KINGDOM OF CAMBODIA
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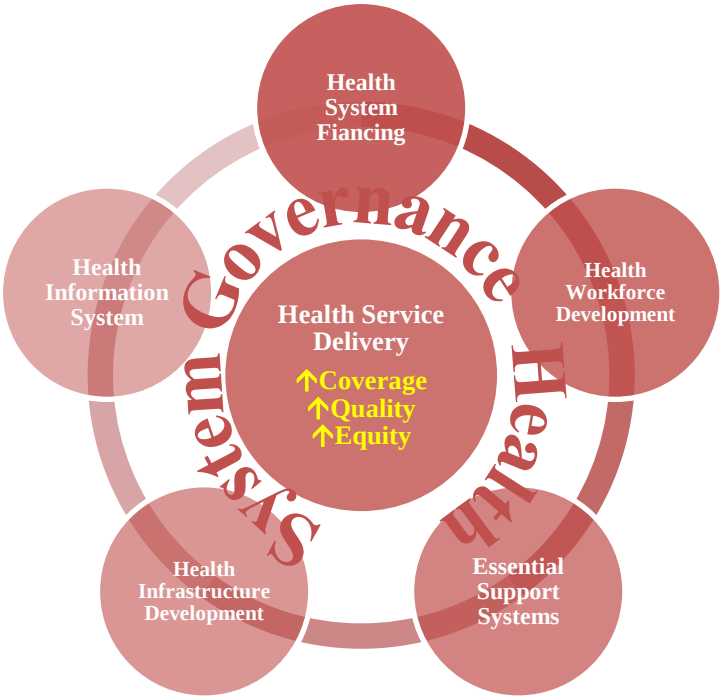
# HEALTH STRATEGIC PLAN 2016-2020

*"Quality, Effective and Equitable Health Services"*


DEPARTMENT OF PLANNING & HEALTH INFORMATION
MAY 2016

# THE THIRD HEALTH STRATEGIC PLAN 2016-2020 (HSP3)

## "Quality, Effective and Equitable Health Services"




**Department of Planning & Health Information**
**May 2016**

# Foreword

The Royal Government of Cambodia places population health at the centre of its socio-economic development. Significant progress in terms of expanded health infrastructure and increased health service coverage during the last decade has resulted in an unprecedented level of health service utilisation. A stronger health system, substantial development in other relevant sectors like education, together with stable economic growth and rapid poverty reduction, were instrumental to improved health and well-being of the Cambodian people. Cambodia achieved health-related Millennium Development Goals ahead of schedule. Even so, further improvements in health and well-being of all Cambodians remain on top of the policy agenda for socio-economic development of the Royal Government of Cambodia.

The ambitious vision for health sector development as stated in the Health Strategic Plan 2016-2020 is "All people in Cambodia have better health and wellbeing, thereby contributing to sustainable socio-economic development." Moving towards this long term vision requires a long journey during which we will face a series of challenges that need to be addressed in effective manner. Therefore we need to translate those challenges into opportunities and an enabling environment to support the implementation of health sector strategies. The the Health Strategic Plan 2016-2020 outlines a clear development framework for the health sector, which includes, but is not limited to, strategic direction and strategic objectives supported by potential priority areas for action at both supply- and demand-side in pursuit of achieving Health Development Goals, ultimately moving to Universal Health Coverage in line with the Cambodia Sustainable Development Goals.

On behalf of the Ministry of Health, I call for active engagement and strong support of all health personnel, relevant ministries and agencies, sub-national level administrations, Development Partners, non-Governmental Organizations, private sector and community for the successful implementation of the Health Strategic Plan 2016-2020, as a means to bring health and well-being, as well as prosperity, to all Cambodian people and our children.

Phnom Penh, 05 May 2016

**Minister of Health**

**Dr. Mam Bunheng**

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- The Task Team on Health System Financing, chaired by Dr. Sok Kanha, Deputy Director of Department of Planning and Health Information (DPHI)
- The Task Team on Health Workforce Development, chaired by Dr. Touch Sokneang, Deputy Director of Human Resource Department
- The Task Team on Health Information, chaired by Dr. Khoul Khemrary, Chief of Bureau of Health Information, DPHI
- The Task Team on Essential Support Services and Health Infrastructure Development, chaired by Dr. Sok Srun, Director of Hospital Service Department
- The Task Team on Health System Governance, chaired by Dr. Mey Sambo, Director of Personel Department
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**Minister of Health**

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# List of Abbreviations

| | |
|---|---|
| AOP | Annual operational plan |
| APR | Annual performance review |
| BSP | Budget strategic plan |
| CD | Chronic disease |
| CDC | Communicable disease control |
| CDHS | Cambodia demographic and health survey |
| CMDG | Cambodian millennium development goals |
| CPA | Complementary package of activities |
| CSDG | Cambodia sustainable development goals |
| D&D | Decentralization and de-concentration |
| DOTS | Direct observed treatment short course |
| DPHI | Department of planning and health information |
| ESS | Essential support services |
| GDP | Gross domestic product |
| HCMC | Health center management committee |
| HCP | Health coverage plan |
| HDG | Health development goal |
| HEF | Health equity fund |
| HID | Health infrastructure development |
| HMIS | Health management information system |
| HRH | Human resources for health |
| HSD | Health service delivery |
| HSF | Health system financing |
| HSG | Health system governance |
| HSP2 | Second health strategic plan |
| HSP3 | Third health strategic plan |
| HWD | Health workforce development |
| ICD | International classification of disease |
| ICT | Information communication technology |
| IEC | Information, education and communication |
| IHR | International health regulation |
| IPC | Infection prevention and control |
| IT | Information technology |
| JAPA | Joint annual plan appraisal |
| JAPR | Joint annual performance review |
| MDG | Millennium development goal |
| MDP | Municipal department |
| MDR | Multi drug resistance |
| MOH | Ministry of Health |
| MPA | Minimum package of activities |
| MRA | Mutual recognition agreement |
| NTD | Neglected tropical disease |

| | |
|---|---|
| OOPE | Out-of-pocket expenditure |
| PAE | Public administrative enterprise |
| PBB | Performance based budgeting |
| PHD | Provincial health department |
| PIP | Public investment plan |
| PMRS | Patient medical registration system |
| PNC | Post-natal care |
| QPR | Quarterly progress review |
| QWP | Quarterly work plan |
| RGC | Royal government of Cambodia |
| RMNCHN | Reproductive maternal neonatal child health and nutrition |
| SAPR | Sector annual performance review |
| SDG | Sustainable development goal |
| SDG | Service delivery grant |
| SHP | Social health protection |
| SOA | Special operating agency |
| STI | Sexually transmitted infection |
| TOR | Terms of reference |
| TT | Task team |
| TWGH | Technical working group health |
| UHC | Universal health coverage |
| VHSG | Village health support group |
| WRA | Women of reproductive age |

# Executive Summary

## Key features of the HSP3

*1.* The HSP3 is the MoH's **"strategic management tool"** to guide the MoH and all health institutions as well as concerned stakeholders to effectively and efficiently use their available resources to translate health strategies into action. The HSP3 renews a long-term vision of the health sector development and re-affirms the MoH's commitment to meeting the stated vision. It outlines the strategic framework for further strengthening operations in the entire health sector (both public and private) to address priorities and to ensure consistent application of strategies across programs. The HSP3 also contains the framework for monitoring and evaluating progress and results of its implementation. The plan also aims to mobilize adequate financial resources, inform fiscal allocation, and guide development assistance in the health sector.

## Improving health and well-being of the population

*2.* Cambodia has achieved almost all MDGs' health-related targets several years ahead of schedule. **Considerable improvement has been made in terms of improving the health outcome** of the population through a stronger health system and increased financial risk protection. Improved key social determinants of health, especially economic growth and poverty reduction, played key roles in increasing life expectancy and improving quality of life, hence improved overall health status of the population. Nevertheless, achieving equitable health outcomes across geographical areas (rural vs. urban) and across the population (poor vs. rich) remains a pressing issue to the health system.

## Increasing financial risk protection in accessing health care

*3.* There has been **an impressive gain in providing financial risk protection** to the poor through the expansion of Health Equity Fund schemes (HEFs), along with other pro-poor demand-side financing interventions. Despite this progress, Out-of-Pocket expenditures continue to be high. The overreliance on OOP correlates with high incidence of financial catastrophe and impoverishment. Further increases in equitable access and financing call for expansion of HEFs' coverage to additional target populations. This should happen in tandem with developing a sound national social health insurance system for both formal and informal sector population, together with a stronger regulated healthcare market.

## Increasing health service delivery

4. ***Access and coverage*—** the gains in terms of access to and utilization of health services resulted from substantial investment in public health infrastructure, extensively expanded road infrastructure, increased households' capacity-to-pay and available private health providers. Access to medical care is more equitable and health-seeking behavior has improved, especially among the lowest income quintiles, with considerable increase in the use of reproductive, maternal and child health services. However, a great challenge is to sustain and further expand the achieved coverage with available resources and within the changing environment, to move towards Universal Health Coverage.

5. ***Quality***—overall quality of public health services has improved as a result of substantial improvements in structural quality and the process of providing healthcare, resulting in reduced maternal and childhood mortalities and burden of communicable diseases. However, the quality of health services does not yet live up to the needs and expectations of the population due to resource constraints. Consequently there is mismatch between National Clinical Practice Guidelines/Protocols and available service quality. Investments in stronger competency-based education and well-functioning quality monitoring and regulatory mechanisms will further promote quality of health care service at both public and private sector.

6. ***Efficiency***— over the last decade, consistent rapid economic growth enabled the RGC to substantially increase health care spending, while the recent trend of external funding is going down. The on-going public financial management reforms provided the MoH opportunities to further improve efficiencies. Gains in efficiency and responsiveness of public health providers were made through the introduction of payment mechanisms linking outputs to financial resources. More resources are needed to allow for expansions in coverage of health service and of population. This calls for adequate funding through a combination of national budget, pre-paid contributions, and affordable household health spending on health, along with measures to ensure efficiencies and secure value-for-money.

7. ***Equity***— equity in access and in financing has been promoted by targeting available resources to delivery of primary health services in rural areas and expanding HEFs' coverage, together with other health financing interventions. Even so, the health system needs to strive harder to reduce gaps in availability of affordable, quality, safe and effective health services across geographical locations, and promote equity through "risk-sharing arrangements".

## Promoting governance and accountability

8. Impressive progress has been made in strengthening of health sector governance along with progressive delegation of regulatory functions to subnational level administrations. While the legal structure for health system governance has been

developed and implemented, regulatory capacity and enforcement remains a key challenge for the stewardship function of the MoH and decentralized administrations. The implications of the D&D process on different administration levels in terms of investments, policies, regulations and practices has necessitated changes in the roles and functions of the central MoH and its institutions at all levels.

## Challenges

*9.* **Challenges to epidemiology** (burden of diseases and health problems) include:

- Maternal, neonatal and childhood mortality remain relatively high and inequities in health outcomes across socio-economic groups persist. Malnutrition (acute and chronic) among women and children remain stubbornly high. An increased incidence of teenage pregnancy (aging 15-19), together with relatively low institutional deliveries by women from lower economic groups, can slow down the trend in reducing maternal and neonatal mortality.

- HIV transmission remains significant amongst marginalized populations. Tuberculosis incidence and mortality rate are still high, and multidrug resistance remains a clinical challenge. Artemisinin resistant falciparum malaria parasites remain a public health concern of global significance.

- Increases in the prevalence of non-communicable diseases (NCDs), together with the aging population and increasing urbanization, pose as a challenge to the structure and delivery model of the existing health system. The burden of mental health disorders remains an issue of concern.

- Emerging and re-emerging infectious diseases resulting from environmental health risks and climate changes remain a global health security threat and require a multi-sectoral response in an effective manner.

*10.* **Challenges to the health system include:**

- Inadequate quality health services in both public and private sector. Effective delivery of quality health service is constrained by inadequate resources, mainly under-staffing, limited diagnostic capacity, and insufficient supply of medicines and health commodities.

- Limited capacity of public health services to deal with diseases/health problems related to chronic diseases, NCDs, and public health emergencies such as pandemics of emerging/re-emerging infectious diseases, as well as disaster preparedness and response. Unmet demand for rehabilitative disability-specific services.

- High level of OOP spending on health and low level of risk pooling. Apart from HEFs for the poor and work injury schemes, social health insurance system for formal and informal sector populations is under policy development processes.

- Competencies, skill-mix of health workforce is limited. Shortage of competent health personnel in health facilities within the health system affects effective health service delivery.

- Low investment in medical technology and ICT with limited capacity at all levels to analyze, interpret and use data; limited use of health data and information in clinical and administrative areas, and multiple M&E frameworks, indicators and reporting systems.

- Rapid growth of the private health sector poses a challenge to the stewardship function of the MoH and its regulatory capacity across all levels of the health system.

- Delegation and transfer of functions to subnational level administrations implicates functions and institutional structures of the MoH and it institutions across all levels of the system.

- Inappropriate health-seeking behavior of the population, especially in rural/remote areas with delays in seeking care, self-medication etc.

## Opportunities

***11.*** The RGC's strong political commitment to attaining the CSDGs (particularly advancing towards universal health coverage) and the on-going impressive economic growth, along with the Government progressive reform processes, provide the MoH with an opportunity to make important improvements in the health sector in general and health service delivery in particular.

***12.*** A sustained and strong economic growth increases fiscal space and capacity, allowing the Government to increase public spending for health. Public Financial Management reforms led to credible budgets and financial flow, transparent budget allocation and expenditure, robust auditing system and increased performance by public service providers. Salary reforms can help improve productivity and motivation of the health staff.

***13.*** D&D process holds great potential if properly structured. It can potentially improve administrative and fiscal efficiencies, besides making the health system more accountable and responsive to local health needs.

***14.*** "ASEAN Economic Community" - the implementation of Mutual Recognition Arrangements (MRA) and facilitation of the mobility of health workers (doctors,

dentists, and nurses) will involve further adaptation of national laws and regulations, with potentially positive implications for the public and private sector.

*15.* Proven interventions- such as HEFs, Midwifery Incentive Schemes, SOAs and SDGs, have created a favorable environment to further strengthen the supply of quality health services in a responsive and publicly accountable manner. Significant achievements at national level in terms of budget and personnel provide opportunity to strengthen service delivery at sub-national level.

## Sector priority

*16.* There are **two strategic priorities** to address the identified challenges: i) sustaining and improving access and coverage with a renewed focus on quality of health services across geographical areas; and ii) increasing financial risk protection across socio-economic groups when accessing health care.

## Strategic Direction

*17.* **The long-term vision** of the health sector development is that "All people in Cambodia have better health and wellbeing, thereby contributing to sustainable socio-economic development." Toward that end, the MoH reaffirms its commitment to the mission statement "to effectively managing and leading the entire health sector to ensure that quality health services are geographically and financially accessible and socio-culturally accepted to all people in Cambodia"

*18.* **The values-based commitment** of the MOH is: "Rights to health and equity". Day-to-day management practices and activities of decision-makers, health managers and operational staff in all health institutions at all levels of the health system are therefore guided by five ethical working principles: Accountability, Efficiency, Quality, Equity and Professionalism.

## Health Development Framework

*19.* **Health policy goa**l is to "improve health outcome and increase financial risk protection across the population". As such, the health sector interventions focus on two areas: the entire health system (both public and private) and the entire population. The former ensures access to and coverage of high quality health services throughout the country, while the latter ensures financial access to these quality health services, when needed.

*20.* Achieving the stated policy goal is supported by a set of four **Health Development Goals**:

- Improve reproductive health and reduce maternal, new-born and child mortality and malnutrition,
- Reduce morbidity and mortality due to main communicable diseases,

- Reduce morbidity and mortality due to non-communicable diseases and other public health problems, and
- Make the health system more accountable and responsive to health needs of the population.

***21.*** The Health Development Goals are to result from seven **strategic objectives:**

- The population will have access to comprehensive, safe and effective quality health services at public and private health facilities.
- There will be stable and sustained financing of healthcare services with increased financial risk protection when accessing healthcare services;
- The health system will have adequate number of well-trained, competent and well-motivated staff with appropriate skill mix and professional ethics.
- Public health facilities are adequately supplied with medicines, health commodities, equipment and amenities, with effective essential supportive services;
- Public health facilities have basic infrastructure, appropriate advanced medical equipment and technology and Information Technology;
- Health and health –related data/information are reliable, accurate, timely and of high quality and used, with strengthening disease surveillance and response system and promoting health research; and
- Strong health institutional capacity at all levels, including leadership and management competency, together with enforced regulation and local accountability in health.

## Targets and indicators

***22.*** Targets and indicators are based on a set of selection criteria: i) alignment with CSDG 'health' and 'health-related' targets and indicators, ii) consistency with population health needs, iii) focusing on key stages in life, from birth to old age, and iv) track health system performance and UHC. The HSP3 has 80 targets and indicators for measuring progress and outcomes of the plan.

## Strategic Areas and Strategies

***23.*** It is envisioned that achieving the HDGs is directly impacted by the delivery of sufficiently resourced health services. These resources include physical infrastructure, medicines and health commodities, medical equipment and technology, competent health workforce, adequate and sustained financial resources, robust health management information system, and effective governance. In this regards, strategic interventions have been structured around seven crosscutting strategic areas, namely i) health service delivery, ii) health system financing, iii) health workforce development, iv) essential support systems, v) basic infrastructure development, vi) health information system, and vii) health system governance. Each strategy is supported by a set of strategic interventions (or main activities).

## Implementation

***24.*** The HSP3 strategies will be implemented via incorporation into the national planning and budgeting processes using the national planning and budgeting instruments i.e. a 3-year-rolling Public Investment Program and Budget Strategic Plan and the health sector Annual Operational Plan and associated budget.

***25.*** The health planning approach consists of a combination of top-down and bottom-up planning with the provincial level as its interface. Via this mechanism institutional knowledge, operational and site-specific expertise of managers is communicated to the central ministry and across the health sector. The Annual Health Plan Development consists of seven steps and is guided by four guiding principles: i) team approach, ii) participatory process, ii) resources-based planning and iv) program-based budgeting.

***26.*** The MoH has adopted flexible funding modalities, which allow development partners (DPs) to choose a funding mechanism that best suits them. Two options exist: pooled funding arrangements, and project-type funding. In principles and practice, program and project activities and funds are aligned with health sector strategic priorities and strategic interventions. Use of the national systems for Development Partners-supported programs will be initiated and implemented, when and where appropriate.

## Resource Requirements

***27.*** The cost estimates for HSP3 include the costs of health programs, as well as the required resource of health system components (infrastructure, human resources, logistics, health information systems, financing, and governance). The five-year cost of the HSP3 is estimated at US$ 2,974 million, increasing annually from US$ 537 million in 2016 to US$ 668 million in 2020.

***28.*** Even with ambitious growth projections for government funding to the health sector, just 74% of the five-year HSP3 costs can be filled. The difference between estimated HSP3 costs and government budget allocations will be largest during the first year - US$263 million. The gap decreases over time: US$73 million by 2020. The funding gap for HSP3 is estimated at US$763 million, unless covered by DPs and other funding sources.

## Monitoring & Evaluation

***29.*** M&E processes require real-time and high quality health and health-related data/information from reliable sources, together with all-level better institutional capacity to effectively monitoring activities. M&E tracks progress and measures achievements of the HSP3 in the seven cross-cutting strategic areas by using four different types of indicators: i) inputs and processes, ii) outputs, iii) outcomes, and iv) impacts through annual health sector performance review, followed by a mid-term review, and a final-review (end-year evaluation).

***30.*** Monitoring activities require health institutions at all levels collecting and compiling, analyzing and interpreting health and health-related data and information according to their monitoring purposes e.g. quarterly or annual review. M&E promotes the use of both qualitative and quantitative health and health-related data and information. Health and health-related data on different types of indicators can be collected through existing data sources.

***31.*** The existing data/information sources for different types of indicators include, but are not limited to Health Management Information System (HMIS) and Patient Medical Registration System (PMRS, census, Demographic and Health Survey (DHS) and Cambodia Socio-economic Surveys (CSES). Other sources include Annual Health Financing Report, National Health Accounts, Annual Report on Human Resource Development, Administrative and financial records, researches and assessments.

# CHAPTER I. INTRODUCTION

1. Key Features of Health Strategic Plan
2. Country Overview
3. Health System Overview

# 1. Key Features of Health Strategic Plan

## 1.1 INTRODUCTION

The Ministry of Health (MoH) produced and implemented the first "Master Plan for Health Development 1994-1996" in 1993, followed by the introduction of "Policy Guidelines for Strengthening District Health System". The former provided strategic direction for rehabilitating and developing the health system in post-conflict. The latter laid out a policy framework for embarking on the health sector reform in 1995.

The two documents were then used to guide the development of numerous specific health policies, strategic plans, and technical guidelines, notably the Health Coverage Plan 1995 (HCP), Health Financing Charter 1996, Health Workforce Development Plan 1996-2006, and Guidelines for Strengthening Operational Districts 1998. The HCP is a framework for re-structuring the health system organization and supporting operations of newly revised roles and functions at each level of the health system, while the Charter paved the way for piloted experimentation of both supply-side and demand-side financing interventions over the last three decades.

The Health Strategic Plan 2016-2020 (HSP3) is the third medium term plan of the health sector. The second (2008-2015, HSP2) and the first plan (2003-2007) were launched at the National Health Congress and Joint Annual Performance Review in 2007 and 2003, respectively. The plan was translated into action through the development and the implementation of Annual Operational plans (AoP) supported by annual budget plan across the health system. The MoH and Health Partners, through Joint Annual Performance Reviews, regularly monitored the progress of the plan's implementation.

A Mid-Term Review of the HSP2 was conducted by independent consultant team in 2011 and informed by results of the Cambodia Demographic and Health Survey 2010 (CDHS). Results of CDHS 2014 provided hard evidence supporting the final evaluation of the outcome of the HSP2 interventions, especially to assess the progress toward achieving health-related CMDGs, which were adopted as the HSP2 goals. Furthermore the survey findings, to some extent, provided an analytical tool for setting priority interventions and agenda for action over the next five years.

## 1.2 RATIONALE

Successful implementation of the HSP3 will be dependent not only on its **structure** and **content** but also a clearly outlined formulation and implementation **processes.** In this regard, the HSP3 needs to be:

- First**, soundly formulated** with clearly defined goals, objectives, strategies, outcomes and time horizon, by engaging all concerned stakeholders across all levels in and outside the health system;
- Second**, strongly supported** by politics, mandates, legislations, and **adequately financed**, first and the foremost by the RGC with contributions of Development Partners;
- Third, **widely communicated and better understood** by all actors (including public and private sector, the Government's ministries and agencies, sub-national level administrations, citizen and community, professional associations, Non-Governmental Organizations, and media);
- Fourth**, fully implemented** with effective leadership, technical competence and managerial skills, as well as effective multi/cross-sectoral and multilevel collaboration and coordination; and
- Fifth**, regularly monitored** with a timely and high quality health information, and effective feedback, providing a supportive analytical tool to policy makers, planners and implementers to make adaptation of operational plans and interventions to unexpected changes in situation.

## 1.3 ROLES OF HSP3

The HSP3 is the MoH's **"strategic management tool"** to guide the MoH and all health institutions as well as concerned stakeholders to effectively and efficiently use their available resources, to translate health strategies into action in pursuit of achieving the defined goals and objectives of the Plan. As such the HSP3 is characterized by the following:

- ***First***, it renews a **long-term vision** for improving health and wellbeing of the Cambodian people, and re-affirms the MoH's **commitment** (mission) to meeting the vision (health development goals), thereby contributing to achieving socio-economic development goals of RGC;
- ***Second***, it outlines a **strategic framework** for further strengthening the operation in the entire health sector (both public and private) to address **sector priority** by refining **sector strategies** and **sets of its strategic interventions** in order to pursue **strategic outcome**;
- ***Third***, it lays out an **operational framework** to ensure that sector strategies are consistently applied across programs' interventions, resulting in appropriate alignment of program interventions with the sector strategy. In so doing, the programs' outcomes can be consolidated toward achieving **strategic outcome and health development objectives**;
- ***Fourth***, it provides a framework for **monitoring and evaluating** progress and results of the plan's implementation on an annual basis, followed by Mid-Term Review and final evaluations; and

- ***Fifth***, it is a **potential tool** for mobilizing financial resources and informing fiscal allocation, as well as guiding development assistance in the health sector to support agreed sector priorities and interventions, in order to enhance harmonization and alignment.

## 1.4 CONTEXT OF PLAN DEVELOPMENT

The development of the HSP3 was strategically guided by two driven-contexts. Firstly, an internal context comprised of **strengths and weaknesses** of the health system's performance. Most importantly, the plan is fundamentally built upon the successes of the sector policies, strategies and plans interventions over the last decades by taking **health problems of the population and challenges to the health system** into account. Secondly, external context that covers **opportunities and implications** of politics, legislations, national policy, strategy and plan, and the on-going national reform programs that effect choices of health strategy and its successful implementation:

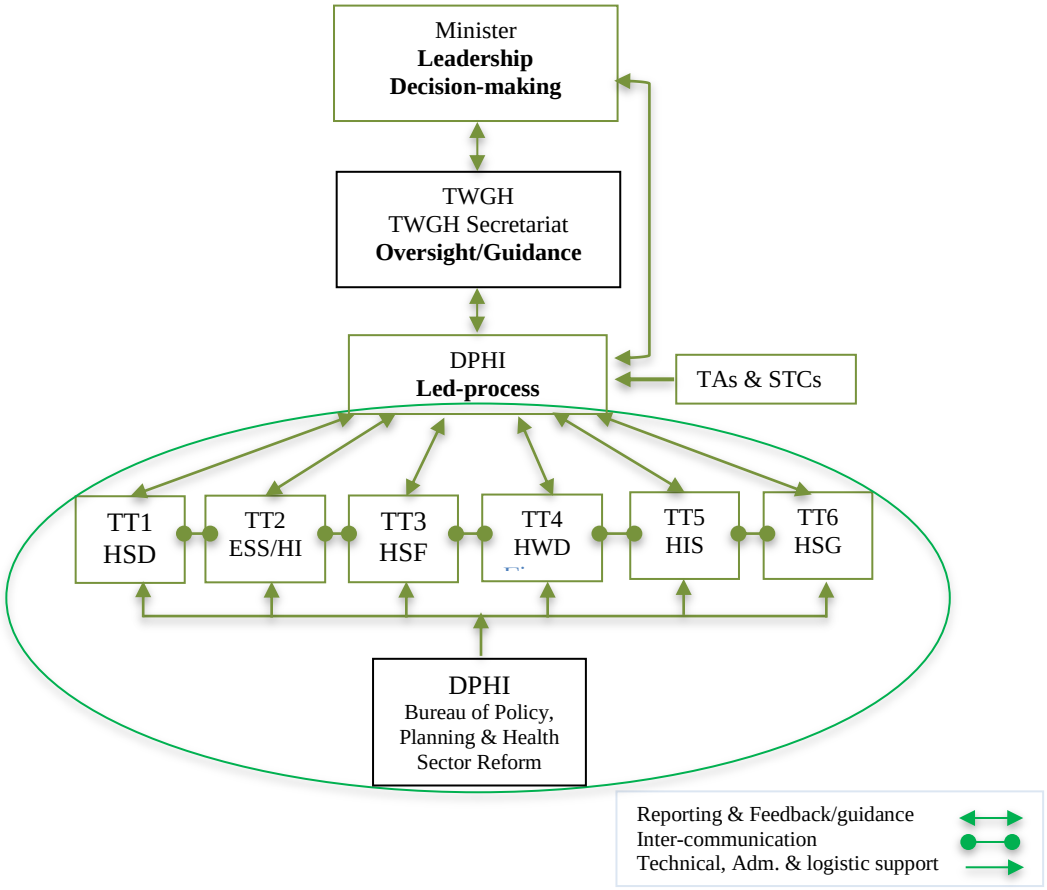
- The National Constitution (Article 72)
- Organic Laws
- Health Legislations
- Rectangular Strategy Phase III of the RGC
- Policy on Public Service Delivery
- Decentralization and de-concentration policy including Social Accountability Framework for Subnational Democratic Development.
- National Strategy for Protection of the Poor and Vulnerable People
- National Strategic Development Plan 2014-2018
- Public Administrative Reform
- Public Financial Management Reform
- Regional and global health development agenda (ASEAN Economic Community and Sustainable Development Goals).

## 1.5 APPROACH TO PLAN FORMULATION

### Structure

Figure 1.1 depicts the structures for developing the HSP3. The formulation process is under leadership of the Minister of Health, and guided by the Technical Working Group for Health (TWGH) Secretariat, while the implementation of the process is led, managed, coordinated and facilitated by Director of Department of Planning & Health Information, with technical support of six Task Teams (TT) for (i) Health Service Delivery, (ii) Essential Support Services and Basic Infrastructure Development, (iii) Health System Financing, (iv) Health Workforce Development, (v) Health Information System, and (vi) Health System Governance. Each TT comprises of technical officers of both the MoH and Health Partners (including NGOs). DPHI Bureau of Policy, Planning & Health Sector Reform technically, administratively, logistically supports the whole process.

**Figure 1-1 Structures for HSP3 Formulation**




### Process

Like the previous plan formulation, the MoH adopted a participatory and consultative approach to HSP3 development. The process basically involved a number of main activities, including desk reviews, assessment of burden of diseases, sector analysis, data analysis of CDHS 2014, assessment of burden of diseases and costing exercise. Development and consultative workshops were organized in order to generate input from the MoH Task Forces for Monitoring & Evaluation of HSP, Sub-Committees of TWGHs, concerned Ministries/Agencies, Provincial Health Departments, Operational Districts and Health facilities, subnational level administrations including local councils, professional associations, academic institutions, private sector, and Health Partners including NGOs.

### Outcome and Timeline

The whole process lasted 16 months, starting July 2014 till December 2015, resulting in the development of a comprehensive Plan (HSP3) supported by costing of priority program interventions.

# 2. Country Overview

## 2.1 INTRODUCTION

The RGC brought an end to two-decade civil conflicts plaguing the country and consolidated peace in 1998. Since then the RGC Cambodia has made great strides to rehabilitate and develop the country. Political stability and security laid out a favorable environment for impressive economic growth and considerable poverty reduction as the government was able to implement its reforms and improve the socioeconomic infrastructure. These foundations enable further economic growth to achieve the government's medium term objective of maturing from least developed country to upper middle-income country by 2030.

Cambodia is located in the southern portion of the Indochina Peninsula in Southeast Asia, bordering the Gulf of Thailand, between Thailand, Vietnam, and Laos, and in the tropical zone, just 10-13 degrees north of the equator. Like most of countries in Southeast Asia, Cambodia is dominated by the annual monsoon cycle with its alternating wet/rainy and dry seasons, with little seasonal temperature variation; during the wet season it is 27-35 °C (June-October), and the dry season is 17-27 °C (cool: November-February) with high temperatures of 29-38 °C in March-May.

## 2.2 ADMINISTRATIVE STRUCTURES

The country administrative structure is divided into four levels: i) central (national), ii) provincial (including municipality), iii) district (including cities and *Khans*) and iv) commune level (including *Sangkats*). According to the Law on Administrative Management of the Capital, Provinces, Municipalities, Districts and Khans[1], the Capital (Phnom Penh) is divided into Khans. A Khan is divided into Sangkats. The province is divided into Cities and Districts; the city is divided into Sangkats and the district is divided into Communes and Sangkat. The village is the lowest level of administrative management, and administrated by Commune/Sangkat Councils.

[1] Royal Kram No. NS/RKM/0508/017

**Table 2-1 Statistic and Administrative Management**

| Number | | Administrative management |
|---|---|---|
| **Municipality**<br>**Provinces**<br>Total | 1<br>24<br>**25** | **Municipality/Provinces**<br>• Elected-Councils<br>• Governing Boards |
| **Cities**<br>**Khans**<br>**Districts**<br>Total | 26<br>12<br>159<br>**197** | **Cities/Khans/Districts**<br>• Elected-Councils<br>• Governing Boards |
| **Sangkats**<br>**Communes**<br>Commune/Sangkat<br>Villages | 227<br>1,406<br>**1,633**<br>**14,119** | **Sangkats/Communes**<br>• Elect-Councils<br>• Village leaders |

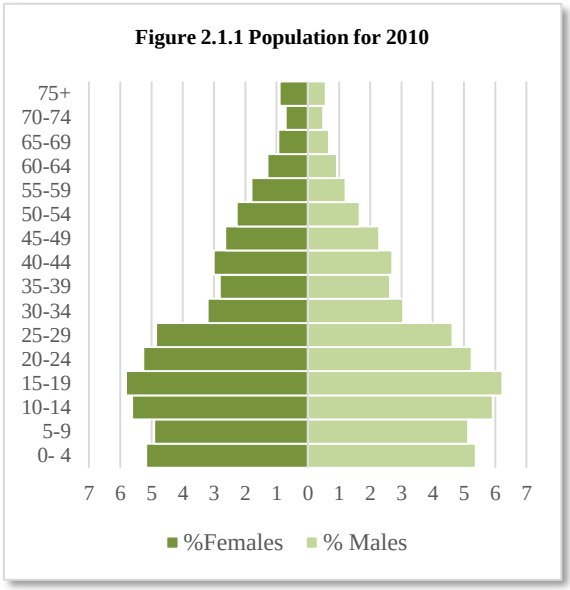
*Source: NSDP 2014-2018*

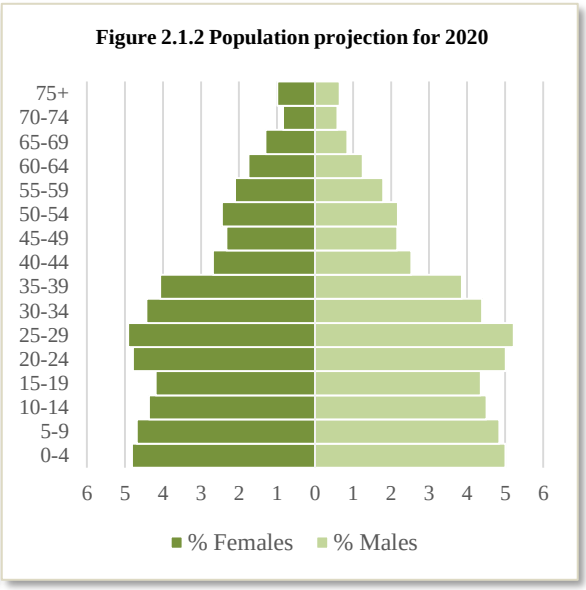
## 2.3 DEMOGRAPHIC AND HEALTH TRANSITION

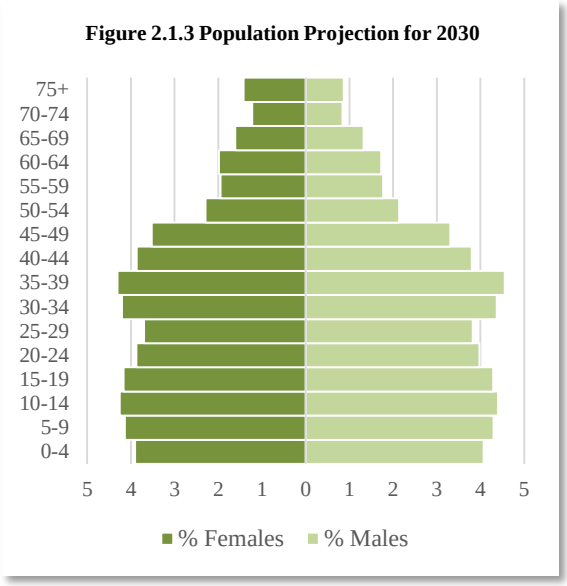
Cambodia is currently going through a demographic transition. The population pyramids, illustrated in Figure 2.1, show the age and sex structures. The expected changes in demographic compositions will have an impact on the social and economic sectors, The demographic dynamic not only creates opportunities for a young population entering the labor workforce, but also indicates the potential changes in the health services needs of the population. It is estimated that by 2020, the total population will be 16.5 million, of which 9.8%, 6.5%, and 27% is children aged less than 5 years, people aged over 60 years, and women of reproductive age (WRA; 15-49) respectively. Health care demands for these groups are much higher than for other population groups. For instance, a significant increase in young adults will increase the demand for adolescent and youth reproductive health services.

