Cambodia

1. CONTEXT

1.1 Demographics

The General Population Census of 2008 put Cambodia’s population at 13.4 million by March 2008. The population density is 75 per square kilometre. The male-to-female ratio is gradually normalizing after the distortions caused by 30 years of war during the last century. The average household size is 4.7 people, with 80% of the population living in rural areas. The median age in 2008 was 21 years, about four years more than in 1998.

Mainly due to a decline in early mortality, life expectancy increased in the period from 1998 to 2008 from 52.0 to 60.5 years for males and from 56.0 to 64.3 for females. The total fertility rate dropped from 4.0 births per woman in 2000 to 3.4 in 2005 and decreased further to 3.0 in 2010, achieving the Cambodian Millennium target for 2010, predominantly as a result of a decline in fertility among rural women. The annual population growth rate between 1998 and 2008 declined from 2.5% to 1.5%. Overall, one in every two currently married women use contraceptives, with 35% using modern methods. However, over half currently married women are in need of family planning. The Cambodian Demographic Health Survey (CDHS) 2005 concluded that both education and wealth have an effect on fertility. The interval between births is relatively long, at a median of 36.8 months. The preliminary results of the CDHS 2010 show a decrease in the infant and child mortality rates and continued progress in maternal care, exclusive breastfeeding and immunization, but almost unchanged nutrition rates, compared with 2005.

1.2 Political situation

Since completion of the United Nations Transitional Authority in Cambodia (UNTAC) mission and promulgation of the 1993 Constitution of the Kingdom of Cambodia, increased political stability has allowed economic growth, improvements in human development indicators and reintegration of the country into the international community. Parliamentary elections are held every five years, with the most recent in 2008. A policy of decentralization and deconcentration resulted in the first indirect election of commune representatives at district and provincial levels in 2009. Poverty alleviation and governance are increasingly important items on the Government’s agenda.

In September 2008, the Government issued phase two of its ‘Rectangular Strategy’, with reforms focusing on corruption, the judiciary, public administration and the military as core priorities. The National Strategic Development Plan 2006-2010 was updated until 2013 to align with the governing cycle. Drafted in collaboration with development partners, it combines previous poverty-reduction strategy papers and socioeconomic development plans, and specifies prioritized goals, targets and actions, including the Cambodian Millennium Development Goals.

1.3 Socioeconomic situation

Cambodia has successfully maintained macroeconomic stability since 1993, allowing for an average annual growth rate of 7.1% for the period from 1994 to 2004; increasing to 13.5% in 2005; 10.4% in 2006; 10.2% in 2007; 6.7% in 2008; -2.0% in 2009, when the global economic crises struck; rebounding to an estimated 6.7% in 2010. This growth, while reducing poverty by at least 10%-15%, has increased inequality, as reflected in a Gini coefficient of 42.0 in 2004. Over 85% of the labour force is in the informal sector, with employment in industry (mainly the garment industry) growing substantially during the period from 1998 to 2004, stimulated by preferential trade status with the United States of America. Although the ending of that status did not affect growth, the global economic crisis in 2008-2009 reduced the labour force substantially. The other drivers of recent economic growth, tourism and construction, have also been affected. Agriculture, mainly rice production, accounts for 40% of gross domestic product (GDP) and employs more than 70.0% of the workforce. Annual flooding and drought, however, result in year-to-year fluctuations in agricultural production. Diversifying the rather narrow income base and strengthening rural development are government priorities.
Thirty years of war and serious internal conflict at the end of the last century left Cambodia severely impoverished, with a significant depletion of skilled, educated professionals. In 1990, the Human Development Index (HDI) was 0.51, but by 2007 it had increased to 0.59, moving Cambodia from the low to the medium human-development category. Despite that achievement, however, the country still has some of the worst human development indicators in South-East Asia. In 2010, per capita GDP was US$ 776. In 2009, approximately 28% of the total population are living below the official rural and urban poverty.

The Constitution guarantees women and men the same legal protection. However, women are disproportionately vulnerable in economic terms. While labour-force participation for both is about 60%, over 60% of working women are in unpaid family work, and women head more than 25% of households.

1.4 Risks, vulnerabilities and hazards

Like many developing countries, Cambodia faces a range of vulnerabilities and risks, including traditional, modern and emerging health and environmental risks. These risks emanate from unsafe water and inadequate sanitation; unsafe food supplies, especially from street vendors; indoor air pollution and solid fuel use; and disease-vector transmission. However, the country is also subject to emerging issues, including health risks related to changes in the global environment (e.g. climate change and loss of biodiversity); development, consumption and production of new products and technologies; consumption and production of more energy sources; and the increasing number and use of chemicals. There are also increasing health risks related to changes in lifestyle, urbanization and working conditions. In September 2009, the country was hit by Typhoon Ketsana, causing damage and loss. The typhoon affected 50 000 families, leaving 43 people dead and 67 severely injured.

According to the latest WHO/UNICEF Joint Monitoring Programme (JMP) Report on Drinking Water and Sanitation, published in 2010, only 61% of the total population have sustainable access to an improved water source (81% in urban and 56% in rural areas) and only 29% to improved sanitation (67% in urban and 18% in rural areas). Other environmental health hazards include bacteriological contamination of drinking-water, the most important health-related concern; arsenic in groundwater, which poses a health threat in seven provinces, exposing around 2.24 million people; indoor and urban air pollution, which is a serious health threat due to almost 98% of the population using biomass fuels for cooking or heating; use of banned pesticides and fertilizers, which has the potential to contaminate food and water; and finally, the serious environmental health impacts of solid and hazardous wastes, including health care waste.

