World Health Organisation Cambodia
Mid Term Report for Human Resource for Health and Collaborative Efforts between MoH, WHO and AusAID in Maternal, Newborn and Child Health
01 July 2012 to 31st January 2015

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1. Background:

Cambodia's Health Strategic Plan 2008-2015 and Health Workforce development plan 2006-2015 emphasize the Cambodian priorities to rebuild it's health workforce following the decimation of the educated population during the Khmer Rouge regime and the period of instability that followed which precluded systematic, immediate regeneration.

The mid term review of the Health Workforce Development Plan (funded by WHO/AusAid) and the development of the Fast Track Initiative led to the development of Ministry of Health strategic priorities to strengthen the workforce to address areas of public health priority.

WHO supports MoH and implementing partners within its role as the specialized UN agency for public health, and its mandate which includes its role as a convenor. The unique relationship that WHO has with MoH and the strong partnership that exists between WHO and AusAID is recognized and valued. Recognising MoH priorities and the strength of partnership between WHO, MoH and AusAid, a proposal was developed for Human Resource for Health and Maternal Child Health. The proposal was developed in collaboration between MoH and WHO and aligns with the WHO MCH Strategic Plan, the MoH Health Strategic Plan (implemented by RMNCH) and the mid term review priorities of the Health Workforce Development Plan. AusAid granted the award from May 21st 2012 to June 30th 2013 and then granted a no cost extension to January 2015 to allow for the two year nurse bridging programme to be commissioned.

This is the next six monthly report of this AusAid award to WHO and MoH for Human Resources for Health and for Maternal Child Health.

Human Resources for Health Mid Term Review

Situation Analysis

The health workforce in Cambodia has grown considerably from the 50 doctors in existence after the Khmer Rough regime departed in 1979. Cambodia now has a nurse led workforce, organized into a district based health care system through

the health coverage plan. The more than 19,000 civil servants working in health still fall short in number of both the health coverage plan staffing standards and the recommended population ratios but the Royal Government of Cambodia (RGC) has committed to address the shortage through a strategy to double the health workforce by 2020. There is an acute gap of maternal child health professionals including secondary midwives, anaesthetists and surgeons. The RGC are responding to this gap through the new direct entry associate degree midwifery programme which will yield more than double the production of midwives who can be absorbed with the increased recruitment quotas. The MoH has also committed to deploying these new midwife recruits to health centres and they have a performance indicator target of one secondary midwife for each health centre.

Health Workforce compensation consists of an average monthly RGC salary of 65 USD which is below the living wage (considered to be 120 USD by a CDRI survey for garment factory workers in Feb 2009). Health workers compensation is augmented by contributions from user fees, development partner incentives and private practice. Development partner incentives often fragment the system being of different rates and under different schemes. They also often reinforce vertical health services and preclude integrated patient primary health care. There has been efforts to address these imbalances through the introduction of the Service delivery grants to fund Special Operating Agencies which are largely used for team based incentives through output based payment. The RGC has introduced the midwife incentive which is also used in teams for MCH related health workers. Despite the RGC annual 20% base salary increases for all civil servants, it will likely be atleast a decade before health worker salaries are competitive with the private sector. Human Resource strategies then need to be inclusive of public and private providers and assure quality practice in all health care settings. Registration and regulation systems capture all settings and are emphasized by MoH as a priority strategy.

An adequately skilled and competent health workforce requires quality pre-service education and efficient use of continuing education or inservice training systems. Both pre-service and inservice are closely connected to meaningful registration, regulation and licensing system.

In Cambodia, the quality of pre-service education is severely hampered by inadequate financial investment, insufficient legal frameworks to enable the absorption of funds, credit rather than competency based training, limited faculty capacity, inadequate physical resources and lack of clinical practice sites. Faculty need to be educationally skilled and have clinical awareness to be able to produce competent graduates. Training needs to be competency based to be service relevant and to ensure health workers fit for practice. There is a proliferation of private education institutions all who have 100% pass rates, with limited to no clinical practice exposure for their graduates. There are limited accreditation frameworks to monitor the quality of either public or private health education institutions.

In 2011, inservice training was financially supported to atleast 13m USD annually by health partners and pre-service education only received 800,000 USD annually. Pre-service education needs more investment and inservice training needs to utilize resources more efficiently and effectively to provide consistent and coherent professional development. 2013 has seen some balancing of funds with 6m USD financially supporting inservice and 2m USD pre-service. When pre-service institutions develop legal and financial frameworks, international agencies will increase their investment.

The Ministry of Health prioritized addressing workforce development, during the mid term review, with carefully chosen strategic priorities to ensure that the challenges and barriers to achieving a quality health workforce are addressed.

