ReBUILD Consortium

Country Situation Analysis

Cambodia

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List of abbreviations and acronyms

ADB: Asian Development Bank

AFH: Action for Health

CBHI: Community–Based Health Insurance

CCC: The Cooperation Committee of Cambodia

CDRI: Cambodia Development Resource Institute

CMDGs: Cambodia Millennium Development Goals

CSO: Civil Society Organisation

DFID: Department for International Development

FHI: Family Health International

GTZ: Deutsche Gesellscchaft Fur TechnischeZusammenarbeit (German Technical Cooperation)

HEF: Health Equity Fund

INGO: International Non-Governmental Organisation

JICA: Japan International Cooperation Agency

KHANA: Khmer HIV/AIDS NGO Alliance

MEDICAM: Medical Cambodia (NGO Health Sector Committee)

MDGs: Millennium Development Goals

MOEF: Ministry of Economic and Finance

MOH: Ministry of Health

NGO: Non-governmental Organisation

NIPH: The National Institute of Public Health

OD: Operational Health District

PHD: Provincial Health Department

PSI: Population Service International

RHAC: Reproductive Health Association of Cambodia

RGC**:** Royal Government of Cambodia

SHI: Social Health Insurance

SIDA: Swedish International Development Cooperation Agency

TWGH: The Technical Working Group for Health

UNDP: United Nations Development Programme

UNFPA : United Nations Fund for Population Activities

UNICEF: United Nations Children's Fund

URC: University Research Co., LLc

USAID: United States Agency for International Development

VHSG: Village Health Support Group

WHO: World Health Organisation

1. Introduction

1.1 Background on Country Context

Cambodia is a low income country in South- East Asia with a population of 13.3 million. More than 80% of the population live in rural areas and they rely on agriculture for their household income. In the Human Development Index, Cambodia ranks at 129 out of 177 countries. The Khmer Rouge regime and its genocide affected human resources and social infrastructure throughout the country. An estimated 2 million people, including educated and skilled persons, were innocently killed during the Pol Pot era. After the civil war ended in the late 1990s, all public sectors were rebuilt with a particular emphasis on the health sector.

Recently, there have been some improvement in the socio-economic status of the population, with a decrease in the percentage of the population living below the poverty line from 39% in 1996 to 35% in 2006. The Royal Government of Cambodia (RGC) is committed to achieving the Cambodia Millennium Development Goals (CMDGs) by 2015, including target 1.1. For this target, the proportion of people living below the national poverty line should decrease to 19.5% by 2015, in order to eradicate extreme poverty and hunger (Ministry of Planning, 2000).

The health system infrastructure has improved in recent years. Whilst there has been a small increase in the number of health establishments from 1,034 in 2006 to 1,035 in 2007, there has been a significant increase in the number of available health facility beds from 8,556 in 2006 to 10,509 in 2007(Ministry of Planning, 2008). In addition, there have been decreases in maternal mortality, infant mortality and under-5 mortality rates from 2000 to 2005: infant mortality reduced from 95 to 66 per 1000 live births; and under-five mortality reduced from 124 to 83 per 1000 live births. HIV prevalence amongst adults also fell from 3.01% to 0.6% in (Eldon & Gunby, 2009). These health indicators partly reflect the recent improvements in the health system as well as other wider developments within the country.

Despite these improvements, the health system in Cambodia was considered to be better in previous decades. Health problems remain a chief concern for households. Health costs remain a major household expenditure, with poor families struggling to pay for their health care costs.

Accessing and utilising health care services during serious illness is a major concern for poor families (CDRI, 2007; GTZ, 2008). They cannot afford health care costs including transport, treatment and medicines. In order to manage this expenditure, they are often forced to sell assets such as animals and land, or borrow money at a high interest rate. As a result, families fall into debt and are less able to move out of the poverty trap. Ensuring universal access to quality health care is a priority at household and national level.

Country and health context	
Total population *(census 2008)*	13,388,910
% population under 15 years *(CDHS 2005)*	38.9
Life expectancy at birth (years) *(DERPP-NIS 2005)*	M: 60 / F: 65
Under-5 mortality rate per 1000 live births *(CDHS 2010)*	54
Maternal mortality rate per 100 000 live births *(CDHS 2005)*	472
Total expenditure on health as % of GDP *(WHO-National Health Accounts Series)*	5.9
General government expenditure on health as % of general government expenditure *(WHO-National Health Accounts Series)*	11.2
Adult (15+) literacy rate *(Cambodia Inter-Censal Population Survey 2004)*	73.6
Adult male (12+) literacy rate *(Cambodia Inter-Censal Population Survey 2004)*	84.7
Adult female (12+) literacy rate *(Cambodia Inter-Censal Population Survey 2004)*	64.1
% population with access to improved drinking water source *(WHO & UNICEF joint Monitoring Programme for Water Supply and Sanitation, 2008)*	65
% population with improved access to sanitation *(WHO & UNICEF joint Monitoring Programme for Water Supply and Sanitation, 2008)*	28

Source: World Health Organisation 2011: Country cooperation Strategy at a glance Retrieved from http://www.who.int/countryfocus/cooperation_strategy/ccsbrief_khm_en.pdf .

1.2 Background on REBUILD

REBUILD focuses on health systems of four countries in the post-conflict transition. Whilst some countries have been recovering from conflict for a longer period of time, such as Cambodia from 1990 and Sierra Leone from 2002, countries including Uganda and Zimbabwe, are at much earlier stages of recovery. Due to political and social conflict, the health system is often weak and has limited management and organisational infrastructure. This is a key constraint for the government and development agencies to provide accessible and effective health care services. The REBUILD programme of research therefore emerged to address these constraints. The programme will deliver new knowledge and when put it into practice within post conflict contexts, will enable further learning.

REBUILD will focus on health financing, human resources and their interaction. In health financing, knowledge will be built about the implications for women, girls and boys in the poorest households. Alternative ways of reestablishing financial support for the public system will be considered including new aid institutions, new budgeting strategies and targeted funding for priority programmes. In human resources, there will be a focus on management innovations, opportunities for reallocating roles among health professionals and the prospects for both to contribute to improved access to effective services for those most easily excluded.

Decisions made in the early post-conflict period can set the long-term direction of development for the health system. Effective and well-targeted public services and well-informed regulatory measures support an appropriate complementary role for the non-state sector. The consortium will identify particular opportunities that arise during the recovery from conflict. As the economy recovers and aid increases, growing resources available to the health system can be targeted to reduce the direct financial burden on poor women and children, and health workforce development. Innovations introduced by humanitarian organisations may be capable of institutionalisation in the public sector. Entrenched opposition to pro-poor change may be weaker during this period. Outcomes for poor people are improved access to effective health services and reduced burden of health related expenditure and associated impoverishment.