Increasingly, the Government is recognizing the risks, vulnerability and hazards posed to the health of the Cambodian people by counterfeit and substandard medicines. Besides wasting the meagre resources available, they deprive people of effective treatment and cause the development of antimicrobial resistance to commonly used antibiotics, antiretroviral drugs and medicines used to treat malaria and tuberculosis. In 2010, a United States Pharmacopeia (USP)/prescription-only-medicine (POM) report that noted results from various sources indicated that the prevalence of counterfeit and substandard medicines in the country was continuing to decline, and had fallen from about 10.3% in 2005 to 3.7% in 2009.

2. HEALTH SITUATION AND TREND

2.1 Communicable and noncommunicable diseases, health risk factors and transition

The Cambodian surveillance system includes an indicator-based, passive, zero-reporting weekly surveillance system that reports morbidity and mortality from 12 reportable diseases and syndromes, and a ‘rumour-based’ system that detects outbreaks and unusual health events in a timely manner. Training in surveillance is ongoing at all levels of the health care system. In addition, there has been a major push to develop cross-cutting policy frameworks for infection control in health care settings, and a laboratory policy was formulated in 2009. The leading reportable diseases remain unchanged, being acute respiratory infections (ARI) and acute watery and/or bloody diarrhoea.

Malaria continues to affect mostly the poorer communities living in forested areas, where over 3 million people are at risk. The total number of treated malaria cases in public health facilities decreased in 2010 to 49 356, following a year of rise. It has been noted that the overall trend since 2000 (129 167 cases) is downward, but during years when the La Niña climate phenomenon is experienced and rainfall is increased, such as in 2003, 2006
and 2009, the number of malaria cases spikes. When La Niña ends, the long-term downward trend continues. In addition, capacity for early diagnosis and appropriate treatment by village malaria workers (VMW) and mobile malaria workers (MMW) in around 1400 villages, out of the total 3908 villages at risk, has been maintained. This has resulted in a significant number of cases being diagnosed by VMW among patients who would otherwise have sought care in the private sector, which has been underreporting. The number of reported malaria deaths in public health facilities has followed a similar long-term downward trend. The management of severe malaria has also improved, and the case-fatality rate (CFR) among severe malaria patients at referral hospitals continued to decrease from 10.4% in 2005 to 5.3% in 2010. The proportion of confirmed malaria cases among all cases treated in public health facilities increased from 54% in 2003 to 82% in 2010, indicating better diagnosis; 100% of cases treated by VMWs are now confirmed as malaria. The malaria incidence rate was 407 per 100 000 population in 2010, a reduction from 616 per 100 000 population in 2009. The country is right at the centre of the global multidrug-resistant malaria problem because of the presence of artemisinin-tolerant malaria parasites, especially in the Cambodia-Thailand border area. At the moment, an intensified containment effort, with the aim of eliminating the tolerant parasites, is a priority objectives for Cambodia; a short-term containment project (2009-2011) is being implemented and there is a medium-term plan (2011-2015) to sustain and scale up containment activities. In March 2011, the Government formally committed itself to elimination of malaria over the next 15 years.

Dengue fever (both simple and severe) has become a serious public health problem in the last two decades, the latter being the number one cause of mortality in paediatric wards during the dengue transmission season. The national dengue incidence rate from hospitalized cases was 0.9 per 1000 population in 2003, 0.7 in 2005 and 0.9 per 1000 in 2009. In 2006, however, the rate increased to 1.3 per 1000 due to outbreaks in several provinces, characteristic of the three-to-five-year cyclical pattern of dengue disease. The worst year for dengue on record was 2007, when 39 851 cases, with 407 deaths, were reported (CFR = 1.03%) and the incidence rate was 2.8 per 1000. As a result of the rise in herd immunity against DEN-3, the number of reported dengue cases decreased significantly in 2008 to 9542 cases with 65 deaths (CFR=0.68%). Due to improved clinical management of severe dengue and increasing awareness among the general population, the case-fatality rate declined steadily from more than 4% in 1995 to 0.3% in 2010, with 12 500 cases and 38 deaths. Therefore, while further prevention and treatments efforts are still needed to maintain targets, they appear to be in reach.

The national immunization programme continues to improve its coverage. For 2009, the Ministry of Health continued to apply the 2008 census data for the denominator. The official DPT-HepB3 coverage rate increased to 95% and measles coverage to 92%. A pentavalent Hib-containing vaccine was successfully introduced into the national immunization programme in 2010 with support from GAVI until 2015. This is expected to reduce mortality due to pneumonia and meningitis. The Government has continued to promote fixed-site immunization at health centres, while maintaining outreach activities to outlying villages.

Despite a decrease in tuberculosis incidence of 1% per year, Cambodia has the highest incidence in the Western Pacific Region, at 442 cases/100 000 population/year (2009). In 2009, 39 202 new cases were notified under the national TB programme. A treatment success rate of over 90% has been maintained consistently for over a decade. The estimated HIV prevalence among incident TB patients decreased from 11.8% in 2003 to 6.4% in 2009. The identification and treatment of multidrug-resistant (MDR) TB has begun on a small scale, and programmatic management of MDR-TB is expected to begin in 2011.

