Health Service Delivery Profile

Cambodia

2012

Compiled in collaboration between
WHO and Ministry of Health, Cambodia

Cambodia health service delivery profile

Demographics and health situation

In 2011, Cambodia's population was 14.3 million. In 2010 the median age was 22.9 years. The majority of the population (80.5%) reside in rural areas, practicing traditional wet rice cultivation and other forms of agriculture. The Khmer make up 90% of the population and mostly live in the lowlands. Other ethnic groups include Vietnamese, Chinese, Cham-Malay and other diverse ethnic minority peoples.

The health system in Cambodia has undergone several periods of changes. After independence in 1953, the number of health services and facilities rose three-fold. The 1980s saw a period of reconstruction and rehabilitation of the health system following the Khmer Rouge regime, with a special effort on training a new generation of health professionals. In 1993 the first Royal Government took office and began to develop health service infrastructure and established a Ministry of Health (MOH). Private providers and international NGOs have also contributed to strengthening services. The use of traditional medicine is strong in Cambodia, with a culture of robust traditional medicine centered on the Kru Khmer, the traditional healers who are found all throughout the country.

Table 1. Key development indicators in Cambodia

Key development indicators	Measure	Year
Human development index	0.523	2011
Human development index ranking	139	2011
Gini index in income/consumption	44.4	2011
GDP per capita (PPP$)	1,915	2009
Total health expenditure (% GDP)	5.9	2011
Multidimensional poverty index	0.251	2005
Literacy rate (male/female) (%)	85.10/70.90	2008
Life expectancy at birth	63.1	2011
Infant mortality rate (per 1,000 live births)	45	2010
Maternal mortality rate (per 100,000 live births)	206	2010
Adult HIV prevalence	0.7	2010

Sources: UNDP 2011; *CHIPS* 2011

From 2001–2010, Cambodia's annual average GDP growth of 7.7% was one of the world's top ten growth rates. However, poverty is still an important issue. The two most salient health-related problems linked to poverty in Cambodia are malnutrition and access to health care.

The 10 leading causes of morbidity in the country are acute respiratory infection; diarrhoea; malaria; cough (at least 21 days); gynaeco-obstetric issues; tuberculosis; road accidents; measles; dengue hemorrhagic fever; and dysentery. Communicable diseases are thus a leading cause of morbidity and dominate all age groups, accounting for 83% of the reported disease burden, with 67% among the elderly and 96% among the 0–5 year age group. Non-communicable diseases (NCDs) are increasing significantly, now causing an estimated 53% of deaths per year.

Health strategies, objectives, and legislation

The MOH's mission is "to provide stewardship for the entire health sector and to ensure 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". Further aims stated in the *Health Sector Strategic Plan 2008-2015* are to develop health services, allocate financial and human resources, and ensure that population health needs are met in an equitable way through coverage of the whole population. The Health Strategic Plan focuses on three health program areas: reproductive, maternal, newborn and child health; communicable diseases; and NCDs. The *Strategic*

Framework for Health Financing 2008–15 emphaises the need to remove financial and other barriers to access to health services and outlined steps towards achieving universal coverage in the longer term. The Health Workforce Development Plan 2006-2015 emphasised the importance of workforce regulation to drive up clinical quality and the importance of management of recruitment and deployment for universal coverage.

The framework for health system infrastructure was outlined in the *Health Coverage Plan 1996,* jointly developed by the MOH with support from the WHO. It established a network of health centres and referral hospitals based on Operational Districts defined by geographic, economic and public health considerations and cover populations of 100,000 to 200,000. The *Operational Guidelines 1998* detailed services to be provided and staffing patterns and management systems. Key pieces of legislation include the *Law on the Management of Private Medical, Paramedical and Medical Aid Services (2000),* and the *Policy on Public Service Delivery (2006)* that guides health service delivery.