The Cambodian population is aging and increasingly urban (an average annual increase of 5%). An increase in the elderly population will imply more need for treatment of non-communicable diseases coupled to long-term care services. Cambodia is also witnessing an epidemiological transition. The health system is facing the dual challenge of on-going burden of communicable diseases and a growing epidemic of non-communicable diseases (NCDs). NCDs are already the largest cause of mortality in Cambodia: 32% in 2000 versus 52% in 2013. To cope with the rising burden of NCDs, the existing structures of the health system will need to be strengthened, modified and expanded in different ways, while consolidating the gains made in other areas such as maternal and child health, and communicable diseases control.

## Figure 2-1 Population projection by sex and by age group




Note: the population projections for 2020 and 2030 are based on the Cambodian Inter-population Survey 2013. Ministry of Planning

Cambodia is also witnessing an epidemiological transition. The health system is facing the dual challenge of on-going burden of communicable diseases and a growing epidemic of non-communicable diseases (NCDs). NCDs are already the largest cause of mortality in Cambodia: 32% in 2000 versus 52% in 2013. To cope with the rising burden of NCDs, the existing structures of the health system will need to be strengthened, modified and expanded in different ways, while consolidating the gains made in other areas such as maternal and child health, and communicable diseases control.

### Table 2-2 Key population indicators

| Indicators | Unit | 2015 |
|---|---|---|
| **Population** | | |
| Total: Nov. 2013 CIPS | million | 14.7 |
| - Population density | per sq. km | 87 |
| - Male/Female ratio | 100 female | 96.2 |
| **Age distribution** | | |
| - < 1 | % pop. | 2.6 |
| - < 5 | % pop. | 10.4 |
| - 0-14 | % pop. | 29.2 |
| - 15-64 | % pop. | 66.2 |
| - 65 and above | % pop. | 4.6 |
| - 15-49 for WRA | % pop. | 27.9 |
| **Rural vs. Urban pop.** | | |
| - Rural | % pop. | 78.4 |
| - Urban | % pop. | 21.6 |
| **Annual growth** | % | 1.42 |
| Total fertility rate (number of children) | per a WRA | 2.6 |
| **Life expectancy at birth** | year | |
| - Male | | 67.5 |
| - Female | | 71.4 |

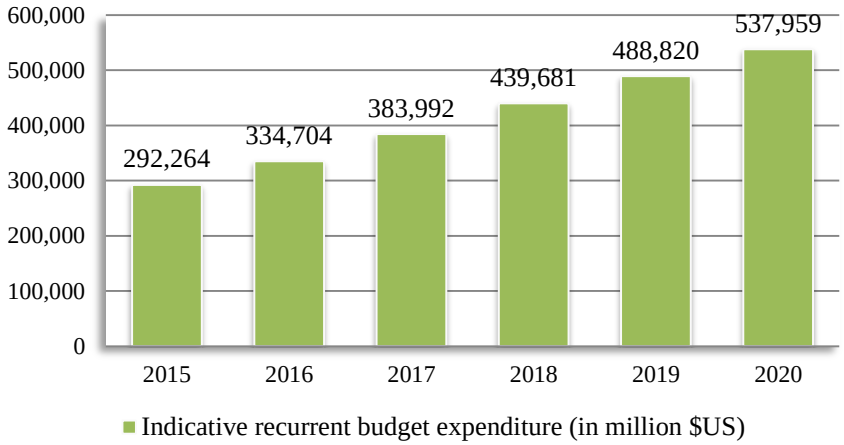
*Sources: NSDP (2014-2018) for 2013-2018*

## 2.4 SOCIO-ECONOMIC DEVELOPMENT

### Prospective of Economic Growth

During 2009-2012, Cambodia achieved an average economic growth of 5.6% per year and this rate is forecasted to continue to grow. Together with economic growth, fiscal performance has improved, providing for additional revenue, and allowing for increased public spending. Figure 2.2 indicates indicative recurrent budget expenditure for public health over the next five years.

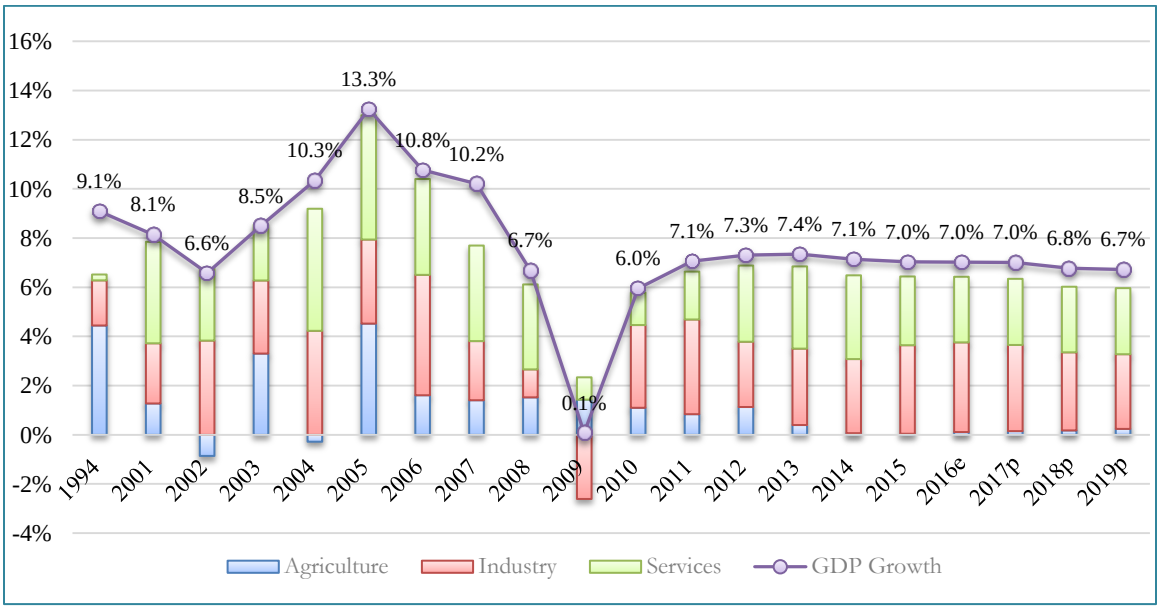
**Figure 2-2 Indicative recurrent budget expenditure for public health (in million $US)**




*Source: NSDP 2014-2018 and DPHI estimation for 2019 and 2020*

Figure 2.3 shows that Gross Domestic Product (GDP) average growth per annum is at 7.7% (at constant price 2000) over the period of 1996-2015, and is expected to be 7% per annum during 2014-2019. There was a double-digit growth in GDP for 2004-2007. GDP per capita increased from US$295 in 1996 to US$1,215 in 2015. The level of Official Development Assistance (including grants and loans for both technical and capital assistance) is projected to decline over the coming years (NSDP 2014-2018).

**Figure 2-3 GDP Performance**



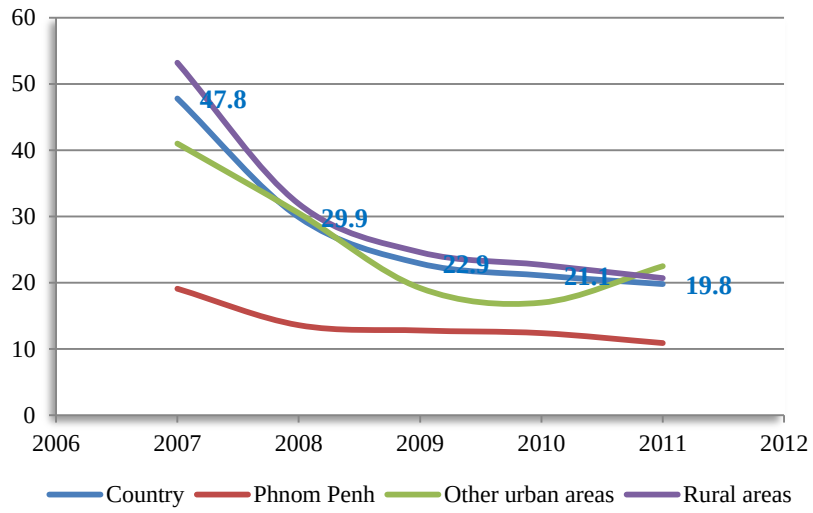

*Source: National Institute of Statistics, Ministry of Planning, 2016 & Estimated by Ministry of Economy & Finance Team.*

### Success of Poverty Reduction

The national poverty rate declined from 47.8% in 2007 to 19.8% in 2011 (Figure 2.4) based on national poverty line (3,871 riel per capita per day)[2]. This trend has been the result of large and sustained investments in agriculture and rural infrastructure. This has helped Cambodia achieve the MDG target of halving the proportion of people below the national poverty line well ahead of time. Despite these gains, a sizeable proportion of the population continues to live below the global poverty line (US$1.25 per day). This creates the need for on-going efforts to bridge the poverty gap, and also prevent the vulnerable population from falling into the poverty trap.

[2]Asian Development Bank: Cambodia country poverty analysis 2014

**Figure 2-4 Trends in poverty rates by broad strata, 2007-2009**




*Source: NSPD 2014-2018 (Calculated from CSES)*

### Social determinants of health

Improvements in education (school enrolment), rural development (i.e. improved sources of water, toilet facilities), and access to roads and public transport services, together with a considerable reduction in poverty had significant impact on the health outcome of the population. Table 2.3 shows the substantial achievements and progress made in addressing key social determinants for health.

**Table 2-3 Key Social development indicator**

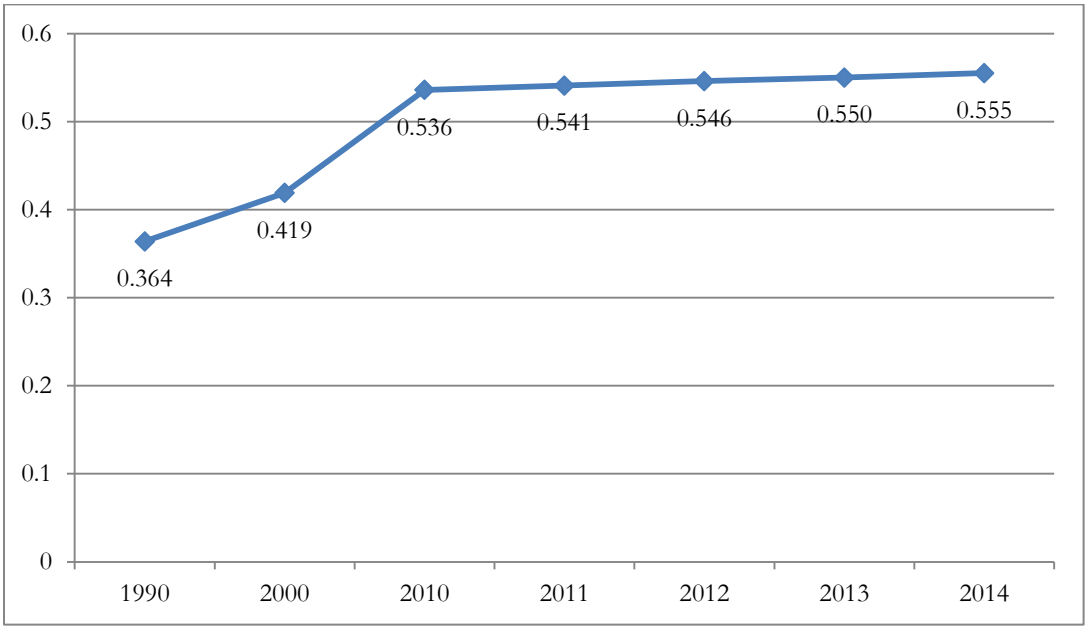
| | 2000 | 2005 | 2010 | 2014 |
|---|---|---|---|---|
| **Education** (population above 6 years-old) | | | | |
| Female literacy rate (%) | 66 | 75 | 78 | 81 |
| Male literacy rate (%) | 81 | 87 | 89 | 90 |
| **Rural Development** | | | | |
| Access to sanitation facilities (improved, not shared) | | | | |
| - Total (% of total households) | 20.9 | 21.6 | 33.6 | 46 |
| - Urban areas (% of households living in urban) | 60.2 | 56.1 | 77.8 | 83 |
| - Rural areas (% of households living in rural) | 14.1 | 15.7 | 24.7 | 40 |
| Access to improved source of drinking water | | | | |
| - Total (% of total households) | 42.6 | 55.6 | 58.8 | 65 |
| - Urban (% of households living in urban) | 56.6 | 67.3 | 87 | 95 |
| - Rural areas (% households living in rural) | 28.6 | 53.7 | 53.1* | 60 |
| Electricity | | | | |
| - Total (% of total households) | 16.6 | 20.5 | 31.1 | 56 |
| - Urban areas (% of households living in urban) | 60.6 | 66.8 | 91.3 | 97 |
| - Rural areas (% of households living in rural) | 9 | 12.6 | 18.8 | 49 |

*Sources: CDHS 2000, 2005, 2010, 2014; and NSDP 2014-2018.* (*) water source from protected dug well decreased from 13.1% in 2005 to 3.3% in 2010.

### Human Development Index

In the past two decades, the Human Development Index (HDI)[3] in Cambodia had the fastest improvements, amongst all Asian countries. The 2014 HDI score for Cambodia was 0.555, a significant improvement compared to 0.364 in 1990 (Figure 2.5).

**Figure 2-5 Cambodian positions on Human Development Index**




*Sources: Human Development Report, UNDP*

[3]HDI is measured based on income, life expectancy and years of schooling.

# 3. Health System Overview

## 3.1 INTRODUCTION

The MOH is mandated by the RGC to ***lead and manage the entire health sector*** – public services as well as the private sector. The health system is operating in a complex environment, given the diverse social determinants of health and interrelations between health and economic development.

The Cambodian health system comprises both public and private sector (including for-profit and non-for profit health organizations). The public sector is the prominent providers of preventive services and inpatient admissions, whereas the private sector tends to dominate provision of outpatient curative consultations.

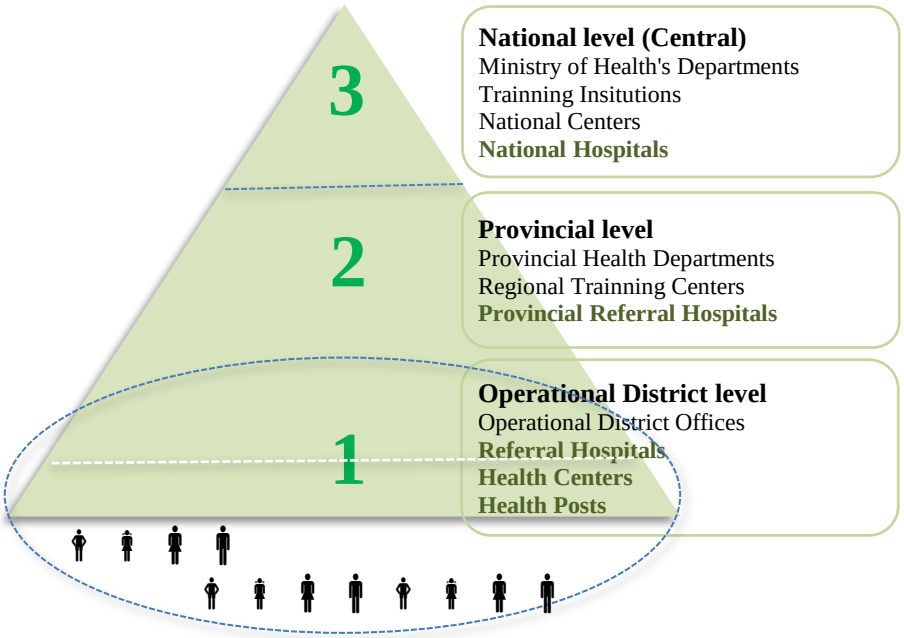
The MOH has implemented health sector reform since 1994. The main objective of the reform is "*to improve and extend primary health care through the implementation of a district-based health system approach*"[4]. The reform is put in place to meet people's essential health needs by:

- Improving the population's confidence in public health services
- Clarifying and reinforcing the roles of hospitals and health centers
- Establishing each facility's catchment area to ensure coverage of the population
- Rationalizing the allocation and use of financial and human resources

The health sector reform changed "*from administrative-based health service delivery to population and accessibility-based health system organization*." As consequences, the current Cambodian health system is organized into *three levels*: *central, provincial and operational district level* (as depicted in Figure 3.1). Roles and functions of each level are clearly defined.

[4] MOH Health Development Master Plan, 1994-1996

**Figure 3-1 the Three Levels of the Public Health System**




## 3.2 REFORM OF THE HEALTH SYSTEM

### Rationale and Background

Prior to 1995, as per general policy, the MOH aimed to have a clinic in each commune, a hospital in each administrative district and a provincial hospital in each province. In practice, such system did not meet the population's essential health needs because:

- Basic infrastructures, including building and equipment, were in poor conditions
- There was a shortage of skilled and motivated staff
- Commune clinic and district hospital activities were not clearly differentiated
- Size of population covered by clinic and hospital was either too large or too small
- Location of facilities was often inappropriate.

### Components of the reform

The health sector reform is part of the National Public Administrative Reforms that aim at improving the effectiveness and efficiency of the public sector. The health sector reform ***entails important transformation, both organizational and financial,*** including:

- Reorganization of the MOH institutional structures at central, provincial and district levels;

- Redefinition of the health system and the type of services at each of its levels;
- Rational distribution of resources -financial, infrastructure, drugs, equipment and human- based on the health coverage plan;
- Redistribution and retraining of health staff; and
- Budgetary reform and introduction of new ways to finance health services.

### Health Coverage Plan

The Health Coverage Plan (HCP) is a planning tool for developing the health facility infrastructure, based on a combination of population and geographical accessibility to health facility (Table 3.1), taking into account quality of care and availability of resources[5]. It aims to:

- Develop health services by defining criteria for location of health facilities and their catchment areas;
- Allocate financial and human resources in equitable way with improved efficiencies;
- Ensure that population health needs are met in an equitable way through coverage of the whole population.

**Table 3-1 Criteria for Establishment of Health Facilities**

| Facility | Population size | Accessibility (distance) |
|---|---|---|
| **Health Center** | Optimal size: 10,000<br>Range: 8,000-12,000 | Within 10km or 2hrs walk maximum for the catchment area population. |
| **Referral Hospital** | Optimal size: 100,000<br>Range: 80,000 to 200,000 | In populated area; within 2 hours drive or boat journey and in rural areas; not more than 3-hour drive or boat journey |
| **Health Post** | Range: 2,000-3,000 | Distance from a commune or village to the nearest HC is more than 15 km, with a geographical barrier (river, mountain, or poor roads) |

### Application of the criteria

**In low density areas** like Mondulkiri, Ratanakiri, Prahvihear, Koh Kong and few other provinces, some factors result in inadequate health service coverage: cultural and language differences exists, some communes and villages are scattered and isolated with small population, transport to district towns and between communes is difficult. Some communes get cut off from the districts during the rainy season, and problems in posting and retaining skilled staff. In such context, in remote communes/village with at least

[5] MOH (December 1997) Guidelines for Developing Operational Districts

2,000 inhabitants, health posts (HPs) should be established and function as the lowest level within the district health system and thus the first point of contact in low density provinces.

**In populated areas**- Application of population size is a main criteria for the HCP for the capital and municipalities, as well as urban town areas, because of a number of reasons: geographical access to health services is generally not a problem, private health providers are crowded and become a large part of service provision, and large public and private hospital facilities exist, especially in Phnom Penh. In this context, establishment of a RH for each City/Khan/District and a HC for each Commune/Sangkat is not justifiable in terms of economies of scale or return of investment. Therefore, the catchment population can be more than 12,000 for a HC and over 200,000 for a RH.

## 3.3 ROLES AND FUNCTIONS OF EACH LEVEL

### Central Level or National (3rd Level)

The key laws and regulations setting out the MOH's functions and other health functions are:

- A law, *Kram* NS/RKM/0196/06 (1996) on Establishment of the Ministry of Health, which establishes the Ministry's public service delivery role.

- The MOH's mission and functions are described in Sub-decree, *Anukret* 67 (1997). Its mission is "**to lead and manage the health sector of Cambodia**". Its functions are presented in Box 3.1.

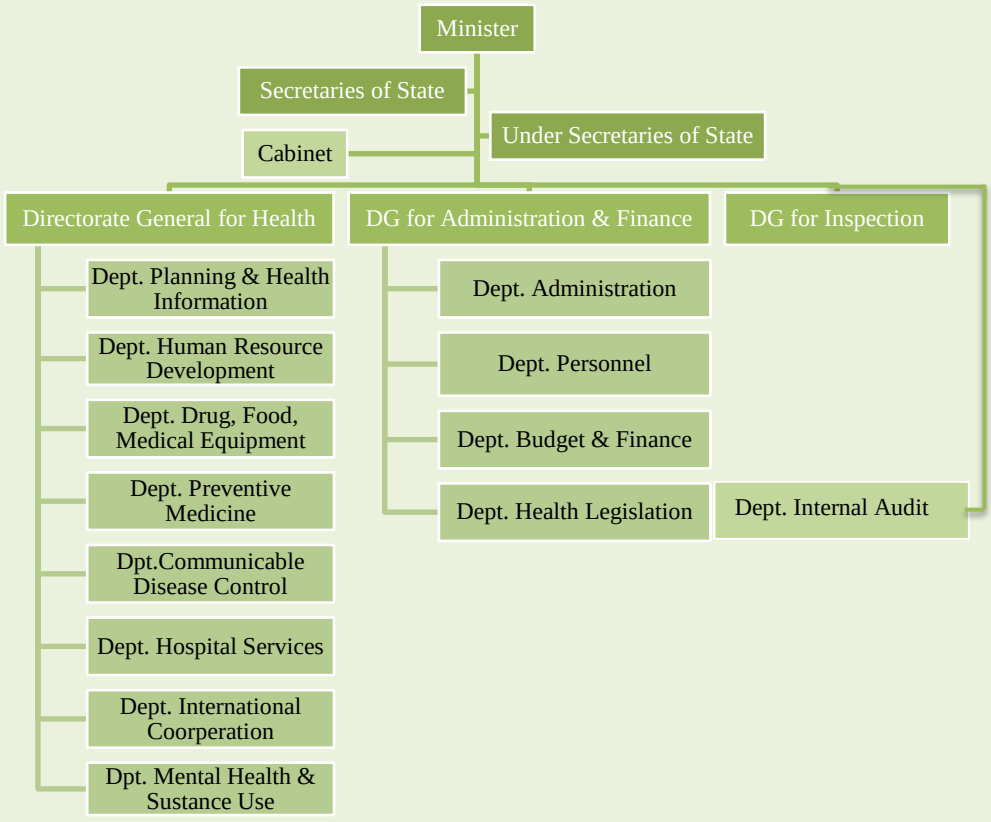
***Anukret* 67** also defines the organization chart (Figure 2.2) and terms of reference (ToRs) of the central level of the MOH and lists the national institutes and hospitals and Provincial Health Departments (PHDs) that are subordinate to the MOH (Annex 1). The organization chart and ToRs or the MoH's PHDs and ODs are set out in the MOH's administrative orders (*Prakas*).

The MOH responsibilities concerning the regulation of the private sector are governed by *Kram*, which give detailed indication of ***obligatory functions of the MOH*** for regulation of these aspects of the health sector.

### Box 3-1 Functions and Organization Chart of the MoH

**MOH Functions as defined by Anukret 67 (1997)-updated Dec. 2014.**

- Define health policy
- Develop planning and strategy for the health sector
- Develop regulations/guidelines to maximize the quality of health services in the public and private sectors
- Monitor, control and evaluate the administrative and technical work of institutes subordinate to the MoH
- Research how to develop the health sector
- Manage resources (human, material, financial, and information) at central, provincial, municipal, district, khan and C/S level
- Organize preventive programs and nursing care to decrease the incidence of disease
- Coordinate other resources
- Oversee production, trade and distribution of drugs, medical equipment and paramedical equipment in all public and private health facilities
- Control food safety.



### Provincial Level (2nd Level)

As of December 2015, there are 25 Municipal/Provincial Health Departments (M/PHD) and 25 Municipal /Provincial Referral Hospitals that are under direct administration of the M/PHDs. The municipal/provincial level is the interface between the central and operational district level. The main role of the M/PHDs is to link the MOH and ODs through:

- Interpretation, dissemination and implementing national health policies and health strategic plans through annual planning and budgeting
- Supporting the development of ODs by regular supportive supervision and monitoring and evaluation
- Ensuring equitable distribution and effective utilization of available financial and human resources
- Mobilizing additional resources
- Providing continuing education to health personnel in the province
- Performing delegated regulatory functions of private health providers and pharmaceutical products.
- Promoting coordination and collaboration with relevant stakeholders, including local administrations

### Operational District Level (First Level)

As of December 2015, there are 94 OD offices covering 197 administrative D/K/Cs. The Operational District is the most peripheral subunit within the health system, closest to the population, and composed of HCs/HPs and RHs. Its main role is to implement the Operational District health objectives through:

- Interpreting, disseminating and implementing national policies
- Maintaining effective, efficient, and comprehensive health services (promotive, preventive, curative, rehabilitative) according the national clinical practice guidelines/protocols
- Ensuring equitable distribution and effective utilization of available financial and human resources
- Mobilizing additional resources for district health services
- Providing in-service training to hospital and health center staff
- Providing support to HCs/HPs and RHs through supportive supervision, monitoring and evaluation.
- Promoting coordination and collaboration with relevant stakeholders, including local administrations.

### Health Center

As of December 2015, there are 1,141 HCs and 107 Health Posts for 1,633 C/S. Health centers deliver basic health care services as defined in the MOH's Guidelines for Minimum Package of Activities (MPA):

- Have close contact with the catchment area population
- Be efficient and affordable (financially and functionally)
- Provide integrated high quality promotive, preventive and basic curative services
- Ensure financial, geographical and culturally appropriate accessibility.
- Encourage community participation in health.

**Referral Hospital (National hospitals, Provincial and District Hospitals)**

As of December 2015, there are 102 referral hospitals, including 9 National Hospitals, 25 Municipal and Provincial Referral Hospitals and 68 district-based Referral Hospitals. Referral hospital services are distinct and complementary to those delivered by health centers. The type of health services delivered by RHs is defined by the MOH's Guidelines for Development Complementary Package of Activities (CPA). Main roles of RH are:

- Providing health services that cannot be delivered by health centers: specialized services, diagnosis, follow-up and treatment for management of complex health problems.
- Supporting the health centers in the respective OD by clinical training
- Conducting supportive supervision/clinical monitoring of respective HCs

## 3.4 HEALTH PROFESSIONALS

In Cambodia, laws and regulations govern practices of health professions. The Medical Council, Pharmacist Council, Dentist Council, Nurse Council and Midwife Council are established by Royal Decree. These Councils play important roles regarding health professional's registration, strengthening ethics and codes of conduct, and professional development programs. The Councils' professional network has been established at national and regional level.

## 3.5 PRIVATE HEALTH SECTOR

Cambodia has a mixed health delivery system of both public and private health providers.

**Private-for-profit sector**

The private-for-profit sector is an important provider of health services and has grown rapidly. While it is mainly concentrated in urban and economically advantaged areas, it is also becoming pervasive in rural areas. As of December 2015, there are 8,488 formal private providers/facilities (excluding 2,156 pharmacies and depot pharmacies), ranging from nursing care, pregnancy care, physiotherapy, consultation cabinet to clinic, polyclinic and hospital (Table 3.2). Private health care is dominantly used for ambulatory treatment of illnesses, but less dominant for inpatient treatments and limited for delivery of preventive health services. This sector accounts for the largest share of total health care spending.

**Table 3-2 Statistics of private health providers by types of services**

| Type of services | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|
| Nursing care room | 758 | 1252 | 1505 | 1733 | 1630 | 1754 | 3392 |
| Pregnancy care room | 242 | 331 | 427 | 485 | 520 | 506 | 1030 |
| Physiotherapy room | 5 | 12 | 19 | 21 | 22 | 20 | 13 |
| Consultation Cabinet | 2268 | 2516 | 2473 | 2640 | 2768 | 2732 | 2891 |
| Dental Consultation | 284 | 313 | 318 | 368 | 411 | 419 | 758 |
| Dental Clinic | 29 | 26 | 33 | 36 | 39 | 38 | 41 |
| Esthetic/Beauty Center | | 2 | 6 | 6 | 8 | 10 | 12 |
| Medical laboratory | 29 | 25 | 20 | 23 | 27 | 27 | 38 |
| Maternity | 8 | 7 | 7 | 7 | 7 | 8 | 11 |
| Clinic | 95 | 102 | 110 | 130 | 156 | 181 | 244 |
| Polyclinic | 37 | 36 | 41 | 48 | 48 | 51 | 47 |
| Hospital | | | | 4 | 8 | 11 | 11 |
| Total | 3755 | 4622 | 4970 | 5501 | 5644 | 5757 | 8488 |

**Source:** The Health Sector Progress Report 2015 (MoH)

### Private non-for-profit

The private-non-for-profit plays an important role in health service delivery in Cambodia. This sector comprises local and international non-governmental organizations. Most of them work at district and community level in collaboration with PHDs and ODs (including RHs and HCs), providing a range of services such as support of service delivery, community-based health networks, health education and promotion activities, encouragement of community participation in health etc. It is noted that operators of Health Equity Funds and Community-Based-Health Insurance schemes are local NGOs.

As of December 2015, there were over 180 NGOs working in the health sector. MEDICAM is an NGO, whose main role is to connect the NGO community with the MoH, especially in areas of policy and health strategy development, to coordinate NGO activities and to promote collaboration between NGOs and health institutions at all levels.

# CHAPTER II. SECTOR ANALYSIS

## 4. Conclusions and Recommendations

## 5. Sector Priority

## 6. Sector Performance Review's findings

# 4. Conclusions and Recommendations

## 4.1 INTRODUCTION

Based on the findings of the health sector review (Chapter 6) and certain key aspects highlighted in Chapter 1 and Chapter 2, this Chapter presents some conclusions. It focuses on two main outcomes of health system performance: **health of the population and financial risk protection**. It describes the health system performance in relation to dimensions of health service delivery, including access and coverage, quality, efficiency, equity and governance.

Rather than continuing to pilot and experiment, the Cambodian health system is matured into a period of strengthening and consolidating existing programs and interventions. The recommendations are therefore built upon the impetus gained in the last decade and take into account current and future challenges and anticipated opportunities. The recommendations concentrate on improving **health service delivery**.

## 4.2 CONCLUSIONS

### Population Health and Well-being

**1.** Cambodia has achieved most MDGs' health-related targets several years ahead of schedule. Considerable improvement has been made in terms of improving health outcomes of the population through a stronger health system performance and increased financial risk protection. Improved key social determinants of health (e.g. education, housing, improved water sources and sanitation facilities, expanded road infrastructure and increased access to public transport services), together with consistent economic growth and rapid poverty reduction have played key roles in increasing life expectancy and improving quality of life. Nevertheless, achieving equitable health outcome across geographical areas (rural vs. urban) and across the population (poor vs. rich) remains a pressing issue that will have to be effectively addressed in a changing environment (demographic and epidemiological transition, economic and technological developments).

## Financial Risk Protection

**2.** There has been an improvement in financial risk protection for the poor through implementation of HEFs, along with other pro-poor demand-side and supply-side financing interventions. Despite this progress, Out-of-pocket expenditures continue to be high, undermining financial risk protection and solidarity, and posing potential financial hardship when accessing health care. Cross subsidies between rich and poor and between sick and healthy is rather limited, especially since HEFs is the only sizable risk pooling mechanism, together with work injury schemes for private workers/employees. Under such circumstances, expanding HEFs coverage to additional vulnerable populations, together with developing a sound national social health insurance system for both formal and informal sector populations will increase equity in access and in financing, and ultimately improved equitable health outcome across the population., This should go hand in hand with a well regulated healthcare market,

## Access and Coverage

**3.** There have been significant gains in access to and utilization of health services as a result of substantial investment in public health infrastructure, extensive expansion of road infrastructure, increased households' capacity-to-pay and availability of private health providers. Health care seeking has improved with a larger proportion of individuals seeking treatment when sick, especially among the lowest income quintiles. Uptake of reproductive, maternal and child health services has dramatically increased. However, it remains a challenge to sustain and expand coverage within available resources to move towards Universal Health Coverage, hereby all Cambodians have access to quality, safe and effective health services without financial hardship.

## Quality of Health Services

**4.** Structural and technical quality of public health services has improved. These improvements have contributed to reduced maternal and child mortalities and burden of communicable diseases. However, quality of health services does not necessarily meet the needs and expectations of the population. Resource constraints have been important impediments to improving the quality of health services. This resulted in a mismatch between clinical best practices outlined in national clinical practice guidelines and protocols and delivered services. Effectively addressing these challenges, together with more investment in competency-based education of health professionals and allied-professionals, will improve quality of health care at both public and private sector.