The Human Resource award from AusAid to WHO focuses resources on these MoH identified strategic priorities which are summarized as follows:

Strategic Priority One: Strengthen Governance, planning and management of Human Resources for Health

Strategic Priority Two: Improve the Technical Skills and Competence of the Health Workforce through strengthened pre-service and inservice training

Strategic Priority Three: Strengthen health workforce management: Recruitment, performance management, deployment, retention and compensation

The Human Resource for Health WHO/AusAid proposal develops objectives and activities under each of the Ministry of Health's priorities. The proposal makes a contribution to the achievement of the Ministry of Health strategic priorities for health workforce development. This report is the next six monthly report of the achievements against each of the listed strategic priorities for health workforce development.

Strategic Priorities, Objectives and Activities: mid term progress report

1. Strategic Priority One: Supporting and Strengthening of Multisectoral policy dialogue through Increased Capacity of Governance Structures

Human Resource for Health governance requires senior management leadership and coordinated decision making across service delivery, personnel, training, planning and finance depts. in the Ministry of Health. Inter-Ministerial decision making is also required between Ministry of Economy and Finance, Ministry of Education, Youth and Sport and the Council of Ministers. Emerging governance structures of the Human Resource for Health are the Ministry of Health inter-departmental Human Resource for Health Committee, the inter-Ministerial National Examinations Committee and the Health Professional Councils. This AusAid award is used to technically and financially support these structures.

The Human Resource for Health Committee was established by the Minister of Health to oversee and guide the mid term review of the Health Workforce Development Plan. When the review was approved through a validation process, the Minister retained the HRH Committee to oversee the implementation of the review recommendations. The HRH Committee has a mixed dept membership with senior managers from the health and admin / finance directorates. It is chaired by the Secretary of State for Health and has a secretariat consisting of staff from the Personnel and Human Resource Development Depts. The HRH Committee meets every six months and the secretariat meets every 6 weeks and is responsible for the activities of the Committee such as producing implementation plans, annual reports and guiding progress. The secretariat has published and disseminated the Health Workforce Development Plan mid term review. The Committee is connecting with other taskforces such as the RMNCH taskforce with the chair of the RMNCH taskforce attending the last HRH Committee. The HRH Committee meetings provide a forum for progress reports and future plans, based on achieving against the MTR recommendations. The last meeting was April 26th where the annual HRH report was discussed and approved and the World Bank commissioned Health Worker Motivation survey was presented.

The National Examinations Committee, nominated by the Prime Minister, chaired by the Council of Ministers and has a membership of the Ministry of Health and Education, is another emerging governance structure to guide the national examinations process and development of regulation for public and private schools. This award funds the MoH secretariat of the National Examinations Committee and a National facilitator who designs and outlines the process for the National Examination. This committee is also used to discuss capacity development issues for public and private schools. The National Examinations Committee successfully led the delivery of the first National Examination in early 2013 for nurses, pharmacists and dentists.

The Health Professional Councils meet quarterly to share their experience and strengthen their professional representation functions. The Medical Council chairs the meetings. This grant enabled a delegation of the midwifery, nursing and medical council to visit the Thai Nursing Council in Bangkok, to observe their quarterly meetings and structure the Cambodia meetings in a similar fashion. The Councils have a desire to form a Health Professional Council board to formalize their institutional support. Currently they are managing to register most professionals and this process will gain meaning with the increased quality of pre-service education. This award funds the Medical Council for ongoing national medical registration and continuing medical education. The Medical Council has initiated sub national leadership guidance and support for their provincial branches. Further sub national governance activities are planned. Advocacy assistance is needed for the registration of doctors in Phnom Penh as so few are registered in the city. This award funds supervisory visits of the central Medical Council office to the provincial branches to oversee registration and licensing processes. This award also funds provincial forums where doctors registered

with the Medical Council meet for patient case discussions and dissemination of relevant medical papers. This will be the beginnings of the continuing education and licensing systems with doctors needing to keep their practice up to date inorder to maintain their registration and licence to practice.

Plans for the Next Six Months:

- Continue to support the emerging governance structures of the HRH Committee, the National Examinations Committee, the Health Professional Councils, particularly the Medical Council

- Prioritise strategies to build sub national governance structures for decision making and leadership for HRH

- Build governance structures: quality frameworks for monitoring and regulation, capacity building as well as policing, separation of regulation from implementation.

2. Strategic Priority Two: Improve the Technical skills and Competence of the Health Workforce through Strengthened Pre-service and In-service Training

Governance structures have historically in Cambodia involved implementation as well as regulatory functions. This creates workload pressures on the regulatory bodies at national level which creates delays as regulatory bodies become burdened with small implementation tasks. It creates conflict of interest as the implementers are also the regulators and so they regulate their own work. Central level implementation also often results in low level quality with structures not adapted to the local context and central administration being out of date with clinical practice. With emerging governance structures, there is an opportunity to develop regulatory frameworks but simultaneously there is a need to develop implementation structures so that the burden can be lifted from the emerging regulators. This separation of duties is particularly acute for pre-service education.