The HIV prevalence rate among adults aged 15-49 years decreased from 2% in 1998 to 0.7% in 2010 due to strong prevention activities among entertainment workers since the beginning of the epidemic. Prevention programmes have been expanded to other most-at-risk populations (injecting drug users [IDU] and men who have sex with men [MSM]). Voluntary and confidential counselling and testing services have been scaled up to 246
Cambodia sites (521 097 people aged 15 and older were tested for HIV in 2010 and told their results), while home-based care has been scaled up to 356 teams, covering 848 health centres. Services for people living with HIV (PLHIV) are provided through a continuum-of-care package, available in 44 operational districts in 20 provinces, with 42 799 patients on antiretroviral treatment in December 2010. Universal access to antiretroviral treatment has been achieved. The percentage of pregnant women tested for HIV and given their results increased from 49.8% in 2002 to 81.1% in 2010, and the percentage of HIV-positive pregnant women receiving ARV prophylaxis to reduce mother-to-child transmission jumped from 11.2% in 2007 to 50% in 2010. For TB/HIV, the 3Is approach (Intensified TB case-finding among PLHIV, Isoniazid preventive therapy for PLHIV, and TB Infection control) was adopted in 2010. In 2009, 70% of notified TB patients had a known HIV test result.

A national survey in 2006 found hepatitis B virus among 3.4% of five-year-old children. In 2008, among blood donors there was a 0.6% prevalence rate for HIV, 7.1% for hepatitis B, 1.2% for hepatitis C and 1.5% for syphilis. In the same year, 24.1% of blood collected was donated by voluntary, non-remunerated blood donors, the remainder being collected from family replacement donors (72.5%) and paid donors (3.4%). Some progress was made in 2009 in quality assurance systems for blood safety, but this needs to be sustained, as well as efforts to increase voluntary blood donation.

Although Cambodia suffered several decades of war and civil unrest, as well as more recent rapid socioeconomic development, there is little information on the prevalence of mental illness, although several small studies have shown high levels of depression among adults and behavioural problems among children and adolescents. Mental health services are available at 35 health centres nationwide and at 25 outpatient departments; there is one psychosocial rehabilitation centre in operation and two psychiatric inpatient units have been established. In 2005, 8800 psychiatric cases were assisted and 56 000 consultations provided by the Government’s national programme for mental health, which does not include the more substantial services offered by NGOs around the country.

Increasing use of illicit drugs, especially amphetamine-type stimulant use by young people, sex workers, MSM and those in labour-intensive activities, are putting such people at risk of contracting HIV/AIDS, with a prevalence rate of 1.1% among non-injecting drug users in 2006 and 24% among injectors, as well as increasing their risk for other health problems, especially TB and hepatitis B and C. Currently, there are only two Government-approved needle/syringe programmes, both of which are in Phnom Penh and are being implemented through NGOs. In July 2010, the first methadone maintenance therapy (MMT) programme for opiate-dependent people, especially IDU, began a one-year pilot phase through the Ministry of Health in collaboration with two local NGOs, with 100 people expected to be enrolled in the service by mid-2011. A comprehensive approach to community-based drug-use issues, including prevention, harm reduction, treatment and aftercare, has been developed by the Government and its United Nations and civil society partners, with initial implementation in Banteay Meanchey province, to scale up the national response through the health and social sectors.

Cambodia has a significant and growing burden of noncommunicable disease (NCD). A STEPS survey in 2010 found that 2.9% of adults aged between 25 to 64 years had diabetes, with prevalence twice as high in urban areas (5.6% urban vs 2.3% rural). At the same time, 11.2% of adults had high blood pressure, prevalence being higher in men than in women (12.8% vs 9.6%) an in urban than rural areas (16% vs 10%). Eight out every 10 people in the surveyed population had one or two risk factors for developing a noncommunicable disease, and one in every 10 had three or more risk factors.

A nationwide survey of adult tobacco use (18 years and older) in 2010 found that 42.5% of men (1 313 000) and 3.5% of women (135 000) were cigarette smokers, while 13.8% of women and 0.8% of men chewed tobacco. Those data indicate that, during the past five years, the total number of tobacco users (approximately 2 million) has remained constant (National Adult Tobacco Survey of Cambodia, 2011). It is hoped that the recently passed Sub-decree on measures for the banning of tobacco product advertising can reverse the alarming trend in the Cambodian media, where promotion of tobacco exceeds public education about tobacco harm.

Alcohol consumption is rampant and is on the increase. The STEPS survey in 2010 revealed that almost two-thirds of total respondents (aged between 25-64 years) were alcohol drinkers; over half were reportedly current drinkers (in the previous 30 days) and one in every 10 had been drinking in the previous 12 months. It was also reported that men are 2.4 times more likely to be current drinkers than women, and men are around 10 times more likely than women to be engaged in heavy episodic drinking in the past 30 days, in both urban and rural areas (STEPS survey country report, September 2010). The number of violent incidents, traffic accidents and
domestic violence incidents due to alcohol is alarming. Deaths and injuries due to road traffic accidents are among the highest in the Region. In 2010, there were 6941 road crashes resulting in 1816 fatalities, 6718 severe injuries and 9170 minor injuries with a mortality rate of 12.8 per 100 000 population.

Due to rapid economic growth and changes in lifestyle, the burden of environment-related diseases is an increasing concern, accounting for 26% of the total burden of disease, according to recent WHO estimates. In 2009, WHO reported that the environmental burden of disease due to unsafe drinking-water and poor sanitation and hygiene was 10 900 deaths per year and 26 DALYs/1000 population/year. Compared with other countries in the Region, Cambodia has the second-highest environmental disease burden. While environmental risk factors are generally associated with noncommunicable diseases and injuries, in Cambodia they are also strongly associated with communicable diseases.