## Efficiency

**5.** Over the last decade, consistent rapid economic growth enabled the RGC to substantially increase health care spending, while the recent trend of external funding is going down. Available financial resources enabled improving the public health infrastructure with consequent increased access to and coverage of health services of better quality. The on-going public financial management reforms provided the MoH opportunities to further strengthen allocative and technical efficiencies. Gains in efficiency and responsiveness of public health providers were made through the introduction of payment mechanisms linking outputs to financial resources. More resources are needed to allow for expansions in coverage of health service and population. This calls for adequate funding using a combination of national budget, pre-paid contributions, and affordable household health spending on health. Increased financial resources will have to be accompanied by measures that ensure efficiencies and secure value-for-money for the available resources.

## Equity

**6.** Equity in access and in financing has been promoted by targeting available resources to delivery of primary health services in rural areas. More should be done to reduce gaps in distribution of quality, safe and effective health services across geographical locations. The national coverage of HEFs, availability of other social health protection schemes (voucher schemes for the poor and vulnerable people, integrated voluntary health insurance schemes for informal sector population), and social security schemes (work injury scheme for private employees and workers) have contributed to easing the financial burden when accessing health services. Reductions in catastrophic health expenditure, incidence of impoverishment due to health expenses and health-related depth among all different income groups are observed. Nevertheless, true financial risk protection is to be obtained by averting the rising trend in OOP spending on health and by establishing effective "risk-pooling arrangements" for people of all socioeconomic strata.

## Governance

**7.** Impressive progress has been made in strengthening of health sector governance in terms of developing policy, legislation and regulations as well as law enforcement. The latter comprises mainly registration and licensing of health providers, eliminating counterfeit drugs and unlicensed and unqualified health care providers. There has been progressive delegation of regulatory functions to subnational level administrations. While the legal structure for health system governance has been developed and implemented, regulatory capacity and enforcement remains a key challenge for the stewardship function of the MoH and decentralized administrations. The implications of the D&D process on different administration levels in terms of investments, policies, regulations and practices has necessitated

changes in the roles and functions of the central MoH and its institutions at all levels, and also called for a stable approach to making health system more responsive and accountable to Cambodian peoples.

## 4.3 KEY RECOMMENDATIONS

The following recommendations are based on the premise that the MOH is well placed to **improve the quality of service delivery** by further strengthening the supply-side; and it is also well placed to **improve equity in the distribution of health services** by further strengthening demand-side financing, most importantly consolidation of social health protection schemes.

1. Ensure optimal distribution of health services of accepted and adequate quality across populations to attain more equitable health outcomes.

2. Further strengthen health promotion and primary and secondary prevention for NCDs to stem the growth of the conditions and reduce health care costs.

3. Increase domestic financial resources to minimize financial gaps resulting from reduced external funding, and further integrate health programs within the broader health service delivery system.

4. Expand HEFs to provide financial risk protection for other vulnerable population groups (people with disabilities, older people, and children under 5 years).

5. Consolidate demand-side health financing interventions and social health protection schemes in a national social security structure and system to advance towards universal health coverage.

6. Invest in a stronger and more effective system for pre- and in-service training for health professionals to enhance clinical and managerial competencies to further the quality of health services and their delivery.

7. Reinforce stronger regulatory mechanisms, along with sound financial management and administrative and pay reform, to enhance continuous quality improvement efforts.

8. Within the evolving D&D process, redefine roles and functions of the MoH and its institutions at all levels, adjust their organizational structures, accordingly, and continue institutional capacity development.

9. Invest in appropriate technology and its use, for medical education and health service delivery and management, to enhance knowledge and diagnostic capacity of health providers; improve information for decision-making; and monitoring and evaluating the health system performance.

# 5. Sector Priority

## 5.1 INTRODUCTION

Priority-setting is determined by the Royal Government of Cambodia's commitment to achieving the Sustainable Development Goals (Global SDGs by 2030), as well as consideration of other factor such as changing socioeconomic conditions, ongoing Government reforms, available resources, access to health services according to socioeconomic status, quality of health services, efficiency and equity of delivering such services, changing health conditions due to demographic and health transitions; all of which add a considerable degree of complexity to ensure responsiveness of the health system.

## 5.2 CHALLENGES

**Epidemiological challenges (diseases and health problems)**

- Maternal and childhood mortality, especially neonatal mortality, remain relatively high compared to other countries in the region. In addition, inequities in health outcomes across socio-economic groups persist.

- Malnutrition (acute and chronic) among women and children remains stubbornly high, severely impacting their health and development of cognitive abilities.

- An increased incidence of teenage pregnancy (age 15-19 years). This challenge, together with relatively low proportion of institutional deliveries by women from lower economic groups, can slow down the reduction of maternal and neonatal mortality.

- HIV transmission remains significant amongst marginalized populations, including female entertainment workers, men having sex with men, transgender persons and people who inject drugs.

- Low Tuberculosis detection rate coupled to high, incidence and mortality rates, and development of and multidrug resistance in spite of achieved high cure rate;

- Artemisinin resistant falciparum malaria parasites remain a national and global public health concern.

- Increasing prevalence of NCDs, an aging population and urbanization pose challenge the structure and delivery model of the health system.

- The burden of mental health disorders remains a pressing issue of concern; especially since capacity of the health system has been limited to deal with the service needs.

- Growing threat of emerging and re-emerging infectious diseases poses challenges to the health system and acts as a global health security threat.

- Potential risks to human health from environmental health risks and climate changes challenging to multi-sectoral responses.

**Challenges to the health system**

- Growing demand for better quality health services, as the current quality of health services provided in both public and private sector is generally considered inadequate.

- Effective delivery of quality health service is constrained by inadequate resources, mainly under-staffing, limited diagnostic capacity, and insufficient supply of medicines and health commodities

- Inadequate capacity of public health system to deal with diseases and health problems related to CDs, NCDs, mental health, and provide public health emergency response to emerging/re-emerging infectious disease pandemics, disaster preparedness and response.

- Unmet demand for disability-specific rehabilitative services, including provision of supportive devices and social assistance.

- High OOP spending on health and limited level of risk pooling. Apart from HEFs for the poor, social health insurance system for both the formal and informal sector population is under development of policy framework.

- Competency, skills and complimentary skill mix of health workers remain limited. Shortage of health workers has implications on the efficient delivery of health services at various levels and different facilities within the health system.

- Low investment in medical technology, and ICT with limited capacity to analyze, interpret and use data; limited use of health data and information by clinical and administrative staff to make managerial decisions.

- Multiple M&E frameworks, indicators and reporting systems; project/ program-related M&E (including M&E tools and teams.)

- Rapid growth of the private health sector poses a challenge to the stewardship function of the MoH and its ability to regulate.

- Delegation and transfer of functions to subnational level administrations implies modification of functions and institutional structures of the MoH and its institutions across all levels of the system.

- Inappropriate health care seeking of the population, especially in rural/remote areas i.e. delay in seeking care, self-medications.

## 5.3 OPPORTUNITIES

The on-going, impressive economic growth along with progressive reform processes provides the MoH with an opportunity to make important improvements, in particular health service delivery.

- The RGC's strong political commitment led to attainment of the health MDGs. This is likely to be reaffirmed for the SDGs (particularly advancing towards universal health coverage).

- The National Strategic Development Plan 2014-2018 provides the foundation for investing in health as a means to develop human capital, building a more productive workforce.

- Cambodia continues to experience a sustained and strong economic growth that increases fiscal space and capacity, allowing the Government to increase public spending for health.

- Public Financial Management reforms resulted in consistent increases in the budgetary investment in the health sector and improved credible budget and financial flow, transparent budget allocation and expenditure, robust auditing systems and increased performance by public service.

- Salary reforms that are consistent and conform to broader civil service policies can help improve the productivity and motivation of health staff.

- D&D process holds great potential if properly structured. It can potentially improve administrative and fiscal efficiencies, besides making the health system more accountable and responsive to local community health needs.

- "ASEAN Economic Community" - The ASEAN Member States have committed to the realization of an economic community by 2015, which includes the establishment of a single and competitive market and production base. Progress has already been made in liberalizing trade in goods between ASEAN member states, in services and investment as well as the mobility of skilled labor and the implementation of Mutual Recognition Arrangements (MRA). The implementation of the MRA and facilitation of the mobility of

health workers (including doctors, dentists, and nurses) will involve further work in the adaptation of national laws and regulations, which will have potential implications for the health labor market, both public and private.

Along with the above-mentioned opportunities, the following proven health sector interventions have created a favorable environment for further strengthening the supply of quality health services in a responsive and publicly accountable manner.

- Growing support within the Government to build on HEFs as a mechanism to cover the population in the informal sector, especially rural and vulnerable groups.
- Stronger demand for healthcare due to improved health literacy and operations of social health protection mechanisms, such as HEFs.
- The Government funded Midwifery Incentives Scheme has significantly reduced maternal mortality.
- The Government and Development Partners funded Service Delivery Grant help to improve management and health service delivery.
- Significant achievements at national level in term of budget and personnel have created opportunity to strengthen service delivery at sub-national level through expansion of SOAs or other supply-side interventions.

## 5.4 STRATEGIC PRIORITY

Strategically, priority-setting is driven by an understanding of the main reasons behind the limited demand for public health services and ways whereby the supply side can ensure access and coverage of quality health services that meet the need and expectations of the population. In this regard, priority setting is based on (i) the magnitude of the burden of diseases and other health problems -defining/re-defining priority health service packages and interventions, (ii) target populations -hard-to-reach and vulnerable, and (iii) resource availability (finance and human) -directing/re-directing resource investment.

There are **two strategic priorities** to address the identified challenges (health problems of the population and health system operation constraints).

**(1) Sustaining and further improving access and coverage with a renewed focus on improving quality of health services across geographical areas; and**

**(2) Increasing financial risk protection across socio-economic groups when accessing needed health care.**

To effectively address the identified strategic priorities, the health sector needs to (re)direct available resources and concentrate its efforts on **potential priority areas for actions** specific to health needs of the population and specific components of the health system.

- **Specific health needs of the population**

  - ✓ Reproductive, maternal, newborn, child health (including immunization), and nutrition;

  - ✓ HIV/AIDS, Tuberculosis, Malaria, Dengue, Hepatitis, emerging & re-emerging infectious diseases, Neglected Tropical Diseases (TNDs) including parasites, helminthiasis and leprosy, emerging and re-merging infectious diseases;

  - ✓ Non-communicable diseases (diabetes, hypertension, cancers, chronic respiratory infection) mental health, substance abuse, blindness prevention and control, vision and hearing impairment, disability, elderly care;

  - ✓ Risks factors to and social determinants of health -tobacco & alcohol, food safety, hygiene and sanitation (improved water sources, toilet facilities..); and

  - ✓ Health hazards caused by environmental health risks (pollutions), disaster preparedness & response, road accidents & injuries; and climate changes.

- **Specific components of the health system**

  - ✓ Increasing equitable access to and coverage of affordable, quality, safe and effective health services (including access to medicines);

  - ✓ Promoting patient-centered, equity-focused and gender-sensitivity health service delivery;

  - ✓ Quality assurance: Quality improvement initiatives moving towards establishment of an accreditation systems for health care quality covering health providers and facilities;

  - ✓ Health security: core capacity development to meet International Health Regulations' requirements and strengthen national disease surveillance and response systems;

  - ✓ Promoting behavioral change and communication for both health providers and consumers; promoting clients' and providers' rights, promoting healthy lifestyle, and appropriate health seeking behavior;

  - ✓ Mobilizing domestic and external financial resources and increasing efficiency gains in health spending;

- ✓ Increasing Social Health Protection coverage and financial risk protection for the formal and informal sector populations;
- ✓ Strengthening health education and training systems by focusing on competency-based education and training, in tandem with developing accreditation system for health education and training institutions;
- ✓ Ensuring equitable distribution of competent health personnel with appropriate skill mix, along with effective incentive mechanisms;
- ✓ Increasing investment in appropriate medical equipment and technologies for hospitals and laboratory and application of information technologies;
- ✓ Strengthening the national health information system and promoting health research;
- ✓ Reinforcing health legislations and regulations for health professionals and health service providers of the public and private sector and for pharmaceutical products together with strengthening regulatory capacity and institutional development (particularly in the D&D context);
- ✓ Strengthening effective multi-sectoral responses to health and health-related issues, including public-private partnerships;
- ✓ Strengthening national accountability mechanisms with engagement of a broad range of stakeholders (local community and administrations, NGOs, private sector).

# 6. Sector Performance Review

## 6.1 INTRODUCTION

A review of the 2008-2015 health sector performance clarified achievements and progress and identified a series of challenges. The review explored opportunities to develop the health sector in the coming five years. It focused on five cross-cutting strategic areas of the HSP2 through analysis of available data/information related to key indicators of health system performance. The analysis shed light on **what worked well and what did not, what needs to be improved, and in particular how to work better**.

## 6.2 POPULATION HEALTH

### Finding 1 Health and Well-being

The health status of the Cambodian population has remarkably improved over the last decade. This improvement is largely due to strong political commitment of the RGC that implemented a wide range of reform programs that potentially impact on health, notably in the socioeconomic sector (including financing, education, agriculture, rural development), and governance (Public Administrative Reform). These reforms together with a stronger health system, together with effective development cooperation, contributed considerably to improved health outcomes. Nevertheless, equitable distribution of health outcome across the population remains a key challenge to the health service delivery.

- Life expectancy at birth increased from 65.6 years in 2000 to 71.4 in 2012
- The total fertility rate decreased from 3.8 in 2005 to 2.7 in 2014 but is remains relatively high in rural areas (2.9) and among women of the poorest quintile (3.8 double the rate amongst richest quintile women) and women with no education (3.3).

- The maternal mortality ratio dramatically decreased from 472 per 100,000 live births in 2005 to 170 in 2014. Contrary, neo-natal mortality declined slowly from 28 per 1,000 live births to 18 respectively and accounts for 50% of under 5 years- mortalities.

- Infant mortality rate decreased from 66 per 1000 live births in 2008 to 45 and 28 in 2014 while respective figures for under-five mortality are 83 and 35 respectively.

- Under-five mortality is higher in rural areas (52/1,000 live births) than in urban areas (18/ 1,000 live births), and four times higher among children living in the poorest households (76/1,000 live births) than children of the wealthiest households (19/1,000 live births). Children born to mothers with no education are more than twice likely to die before their fifth birthday than children born to mothers with secondary and higher education.

- Stunting decreased from 43% of children under five in 2005 to 32% in 2014, highest Preah Vihear and Stung Treng (44%), but lowest in Phnom Penh (18%).

- Wasting decreased from 17% in 2000 to 10% in 2014, but remains essentially unchanged since 2010. 24% of children under five is underweight, 1% is overweight.

- The proportion of overweight or obese women aged 15-49 years increased from 6% in 2000 to 18% in 2014, while under-weighted (thin) decreased from 21% in 2005 to 14% in 2014.

- The adult HIV prevalence has declined by nearly 60%. The country has achieved the universal access target for treatment, with approximately 80% of adults and children estimated to be in need receiving antiretroviral treatment.

- Malaria mortality fell rapidly from 219 deaths in 2008 to 10 in 2015 and the malaria mortality rate reported by public health facilities is approaching zero (0.06 per 100,000 populations in 2015). Dengue case fatality was 0.25% in 2015.

- Tuberculosis prevalence more than halved between 1990 and 2015 from 1,670 reported cases per 100,000 populations to 668 respectively. Tuberculosis death rate decreased from 155 per 100,000 populations in 1990 to 58 per 100,000 populations in 2014.

**Sources:** CDHS 2005 & 2014. The Health Sector Progress Report 2008 & 2015 (MoH) Health Sector Analysis Report January 2015.

## 6.3 BURDEN OF DISEASES

### Finding 2 Main Diseases

The standard indicator for burden of disease is the Disability Adjusted Life Year (DALY). The DALYs for a specific disease are measured as the total of the Years of Life Lost (YLL) due to premature mortality within the study population from that disease, and the Years Lived with Disability (YLD) for people in the study population who are living with the disease.

- Key priorities for improving child health are a reduction of mortality from neonatal conditions, improving the nutritional status of children by tackling both macro- and micronutrient deficiencies, while addressing morbidity and mortality from acute respiratory infections and diarrheal diseases.

- Tuberculosis ranks among the top three causes of both mortality and morbidity, highlighting the challenges associated with case detection and successful treatment. Other infectious diseases of importance are Hepatitis B and dengue.

- Non-communicable diseases – mainly ischemic heart disease, stroke and chronic obstructive lung disease are the emerging priorities. This is supplemented by an evolving threat from rising prevalence of principal NCD risk factors - hypertension, diabetes and overweight; as well as behavioral factors such as smoking and alcohol consumption.

- Mental health conditions comprise a major component of morbidity and the common conditions include post-traumatic stress disorder, depression, and anxiety disorders.

- Road traffic accidents are the 4$^{th}$ leading cause of DALYs among males, and 13$^{th}$ among females, with the majority of both mortality and morbidity occurring at ages 20-49 years.

**Source:** Assessment of Burden of Diseases in Cambodia 2015 (part of Health Strategic Plan 2016-2020 formulation process)

## 6.4 HEALTH SERVICE DELIVERY

### Finding 3 Capacity of Public Health System

There have been considerable investments in the health system with the intention to increasing both access to and utilization of quality health services. These investments include, but are not limited to: construction, rehabilitation, renovation and expansion of HC/HP/RH, supply of medicines and health commodities, and medical equipment, ICT networks, means of transportation, production of health professionals, competency and skill development, and other essential supporting services – such as medical laboratories

and blood bank services. This investment has been made with the intention to increasing both access to and utilization of health services, and improving quality of care.

- From 2008 to 2015, the total number of HCs increased from 967 to 1,141, especially in remote areas, while the number of referral hospitals increased from 84 RHs to 108 RHs, including 9 National Hospitals. 27 HPs have been upgraded to HCs, and a number of HCs has been upgraded to CPA1-RHs, with upgrading of CPA1-RHs and CPA2-RHs.

- The ratio of public hospital beds (excluding TB beds) to total population was 1 per 1,490 people in 2008, and remained similar to date (1 bed per 1,446 people). The health coverage plan recommends 1 bed per 1,000 people.

- Substantial investments in advanced medical equipment and technologies in the national hospitals and medical laboratories are evident.

- The total number of public health personnel increased from 18,096 in 2008 to 20,974 in 2015 (with an average increase of around 250 per year over the last eight years).

- The Governmentrecurrent health spending more than doubled (2.1 times) from 2008 to 2015: from Riel 425,948.9 million or US$104.1 million to Riel 932,631.9 million or US$227,470 million respectively.

- More medicines and health commodities have been made available at most health facilities. As a result, stock-out of essential drugs (14 items) at HCs decreased from 13.3% in 2008 to 4.01% in 2015.

- Blood bank services are available in 21 provincial RHs and blood depots in 12 district RHs. Blood donation rate rose from 3 per 1,000 populations in 2008 to 4.6 per 1,000 populations in 2015.

- Each referral hospital has at least 1 ambulance, and some HCs also have one.

- Licensed private providers increased from 3,755 in 2009 to 8,488 in 2015 (see Table 3.2 for more information).

**Sources:** The Health Sector Progress Report 2008 & 2015 (MoH)

### Finding 4 Innovative Management of Health Service Delivery

Two models of health service delivery have been implemented: i) Public Administrative Enterprises (PAEs); and ii) Special Operating Agencies (SOAs). Both are flexible managerial instruments to enhance performance and accountability in the provision of public services, with main emphasis on the improvement in quality and delivery of targeted public services. The former targets the central level institutions, including 5

national hospitals, 2 health educational institutions, and the national center for medical laboratory. The latter concentrates on provincial/district level, including 10 provincial referral hospitals and 26 ODs covering 21 RHs and 394 HCs in 14 provinces.

- As a result of a relatively high-level autonomy, PAEs seemingly perform better. Revenue from user fees, Government subsidies for poor patients, HEFs and National Social Security Funds' work injury schemes have allowed PAEs to expand basic infrastructure, invest in high-tech medical equipment and technology and motivate staff through supplementary incentives. However, there still remains the need to strengthen accountability concerning budget revenue.

- Given institutionalized performance based practices, well-managed SOAs have implemented job descriptions, performance requirements and stronger discipline for all staff; some SOAs are using these mechanisms as a basis for payment of not only the SDGs incentives, but also supplementary incentives from user fees and HEF revenues.

- SOA-ODs receiving SDGs appear to have generally maintained the performance improvements achieved, and have made further improvement on some performance indicators. SOAs financial management has been generally successful.

**Sources:** The Health Sector Progress Report 2015 (MoH) and Supply and Demand Side Review Report 2013 (MoH).

### Finding 5 Access to Health Services

During 2004-2014, medical care seeking at public and private providers increased significantly for all population groups across all socioeconomic strata, including older people, people with disability, and peoples with chronic disease. A majority of the population has used HCs for basic health care, including consultation, normal delivery, preventive services etc. However, Utilization of public health services was slowly increased. The relatively low utilization of public health facilities by poor and vulnerable populations (in some cases despite HEF coverage) is a concern.

- Significant increased care seeking at both public and private providers for all population groups, rising from 84% in 2007 to 98% in 2013; respective figures for people with disability were 63% and 95%; and for people with chronic diseases 67% and 80%.

- Care seeking at formal providers increased from 50% in 2004 to 82.4% in 2013, while home care decreased from 16% to 0.2% over the same period.

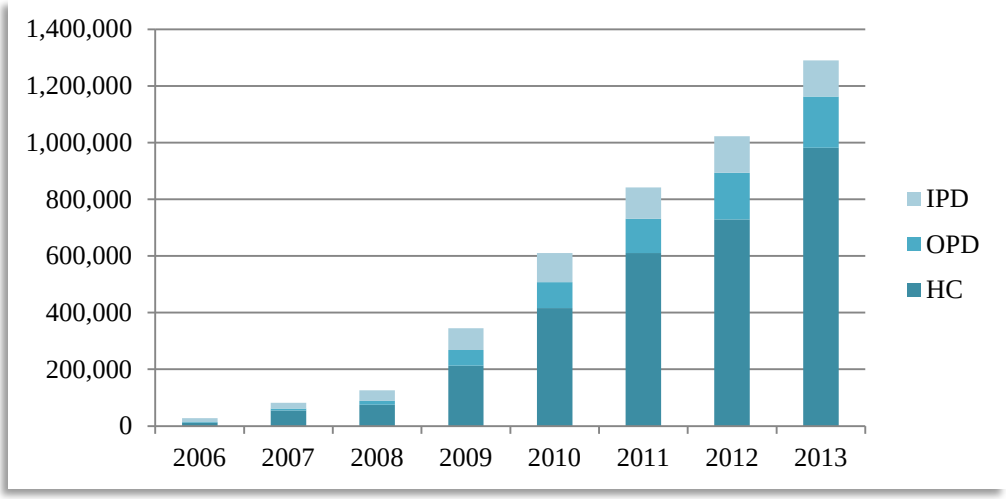
- People in rural areas predominantly use private sector providers (drug store 38%, private clinics 35% and private hospitals 3%) and health centers to a lesser extent. People in the capital use significantly more expensive private hospitals and private clinics.

- Children and elderly seek more care than other population groups. Children under 5 were significantly less likely to receive care at home compared to other age groups.

- Consumption of public health services measured by per capita outpatient consultations per year increased from 0.45 in 2008 to 0.61 in 2015. 85.6% of the total new case consultations (9,873,537 cases) were seen by HCs and the remaining 14.4% by Hospitals.

- Bed Occupancy Rates increased around 4% annually, from 61.3% in 2008 to 87.5% in 2015. The Average Length of Stay per a hospitalized patient is 5 days.

- Utilization of public health services by HEFs beneficiaries has steadily increased as a result of the number of HCs covered by HEFs. 63% of the total number of facility visits occurred at HCs and the remainder at RH (IPD and OPD).




**Sources:** Secondary data analysis of a series of Cambodia Socio-Economic Survey (GIZ), The Health Sector Progress Report 2008 & 2015 (MoH), National Coverage and health facility Utilization by Health Equity Fund beneficiaries, 2004-2015 (Nossal Institute for Global Health)

## Finding 6 Quality of Health Services

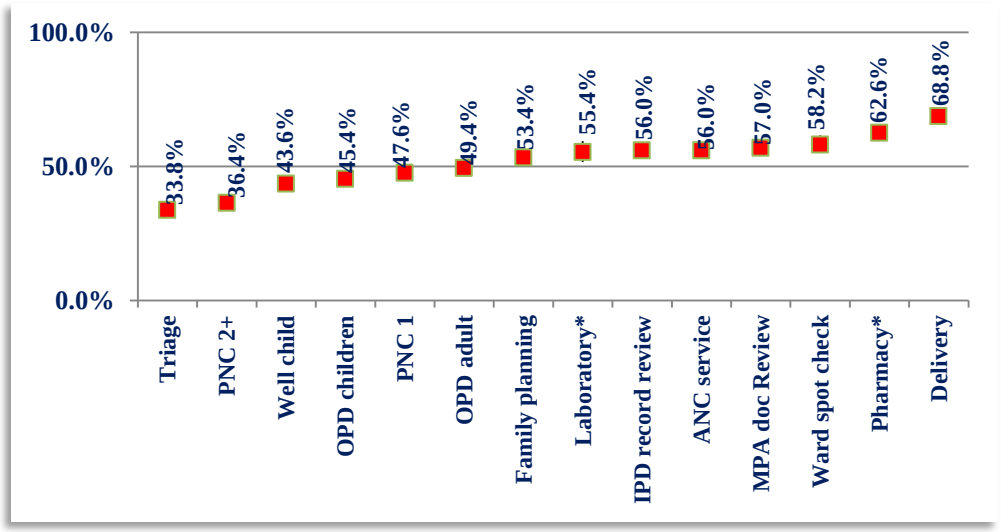
Quality improvement of health services has been guided by the National Policy for Quality in Health, which outlines the roadmap towards the establishment of minimum standards and benchmarks in the health system. There have been improvements in structural quality and technical quality (process of care). The latter includes improved diagnostic capacity, treatment and care (especially, reproductive, maternal and child health). Supportive environment for overall quality improvement has also improved i.e. infection prevention and control practices, hygiene and sanitation in health facilities. Nevertheless, there remains a crucial need for continuous quality improvement, including safety for patients and health providers, in systematic ways with a focus on competency-based medical education, clinical performance adherence to clinical practice guidelines and quality standards, monitoring systems for quality of care, adherence to codes of conduct and professional ethics, enforcement of regulatory mechanism, and involvement of professional councils and professional associations, private providers, patients and health service users and communities.

- Improved sanitation in the majority of health facilities, including availability of incinerators for medical waste and toilet facilities.
- Assessments of structural quality at 50 hospitals showed performance scores above 90% for equipment operation and maintenance, management and technical capacity.
- In 2008 79 HCs (out of 967) had no a midwife. One year later all health centres had at least one primary midwife and in 2015, 85% of the health centres had at least one secondary midwife.
- Prevalence of counterfeit and substandard medicines declined from 13% in 2002 to 3% in 2009 and 0.18% in 2011 (according to the second Pharmaceutical Sector Strategic Plan 2013-2018).
- Systems and guidelines have been established for improving performance at public hospitals, but available funding for implementation and monitoring is limited.
- Hospital mortality rate decreased from 1.7% of hospitalized patients in 2008 to 0.97% in 2015.
- Eight in ten women using modern contraceptive methods were informed about side effects, 77% what to do when experiencing side effects and 81% about other family planning methods.
- 82% of women who received antenatal care were informed of pregnancy complications, 96% had their blood pressure measured, 49% had a urine sample taken and 77% had blood sample taken.

- 57% of children under five with diarrhea received ORT or increased fluids, while 18% got no treatment.

- Results of the 2012 Client Satisfaction Survey suggest that the National Satisfaction Index was 86, implying that the majority of clients were satisfied with services received at public health facilities. However clients expressed dissatisfaction in several areas, including: inattentiveness of staff, unavailability of staff at night, unclean facilities, and poor communication on diagnosis and prevention.

- Quality of care assessment (technical quality - process of care) at all health centers and referral hospitals of 16 provinces indicated quality scores of 33.8% to 68.8%. Variation depended on type of health facility (HCs or RHs), geographical location and type of services assessed. However, there is need to improve continuously quality of care and knowledge of health service providers.




*Note: this service was assed only at RH

- Social health protection schemes significantly leveraged quality of care by active involvement in determining the minimum acceptable quality of health care to purchase and conducting regular quality monitoring.

**Sources:** The Health Sector Progress Report 2008 & 2015 (MoH), CDHS 2014 and Level 2 Quality of Care Assessment in 2015 in Public Health Facilities in 16 Provinces (MoH Technical Working Group for Level 2 Quality of Care Assessment).

## Finding 7 Reproductive, Maternal, Newborn, Child Health & Nutrition

In the last ten years, there have been great strides in delivery of services related to family planning, safe abortion, youth reproductive health, teenage pregnancy, ante- and post-natal care, neonatal care; protection of mother-to-child transmission of HIV; immunization; management of Acute Respiratory Infections (ARIs) and diarrhea, breast-feeding, Vitamin A and folic acid supplementation. Among the most significant improvements has been the increase in facility-based deliveries, uptake of antenatal and other maternal and child-health services. This progress has been achieved due to the strong political commitment. Additional factors included the Midwifery Incentive Scheme, expansion of HEFs, and maternal health vouchers. Malnutrition among women and young children and teenage pregnancy and abortion require critical attention.

- Overall, 12% of young women age 15-19 has begun childbearing – 7% are already mothers and 5% are pregnant with their first child (2014).
- One in fourteen women aged 15-49 had an abortion in the last five years. 44% and 16% of abortion occurred in private facilities and public facilities, respectively.
- The contraceptive prevalence rate among married women has increased considerably from 19% in 2000 to 39% in 2014, but unmet need remains high (13%).
- 95% of pregnant women received antenatal care from skilled providers (doctor, nurse, and midwife). The proportion of pregnant women attending four or more ANC visits increased from 27% in 2005 to 76% in 2014.
- 96% of pregnant women received iron tablets or syrup and 89% were protected against neonatal tetanus.
- There has been a dramatic increase in the use of skilled birth attendance from 44% in 2005 to 89% by 2014, while institutional deliveries increased from 22% to 83% respectively.
- Caesarian-section rate (as percentage of total deliveries) increased around one percentage point annually largely due to the increased number of facilities providing Emergency Obstetric and Newborn Care, along with increased detection of pregnant women-at risk.
- 9 in 10 women with a live birth received a postnatal checkup within two day of delivery. 79% of newborns received a postnatal checkup within two days of births. However, 20% of newborns did not have a postnatal checkup within a week of birth.

- Breastfeeding is nearly universal- 93% of children aged 0-5 months are breastfed. Exclusively breastfeeding during the first six months is only 65%.

- 70% of children aged 6-59 months received Vitamine A supplementation. The large majority of them (85%) had received Vitamine-A-enriched foods.

- Coverage of complete vaccination (one dose BCG vaccine, three doses of DPT3 and Polio vaccines) among children aged 12-23 months increased from 67% in 2005 to 73% in 2014. This coverage varied from 91% in Banteay Meanchey to 44% in Mondulkiri and Ratanakiri.

- "Zero-case" for measles was notified in November 2011 and Cambodia was certified as 'measles free' by World Health Organization in May 2015 - the only low-income country to achieve this status in Asia and Pacific region.

- Annual consultations at health centers per child under 5 increased from 1.1 in 2008 to 1.57 in 2011, but leveled-off to 1.45 between 2103-2014, to slightly increase to 1.52 in 2015.

**Sources:** CDHS 2005 & 2014 and the Health Sector Progress Report 2008 & 2015.

### Finding 8 Communicable diseases

In the past decade, Cambodia has made major advances in the control of communicable diseases – a testament of the strong disease control programs. As a result, the country was able to achieve many health related MDGs-6 targets several years in advance. Elimination of neglected tropical diseases (NTDs) i.e. schistosomiasis, lymphatic filariasis has been progressing as well. The three-disease programs, -HIV/AIDS, Tuberculosis and Malaria were generally appropriately funded by the Global Fund to Fight AIDS, Tuberculosis and Malaria and in some cases other sources. However, there is a critical need to pay attention to the medium to long-term risks, since external funding has gradually decreased.

An increased level of investment in pandemic preparation contributed to a strengthened disease surveillance and response system, increased laboratory capacity, stronger monitoring and evaluation, and better public communications. Even so, there will be a need to strengthen the response to other communicable diseases in terms of improved notification, reporting and emergency responses, and continue building health system capacity in terms of pandemic response for emerging and re-emerging infectious diseases, such as avian influenza, and further development of surveillance and rapid containment of poultry related transmission. A stronger collaboration and coordination, as well as effective linkages with other relevant sectors and authorities, are particularly required.

While there is national commitment to meeting the International Health Regulations (IHR) requirements for disaster preparedness capacity by 2016, the health system has limited capacity and the stockpiles of protective equipment, vaccines and supplies are

insufficient. Despite improvement in bridging gaps related to 13 core capacities required by IHR, Cambodia is lagging behind for preparedness, point of entry, chemical and radiological events, and needs to further develop CDC related laws and regulations, including standards of procedures, along improved CDC related technical capacities, and strengthen inter-ministerial coordination mechanisms.

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- HIV prevalence among the general population (adults 15-49 years) fell from 1.6% in 2000 to 0.6% in 2014 with over 90% survival after 12 months on ARV treatment. The third strategic plan, "Cambodia 3.0," outlines an approach for eliminating new HIV infections and AIDS deaths by 2020.

- Among the population aged 15-49, 77% of female population and 87% of male population know HIV prevention methods of both using condoms and limiting sex to one uninfected partner.

- Pregnant women who received ART to prevent mother-to-child transmission of HIV have increased from 10% in 2008 to 80% in 2015. Among the population aged 15-49, 60% of women and 51% of men know HIV can be transmitted by breastfeeding and transmission can be reduced if the mother takes drugs (ARV) during pregnancy.

- The quality of TB care has improved, evidenced by a lower multi-drug resistance (MDR) at 1.4% for new cases, and 10% for retreatment; the treatment outcome success rate has been >90% for ten years. Direct observed treatment short course (DOTS) has been implemented at all health facilities, together with Community-based DOTs.

- Malaria incidence is at its lowest point ever (0.07 per 1000,000 populations) in 2015, while malaria death cases have dropped from 219 in 2009 to 10 cases in 2015.

- Neglected tropical diseases (NTD), including schistosomiasis, lymphatic filariasis, and leprosy are targeted for elimination. Cambodia was the first country to pass the 75% international target for coverage of the vitamin A and deworming, achieving 90% among pre-school and school-aged children and women in the childbearing age group.