Sub decree 21 outlines quality standards for each health professional programme and underpins the need for an Entrance and Exit Exam for all public and private schools. Sub decree 21 is the seminal legal outline of the requirements for regulation. This award funds the legal commitments for regulation outlines in sub decree 21, specifically the establishment of the National Examination for all health professionals. Sub decree 21 brings together the Council of Ministers, Ministry of Education Youth and Sport and the Ministry of Health to deliver on accountability structures for all pre-service education institutions. Improving the technical skills of the health workforce requires the realization of sub decree 21 and this award is enabling the use of the regulatory framework.

The regulators in the MoH played a strong role in writing and developing sub decree 21 and have been implementing the National Entrance Exam. These are strong regulatory functions and roles. MoH have also tried to implement the requirements for each health professional programme, as described in sub decree 21, by writing all curriculums, lesson plans, setting exams and preparing clinical practice sites. International best practice dictates that education institutions should be responsible for their implementation of the education system and that the regulators should manage the quality standards of that implementation. As the education institutions currently do not design their own curriculums, lesson plans, exams, they have faculty who have never seen the curriculum, do not know how to teach, write lesson plans, set exams or produce health workers who are competent. It is now recognized by the regulators and the health education institutions that there is a need to separate duties so that the education institutions implement their education systems, within quality standards set by the regulators and within the standards outlined by the National Exam and sub decree 21.

This AusAid award funds the Centre for Educational Development of Health Professionals which aims to build faculty capacity so that they have the knowledge, skills and experience to implement their competency based education systems. These capacity development initiatives are offered through a twinning relationship between the University of Health Science in Cambodia and the University of the Philippines, Manila.

This AusAid award funds both the strengthening of regulation and the capacity development needed for education institutions to deliver a high quality appropriate education service for their graduates. Here follows a description of these initiatives.

Sub decree 21: The National Examination

The National Licensing and Registration Examination allows the Ministry of Health to play a formal accreditation role (with the Accreditation Committee of Cambodia) for achieving standardised education quality for public and private schools. In Cambodia, there are twelve health professional education institutions and eight of them are managed by the Ministry of Education Youth and Sport and the Accreditation Committee of Cambodia. Ministry of Health needs, as is international best practice, a strong role in health professional education because the MoH needs skilled health professionals for quality health care. With the current arrangements, the private schools are allowed to produce health professionals, not meeting Ministry of Health criteria, including offering pre-service education without clinical experience.

The National Licensing and Registration Examination is for all students from all schools and can test student competence for all the curriculums offered for the health professions. The National Exam can drive institutional performance as institutions will provide subjects aligned with national exam content and

education standards inline with producing students able to pass the National Licensing and Registration Examination.

The Prime Minister nominated a National Examination Committee (NEC) and a national WHO consultant has worked with the Committee to agree a Road Map for achieving the National Exam. The roadmap outlines the formation of National Working groups, nominated by the NEC, for each discipline and which are representative of all private and public schools. The Road Map then tasks the working groups with identifying competencies for their health profession, designing an exam blue print and then choosing MCQ questions for the Exam. The working groups have produced competencies for each discipline and have approved the exam blue prints, outlining how the exam will test against the competencies. The groups have choosen 2,500 MCQs for each discipline area and translated them into Khmer. OSCE working groups were then nominated and they have established the clinical part of the examination, called an Objective Structured Clinical Examination (OSCE).

The first National MCQ exam was held on 12th-13th January. This first National Exam was for Pharmacists, Bachelor Nurses and Dentists. The entrant numbers are shown in the table below.

Number of Examination Entrants

BSN			Pharmacy			Dentistry		
UHS	IU	Lu	UHS	IU	Lu	UHS	IU	Lu
242	23	17	147	48		4		
54%	40%	49%	**88%**	72%		**8%**		
204	35	18	20	19		49		
46%	60%	51%	12%	28%		92%		

This exam was marked manually but will be marked electronically from 2014 as this grant procured a scanner recommended by the Univ of Sydney, which has been delivered to the MoH. The University of Sydney will visit Cambodia in August to teach the use of the scanner. Despite some graduates failing the MCQ, the NEC passed all candidates of this first MCQ part of the National Exam. This was very disappointing for the NEC secretariat in the Ministry of Health and many meetings with the Minister of Health and the Rectors of the Universities were conducted to discuss the process. This delayed the second part of the exam; the OSCE which took place in April 2013.