1.3 Purpose of Country Situation Analysis (CSA)

The purpose of the Country Situation Analysis (CSA) is:

- To assist with the prioritisation of research questions in each context, by establishing current actors, agendas and gaps
- To provide information to help us to position our research in the most effective way possible and
- To allow for tracking of research impact over time.

2. Methods

In this situation analysis, document review was the primary method of enquiry. In addition, key informant interviews were conducted. Data from both sources were synthesized and interpreted by the research team in order to have a full and comprehensive situation analysis of Cambodia.

2.1 Document Reviews

The documents reviewed focused on local health systems research that mainly addressed human resources in the health sector and health financing, with a post-conflict perspective. The documents used in the review were the National Health Strategic Plan 2008 – 2015, the Cambodia Demographic Health Survey for 2005 and 2010, the National Strategic Development Plan 2009 -2013 and other national and international research reports. A framework for analysing this literature was developed to describe the main themes in health financing and human resources for health and to identify information gaps (see annex 1).

2.2 Key Informant Interviews

Following the document review, further information was required to describe the health financing and human resource themes in the analytical framework. Therefore, key informants were indentified from the institutions where the documents were produced. The main institutions were the Ministry of Health and development partners and NGOs working in the health sector in Cambodia.

Thirteen key informant interviews were conducted with health systems and human resource specialists from these institutions. Annex 2 includes a list of the participants. A topic guide was developed based on the analytical framework and the gaps in information following the document review (see Annex 3).

3. Findings

3.1 Players

3.1.1 Health System Development

Following the long period of war and internal conflict which ended in 1979, the health sector was reconstructed and the capacity of the staff strengthened in order to meet the health needs of the population. The government remains a key player who is accountable for providing public services to the whole country. The Ministry of Health of Cambodia (MoH) is delegated by the Royal Government of Cambodia (RGC) to provide health care. However, for this to be successful, the government needs to work with partners. The key stakeholders working in health system development include the public sector coordinated by the MOH, funding agencies and Civil Society. They work in different areas. Annex 4 describes the key players supporting the health sector in the period 1990 to 2004.

Public Sector/Government:

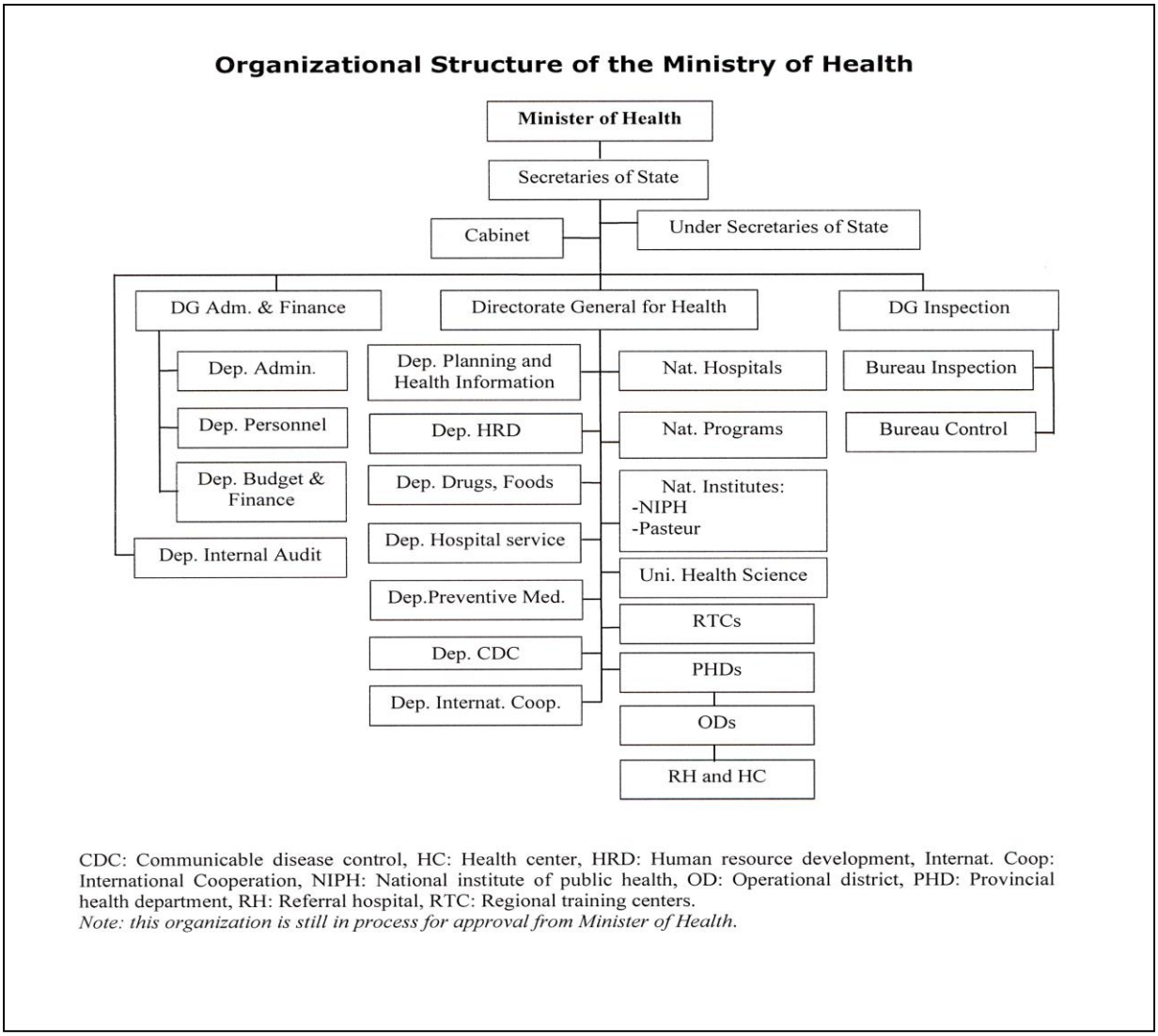
At national level:

The Ministry of Health of Cambodia (MoH):

The MoH was institutionalized under Sub-decree 67 of the RGC, dated 22 October 1997. The MoH is responsible for all areas of public health service in Cambodia including the development, implementation and evaluation of the strategic plan, and ensures an effective and efficient delivery of health care services to the population. The MoH has an organisational chart outlining the structure of the MoH at central, provincial and district levels and clarifying the roles and responsibilities of the various departments (Figure 1). There are three Directorate Generals

including: 1) Directorate General for Health; 2) Directorate General for Administration and Finance; and 3) Directorate General for Inspection.