2.2 Outbreaks of communicable diseases

In 2010, the most important communicable disease outbreak was due to cholera, which affected almost every province in the country. The outbreak started in late 2009 and continued until October 2010. It peaked in February and again in June 2010. The total number of confirmed cases in 2010 was in excess of 580, with many thousands more probable cases. There was also a concomitant increase in the number of people complaining of acute watery diarrhoea throughout the country. A combination of outbreak control measures, local media communications and increasing rainfall eventually brought the outbreak under control.

There was also the usual seasonal increase in influenza activity from September to December 2010. Such activity occurs every year but, unlike many other countries, there has been a shift in the influenza virus subtype circulating in the country. Where, until August 2010, the predominant virus type was the A (H1N1) pandemic strain, by the end 2010, influenza B had replaced it and accounted for 85% of the circulating subtype in the country.

In 2010, there was only one case of highly pathogenic influenza A (H5N1) reported in humans. The case was Cambodia’s tenth confirmed human case since 2005, a 27-year-old man from Prey Veng province, who died on 17 April. Like the previous case in 2009, there was a close relationship between the case and contact with sick birds confirmed as H5N1-positive. Laboratory investigations showed that no contacts were infected with H5N1.

The Cambodian dengue situation was much better in 2010 than in 2009 and better than in neighbouring countries, with fewer cases being identified by the surveillance system.

A number of localized sporadic measles outbreaks were identified in 2010. The outbreaks primarily occurred in hard-to-reach communities, indicating suboptimal routine immunization coverage in those communities. In addition to outbreak response activities in affected areas, a national measles supplementary immunization campaign is planned for 2011 to try to eliminate the disease.

2.3 Leading causes of mortality and morbidity

Infectious diseases still constitute the main causes of mortality and morbidity, although Cambodia is facing an epidemiological transition. Currently, acute respiratory infections are the leading cause of both mortality and morbidity, with gastroenteric infections contributing substantially to the morbidity burden and dengue outbreaks exacerbating the situation. In addition, the country is still classified as one of the 22 high-burden countries for tuberculosis worldwide. Notably, HIV prevalence has decreased substantially and a high proportion of people living with HIV/AIDS are receiving antiretroviral therapy.

Preventing and treating noncommunicable diseases and injuries will be the challenge in the future. The number of road accidents is rising very rapidly as a leading cause of mortality due to improved infrastructure and rapid socioeconomic development. In addition, surveys have indicated high levels of diabetes (2.3%-5.6%) and hypertension (10%-16%) in rural and urban areas, both major risk factors for ischemic heart disease and stroke. As 42% of the male population smokes and alcohol consumption is rising, the composition of the table for leading causes of morbidity and mortality is expected to change in the near future.

2.4 Maternal, child and infant diseases

The maternal mortality ratio (MMR) is high, at 472 per 100 000 live births, and remained unchanged between the last two CDHS in 2000 and 2005. The 2008 Census further confirmed that high rate with its finding of an MMR
of 461. Postpartum haemorrhage is the leading cause of maternal death, followed by eclampsia, infections and complications of abortions. Maternal death contributes 17% to overall mortality in women aged 15-49 years. Weaknesses in vital registration statistics and the routine health information system make it difficult to monitor changes in MMR between surveys, but there are indications of improvement. Renewed attention to maternal health and the introduction, in 2008, of performance incentives for facility-based deliveries have resulted in a sharp increase in the proportion of births assisted by trained health professionals. In 2010, 52% of the expected number of births took place in a public health facility, compared with 39% in 2008 and 26% in 2007. Trained health staff assisted 70% of expected births, compared with 58% in 2008 and 46% in 2007, a figure that includes private service providers. There are multiple reasons for the high MMR, of which inadequate access to emergency obstetric and newborn care (EmONC), the low level of knowledge and competency among health professionals, the low facility-delivery rate, the low level of modern contraceptive use (28% in 2009) and the high rate of unsafe abortions are the most important. Barriers to good quality delivery services include official and unofficial fees, limited physical access for rural populations, and the sometimes unprofessional conduct of staff. Limitations in access to EmONC, including emergency blood transfusions and Cesarean sections, are of particular concern, the latter being less than half the minimum 5% recommended by WHO. A national EmONC assessment, followed by development of an EmONC Improvement Plan were undertaken in 2009 and began implementation in 2010. The Safe Motherhood protocols for health centres and referral hospitals are under revision and will be based on the latest best practice and evidence. There is a chronic shortage of midwives, which has led to raising of the intake at the five public midwife training institutions. A new direct-entry, three-year midwifery course began in 2008 and will see around 400 new midwives graduating in 2011. Of note, since late 2009, there has been at least one midwife in every health centre, although about 60% are primary midwives with only 12 months of training. This is a major achievement considering that, in 2008, there were still 79 health centres without a midwife and, in 2005, there were 146 health centres without a midwife. A High-level Midwifery Taskforce has been charged with developing a plan for a comprehensive review of midwifery services, and the Reproductive Maternal, Newborn and Child Health (RMNCH) Taskforce has been charged with developing a fast-track initiative for improving reproductive, maternal, newborn and child health, focusing particularly on interventions with the potential to rapidly decrease maternal and neonatal death rates.