The MoH representatives of the National Exam Committee visited the faculty of medicine, dentistry, nursing and midwifery at the University of Sydney Australia in August 2011. The University of Sydney has offered ongoing support for the National Examinations process and a subsequent two visits from their Head of Learning Unit has led to the establishment of an examinations team in MoH who

will be responsible for the exam databank, receiving and managing the translated MCQ questions generated from the working groups, operating the scanner and marking the exam.

The University of Sydney also visited to advise on the established Objective Structured Clinical Examination (OSCE) process. The National Examinations Committee nominated OSCE working groups are again representative of the public and private institutions and have developed OSCE scenarios and established OSCE stations for the OSCE exam.The OSCE equipment for the National Examination is being procured through this AusAid award but WHO froze the procurement when all entrants passed the MCQ exam. The National Examination needs to be a meaningful process before the procurement process can be re-initiated. The new OSCE equipment will be used in the existing skills labs of the schools or stored at the Ministry of Health and used annually for the National Exam only (in rented space in the Universities). The National Examinations Committee will oversee this plan. Schools are already trying to purchase equipment for their schools to emulate the OSCE process of the National Exam.

Despite the delay and the frustrations concerning the MCQ process, preparations started for the OSCE exams. Workshops for standardised patients were held to brief the fake patients and the examiners of the OSCE stations on the process. The OSCE exams were held at TSMC and the IU in March / April 2013 and this time candidates were allowed to fail.

Here are some pictures of the OSCE stations:

BSN OSCE National Examination 2013

Pharmacy OSCE National Examination 2013

National Examination OSCE for Dentists: Suturing Station

This grant funded cameras to witness student entrant performance and the performance of the examiners, particularly inter-rater reliability.

The National Examination OSCE results were are follows:

OSCE Results			BSN			Pharmacy			Dentistry		
			UHS	IU	Lu	UHS	IU	Lu	UHS	IU	Lu
Total Pass		Number	242	23	17	147	48		4		
		%	**54%**	40%	49%	**88%**	72%		**8%**		
Total Fail		Number	204	35	18	20	19		49		
		%	46%	60%	51%	12%	28%		92%		
# Failed Stations											
	1	#	56	4	1	5	3		0		
		%	**27%**	**11%**	**6%**	**25%**	**16%**		**0%**		
	2	#	67	14	2	6	8		12		
		%	**33%**	**40%**	**11%**	**30%**	**42%**		**24%**		
	3	#	34	8	8	5	1		7		
		%	**17%**	**23%**	**44%**	**25%**	**5%**		**14%**		
	4	#	21	5	4	2	3		14		
		%	**10%**	**14%**	**22%**	**10%**	**16%**		**29%**		
	5	#	14	3	2	2	4		12		
		%	**7%**	**9%**	**11%**				**24%**		
	6	#	1	1	1				4		
		%	**0%**	**3%**	**6%**				**8%**		
	7	#	11	0	0						
		%	**5%**	**0%**	**0%**						

Preparation for 2013
The National Examination facilitator (funded by this grant) is already preparing for the National Examination in Dec 2013. He is facilitating Medical OSCE working groups to finalise the Medical OSCE scenarios. He is finalising the translation of the MCQ database. He is also assisting the NEC to respond to the IU's request to be exempt from the National Examination for doctors. This includes gathering information and drafting a response for the consideration of the Minister and the Prime Minister.

Plan:
The students who fail will be given the chance to re-take in 3-6 months.

In December 2013, the Associate Degree Nurses and Doctors will sit for the National Exam, inaddition to the dentists, pharmacists and bachelor nurses. In 2014 and 2015, the midwives and allied health professionals will join the process. By 2015, all Health Professionals will sit the National Examination.

The health professional competencies on which the National Examination is based will be disseminated and eventually reviewed by the Health Professional Councils.

Key Outputs:
The National Licensing and Registration Examination and the proposed National Board (or similar) will provide capacity to establish and regulate standards and licensure of the health professions. They will also enable the Ministry of Health to engage more formally with the Ministry of Education, Youth and Sport and the Accreditation Committee of Cambodia. The National Licensing and Registration Examination will assist in driving competency based curriculum development for all health professionals and shape educational behaviour. The National Licensing and Registration Examination will provide a standard setting process, which will be the basis of registration and licensing of health professionals.

Exit Strategy:
Initial set up costs will include international technical assistance (including but not limited to the University of Sydney), equipment (such as exam marking scanners, manikins, and simulators), costs for building the exam data bank and establishing the OSCE stations. The students will be charged and the student fees will cover the operating costs of the Examination in the future. This AusAid award is being used for the set up costs of the National Examination.

The Centre for Educational Development of Health Professionals (CEDHP)
The National Licensing and Registration Examination is hoped to drive up pre-service education quality through strengthened regulation. The Centre for Education Development of Health Professionals (CEDHP) is a resource for capacity development to achieve improved quality through the development of faculty.