- The national structures for pandemic preparedness (as well as national pandemic influenza preparedness plans and Avian and Human Influenza) are in place, and Rapid Response Team as well as Inter-ministerial Working Group have been established and are functioning.

- Progress has been made toward the core competency on surveillance, laboratory and zoonotic diseases. However, there is critical need to further improve national monitoring system for antimicrobial drug resistance, laboratory quality management systems and laboratory biosafety. Furthermore,

there are some specific needs for the development of CDC law, national public health emergency preparedness and response plan, a multi-hazard public health emergency preparedness and response plan including chemical and radiological emergencies, and food safety law.

**Sources:** the Health Sector Progress Report 2015. Health Sector Analysis 2015

### Finding 9 Non-communicable Diseases and Public Health Problems

The unfolding demographic and health transition in Cambodia has been evident in a sharp rise in the incidence of non-communicable diseases (NCDs), particularly diabetes and hypertension, as well as cancers. Premature mortality from NCDs is rising and the prevalence of risk factors is alarming. NCDs currently account for half of the disease burden. The principal risk factors for NCDs are preventable: unhealthy diet, physical inactivity, tobacco use, and harmful alcohol consumption. The Government has shown its commitment to addressing the rising NCD burden in its Action Plan for the Prevention and Control of NCDs (2014-2020), but NCD service delivery remains low in terms of availability and coverage due to resource constraints, especially clinical capacity. In addition, health risks caused by pollution, environmental health risk and climate changes have increasingly become a potential threat to public health.

- Cardio-vascular diseases, cancers, chronic respiratory diseases and diabetes caused 52% of deaths in 2011, and the rate is rising, while capacity of HCs providing NCD primary and secondary prevention and RHs managing acute events are limited.

- Capacity to diagnose and provide treatment and care of patients with cancers are available in few national hospitals. Investment in infrastructure and medical equipment and medical technology has been expanded in Calmette Hospital and Khmer-Soviet Friendship Hospital.

- Screening programs for cervical or breast cancers have currently been in pilot implementation in a number of health facilities.

- Although mental disorders are high, the health system is still ill-equipped to deal with the demand and community programs to manage the conditions are limited. Psychiatric services and primary mental health services are available in 73 RHs and 194 HCs.

- Cataract surgery increased from 16,150 cases per 1,000,000 populations in 2008 to 27,354 in 2014, while elimination of trachoma blindness requires 30,000 operations per year. Ophthalmological services are available in 21 RHs or 23% of the total RHs, while basic eye care services are available only at 331 HCs or 30% of the total HCs.

- Alcohol consumption affects almost two-thirds of people in 2010, while tobacco abuse affect 4-in-10 men and 4-in-100 women 18 years and older.

- Overweight or obesity among women aged 15-49 has increased from 6% in 2000 to 11% in 2010, almost doubled in 2013 (18%), and occur mostly among women aged 40-49 in the well-off families.

- Accidents and injuries (almost 2% of the population being injured in 2010; two-thirds of accidental deaths are caused by road accidents)

**Sources:** Health Sector Progress Report 2008 & 2015, Health Sector Analysis 2015 and Assessment of the Burden of Diseases

## 6.5 HEALTH SYSTEM FINANCING

### Finding 10 Sources, Level and Management of Funds, and Financial Risk Protection

National health spending has substantially increased. This positive trend, together with increased households' capacity to pay, is also reflected in the increase of total health expenditure in the country. Despite increased public health spending, OOP health spending remains a major source of funding for the health system. Trend in reduction of external financing poses additional major challenges to the financial sustainability of the health system. This underlines the need to considerably increase domestic funding, and better alignment and harmonization of funding sources. Efficiency and accountability has been improved through the implementation of public financial management reform and performance-based financing that links outputs to financial resources. However, there is scope to further increase both allocative and technical efficiency.)

There have been gains in financial risk protection for the poor through consolidated and unified HEFs, which is the only and largest single pool of funds for the health system. Social health insurance coverage is limited to the work injury scheme for formal private sector employees only. Coverage of voluntary health insurance is low, principally serving rural communities together with some private insurance targeting principally the rich and urban workers.

- Total health expenditure (THE) has increased substantially and reached US$1,033 million in 2012, or more than 7% of GDP. OOP health spending was 60% of this total spending, with Government and DPs funding taking an equal share (20% each).
- The government's contribution amounted to US$199.1 million 2012, equalling 6.5% of total government expenditures (or 12% of total government recurrent expenditure).

- Efficiency in public spending on health has been improved, resulting from both supply-side (SOAs, PAEs, Midwifery Incentive Schemes) and demand-side interventions (HEFs and voucher schemes), alongside full implementation of program-based budget and strengthened public financial management.

- The rapid expansion of HEFs, reaching 96% of HCs and 97% of RHs by 2015, and the remaining 4% of HCs and 3% of RHs covered by subsidy schemes financed by national budget -secured access for 3,200,000 poor people or 20% of the total population. However, people with disabilities –who constitute approximately 15% of the total population- and other vulnerable populations, may continue to experience financial hardship when accessing health care.

- The coverage of NGO-run voluntary health insurance coverage is low at 2% of the informal sector population

- Work injury scheme under the National Social Security Funds covered over 1 million workers and employees in the private formal sector. Other health benefits for formal private sector employees and civil servants are yet to be provided. The private health insurance industry is growing, but has very low coverage (around 5% of the total population) and targeting mainly the rich.

- There is a marked increase in capacity-to-pay coupled with a decline in catastrophic health expenditure across all income quintiles, together with lower levels of OOP health spending and catastrophic expenditure among HEF beneficiaries. This increased household capacity-to-pay has reflected into increased care seeking by the population.

- The average amount of annual per capita OOP health expenditure increased from US$14 in 2007 to US$69 in 2014. There were significant variations in the level of spending between age groups and by economic status.

- The incidence of impoverishment from health spending (households becoming poor as a result of health expenditure) reduced slightly from 2007 to 2013: from 2.5% to 1.7% respectively. Household catastrophic health expenditure decreased from 5.6% in 2007 to 4.9% in 2014. The incidence of households becoming indebted due to health expenditures decreased from 2.9% to 0.9% over the same time period.

**Sources:** Health Sector Progress Report 2015, GiZ Data Analysis of Cambodia Socio-Economic Surveys, NSSF Annual Report 2015 and National Health Account 2015

## 6.6 HEALTH WORKFORCE DEVELOPMENT

Achievements are evident in a number of areas including policy formulation, legislation for health professional education, increased staff remuneration, improved human resource management, staff planning and projections, staff deployment and performance incentives. However, human resource planning is more challenging within a context of

rapid changes; adaptation to those changes, including the demographic and epidemiological transition, new medical technologies and the growing demand for high quality and new health services. Distribution of health personnel across health facilities remains a challenge to personnel management. The best use of human resources can be achieved through developing the governance of a mixed health system and the MoH has moved already to strengthen its human resource governance, planning and management functions.

### Finding 11 Human Resource Planning

An increased health workforce size has been central to improvements in coverage and access to health services. This has been outcome of concerted and coordinated efforts since the 1990s. In order to prioritize the rebuilding of the health workforce, the Ministry of Health invested in the Health Workforce Development Plan 1 (1997-2005), which focused on adequate production and equitable distribution of health workforce according to the then newly adopted Health Coverage Plan. Building on the achievements from the first plan, the second Health Workforce Development Plan (2006-2015) aimed to further strengthen the competency and management of the health workforce. The specific focus granted to health workforce under these plans resulted in impressive gains.

- The Health Workforce Development Plan provides guidance on staff levels and distribution, pre-service and in-service training, management and incentives and performance management.
- Between 2008 and 2015, the total size of the public sector health workforce increased from 18,096 to 20,954. This has been accompanied by a rapidly growing private sector with more than 8,800 licensed providers that deliver a large proportion of health services, mainly ambulatory care.
- To fully staff the health system according to recommended staffing level by HCP, there is a need to expand the total public health workforce to 36,000 by 2020, an increase by 70% from the 2014 level.
- Legislations are being developed to further regulate the quality of medical education (public and private).

**Sources:** Health Sector Progress Report 2015, Health Sector Analysis 2015 and Health Workforce Development Plan 2016-2020

### Finding 12 Human resources production

Production capacity of health educational institutions has increased overtime, with measures taken in order to improve quality of education. There is an urgent need to institute a system for accreditation of health educational institutions, especially in the wake of the recent surge in the number of private educational institutions in health. In addition, limited levels of recruitment into civil service position not only results in

staffing gaps, but also poses challenge on regulating the number of uptake students to avoid over-production, by taking into consideration on absorptive capacity of the health market.

- Degree programs have been established for nurses and midwives.
- The introduction of the National Entrances and Exit Examination for both public and private health educational institutions, has gradually contributed to improving the quality of education. The licensing of all health professionals, and the accreditation of facilities, has begun.
- As of December 2015, there were 11 licensed private universities (including one institute) that offer a wide range of degree programs, compared to only one large public university (University of Health Sciences), the Institute of Public Health, five Secondary Schools for Technical Medical Care (including four regional training centers), and Health Science Institute of Royal Cambodian Arm Force.
- The MoH Human Resources Development Department manages the continuing education processand regularly update the database to inform training needs of health staff. Progress in using the MoH approved curricular for providing in-service training in clinical fields has been observed.
- The national capacity exists to locally provide a number of specialized services, along with oversee training.
- Legislation is being developed to further regulate the quality of medical education (public and private).

**Sources:** Health Sector Progress Report 2015, Health Sector Analysis 2015 and Health Workforce Development Plan 2016-2020.

### Finding 13 Human resource management

Recent achievements in human resource management, including the Government's annual salary increases, PAE and SOAs with increased management flexibility and accountability, and the midwifery incentive scheme, have resulted in better staff performance. Staff allocation has improved as a result of better management tools, better planning and better oversight with appropriate indicators, but a further expansion of the total health-staff number will be needed to bridge the current staffing gaps, especially at district level and in remote health facilities. This has to be accompanied by a more appropriate mix of staff with the necessary skills to meet existing and new health demands. Rural deployment and retention needs the introduction of a comprehensive package of financial and non-financial incentives.

- The MoH has employed 20,954 health personnel nationally in 2015 and placed at least one midwife in every HC since 2009, and 82% of the HCs has at least a secondary midwife in 2015.

- The distribution of health personnel at provincial level has increased from 73.8% in 2008 to 78.64% in 2015, corresponding to the reduction in the number of health personnel at the Central level from 26.22% to 21.36% over the same period.

- While the majority of general medical practitioners work at the provincial level (63%), most specialists work at the central level (79%). At the same time, most medical assistants (76%), dental assistants (82%), primary nurses (98%) and midwives (92%) work at the provincial level.

- Within the public sector, nurses and midwives together comprise 70% of the health workforce. Between 2010 and 2015, there was a 29% increase in the number of midwives and a more modest 6% increase in the number of nurses. The numbers of specialist and general medical practitioners, dentists and pharmacists have also increased marginally over the same period.

- Despite a large number of graduating health professionals, the number recruited to civil service positions is still insufficient to meet the expanding needs. Furthermore, the number of medical specialists is mostly insufficient to meet current needs according to CPA1, CPA2 and CPA3 hospital.

- In the public sector, in 2015, 51% of the workforce is women. The majority of female public sector health workers are concentrated in such cadres as nurses (33%) and midwives (100%). Female are underrepresented in certain cadres as specialists, general doctors and dentists.

- Incremental increase in staff salary, facility-managed financial incentives, SOA and PEAs status have continued to impact staff motivation and productivity, and improved personnel management practices.

- A personnel management database and a consolidated HRH database have been established and are functioning to assist in improved decision making over human resource planning, production and management.

**Sources:** Health Sector Progress Report 2015, Health Sector Analysis 2015 and Health Workforce Development Plan 2016-2020

## 6.7 HEALTH INFORMATION SYSTEM

### Finding 14 Health Management Information System

Health facility data are a critical input into assessing progress and performance of the health system on a regular basis and they provide the basis for the national, provincial, district and facility performance assessment. Despite limited investment in ICT, the use of information and communications technology has grown with all hospitals and ODs reporting monthly results to the MoH web-based Health Management Information System (HMIS) against a range of routine indicators. The system captures disease and surveillance records (Zero reporting or Weekly Report), consultation and admission, preventative MCH services, national programs data, death and births records, and population data from all public health facilities (and of private health services providers to very limited extent.) The HMIS is distinguished by being the only current source of up-to-date data in real time. However, there is still scope for improvement. This includes, but is not limited to, maintaining high data quality, institutional capacity development on data analysis and use, and increasing investment in IT (software and hardware) to support the current initiatives on integration and harmonization of different databases systems, including disease surveillance and response system.

- Web-based HMIS application reached national coverage across the national, provincial, district and facility level, except at HCs level; only 40% of HCs are able to capture and submit date electronically through HMIS. Selected data will be available on the MoH website in due time to users.

- HMIS information is used for quarterly and annual reviews, disease-specific program progress reviews, SOA performance reviews, Provincial Technical Working Group meetings, District and Provincial Health Financing Steering Committee meetings, and for annual planning and budgeting by facilities.

- Routine data quality assessments in 2011, 2012 and 2013 by using WHO data quality score cards indicated a generally high consistency rate between source documents and monthly HMIS reported values. An initiative to institutionalize data quality assessment in routine data quality monitoring is under way.

- The historical data is available in HMIS to a range of international institutes and universities, and researchers as well as investigators from development partners seeking information on health system performance in Cambodia.

- Investments have been made to further integrate the existing different data bases systems, like in-service training database, personnel management database, drug information database, social health protection database, HCP database, AOP database, disease-specific databases etc.

- Patient Medical Registration System (PMRS), a system of electronic patient records used by public health facilities for patient data management, has been introduced in 2011 and gradually expanded, reaching almost 50% of RHs by 2015. The system can store data on service fee for HEF repayments.

- Despite a large number of licensed private health service providers, only 14% of them have reported through the MoH web-HMIS, resulting in incomplete data sets of access to and utilization of health services by the population as a whole. The on-going engagement with private health providers in this respect will further increase reporting coverage from this sector.

**Sources**: Health Sector Progress Report 2015 and Data Quality Assessment Report 2011, 2012 & 2013

## 6.8 HEALTH SYSTEM GOVERNANCE

### Finding 15 Institutional Development

The MoH is the sole authority responsible for the organization and delivery of public health services as mandated by the RGC. Most health service delivery functions of the public sector are described in policy documents, strategies and guidelines rather than formal legal documents. These documents do not generally define the distinction between obligatory and permissive service delivery functions, though they often set priorities and targets. A completed functional mapping and functional reviews have provided the MoH with analytical tools to further develop institutional structures and capacity. The MoH exerts its leadership in health system planning and development via coherent and comprehensive policy and planning frameworks. A fundamental strength of the policy formulation and planning process is that it is fully owned, led and managed by the MoH, with strong support from Development Partners (DPs).

- Quality Assurance Office under the Department of Hospital Services, Department of International Cooperation and Department of Mental Health and Substance Use have been established to sharp the MoH's roles specific to strengthen system-wide quality improvement in health care services, strengthen development cooperation and address increased burden of mental illness, and mental health related drug use, in effective manner.

- A conceptual map of the major groups of functions of the MOH at each level of its administrative hierarchy was done in 2013, and is used for functional reviews to identify functions and sub-functions of obligatory and permissive functions to be transferred to sub-national administrations according to the first and second national 3-year Implementation plans for D&D.

- Functional mapping and functional reviews are analytical frameworks to redefine functions for each level of the health system, with explicitly spelled-out vision and clearly defined mission, accountability mechanisms and

responsibility, including lines of command and communication, and to change institutional structures, accordingly in the D&D context.

**Sources:** Health Sector Progress Report 2013, 2014 & 2015. Functional Mapping & Functional Review Report 2012 (MoH)

### Finding 16 Health Legislations and Regulations

There are evidences that the MoH has possessed strong leadership for health policies, legislations and regulations development in a cross-sectional environment, along with increased regulatory capacity. However, there is considerable scope to further reinforce the regulatory mandate of the MoH and retain the governance function in the entire health sector; in particular in the context of delegated regulatory functions to the subnational administrations with the intent to ensuring correct practices of delegated authorities by decentralized governance structures.

- A number of key policies, legislations and regulations have been development and amended. Some of them has been effective for the implementation, notably, the Law on control of Tobacco Products, drafted Law on Management of Health Professional Providers in the health sector, Joint *Prakas* of the Ministry of Interior and MoH on Quality Control, Services and Measures for the Elimination of Illegal Health Product and Illegal Private Health Service for Health and Social Safety etc.

- The national (Inter-Ministerial) Committee and the Provincial Committees for Eliminating Counterfeit and Substandard Medicines and Unlicensed Private Health Providers has existed since 2005, and are in operational.

- Delegations of obligatory functions from the MoH to provincial and district administrations are progressing well, for instance, licensing of maternity consultation rooms, nursing care rooms and depot pharmacies.

- Policy options with regard to the future OD system were established with wider consultations with all District Councils and with participation of all OD chiefs. Those options were presented to the D&D Secretariat of the National Committee for Democratic Development at Subnational level, and used to determine a set of functions to be delegated in the coming years.

**Sources:** Health Sector Progress Report 2013, 2014 & 2015. Functional Mapping & Functional Review Report 2012 (MoH)

### Finding 17 Coordination and Collaboration

Significant gains have been made in reducing the burden of diseases and other critical health problems of the population, as well as strengthened public health interventions through shared common objectives and concerted collaborative efforts between and among relevant stakeholders, including community engagement in health. Even so, an increasing challenge for sector-wide coordination and collaboration is to further align support of the private health sectors, non-government agencies and development partners with the national health priorities through well-organized structures, with a clearly defined set of rules. This should enable establishment of a long-term strategic partnership, with special attention to increasing local accountability for health service delivery, in particular quality monitoring, through effective community participation mechanisms.

- In the public health sector, sector-wide coordination and collaboration have been improved under the Sector-Wide Management approach adopted by the MOH for coordination and management of a proportion of funding by development partners that supports the Government service delivery.

- The MoH TWGH and Provincial TWGHs are seen as well-organized structures, which have provided platforms to further promote coordination, in addition to the annual health planning process. There may be a need to expand the role of TWGH as policy dialogue mechanism.

- Close collaboration with the Ministry of Planning is a key part of strengthening HEF operations, which benefits from utilization of the nationwide pre-identification of poor households, and providing feedback on post-identification of poor patients at health facilities.

- The MoH works closely with the Council for Agriculture and Rural Development, which provides overall coordination of social assistance interventions for the poor and informal sector population.

- Health Center Management Committees (HCMC) exist since 2004 and play oversight role and provide guidance concerning the overall development of health centers. They also facilitate and support the functioning of village health support groups and health volunteers. To-date, over 85% of HCs has functioning HCMCs. HCMC is chaired by a representative of commune council and comprises of HC team, representatives of Village Health Support Groups.

**Conclusions and recommendations of the health sector analysis are presented in the previous Chapter 4.**

# CHAPTER III. SECTOR DEVELOPMENT FRAMEWORK

## 7. Strategic Direction

## 8. Health Development Goals

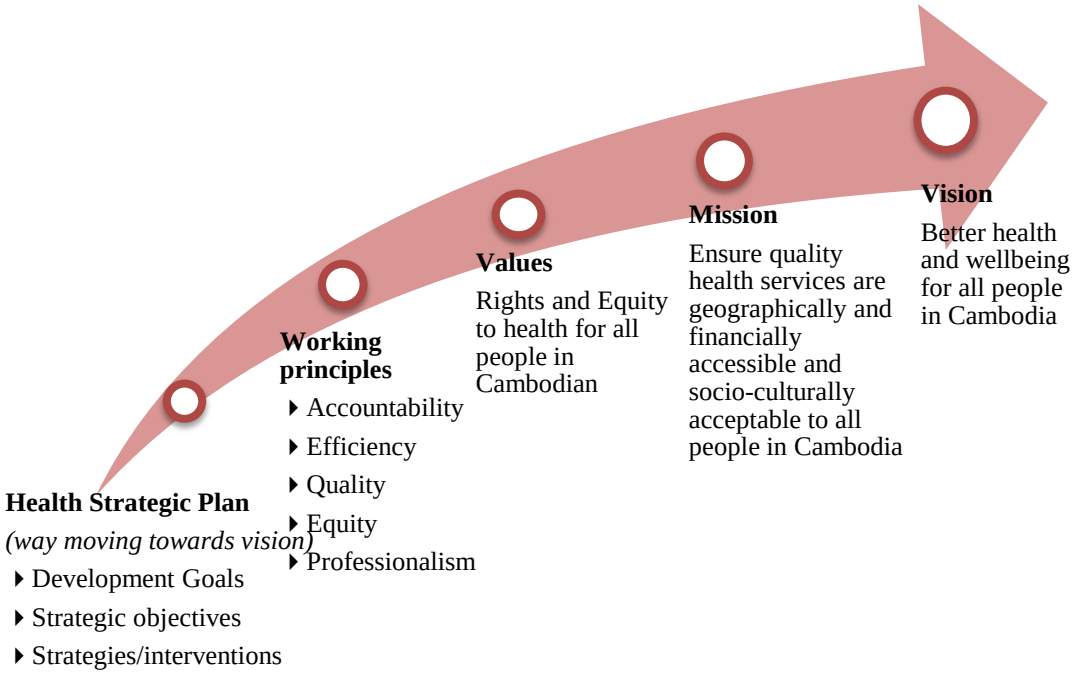
## 9. Strategic Objectives

# 7. Strategic Direction

## 7.1 INTRODUCTION

The strategic direction sets a long-term broad policy direction for the entire health sector (both public and private). It states the strategic intent and constitutes the MoH blueprint for the health sector development for years to come. The Strategic direction is a guiding light for decision-makers, managers and health personnel to lead, manage and operate the health system, so that everyone in all health institutions at national and sub-national level moves in the same direction, while carrying out their activities that are directly towards a common vision. It also provides a framework within which health development goals, and strategic objectives and health strategies are formulated. Strategic statements include vision, mission, values and working principles (Figure 7.1). Health strategic plan, with clearly defined goals and objectives, along with targets set and strategies, is developed as means moving towards achieving the strategic intent of the health sector development, so as to improve health outcome of the Cambodian population.

**Figure 7-1 Strategic Directions**



## 7.2 VISION

Vision is an overall inspirational purpose of the MoH envisioning a desired future of health prospect for all Cambodia as resulting from the entire health system development and operations. It motivates and enables individuals to see how their effort contributes to that end.

The RGC, during the Fifth Legislature 2014-2018 will continue to **"sustainably develop and strengthen the health sector in order to improve health status and well-being of all Cambodians, especially women and children, the poor and vulnerable peoples, thereby contributing to socio-economic development and poverty reduction in Cambodia."** In this regard, the long-term vision of the MoH is:

> **"All people in Cambodia have better health and wellbeing, thereby contributing to sustainable socio-economic development."**

## 7.3 MISSION

A mission statement spells out the role by which the Ministry of Health steers the development of the strategic intent to serve Cambodian people, with emphasis and concentration on sector priorities and influence on the sector's resources potential and core competencies to achieve defined health development goals. The MoH reaffirms it strong commitment to:

> **"Effectively managing and leading the entire health sector to ensure that quality health services are geographically and financially accessible and socio-culturally acceptable to all people in Cambodia".**

## 7.4 VALUES AND WORKING PRINCIPLES

The MOH will achieve its stated vision and mission through application of ethical principles that are guiding the MOH's work. A value-based commitment of the MOH is:

> **"Rights to health for all Cambodians and Equity"**

**Right to health** is recognized by the Constitution of the Kingdom of Cambodia. Equal access is not possible given geographical diversity, whereas equal utilization is not guaranteed without considering need. **Equal access to health services according to need** is therefore referred to as equity to health, meaning that health services are accessible and available to be used by all populations when they need them, regardless their socio-economic status (rich or poor) and residency (rural or urban), with improved health outcome among the population, hence improved equitable health outcome among the population.

Day-to-day management practices and activities of decision-makers, health managers and operational staff in all health institutions at all levels of the health system are guided by the following working principles that are the basis for health service management, including planning, implementing and monitoring all activities and expenditures, and decision-making to ensure that health institutions are operating in a way that is consistent with the MOH vision, mission and values, to achieve better health and well-being for all people in Cambodia.

**Working Principles**

**Accountability**

Improving responsiveness and good governance by application of laws and regulations, customs, ethical standards and norms, with emphasis on patient-centered health service delivery.

**Efficiency**

Targeting available resources to the areas of greatest need, especially rural areas and urban poor as well as priority health interventions, with better use of those resources to achieve desired results without having wasted them along the way.

**Quality**

Providing health services, including public health interventions, in accordance with nationally accepted quality standards and clinical practice guidelines, as well as sensitivity to gender, with respect to providers and clients 'rights-duties.

**Equity**

Removing socio-cultural, geographical, financial and bureaucratic barriers in access to and utilization of quality health services, especially by poor and vulnerable people, including persons with disability, ethnic minoritiesand elderly.

**Professionalism**

Operational and productive health workforce, driven by competencies, ethical behaviour, teamwork, motivation, good working environment and learning processes.

## 7.5 POLICY GOAL

The policy goal is "**improved health outcome of the population and increased financial risk protection".** In order to achieve this ambitious goal, the health sector interventions focus on two focus areas: **the entire health system (both public and private) and the entire population**. The former ensures access to and coverage of high quality health services throughout the country, while the latter ensures financial access to the quality health services by all, especially the target population. The policy agenda presented in the Box 7.1 will form a basis for defining strategic interventions on those two fronts over the course of HSP3 implementation.

**Box 7-1 Policy Agenda for Actions**

**POLICY AGENDA FOR ACTIONS**

1. Increase population's access to and utilization of promotive, preventive, curative, and rehabilitative affordable, safe, and effective quality health services;

2. Reduce the financial burden when accessing and utilizing health care services, especially for the poor and vulnerable population groups;

3. Increase government health spending while ensuring improved efficiencies for use of available resources, including household expenditure on health;

4. Provide adequate, competency-based, pre- and in-service training for the health workforce, ensure equitable distribution and retain well-trained health personnel at public health facilities;

5. Provide public health facilities with adequate medicines, health commodities and other resource infrastructure, including medical equipment and technologies, amenities and ICT;

6. Strengthen health management information system and disease surveillance and response systems, and promote health research and use of information for health service management and monitoring performance;

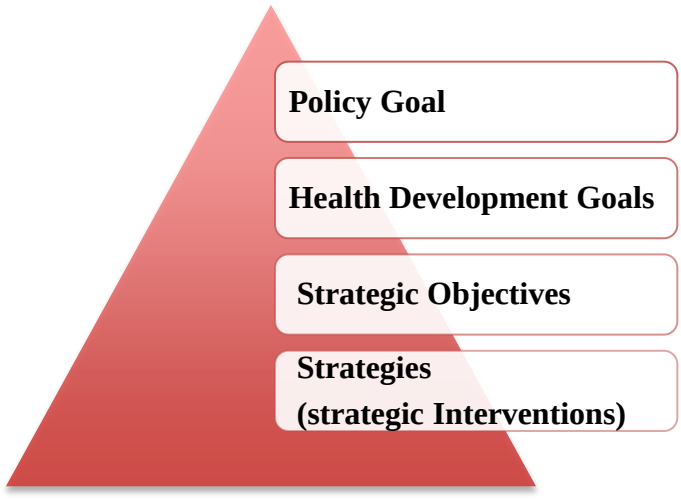
7. Strengthen institutional capacity with emphasis on regulatory capacity to enforce health legislations and regulations, promote public-private partnerships and increase local accountability for health.

# 8. Health Development Goals

## 8.1 Introduction

Achieving the stated policy is supported by a set of four Health Development Goals (HDGs) that are significantly attributed to intended results of the strategic objectives, which include a wider range of strategic interventions across health programs and health system interventions. Figure 8.1 shows the hierarchy of the health sector development framework and linkage between policy goal and strategies/interventions of the strategic plan.

**Figure 8-1 Hierarchies of the Health Sector Development Framework**




## 8.2 Health Development Goals

The HSP3 embraces four HDGs with 25 health and related targets that are likely consistent with the Global Sustainable Development Goal 3 (SDGs): **"Ensure healthy lives and promote well-being for all at all ages"**

1. Improve reproductive health, and reduce maternal, newborn and child mortality and malnutrition among women and youth children.
2. Reduce morbidity and mortality caused by communicable diseases
3. Reduce morbidity and mortality caused by non-communicable diseases and other public health problems.
4. Make the health system more accountable and responsive to the population health needs.

## Health Development Goals and Targets

| 1 | Improve reproductive health, and reduce maternal, newborn and child mortality and malnutrition among women and children. | | |
|---|---|---|---|
| | **Baseline values and Target** | **2015** | **2020** |
| 1.1 | Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern method | 57% | 62% |
| 1.2 | Adolescent birth rate (aged 15-19 years) | 56% | 51% |
| 1.3 | Maternal Mortality Ratio (per 100,000 live births) | 170 | 130 |
| 1.4 | Neonatal Mortality Rate (per 1,000 live births) | 18 | 14 |
| 1.5 | Under 5 Mortality Rate (per 1,000 live births) | 35 | 30 |
| 1.6 | Stunting among children aged under five | 31.5% | 25% |

| 2 | Reduce morbidity and mortality due to main communicable diseases | | |
|---|---|---|---|
| | **Baseline and Target** | **2015** | **2020** |
| 2.1 | Number of new HIV infections per 1,000 uninfected population | 0.05 | 0.03 |
| 2.2 | Tuberculosis incidence per 100,000 population | 380 | 310 |
| 2.3 | Malaria incidence per 1,000 population | 2 | 1.05 |
| 2.4 | Dengue hemorrhagic fever case fatality rate reported from public health facilities per 100,000 population | 0.5 | 0.2 |
| 2.5 | Hepatitis B prevalence among general population and children aged under 5 | 4.05% | <1% |

| 3 | Reduce morbidity and mortality due to non-communicable diseases and other public health problems | | |
|---|---|---|---|
| | **Baseline value and Target** | **2015** | **2020** |
| 3.1 | Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease among peoples aged 25 to 64 | 36% | 34% |
| 3.2 | Prevalence of adult population aged 25-64 years with hypertension | 11.2% | 9.80% |
| 3.3 | Prevalence of adult population aged 25-64 years with diabetes | 2.9% | 2.5% |
| 3.4 | Number and percentage of adult population with depression received treatment | 2% | 50% |
| 3.5 | Prevalence of blindness | 0.38% | 0.3% |
| 3.6 | Prevalence of tobacco use among youth aged 13-15 years | 6.3% | 5% |
| 3.7 | Prevalence of harmful alcohol use among male & female adult aged 15 and over | M:73.3%<br>F:28.9% | M:70.3%<br>F:25.9% |
| 3.8 | Mortality rate due to road traffic accidents per 100,000 populations | 14.7 | 12.25 |

| 4 | Make the health system more accountable and responsive to population health needs. | | |
|---|---|---|---|
| | **Baseline value and Targets** | **2015** | **2020** |
| 4.1 | Percentage of health facilities that increased average score of quality of care by 20% from previous years | *% | |
| 4.2 | Percentage of population covered by social health protection system | 23% | 50% |
| 4.3 | Ratio of physician/nurse/midwife per 1,000 population | 1.5 | 2 |
| 4.4 | Percentage of voluntary blood donation | 25% | 50% |
| 4.5 | Data Quality Index | 91.5% | >97% |
| 4.6 | Number and percentage of Health Centers with functioning Health Center Management Committee | 85% | >85% |

***Baseline to Be Established and Target to be set.**

## 8.3 STRATEGIC OBJECTIVES

The desired outcomes of the HDGs are used to further define HSP3 strategic objectives and focus areas of work of the MoH and its subordinates. Specific and measurable targets are defined to assess progress over time by using measurable indicators. The HDGs are supported by a set of seven strategic objectives with clearly defined indicators (quantitative and qualitative indicators) and targets. These indicators and targets are presented in Annex 3.

**Strategic Objectives**

1. The population will have access to comprehensive, safe and effective quality health services at public and private health facilities.

2. Stable and sustained financing of healthcare services with increased financial risk protection when accessing healthcare services;

3. The health system will have adequate number of well-trained, competent, well-motivated health personnel with appropriate skill mix and professional ethics.

4. Public health facilities are adequately supplied with medicines, health commodities, medical material, with availability of effective essential supportive services;

5. Public health facilities have appropriate basic infrastructure, advanced medical equipment and technology and Information and Communication Technology;

6. Health and health –related data/information are reliable, accurate, timely and of high quality and used, with strengthening disease surveillance and response system and promoting health research; and

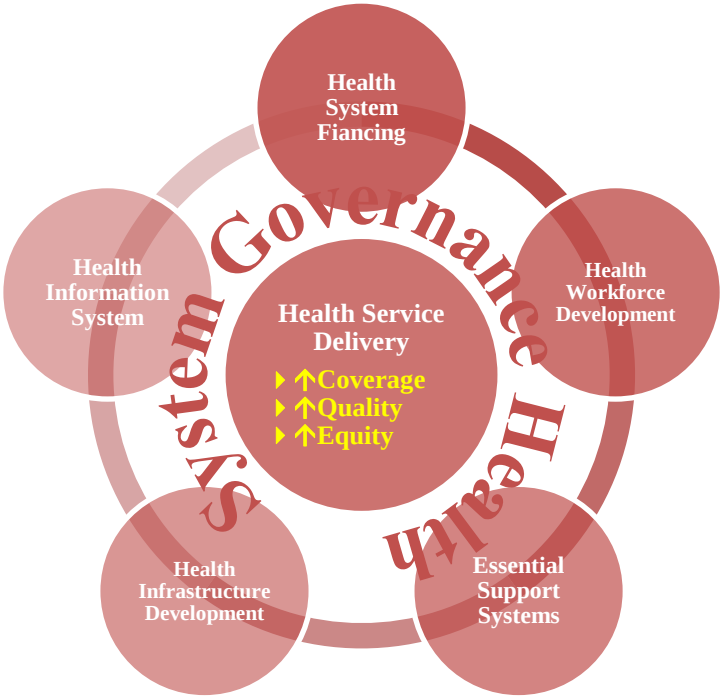
7. Institutional capacity is developed at all levels, with focus on leadership and management competency, regulation and strengthened local accountability for health.