Figure 1: The Organisational Structure of the Ministry of Health



Source: MoH: Cambodia Health Information System: Review and Assessment, Phnom Penh: Department of Planning and Health Information

The functions, roles and responsibilities of the MoH including its departments, e.g. the Provincial Health Department (PHD), Operational Health District (OD), Referral Hospital and Health Centre, have been described by Chhiay et al. (2003). The MoH's role is to develop policies and provide

technical guidance for the whole country. The PHD interprets national policies so they can be implemented in the provinces and districts. It also supports the ODs in their monitoring and evaluation activities. The PHD acts as a link between the MoH and ODs and the OD is responsible for the execution of health policy.

A health centre is defined as the health facility closest to the community, while a referral hospital provides more comprehensive services. Despite assistance from NGOs and other non-state actors, the PHD and OD are weak due to several factors; human and financial resource shortages, inefficient management structure, and there is a lack of clarity about roles and functions at both levels. Low salary also discourages staff from fulfilling their duties.

The Ministry of Economy and Finance

The Ministry of Economy and Finance (MoEF) was established under Sub-decree 04 of the RGC dated 20 January 2000. *"The Ministry of Economy and Finance is delegated by the Royal Government to perform the mission of guidance and administration of the economy and finance of the Kingdom of Cambodia in order to support economic development and to improve the living standards of Cambodian people based on the principles of a free market economy and social equality"* (Ministry of Economy and Finance, 2011).

The MoEF allocates a budget to each ministry every year, including the MoH. The International Health Partnership (2008) recognized that the MoH and MoEF had made great efforts to improve financial planning and implementation so as to be more effective in allocating resources to achieve health goals. This was reflected in the increased government budget for health.

The University of Health Science and the National Institute of Public Health

These institutes provide pre-service and in-service training. The University of Health Science, an academic institution based in Phnom Penh, provides pre-service education in the areas of medicine, dentistry, pharmacy, nursing, midwifery and laboratory technology. In order to meet the human resource demand in both urban and rural areas, there are four regional training centres located in the provinces. They provide pre-service training for nurses and midwives, as well as in-service training for health centre and hospital staff (Oum et al., 2005).

At local level:

Local authorities play a critical role in community development. Good governance is a key mechanism to promote "top down" and "bottom up" approaches. Local authorities work closely with community members to mobilize their involvement in the development of socio economic status and the health sector.

In the recent health sector reform, the government, with support from international and national donors and NGOs, has introduced the Social Health Insurance scheme (SHI) and the Health Equity Fund (HEF) to ensure universal access to quality health care services, with particular protection for the poorest and most vulnerable members of the population. These schemes have been implemented in selected areas across the country. To ensure that these schemes enable the poorest households to access health care, village chiefs are required to identify the poor in their communities and issue health care cards.

In addition, Village Health Support Groups (VHSG) work with health centre staff to improve the services provided. In each village, two representatives are elected to the VHSG. VHSG helps the health centre to monitor health issues such as immunization, birth spacing and disease prevention.

Donor agencies:

In 1991, Cambodia began reforming the health sector in order to provide good quality, efficient and accessible basic healthcare services to the whole population. However, studies have shown that the reform has been hampered by several factors. These include limited capacity to: develop health policies, plans and strategies; provide financial planning and control; collect information; monitor, evaluate and report activities; and manage and deliver basic health care services through different levels of government (Eldon & Gunby, 2009).

Technical and financial assistance has been provided by external agencies. The key donors include WHO, World Bank, Asian Development Bank (ADB), Department for International Development (DFID), UNICEF and GTZ (currently renamed GIZ). Other agencies including USAID and the Japan International Cooperation Agency (JICA) are more passive donors (SIDA, 2003).

World Health Organisation (WHO)

WHO has influenced national health policy and reform, including strengthening the health system. WHO and associate donors provided support to the health sector reform in three phases; phase 1 covering 1991 to 1994; phase 2 from 1995 to 1997 ; phase 3 from 1998 to 2000 (MoH, 2007). WHO has also provided assistance both within the MoH and civil society. *"WHO is the directing and coordinating authority for health within the United Nations system. It is responsible for providing leadership on global health matters, shaping the health research agenda, setting norms and standards, articulating evidence-based policy options, providing technical support to countries and monitoring and assessing health trends"*(WHO, 2011).

WHO has provided technical support to the MoH to build their capacity to develop national strategies and monitor implementation and performance. Evidence of this capacity development is seen in the Health Sector Strategic Plan 1 (2003-2007) and 2 (2008-2015), the National Strategic Plan for a Comprehensive and Multi-Sectoral Response to HIV/AIDS (2006-2010), and the Annual Performance Report, which details health coverage, facility utilisation and health outcome indicators (Eldon & Gunby ,2009). Annex 4 provides more details about WHO support to the Cambodia health sector.

Other donors: (World Bank, ADB, DFID, GTZ, UNFPA, UNICEF, JICA)

These donors have supported the health sector in Cambodia through financial and technical support to improve human resources and health care provision. They have focused on supporting activities to achieve Millennium Development Goals (MDGs) 4, 5 and 6.

To ensure the effective monitoring and evaluation of the health activities of international aid agencies, the national Coordinating Committee for Health (CoCom) was established in 1991. This committee includes high-level representation from the MoH and international and national non-governmental agencies. Several provincial coordination committees have also been developed (ProCoComs). CoCom was recently renamed as the Technical Working Group for Health (TWGH), which is described in more detail in section 3.1.3 .

Civil Society/NGOs:

After the 1991 Paris Peace Agreement, the number of NGOs increased dramatically, with around 300 international and national NGOs involved in more than 500 projects in 1998. Although the number of national NGOs increased over the next ten years, with over 1500 NGOs registered with the Ministry of Interior, only 340 international NGOs were registered with the Ministry of Foreign Affairs (Ek & Sok Hach, 2008).

The government's attitude toward NGOs is liberal and no specific laws regulate them**.** The Asian Development Bank (ADB) (2000) recognised the important role of civil society in the public sector for promoting accountability, transparency and providing people with opportunities to influence policy making. The emergence of civil society appears to be influencing decision making in the public sector, although more needs to be done.

Eldon and Gunby (2009) also note that the NGO sector in Cambodia plays a very active role in health. They operate a wide range of activities which include: contracting health services for the MoH alongside international NGOs; direct provision of health care services (e.g. Reproductive Health Association of Cambodia (RHAC), Population Service International (PSI) and Action For Health (AFH)); building staff capacity and providing technical support through training and education in the areas of health education, advocacy, networking and health financing schemes (e.g. Khmer HIV/AIDS NGO Alliance (KHANA), Family Health International (FHI) and MEDiCAM which is the NGO Health Sector Committee). It is recognized that the financial position of Cambodian NGOs is generally weak and highly dependent on foreign sources of funding. Most NGOs receive grants from donors to implement activities in different areas.