The CEDHP was established:

- To meet the urgent need to upscale and improve quality of health professions education, and
- To develop educational capacity for producing health professionals who can deliver quality health services.

CEDHP aims to serve as a dedicated development center to support all aspects of health professions educational development at UHS-C and the Regional Training Centers (RTCs) (incl. affiliated clinical settings). CEDHP aims to mobilize, coordinate and cultivate the capacity of resource persons to support educational development.

Progress
The CEDHP Management Structure was nominated by the Minister of Health, January 2011, as:

- Governed by the Board of UHS-C (management decisions, leadership and guidance);
- Assisted in the development of strategy, activity and work plans by an Advisory Committee ; and
- Run by a Core Team & associate staff recruited from UHS-C and RTCs and trained for one month in the University of the Philippines in Manila, WHO supported.

The CEDHP Advisory Committee was never accepted by UHS-C or MoH because they prefer to use the existing Cambodian management line accountability structures with the Rector deciding direction of the CEDHP for UHS and MoH HRD dept for the RTCs.

The CEDHP Core team was tasked with:

- Designing & conducting short courses
  - to improve teaching skills;
- Advising faculty in relation to development of intended learning outcomes, task analysis, lesson plans, selection of active learning methods and assessment approaches;
- Develop specific teaching approaches such as
  - student's critical thinking, problem based learning, teaching in small and large groups, research techniques, measuring professional behaviour, assessing students with written examinations and measuring skills using the OSCE.
- Developing Clinical skill teaching
- Develop materials suitable for teaching in a wide range of settings (clinical areas, skill labs and hospital settings...);
- Develop study guides and notes to promote self learning and active performance ;

- Facilitate curriculum review and development contributing to education standards;
- Undertake studies & evaluation of teaching & learning; and
- Disseminate evidence concerning trends in health profession education.

CEDHP core team presented a work plan for 2011, which was approved by the CEDHP advisory Committee. The work plan was formulated through a workshop facilitated by Prof Shin from the Education Centre in South Korea. Funding was secured from AusAid and the French Cooperation.

The CEDHP has a realistic and practical work plan. The UHS-C and the RTCs have identified a core team and focal points. The core team has established a CEDHP office in the Technical School of Medical Care (TSMC), with desks, computers and internet. A training room has also been established with generous teaching area, desks and chairs, overhead, simultaneous translation equipment and other teaching equipment.

A MoU has been signed between the University of the Philippines (UP Manila) and the UHS-C. Collaborative activities have followed such as a WHO supported one month training in UP Manila for the CEDHP core teams from Laos, Cambodia and Vietnam. This training equipped the teams with basic knowledge and skills concerning health professional education including curriculum design, lesson plans small / large group teaching and student evaluation.

UP Manila now offers the UP Manila modular Masters in Health Professional Education to 15 faculty (2 females (midwives) and 13 males (doctors, nurses, dentists, pharmacists) of the UHS-C and RTCs for the first batch and 16 faculty (3 females (nurse midwives) and 12 males (doctors, nurses, dentists and pharmacists) for second batch. This programme is funded by both the French Cooperation and this AusAid award and is offered in Cambodia. Members of UP Manila faculty travel to Cambodia to teach the programme for one week every month. The students are a mixed group from the faculties of Pharmacy, Dentistry, Medicine, Nursing and Midwifery. The 15 participants of the first batch have completed successfully three semesters. There has been almost 100% attendance at the programme and the Masters Students report gaining the following from the programme:

- Theoretical understanding of medical education, especially about the concept of cognitive taxonomies and philosophy of education
- Formulation of blueprints (road maps) for design of examinations
- Understanding of what competencies are and how they can be used, especially for curriculum construction and design
- Learning about the value of small group teaching and that it's not always better to have large groups
- Problem based learning
- Learning about subjects in depth

- An opportunity for self change which is motivating in an environment where changing the system is hard to accomplish
- Useful programme for establishing resource faculty for future educational development
- Learn how to do research and source references, especially from the internet
- An awareness of how large the gap is in medical education at UHS-C
- Understand the education factory, how it produces students and how it needs to change to produce better students
- Self evaluation as well as teacher and student evaluation
- Opportunity to learn the English system (as UHS-C uses the French system).

Not surprisingly the participants also reported about difficulties in implementing the new ideas and approaches, especially within the rules and regulations of the Ministry of Health and UHS. Fourteen of the first batch students have achieved a post graduate diploma in health professional education. The first batch all sat their final comprehensive exam in November and ten passed. Those who pass will go on to complete their thesis and achieve a full Masters. It is expected that about half the first batch will achieve a post graduate diploma. It is hoped that the other half will continue for the full Masters and complete their thesis in subjects of relevance for the educational quality development of their institutions.