Service delivery model

Cambodia has a mixed service delivery system. Public health service delivery is organized through two levels of services, both provided in all operational districts:

1) The Minimum Package of Activity provided at the health centres; and
2) The Complementary Package of Activity (CPA) provided at the referral hospitals

The private sector does not deliver minimum and complementary packages. Private practitioners, workplaces and international NGOs deliver a limited range of services. Tertiary services are provided by 6 National Hospitals which are Phnom Penh based and semi autonomous.

The provider network

Health Centres and Health Posts

These are minimum level primary health care services mainly for rural populations. 1,049 facilities cover around 10,000–20,000 people each. Services include initial consultations and primary diagnosis, emergency first aid, chronic disease care, maternal and child care (including normal delivery), birth spacing advice, immunisation, health education and referral. Contraception, antenatal care and tetanus vaccination were the three main type of preventive services provided in 2005. In 2010, only 43% of health centres provided the full minimum package of services. Constraints include the absence of key personnel, the inadequacy of essential drugs support and the absence of other operational guideline requirements. NGOs deliver health promotion and disease prevention programs and activities through health centres. The government also has some national level programs.

Referral Hospitals

There are national, provincial and district referral hospitals, classified at three levels based on number of staff, beds, medicines, equipment and clinical activities:

- CPA-1 hospitals: have no large-scale surgery (no general anaesthesia) no blood bank or blood deposit, but at least has a basic obstetric service. There were 33 hospitals at this level in 2011.
- CPA-2 hospitals: CPA1 plus emergency care services and large-scale surgery (with general anaesthesia), including ICU, and other specialized services such blood transfusion, Ear, Nose, Throat (ENT), ophthalmology and orthodontics services. There were 31 hospitals at this level in 2011
- CPA-3 hospitals: have large-scale surgery (with general anaesthesia) and more activities (in terms of both numbers of patients and activities) than a CPA-2, and also have various specialized services. In 2011 here were 26 hospitals at this level *(Ref. National Health Congress Report 2011).*

Referral hospitals are expected to support primary care and have resources and expertise available for the district health services. All eight national referral hospitals and 21 of 24 provincial referral hospitals provide CPA 3 level services. Provincial referral hospitals cover several operational districts.

The public health service delivery system is oriented towards treating acute illness and disease. Although there is increasing awareness of the widespread prevalence and burden of NCDs, there is

limited provision of NCD-related services in the minimum and complementary packages. Health centres are required to take blood pressure, diagnose diabetes, provide management advice and refer for medications, and provide information on cancer. Some screening, treatment and management guidelines are provided under the CPA, but these are not comprehensive and don't include chronic disease management or risk factors. Diabetes services are limited due to a lack of expertise, facilities, and access to medications and many patients seek private care.

The government and donors also fund a well-coordinated home-based care program and free treatment for those with HIV/AIDS. International and donor organizations deliver services such as HIV/AIDs centres and children's hospitals.

Health financing

In 2009, expenditures on health services were paid for by the government (21.27%), mainly from general taxation revenues with substantial support from external development partners, and out-of-pocket payments (73.1%). Government expenditure on health rose from US$4 per capita in 2000 to US$9.36 in 2009.

Cambodia has one of the largest shares of out-of-pocket payments in the Western Pacific Region. Most out-of-pocket payments (68%) go to private medical services, including payments to unregulated private practitioners, to unofficial payments in the public sector and to various participation costs, such as transportation costs. Only 18.5% is spent in the public sector. Coping strategies to pay these health costs include using savings (51%), using wages/earnings (45%), borrowing money (18%), and selling assets (8%), all of which can contribute to increasing poverty.

Minimum and complementary packages and medicines are subsidized by the government in terms of facilities, equipment, staff salary and essential medicine, but service users pay consultation and treatment fees and for out-of-stock medicines. User fees vary between services, even within the same operational district. Fees for private services are not government-subsidized and are set by each provider with limited regulation.