## 8.4 STRATEGIC AREAS

Strategic interventions in pursuit of achieving strategic objectives are structured around seven cross-cutting strategic areas for health system interventions, namely i) health service delivery (HSD), ii) health system financing (HSF), iii) health workforce development (HWD), iv) essential support systems (ESS), v) health infrastructure development (HID), vi) health information system (HIS) and vii) health system governance (HSG) (Figure 8.1). It is envisioned that the achievement of HDGs is directly impacted by outcome/results of HSD strategies that are attributable to consolidated results of strategic interventions falling within the other strategic areas. Each strategic

area is determined to support each of the strategic objective and described in turn in section 9.

**Figure 8-2 Strategic Areas for Health System Interventions**



# 9. Strategic Areas

## 9.1 INTRODUCTION

This section gives the rationale for the strategic areas in support of the strategic objectives that require adequate resources for the health system operations. These resources include, amongst others, buildings, amenities, medicines and health commodities, medical equipment and technology, competent and well-motivated health workforce, together with credible budget and sustained financing sources, robust health management information system, and good governance. All are essential inputs to support increasing access to and coverage of health services with improved quality. The intermediate result is an increase in utilization of health service while the long-term result is improved health outcome of the population. Targets and indicators of the strategic objectives are presented in the national indicators framework for monitoring and evaluation of the HSP3.

## 9.2 STRATEGIC AREA 1 HEALTH SERVICE DELIVERY

### Strategic Objective 1

**The population will have accessed to comprehensive, quality, safe and effective health services at public and private health facilities.**

A key feature of a well-functioning health system is equitable access to quality health services that are responsive to population needs. For health service delivery to be effective, it is important that it offers a wider range of quality interventions directly related to health and social determinants of health. These services should aim at further reducing maternal, new-born and child mortality, reducing the burden of communicable and non-communicable diseases and addressing other major public health problems. Sstrengthening health service delivery is therefore critical to ensure that all Cambodians have equitable access to services of acceptable quality; irrespective of their demographic or socioeconomic characteristics. Strategic objective 1 (HSD) is supported by a set of health program interventions that are specific to health needs of the population.

1.1 Increase coverage and access to quality reproductive health services, especially for young women, men and adolescents;

1.2 Increase coverage and access to quality antenatal care, delivery, postnatal care, emergency obstetric and neonatal services, and prevention of mother to child HIV transmission;

1.3 Increase coverage and access to immunization and integrated management of childhood and neonatal illnesses, including pneumonia and diarrheal diseases;

1.4 Increase coverage and access to effective nutrition services, thereby reducing protein-energy malnutrition and micronutrient deficiencies among women and children aged under five;

1.5 Eliminate new HIV infections and sustain the reduction in HIV/AIDS-related mortality;

1.6 Improve Tuberculosis case finding and maintain high treatment success for all forms of TB;

1.7 Zero deaths due to plasmodium falciparum malaria, and reduce dengue mortality;

1.8 Increase coverage and access to other infectious disease services, including parasite infections due to neglected tropical diseases and emerging and re-emerging infectious and zoonotic diseases;

1.9 Reduce population exposure to risk factors for non-communicable and chronic diseases, including cancer, diabetes, and cardio-vascular diseases; and promote early detection of NCDs as well as primary and secondary prevention;

1.10 Provide better management of acute events, including access to long-term care, palliative care and rehabilitative services;

1.11 Increase coverage and access to primary and complementary mental health services, including substance treatment services; and promote awareness about mental health risks;

1.12 Reduce blindness in high-risk geographical areas and provide services for hearing impairment;

1.13 Promote hygiene and sanitation, food safety, oral health and school health;

1.14 Reduce harmful use of illicit drugs, alcohol and tobacco among the general population;

1.15 Reduce the incidence of injuries and disabilities due to violence, accident and other causes; and reduce health risks caused by disaster, environmental pollution and climate change.

## 9.3 STRATEGIC AREA 2 HEALTH SYSTEM FINANCING

Strategic Objective 2

**Stable and sustained financing of healthcare services with increased financial risk protection when accessing healthcare services.**

Once health facilities are geographically accessible and quality health services are readily available, it is imperative to remove financial barriers to or reduce financial hardship when using them. This is especially the case for poor and vulnerable people, including low-income households, and requires expanding the extent of financial risk protection. If financial hardship remains a major barrier in accessing health care, the health system fails to deliver equitable health outcomes of the population. Consequently, socioeconomic development and poverty reduction will be negatively affected. Given the current level of public health spending, household OOP health expenditure, and limited coverage by social health protection schemes, health financing strategies focus mainly on the expansion of the coverage of both the population and health services, with sustained financing sources.

## 9.4 STRATEGIC AREA 3 HEALTH WORKFORCE DEVELOPMENT

Strategic Objective 3

**The health system will have an adequate number of well-trained, competent, well-motivated health personnel with appropriate skill mix and professional ethics.**

The health workforce is a vital component of the health system. In other words, it is the backbone of service delivery whilst providing support to overall health sector development in the medium to long term. Health workforce development concentrates on systems of and approaches to education and training, selection and recruitment, distribution and re-distribution, retention and management and governance. All these elements are essential to the operations of the health system in terms of production of quantity and quality of health services and their distribution. Inadequate systems and approaches to health workforce development affect equitable access to and utilization of efficient and effective health services, undermining the ability to attain equitable health outcomes.

## 9.5 STRATEGIC AREA 4 ESSENTIAL SUPPORT SYSTEMS

Strategic Objective 4

**Public health facilities are adequately supplied with medicines, health commodities, medical materials, with availability of effective essential supportive services.**

Affordable access to quality-assured medicines and health technologies is critical for functioning health systems and fundamental for improving health outcomes. Health

technologies equip health care providers with tools that are indispensable for effective and efficient prevention, diagnosis, treatment and rehabilitation. Adequate human resources, sustainable financing, rational selection and use, and reliable supply system are key components to ensure uninterrupted availability of and accessibility to essential medicines and to avoid wastage of products and funds. Effective medicine and medical product regulation and registration are necessary to protect patients by assuring quality, safety and efficacy of treatment and care and preventing drug resistance, and easing the cost burden of medical care.

## 9.6 Strategic Area 5 Health Infrastructure Development

### Strategic Objective 5

**Public health facilities have appropriate basic infrastructure, advanced medical equipment and technologies and Information and Communication Technology.**

Basic health infrastructure is referred to as "basic physical systems" within the overall health system that include, but are not limited to, buildings, medical equipment and technology, water and electric systems, sewerage and waste disposal systems, ICT network, communication and transportation. They are a major part of high-cost investments, but a key input to improve equitable distribution of health facilities, availability and readiness of health services and overall quality. Along with effective management, competent health personnel, adequate medicines and health commodities, and financial protection, operable basic health infrastructure will facilitate the production of good quality health services in sufficient quantity. Return of investment in this area is strongly justified by the high utilization level of health services.

## 9.7 Strategic Area 6 Health Information System

### Strategic Objective 6

**Health and health –related data/information are reliable, accurate, timely and of high quality and used, with strengthening disease surveillance and response system and promoting health research.**

Sound and reliable information is the foundation of decision-making at both policy level and operational level. Reliable health data/information are analytical and essential tools for health policy and plan development, governance and regulation, health education and training, service delivery, financing, coordination and health research, as well as performance monitoring and impact evaluation of policy and strategy interventions. Furthermore, utilization of high quality health and health related data/information and research findings will strengthen decision-making over alternative policy and strategy choices based on proven interventions, especially improvement in health service delivery with evidence-based medical interventions.

## 9.8 STRATEGIC AREA 7 HEALTH SYSTEM GOVERNANCE

### Strategic Objective 7

**Stronger institutional capacity at all levels, with focus on leadership and management competency, regulation and strengthened local accountability for health.**

Governance refers to the multifaceted process of inter-sectoral collaboration and policy setting, implementation and accountability, whereby multiple actors interact to foster equitable access to and utilization of health services. It seeks to enhance the leadership role and regulatory capacity and coordination of health institutions at all levels. Furthermore, it requires strengthening local governance in health and community monitoring of health service delivery. Health system governance aims to undertake joint actions of health and non-health sectors, of public and private sectors and of communities to improve health outcomes, in line with the Cambodian government reform programs such as D&D and social accountability framework.

# CHAPTER IV. SECTOR STRATEGY

10. Health Service Delivery
11. Health System Financing
12. Health Workforce Development
13. Essential Support Systems
14. Health Infrastructure Development
15. Health Information System
16. Health System Governance

# 10. Health Service Delivery

## 10.1 INTRODUCTION

Effective and efficient health service delivery is a core business of the health system to save lives and promote better health outcomes of the population. In fact, the performance of the health service delivery strategy is determined by its ability to provide health services that are more accessible and utilizable, when needed by beneficiaries; acceptable (of adequate quality, safety and timely manner producing desired health benefits); affordable (promoting efficient use of available resources); and equitable (reducing barriers to service access).

## 10.2 STRATEGIES

***Strategic Objective 1:*** **The population will have accessed to comprehensive, quality, safe and effective health services at public and private health facilities.**

*Strategy 1-5*

1. Increase coverage of and accessibility to quality, safe and effective health services and information for the population, especially vulnerable people and in hard-to-reach areas.

2. Strengthen referral system to enable client access to a comprehensive package of health and health-related services based on need.

3. Provide quality services in compliance with national protocols, clinical practice guidelines and quality standards.

4. Encourage behavior change of providers in interaction with patients and consumers of health services and improve health care seeking of the population.

5. Strengthen and implement innovative approaches for effective, efficient and sustained health service delivery with increased accountability for results.

## 10.3 STRATEGIC INTERVENTIONS

### 1 Increase coverage of and accessibility to quality, safe and effective health services and information for the population, especially vulnerable people and in hard-to-reach areas.

Outcome: Improved coverage and equitable access to quality health services

- Expand MPA at HCs and CPA at RHs according to updated Guidelines on MPA and CPA Development.
- Increase access to information for service users/clients and community on availability and readiness of health services at HCs and RHs, especially newly established health services.
- Promote preventive and promotive activities to reduce population exposure to risk factors for communicable diseases, non-communicable diseases and other major public health concerns.
- Use an integrated approach to outreach services in an efficient and well-coordinated manner (community-based health service delivery network) in accordance with the MoH Outreach Guidelines.
- Review and update MPA and CPA Guidelines according to changes in disease profile and health problem priorities (.i.e. services for NCDs, rehabilitative and palliative care, geriatric and adolescent reproductive health services).
- Define the "essential package of services" at HCs and RHs for social health protection schemes.

### 2 Strengthen referral system to enable patients and casualties access to a comprehensive package of health and health-related services based on need.

Outcome: Eeffective and timely referral system that is responsive and accountable to patient needs

- Ensure availability of 24-hour referral services, including ambulance services equipped with medical and logistics support for prompt and effective referrals that include two-way communication between the referring and receiving health facilities.
- Establish referral networks and mechanisms to coordinate referrals from health facilities and/or communities within OD and provinces and link-up with the national referrals system (including health program referrals).
- Support establishment and/or arrangements of reliable and affordable community-based referrals -arrangements for transportation, sharing information with the receiving facility on the patient condition and anticipated arrival.

- Develop a system to monitor outward and back referrals in order to assess the appropriateness of referralsystem (referred number and conditions, documentation and maintaining referral database, consistency of followed-up treatment and care) and compliance with referral protocols.

- Assess periodically and monitor regularly referral system to ensure that the underlying processes are functioning properly, including feedback mechanism, support and training for health staff and preparation of work plan and budget.

- Develop/update referral protocols/guidelines that clearly define level and role of referring and receiving facility, clinical-based procedures for referral (referral conditions and referral services), communication (referral forms and registers) and transport.

### 3 Provide quality services in compliance with the national protocols, clinical practice guidelines and quality standards.

Outcome: Quality assured patient-centered services

- Develop/update quality standards, treatment protocol, and clinical practice guidelines, including infection prevention and control and interventions to combat anti-microbial resistance.

- Strengthen institutional structures and capacity for quality assurance across all levels of the health system, with emphasis on standard development, quality performance monitoring and assessment, and regulatory capacity.

- Improve practices of infection prevention and control (IPC) at all health care facilities, thereby contributing to improving overall quality and safety of health service delivery, with emphasis on:

  - ✓ Functioning management and organizational structure for IPC;
  - ✓ Effective and safe infection control practices for patients and health personnel, especially safe injection and infusion practices;
  - ✓ Building infection control capacity to meet optimum standards set by Asia Pacific Strategy for Emerging Diseases.

- Strengthen feedback mechanism to create demand for quality health service through direct communications with individual patients/clients or their representatives (e.g. patients' relatives, social health protection operators, local administrations) and other means.

- Implement health care quality monitoring activities on regular basis (including clinical audit, infection prevention and control) for both public and private health sector, with periodical quality assessment, and use monitoring/assessment findings to further improve quality and strengthen quality regulations.

- Prepare a road map for developing and implementing quality accreditation processes and systems for both public and private health facilities.

- Support health professional councils/associations to play an active role in health professional registration, clinical standards setting, continuing professional development program, and safeguarding professional ethic practices.

### 4 Encourage providers' behavior change in interaction with patients and clients and health care seeking of the population.

Outcome: Increased health literacy and demand for quality assured health services by the communities

- Increase access to effective health education and promotion, and information, education and communication (IEC) materials at health facilities, outreach services, campaigns, business/entertainment events, and mass media.

- Resource health promotion and education activities that are effective, informative, and relevant to the local context (social and cultural, geographical location and audience) with involvement of all concerned stakeholders.

- Produce easy-to-understand and user-friendly IEC materials to support health education and health promotion activities, and promote appropriate health seeking behavior.

- Encourage providers' behavioral change and effective application of providers' and clients' rights to minimize discrimination and stigma related to specific diseases.

- Raise public knowledge, attitudes and practice of healthy life style, timely seeking care from skilled providers and microbial resistance due to harmful use of antibiotic.

- Work closely with the Ministry of Education, Youth & Sport to include health education and disease prevention measures in general education programs.

### 5 Strengthen and implement innovative approaches for effective, efficient and sustained health service delivery, with increased accountability for results.

Outcome: Effective, efficient and affordable health service delivery to meet consumers' expectation.

- Expand PAEs and SOAs, with emphasis on improving accountability over budget revenue, performance indicators, financial and personnel management practices according to the national procedures.

- Strengthen institutional capacity, especially of public health facilities, in contract design, review and negotiations with social health protection operator(s), and manage and monitor the contract(s) implementation.

- Introduce performance-based incentives to encourage health care providers to deliver high-quality and coordinated care at lower costs.

- Apply "strategic purchasing" of high-quality affordable care by taking into consideration service availability and delivery; costs and benefits of alternative packages; incentives for efficiency and quality; and alternative provider payment mechanisms.

- Strengthen effective and well-coordinated health service delivery networks, including types of providers (volunteers, private providers, NGOs, community-based organizations) and level of health services (i.e. primary health care, specialized services, and including social-related health services).

- Develop integrated approach to traditional medicine, with special focus on the rational use of affordable, quality, safe and effective traditional medicine practices and products.

# 11. Health System Financing

## 11.1 INTRODUCTION

A long-term vision of health system financing is to enable active socio-economic participation of all residents of Cambodia through a health system that provides universal access to an essential package of quality health services in a regulated health market, thereby providing protection against impoverishment due to ill health. In this context, health financing interventions have the potential to address key challenges—such as the level of public health spending, inefficiencies, equity in access and financing- that the health system faces on its long journey toward universal health coverage (UHC). Likewise, changes in demographic and health patterns (an ageing population together with rising prevalence of NCDs) may eventually translate in excessive morbidity and mortality with associated costs, necessitating a strengthened national social health protection system.

## 11.2 STRATEGIES

***Strategic Objective 2*. Stable and sustained financing of healthcare services with increased financial risk protection when accessing healthcare services.**

*Strategy 6-10*

6. Increase national health spending in accordance with economic growth and increased fiscal capacity.
7. Target available resources according to population health needs
8. Increase efficiencies in the use of available financial resources in transparent and accountable manner at all levels of the health system.
9. Increase financial risk protection in access to and utilization of quality health services.
10. Align external funding with MOH policy, strategies, plans and priorities and strengthen coordination of funding for health by Development Partners

## 11.3 STRATEGIC INTERVENTIONS

**6 Increase national health spending in accordance with economic growth and increased fiscal capacity.**

Outcome: Predictable and sufficient domestic financial resources for health

- Use valid and reliable evidence-based information to advocate for increased and predictable government budget for health.
- Explore innovative domestic resource mobilization approaches such as collection and allocation of earmarked taxes for health, and public-private partnerships.
- Promote policy dialogue and rally support of policymakers to attain Sustainable Development Goal 3 indicator "Achieve Universal Health coverage, including financial risk protection, access to quality essential health-care services"

**7 Target available resources according to population health needs.**

Outcome: Sufficient funding for priority program interventions

- Develop a formula to allocate resources within the health system according to population needs, taking into consideration epidemiological data, population size and structure and poverty incidence.
- Implement program-based budgeting nationwide and build capacity at all levels to master the entire budget-planning and implementation process.
- Increase gradual substitution by the government of funding from global health initiatives and DPs main health programs and priority health expenditures.
- Ensure availability of up-to-date and reliable budget/financial information to enable resource allocation at all levels through a sound financial management performance monitoring system.

**8 Increase efficiencies in the use of available financial resources in transparent and accountable manner at all levels of the health system.**

Outcome: Value for money for available financial resources for health

- Build capacity of "Budget Entities" at the national and sub-national level to manage and implement program-based budgeting effectively and efficiently.
- Increase accountability for managing the financial system, including accounting, financial recording and reporting in an efficient, transparent and timely manner.

- Strengthen institutional capacity to manage, implement, and monitor and evaluate medium term expenditure framework, accounting, reporting and auditing in accordance with the principles of the fiscal framework.
- Strengthen the effectiveness of the procurement system consistent with the principles of transparency.
- Implement approach or system to strategically purchase health services with links between payment and predetermined criteria for quality.

**9 Increase financial risk protection in access to and utilization of quality health services for all.**

Outcome: Minimized catastrophic and impoverishing health spending and maximized equity.

- Increase coverage of the informal sector population by expanding the Health Equity Funds to include vulnerable population groups (e.g. people with disability, older people and children aged under-five).
- Review and adjust the benefit package of the social health protection schemes according to health needs of beneficiaries and health service developments.
- Strengthen complaint and feedback mechanisms concerning health providers' behaviour and quality of health services.
- Promote better understanding of the population related to social health protection schemes, especially health benefits resulted from appropriate use of health services.
- Transfer HEFs management from the MoH to a national social protection organization, when established.
- Develop appropriate approach to establishing social health insurance for the informal sector population based on Cambodian contextual factors and principles of fairness in financial contributions and equity in access.
- Build institutional capacity of PHDs, ODOs and health facilities to effective manage, implement and monitor SHP operations, including contract review and negotiations, data management on beneficiaries, claims and payment processing, accounting systems.
- Work closely with relevant ministries/institutions and other stakeholders to develop legislation and regulation, technical and financial instruments related to governance, management and operations of social health protection systems within the context of developments of the national social protection system.

**10 Align and harmonize development assistance with the national health policies and strategies, and strengthen coordination of funding for health by Development Partners.**

Outcome: Increased mutual accountability for development cooperation results

- Improve sector-wide coordination through strengthening the role of Technical Working Group for Health and Provincial Technical Working Group for Health, with establishment of a Sub-Technical Working Group on Health Financing.
- Align financial commitments to the health sector of Development Partners with health strategic plans, including efforts to increase fiscal space, and foster targeted health system strengthening.
- Harmonise activities and funding by Developing Partners related to health financing for universal health coverage through medium-term planning and budgeting processes (medium term expenditure framework, budget strategic plan and public investment program).
- Harmonize and efficiently use technical assistance, with emphasis on transfer of knowledge and skills from international experts to national counterpart(s), and increased engagement of national experts.
- Gradually employ national mechanism(s) and system(s), where and when appropriate, for financial planning and management, monitoring and evaluation, in accordance with principles of mutual accountability.

# 12. Health Workforce Development

## 12.1 INTRODUCTION

Health workforce plays an important role in achieving the health development goals and is linked to the medium to long-term vision of better health outcome of the population. In essence, the HWD strategy will add value to the MoH and it subordinates, across all levels, when the identified challenges related to human resource planning, production and management are effectively addressed. In this regards, interventions of HWD strategies are tailored to address inadequacy in terms of the structure, size and composition of the future workforce, competency-based training, enhanced skill-mix, system-need-based recruitment, competency-based deployment, equitable distribution,increased productivity, appropriate remuneration and motivation and stronger regulation. All of these elements will have an important potential impact on the effective delivery of health services and associated costs.

## 12.2 STRATEGIES

***Strategic Objective 3.*** **The health system will have an adequate number of well-trained, competent, well-motivated health personnel with appropriate skill mix and professional ethics.**

*Strategy 11-15*

11 Adopt a unified approach to health workforce planning, to ensure health workforce development is responsive to population and service needs.

12 Improve the quality of education and training to meet skill and development needs of the workforce in a changing demographic and epidemiological environment.

13 Promote equitable distribution, ensuring retention and skill mix of health workers to enable effective delivery of health services.

14 Promote favorable environment, including workplace, to ensure optimal staff productivity, motivation and participation.

15 Strengthen health workforce regulation and management to ensure safe and quality of health service delivery.

## 12.3 STRATEGIC INTERVENTIONS

**11 Adopt a unified approach to health workforce planning, to ensure health workforce development is responsive to population and service needs.**

Outcome: Effective human resource planning adapted to population and service needs

- Strengthen human resource for health (HRH) governance through the establishment of a high-level coordination mechanism encompassing all relevant stakeholders to provide stewardship to health workforce planning and management.
- Align human resources policies (including human resource production and management), systems and processes with the HSP3 and the RGC's policies, reforms (Public Administrative Reform, Public Financial Management, D&D) and strategies.
- Formulate approach to supporting the development of a comprehensive national HRH data (including private sector) and planning system to encourage stakeholders to regularly monitor and analyze the health workforce needs.
- Strengthen institutional capacity, in particular of health institutions at sub-national level, to develop medium-term human resource planning to support sub-national administrations, given the evolving transfer and delegation of health functions.
- Strengthen research capacity, possibly as part of an existing entity, to support evidence-based human resources policies and planning.

**12 Improve the quality of education and training to meet the skill and development needs of the workforce in a changing demographic and epidemiological environment.**

Outcome: Competent and skilled heath workforce for effective health service delivery

- Improve quality of training in all health educational institutions, public and private; focusing on competency-based curricula, enhanced comprehensive practical clinical knowledge, structured teaching techniques, including improved clinical placement sites.
- Establish mechanisms for the accreditation for public and private health education institutions to assess and uphold the quality of the institutions and their programs.

- Enhance capacity of the Centre for Educational Development of Health Professionals to become a National Resource Center, to respond to the need for transformation of medical education, including the management of the National Examinations for all of graduates.

- Regulate new intake into health education programs based on institutional production capacity and align with the projected staff needs and reasonable recruitment targets.

- Enhance better coordination and integration of in-service training by rolling-out MOH approved modular courses as per agreed annual training plans, based on an assessment of capacity needs in health facilities.

**13 Promote equitable distribution, ensuring retention and skill mix of health workers to enable effective delivery of health services.**

Outcome: Equitably distributed health workforce with appropriate skill mix

- Strengthen decentralized personnel management according the national policies, rules and regulations to reduce imbalances (distribution, number and types) in the health workforce in accordance to the needs of the health system, and on-going reforms, mainly Public Administrative Reform and D&D

- Implement appropriate mechanisms and instruments to promote recruitment, deployment and distribution and retention health staff, especially in remote/rural health facilities (re-distribution and transfer, mandatory contracts, appropriate financial and non-financial incentives including career progression opportunities, recognition of services etc.)

- Regularly monitor and update actual numbers and skill mix of staff at all administrative levels against recommended staffing standards as per national guidelines and identify gaps to inform human resource planning, production, recruitment and distribution.

- Reinforce the implementation of necessary systems and mechanisms to increase organizational efficiency and productivity consistent with rules and objectives of Public Administrative and Pay Reform of the RGC.

**14 Promote favorable environments, including workplace, to ensure optimal staff productivity, motivation and participation.**

Outcome: Productive, motivated, well-supported health workforce

- Improve management of facility- income supplementation from both supply-side and demand-side financing mechanisms, as a means to incentivize staff productivity and performance, thereby promoting quality.

- Promote supportive working environment, including appropriate office space, available supplies, functioning hygiene and sanitation facilities, safety and security, to support productive staff performance.

- Provide adequate supportive supervision and perform regular effective staff performance appraisal, linking performance to incentives, in particular with continuous education and training and placement in high-demand and high-opportunity jobs

- Articulate career pathways for managers and clinical service providers to allow timely professional progression.

**15 Strengthen health workforce regulation and management to ensure safety and quality health services.**

Outcome: Highly professional health providers for providing quality and safe health services.

- Enforce the new Law on the regulation of health practitioners, to ensure that only qualified, competent and fit to practice health professionals are allowed to provide clinical services.

- Strengthen the Health Profession Councils with clearly determined institutional structures, responsibilities and established mechanism to implement registration and licensing system for health professionals.

- Support the Health Profession Councils in the implementation of a harmonized process for disciplinary action against health practitioners violating the new Law on the regulation of health practitioners, and in protection of their professional interests.

- Support Health Professional Councils to take an active role in clinical standards setting, provision of continuing professional development programs, and safeguarding professional ethics.

# 13. Essential Support Systems

## 13.1 INTRODUCTION

Delivering health care services and public health intervention in effective, efficient and timely manner requires well-functioning essential support services such as medical supplies (medicines and health commodities, vaccines, reagents and medical technologies), and laboratory and blood transfusion services. The availability of these services at all time with assured quality is critical for health facilities to ensure continuity of health care services. These essential support services should be selected based on the real needs, cost-effectiveness and suited to the available fiscal capacity. In this regards, interventions of essential support system strategies emphasise strengthening supply chain management of good quality and safe pharmaceutical products, qualified medical laboratory services, and provision of sufficient and safe blood for medical and surgical interventions.

## 13.2 STRATEGIES

***Strategic Objective 4.*** **Public health facilities are adequately supplied with medicines, health commodities, medical materials, with availability of effective essential supportive services.**

*Strategy 16-20*

16 Provide public health facilities with sufficient quantity of quality assured, efficacious, safe and affordable medicines and health commodities, including vaccines, reagents and medical devices.

17 Improve the rational use of medicines and health commodities.

18 Enforce regulatory mechanism to safeguard quality of pharmaceutical products, including medicines, health commodities, medical devices and equipment.

19 Enhance capacity of medical laboratory, with associated improvement in test reliability, along with strengthened quality control mechanisms.

20 Provide safe and sufficient blood and blood products, and strengthen patient blood management and use.

## 13.3 STRATEGIC INTERVENTIONS

### 16 Provide public health facilities with sufficient quantity of quality assured, efficacious, safe and affordable medicines and health commodities

Outcome: Uninterrupted availability of affordable quality and safe essential medicines and health commodities at all health facilities

- Ensure timely delivery of affordable-cost, sufficient-quantity and good-quality medicines and health commodities to health facilities, especially HP/HC and RHs.
- Strengthen institutional capacity to forecast the needs for medicines and health commodities, especially at health facilities.
- Strengthen pharmaceuticals, vaccines and health commodities inventory management, including stock management, storage, dispensing and transportation according to national protocols.
- Upgrade supply management information system (both software and hardware) to better support supply chain management.

### 17 Improve rational use of medicines and health commodities

Outcome: Patients received proper medications according to their health conditions

- Promote the use of medicines and health commodities stipulated in the National Essential Drugs List, with proper prescribing, dispensing and handling with provision of a clear explanation to patients.
- Review and update the Essential Drug List and Basic Medical Equipment Standard List in accordance to changes in disease patterns, development of treatments, and updated treatment protocols.
- Promote timely access to information on medicines (both modern and traditional), pharmaceutical and cosmetic products, by health personnel and the general population, with regard to any harmful products.

### 18 Enforce regulatory mechanism to safeguard quality of pharmaceutical products, including medicines, health commodities, medical devices and equipment

Outcome: Safeguarded quality, safety and efficacy of pharmaceutical products

- Enforce law, legislation and regulation including Intellectual Property Rights related to Pharmaceuticals for quality assurance leading to medical efficacy and patient safety.

- Strengthening medicine regulatory mechanisms (for both modern and traditional medicines) including registration, licensing, schedules of medicinal products, control of medicines circulation, restrictions on distribution and use, and eliminating substandard and counterfeit medicines.

- Strengthen procedures for registration of medical devices, traditional medicines, cosmetics and health supplements in order to ensure the safety and efficacy of these products.

- Strengthen post-marketing surveillance of pharmaceutical products (inspection, pharmacovigilance; quality control of medicines, counterfeit and substandard medicines) to ensure their quality, efficacy and safety.

### 19 Enhance capacity of medical laboratory, with associated improvement in test reliability, along with strengthened quality control mechanisms.

Outcome: Effective and reliable laboratory services to support the delivery of safe and efficacious clinical services and public health interventions

- Strengthen the implementation of national policies, regulations, protocols and standard procedures related to operations of laboratory for both clinical and public health purposes.

- Conduct regularly clinical audits for reviewing laboratory operations and continuous quality improvement that should be an integral part of programs for laboratory accreditation in the long run.

- Enhance knowledge and experience, and skills of laboratory technicians through provision of continuous education, so as to maintain good performance in laboratory services and continuous quality improvement.

- Strengthen the national laboratory network throughout the country, and promote collaboration with oversea laboratories to share information, knowledge and technologies, in particular in case of emerging and re-merging infectious diseases.

- Regulate and monitor medical laboratory practice in the private health sector based on policies and regulations to ensure that their operations and services are adhered to the national protocol and standards.

### 20 Provide safe and sufficient blood and blood products, and strengthen patient blood management and use

Outcome: Increased sufficiency, and safety of blood and blood products with proper use

- Strengthen the implementation of national policies and regulations, standards and operation procedures for blood transfusion services.

- Improve patient blood management practices, including appropriate clinical use of quality and safe blood and blood products, with associated measures taken to prevent transmission risks, particularly the risk of transfusion transmissible diseases and adverse reactions.

- Ensure that blood transfusion services are supported with appropriate resources - infrastructure, human resources, equipment and consumables, funding for cold chain maintenance, transportation, and donor refreshment and token.

- Engage sub-national level administrations and relevant organizations (e.g. Cambodian Red Cross, private-not-for profit) to support social mobilization of voluntary blood donation (non-remunerated blood donors) and enforce regulatory mechanisms of blood transfusion services.

# 14. Health Infrastructure Development

## 14.1 INTRODUCTION

Adequate health infrastructure not only facilitates and supports the delivery of health services but also provides the capacity to delivery effective and efficient health services. In this context, HID strategies form the basis for a sound investment planning to deliver health services close to the population, and enhance capacity of health facilities to provide both essential health services (mainly at HCs), and specialized services (mainly at RHs) to meet the population's health needs.

## 14.2 STRATEGIES

***Strategic Objective 5*: Public health facilities have appropriate basic infrastructure, advanced medical equipment and technologies and Information and Communication Technology**

*Strategy 21-25*

21. Build and upgrade infrastructure according to updated Health Coverage Plan and Health Infrastructure Building Briefs.

22. Equip public health facilities with appropriate basic medical equipment and medical technology to improve diagnostic capacity and quality of healthcare service, and means of transportation.

23. Improve supportive environment for overall improvement in quality and safety for both patients and health providers.

24. Expand ICT infrastructure to health facilities to allow transfer and use of ITs to support service delivery, teaching, and monitoring.

25. Strengthen management of maintenance system for physical infrastructure, medical equipment, transportation and ICT.

## 14.3 STRATEGIC INTERVENTIONS

### 21 Build, upgrade, renovate and maintain public health facilities according to updated Health Coverage Plan and Health Infrastructure Building Briefs.

Outcome: Increased access to and expanded coverage of health services

- Construct HPs, HCs and RHs according to the updated HCP by taking main contextual factors into consideration - demographic and geographic factors, availability of private health providers, and economies of scale.
- Upgrade existing infrastructure to facilitate provision and establishment of health services in accordance with MPA and CPA Guideline and to enable access for people with reduced mobility or with disability.

### 22 Equip public health facilities with appropriate basic and advanced medical equipment and medical technology to increase diagnostic capacity and quality of care, and means of transportation.

Outcome: Increased capacity of health service delivery with improved quality

- Update the Standard List of Medical Equipment for MPA and CPA, with up-to-date price information to support preparation of annual budget planned expenditure for medical equipment purchase, and facilitates procurement according to public procurement procedures.
- Provide medical equipment (including laboratory equipment) to HCs/HPs, RHs (CPA1-3) according to the Standard List of Medical Equipment to increase health service delivery capacity.
- Invest in appropriate high-tech medical equipment and medical technologies at national hospitals and selected provincial RHs, based on geographical setting and needed health services, accompanied by adequate training.
- Provide means of transportation, including ambulances equipped with adequate medical equipment, to allow timely referral of patients and to effectively response to public health emergencies.

### 23 Improve supportive environment for overall quality improvement and safety for patients and health personnel.

Outcome: Appropriate hygiene and sanitation in health facilities, contributing to overall quality

- Increase access to clean water or improved water sources and electricity, especially in remote health facilities, to enable provision of quality health services, improve hygiene and sanitation and maintain safety and security for both patients and health personnel.

- Maintain hygiene and sanitation at health facilities, including functioning clean water supply system, drainage system, and catering and toilet facilities.
- Provide adequate Personnel Protection Equipment/materials to prevent health providers from potential health risks when providing health services.
- Improve medical waste management practices at all health facilities, including disposal of damaged materials and equipment with high risk to public health.

**24 Expand ICT infrastructure to allow transfer and use of ITs to support service delivery, teaching, research, and monitoring and evaluation.**

Outcome: Appropriate ICT infrastructure in place and functioning

- Expand ICT infrastructure including software and hardware with adequate training on the use of ICT.
- Initiate the use of Tele-medicine services where approrpiate to connect national hospitals and provincial referral hospitals as to provide specialized services or manage diagnosis, treatment and care of complicated diseases.
- Upgrade ICT facilities to strengthen disease surveillance and response system and emergency public health interventions, disaster management and others.
- Build up a central health repository by integrating existing databases for the analysis, use and dissemination and of health information.

**25 Strengthen management and maintenance system for physical infrastructure, medical equipment, transportation and ICT.**

Outcome: Sustainable maintenance systems for uninterrupted service provision.