One of the CEDHP core team has been supported on a scholarship to the Philippines to upgrade from Associate Degree Nurse to Bachelor Nurse. The scholarship has taken place at the Mary Johnston College in Manila. The fellow will return to Cambodia in June 2012 and will then be eligible for the Masters in Health Professional Education programme. This fellow has successfully graduated from the Bachelor programme and joined the second batch of Masters students in Cambodia.

The Ministry of Health has established a working group for the development of a Cambodian curriculum for a ladder Masters programme in Health Professional Education. A consultant faculty from UP Manila is working on a first draft curriculum with the working group and a consultation workshop was held 6th – 7th May 2013. This curriculum will be the framework for teaching for the CEDHP in the future and will be approved by the Ministry of Education Youth and Sport and the Ministry of Health.

Conducting Workshops

The CEDHP core team has conducted 20 two days workshops for 239 (173 male and 66 female) participants for nurse, physiotherapy, radiology, lab tech, doctors, pharmacist and dentist part time and full time faculty. Most of the workshops have been on lesson plans and have focused on how the lesson plans fit within the curriculum and how the lessons can be delivered. URC translated the papers supporting the lesson plan workshops into Khmer. The participants have

generated over 500 lesson plans and submitted them to the Administration bureau for class room use.

Further lesson plan workshops for the medical and midwifery faculty are planned.

The CEDHP core team has gained experience and confidence through running these workshops and started to build relations with faculty. The progress of these sessions has slowed with a more cautious approach from the new Rector at UHS but they continue in the RTCs. The Director of the CEDHP has chosen to review the value of these workshops as a focus for his MHPEd dissertation. The Rector has requested that CEDHP design a process for teacher evaluation by students. CEDHP is embarking on this process with the medical faculty looking at groups of faculty rather than individuals and then reflecting the results back to the Dean. There are plans to repeat this at TSMC.

Accreditation Committee of Cambodia

The Rector of UHS-C values the CEDHP as a resource for preparing UHS-C for the ACC accreditation of UHS-C in 2013 for the foundation year. The Rector has established a pedagogy committee composed of representatives from each faculty. This committee was planned to identify the gaps between the institution and the ACC requirements. The CEDHP was planned to assist the faculty to bridge these gaps through capacity building activities, such as the lesson plan, clinical skills training and student evaluation workshops. However, the CEDHP was never invited to attend the Pedagogy Committee and the Pedagogy Committee has rarely met so this process has not been successful.

Eventually CEDHP will facilitate major processes such as curriculum review.

It is expected that all CEDHP alumni will play a major role in curriculum review activities. Already two of the Medical CEDHP first batch graduates are playing major roles in the review of the specialist curricula for specialist doctors. UHS-C has invited WHO to form a working group to consider the midwifery curriculum and it is expected that the head of midwifery faculty will be replaced by a CEDHP graduate who is expecting to use her new skills for education reform.

The UHS Rector has made all CEDHP student faculty pedagogy focal points at the TSMC. Mechanisms for CEDHP to work with these focal points need to be developed.

The Ministry of Health plans to use the competency frameworks of the National Examination as a basis for requesting all institutions to review their curriculums. CEDHP alumni are waiting for this move as it will likely be an important quality driver.

Special Focus for Midwives

Australian Volunteers International (AVI) recruited one Midwifery Education Mentor to partner with the midwife faculty at the Technical School of Medical

Care (TSMC). She worked with the midwife faculty member of CEDHP to strengthen education specifically for the midwife faculty. Initially short courses were planned but the midwife resigned for personal reasons. A replacement for her support of CEDHP is being considered.

CEDHP and the Internet
The French Cooperation has supported the development of an internet page for the whole University of Health Science. CEDHP has a feature page and displays photos and information concerning activities for all faculty to see developments.

The Technical School of Medical Care (TSMC)
The TSMC has benefitted from the lesson plan workshops and six of the Masters students are TSMC faculty. However, as the Masters programme requires a Bachelors degree for entry, many of the TSMC faculty are excluded because the majority only have associate degrees. The TSMC and RTCs are the core producers of nurses and midwives and play a potentially important role in health personnel production for rural areas.

The TSMC Director believes that the faculty need further clinical as well as pedagogy training and identifies the WHO planned Nurse bridging programme as an appropriate strategy. He also believes the faculty need English language training.

CEDHP and the Regional Training Centres
CEDHP has one focal point in each of the Regional Training Centres (RTCs). The focal points were identified by the RTC Directors and are part of the existing health professional network established by the Human Resource Development Dept. The four focal points attended the UP Manila training sessions and two of them are enrolled on the Masters programme.

The focal points also acted as coordinators when UP Manila visited the RTCs and offered the clinical skills 3 day training from the Basic Certificate part of the Masters programme.