A number of financing mechanisms exist that promote access to effective and affordable health care for the population, especially the poor and vulnerable. These include:

- Direct tax-funded health services plus user fees for the non-poor and exemptions for the poor, including monks, disabled war veterans, the elderly, and eligible poor people;
- Performance-based contracting for services, either to public or private providers, for delivering services to specific groups – used in 22 operational districts;
- Voluntary Community-Based Health Insurance targeting the informal sector at the community level – used in 18 operational districts;
- Health Equity Funds reimburse health providers for services delivered to eligible poor and meet patient food, transport and other costs related to access – used in 58 operational districts with demonstrated increased service utilization and reduced health-related debt for patients. User fees for services in these schemes have also been standardized.
- Voucher schemes allow vouchers to be used instead of paying a user fee at selected providers for specific health services – used in 9 operational districts.

Human Resources

Table 2. Selected numbers of health professionals in Cambodia (2011)

Employed Healthcare Professional	Total number	Numbers of women (%)
Doctors	2300	375 (16%)
Specialist doctors	91	7 (8%)
Primary nurses	3258	1165 (35%)
Secondary nurses	5175	1629 (31%)
Primary midwives	1827	1823 (%)
Secondary midwives	1921	1908 (%)
TOTAL	18,045	8,213 (45%)

Source: MOH 2010, *Semi-Annual Performance Monitoring Report*

Private practitioners provide services through three types of facilities: (1) Consultation clinics provide clinical diagnosis (including ultrasound), laboratory, emergency treatment and prescription writing services. (2) Clinics that have at least 10 beds with outpatient and inpatient services, various medical specialties, laboratory, radiology and pharmacy services. (3) Polyclinics are larger, with at least 20 beds, and provide more specialized services. Private services must be licensed and registered with the MOH to operate, and in 2004 there were 2572 private practice facilities. Private providers are restricted to the types of services they can deliver, and must meet specifications on staff experience, facility size and equipment, record keeping, and storing and selling of pharmaceuticals. Doctors, medical assistants, nurses, midwives, pharmacists and pharmacist assistants practice in the private sector, often while also working in the public sector. Private practitioners, including traditional birth attendants, play a dominant role in supporting delivery and abortion services.

Implementation of the service delivery model and packages

The MOH has overall responsibility of the health sector, including: policies, legislation, strategic planning, resource mobilization and allocation, monitoring, evaluation, research, providing training to support the provinces, and coordination of external aid. The MOH's main objective in health sector reform has been to improve and extend primary health services through the implementation of the operational districts system. Provincial health departments are the link between the MOH and operational districts, and implement health policies, ensure equitable distribution and effective use of resources, manage provincial referral hospitals, and support the development of operational districts. Operational districts implement national, provincial and district health objectives, deliver services according to the community's needs, ensure equitable distribution and effective utilization of resources and mobilize additional resources, for example from NGOs, and work with communities and local and administrative authorities. Consumers participate in health service delivery through village health support groups, HC management committees, and through third party financing mechanisms.

The *Health Sector Strategic Plan 2008-2015* includes timeframes and strategies for prioritization and implementation of key indicators of progress. The MOH's Annual Operational Plan brings together what every health institution in the public sector in Cambodia plans to do to put into action the strategies identified in the strategic plan, and allocates resources for prioritized interventions to the provincial level. In 2011, health coverage extended to 77 operational districts, with 90 referral hospitals and 1,004 health centres nationwide (Ref. National Health Congress Report 2011).

For-profit private practitioners are not organised as a sector, and services are not based on operational districts. Major donors have contributed significantly to building and strengthening the health system and Cambodia continues to be highly dependant on this funding. Of the donor funds that contribute to implementing the health strategic plan, 45% go towards reproductive, maternal and child health, 25% to communicable diseases, 15% to NCDs, and 15% to health service strengthening. The second largest donor is the Global Fund for HIV/TB and Malaria.