Civil Society Organisations (CSOs) not only work directly with local beneficiaries but make the state more responsive by influencing policy makers and donor agencies. Members of NGOs working in similar areas of health came together to create the networks namely CCC, MEDiCAM and the NGO forum of Cambodia. This local networking was highlighted by Mansfield and MacLeod (2002).By working together, they were able to gain greater legitimacy and have a stronger voice in influencing the government and donors.

3.1.2 Health System Research

In general, health systems research is conducted in particular areas responding to current needs. It is mostly carried out through government and donor funding to inform policy development. UNDP (1997) identified that a limited amount of operational research had been done on health care demand and household expenditure in Phase 2 of the Health Sector Reform. The MoH plays a critical role in defining and developing an operational research agenda for better health policy and planning and contracts this research work out to Cambodian Research Institutions.

The MoH, with donor financial and technical support, has conducted research related to health care services. Under the MoH, The National Institute of Public Health (NIPH) is a research and teaching institute actively working in the area of health policy research and capacity development in public health. It works closely with other central level health and research institutions as well as with Provincial Departments of Health. NIPH aims to build the capacity of key health staff to analyze health related problems and support the Health Care System Reform through training and research, in their associated provinces.

Although NIPH is a public health research and training institute, it does not have sufficient data to support policy development in the country. Therefore, there are many local and international private research institutes and non-profit agencies which conduct health systems research. They include Cambodia Development Resource Institute (CDRI), The University Research Company, (URC), MEDiCAM, Centre for Advanced Study (CAS) and Domrei Research. Research has been undertaken in the areas of reproductive health, maternal and child health and health care financing to inform the development of pro-poor policies. Despite many recent research studies in public health, they have not generated information for policy development and few have focused on the whole health system. This may be due to human resource and budgetary constraints.

3.1.3 Networks to Support Health System Strengthening

Networks of individuals and institutions cooperate and share information to help strengthen the health system. Members come from various sectors such as civil society, NGOs, donor bodies and the government to work together to address issues within the health system. To enable the development of national health policy and implementation, technical members are required from different institutions including the MoH. TWGH is the key coordinating group which focuses on broader health sector initiatives such as policy, capacity building and health systems (Vaux & Visman, 2005; IHP, 2008).

The TWGH has 74 official members, is led by the MOH and has broad participation from multiple MOH departments, national programs and institutions, other ministries, CDC and bilateral and multilateral development partners (DPs), including NGOs and other CSOs working in the health sector. The TWGH Secretariat, with representatives from the MOH and Health Partners (HPs), facilitates the smooth functioning of the TWGH, including the formulation of joint monitoring indicators, setting of annual work plans and developing the monthly meeting agenda.

Networks to support health system strengthening emerged to encourage cooperation between civil society and the MoH. For example, international NGOs established the NGO Forum, the Cooperation Committee of Cambodia (CCC) and MEDiCAM. In 1989, NGOs working in health created an informal national coordinating body, called MEDiCAM, which sought to develop closer relations with the MoH. These networks have resulted in various activities being implemented. However, their effectiveness and impact is limited because of inadequate financial and technical support. Only a few networks operating at national level, such as CCC, NGO Forum, MEDiCAM, have managed to develop well-organized systems and structures for regular information exchange and coordination.

3.2 Agendas

3.2.1 Recent Research Outputs

Health Financing

Cambodia emerged from many years of civil unrest following the UN-sponsored national elections in 1993. Since then, health system development has undergone a number of reforms including reforms in health financing and human resources.

There have been four major events in health financing reform since 1996: the introduction of user fees at public health facilities in 1997; community based health insurance (CBHI) in 1998; contracting in or out of health services from public health facilities to NGOs in 1999; and the Health Equity Funds scheme (HEF) in 2000 (Bureau of Health Economics and Financing, 2008).

There have been a number of studies assessing the impact of user fees in Cambodia, the results of which are mixed. Some studies reported that user fees improved poor households' access to health care, hospital performance and provider attitudes (Wilkinson el al. 2001; Barber et al. 2004; Akashi et al. 2004), whereas others seemed more skeptical about this (Jacobs & Price, 2004; Hardeman et al. 2004; Meessen, 2006). Meessen and van Damme (2004) and Jacobs and Price (2008) found that user fee exemptions for the poor often did not work well, with most beneficiaries not being poor. Jacobs and Price (2004) found that user fees pushed the poor into the medical poverty trap.

There have also been a number of studies assessing the impact of HEF scheme, but few studies have been conducted to evaluate the impact of CBHI on access to public health facilities by the poor. Annear (2006) indicated that user fees, sub-contracting government health service delivery to non-government providers and CBHI failed to protect the poor from health care expenditure. Poor households were not able to pay the CBHI premium. However, as the CBHI is linked to the HEF, the insurance scheme premium can be paid by the HEF scheme and this may increase utilization of health care services (Phoung, 2010).

The HEF scheme was judged to be an effective way of reducing exclusion, with more than half of the beneficiaries being women and girls. However, improvements in utilization of health care

services varied across ODs (Meessen et al., 2010). In addition, there are challenges with implementing this scheme, such as identifying the appropriate beneficiaries (Ir et al., 2008; Jacobs et al., 2007; Jordanwood et al., 2009), the low relative purchasing power of HEF, and questionable service quality at the contracted health facilities (Soa, 2010). It is not known why most poor households did not claim reimbursement for their treatment costs from the HEF (Soa, 2010). As part of the HEF scheme, a voucher scheme for maternal health care was piloted in some ODs in Kompong Cham province. Ir et al. (2010) looked at the effect of this scheme on poor women's utilization of skilled birth attendants. It was unclear whether the voucher scheme had an impact as it is tied closely to the HEF scheme. The vouchers were for user fees at health centres and transportation costs from home to health centres, while at referral hospitals, the user fees were paid by the HEF scheme.

Human resources

Human resources issues:

Cambodia's health workforce is characterised by a low density of clinical staff[1] (1 per 1,000 people) and an inequitable distribution between rural and urban areas (Ortendahl et al. 2007). These characteristics are affected by financial and non-financial incentives. Health care workers receive an extremely low salary compared to living costs. To survive or cover their high living costs, health care workers seek alternative sources of income to supplement their low salary. Non-financial factors affecting health workers include: limited opportunity for promotion or professional development; poor education services, housing and other amenities for their family; weak managerial regimes; limited professional support; distance from family and different social or cultural background. However, the main contributing factor is not known (Bundeth et al. 2011; Hill and Tan Eang, 2007).

[1]Medical doctor, medical assistant, midwife and nurse

Policies, programmes and schemes to address human resource issues:

A number of national policies and programmes have been initiated to tackle these issues. The first national health strategic plan 2003 – 2007 included three major strategies, namely 1) increase the number of midwives through basic training; 2) strengthen the capacity and skills of midwives already trained through continuing education; and 3) recruitment and training of new staff from remote areas.