Infant and under-five mortality rates have both declined significantly over the past 25 years, with the most dramatic declines happening since the late 1990s; comparison between the two most recent five-year periods in the preliminary results for CDHS 2010 show infant and under-five mortality declining by 20% and 29%, respectively, to 45 and 54 deaths per 1000 live births, bringing Cambodia on track to meet its MDG 4 target in 2015. Socioeconomic characteristics, such as living in an urban environment, the mother’s educational level and the mother’s household wealth, influence infant and child survival substantially.

Respiratory infection remains the leading cause of death among children under five years of age (30%), followed by diarrhoea (27%), dengue haemorrhagic fever (11%), severe acute malnutrition and measles. The proportion of deaths in the neonatal period now accounts for 54% of the total under-five deaths. One quarter of children who die in the neonatal period have a history of poor feeding after initially feeding well, indicating sepsis, while 7% have symptoms suggestive of neonatal tetanus. There are ongoing efforts to improve the quality of child health services. Coverage of integrated management of childhood illnesses (IMCI) services reached 100% of health centres in 2010.

Infant and young child feeding practices have improved. The rate of exclusive breastfeeding for the first six months of life rose significantly from 11% in 2000 to 60% in CDHS 2005, 65.9% in the 2008 CAS and 74% in the preliminary results of CDHS 2010. An important step towards full adherence to the International Code of Marketing of Breastmilk Substitutes was taken in 2005 when the Government issued a Sub-Decree on the implementation of the Code. The anaemia rate among women of reproductive age (15-49 years) decreased from 58% in 2000 to 47% in 2005, and from 66% to 57%, and further to 44% in 2010 (CDHS preliminary results), among pregnant women. Anaemia in children aged 6-59 months decreased from 62% (2000, 2005) to 55% (2010). The first National Nutrition Strategy (NNS 2009-2015), with the overall goal of reducing maternal and child morbidity and mortality by improving nutritional status, was approved by the Ministry of Health in 2009.

The prevalence of child undernutrition, which has been retrospectively recalculated based on the new WHO growth standards, decreased between 2000 and 2005 from 17% to 8% for weight-for-height, from 39% to 28% for weight-for-age and from 49% to 43% for height-for-age (stunting). However, the Cambodia Anthropometric Survey (CAS) 2008, undertaken to assess the impact of increased food prices and the current economic crisis,
reveals that the improvements seen in the earlier part of the decade have stagnated and possibly worsened, with chronic child malnutrition one of the highest in the Region, at 40%, and an underweight rate of 29% and wasting rate of 8.9% in children under five years of age. Those rates are not appreciably different in the preliminary results of the 2010 CDHS. The rate of wasting has reached 10% or greater in nine provinces and some urban poor areas. Only four out of 10 newborn babies are weighed at birth, and the proportion of low-birth-weight babies is 8%.

There are indications of increasing disparities in both health outcomes and service utilization between the rich and the poor, and between urban and rural populations. The Government is committed to improving maternal and child health and to achieving MDGs 4 and 5, but the available government and external resources are insufficient to meet the challenges. The Ministry of Health has taken important steps to reduce child mortality at the policy and planning level, but it will take substantially larger investments to achieve universal coverage of the 12 Child Survival Score Card interventions of the Cambodia Child Survival Strategy by 2015 and the Fast-track Initiative Road Map for Reducing Maternal and Newborn Mortality (2010-2015).

### 2.5 Burden of disease

The main risks factors affecting health are still posed by exposure to communicable diseases, facilitated by environmental circumstances (especially the lack of safe drinking-water and poor sanitation and hygiene). A high prevalence of diabetes, hypertension and tobacco use has been recognized and, in combination with changing lifestyles and increased traffic accidents, points to an epidemiological transition. Annually, possibly 1600 women die due to pregnancy-related complications, and almost 20 000 children die before the age of five.

### 3. HEALTH SYSTEM

#### 3.1 Ministry of Health’s mission, vision and objectives

The first national Health Sector Strategic Plan, approved in 2002, was reviewed in 2007 and resulted in the Health Strategic Plan 2008-2015 (HSP2). It presents the vision as: "To enhance sustainable development of the health sector for better health and well-being of all Cambodia, especially of the poor, women and children, thereby contributing to poverty alleviation and socio-economic development." The mission of the Ministry of Health is: "To provide stewardship for the entire health sector and to ensure a supportive environment for increased demand and equitable access to quality health services in order that all the peoples of Cambodia are able to achieve the highest level of health and well-being", based on values of equity and the right to health.

The building blocks of HSP2 are three main health programme areas to:

- reduce maternal, newborn and child morbidity and mortality, with increased reproductive health;
- reduce morbidity and mortality due to HIV/AIDS, malaria, TB and other communicable diseases; and
- reduce the burden of noncommunicable diseases and other health problems,

which implement the following set of five cross-cutting health strategies:

- health service delivery;
- health care financing;
- human resource for health;
- health information system; and
- health system governance.