- Improve public asset management system; with emphasis on regularly updated asset inventory lists, accompanied by improved internal control and audit mechanism, and streamline system to transfer duplicative equipment.
- Take into account receipt of donated second-hand medical equipment in compliance with the Ministry of Health's Guidelines on Second-hand Medical Equipment.
- Conduct Medical Technology Assessment periodically and routine supervision and follow up on medical equipment maintenance to ensure appropriate utilization and operational rate of medical equipment.
- Out-source maintenance services to specialized firms, especially for maintenance of sophisticated medical equipment and ICT hardware and software.

# 15. Health Information System

## 15.1 INTRODUCTION

The main purpose of HIS development is to ensure availability of relevant, timely, high quality health and health related data and information for evidence-based policy formulation, decision-making, management and planning, disease surveillance and response system, and performance monitoring and evaluation, thereby contributing to improved health service delivery. It is widely recognized that the better the information, the better the decision, hence the better health service delivery. Increased and regular investment in the health information system, including information and communication technologies, is therefore critical need to strengthen the entire health system. Interventions of HIS strategies focus on strengthening information governance, increasing data quality and developing capacity for data management, interpretation and use.

## 15.2 STRATEGIES

***Strategic Objective 6.*** **Health and health –related data/information are reliable, accurate, timely and of high quality and used, with strengthening disease surveillance and response system and promoting health research.**

*Strategy 26-30*

26. Develop and implement legal tools and protocols for health information management.
27. Increase the quality, reliability and validity of health and health related data and information.
28. Improve institutional capacity on data management, especially at facilities and district level on data compilation, analysis, interpretation, reporting, dissemination and use.
29. Enhance the national disease surveillance and response systems, including public health emergency and disease reporting system.
30. Strengthen monitoring and evaluation system and promote health research.

## 15.3 STRATEGIC INTERVENTIONS

### 26 Develop and implement legal tools, protocols/technical guidelines for health information management.

Outcome: Improved health information governance

- Develop and enforce legislations and regulations concerning storage, confidentiality, retrieval and use of patient medical records.
- Develop and implement national protocols for operations and management of the health information system, including flow of information, reporting, storage, data security and privacy.
- Develop and use data kits such as dashboards and web-portal within HMIS to facilitate the use of health data and information.
- Develop data quality assessment tools and institutionalize the tools in routine data quality monitoring.
- Strengthen information systems on human resources/staffing, infrastructure, health services, population, laboratory (including biosafety/security/bio-risk management) and drug management support system.

### 27 Increase the quality, reliability and validity health and health related data and information

Outcome: Expanded HMIS coverage in public and private health facilities with improved data quality

- Promote data integration between different health information databases, focusing on standardization and interoperability.
- Expand electronic medical record system, including patient registration, patient medical profiles, International Classification of Diseases, births, and deaths with medically defined causes accompanied by medical death certificates, as well as National Patient Unique Identifier system.
- Use International Classification of Disease (ICD) based morbidity and mortality diagnosis and integrate ICD10/11 in HMIS and patient management registration system.
- Increase coverage of reporting through the MoH web-based HMIS and national disease surveillance and response system, with compliance from the private health sector.
- Conduct supportive supervision, spot check, routine and follow-up monitoring of information systems, with timely feedback mechanism to ensure completeness, accuracy and quality of reporting.

**28** **Improve institutional capacity on data management, especially at facilities and district level on data compilation, analysis, interpretation, reporting, dissemination and use.**

Outcome: Increased data management capacity

- Develop common information standards and compatible platform to enable information sharing, including security architecture and regulations for privacy protection.
- Expand IC application with appropriate training provision for health managers and health personnel who are responsible for data management including collection, compilation, analysis and interpretation, reporting dissemination and use.
- Promote dissemination and use of quality health information among health personnel and the public to enhance health literacy among health personnel and the public.
- Strengthen collaboration and coordination amongst relevant ministries and institutions and Development Partners for data collection for and analysis of population-based surveys from which the health sector can benefit.
- Support the development of the national Civil Registration and system to collect vital statistics and promote their use in planning and health service delivery.

**29** **Enhance the national disease surveillance and response systems, including public health emergency and disease reporting system.**

Outcome: Stronger national disease surveillance and response systems

- Strengthen the existing routine early warning system on communicable diseases, known as Cam-Warn, and further integrate disease surveillance and response systems to reduce workload at facilities, district and provincial level.
- Strengthen capacity of Rapid Response Team at facility, district and provincial level in detecting potential threats to public health, timely reporting accurate data, and responding to disease outbreak.
- Develop the reporting of non-communicable diseases in the overall surveillance and case reporting and response system, including accident and injuries, with compliance for both public and private health sectors.
- Perform routine and continuous monitoring of disease surveillance and response system to ensure accuracy, timeliness and completeness of reporting and other attributing factors.

- Strengthen collaboration on communicable disease surveillance and response system through information sharing on potential threat and disease outbreak, knowledge sharing, and joint simulation exercises etc. with other relevant ministries and institutions and neighboring countries.

**30 Strengthen monitoring and evaluation system and promote health research.**

Outcome: Stronger M&E system and better use of research findings

- Perform routine and continuous monitoring of plan implementation at required intervals by using the HSP3 Indicators Framework for M&E at different level of the health system.

- Strengthen the use of the national M&E system, processes and tools to reduce multiple monitoring systems in the health sector, especially at operational level.

- Enhance mutual accountability by the Ministry of Health and Development Partners to track progress of development cooperation towards the development results.

- Establish governance structures with clearly defined roles and functions to advice oversee and coordinate health research system, while promoting the use of research findings for policy dialogue and formulation.

- Develop and regularly update a health research agenda to coordinate and complement research activities.

# 16. Health System Governance

## 16.1 INTRODUCTION

Health system governance involves the provision of strategic policy frameworks that, combined with effective oversight, provide stewardship to the heath sector. It also includes wide range of functions such as of coalition building, appropriate regulations and incentives, with the intent to improve accountability and efficiency of the health system. Effective governance mechanisms are pivotal for the delivery of equitable, accessible, quality assured health services based on principles of social accountability. In this respect, interventions of health system governance involve strengthening roles and responsibilities of public, private and voluntary sectors - including civil society - and their relationships and coordination in pursuit of national health goals.

## 16.2 STRATEGIES

***Strategic Objective 7.*** **Institutional capacity is developed at all levels, with focus on leadership and management competency, regulation and strengthened local accountability for health.**

*Strategy 30-35*

31. Prepare institutional structures and functions at all levels of the health system to effectively response to changing environment and the implications of major national reform programs.

32. Develop health policies, legislations and regulations, and build regulatory capacity at all levels of the health system.

33. Increase national ownership and accountability to improve health outcomes, and enhance coordination and collaboration among relevant stakeholders

34. Use potential public and private partnerships in health service delivery, capacity development and implementation of the national health policies and regulations.

35. Encourage active participation of communities and subnational level administrations to strengthen local accountability in health.

## 16.3 STRATEGIC INTERVENTIONS

### 31 Prepare institutional structures and functions at all levels of the health system to effectively response to changing environment and major national reform programs.

Outcome: Enhanced accountability and responsiveness of health professionals and health institutions

- Conduct functional analysis at individual health institutions of all levels of the health system, including directorates general, departments, central level institutions, provincial health departments and operational districts, including HCs and RHs.
- Redefine institutional roles and functions according to results of the functional analysis and adjust institutional structures, including staffing, accordingly.
- Develop and implement Institutional Development Plans for strengthening institutional structures and guide capacity building to effectively perform the redefined roles and functions.
- Determine obligatory and permissive functions to be transferred from the MoH to subnational level administrations in association with sound supporting legal and technical instruments to avoid interruption of health service delivery.

### 32 Develop health policies, legislations and regulations, and build regulatory capacity at all levels of the health system.

Outcome: Effective law enforcement and stronger regulated health market

- Develop and update health legislations, regulations, policies and strategies, and strengthen regulatory capacity to enforce their implementation in both public and private health sector.
- Develop and update legislations and regulations, policies, strategies, and technical guidelines related to disease surveillance and response system.
- Update medium to long term plans on regular basis, including budget strategic plan, public investment programs, and annual operational plans that link to realistically planned expenditures.
- Strengthen institutional regulatory mechanism for registration and licensing of private sector provdiers health to support the establishment of an accreditation system.
- Develop and enforce policies and regulations related to food safety and hygiene measures, and to safeguard environmental health.

**33 Increase national ownership and accountability to improve health outcomes, and promote coordination and collaboration among relevant stakeholders.**

Outcome: Improved efficiency and increased resource availability through strong advocacy with policy makers

- Strengthen institutional structures and capacity for quality assurance across all levels of the health system, with emphasis on standard development, quality performance monitoring and quality control, and regulatory capacity.
- Perform routine and continuous monitoring of licensing processes for the private health sector by subnational level administrations to ensure compliance with legal and technical requirements.
- Strengthen the roles of TWGH and it Sub-Technical Committees, as well as Provincial TWGH.
- Promote multi-sectoral collaboration and coordination with other relevant ministries/agencies and stakeholders to effectively response to cross-cutting health and health related issues.
- Review and update HCP as informed by re-defined criteria for HCP to support alignment of Operational District catchment areas with the Administrative District boundaries, and implement gradual approach to delegation and transfer of roles and responsibilities to sub-national administrations.

**34 Use potential public and private partnerships in health service delivery, capacity development and implementation of the national health policies and regulations.**

Outcome: Stronger legal and professional-based public and private partnerships

- Build stronger public private partnership in health service delivery and human resource development based on managerial and technical competencies to foster harmonized and effective health service delivery models.
- Promote participation of private health sector in policy dialogue and implement health policies, strategies and regulations to ensure effectiveness of health service delivery and public health interventions.
- Strengthen the implementation of national policies, guidelines and protocols in the private health sector.
- Strengthen M&E system to promote quality and effectiveness of health services in the private health sector.

**35 Encourage active participation of communities and subnational level administrations to strengthen local accountability in health.**

Outcome: Increased engagement of communities and local administrations health promotion

- Strengthen the functioning of HCMCs and VHSGs to build up a stronger communication and cooperation between community and HCs for improving health service delivery, health promotion and effective referral system.
- Work closely with Commune Councils to provide support (including training, recognition and others appropriate means) to VHSGs to perform their defined tasks.
- Raise community awareness of consumers' and providers' rights and duties in order to promote better communication between consumers and providers and enhance quality of health service delivery.
- Increase access to information by community concerning availability of health services at HCs and RHs, emergency contacts, fee exemption, social health protection's fee schedules and benefit packages etc.
- Strengthen local accountability mechanism to improve responsiveness of the health services delivery through participation of community and local administrations in monitoring and providing feedback on health service quality and efficiency.

# CHAPTER V. IMPLEMENTATION, MONITORING & EVALUATION

## 17. Approach to Implementation

## 18. Program Planning & Budgeting

## 19. Monitoring & Evaluation

# 17. Approach to Implementation

## 17.1 Introduction

Health planning in Cambodia has a long history. The Annual Operational Plan (AOP) and its annual process were introduced in 1999 and subsequently became routine activity for all health institutions. A fundamental strength of the process is that it is fully owned, led and managed by the MoH, with strong support from Development Partners (DPs). Alignment of DPs' funds is a key aspect of the Cambodian approach to the health sector financing under "Sector-wide Management" (SWiM), aiming to put development assistance behind the national health priorities and strategies.

HSP3 strategies will be translated into implementation via the national planning and budgeting process. Operational plans will be developed and updated on annual basis using the national planning and budgeting instruments i.e. a 3-year-rolling Public Investment Program (PIP) and Budget Strategic Plan (BSP) and the health sector AOP including annual budget. (Figure17.1)

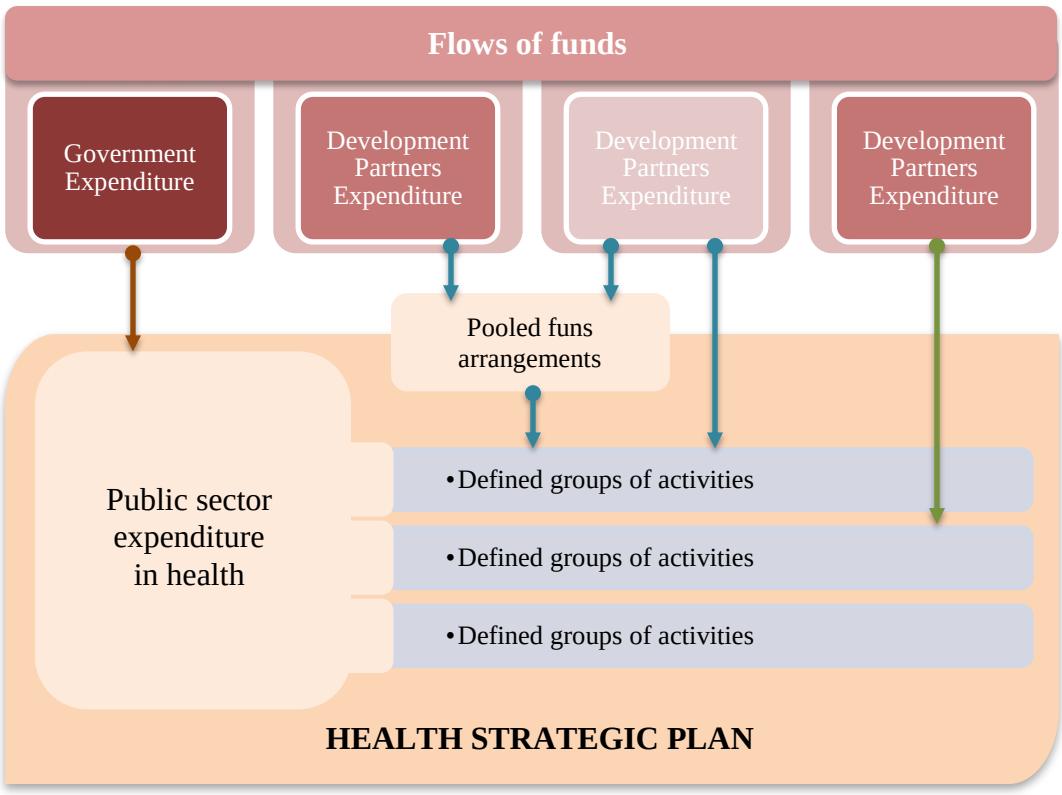
**Figure 17-1 Implementation Framework**

## 17.2 PLANNING FOR HEALTH SECTOR FINANCING

Joint Annual Performance Review (JAPR) and Joint Annual Plan Appraisal (JAPA) are mechanisms for improving alignment of health partners' support with national health priorities. In addition, the Technical Working Group for Health (TWGH) at the sectoral level and Provincial Technical Working Group for Health (Pro-TWGH) at the provincial level can be used as a mechanism for promoting planning and budgeting, as well as policy dialogue and coordination.

A large proportion of DPs fund is dedicated to supporting implementation of the HSP. Those funds flow partly into the health sector under "program-based approach" and partly into agreed priority interventions (defined group of activities) in HSP. The MoH has adopted flexible funding modalities, which allow DPs to choose funding mechanism that best suits them. Figure 17.2 depicts an overview of funding mechanisms from all available sources to support the implementation of the HSP (MoH's official letter dated 23rd March 2007 to DPs: *Decisions on Options for Moving to SWAPs in the Health Sector).* In practice, some DPs contribute to the pooled fund while others to non-pooled or discrete funding mechanisms. The second Health Sector Support Program (2009-2015), for example, involved both pooled and discrete funding arrangements. Use of the national systems for DP-supported program will be explored and implemented, when and where appropriate, with strategic intent to gradually shift from "off-budget" to "on-budget" planning.

**Figure 17-2 Planning of the Health Sector Financing**



## 17.3 PRINCIPLES FOR PLANNING

An approach to health planning is a combination of top-down and bottom-up planning. The provincial level is the interface for such planning approach. It is via this mechanism that institutional knowledge, operational and site-specific expertise of managers is communicated to the central ministry and across the health sector. The annual health plan development is guided by **four principles**:

- **Team approach.** Health managers work together as a team to organize their present and future resources to improve health service delivery for the population. That is very important, because resources are often limited and therefore managers need to set priorities and make choices.

- **Participatory process.** All concerned stakeholders -in and outside health institutions- are encouraged to participate in a series of activities recommended in the annual planning process. In doing so, each implementing unit and concerned stakeholder are provided an opportunity to influence broader resource allocation, and maintain its own operational control over use of allocated resources, as well as accountability for the results.

- **Resources-based planning**. The process puts human and financial resources at the forefront. A starting point is to identify available resources prior to the development of activity plans, followed by planned expenditures for the developed activities. As such the process requires reliable and up-to-date resources information to guide rational decisions on the allocation and use of resources.

- **Program-based budgeting.** This approach links planned expenditures to clearly determined results. For management purposes, each program is broken down into several subprograms and activities. Programs' and subprograms' performance can be measured in terms of outcomes; outputs; and cost (inputs). In this regard, the planning team (including managers and financial officers) needs to identify group of main activities that support the programs and the sub-program interventions in consistence with strategic interventions of the HSP.

## 17.4 PLANNING AND BUDGETING INSTRUMENTS

A set of planning and budgeting tools is currently used across Government ministries/agencies. Those instruments are: Public Investment Program (PIP), Budget Strategic Plan (BSP) and Annual Budget Plan (ABP). In the health sector ABP is an integral part of AOP. These plan documents are prepared in line with the Government's overarching macroeconomic policy, socioeconomic development agenda, and sector priorities. The plans are used by the Ministry of Economy & Finance to guide fiscal allocation, including annual budget, across Government ministries and agencies.

- **Public Investment Programs.** PIP was introduced in 1995. The Ministry of Planning is the lead-ministry responsible for preparation of this annual, rolling and three-year program, focusing on capital and technical assistance required to implement development strategies of the RGC. A key feature of the PIP process is "one-to-one consultation" with ministries and agencies in order to ensure that the planned investment in a line sector is appropriately addressing the national priorities. In addition, the process allows collecting inputs from DPs. The preparation of the health sector PIPs is "a top-down planning". The Department of Planning & Health Information is responsible for annual update of PIPs based on inputs provided by the MOH relevant departments and national centers, and to some extent from health partners. The health sector PIPs directly addresses not only the national priorities, but also the health sector priorities as identified in the health strategic plan.

- **Budget Strategic Plan.** BSP **was** introduced in 2011 with a medium term horizon incorporating the sector annual budget plan. Together with PIPs it constitutes the core strategy for medium to long term planning. BSP is seen as medium term planned expenditure framework. The health sector BSP is built upon the HPS' medium term HDGs and strategic objectives, and also based on the sector's financing needs (bottom-up planning) and projections of available resource envelopes from all sources (domestic and external – top down). The bottom-up costs and top-down resource envelopes will be matched in the context of the annual planning and budget process to inform resource allocation decisions on priorities, both within and across sectors. The sector BSP is prepared by the MoH Budgeting Team.

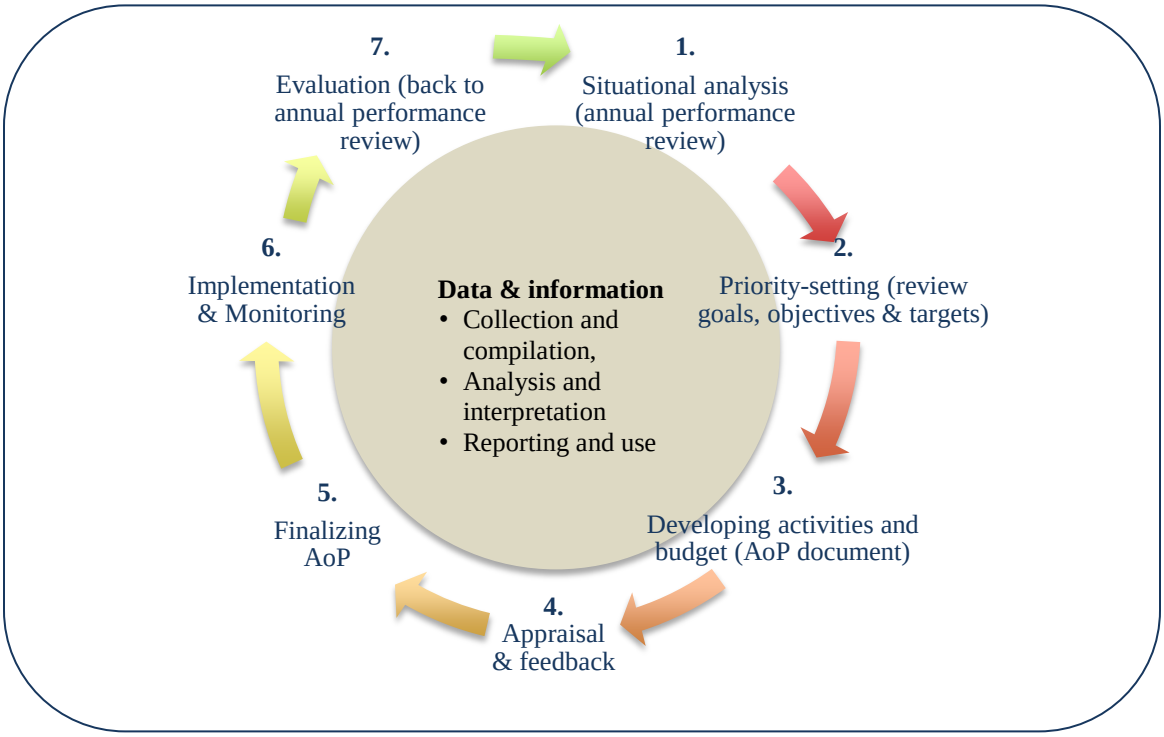
## 17.5 PLANNING AND BUDGETING PROCESSES

PIP and BSP process is "rolling-forward" over every year in order to incorporate changes (policy, needs and resources) and take into account progress made and new priorities as informed by Sector Annual Performance Review. It does not allow for major deviations from the HSP3 strategy or momentums already set. If appropriately applied, the process will considerably improve allocation and predictability of funding for the health sector and link allocated resources with outcomes of health service delivery. Within PIP and BSP framework, AOP can then be developed with clearly defined programs and subprograms detailed activities (including budget) and timetable.

### Annual Planning and Budgeting Processes

The AOP process is complex, labor-intensive and time-consuming, incorporating top-down and bottom-up processes in which individual ODs (with input from health centres and referral hospitals), PHDs, Central MoH departments, and national hospitals and national centers/institutions prepare their activity plan and budget for the year, prior to consolidation of the sector AOP. There are seven steps in the health planning and budgeting processes through the annual health planning cycle (Figure 17.2).

**Figure 17-3 Annual Health Planning Cycle**




- **Step1. Situational Analysis (where are we now?)**

  Conduct Annual Performance Review (APR) of AOP at individual institutions, at district and provincial level, and also at the sector level, which may include specific program annual reviews (e.g. Immunization, HIV/AIDS, Tuberculosis, Malaria, other programs) The review exercise assesses whether the intended results of the plan are achieved by measuring the actual results against annual targets sets for the programs' and subprograms' performance indicators as provided in the Indicators Framework for Monitoring & Evaluation (Annex 3).

  **Outcomes:**

  - ✓ Status of the plan implementation assessed;
  - ✓ Identified enabling factors and main constraints to the successful and unsuccessful performance;
  - ✓ Identified challenges to the population health needs and to the health system, and identified opportunities to address such challenges; and
  - ✓ APR reports

- **Step2. Priority-setting (what do we want to achieve most?)**

  Setting priority is regarded as the end-activity of the situational analysis. This step involves revisiting a hierarchy of the HSP3's strategic objectives, strategies (including strategic interventions or main activities), and targets. This step, perhaps, is the most difficult task in the planning process: striking balances between the national priority as informed by Sector Annual Performance Review (SAPR) and local priorities, and making choices on what can be achieved within the available resources (mainly manpower and budget), and institutional and system constraints.

  **Outcomes:**

  - ✓ Identified potential areas in terms of specific health needs of the population and improved health system for program and subprogram interventions;
  - ✓ Subprograms' targets reviewed and adjusted, if appropriate; but not necessarily at OD and Provincial level plans, as well as at program and sector level; and
  - ✓ Prioritized expenditure areas to inform budget allocation across programs and subprogram based on the identified potential areas for interventions.

- **Step 3. Developing Activities and Budget (how do we achieve what we want?)**

  Review and update the Budget Strategic Plan (BSP) according to the MoEF budget Circular, and develop AoP that includes activity plan and budget. The main task is to identify planned activities based on the strategic interventions of the HSP3 with clearly defined performance indicators, basically inputs and output indicators, over the year for program and sub-programs, each with a budget.

  **Outcomes:**

  - ✓ Updated BSP document
  - ✓ Drafted AoP document (planned activities supported by realistic planned expenditures) in consistence with the updated BSP

- **Step 4. Budget appraisal (Is budget planned expenditure realistic to achieve what we want?**

  This step involves a series of budget reviews within the MoH (in-house review and negotiation) and budget negotiation at technical level and then at policy-decision making level between the MoH and the MoEF. A sound and well-prepared justification to support planned activities and requested budget is important.

**Outcomes:**

- ✓ Feedback for further improvement of the plan
- ✓ Recommended indicative planned expenditures

- **Step 5. Finalizing plan**

  Review and update the draft plan documents based on the outcomes of the budget negotiations—recommended indicative budget allocation. The final review of the plan is undertaken right after endorsement of the Budget Law by legislatives, usually in December every year.

  **Outcomes:**

  - ✓ Final plan document is ready for the implementation

- **Step 6. Implementation and Monitoring**

  AOP is put into implementation at the beginning of the fiscal year (January 1 to December 31). In doing so, there is a need to transform program and sub-program activities into specific timed and budgeted sets of tasks and activities through the development and implementation of Quarterly Work Plans (QWP). Monitoring is conducted through Quarterly Progress Reviews (QPR) of the QWPs at individual implementing units, at OD and provincial level. At sector level, a Mid-Year Progress Review is conducted.

  **Outcomes:**

  - ✓ Quarterly Work Plans developed and implemented
  - ✓ Tracked progress against targets—to what extent subprogram activities have contributed to advancement of the annual subprogram and program targets set
  - ✓ Necessary changes made, along with resource reallocation if required
  - ✓ Review reports documents

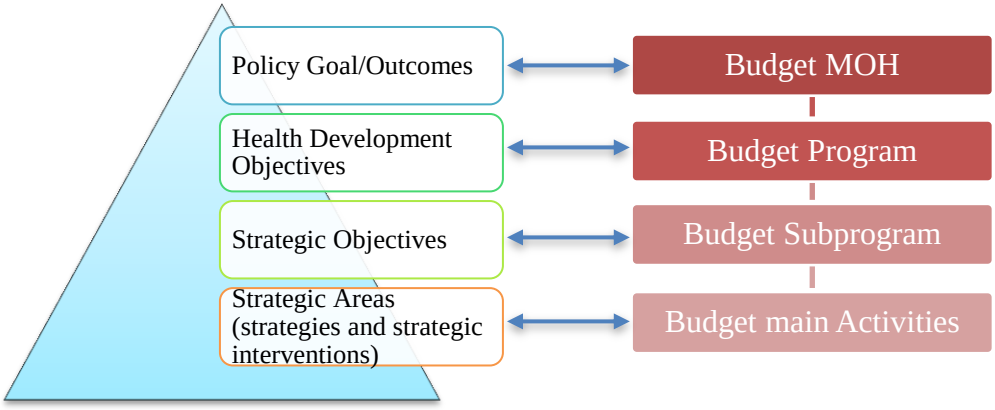
- **Step 7. Evaluation (coming back to Step 1)**

  Note: more information related to monitoring and evaluation is provided in Section V, Chapter 19.

**Program-Based Budget**

A strategic intend of the Program-Based Budget (PBB) is to directly link policy to budget performance (Figure 17.4), ensuring that planned budget investments in health are well-organized and wisely used in pursuit of achieving the stated policy outcome within mandates of the MoH and Budget Entities. In other words, this approach directly links planned expenditures to clearly determined results (especially, coverage of health service delivery) by shifting a focus on input (activities) and output to outcome and results.

**Figure 17-4 A linking Policy to Planned Budget Investment**




### Program Structure Hierarchy

The PBB structure comprises three levels as illustrated in Figure 17.5. The structures will be reviewed periodically, and modified, when and where appropriate.

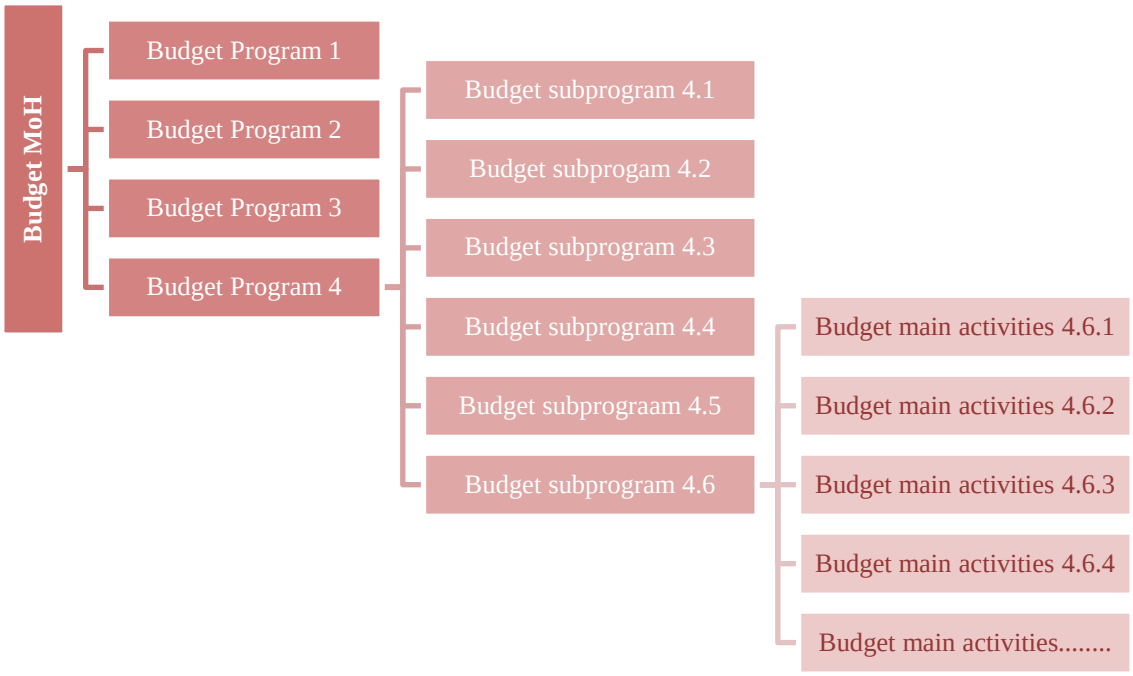
- **A budget program**: is designated to a clearly defined set of services, whereby core functions (permissive and obligatory) of the MoH (mainly stewardship) and its subordinates (mainly service delivery), are delivered. The MoH has defined four budget programs supported by a number of budget sub-programs, which allow individual health institutions at all levels to flexibly apply budget programs and/or budget sub-program that best suit their mandates (roles and functions).

  - ✓ Program 1: Improving reproductive health, maternal and newborn care, child health including immunization, and nutrition;
  - ✓ Program 2: Communicable disease prevention and control;
  - ✓ Program 3: Non-communicable disease prevention and control, and public health interventions; and
  - ✓ Program 4: Strengthening health system

  The performance of each program can be measured in terms of its outcomes (progress toward the strategic objective is attributed to its sub-program and activities), outputs (results delivered under the program activities can be measured in terms of quantity, quality and timeliness) and cost.

- **A budget sub-program** comprises a distinct grouping of services and activities within the scope of a budget program. For management purposes a budget subprogram is identified separately within the budget program.
- **An operation budget** is for **main activities** that are on-going and/or to be undertaken (new activities) within the scope of a budget sub-program,

**Figure 17-5 Program Structure Hierarchy**




### Timetable for Annual Planning and Budgeting

The annual planning and budgeting processes occurs across all levels of the health system. The implementation of these processes is very time-consuming and intensive labored work, and requires health managers and planners having specific knowledge and expertise, most importantly in budget analysis. Table 17.1 indicates time sequence that is relevant to main activities in the process

**Table 17-1 Timetable of Annual Health Planning & Budgeting**

| Step | J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | |
| 2 | | | | | | | | | | | | |
| 3 | | | | x | x | | | | | | | |
| 4 | | | | | | | | | | | | |
| 5 | | | | | | | | | | | | |
| 6* | | | | QR | | | QR MYR | | | QR | | |
| 7 | APR | Return to Step 1 | | | | | | | | | | |

*Next fiscal year

X: Submission of PIP to the Ministry of Planning and of BSP to the MoEF

# 18. Planned Budget Expenditures

## 18.1 INTRODUCTION

A plan becomes realistic when it is supported by an equally realistic budget. Intended objectives can be achieved once the plan is truly put into implementation and committed resources (budget and staff) are timely made available and wisely used without wastage. HSP3 costing indicates the estimated financial resources needed for implementation of HSP3 strategies toward achieving its strategic objectives. Estimates of the financial resources required versus those available in the public health sector, are needed to guide implementation of the HSP3. This chapter shows the estimated costs, financial space, and funding gap for the HSP3 2016 to 2020.

## 18.2 RESOURCE NEEDS

### Methodology

The HSP3 was costed using the OneHealth Tool, a model for medium- to long-term strategic planning in the health sector. The tool estimates the costs of health programs, comprising commodity and program support costs, as well as resource needs of health system components such as infrastructure, human resources, logistics, information systems, financing, and governance (see Table 18.1). Ministry of Health staff and other stakeholders in the public health sector provided all cost assumptions. Data from individual strategic plans, health information systems, demographic and health surveys, and other health and disease-burden studies informed the development of assumptions. When Cambodia-specific data were unavailable, default regional averages available in the OneHealth Tool were used. Costs are for the public health sector only and are presented in constant U.S. dollars (US$).

**Table 18-1 Costs Including in HSP3 Costing**

| | |
|---|---|
| **Health programs costing (including commodity and program management)** | Reproductive, maternal, neonatal, and child health; nutrition; immunization; HIV; TB; malaria; NCD; mental health; leprosy; dengue and helminthes; eye care; health promotion; disaster management; blood safety; communicable disease control |
| **Health system component** | Inputs for HSP3 costing |
| **Infrastructure and equipment** | Construction of new facilities and add-ons to existing facilities; facility operating costs; procurement and maintenance of facility equipment |
| **Human resources for health (HRH)** | Total remuneration for staff (salaries, benefits), human resources administrative costs. HRH targets are based on facility staffing norms. |
| **Logistics** | Cost of the supply chain,[i] including the Central Medical Store (CMS) operating costs for storage and transportation and the cost of drugs and commodities which are procured but never consumed |
| **Health information systems** | Cost of operating and maintaining health management and information systems, including costs of ICT equipment |
| **Health financing** | Administration and benefits costs for the Health Equity Funds |
| **Governance** | Costs of lab quality and management systems, private sector regulation and management, hospital quality assurance and management, infection control and prevention |

i. Cost of commodities is included under health program costing, but the cost of in-country storage and distribution is included in logistics module.