The second national health strategic plan 2008 – 2015 includes a strategic area that addresses *i)* sufficient staffing levels with adequate professional profiles and competencies, *ii)* revising content of their training, *iii)* increasing the intake of students into schools and universities, and *iv)* strengthening measures to safeguard the quality of training and trainers.

A number of national schemes such as the Merit Based Performance Incentive, Priority Mission Group, Priority Operating Costs and Special Operations Agencies have been established by the RGC. These schemes appear to run in parallel to support the implementation of policies.

In April 2008, the Merit Based Performance Incentive scheme was created by the RGC and financially supported by the World Bank to provide payments to staff whose performance is of high quality. Within the health sector, its aim was to encourage all health partners to implement the priority areas of the Health Strategic Plan 2008 – 2015. The Priority Mission Group was created one year later. This scheme aimed to strengthen priority operations and responsibilities by financially rewarding good performance. Unfortunately, after less than one year of implementation, these two schemes were phased out over concerns about equity, which created conflicts amongst staff.

Special Operation Agencies were formed by Royal Degree in March 2008 aiming to improve the effectiveness of public services. In the health sector, the scheme set out to improve the quality of servicedelivery at public health facilities such as hospitals and health centres. Priority Operating Costs were established in July 2010 to provide monetary incentives to staff that were selected to work on development cooperation programmes in priority areas.

Besides these national schemes, there are a number of health sector initiatives that aim to motivate health workers e.g. user fees, contracting, and performance based incentives. The 1996 National Health Financing Charter permitted public health facilities to redistribute 49% of the revenue from user fees to supplement staff salary in order to motivate staff and improve their performance (Ministry of Health, 2006).

In 1998, the RGC started to contract out the management of health service delivery to INGOs to improve the quality of health care and reduce the negative effects of high out-of-pocket expenditures for the poor. This scheme also provided performance related incentive payments to health care staff in public facilities. As contractors, these INGOs in turn contract with Ministry of Health managers and service delivery facilities. There were two types of contracting; "contracting out" and "contracting in". In "contracting out", the contractor has full responsibility for the delivery of specified services in an operational district, directly employs staff, has full management control, and has a fund allocation. In "contracting in" the contractor provides management support to government service health staff, and recurrent costs are provided by the government through the normal channels. An additional budget supplement is provided out of donor funds. Contractors have full management support over allocation and disbursement of the budget supplement, but are obliged to follow government regulations with respect to government-provided resources (Conseil Santé, 2007). Internal contracting is part of the National Health Strategic Plan (2008-2015) and will be used as a tool to ensure the realization of the objectives of health sector support project phase 2 (HSSP2). It will involve the development of new governance capabilities at sub-national level, coupled with more explicit accountability instruments such as Service Delivery Agreements and contracts. In both "contracting in" and "contracting out" schemes, performance related incentive payments can be given to health care staff in public facilities.

Studies and evaluations of policies, programmes and schemes:

No studies or assessments of these national policies have been carried out. The Merit Based Performance Incentive and the Priority Mission Group were phased out shortly after they were implemented. The Priority Operating Costs scheme has not been implemented yet and the

Special Operations Agency has not been evaluated or assessed on its effectiveness in improving staff performance or contributing to health worker retention in health centres.

A number of studies have been conducted about the effects of user fees, but the effectiveness in improving health workers performance seems mixed. Wilkinson et al. (2001) and Akashi et al. (2004) indicated that the introduction of user fees at public health facilities improved performance, and staff attitudes, improved staff attendance and internal and external communication, whereas Barber et al. (2004) did not find a strong linkage between salary supplements with staff performance. In addition, Wilkinson et al. (2001) found that user fees did not improve the quality of services of the studied hospitals and health centres.

Some studies have been conducted into the contracting schemes. They seem to suggest that overall the contracting schemes have had positive impacts on health facility performance and staff attitudes, despite not all staff obeying rules and regulations (Conseil Santé 2007; Beyer 2004; Soeters and Griffiths 2003; Ir et al. 2010). Conseil Santé (2007) assessed the contracting scheme implemented in Cambodia to document lessons learnt and provide recommendations to the MoH for future directions. They found that contracting led to improvements in management styles and responsibilities at OD level including the accountability and transparency of both management processes and control of finances; staff attendance was improved; and staff worked with adequate job descriptions and proper incentives, higher income and improved working environment, training and support. However, the majority of providers were not satisfied with the system of performance based incentives for several reasons. The criteria for performance evaluation did not acknowledge team effort. Feedback was often given rapidly without much discussion, and no attempt appears to have been made to do it as a self-assessment exercise (Conseil Santé, 2007). Beyer (2004) conducted an assessment of performance based incentives in four health centres in Oddar Meanchey province and found that staff performance improved significantly apart from in one health centre. Overall, general and professional management at these health centres was improved although occasional tardiness was observed.

Ir et al. (2010) also reported the improvement of contracted facilities performance including the availability of 24 hour services and a significant reduction in informal fees. On the other hand, in

a cost analysis of essential health services, total costs and cost per inpatient day of contracting out at district hospitals were much higher than those either contracting in or not contracting (Fabricant, 2011). The costs per outpatient contact at contracting out health centres were slightly higher than those contracting in or non-contracting.

3.2.2 Emerging Themes on Health Systems Development

A National Health Sector Strategic Plan (2003 – 2007) was first established in 2002 aiming to strengthen health services and improve outcomes. The plan had eight essential objectives to ensure equitable and quality health care for all people of Cambodia through targeting of resources, especially towards the poor and areas in greatest need. These objectives were: (1) to improve coverage and access to health services, especially for the poor and other vulnerable groups; (2) to strengthen the delivery of high quality basic health services; (3) to strengthen the quality of care, especially obstetric and paediatric care; (4) to improve the attitude of health providers to effectively communicate with customers; (5) to introduce a culture of quality in the public health services; (6) to increase the number of midwives through training and capacity-building; (7) to ensure a regular and adequate flow of funds to the health sector, especially for service delivery, through advocacy, and to increase financial resources and strengthen financial management; and (8) to introduce organisational and management reform of structures and procedures to respond to change.

Following the successes and failures of the first national health strategic plan, the second Health Sector Strategic Plan (HSP2) was developed to address the health needs of the population from 2008 to 2015. By investing national resources in the social sector, the RGC has made improving the health status of all Cambodians a priority area. There are twelve objectives categorized within three goals (themes) to be achieved within this period.