In 2013, the RTCs expected to have a financial framework for receiving additional funding from students fees. This framework will allow for greater payment of clinical tutors but strategies are needed to ensure that the quality of health education improves as well as salaries. The financial framework as a legally recognised public administrative enterprise is still expected but needs to clear the Ministry of Economy and Finance (where is currently being discussed) and pass through three meetings at the Council of Ministers. The new Ministry of Health legal dept is following the process through a working group established by the Minister.

There is a need for the RTCs to identify priorities for educational development in the next 3-5 years. The focal points could be one of the resources for the RTC Directors for developing health professional education. Strategies could include

how to induct new staff and strategies for mobilising needed clinical teachers. This grant has funded a consultant to assist the RTCs develop quality education frameworks which should assist in accelerating this planning process.

The focal points could also list the taught subjects so that strategies for staff development (including better mastery of areas of teaching) could be developed and supported by the focal points.

Regional Training Centres (RTCs)
The RTC focal points will expand their role to include:

- Upgrade/refresh teachers' mastery of the subjects they teach.
- Develop appropriate learning materials to support students self directed learning
- Establish working groups of experts (local experienced teachers) to provide refresher courses and develop resource material for students and facilitating notes for teachers
- Link teachers knowledge of 'what to teach' with 'how to teach' and 'how to assess'
- Utilize CEDHP to support and coordinate working groups
- Provide opportunities for students for remedial study to overcome learning deficiencies from high school (foundation courses)
- Upgrade selected teachers from Associate to Graduate level
- International exposure to clinical practices and teaching for selected teachers (who could share with others and lead changes)
- Train focal resource people to create educational development capacity at RTC (linked to CEDHP)
- RTCs and TCMC to include these interventions in operational and business plans

The RTC focal points have arranged expert groups and have produced Khmer teaching materials on the fundamentals of nursing which will be widely published and disseminated.

A RTC expert group is planned for neonatal care but it has taken 7 months to plan because the HRD dept are busy with the National Exam and the RTCs will not work without their engagement. Separation of regulation and implementation duties could greatly assist these type of blockages as the RTCs could easily directly organise these groups.

Exit Strategy

CEDHP will develop a Cambodian Masters in Health Professional Education curriculum and will offer fee paying short courses. This income will be the sustainability strategy for the Centre. This strategy is made possible by basic salaries being covered by the University of Health Science.

RTC staff will use their additional capacity to strengthen the quality of teaching in the RTCs and their independence in providing health education production.

The Nurse Bridging Programme from Associate Degree to Bachelor Nurse for Faculty in the Public Sector

The CEDHP focuses on faculty development through pedagogy. During this work the TSMC and RTC faculty identified needing to know what to teach, as well as how to teach. The TSMC and RTC nurse faculty (largest faculty) would like to upgrade their qualification to a Bachelors degree. The faculty believe that they need this formal qualification to be credible teachers for the Associate Degree Nurse and Bachelor Nurse programme. Whilst teaching content can be developed without this formal qualification, the faculty are more motivated by the opportunity to achieve a Bachelors degree. It is possible to capture this motivation and to improve the quality of clinical teaching through a bridging programme.

Some bilateral organisations offer international scholarships to achieve a Bachelors degree such as the JICA programme in Thailand and the AusAid Masters programmes. 25 of the faculty and preceptors are benefiting from the JICA initiative however many are unable to participate because they have nearly no English language skills and they have family commitments which makes a time abroad an impossible commitment.

Establishing a nurse bridging programme in Cambodia also means that more faculty can be upgraded, the clinical skills are more country relevant and the training can be delivered with simultaneous translation. The current degree level faculty can also co-teach on the programme and benefit from the mentoring and coaching for delivering the programme. They can also use their new skills for their regular teaching.

Progress

A feasibility study was conducted by the Nursing Dean and Deputy Dean of UP Manila. The Ministry of Health shared the existing Cambodian curriculum for a Nurse bridging course and requested UP Manila to assist in delivering the programme.

The UP Manila faculty recommended:

- The inclusion of Maternal Child Health antenatal and delivery courses; the disease burden in Cambodia being mostly in women's and child's health
- The programme be taught by the existing Cambodian Bachelor Nurse faculty, with UP Manila support
- English language training should be offered to both students and the prospective Cambodian teaching faculty
- Clinical education could be offered at the Calmette hospital where a sufficient range of cases exist to enable clinical practice and the hospital only serves public sector school students
- All bridging course faculty would be required to complete a set number of clinical hours to increase their clinical skills. For maternal child health clinical skills, the men would need to be able to deliver babies and it is uncertain whether men would be allowed this access in Cambodia. There maybe a need for the men to achieve their MCH clinical exposure overseas in Thailand or the Philippines.

Midwives with 3+1 qualification are interested in also applying for the nurse bridging programme upgrade and it could be possible to share resources to optimise the education of nurses and midwives.