## 18.3 COST ESTIMATED

The five-year cost of the HSP3 is estimated to be $2,974 million, increasing from $537 million in 2016 to $668 million in 2020.

Almost half (49%) of the HSP3 costs are for strategic objective 1, which include the costs of commodities and program management for health programs. Commodity costs represent just over half the total health program costs and increase 1.5 times from 2016 to 2020 due to increases in the number of services provided. The health services with the highest total commodity costs include STI case management, treatment of gum diseases, long lasting insecticide-treated nets, basic psychosocial support and anti-psychotic medication, and management of severe malnutrition in children. Program management costs, which include the cost of program-specific training, M&E, supervision, transport, and other activities, actually decrease over time, reflecting investments in critical support activities at the onset of the HSP3.

The largest five-year health program costs are for maternal and neonatal health and PMTCT (25%), and child health and immunization (14%) programs. The mental health and NCD programs have the fastest growth in costs; for example, the costs of mental health in 2020 are above three times the estimated costs for 2016. The growth in these programs' costs is a result of scale-up in coverage (e.g., the percentage of people in need of health services who receive them), as current coverage levels of many NCD and mental health services are low. For instance, the NCD program plans to scale-up cardiovascular disease and diabetes screening among adults forty and older from 6 percent to 18 percent by 2020.

Costs for strategic objectives 3 and 4, which are the human resources for health (HRH) and infrastructure costs, respectively, account for 17% and 24%of the total HSP3 costs. While infrastructure costs stay relatively constant each year, HRH costs increase from $76 million in 2016 to $128 million in 2020. Three-fourths of these costs are for health workers' salaries, which increase over time due to planned increases in the number of HRH and real salary increases of 5 percent annually. The total number of HRH in Cambodia is estimated to increase from 25,294 in 2016 to 37,925 in 2020 based on meeting facility-staffing norms. In 2020, there will be an estimated 8 nurses and 2.4 doctors per 10,000 people in Cambodia.

## Table 18-2 Costs by HSP3 Strategic Objective

| | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|---|---|---|---|---|---|---|
| **SO 1- Health programs** | **$ 274,138,909** | **$ 268,310,429** | **$ 288,926,336** | **$ 299,853,694** | **$ 315,192,030** | **$ 1,446,421,399** |
| **SO 1.1 - SRH** | $ 3,528,290 | $ 4,824,364 | $ 5,011,158 | $ 5,204,159 | $ 5,408,761 | $ 23,976,732 |
| **SO 1.2 - MNH & PMTCT** | $ 90,818,088 | $ 75,517,969 | $ 68,328,881 | $ 65,370,510 | $ 63,235,203 | $ 363,270,651 |
| **SO 1.3 - CH & Immunization** | $ 44,642,264 | $ 37,908,604 | $ 36,796,384 | $ 40,189,880 | $ 37,936,561 | $ 197,473,692 |
| **SO 1.4 - Nutrition** | $ 4,308,878 | $ 4,144,226 | $ 4,983,715 | $ 4,830,020 | $ 6,257,158 | $ 24,523,997 |
| **SO 1.5 - HIV** | $ 23,877,492 | $ 25,026,212 | $ 25,201,570 | $ 25,395,499 | $ 26,230,367 | $ 125,731,140 |
| **SO 1.6 - TB** | $ 27,754,343 | $ 26,978,301 | $ 27,337,382 | $ 29,918,995 | $ 29,611,222 | $ 141,600,243 |
| **SO 1.7 - Malaria & Dengue** | $ 21,657,056 | $ 23,037,343 | $ 38,653,991 | $ 25,356,794 | $ 23,665,638 | $ 132,370,822 |
| **SO 1.8 – Parasites** | $ 4,770,000 | $ 4,962,000 | $ 5,228,200 | $ 5,631,020 | $ 5,843,122 | $ 26,434,342 |
| **Emerging disease** | $ 3,595,217 | $ 3,698,980 | $ 4,173,730 | $ 4,825,165 | $ 5,660,498 | $ 21,953,590 |
| **SO 1.9- NCD (risk factors, detections)** | $ 14,332,912 | $ 20,755,399 | $ 28,362,524 | $ 40,096,849 | $ 52,077,110 | $ 155,624,793 |
| **SO 1.10 – NCD (Acute events)** | $ - | $ - | $ - | $ - | $ - | $ - |
| **SO 1.11 - Mental health** | $ 3,263,144 | $ 5,492,963 | $ 6,457,215 | $ 9,720,414 | $ 10,337,049 | $ 35,270,786 |
| **SO 1.12 - Blindness & hearing** | $ 14,356,046 | $ 17,121,311 | $18,605,798 | $ 22,548,233 | $ 26,861,494 | $ 99,492,881 |
| **SO 1.13 –Food safety, hygiene, sanitation** | $ - | $ - | $ - | $ - | $ - | $ - |
| **SO 1.14 - Drugs, alcohol, tobacco** | $ 12,166,564 | $ 13,291,872 | $ 13,695,628 | $ 14,061,136 | $ 14,660,394 | $ 67,875,594 |
| **SO 1.15 - Injuries & disabilities** | $ 4,362,681 | $ 4,835,435 | $ 5,365,816 | $ 5,972,632 | $ 6,667,893 | $ 27,204,458 |
| **- Disaster preparedness** | $ 705,935 | $ 715,450 | $ 724,343 | $ 732,388 | $ 739,561 | $ 3,617,677 |
| **SO 2 - Financial risk protection** | **$ 26,534,636** | **$ 32,275,716** | **$ 38,284,038** | **$ 44,996,620** | **$ 52,478,538** | **$ 194,569,548** |
| **SO 3 - HRH** | **$ 76,205,308** | **$ 86,785,092** | **$ 99,606,134** | **$ 113,349,697** | **$ 128,111,355** | **$ 504,057,585** |
| **SO 4 - Supplies & equipment** | **$ 14,551,045** | **$ 14,776,214** | **$ 18,088,718** | **$ 18,058,428** | **$ 20,193,186** | **$ 85,667,591** |
| **SO 5 - Infrastructure** | **$ 136,709,041** | **$ 138,627,055** | **$ 140,545,069** | **$ 142,463,083** | **$ 144,381,097** | **$ 702,725,346** |
| **SO 6 - HIS** | **$ 3,367,725** | **$ 4,034,556** | **$ 2,377,804** | **$ 2,473,604** | **$ 2,307,004** | **$ 14,560,692** |
| **SO 7 - Governance** | **$ 5,296,849** | **$ 4,917,917** | **$ 4,837,577** | **$ 5,316,201** | **$ 5,397,895** | **$ 25,766,439** |
| **Total** | **$ 536,803,514** | **$ 549,726,979** | **$ 592,665,676** | **$ 626,511,327** | **$ 668,061,105** | **$ 2,973,768,601** |

SO: Strategic Objective
SO 1.10 and 1.13 costing data are not available

## 18.4 RESOURCE AVAILABILITY AND FUNDING GAP

### Methodology

Financial resources that could be mobilized from the government, development partners, and households were estimated for the HSP3. Comparing resources needed to resources available for the HSP3 can help determine if current sources will be sufficient or if new sources must be found to reach the public health targets in HSP3. Government contributions to health were modelled based on annual GDP growth of about 7 percent and meeting the MOH target of increasing government expenditure from 1.3 percent to 2 percent of GDP from 2016 to 2018. External resources were modelled based on WHO projections in donor funding. Lastly, private expenditure projections were based on regression projections of total health expenditure, minus the estimated government expenditure and external resources.

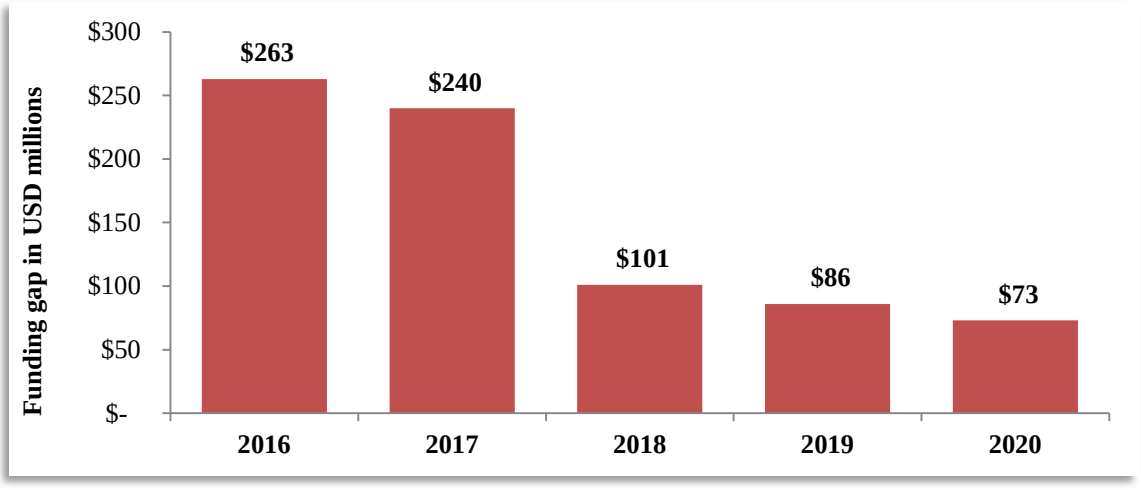
### Resources available for health

Total health expenditure (THE) is estimated to increase from $1,365 million in 2016 to $2,013 million in 2020. The government proportion of THE is estimated to increase from 20 percent to 30 percent from 2016 to 2020, which may be ambitious. Private expenditure as a proportion of THE is estimated to decrease slightly from 66 percent to 62 percent in the same timeframe. Donor contributions represent the smallest proportion of THE at 14 percent in 2016, and projected declines in donor support result in donors representing approximately 8 percent of THE in 2020.

### Funding gap

Even with ambitious assumptions for growth in government contributions to health, just 74% of the five-year HSP3 costs can be filled by projected government health expenditure. The difference between HSP3 costs and government expenditure is largest in the first year at $263 million. The gap decreases over time to $73 million by 2020. The HSP3 has an estimated $763 million funding gap from 2016-2020 that must be filled by donor and other funding sources. Projections in THE and donor funding indicate that donors and private expenditure may be able to fill this gap.

**Figure 18-1 Funding gap (Fiscal space vs. HSP3 costs)**



# 19. Monitoring and Evaluation

## 19.1 INTRODUCTION

A major purpose of monitoring is to track progress over the life-course of the HSP3 implementation in pursuit of achieving health and health related HDGs's targets, while evaluation of the plan will measure whether the HDGs' targets are achieved as intended. It is envisioned that a stronger M&E system further promotes accountability for results among a wider range of key stakeholders in and outside the sector.

The M&E framework will be reviewed periodically, when and where appropriate, to ensure that collected information is useful to help policymakers make informed decisions about competing policy and strategy alternatives. This is also the case for health planners and managers to improve health service management, including planning over the course of the HSP3 implementation.

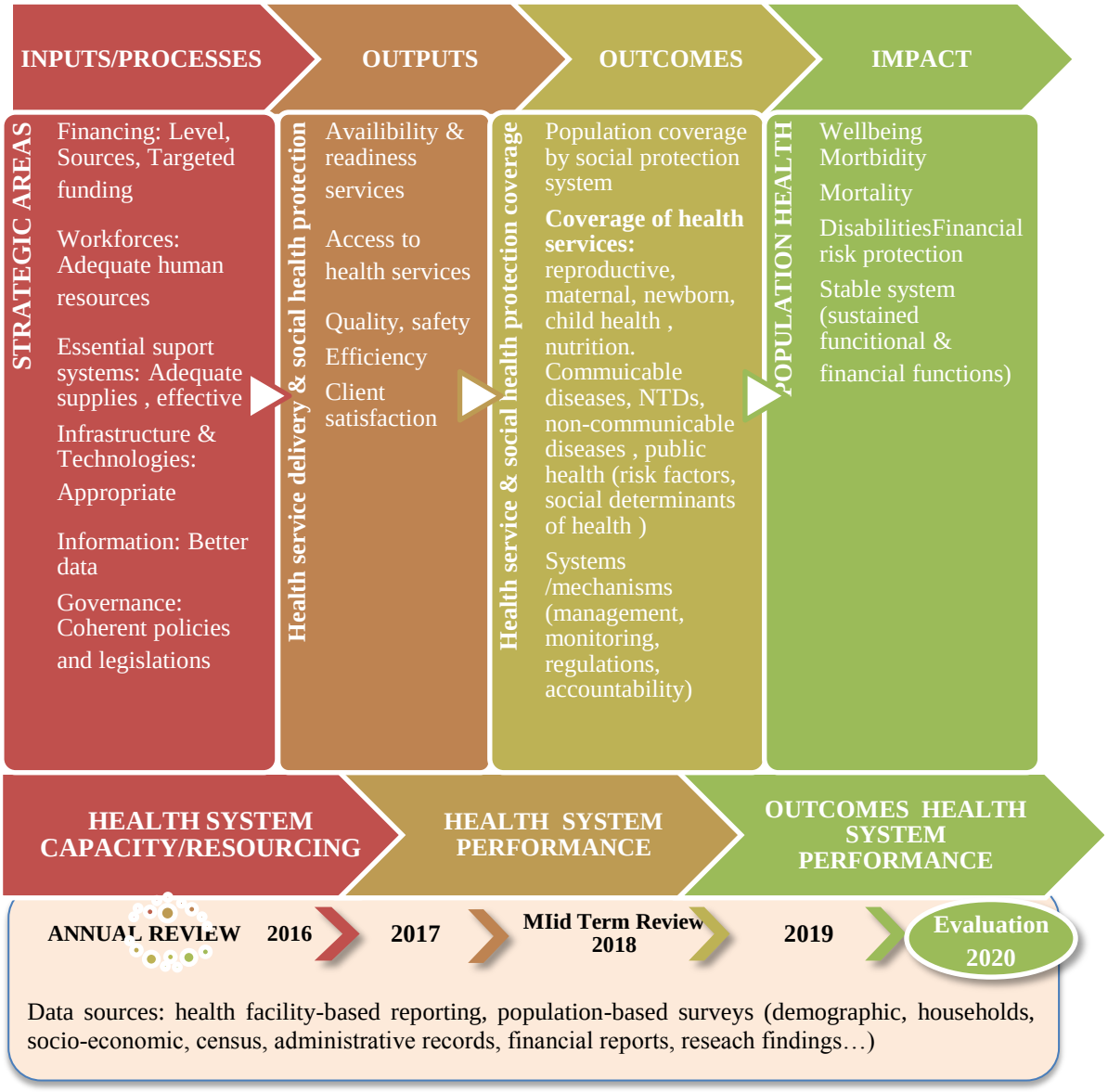
M&E promotes the use of both qualitative and quantitative health and health-related data and information. The processes require real-time and high quality health and health-related data/information from reliable sources, and also institutional capacity at all levels to effectively carry out monitoring functions. These functions include data collection and compilation, analysis and interpretation and reporting, as well as using monitoring results to support decision-making and, most importantly, improve health service delivery.

## 19.2 MONITORING AND EVALUATION

As a matter of principles and practices, M&E intends to strengthen a linkage between resources and implementing strategic interventions/activities, and, ultimately with results — HSP3's strategic objectives and HDGs' targets. In other words, it allows assessing the health system resources and capacity in relation to intermediate results of the health system performance—services delivery/coverage, financing mechanisms and system development, and to its ultimate outcomes—population health. In this regard, M&E tracks progress and measures achievements of the HSP3 in **seven cross-cutting strategic areas** or domains by using **four different types of indicators:** i) inputs and processes, ii) outputs, iii) outcomes, and iv) impacts. This happens through annual health sector performance reviews, followed by a mid-term review, and a final-review (end-year evaluation). The annual health sector performance review is an integral part of the annual

health planning process (Step 1 of the planning cycle as described in #17.5 (Chapter 17). Figure 18.1 illustrates the M&E technical framework for the HSP3.

**Figure 19-1 M&E Technical Framework for HSP3**




## 19.3 National Indicators Framework For M&E

The national indicator framework presented in Annex 3 is the M&E tool to monitor and evaluate the HSP3. This tool is generally applicable for use at different levels of the health system and by relevant stakeholders. Indicators are developed based on the following criteria:

- Align with 'health' (CSDG 3) and 'health-related' indicators (other CSDGs): inter-linking between health and social determinants of health— socio-economic development;
- Be consistent with population health needs: focus on key stages in life, from newborn to old age (a life-cycle approach);

- Track health system performance and UHC:

  - ✓ Address HSP3 potential priority areas for action- health system and program development/interventions;
  - ✓ Minimize number of indicators based on the existing data & information collected - best available information;
  - ✓ Balance types of indicators, if possible;
  - ✓ Equity-focused analysis: disaggregated information; and
  - ✓ Be used for evidence-based policy and program development

## 19.4 MONITORING & EVALUATION PROCESSES

Monitoring processes in the health sector occur at all levels within the health system. The processes include mid-year progress review and annual performance review at the sector level, and quarterly and annual reviews at provincial and district level, as well as at individual health institutions.

Monitoring activities at the health sector level (including MTR) and a final-evaluation of HSP3 are managed, facilitated and coordinated by the DPHI, with technical support of the four the MoH taskforces for M&E of HSP3, namely, RMNCHN, CD, NCD & Public Health, and HSS. The Taskforces comprise technical officers of both MoH (Departments, National Centers/Programs and National Hospitals) and Development Partners. Operational District Officess and Provincial Health Departments are responsible to organize quarterly and annual reviews at district and provincial level respectively, and submit their annual review report to DPHI. At facility level, HCs and RHs conduct their quarterly and annual reviews and submit their annual review reports to the respective Operational District Offices. Individual health institutions at the central level also carry out their quarterly and annual reviews and submit their annual review report to DPHI (Figure 19.2).

### Data Sources

Monitoring activities require health institutions at all levels to collect and compile, analyze and interpret the collected health and health-related data and information according to their monitoring purposes -e.g. quarterly or annual review.

Health and health-related data on different types of indicators can be collected through the existing data sources. Those sources include, but are not limited to:

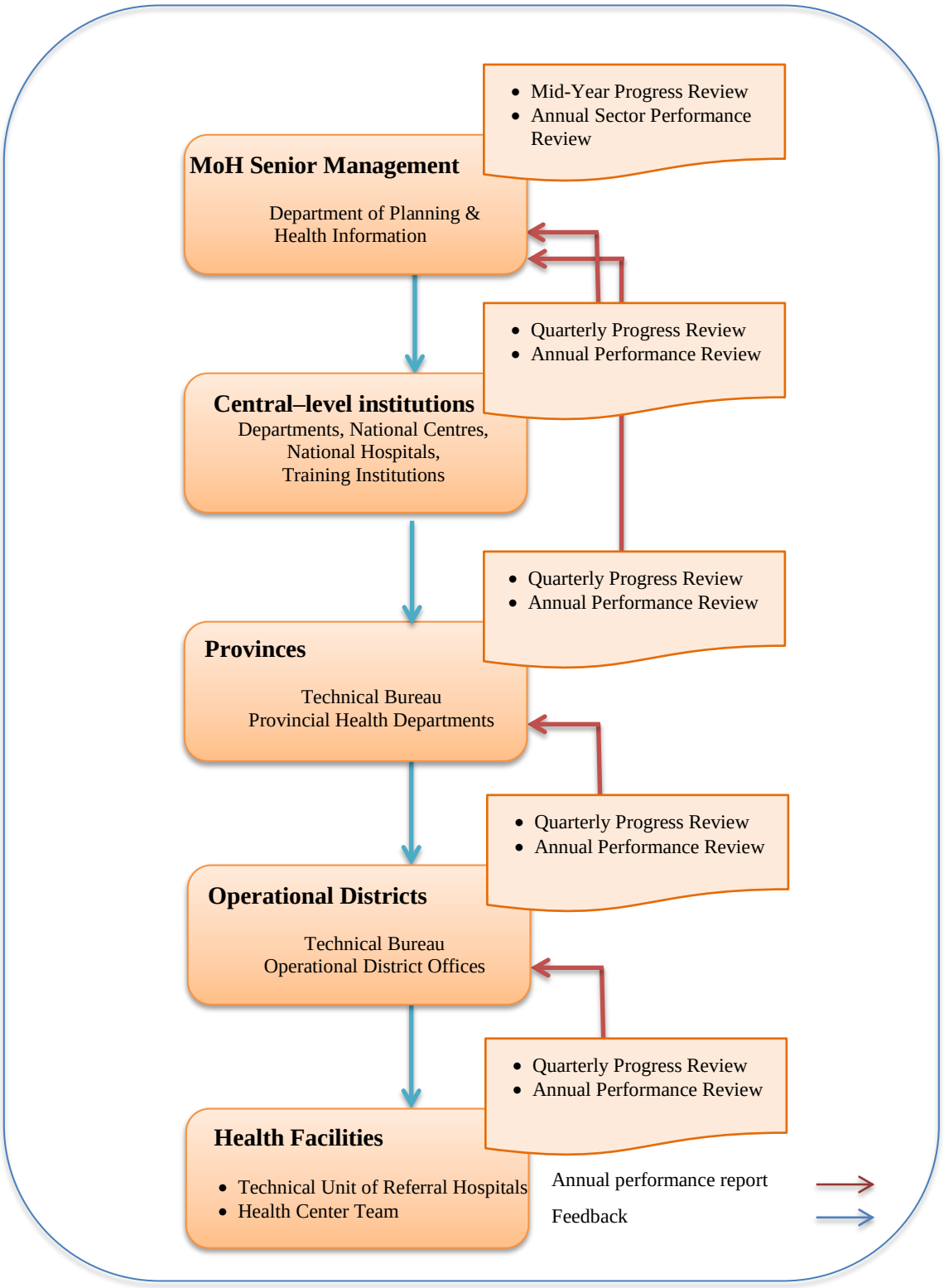
- HMIS and Patient Medical Registration System — routine facility-based reporting; providing most of data on health service coverage;

- Census, Demographic and Health Surveys, and Cambodian Socio Economic Surveys—periodically at 3-5 years interval. These population-based surveys provide health and health related data/information, including demographics, access and coverage of health services, health and wellbeing, health related-expenditure, and social determinants of health.

- Other sources: most data/information concerning the system's resources and capacity can be collected through Annual Health Financing Report and National Health Account Report, HCP, Annual Report on Human Resource Development, Administrative and financial records, assessment/study/research findings.

Given limitations associated with each source of data in relation to specific purposes, the MoH department(s) and the national program(s) may collect additional information. Likewise the PHDs/ODs may also collect additional information on key indicators for operational and service planning. Data on indicators for provincial management and services are submitted annually to the DPHI. Some national level indicators are collected at provincial and/or district level and therefore serving two purposes: informing national policy and monitoring provincial or district planning.

## Figure 19-2 Monitoring Activity and Reporting



# ANNEX 1 LIST OF TASK TEAM

## 1. Health Service Delivery

| | | |
|---|---|---|
| Dr. Mao Tan Eang | Director of National Center for TB and Leprosy Control | Chair |
| Dr. Prak Sophorneary | Deputy director of NCMCH | Member |
| Dr. Kim Sa Vaun | Deputy director of Hospital Service Department | Member |
| Dr. Kheng Sim | Deputy director of Communicable Disease Department | Member |
| Dr. Mony Sothara | Deputy director of Mental Health Department | Member |
| Mr. Mao Sok Lim | Deputy director of National Center for Traditional Medicine | Member |
| Dr. Chhun Lun | Deputy chief of bureau for non-communicable disease control | Member |
| Prof. Koy Vanny | Deputy chief of technical bureau, calmet hospital | Member |
| Dr. Dor Seiha | Deputy chief of Eye department, Cambodian-Russian Friendship Hospital | Member |
| Dr. Lam Phirun | Chief of reproductive health program, NMCHC | Member |
| Dr. Chheng Morn | Deputy chief of National Immunization Program | Member |
| Dr. Samrith Sovannarith | Deputy chief of technical bureau, NCHADS | Member |
| Dr. Siv Sovannaroth | Deputy chief of technical bureau, CNM | Member |
| Dr. Kou Eang Ou | Deputy director of Planning and HIS department | Secretary |
| Representatives | Australian Cooperation | Member |
| Representatives | UNICEF, UNFPA, WHO, USAID, GIZ, JICA, Marie Stopes | Member |

## 2. Health Financing

| | | |
|---|---|---|
| Dr. Sok Kanha | Deputy director of Planning and HIS department | Chair |
| Dr. Sung Vintak | Director of Department of International Cooperation | Member |
| Mr. Ros Chhun Eang | Chief of Health Financing and Economic bureau | Member |
| Mr. To So Phorn | Chief of Clearance Bureau, Department of Budget and Finance | Member |
| Ms. Doung Dary | Officer of Department of Drug, Food and Cosmetic | Member |
| Dr. Bun Samnang | Deputy chief of health financing and economic bureau | Secretary |
| Representative | Australian Cooperation | Member |
| Representatives | UNFPA, World Bank, WHO, JICA, USAID, KOIKA, PSK | Member |

## 3. Human Resource Development

| | | |
|---|---|---|
| Dr. Touch Sok Neang | Deputy director human resource development department | Chair |
| Mr. Yin Cham Roen | Deputy director personnel department | Member |
| Ass Prof. Chhap Seak Chhay | Deputy director, NIPH | Member |
| Dr. Sok Chheng | Deputy director, Kampot regional training center | Member |

| | | |
|---|---|---|
| Dr. Kim Sothea | Chief of planning bureau, UHS | Member |
| Dr. Lon Mondul | Deputy chief of planning bureau | Secretary |
| Representatives | UNFPA, World Bank, WHO, JICA, CDRI, Save The Children | Member |

## 4. Health Information System

| | | |
|---|---|---|
| Dr. Khol Khemrary | Chief of HIS bureau | Chair |
| Dr. Chreng Sok Leang | Deputy director, personnel department | Member |
| Dr. Sao Sokunna | Deputy director, hospital service department | Member |
| Dr. Veng Chhay | Chief of registration bureau, human resource development department | Member |
| Dr. Khun Kim Eam | Deputy chief of bureau, National Center for TB and Leprosy Control | Member |
| Phar. Nhem Narin | Deputy chief of legislation bureau | Member |
| Dr. Tol Bun Kea | Chief of Epidemiology, CNM | Member |
| Mr. Buth Saben | Deputy chief of HIS bureau | Secretary |
| Representative | WHO, Partnership For Better Health, PEPFAR | Member |

## 5. Essential Support Services and Health Infrastructure Development

| | | |
|---|---|---|
| Dr. Sok Srun | Director, Hospital Service Department | Chair |
| Dr. Hok Kim Cheng | Director, National Blood Center | Member |
| Phar. Buth Sokhorl | Deputy director, NIPH | Member |
| Phar. Brao Chheanghor | Deputy director, National Laboratory | Member |
| Phar. Va Sokea | Deputy director, CMS | Member |
| Mr. Heng Sokeat | Chief of Bureau of Management of state property and infrastructure | Member |
| Phar. Tei Yu Kiv | Deputy chief of essential drug bureau | Member |
| Dr. Chhev Mony | Deputy director, planning and HIS department | Secretary |
| Representative | World Bank, KfW, JICA, UNFPA, UNICEF, WHO, US CDC, ASHA | Member |

## 6. Health System Governance

| | | |
|---|---|---|
| Dr. Mey Sambo | Director, personnel department | Chair |
| Dr. Iv So Punh | Director, internal audit department | Member |
| Dr. Sok Po | Deputy director, Hospital Service Department | Member |
| Mr. Kong Sruon | Chief of control bureau, Internal Audit Department | Member |
| Dr. Peng Pisith | Chief of bureau, department of legislation | Member |
| Mr. Non Sovathana | Chief of admin bureau | Member |
| Phar. Tong Bun Harch | Officer, Department of drug, food and cosmetic | Member |
| Dr. Ly Vichearavuth | Deputy director, planning and HIS department | Secretary |
| Representative | World Bank, WHO, GIZ, CRS | Member |

## 7. Costing Working Group

| | | |
|---|---|---|
| Dr. Lo Veasnakiry | Director, Planning and HIS Department | Chair |
| Dr. Phum Sam Song | Deputy director, human resource development department | Member |
| Dr. Teng Srey | Deputy director, Communicable disease department | Member |
| Dr. Meas Tha | Deputy director, CNM | Member |
| Phar. Va Sokea | Deputy chief, CMS | Member |
| Dr. Bun Sreng | Deputy director, communicable disease control department | Member |
| Dr. Ly Vichearavuth | Deputy director, planning and HIS department | Member |
| Dr. Khol Khemrary | Chief of HIS bureau | Member |
| Mr. Ros Chhun Eang | Chief of health financing and economic bureau | Member |
| Dr. Lon Mondul | Planning and HIS department | Member |
| Dr. Bun Sam Nang | Planning and HIS department | Member |
| Dr. Chhun Lun | Preventive Medicine Department | Member |
| Dr. Ean Sok Keu | Preventive Medicine Department | Member |
| Dr. Eung Sanyvannak | Personnel Department | Member |
| Dr. Sam Seiharoth | Hospital Service Department | Member |
| Dr. Chhea Rina | NMCHC | Member |
| Dr. Sean Sou Chitra | NMCHC | Member |
| Dr. Keo Ny | NMCHC | Member |
| Dr. Keo Samley | NMCHC | Member |
| Dr. Chhe Tepirou | Preventive Department | Member |
| Dr. Punly Nimol | NCHADS | Member |
| Dr. Tol Bunkea | CNM | Member |
| Dr. Nou Chhan Ly | National Center for TB and Leprosy Control | Member |
| Mr. Ketmeach Daren | Department of Budget and Finance | Member |
| Ms. Tang Molynich | Department of Budget and Finance | Member |
| Mr. Bun Naron | Department of drug, food, Medical Equipment and cosmetic | Member |
| Mr. Sek Sokna | Department of Planning and Health Information | Member |
| Mr. Sao Kim San | Department of Planning and Health Information | Member |
| Representative | WHO | Member |

## 8. Secretariat (Supporting Team)

| | | |
|---|---|---|
| Dr. Lo Veasna Kiry | Director, Department of Planning and Health Information (DPHI) | Chair |
| Dr. Khou Eang Ou | Deputy director, DPHI | Member |
| Dr. Chhev Mony | Deputy director, DPHI | Member |
| Dr. Ly Vichearavuth | Deputy director, DPHI | Member |
| Dr. Lun Mondul | Chief of Policy & Planning Bureau, DPHI | Member |
| Dr. Ngin Seilaphang | Vice Chief of Policy & Planning Bureau, DPHI | Member |

| | | |
|---|---|---|
| Dr. Bun Sam Nang | Vice Chief of Health Economic & Financing Bureau | Member |
| Ms. Mao Sambath | Officer, DPHI | Member |
| Mr. Sek Sokna | Officer, DPHI | Member |
| Mr. Chap Sat | Officer, DPHI | Member |
| Mr. Srinh Virakpheap | Officer, DPHI | Member |
| Ms. Hout Sopheany | Officer, DPHI | Member |
| Dr. Uy Vengky | National Consultant | Member |
| Dr. Him Phannary | National Consultant | Member |

## Technical officers of health partners and technical assistants

| | | |
|---|---|---|
| Ms. Margot Morris | First Secretary | Embassy of Australia |
| Dr. Premprey Suos | Senior Program Manager (Health), Aid Section | Embassy of Australia |
| Dr. Etienne Poirot | Head of Health and Nutrition | UNICEF |
| Dr. Hong Ratmony | Health Officer | UNICEF |
| Mr. Chum Aun | Health Officer | UNICEF |
| Dr. Marc Derveeuw | Representative | UNFPA |
| Dr. Sok Sokun | Reproductive Health Specialist | UNFPA |
| Mr. May Tum | Assistant Representative | UNFPA |
| Thou Kagnabelle | Maternal Health Officer | UNFPA |
| Ms. Momoe Takeuchi | Senior Programme Management Officer | WHO |
| Mr. Henrik Axelson | Health Financing Advisor | WHO |
| Rajendra-Prasad Yadav | Medical Officer (Stop TB) | WHO |
| Mr. Indrajit Hazarika | Technical Officer Human Resource for Health | WHO |
| Vanchinsuren Lkhagvadorj | Technical Officer Pharmaceuticals | WHO |
| Dr. Sovanratnak Sao | Technical Officer | WHO |
| Ms. Sheri-Nouane Duncan-Jones | Director, Office of Public Health and Education | USAID |
| Dr. Chantha Chak | HSS Team Leader | USAID |
| Dora Warren | Country Director | US-CDC |
| Ms. Laura Rose | Task Team Leader | World Bank |
| Ms. Pema Lhazom | Senior Operations Officer | World Bank |
| Ms. Nareth Ly | Operations Officer | World Bank |
| Mr. Miguel Angel San Jaoquin Polo | Analytical and Advisory Activities | World Bank |
| Ms. Birgit Strube | First Secretary | German Embassy |
| Mr. Bernd Schramm | Social Health Protection Manager | GIZ |
| Dr. Vanny Peng | Social Health Protection Project | GIZ |
| Dr. Bart Jacob | Social Health Protection Policy Advisor | GIZ/P4H |
| Mr. Gerald Läzer | Country Director | KfW |
| Ms. Yena Sung | Program Specialist | KOICA |
| Mr. Kunihiro Inokuchi | Representative | JICA |
| Mr. Kojima Shinichiro | Project Coordinator | JICA |
| Ms. Mizusawa Aya | Program Officer | JICA |
| Mr. Soun Veasna | Program Officer | JICA |
| Ms. Vong Srey Touch | Researcher | CDRI |
| Ros Senghak | Health Capacity Building Manager | Save the Children |
| Carrie Whitlock | PEPFAR Coordinator | USG |
| Dr. Mean Rotannak Sambat | Executive Director | Partnership for Better Health |
| Jacqueline Chen | Country Director | ASHA |
| Dr. Sok Pun | Program Manager | CRS |
| Michelle Phillips | Country Director | Marie Stopes |
| Dr. Chi Socheat | Executive Director | PSK |

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**Burden of Disease Assessment Consultant,** Dr. Rao Chalapati