Goal 1	*Reduce maternal, new born and child morbidity and mortality with increased reproductive health*
Objective	1) To improve the nutritional status of women and children
	2) To improve access to quality reproductive health information and services
	3) To improve access to essential maternal and newborn health services and better family care practices
	4) To ensure universal access to essential child health services and better family care practices
Goal 2	*Reduce morbidity and mortality of HIV/AIDS, Malaria, TB, and communicable diseases*
Objective	5) To reduce the HIV prevalence rate
	6) To increase survival of People Living with HIV/AIDS
	7) To achieve a high case detection rate and to maintain a high cure rate
	for pulmonary tuberculosis smear positive cases
	8) To reduce malaria related mortality and morbidity rate among the
	9) To reduce burden of other communicable diseases
Goal 3	*Reduce the burden of non-communicable diseases and other health Problems*
Objective	10) To reduce risk behaviours leading to non-communicable diseases (KAP): diabetes, cardiovascular diseases, cancer, mental illness, substance abuse, accidents and injuries, eye care, oral health , etc
	11) To improve access to treatment and rehabilitation for NCD: diabetes, cardiovascular diseases, cancer, mental illness, substance abuse, accidents and injuries, eye care, oral health, etc
	12) To ensure Essential Public Health Functions: environmental health:, food safety, disaster management and preparedness

Given that reducing maternal, newborn and child morbidity and mortality with improvements in reproductive health is the first priority, the MoH initiated a strategy called “Fast Track Initiative Road Map for Reducing Maternal and Newborn Mortality 2010 – 2015”, which focuses on emergency obstetric and newborn care, skilled birth attendance, family planning, safe abortion, behaviour change communication, removing financial barriers to accessing health care and maternal death surveillance and response.

The MoH with its departments (Provincial Health Department, Operational Districts and national hospitals) is the leading agent to implement the Health Strategic Plan and Fast Track Initiative Road Map for Reducing Maternal and Newborn Mortality strategy through its national programmes. External development partners provide financial and technical support in implementing and evaluating the programmes. Some NGOs are sub-contracted to implement projects or programmes. However in the review of Health Strategic Plan I (2003 - 2007), it was found that not all programmes were implemented and these were rolled over to Health Strategic Plan II.

3.3 Research Opportunities

3.3.1 Recent Contextual Changes Creating Unmet Demand for Research

About one third of the population is too poor to pay for health care in the public or the private sector. In 2005, annual household health expenditure per capita was $25 (Ministry of Health 2008). Sickness and poverty appear to be closely related in Cambodia. In many cases, poor households simply cannot afford professional health care and decide to seek a range of traditional healers and other unqualified (and often dangerous) private service providers.

It is important that research looks at how to reduce high out of pocket payments for health care by schemes such as HEF, CBHI, user fee exemption and vouchers for maternal health care being implemented. The user fee exemption scheme failed to target the poorest households (Meessen and Van Damme, 2004; Jacobs and Price, 2008; and Health Economic Taskforce, 2000). Although Phoung (2010) showed that there is a potential link between CBHI and HEF and increased health

care utilization, Annear et al. (2008) reported that only less poor households could afford to pay the CHBI premium.

Little is known about how sustainable CBHI and HEF are as HEF is largely funded by donors. Although the HEF scheme was judged to be an efficient and effective way of reducing exclusion, with more than half of beneficiaries being women and girls, improvements in health utilization varied across ODs (Meessen et al. 2010). In addition, there are problems and challenges such as identifying the right beneficiaries, low relative purchasing power of HEF, poor quality services at the contracted health facilities and members not claiming reimbursement for health costs from HEF (Ir et al., 2008; Jacobs et al., 2007; Jordanwood et al., 2009; Soa, 2010). Meessen et al. (2010) indicated that there is an urgent need for research to develop an effective strategy to improve the public health sector in the rural areas, particularly with regard to performance based financing, HEF and areas of health care provision which are poorly managed.

3.3.2 Issues of Poverty, Gender and Governance in Research

Under health governance, there are a number of issues and challenges that have been raised; promoting public and private partnerships in service provision, encouraging community engagement in health service delivery and quality improvement, and strengthening institutions systematically at all levels. In addition, WHO/MOH (2007) and World Bank (2007) indicate that there is a need to understand how to reduce the growing health inequities between different population groups, in particular women and children. Soa (2010) raised equity issues in terms of financial barriers, service availability and quality across the range of public health care providers. Soeung et al. (2006) indicated that there is a need to address how decentralization affects the long term financial sustainability of programmes including immunization.

The National Strategic Development Plan (2009 – 2013) recognises the importance of both managerial and clinical competencies and identifies the need for significant improvements in the systems managing budgets and staff. There is also a general agreement that without the right

incentive arrangements, the organisational changes required by decentralization and de-concentration reforms will be difficult to implement.

The MoH recognizes the importance of strengthening its cooperation with external partners. This is reflected in the success of the TWGH as a consultative body for the sector, through strengthening and expanding Sector-Wide Management in the Health Sector Support Programme Phase 2 and its Joint Partnership Agreement aligning partner investments with MoH strategic and operational planning. ODs and provincial referral hospitals have been established as Special Operating Agencies (SOA), thereby re-integrating formerly contracted districts into the public health system and strengthening the responsiveness of the system as a whole.

Health outcomes and health service utilization rates in different socio-economic groups point to equity issues that need more attention. There are grave concerns about the uneven distribution of Emergency Obstetric and Neonatal Care services across the country and the need to increase the quality of the continuum of care in reproductive, maternal, neonatal and child health. Maternal mortality remains unacceptably high and substantial investments in delivery services and fast track interventions are required.

However, it is recognized that maternal mortality is a cross-sectoral problem influenced by women's education and literacy, infrastructure development, and the level of women's participation and gender equity. Demand side interventions are important to increase utilization of services. Good quality services addressing the continuum of care for maternal, neonatal, and child health should be provided. There are large disparities in maternal and child health outcomes, inequities in access and utilization of health care services between the richest and poorest quintiles. Jacobs et al. (2007) identified key reasons for low referral rates from health centres and factors hindering women's uptake of health care.

3.3.3 Demand for Health Systems Research

The demand for health systems research is largely donor driven and takes the form of assessments or evaluations of programmes or policies. However, the Health Strategic Plan (2008 – 2015) calls for research to develop a package of evidence-based, comprehensive,

implementable policies which conform to the RGC laws and regulation policies. The key areas include but are not limited to:

- Contracting for service delivery (covering SOA, internal and external contracting)
- Decentralization and de-concentration in the health sector
- Public autonomous institutions: hospital laboratories and support institutions
- Social Health Protection, including Health Equity Funds and Social Health Insurance
- Staff management and staff remuneration, including performance based incentives, merit based pay, facilities based salary supplementation, per diems, and contract work
- Procurement and management of medical supplies
- Health management information systems and disease surveillance.