The HSP2 implementation plan identifies an initial three-year consolidation phase to decide key policies in relation to health financing and health system governance requirements under decentralization and deconcentration, followed by a scaling-up phase. A monitoring and evaluation process has been established, including indicators to measure performance, refine existing health policies and determine the effectiveness of interventions. Annual targets are monitored at the National Health Congress and Joint Annual Performance Review, and directives for the next Annual Operational Plan issued. Three-year Rolling Plans provide medium-term guidance. A mid-term review of HSP2 will take place in 2011 to determine progress and prepare for the scaling up phase.
3.2 **Organization of health services and delivery systems**

The Ministry of Health initiated a health sector reform process in the early 1990s and, in 1996, approved the Health Coverage Plan, formulated with WHO support, which divides the country into 73 operational districts within the 24 provinces. Each operational district covers a population of 100 000-200 000 and comprises 10-20 health centres, each covering populations of about 10 000, and a referral hospital. Health centres are expected to deliver a ‘minimum package of activities’ that includes basic curative, preventive and promotional services, provided both in the facility and through outreach. Community participation is obtained through health centre management committees. Referral hospitals provide a ‘complementary package of activities’. National institutes, national hospitals, national programmes and training institutions provide the third level of services. As of 2010, there were eight national hospitals, 77 operational districts, 81 referral hospitals, 997 functional health centres and 117 health posts. The Ministry of Health comprises three directorates at central level—health services, finance and administration, and inspection—with the Minister of Health as chief executive. The structure, roles and functions are being reviewed as part of an institutional strengthening process.

The private health sector has been expanding rapidly in the past decade, absorbing a substantial part of out-of-pocket expenditure. Many public health civil servants have initiated private activities to complement their official government salaries to earn a living wage. In addition, not-for-profit NGO providers supply a significant volume of hospital and diagnostic services. Enforcement of private practice regulation needs to become a more prominent aspect of the Ministry of Health’s work.

3.3 **Health policy, planning and regulatory framework**

In order to strengthen its stewardship over the health sector, the Ministry of Health has been developing tools to apply sectoral resources where they are most needed, through direct allocation as well as through advocacy, influence and regulation. The Ministry developed a comprehensive system of sectoral operational planning to support implementation of the Health Strategic Plan. Strategic planning, aligned with the National Strategic Development Plan, is operationalized through Annual Operational Plans, forming the basis for three-year Rolling Plans that link mid-term operational and investment planning. This is consolidated planning, encompassing the entire public health sector. It is bottom-up, with each facility or administrative unit preparing annual plans based on sectorwide priorities, but accounting for its own specific goals, capacities and challenges. The year 2009 marked the fifth year of the Annual Operational Plans, which are becoming an increasingly useful tool for resource allocation as the links between planning and budgeting processes are strengthened. The Ministry of Health has introduced the Joint Annual Plan Appraisal for review of resource allocation with health partners to facilitate such linkages.

Implementation of strategic and operational plans is monitored through the Ministry of Health’s health information systems, which inform the Joint Annual Performance Review (JAPR) and the National Health Congress. That consultative event reviews performance toward strategic goals and identifies priorities for action during the coming year. At the 2009 Joint Annual Performance Review, key bottlenecks to improvement of sector performance were identified, and a set of priority interventions was recommended for which resource allocations within individual operational plans should increase. Health facility development is guided by the Health Coverage Plan, which will become an important strategic management tool for the health sector once linkages with human resource planning and national investment planning are strengthened.

Regulation of the rapidly growing private pharmacy and medical services sector is a priority for the Ministry of Health. However, the Ministry’s enforcement ability is constrained by weaknesses in the Police and Judiciary systems. Nevertheless, registration, as well as development and approval of codes of practice, are proceeding. As most private practitioners are also civil servants, such steps are expected to have some impact.

3.4 **Health care financing**

The government budget for health has been increasing steadily over recent years, reaching US$ 9.4 per capita for the recurrent budget of the Ministry of Health in 2009. The challenge, however, lies, not only in adequate finances, but also in allocation and management. Although overall disbursement at the end of budget execution is acceptable (around 95%), provinces and districts face irregular and untimely disbursement. Cambodia is also still highly dependant on donor funding (US$ 9.5 per capita in 2009), and the challenge is to coordinate action to cover national priorities.
Despite the increasing investment in health from government and external sources, the largest portion of health expenditure comes from out-of-pocket sources and goes towards unregulated private health care. The World Bank Poverty Assessment 2006 estimates out-of-pocket expenditure to be US$ 15 per capita per year (secondary analysis of the Cambodian Socio-Economic Survey [CSES] 2004). CDHS 2005 reports even higher out-of-pocket spending, almost US$ 25 per capita per year, with potential underreporting in the CSES and overreporting in the CDHS. Analysis of CSES 2007 seems to indicate an increase in out-of-pocket spending for all quintiles except the richest, which points again towards increased inequities despite overall positive progress. The underlying reasons for these findings still need further investigation.

The Ministry’s Health Financing Charter was introduced in 1996 and allows establishment of user-fee schemes in health facilities. Of this income, 60% is redistributed as incentives for staff, while 39% is used for operating costs and quality improvement (1% is paid in tax to the Treasury). One positive impact of user fees on access has been to reduce under-the-table payments, but the cost of health care remains a substantial obstacle for a large portion of the population. In this context, Cambodia has, in recent years, developed several alternative financing mechanisms for health, such as contracting and community-based health insurance. At the same time, health equity funds have been scaled up to cover 55 districts (out of 77) and six national hospitals. Lessons from these experiments were the basis for the formulation of Cambodia’s strategic Framework for Health Financing. It proposes a set of interventions to achieve the following five objectives:

1. Increase the government budget and improve the efficiency of government resource allocations for health.
2. Align donor funding with Ministry of Health strategies, plans and priorities and strengthen the coordination of donor funding.
3. Remove financial barriers at the point of care and develop social health protection mechanisms.
4. Ensure efficient use of all health resources at the service delivery level.
5. Improve the production and use of evidence and information in health financing policy development.