Referrals and linkages through the provider network

Health centres are meant to be the first point of entry into the health system and to act as gatekeepers to higher level care, referring to district hospitals and then provincial hospitals as needed. The protocol calls for patients to be given referral documents and copies of monitoring charts and medical files that they must take to the receiving facility.

However, health centres lack financial resources and ambulances to transfer patients, particularly in rural and remote areas. Other barriers to an effective referral system include road and travel conditions, lack of transportation, and working hours at health centres.

Furthermore, people are aware of the variety of public and private services and so their health seeking behaviours are flexible; they may go to the pharmacy if they have a condition they can self-diagnose; go to health centres for preventive services and some curative care; ask a private practitioner to visit them at home; or go to the hospital in the case of severe problems. Seventy percent of people seek health care from the private sector in the first instance. Of these, private clinics (27%) or pharmacies (20%) were sought for first treatment in urban areas in 2010, and private clinics (16%) and pharmacies (8%) in rural areas. In the public sector, health centres (18%) are sought for first treatment in rural areas, and

National referral hospitals (12%) in urban areas. Quality, accessibility, and cost are the main factors that determine whether private sector services are sought. The majority of private practitioners also work in the public sector. This can lead to conflict of interest and poaching of patients.

There are no formal linkages between public and private services, with the exception of referrals from private clinics to the public sector. All public services within a province are linked, although with limited communication or sharing of skills and information.

Medicines and therapeutic goods

The MOH manages an essential drug list with pharmaceuticals required for the minimum and complementary packages, as outlined in their respective guideline documents. The MOH procures and distributes these to drugs to operational districts, and then to the referral hospitals and health centres. Drugs are dispensed at all public facilities and also in village outreach services, but most patient needs are nevertheless obtained from private pharmacies or stalls, which are often linked to private clinics. This means the price of drugs is controlled by the practitioners, and there is incentive to prescribe medication that may be unnecessary. All public health facilities, particularly health centres, experience lack of supplies due to procurement and distribution problems, non-adherence to procurement schedules, inaccurate quantification, low regulatory capacity and weak enforcement of the law.

Quality

In 2010, the MOH developed a “Master Plan for Quality Improvement in Health", which established minimum standards for the delivery of quality health care. Health Facility Assessment Tools were developed for hospitals and health centres for routine surveys to ensure that appropriate medical supplies, basic equipment and infrastructure are in place according to the minimum and complementary package guidelines. All 80 referral hospitals in the country are assessed annually and about 50% of the total 1,089 health centres were assessed from 2008 through 2011. Other quality tools such as a Client Satisfaction Tool and a Checklist for Monitoring Infection Control have been developed to monitor and improve service quality.

All private medical facilities must be registered with the MOH to provide services. However, the first law on regulating private medical and paramedical services passed only in November 2000. In 2008, about half the total number of pharmacies, depot pharmacy and drug outlets were licensed (1,371) with 1,239 unlicensed. Similarly, in the same year, around 40% of private clinic (1,513) were licensed, and 2,177 unlicensed. By 2011 the MOH reports that 100% of such facilities are licensed, and that the numbers have increased by about 35%. Public sector facilities are not required to register.

The National Medical Council was formed in 2000 and all Cambodian doctors and medical assistants are required to register to be eligible to open private practice. Standards of care are outlined for the minimum and complementary packages through clinical practice guidelines. There are also national Safe Motherhood, malaria, TB and HIV/AIDS guidelines.

Equity

The operational districts system and the *Health Coverage Plan* that specified the location, number and type of services aimed to improve services to all people, particularly in remote areas. The number of services and health financing mechanisms are increasing, however, universal health coverage is still not achieved.

There are data identifying various types of barriers to accessing care. Lack of ability to pay is considered a major obstacle to the poorest people, but physical access, including distance and transport, knowledge about assistance schemes, beliefs and socio-cultural practices, and lack of trust in public health care facilities are all factors. There are inequities in access to services for the poor, particularly in rural areas. Rural services are also more likely to provide lower quality of chronic disease care. Patients using the public sector also experience barriers in accessing medicines.