In addition, a number of papers have called for further research into health systems. Barber et al. (2004) suggested better understanding of: the factors that hinder the poor's access to hospital services; and the private sector's responses to the changes in public health management and fee systems. Annear (2006) and Phoung (2010) suggested exploring the factors that hinder access to quality health care by the rural poor i.e. how to minimize out of pocket expenditure for health, while obtaining a better quality of services. Soa (2010) suggested conducting research on equity issues with regard to financial barriers, service availability and quality across the range of public health care providers.

3.3.4 Research Gaps

There have been many studies examining health financing, but it appears that studies focusing on health workforce and motivations, the effects of different contacting models, management and health governance are limited.

With respect to research in health governance, the extent to which partnerships between public and private sectors are effectively promoted is not clearly known. What mechanisms and regulations should be developed to ensure the private health sector effectively participate in

improving quality of health services? What are the costs and benefits of enforcing the regulations?

There is limited understanding about how the health information system including the health management information and disease surveillance systems, through monitoring and evaluation, contribute to planning and improving the quality of service delivery. For instance, how does the health information system measure the effectiveness, quality and accountability of delivery of health care services? How do key health managers and users perceive the role of the health information system in policy development and planning? What are the strengths and weaknesses of the current health information system?

There have been limited studies on health workforce retention in rural areas, and particularly in the area of financial and non-financial incentives. The CDRI's study on health worker retention comparing the responses of health workers with their actual behaviour has not been piloted. Although, contracting models have been studied, the assessment of contracting for service delivery that covers SOA has not been conducted.

In addition, there are very few studies on the effects of climate change on health and the coping strategies or policy responses to the impacts of climate change on health. This may be an important area for future research.

4. Conclusions

Cambodia's health system, particularly the infrastructure, organisation and human resources were severely damaged due to decades of conflict. It was almost completely destroyed during the Khmer Rouge regime and has faced many challenges in its rehabilitation, including the development of infrastructure and human resources. In Cambodia, the health system falls under the responsibility of the MoH which has provincial departments of health, operational districts, and national health programmes. It is the leading agency for implementing and reforming the health system in Cambodia, while donors provide technical and financial support to the MoH.

The TWGH is a platform where all stakeholders including the MoH, development partners and NGOs working to support health in Cambodia meet once a month to discuss issues and review the implementation of the health strategic plan. Over the next five years, the MOH has three priority goals: 1- reduce maternal, newborn and child morbidity and mortality and improve reproductive health; 2- reduce morbidity and mortality due to HIV/AIDS, Malaria, TB, and communicable diseases; and 3- reduce the burden of non-communicable diseases and other health problems.

Despite there being a number of research studies in health care financing there is little understanding of the effects of both demand and supply side financing on utilisation of maternal, neonatal and child health care services and health outcomes. Other factors, such as socio-economic characteristics and other financial schemes may also play an important role in the demand for maternal health care. The effect of the introduction of the user fees scheme on access to health care at public health facilities is mixed and overall the effect of the scheme is not known. Although HEF is believed to reduce out of pocket payments for health, it is not clearly known if the poorest households benefit from this scheme. Little is known about how CBHI contributes to the demand for health care.

Few studies have been conducted on human resources for health in Cambodia. There is chronic maldistribution of the health workforce, with most health workers concentrated in Phnom Penh and major cities. Little is known about how this has evolved over time and of the attempts the MoH has made to tackle this important issue. It is therefore essential to analyse both the challenges and successes, particularly the effects of the financial and non-financial incentives, as these may be closely linked to motivation of health workers. Better understanding of the financial and non-financial incentives may contribute to understanding about the maldistribution of health workforce which would directly contribute to the achievement of the three priority themes.

Although there have been assessments of contracting models, studies looking at the contracting of service deliveries to SOA have not been conducted. The effects of contracting on the performance of public health facilities were mixed, and so it is therefore essential to

critically analyse the process of implementing the various contracting models as well as the issues, constraints and challenges faced and the coping strategies developed. A better understanding of contracting would contribute to health care quality improvement at public health facilities and to achieving the three priority themes.

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Annex 1: Framework for Analysing Existing Literature

Table 1: Illustrative grid for analysing dominant themes in health financing research outputs

Health financing function	Resource generation/pooling	Resource allocation	Purchasing/provider payments	Provision of services
Topics (most cut across the functions but can be seen as primarily linked to one)	Public expenditure patterns Global health initiatives; aid; aid coordination User fees & exemptions Insurance (social, community-based etc.)	Budgeting Resource allocation	Contracting Pay and incentives (individual and for facilities) Performance-based funding	Public/private mix Decentralisation Cost and efficiency of services Regulation
Linking topics	Links between these topics and overall health system performance Impact on equity and access (household payments; use of services; coping strategies; affordability etc.) Demand-side finance approaches			

Table 2: Illustrative grid for analysing dominant themes in human resources for health research outputs

Human resource function	Education and training	Staffing supply	Performance management	Personnel administration
Topics (most cut across the functions but can be seen as primarily linked to one)	Links to workforce planning Curriculum design Regulation & accreditation In-service training linked to performance management /continuing professional development	Workforce data analysis (numbers, types, density, geographic distribution, gender, by employer) and trends; unemployment Internal and external migration Skills mix/task shifting Workforce planning (including strategies for staffing underserved areas) HR financing	Absenteeism Performance management systems (including supervision) Performance-based incentives/pay Quality improvement	Pay and Benefits (pension, housing, etc) Career structures Workplace environment Labour relations (inc. unions/ professional associations)

		Dual working/ 'moonlighting'		
Linking topics	Links between these topics and overall health system performance HR information systems (covers all HR functions) Impact on equity and access (staff distribution, quality) Impact on quality (skills, incentives) Impact on global budget for health sector (HR is usually the biggest part)			

Annex 2: List of Participants for Key Informant Interviews

S/N	Name	Position	Institution
Public Sector (Government)			
01	Dr Lo Veasnakiry	Director of Planning & Health Information	MoH
02	Dr Sok Kanha	Deputy director of Department of Planning & Health Information	MoH
03	Dr. Keat Puong	Director of Human Resource Department	MoH
04	Mr. Mey Sambo	Director of Personnel Department	MoH
05	Dr. Char Mengchuor	Director of National Centre for Parasitology, Entomology and Malaria Control	MoH
06	H.E EngHout	Secretary of State	MoH
Donors			
07	Mr. Timothy Johnston	Senior Health Economist	World bank
08	Mr. Emre Ozaltin	Health Economist	World bank
Institute/ NGOs/INGOs			
09	Dr. Peter Annear	Senior Research Fellow	Nossal institute

10	Mr. Shakil Ahmed	Health System Analyst	Nossal institute
11	Mr.Heang Khun Srong	Researcher	Medicam
12	Mr. Chengli.Bunthy	M&E Specialist	Medicam
13	Ms. Ann Robins	Human Resources for Health Advisor	WHO

Annex 3: Topic Guide for Key Informant Interviews

I. BACKGROUND

Name: …….. Position:…….

