Drop-out rates DTP1-measles	Other indicator (add columns as needed)	Other information (narrative)	Prioritization for routine improvement
		Number	%	%	%	%	%	%	Number	Rate	Number	Number	(DTP1-DTP3/ DTP1)	(DTP1-MSL)/ DTP1			1,2,3
a	b	c	d	e	f	g	h	i	j	k	q	r	s	t	z	zz	dd
(ggg) Year of data:																	

Annex 6: District data analysis

The World Health Organization has managed cooperation with its Member States and provided technical support in the field of vaccine-preventable diseases since 1975. In 2003, the office carrying out this function was renamed the WHO Department of Immunization, Vaccines and Biologicals.

The Department's goal is the achievement of a world in which all people at risk are protected against vaccine-preventable diseases. Work towards this goal can be visualized as occurring along a continuum. The range of activities spans from research, development and evaluation of vaccines to implementation and evaluation of immunization programmes in countries.

WHO facilitates and coordinates research and development on new vaccines and immunization-related technologies for viral, bacterial and parasitic diseases. Existing life-saving vaccines are further improved and new vaccines targeted at public health crises, such as HIV/AIDS and SARS, are discovered and tested (Initiative for Vaccine Research).

The quality and safety of vaccines and other biological medicines is ensured through the development and establishment of global norms and standards (Quality Assurance and Safety of Biologicals).

The evaluation of the impact of vaccine-preventable diseases informs decisions to introduce new vaccines. Optimal strategies and activities for reducing morbidity and mortality through the use of vaccines are implemented (Vaccine Assessment and Monitoring).

Efforts are directed towards reducing financial and technical barriers to the introduction of new and established vaccines and immunization-related technologies (Access to Technologies).

Under the guidance of its Member States, WHO, in conjunction with outside world experts, develops and promotes policies and strategies to maximize the use and delivery of vaccines of public health importance. Countries are supported so that they acquire the technical and managerial skills, competence and infrastructure needed to achieve disease control and/or elimination and eradication objectives (Expanded Programme on Immunization).

Department of Immunization, Vaccines and Biologicals
Family and Community Health

World Health Organization
CH-1211 Geneva 27
Switzerland
Fax: +41 22 791 4227
Email: vaccines@who.int
or visit our web site at: http://www.who.int/vaccines-documents

World Health Organization