# ANNEX 2 THE MINISTRY OF HEALTH CENTRAL LEVEL INSTITUTIONS

National Maternal and Child Health Center
National Center for Tuberculosis and Leprosy Control
National Center for HIV/AIDS, Dermatology and Sexually Transmitted Infections
National Center for Parasitology, Malariology and Entomology
National Center for Medical Laboratory
National Center for Blood Transfusion
National Center for Health Promotion
National Center for Traditional Medicines
Central Medical Store
Calmette Hospital
Prah Ang Duong Hospital
Prah Kossamak Hospital
Khmer Societ Friendship Hospital
National Pediatric Hospital
Kuntha Bopha Hospital
Jayvarman Hospital
University of Health Sciences (including Technical School for Medical Care)
National Institute of Public Health
Secondary Technical School for Health Battambang
Secondary Technical School for Health Kompot
Secondary Technical School for Health Kompong Cham
Secondary Technical School for Health Stung Treng

# ANNEX 3 National Indicators Framework for Monitoring & Evaluation of HSP3

## ក្របខ័ណ្ឌសូចនាករនៃការពិនិត្យតាមដាននិងវាយតម្លៃផែនការយុទ្ធសាស្ត្រសុខាភិបាល២០១៦-២០២០

| | សូចនាករ (Indicators) | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| | **កម្រិតនៃការអភិវឌ្ឍន៍ទូទៅ**<br>Country Overall Development | | | | | | |
| 1. | អាយុកាលរំពឹងទុកនៃការរស់នៅ( ចំនួនឆ្នាំ )<br>Live expectancy at birth (number of years) | | | | | | |
| | • ប្រុស (Male) | 67.5[1] | | | | | |
| | • ស្ត្រី (Female) | 71.4[1] | | | | | |
| 2. | អត្រាផ្តល់កំណើតសរុប( ចំនួនកូនកើតក្នុងស្ត្រីម្នាក់ )<br>Total fertility rate (expressed per woman) | 2.7[2] | | | | | 2.1 |
| 3. | សន្ទស្សន៍អភិវឌ្ឍមនុស្សជាតិ<br>Human Development Index | 0.555[3] (2014) | | | | | |
| | **គោលដៅយុទ្ធសាស្ត្រទី ១ Strategic Objective 1** | | | | | | |
| | **កម្រិតទូទៅនៃការប្រើប្រាស់សេវាថែទាំសុខភាព** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| 4. | ពិនិត្យពិគ្រោះជំងឺថ្មីសម្រាប់ប្រជាជនមួយនាក់ក្នុងមួយឆ្នាំ ( ចំនួនលើក )<br>OPD consultations (new cases only) per person per year | 0.61[4] | 0.65 | 0.70 | 0.75 | 0.80 | 0.85 |
| 5. | អត្រាប្រើប្រាស់គ្រែ<br>Bed occupancy rate (%) | 87[4] | 95 | 95 | 95 | 95 | 95 |
| 6. | អត្រាស្លាប់នៅមន្ទីរពេទ្យ<br>Hospital mortality rate (%) | 0.98[4] | <1 | <1 | <1 | <1 | <1 |
| 7. | រយៈពេលមធ្យមនៃការសម្រាកព្យាបាល ( ចំនួនថ្ងៃ )<br>Average Length of Stay (no. of days) | 5[4] | 5 | 5 | 5 | 5 | 5 |
| 8. | ចំនួននិងភាគរយនៃមូលដ្ឋានសុខាភិបាលដែលពិន្ទុគុណភាពសេវាថែទាំសុខភាពកើនឡើង២០ពីឆ្នាំមុនៗ%<br>Number and % of health facilities that increased quality score by 20% from the previous year | BBE[5] | | | | | |
| | • ចំនួននិងភាគរយនៃមន្ទីរពេទ្យបង្អែក<br>Number and % of Referral Hospitals | | | | | | |
| | • ចំនួន និងភាគរយនៃមណ្ឌលសុខភាព<br>Number and % of Health Center | | | | | | |

| | សុខភាពបន្តពូជ មាតា ទារក កុមារ និងអាហារូបត្ថម្ភ<br>Maternal, Newborn, Child health & Nutrition | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| 9. | សមាមាត្រនៃស្ត្រីក្នុងវ័យបន្តពូជ១៥)-៤៩ឆ្នាំដែលត្រូវការ (<br>សេវាផែនការគ្រួសារបានពេញចិត្តនឹងវិធីពន្យាកំណើតទំនើប<br>Proportion of women of reproductive age (aged 15- 49 years) who have their need for family planning satisfied with modern | 57[2] | | | | | 62 |
| 10. | %ស្ត្រីក្នុងវ័យបន្តពូជ១៥)-៤៩ឆ្នាំ( ដែលចង់ពន្យាកំណើត<br>កូនបន្ទាប់ឬបឈប់កំណើតតែម្តង<br>Unmet need for family planning (15-49 years) | 10[2] | | | | | 7 |
| 11. | អត្រាផ្តល់កំណើតលើស្ត្រីអាយុ១៥-១៩ឆ្នាំ<br>Adolescent birth rate aged 15-19 years | 56[2] | | | | | 51 |
| 12. | អត្រាប្រើវ៉ាឡង់នៃការប្រើប្រាស់វិធីសាស្ត្រពន្យាកំណើតទំនើប<br>Contraceptive prevalence (modern methods) (%) | 40[2] | 41 | 42 | 43 | 44.5 | 46 |
| 13. | ភាគរយនៃស្ត្រីវ័យជំទង់អាយុ១៥-១៩ឆ្នាំមានគភ៌<br>Teenage pregnancy 15 -19 years | 11.5[2] | | | | | 8 |
| 14. | អត្រារំលូតកូន<br>Abortion rate | 3.2[2] | | | | | 2.0 |
| 15. | អត្រាមរណភាពមាតា<br>Maternal mortality ratio | 170[2] | | | | | 130 |
| 16. | អត្រាស្លាប់ទារក ក្នុង ១000 ទារកកើតរស់<br>Neonatal mortality rate per 1,000 live births | 18[2] | | | | | 14 |
| 17. | អត្រាមរណៈភាពកុមារក្រោម៥ឆ្នាំ(ក្នុង១000ទារកកើតរស់(<br>Child under 5 years mortality rate | 35[2] | | | | | 30 |
| 18. | ប្រើវ៉ាឡង់នៃភាពស្លេកស្លាំងលើស្ត្រីក្នុងវ័យបន្តពូជអាយុពី<br>១៥-៤៩ឆ្នាំ (%)<br>Anemia prevalence in women of reproductive age | 33[2] | . | . | | . | 27 |
| 19. | អត្រាក្រិនលើកុមារអាយុក្រោម៥ឆ្នាំ<br>Stunting among children aged under 5 years-old | 31.5[2] | | | | | 25 |
| 20. | សមាមាត្រនៃការសំរាលដោយបុគ្គលិកសុខាភិបាលមាន<br>ជំនាញ<br>Proportion of births delivery by skilled health personnel (%) | 89[2] | 89 | 89 | 89 | 90 | 90 |
| 21. | សមាមាត្រនៃការសំរាលនៅមូលដ្ឋានសុខាភិបាល<br>Proportion of births delivery at health facilities | 84[2] | 86 | 87 | 88 | 89 | 90 |
| 22. | អត្រាសំរាលដោយវិធីវះកាត់%គិតជា )នៃទារកកើតរស់(<br>Caesarean section rate (% of live births) | 6.3[4] | 7 | 7.5 | 8 | 9 | 10 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 23. | ភាគរយនៃស្ត្រីមានគភ៌ទទួលការថែទាំមុនសម្រាល៤លើកដោយបុគ្គលិកសុខាភិបាល<br>Percentage of pregnant women who received ANC4 consultation by health personnel | 79[4] | 82 | 85 | 87 | 88 | 89 |
| 24. | ភាគរយនៃស្ត្រីសំរាលទទួលការពិនិត្យថែទាំក្រោយសំរាលលើកទី១ដោយបុគ្គលិកសុខា (ម៉ោងក្រោយសំរាល ៤៨មុន) ភិបាល<br>Percentage of post-partum women who received PNC consultation by health personnel | 90[4] | 94 | 96 | 98 | 99 | 100 |
| 25. | ភាគរយនៃកុមារបានទទួលការបំបៅដោយទឹកដោះម្តាយក្នុងអំឡុងពេលមួយម៉ោងដំបូងក្រោយកំណើត<br>Percentage of infant who were breastfed within 1 hour of birth (as percentage of live births) | 70[4] | 75 | 85 | 90 | 95 | >95 |
| 26. | សមាមាត្រកុមារអាយុក្រោម៦ខែបានទទួលការបំបៅដោយទឹកដោះម្តាយសុទ្ធតែមួយមុខ<br>Proportion of infants under 6 month exclusive breastfeeding (%) | 77[2] | | | | | 85% |
| 27. | ភាគរយនៃស្ត្រីមានគភ៌បានទទួលគ្រាប់ថ្នាំជីវជាតិដែកអាស៊ីត/គ្រាប់៩០ហ្វូលិក<br>Percentage of pregnant women received folic acid 90 tablets | 73[4] | 73 | 76 | 79 | 82 | 85 |
| 28. | ភាគរយនៃស្ត្រីក្រោយសំរាលបានទទួលគ្រាប់ថ្នាំជីវជាតិដែក/គ្រាប់៤២អាស៊ីតហ្វូលិក<br>Percentage of post-partum women received folic acid 42 tablets | 62[4] | 70 | 75 | 80 | 85 | 90 |
| 29. | ភាគរយនៃកុមារអាយុ ៦ ខែ ៥៩-បានទទួលគ្រប់ថ្នាំជីវជាតិ អា ក្នុងរយៈពេល ៦ ខែចុងក្រោយ (២ជុំទី)<br>Percentage of children 6-59 months received vitamin A during the last 6 months (Round 2) | 90[4] | 91 | 92 | 93 | 94 | 95 |
| 30. | ភាគរយនៃកុមារអាយុ១២ខែ៥៩-បានទទួលថ្នាំទំលាក់ព្រូនមេបង់ជាហ្សូលក្នុងរយៈពេល ៦ ខែចុងក្រោយ(២ជុំទី)<br>Percentage of children 12-59 months received Mebendazole during the last 6 months (Round 2) | 70[4] | 73 | 76 | 79 | 82 | 85 |
| 31. | អត្រាគ្របដណ្តប់នៃវ៉ាក់សាំង៣ដូស បង្ការជំងឺខាន់ស្លាក់ ស្វិតដៃជើង តេតាណូស រលាកសួត<br>DPT-HepB-Hib 3 coverage rate (%) | 95[4] | 95 | 95 | 95 | 95 | 95 |
| 32. | ពិនិត្យពិគ្រោះជំងឺករណីថ្មីលើកុមារអាយុក្រោម៥ឆ្នាំម្នាក់ ក្នុងមួយឆ្នាំ(ចំនួនលើក)<br>OPD consultation (new cases) per children under 5 per year | 1.52[4] | 1.52 | 1.54 | 1.56 | 1.58 | 1.6 |

| | ជំងឺឆ្លងនិងជំងឺតំបន់ត្រូពិក<br>**Communicable Diseases & NTDs** | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|
| 33. | ករណីឆ្លងថ្មីនៃមេរោគអេដស៍ក្នុងចំណោមប្រជាជនដែលគ្មានផ្ទុកមេរោគអេដស៍១០០០នាក់<br>Number of new HIV infection per 1000 uninfected population | 0.05[6] | 0.05 | 0.05 | 0.05 | 0.05 | 0.03 |
| 34. | ឥទ្ធិពលនៃឱសថប្រឆាំងមេរោគអេដស៍ក្នុងចំណោមអ្នកផ្ទុកមេរោគអេដស៍ដែលកំពុងទទួលការព្យាបាលដោយឱសថប្រឆាំងមេរោគអេដស៍<br>Viral suppression among people on antiretroviral therapy | 84[7] | 85 | 87 | 88 | 90 | 90 |
| 35. | ភាគរយនៃមនុស្សពេញអាយុលើសពី១៤ឆ្នាំផ្ទុកមេរោគអេដស៍បានទទួលការព្យាបាលដោយឱសថប្រឆាំងមេរោគអេដស៍<br>Percentage of adult peoples aged above 14 year-olds living with HIV on ART | 79[7] | 83 | 86 | 88 | 91 | 94 |
| 36. | ភាគរយនៃកុមារអាយុក្រោម១៤ឆ្នាំ ផ្ទុកមេរោគអេដស៍បានទទួលការព្យាបាលដោយឱសថប្រឆាំងមេរោគអេដស៍<br>Percentage of children aged 0-14 year-olds living with HIV on ART | 92[7] | 94 | 95 | >95 | >95 | >95 |
| 37. | អាំងស៊ីដង់នៃជំងឺរបេងគ្រប់ទំរង់ក្នុងប្រជាជន១០០០០០នាក់<br>Tuberculosis (TB) Incidence of all forms per 100,000 population | 380[1] | 365 | 350 | 336 | 323 | 310 |
| 38. | អត្រាស្លាប់ដោយជំងឺរបេងក្នុងប្រជាជន១០០០០០នាក់<br>TB mortality rate per 100,000 population | 55[1] | 52 | 49 | 46 | 44 | 41 |
| 39. | អត្រាព្យាបាលជោគជ័យនៃជំងឺរបេង<br>TB treatment success rate (%) | 93[1] | >90 | >90 | >90 | >90 | >90 |
| 40. | ចំនួនករណីស្រាវជ្រាវជំងឺរបេងដែលបានរាយការណ៍<br>TB case detected | 37000[1] | 40300 | 404000 | 40500 | 40600 | 40700 |
| 41. | អាំងស៊ីដង់នៃជំងឺគ្រុនចាញ់ក្នុងប្រជាជន១នាក់០០០.<br>Malaria Incidence per 1,000 population | 2.00[4] | 1.85 | 1.65 | 1.45 | 1.25 | 1.05 |
| 42. | អត្រាស្លាប់នៃអ្នកជំងឺគ្រុនចាញ់ដែលសម្រាកព្យាបាលនៅមូលដ្ឋានសុខាភិបាលសាធារណៈ លើប្រជាជន១០០នាក់ ០០០.<br>Inpatient Malaria death per 100,000 population reported in public health facilities (%) | 0.08[4] | 0.08 | 0.08 | 0.08 | 0.08 | 0 |
| 43. | អត្រាស្លាប់ដោយជំងឺគ្រុនឈាម<br>Dengue hemorrhagic fever case fatality rate (%) | 0.5[4] | 0.3 | 0.3 | 0.3 | 0.25 | 0.2 |
| 44. | ប្រេវ៉ាឡង់នៃជំងឺរលាកថ្លើមប្រភេទ បេ ក្នុងចំណោមប្រជាជនទូទៅនិងកុមារអាយុក្រោម៥ឆ្នាំ<br>Hepatitis B Prevalence among general pop. & children aged < 5 (%) | 4.05[8] | | | | | <1 |

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| 45. | អាំងស៊ីដង់នៃជំងឺហង់សិនក្នុងប្រជាជន ១០០នាក់ ០០០.<br>Incidence of Leprosy per 100,000 population | 2.04[9] | 1.60 | 1.43 | 1.26 | 1.12 | 1 |
| | **ជំងឺមិនឆ្លង និងបញ្ហាសុខភាពសាធារណៈ**<br>**Non-communicable diseases** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| 46. | អត្រាស្លាប់ដែលបណ្តាលមកពីជំងឺបេះដូងសរសៃឈាមមហារីក ទឹកនោមផ្អែម ឬជំងឺផ្លូវដង្ហើមរ៉ាំរ៉ៃ ក្នុងចំណោមប្រជាជនអាយុពី ២៥ ទៅ ៦៤ឆ្នាំ<br>Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease among peoples aged 25 to 64 (%) | 36[10] | | | | | 34 |
| 47. | ប្រេវ៉ាឡង់ជំងឺលើសសម្ពាធឈាមក្នុងចំណោមប្រជាជនអាយុ ២៥ឆ្នាំ ៦៤-<br>Prevalence of adults aged 25-64 years who have high blood pressure (%) | 11.2[11] | | | | | 9.80 |
| 48.<br>49. | ភាគរយនៃប្រជាជនអាយុពី ២៥-៦៤ឆ្នាំមានជំងឺលើសសម្ពាធឈាមបានទទួលការព្យាបាល[a]<br>Percentage of adults aged 25-64 with hypertension received treatment | 29[4] | 35 | 45 | 55 | 65 | 75 |
| 50. | ប្រេវ៉ាឡង់នៃជំងឺទឹកនោមផ្អែមក្នុងចំណោមប្រជាជនអាយុ ២៥ឆ្នាំ ៦៤-<br>Prevalence of adults aged 25-64 years with diabetes (%) | 2.9[11] | | | | | 2.5 |
| 51. | ភាគរយនៃប្រជាជនអាយុពី ២៥-៦៤ឆ្នាំមានជំងឺទឹកនោមផ្អែមបានទទួលការព្យាបាល[b]<br>Percentage of adults aged 25-64 with diabetes received treatment | 17[4] | 25 | 35 | 45 | 55 | 65 |
| 52. | ភាគរយនៃស្ត្រីអាយុ ៣០ឆ្នាំ ដែលបានទទួលការ៤៩-ស្រាវជ្រាវរកជំងឺមហារីកមាត់ស្បូនយ៉ាងតិចមួយលើក[c]<br>Percentage of women aged 30-49 years screened for cervical cancer at least once | 1.18%[4] | 3 | 4.5 | 6 | 7.5 | 9 |
| 53. | ចំនួននិងភាគរយនៃប្រជាជនពេញវ័យមានជំងឺធ្លាក់ទឹកចិត្តបានទទួលសេវាព្យាបាល [d]<br>Number and percentage of adult population with depression received treatment | 2%[4] | 10% | 20% | 30% | 40% | 50% |
| 54. | ចំនួននិងភាគរយនៃប្រជាជនប្រើប្រាស់គ្រឿងញៀនបានទទួលសេវាព្យាបាល<br>Number and percentage of people with drug used received treatment | (13,000)<br>22%[12] | 41% | 50% | 60% | 70% | 80% |
| 55. | ប្រេវ៉ាឡង់ខ្វាក់ភ្នែក<br>Prevalence of blindness (%) | 0.38[13] | | | | | 0.30 |
| 56. | អត្រាវះកាត់ជម្ងឺភ្នែកឡើងបាយក្នុងប្រជាជន១ លាននាក់<br>Cataract surgical rate per 1,000,000 population | 1,500[4] | 1,700 | 1,900 | 2,000 | 2,500 | 3,000 |

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| 57. | ប្រ៉ាឡង់នៃការប្រើប្រាស់ថ្នាំជក់ក្នុងចំណោមបុរសស្ត្រីពេញវ័យ<br>Prevalence of tobacco use among male & female population | | | | | | |
| | • អាយុលើសពី១៥ឆ្នាំ<br>Aged >15 years-old (%) | ប/M: 40<br>ស/F 15[11] | | | | | ប/M 34.6<br>ស/F 13.7 |
| | • អាយុពី ១៣-១៥ឆ្នាំ<br>Aged 13-15 years-olds (%) | 6.3[11] | | | | | 5 |
| 58. | ប្រ៉ាឡង់នៃការប្រើប្រាស់សារជាតិអាល់កុលក្នុងចំណោមមនុស្សពេញវ័យ<br>Prevalence of alcohol use among male & female adults (%) | ប/M: 73.3[11]<br>ស/F: 28.9[11] | | | | | ប/M: 70.3<br>ស/F: 25.9 |
| 59. | អត្រាស្លាប់ដោយគ្រោះថ្នាក់ចរាចរក្នុងចំណោមប្រជាជន ១០០នាក់ ០០០.<br>Mortality rate from road traffic injury per 100,000 population | 14.7[14] | 14.2 | 13.72 | 13.23 | 12.74 | 12.25 |
| | **គោលដៅយុទ្ធសាស្ត្រទី២ Strategic Objective2** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| 60. | ចំណាយចរន្តនៃថវិកាជាតិលើសុខភាពគិតជា នៃ % ផលិតផលសរុបក្នុងស្រុក<br>Current expenditure on health as % of GDP | 1.24[15] | 1.50 | 1.75 | 2[16] | 2 | 2 |
| 61. | ចំណាយថវិកាជាតិលើសុខភាពគិតជា នៃចំណាយថវិកាជាតិ %<br>Government health expenditure as percentage of government total expenditure (%) | 6.39[17] | 7 | 7.5 | 8 | 8.5 | 9 [e] |
| 62. | ភាគរយនៃប្រជាជនដែលគ្របដណ្តប់ដោយប្រព័ន្ធគាំពារសុខភាពសង្គម( មូលនិធិសមធម៌និងធានារ៉ាប់រងសុខភាព )<br>Percentage of the population covered by social health protection systems i.e. Health Equity Funds and Social Health Insurance schemes. | 23[18] | | | | | 50[19] |
| 63. | សមាមាត្រនៃគ្រួសារដែលជួបភយន្តរាយនៃការចំណាយលើការថែទាំសុខភាព (នៃចំនួនគ្រួសារសរុប %)<br>Proportion of households with catastrophic expenditure | 4.7[20] | 4.5 | 4 | 3 | 2 | <1 |
| 64. | សមាមាត្រនៃគ្រួសារដែលធ្លាក់ខ្លួនក្រដោយសារការចំណាយលើការថែទាំសុខភាព(នៃចំនួនគ្រួសារសរុប %)<br>Proportion of households impoverished after health payment | 1. 2 [20] | <1 | <1 | <1 | <1 | <1 |
| 65. | ចំណាយប្រាក់ហោប៉ៅលើការថែទាំសុខភាពគិតជា នៃ % ចំណាយសរុបលើការថែទាំសុខភាព<br>Out-of-pocket health expenditure as percentage of the total health expenditure (%) | 67[20] | 62 | 57 | 52 | 45 | <40 |

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| 66. | ជំនួយអភិវឌ្ឍជាផ្លូវការសរុបដល់វិស័យសុខាភិបាល( គិតតែជំនួយឥតសំណង ((%)<br>Total net ODA to the health sector (grant only) | 18[21] | | | | | |
| | **គោលដៅយុទ្ធសាស្ត្រទី៣ (Strategic Objective 3)** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| 67. | ផលធៀបវេជ្ជបណ្ឌិតឆ្មប លើប្រជាជន /យិកា/គិលានុប្បដ្ឋាក/ នាក់១០០០<br>Ratio of physician/nurse/midwife per 1,000 population | 1.5[22] | 1.6 | 1.7 | 1.8 | 1.9 | 2 |
| 68. | ចំនួននិងភាគរយនៃមណ្ឌលសុខភាពមានចំនួនបុគ្គលិកគ្រប់តាមនិយាមចែងក្នុងសេចក្តីណែនាំស្តីពីសំណុំសកម្មភាពអប្បបរិមា MPA<br>Number and percentage of HCs with staff in place as per MPA staffing norm | រកតួលេខដើមគ្រា[22] (BBE) | | | | | |
| 69. | ចំនួននិងភាគរយនៃមន្ទីរពេទ្យបង្អែកមានចំនួនបុគ្គលិកគ្រប់តាមនិយាមចែងក្នុងសេចក្តីណែនាំស្តីពីសំណុំសកម្មភាពបង្គ្រប់<br>Number and percentage of HCs with staff in place as per CPA staffing norm | រកតួលេខដើមគ្រា[22] (BBE) | | | | | |
| 70. | ចំនួននិងភាគរយនៃកំលាំងពលកសុខាភិបាលបានចុះបញ្ជិកាជាមួយគណៈវិជ្ជាជីវៈ<br>Number and percentage of Health workers registered and licensed by health professional councils | 27[23] | 32 | 37 | 47 | 57 | 67 |
| | **គោលដៅយុទ្ធសាស្ត្រទី៤ (Strategic Objective 4)** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| 71. | ភាគរយនៃឱសថ១៥មុខដែលបានកំណត់ក្នុងបញ្ជីឱសថសារវ័ន្តដាច់ស្តុកនៅមណ្ឌលសុខភាព<br>Percentage of HC with stock-out of predetermined 15 items in the national Essential Drug List (%) | <5[24] | <5 | <5 | <5 | <5 | <5 |
| 72. | ចំនួននិងភាគរយនៃមន្ទីរពិសោធន៍ថ្នាក់ជាតិនិងថ្នាក់រាជធានីខេត្តដែលបានអនុវត្តនិតិប្រតិបត្តិស្តង់ដារសម្រាប់មន្ទីរពិសោធន៍<br>Number and percentage of medical laboratories at national and provincial level performed quality assurance and quality control (QA/QC) according to SOP | | | | | | |
| | • មន្ទីរពិសោធន៍បង្អែកជាតិ មន្ទីរពិសោធន៍មន្ទីរពេទ្យជាតិ មន្ទីរពិសោធន៍មន្ទីរពេទ្យកម្រិត CPA3 ថ្នាក់រាជធានីខេត្ត<br>National Referral Lab, National Hospital and CPA3 Hospitals at provincial level (total number 28 lab.) | (11lab.) 40%[25] | 80 | 100 | 100 | 100 | 100 |

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| • មន្ទីរពិសោធន៍មន្ទីរពេទ្យបង្អែក កម្រិត CPA2 ថ្នាក់រាជធានីខេត្តនិងស្រុកប្រតិបត្តិ<br>CPA2 RHs at provincial and district level (total number 35 lab.) | (10 lab.) 28%[25] | 50 | 70 | 80 | 90 | 100 |
| 73. ភាគរយនៃការផ្តល់ឈាមដោយស្ម័គ្រចិត្ត<br>Percentage of voluntary blood donation (%) | 25[26] | 30 | 35 | 40 | 45 | 50 |
| **គោលដៅយុទ្ធសាស្ត្រទី៥ (Strategic Objective 5)** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| 74. ផលធៀបនៃគ្រែមន្ទីរពេទ្យសម្រាប់ប្រជាជន១០០០ នាក់<br>Ratio of hospital bed to 1,000 population | 0.8[4] | 0.9 | 1 | 1 | 1 | 1 |
| 75. ចំនួននិងភាគរយនៃមូលដ្ឋានសុខាភិបាលសាធារណៈមានផ្គត់ផ្គង់ទឹកប្រើ(មណ្ឌលសុខភាពនិងមន្ទីរពេទ្យបង្អែក)ប្រាស់ជាមូលដ្ឋាន<br>Number and percentage of public health care facilities with basic water supply | 106 (90.6%) [27] | | | 93% | | 95% |
| • ចំនួននិងភាគរយនៃមណ្ឌលសុខភាព (HC) | 91 (90.1%) | | | | | |
| • ចំនួននិងភាគរយនៃមន្ទីរពេទ្យបង្អែក (RH) | 15 (93.8%) | | | | | |
| 76. ចំនួននិងភាគរយនៃមូលដ្ឋានសុខាភិបាលសាធារណៈ នៅ)មានបង្គន់អនាម័យជាមូលដ្ឋាន(ផ្នែកពិគ្រោះជំងឺក្រៅ<br>Number and percentage of public health care facilities (Out-Patient Department only) with basic sanitation | 46 (39.3%) [28] | | | | | 90% |
| • ចំនួននិងភាគរយនៃមណ្ឌលសុខភាព (HC) | 36 (35.6%) | | | | | |
| • ចំនួននិងភាគរយនៃមន្ទីរពេទ្យបង្អែក (RH) | 10 (62.5%) | | | | | |
| **គោលដៅយុទ្ធសាស្ត្រទី៦ (Strategic Objective 6)** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| 77. ចំនួននិងភាគរយនៃមណ្ឌលសុខភាពនិងមន្ទីរពេទ្យផ្តល់របាយការណ៍ HC1 និង HO2 ពេញលេញ %១០០)) និងទាន់ពេល(ខែមករា នៃឆ្នាំដែលត្រូវរាយការណ៍ ១៦ត្រឹមថ្ងៃទី)<br>Number and percentage of HC and RH submitted complete (100%) HC1 and HO2 report forms on time (by 16 January of a reporting year) | 85.5[4] | 92 | 94 | 96 | 98 | 100 |
| 78. សន្ទស្សន៍គុណភាពទិន្នន័យសុខាភិបាល<br>Data Quality Index (%) | 91.5[4] | 93 | 95 | 97 | >97 | >97 |
| 79. ចំនួននិងភាគរយនៃសេវាឯកជនមានច្បាប់ដែលបានចុះបញ្ជីក្នុងប្រព័ន្ធគ្រប់គ្រងពត៌មានសុខាភិបាលតាមគេហទំព័របានរាយការណ៍<br>Number and percentage of licensed private providers/facilities registered in HMIS has reported | 25[4] | 35 | 45 | 55 | 65 | 80 |

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| 80. | ភាគរយនៃករណីជំងឺដែលកំណត់ដោយនិយតកម្មសុខភាពអន្តរជាតិត្រូវរាយការណ៍និងករណីជំងឺផ្សេងទៀតដែលត្រូវរាយការណ៍<br>Percentage of new cases of IHR notifiable diseases (IHR) and other notifiable diseases have been notified | 100[29] | 100 | 100 | 100 | 100 | 100 |
| | **គោលដៅយុទ្ធសាស្ត្រទី៧ (Strategic Objective 7)** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** |
| 81. | ចំនួននិងភាគរយនៃអ្នកផ្តល់សេវាសុខាភិបាលឯកជនមូល/ដ្ឋានសុខាភិបាលឯកជនគ្រប់ប្រភេទមានអាជ្ញាប័ណ្ណ<br>Number and percentage of all types of licensed private providers/facilities | 8,488<br>100%[25] | 100% | 100% | 100% | 100% | 100% |
| 82. | ចំនួននិងភាគរយនៃឱសថស្ថានដែលអនុវត្តតាមគោលការណ៍ប្រតិបត្តិល្អនៅក្នុងឱសថស្ថាន<br>Number and % of Good Practice Pharmacies (GPP) | រកតួលេខដើមគ្រា (BBE)[24] | | | | | |
| 83. | ចំនួននិងភាគរយនៃមណ្ឌលសុខភាពដែលមានគណៈកម្មការគ្រប់គ្រងមណ្ឌលសុខភាពដំណើរការតាមមុខងារ<br>Number and percentage of HCs with functioning Health Center Management Committee | 85%[30] | 85 | 85 | 85 | 85 | >85% |

## Sources & Note

(1) Secondary sources: Country Health Profile 2015, World Health Organization
(2) Cambodia Demographic & Health Survey 2014, the Ministry of Planning & Ministry of Health
(3) Human Development Report 2015, UNDP
(4) Health Management Information System, Department of Planning & Health Information, Ministry of Health
(5) Baseline to be established when routine quality monitoring is put in implementation through quarterly quality assessment at health facilities by using the national quality enhancement tools.
(6) Spectrum AEM Survey 2015, National Center for HIV/AIDS, Sexually Transmitted Infections & Dermatology
(7) Annual Report 2015, National Center for HIV/AIDS, Sexually Transmitted Infections & Dermatology
(8) Ranged between 3.57%-4.59% with 581,596 peoples HbSAg positive, Schweitzer global Analysis, Lancet 2015
(9) Annual Report 2015, Leprosy Control Program
(10) SDG Goal3, Target 3.4, Indicator 3.4.1: Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease; *https://unstats.un.org/sdgs/metadata/files/Metadata-03-04-01.pdf*
(11) Cambodia STEPS Survey 2010
(12) Annual Report of Department of Mental Health & Substance Use 2015
(13) Cambodia Blindness Prevalence Survey 2015
(14) RTAVS (Road Traffic Accident & Victim Information System), Ministry of Health, Department of Preventive Medicine
(15) National Health Account 2015, Ministry of Health, Department of Planning & Health Information
(16) Target set in the National Strategic Development Plan 2014-2018, Ministry of Planning
(17) Annual Health Financing Report 2015, Ministry of Health, Department of Planning & Health Information

(18) Annual Health Financing Report 2015, Ministry of Health, Department of Planning & Health Information. Baseline value 2015 included 100% of the poor protected by HEFs.
(19) Target set for 2020 includes the poor, peoples with disability, children<5, civil servant and private employees/workers with their dependents.
(20) Secondary Data Analysis of Cambodia Socio-Economic Survey 2015, Ministry of Health, World Health Organization & GIZ
(21) Development Cooperation & Partnership Report 2016, Council for the Development of Cambodia. This indicator is used to observe trend in ODA to health sector only (net grant)
(22) Personnel Management Database, Ministry of Health, Department of Personnel. Physicians include Specialist Doctor, Medical Doctor and Medical Assistant. Nurses include Bachelor nurse, Primary Nurse and Secondary Nurse. Midwives include Bachelor Midwife, Secondary Midwife and Primary Midwife.
(23) Annual Report of Joint-Secretariat of Medical Council, Pharmacist Council, Dentist Council, Nurse Council and Midwife Council.
(24) Annual Report 2015, Ministry of Health, Department of Drugs, Foods, Medical Equipment & Cosmetics
(25) Annual Report 2015, Ministry of Health, Department of Hospital Services
(26) Annual Report 2015, Ministry of Health, National Center for Blood Transfusion
**(27)** WASH Assessment (in 117 health care facilities in 5 provinces – Kampong Thom, Kampong Chhnang, Tboung Khmom, Kratie and Ratanakiri), health care facilities with basic water supply refer to HCs and RHs where the main sources of water is **an improved source,** from which water is available at the time of assessment. Improved sources of water include pipeline, tube well or borehole, protected dug well and protected rainwater collection.
(28) WASH Assessment (in 117 health care facilities in 5 provinces – Kampong Thom, Kampong Chhnang, Tboung Khmom, Kratie and Ratanakiri), health care facilities with basic sanitation refer to HCs and RHs (out-patient department only) with at least 3 improved and usable toilets with at least one toilet one for women/girl, and located on the facility premises that are functional at the time of visit,
(29) Cambodia Early Warning Response Network (Cam-Ewarn), Ministry of Health, Department of Communicable Disease Control
(30) Annual Report 2015, Ministry of Health, National Center for Health Promotion

(a) Population aging 25-64 is estimated at 6,669,493 in 2015. Based on hypertension prevalence of 11.2% aging 25-64amongst this age group, there is an estimated about 746,983 adult populations with hypertension.
(b) Population aging 25-64 is estimated at 6,669,493 in 2015 and based on diabetes prevalence of 2.9% amongst this age group, there is an estimated about 193,415 adult populations with diabetes.
(c) Married women aging 30-49 is estimated at 1,643,672 in 2015.
(d) Depression is estimated by World Health Organization at 4.4% of the global population. Based on the global prevalence, Population with depression is estimated at 600,000 populations in Cambodia.
(e) Target-set with an increase of 0.5% per annum of the previous year. Noting World Health Organization "The Abuja Declaration: Ten Years On" (September 2000), recommended a target of allocating at 15% of national budget for health by 2025.