Indicators of progress

The MOH uses the Health Information System to monitor the progress of MDGs and implementation performance of the health strategic plan. The Cambodia Demographic and Health Survey is also an important monitoring tool.

While some outstanding results have been achieved since the 1990s, for example control of HIV/AIDS and polio eradication, many health indicators remain among the lowest in the region and below international standards. The semi-annual performance report of the health strategic plan shows:

- Reproductive, maternal, newborn, and child health – in general good progress was made, in which only 6 of 16 indicates were on track in term of national targets. Infant and maternal mortality rate has dropped over the last decade, partly as a result of improved access to basic services, scaled-up immunization, and breastfeeding campaigns. More women, 85% of urban and 47% of rural women, were delivering their babies in health facilities, due to innovative incentive schemes.
- Communicable diseases – 5 out of 8 indicators were on track in term of national targets, including a significant decrease in HIV/AIDs prevalence (1.9% in 1997 to 0.7% in 2008) and treatment, although some groups experienced increased infection rates. Malaria death rates dropped from 4.0 in 2005 to 2.4 in 2010, and TB prevalence decreased since 2000 although little progress has been made in reducing TB death rates.
- NCDs – most indicators were off track in term of national targets. Cambodia is experiencing a fast epidemiological transition characterised by an increasing burden of non-communicable diseases and injuries resulting in the classic 'double burden of disease'.

Demands and constraints on the service delivery model

Overall the health system remains fragmented in terms of activities, funding, monitoring, coordination between public and private sectors, supervision and administrative lines of authority. As well, difficult geographical access to health services in remote areas is a significant issue. Other constraints in health service delivery include:

- Overall, the quality of public and private sector services is low, and this influences access. There is growing recognition that increased demand for services among users is related to improved quality and accountability by the health care system, and empowerment of patients and respectful treatment.
- Health workforce capability that is limited by numbers and expertise.
- Lack of resources, expertise, services, logistics, and data to support the prevention and management of chronic disease. There is no service delivery model yet for NCD at the primary health care level.
- Lack of uptake of public services and a pattern of outflow of patients to the private sector challenges public policy that organizes services around health centres as the entry point with upwards referrals to the referral hospitals. Uptake also affects the health status of the population.
- Lack of regulation and monitoring of the private sector.
- The reliance of over half of the health financing schemes on donor funding means there are constraints in expanding coverage and longer-term financial sustainability. The *Strategic Framework for Health Financing 2008–15* and a draft *Master Plan for Social Health Protection* indicate that Cambodia will gradually develop a unified social health protection coverage scheme that extends and combines existing health financing schemes and includes the formal and informal sector.

Table 3. Progress with selected indicators for NCDs and injury in Cambodia

Indicator	Baseline	2010	2015 target	Indicator	Baseline	2010	2015 target
Road traffic injury mortality rate per 100,000 population.		12	11	Blindness rate (%)	1.2 (1995)	0.38	<0.3
# of newly diagnosed cervical cancer cases per 100,000 women (age over 25 years)		33	30	% of adult smoking male/female	54 / 9 (2004)	49/4	44/2
# of adult high blood pressure receiving treatment per 1000 population in public health facilities		6.5	50	% Decayed missing filling teeth for children	8.9 (2007)	6.5	<5
Prevalence of adult with diabetes (STEPS survey	2 (2005)	2.9	<2	# of mental health cases reported in public sector	10,000 (2007)	19,000	28,000

Source: MOH Health Sector Strategic Plan 2008-2015

Traditional medicine practice

The use of traditional medicine is strong in Cambodia, with a culture and practice centered on the Kru Khmer, the traditional healers who are found throughout the country. During the 1970s Western teachings were banned by the Khmer Rouge, and the only care at hand was traditional medicine. While modern medicine has since become widely available, traditional medicine remains supported by the government and is commonly used, especially in rural areas.