Organisation:…… Type: Local NGOs( ); INGOs( ); Donor ( ); Government ( ); Private sector( )

II.ORGANISATIONAL ACTIVITY (Health development stakeholders)

(We will aware of Who they are?How they are positioned and their capacities?)

1. What is your organisation's sector of focus and specialty?
2. What are the major activities of your organisation?
3. What are the barrier for your organisation including HR, Financial, Contextual change?
4. Who are your target direct beneficiaries?
5. Where are your targets (location)?
6. What are your major funding sources?
7. What are your organisation's future plans and targets?
8. Do you have any collaborated partners/stakeholders? If yes, please describe?

III. RESEARCH OPPORTUNITY AND AGENDA (Research output, gap, indentify news theme)

9. What areas or issues in Health Strategic Plan 2008 – 2015 have been conducted? And what have not been done?
10. What topics and who have conducted research related to health financing and human resources?
11. What are outputs of research that your organisations have conducted related to health financing and human resources for health?
12. What are the priority themes to be addressed within next five years that would contribute to MoH's goals and objectives?

IV.SUGGESTION/COMMENT

Do you have any suggestion/comment on health system development in Cambodia?

Annex 4: Key Players Supporting the Health Sector in Cambodia (1990-2004)

(Source:UNDP: Health Sector Reform:CMB/97/014/01/14)

N°	Name of Donor	Period of Support	Major Project Activities	Level of Support				
A	Bilaterals/UN Agencies			MoH HQ	Nat. Institutes	Provincial	District	Community
1.	ADB (1) (Strengthening Basic Health Services)	1997-2001	• Construction & Rehabilitation of health facilities • Essential Drug Supply • Supplies & Equipment • Human Resources Develop. • Health Care Financing			✓	✓	
	ADB (2) (Strengthening Basic skills)	1997-2000	Human Resources Development	✓		✓	✓	
2.	AUSAID	1997-2002	• Construction of district hospitals & health centres • Construction & Rehabilitation of National Institutes • Health Education/Health Promotion • Human Resources Develop.		✓		✓	✓
3.	GTZ	1995-2004	• Construction of NIHP • Construction of Health Centres • Human Resources Develop. • Laboratory Support • Family Planning		✓	✓	✓	✓
4.	DFID (1)	1996-1999	• Prevention & Control of Malaria • Prevention & Control of Dengue Fever		✓	✓	✓	✓

N°	Name of Donor	Period of Support	Major Project Activities	Level of Support				
				MoH HQ	Nat. Institutes	Provincial	District	Community
5.	EU	1998-2001 1997-2000	• Malaria Control • HIV/STD		✓	✓	✓	✓
6.	JICA (1)	1994-1996	• Construction of new MCH hospital • Supplies & Equipment		✓			
	JICA (2)		• MCH activities • MCH/EPI/ARI/CDD		✓	✓		
	JICA (3)		• TB					
7.	UNICEF	1996-2000	• Strengthening district health services • Essential drugs • Human Resources Develop. • Health Information Systems • Nutrition	✓		✓	✓	✓
8.	UNFPA	1997-2000	• Reproductive Health • Birth Spacing • Sexual Health		✓	✓	✓	✓
9.	USAID	1995-2000	• Birth Spacing • Child Health • Human Resources Develop.		✓	✓	✓	✓
10.	World Bank	1997-2001	• Construction of District Hospitals & health Centres • Human Resources Develop. • Tuberculosis Control • malaria Control • HIV/AIDS			✓	✓	

N°	Name of Donor	Period of Support	Major Project Activities	Level of Support				
				MoH HQ	Nat. Institutes	Provincial	District	Community
12.	WHO (RB)	1996-1997	• National Health Systems & Policy development • Human Resources Develop. • ARI/CDD Control • Tuberculosis Control • Malaria Control	✓	✓	✓	✓	
	WHO (RB)	1998-1999	• National Health Systems & Policy development • Human Resources for Health • Tuberculosis	✓	✓	✓	✓	
	WHO/DFID/UNDP (SHS II)	1995-1997	• Strengthening Health Systems • National policy development • Human Resources Develop. • Health Financing	✓		✓	✓	
B.	<u>Major NGOs</u>							
i)	ARC	1991-1997	• Health Care for Refugees • Essential Drugs • Primary Health Care				✓	✓
ii)	AOG	1996-2000	• Primary Health Care • MCH • EPI			✓	✓	✓
iii)	CAMTRU	1990-1998	• Rehabilitation service	✓		✓	✓	
iv)	CARE	1995-1998	• EPI • MCH • PHC • Construction of health centres				✓	✓

N°	Name of Donor	Period of Support	Major Project Activities	Level of Support				
				MoH HQ	Nat. Institutes	Provincial	District	Community
v)	COERR	1993-1997	• Hospital Services -Rattanakiri			✓		
vi)	CRS	1992-1996	• Community Health Services (Battambang)			✓	✓	
viii)	EDC	1993-1998	• MCH • District Health Services				✓	✓
ix)	FPIA	1993-1997	• Family Health • Birth Spacing				✓	✓
x)	FWB	1996-1999	• Hospital Construction (Siem Reap)			✓		
xi)	HNI	1994-1996	• District health Services (Svay Rieng)				✓	
xii)	Health Unlimited	1990-1999	• District/Provincial Health Services Development • Human Resources Develop. (Preah Vihear/Rattanakiri)			✓	✓	
xiii)	Help Age International	1993-1996	• Eye Care Projects • Care for Elderly		✓	✓	✓	
xiv)	MSF	1995-1997	• Construction of Health Centres • Human Resources Develop. • Essential Drugs & Supplies • Hospital Services			✓	✓	
xv)	PSI	1993-1996	• Birth Spacing HIV/AIDS prevention's			✓	✓	

N°	Name of Donor	Period of Support	Major Project Activities	Level of Support				
				MoH HQ	Nat. Institutes	Provincial	District	Community
xvi)	SCF (A)	1995-1997	• Construction Health Centres • Human Resources Develop. • Primary Health Care			✓	✓	
xvii)	World Concern	1994-1997	• Oval Health programmes • Human Resources Develop. • Primary health Care			✓	✓	✓
xviii)	World Vision International	1992-1997	• Child Health • Rural Health • National Paediatric Hospital Services		✓	✓	✓	✓
C.	Other NGOs	1992-2000	• Construction of health facilities • Clinical services • Essential Drugs • Human Resources Develop. • Community Health			✓	✓	✓