### 3.5 Human resources for health

The strategic vision for human resources for health in the Health Workforce Development Plan (HWDP) 2008-2015 outlines the key issues for health staffing; 2010 will see a mid-term review of the HWDP. Initial findings suggest a focus on strategies for rural recruitment and retention, a need for an increase in recruitment numbers and a refocusing on the quality of health workforce production.

While the war years decimated the educated population, Cambodia has made great strides in replacing its health workforce, particularly doctors, although production of secondary midwives has been slow. The total number of health workers in the Cambodian public sector remains low, with only 1.4 secondary midwives and 2.4 doctors per 10,000 population, and these are largely deployed in urban centres. Staff compensation is one of the key challenges. Although base salaries have been increasing annually by 20%, with over 17,000 staff members, the Ministry of Health salary budget for 2010 allowed for an average monthly salary of only US$ 65. Low salaries are a major contributing factor to the serious maldistribution of staff, as most graduates are from urban areas and prefer working in cities, and the low compensation is not sufficient to offset the opportunity costs of working in rural locations. Recruitment and training of new staff from remote areas is therefore a Ministry of Health priority and has led to contract commitments being signed with all student primary nurse midwives. Similar strategies are being considered for secondary grades.

All civil servants, including health staff, need to source additional income, and many clinical health staff have opportunities to more than double their civil service salaries through user fees and dual practice. Dual practice is a burden on the poor and is often unsupervised, leading to poor quality. The civil service package is designed and managed by the Council of Ministers and the Ministry of Health is tasked with adapting it for health, but within very limited parameters. Recent health system developments offer some opportunities for health-specific compensation, to cover the opportunity costs of dual practice. The new internal contracting mechanism, Special Operating Agencies (SOAs), can allow some local flexibility in staff compensation and may be a strategy for future scaling up, especially with the temporary Priority Operating Cost scheme finishing in June 2012. The 60% allocation for staff from user fees is becoming an increasingly significant part of public sector income.
The Ministry of Health continues to prioritize the health workforce in efforts to achieve progress towards MDG 5. The new associate degree course in midwifery should produce four times the number of secondary midwife graduates for the public sector in 2011, available for recruitment in 2012. There continues to be one primary midwife per health centre and that strategy will continue to be closely monitored in future recruitment rounds.

3.6 Partnerships

Cambodia’s health sector is a crowded field where the Ministry of Health is joined by some 20 bilateral and multilateral donors, development agencies and global health partnerships, as well as more than 100 international and national NGOs. The Ministry generally welcomes the contribution of health partners and the Health Strategic Plan explicitly promotes public and private partnerships for basic and specialist care. However, sectorwide management, introduced and led by the Ministry of Health, as the primary mechanism for sector dialogue, has been reviewed in order to strengthen coordination and implementation of the new Strategic Plan. With the multidoctor Health Sector Support Programme being the only significant example of a coordinated direct partnership with the Government, coordination of partners and their activities has taken on an increasingly important role in the sector. In its efforts to achieve more effective stewardship, including through the creation of a Department of International Cooperation, the Ministry is finding it difficult to manage aid as it is delivered (mostly project-based). More broadly, the Government is taking greater ownership of its development processes, assisted by a global agenda for greater harmonization and alignment under the Paris Declaration, to which Cambodia contributes as a pilot country for progress monitoring. These efforts are also embedded in the National Strategic Development Plan 2008-2013 and were reflected in the move to a more Government-led Cambodia Development Cooperation Forum in mid-2007. While the general contribution of partners to improving health status is unquestioned, their support to Cambodia’s health system could be increased considerably if donors were to adapt to more harmonized and efficient modes of cooperation that take into account existing systems at country level. To enable such an in-country process, the Ministry of Health signed the International Health Partnership Compact in 2007, as one of the seven first-wave countries globally.

3.7 Challenges to health system strengthening

The formulation process of the Health Strategic Plan 2008-2015 identified a number of key challenges for the health sector that remain valid or have become more pressing:

1. Increasing the utilization of cost-effective health services: The overall utilization of public health facilities is around 0.6 visits per person per year. Except in a few areas where additional resources and semi-autonomous management have been provided, utilization rates are not increasing substantially, and to date, the underresourced, publicly funded health services have had little to offer the rural poor. Most people are choosing to use the private sector for treatment, particularly private pharmacies.

2. Improving the quality of care in both the public and private health sectors: The low utilization of health services may be affected by unfavourable staff attitudes and practices in the public sector, an irregular and inadequate flow of funds to service delivery, limited management and leadership capacity, uncertainty about user charges, and a lack of knowledge about available services. To address such issues, the Ministry of Health published the National Policy for Quality in Health in 2005, the Operational Guidelines for Clients’ Rights and Providers’ Rights-Duties in 2007, and the Masterplan for Quality Improvement in Health in 2010. A number of initiatives have been introduced to promote a “client-centred” approach to service delivery in training programmes for health staff, and the newly established Medical Council is introducing a code of medical ethics in an attempt to improve professionalism among medical practitioners.