The MOH estimates that 40%-50% of the population uses traditional medicine, though there has been no formal survey. Use of traditional medicine is influenced by geography and socioeconomic status with higher use in rural areas and by people with lower incomes.

The 1998 *Sub-decree on the National Policy on Drugs* states that traditional medicine should be boosted, particularly within primary health care, through training, scientific research and technology to develop traditional medicine products. In 2004 the Royal Government committed to continuing to encourage the use of traditional medicines with appropriate information and control in conjunction with the use of modern medicine. The government released their *Policy on Traditional Medicine of Kingdom of Cambodia* in 2010. In 2011 the Traditional Medicine Taskforce was established to implement the 2010 Policy on Traditional Medicine. There is no national expert committee for traditional medicine.

Traditional medicine is not yet included in the National Health Strategic Plan and is not covered by health insurance.

Providers of traditional medicine

There are several groups of traditional medicine healers in Cambodia, including the Kru Khmer, men and female, mediums known as “Kru Chol Ruup” and Buddhist monks. They often work from their homes and pagoda where they grow their medicinal plants, see their patients, and teach their disciples.

Traditional medicine is not yet integrated with modern medicine in Cambodia, and is only delivered in the private sector. The total number of traditional medicine practitioners is not known because there is no requirement to their activities. In general, there is at least one Kru Khmer in every village and several in larger villages.

A government policy, *Procedures and Requirements for Opening, Closing or Changing the Location of Traditional Medicine Selling Establishment (1998),* requires traditional medicine practitioners to obtain a traditional medicine practitioner certificate in order to open a business or clinic selling traditional medicine products or providing traditional medicine services.

The National Centre of Traditional Medicine manages and strives to improve the quality of traditional medicine practice and products in Cambodia. In collaboration with the Cambodian Traditional Medicine Organisation since 2009, the Centre has been conducting a short course training program for traditional medicines practitioners. This training aims to prevent practice by unqualified people, to prevent misinformation and misunderstanding about traditional medicine, and to modernise aspects of practice. Graduates of the course are awarded a certificate that qualifies them to open a traditional medicine clinic or traditional medicine store after approval from the Municipal or Provincial Health Department. To guide practitioners the Centre has published and disseminated a book called *600 Formulas of Traditional Medicine for Treatment* in 2011. Other publications produced by the Centre include 4 volumes of monographs of medicinal plants and their traditional use, booklets on medicinal plants for common diseases, and a booklet titled *Medicines in Your Garden*.

Herbal medicines are widely available for sale. They are sold in special outlets, such as herbal medicines stores and traditional medicine supply stores, as over the counter non-prescription medicines, and by licensed practitioners, non –licensed practitioners are also commonly sold herbal medicines and practice, especially in the community level.

Quality and safety of traditional medicine

National regulation for herbal medicines was issued in April 1998 in the form of the *Sub-decree on Production, Importation, Exportation and Trade of Traditional Medicines for Health Sector*. This decree states that pharmacists and traditional medicine practitioners can undertake the listed activities. Herbal medicines can be sold with health claims or nutrient content claims and these are not regulated. There are 73 registered herbal medicines in Cambodia, among them only two local herbal medicines are registered, others are imported from outside country. Herbal medicines are not included in the national list of essential medicines.

Cambodia does not have any pharmacopoeia. Monographs of medicinal plants exist, but have no legal binding. The 1998 sub-decree specifies that industry-scale manufacture of traditional medicine products should be done in a manufacturing establishment that is properly organised in keeping with the technical requirements set by the MOH. However, at present, there are no documented Good Manufacturing Practice guidelines to control the quality of traditional medicine products. Due to the long history of traditional medicine use in Cambodia, safety assessment is limited to demonstrating that when a herbal medicine is used in keeping with traditional practice, it has no harmful effects. A post-market surveillance system for medicines, including herbal medicines, was established in Cambodia in 2003

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