3. Improving the distribution of staff, particularly midwives, in the health sector: The persistence of a high maternal mortality ratio in CDHS 2005 confirms the pertinence of this challenge. Currently, many referral hospitals and health centres, particularly in rural areas, have insufficient numbers of midwives to provide safe coverage for emergency obstetric care. A continuing functional analysis process, initiated in 2002, has focused attention on the need to develop policy to address the maldistribution of staff, and there has been an increase in the number of midwifery trainees in recent years. However, a comprehensive midwifery review in 2006 indicated serious gaps in the skills of the current midwifery workforce. In 2011, the first cohort of more than 400 midwives will be graduating from a new three-year midwifery training course to enable closing of those gaps.
(4) Improving reproductive and adolescent health services: Cambodia has a recently declining fertility rate and a youthful population, with half under 21 years of age. The main focus of reproductive health services is fertility control and antenatal care. Establishing a continuum of quality care for adolescent and maternal and child health, including a functional referral system, will become increasingly important in continuing to improve the indicators, which until now have been substantially influenced by an improving socioeconomic situation.

The Government has recently introduced a policy to improve public service delivery through a split purchaser-provider approach. The Ministry of Health/provincial health departments can now contract operational districts or health facilities to provide services, a strategy that, combined with improved staff remuneration, can create an environment to address the listed key challenges.

A new challenge has gradually become more apparent: prevention and treatment of noncommunicable diseases and injuries. The 2010 STEPs survey revealed that 82.4% of the surveyed population had one or two risk factors and about 10% had three or more risk factors for developing noncommunicable diseases, such as diabetes, cardiovascular disease, cancer and chronic respiratory disease. The fact that about 50% of men smoke and almost two-thirds of the population drink alcohol, coupled with the rapid increase in life expectancy, are indicators that an epidemiological transition is imminent. Health staff will need to be trained and provided with the means to promote healthy lifestyles and treat chronic diseases or disabilities. Rapid socioeconomic development is constantly changing the social determinants of health, and improved road infrastructure has resulted in a steeply rising number of deaths and injuries due to traffic accidents. In addition, the burden of environment-based diseases is an increasing concern for the country, mainly related to unimproved drinking-water and sanitation, indoor and outdoor air pollution and occupational health risks (occupational carcinogens and particulates). Such problems require multisectoral collaboration and cooperation among all relevant agencies, including health, environment and agriculture, among others.

Another multipronged challenge will be to improve effectiveness and efficiency in allocation and disbursement of scarce financial and human resources. As an Organisation for Economic Co-operation and Development (OECD) pilot country for Aid Effectiveness, Cambodia is assuming a growing leadership role and is taking forward an action plan to facilitate harmonization and alignment processes. These include improved governance procedures, public financial management reforms and decentralization and deconcentration policies, requiring the involvement of a multitude of government institutions. The international funding institutions need to determine how to move from the current situation of coordinated, but fragmented support for the health sector, to more policy coherence and balanced funding of country priorities. Engaging global health programmes meaningfully and managing the institutional burden will be a particularly demanding undertaking for the Ministry of Health, and improved management information systems are essential to guide analysis of its efficiency and effectiveness.

4. LISTING OF MAJOR INFORMATION SOURCES AND DATABASES

| Title 1 | Cambodia Demographic and Health Survey 2005 and Preliminary Report CDHS 2010 |
| Specification | Contains information on demographics, family planning, maternal mortality, infant and child mortality, domestic violence, women’s status and health-related information such as breastfeeding, antenatal care, child immunization, childhood diseases and HIV/AIDS |
| Web address | http://www.measuredhs.com |

| Title 2 | National Health Statistics 2007 |
| Operator | Health Information Bureau, Department of Planning and Health Information, Ministry of Health |
| Specification | Provides health data, tables and graphs based on statistics generated from the nationwide Health Information System (HIS) |
| Web address | http://www.nis.gov.kh |

| Title 3 | Cambodia Census Survey 2008 |
| Operator | National Institute of Statistics, Ministry of Planning |
| Features | Includes information on population characteristics, household facilities and amenities. |
5. ADDRESSES

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6. ORGANIZATIONAL CHART: Ministry of Health

Minister

- Under Secretaries of State
  - Secretaries of State
    - Cabinet

- Directorate General for Health
  - Dept. of Planning and Health Information
  - Dept. of Human Resource Development
  - Dept. of Drug, Food, and Cosmetic
  - Dept. of Preventive Medicine
  - Dept. of International Cooperation
  - Dept. of Hospital Services

- Directorate General for Inspection
  - Dept. of Communicable Disease Control
  - Dept. of Personnel
  - Dept. of Administration
  - Dept. of Budget and Finance
  - Dept. of Internal Audit

- Directorate General for Administration and Finance
  - Dept. of Personnel
  - Dept. of Administration
  - Dept. of Budget and Finance
  - Dept. of Internal Audit

Central Institutions
- National Center for HIV/AIDS Dermatology and STDs (NGHADS)
- National Center for TB and Leprosy Control (CENAT)
- National Center for Parasitology, Entomology and Malaria Control (CNM)
- National Center for Maternal and Child Health
- National Center for Health Promotion
- National Center for Blood Transfusion
- National Center for Traditional Medicine
- National Health Product Quality Control Center
- Central Medical Store
- University of Health Science
- National Institute of Public Health
- Calmette Hospital
- Preah Kossamak Hospital
- Khmer-Soviet Friendship Hospital
- Ang Duong Hospital
- National Pediatrics Hospital
- Kuntha Bopha Hospital

Municipal-Provincial Health Dept.

- Regional Training Center
  - Kampong Cham
  - Stung Treng
  - Kampot
  - Battambang

Operational Health District Offices
- Referral Hospitals
- Health Centers