The Bridging programme will also emphasise the importance of the structured clinical practice for students and will require faculty to plan this into their own teaching role with nurse and midwife students.

The Ministry of Education Youth and Sport and the Ministry of Health have approved the Cambodian curriculum and the Nurse Bridging programme, without an Entrance exam requirement. The programme was advertised by UHS for all public sector faculty who are below 53yrs, will commit to education for atleast 5 yrs after qualifying and who already have an associate degree. 29 faculty have applied for the programme which started in February 2013. UHS-C and the RTCs have nominated co-teachers to teach with the UP Manila faculty and terms of reference for each teacher is being developed. Simultaneous translation is also provided. The Bachelor programme is a Cambodian degree awarded from Cambodia.

The Nursing Council coordinated a National Nurse/Midwife Conference and the Nurse Bridging programme was featured.

Key Outputs

Nursing and Midwifery faculty and preceptors of the public sector health professional education schools will upgrade their skills to Bachelors. The quality and consistency of clinical teaching will improve for all students (as public sector teachers also teach in the private schools). The Nursing and Midwifery faculty and preceptors will play a more active role in education planning and organising clinical placements. Nurses will develop their skills further in Maternal Child Health. The Faculty of the current Bachelors programme will receive coaching

and mentoring to deliver the bridging programme and through this process will grow into mature educators to lead the Bachelors programme.
Educational capacity will remain for the planned Masters in Nursing programme.

CEDHP can mobilise the Nurse Bachelor students as well as the Masters in Health Professional Education students for the improvement of education quality and capacity.

Exit Strategy
The Nurse Bridging programme will be offered for public sector school faculty only (approx 150 faculty). It could be offered until 2015, with the purpose of strengthening faculty, both on the course and the ones being mentored to co-teach the course. After 2015, half the faculty will have received the opportunity to go on the programme and so the bridging programme will either apply for a second round of funding to complete all faculty or close, leaving the Bachelor degree programme to continue to train Bachelor degree nurses.

Development of Pre-Service Khmer Education Materials
The RTC expert groups have produced handouts in Khmer for Fundamental Nursing one but HRD dept need to check them against the curriculum and examination structure before they can be officially published.

In collaboration with the WHO MCH team, the midwifery training modules and the WHO Management of Childhood conditions have been translated into Khmer and will be disseminated to all public institutions. When the WHO Management of Childhood conditions has been updated, copies will be given to all medical students.

In-service training and continuing education maintains the skills of the health workforce of Cambodia

The HRH mid term review recommends strengthening the MoH National Plan for training with a goal of operationalising two to three national training areas over the next five years. The remaining seed funds will be used to explore how to operationalise these but the actual budget will likely come from complementary funds within Maternal Child Health, Infection Control, IMCI and Health Centre Management. The inservice course rationalisation will also likely be linked to the review of health professional roles and the need for supervision.

Health Professional Councils are also exploring developing continuing education packages for each profession. These packages could either replace or complement inservice training.

The second largest funder of inservice training, HSSP2, has transferred their Training and Development Manager to the Human Resource Dept and he is supposed to assist in strengthening the Govn plan and not just the HSSP 2

training plan. HSSP 2 carried out an evaluation mission which reinforced the MTR recommendations and has accelerated the move of HSSP 2 funds to fund Govn approved inservice trainings and increase investments for the pre-service schools.

Inservice Training

- Work with HRD dept and National programmes to strengthen Govn training plan and it's systematic implementation
- Work with Health Prof Councils to strengthen links between ongoing continuing education and registration and licensing.

Strategic Priority Three: Strengthen health workforce management: Recruitment, performance management, deployment, retention and compensation

The MoH again used the improved Human Resource information system to maintain the nearly 60% increase in annual recruitment quota. If this increased annual allocation can be sustained, the MoH will reach the staffing standard targets for health facilities by 2020. The more than double the number of secondary midwife graduates produced from the schools in 2012 were all offered a civil service place in a health centre and half accepted this offer. If this pattern continues, the health service will be saturated with nurses and midwives by 2020.

The HRH Committee will continue to produce Annual reports to monitor this progress. 2013 saw the first joint report between HRD and Personnel including information on HRH Management and HRH Development.

Whilst the Projection Tool (WHO/AusAid funded HRH tool for health facility workforce projections) continues to offer a useful facility for the MoH to present their staffing requirements to the Council of Ministers, it has not yet been used at Provincial level.

There is a need to strengthen governance capacities at provincial level and this includes the strengthening of devolved and integrated HRH information systems for workforce planning. Apart from one deployment workshop planned for mid 2013, there has been little enthusiasm from MoH to move ahead with these plans. With the advent of the major D&D reforms, there is an accelerated need to focus on this area for the next 6 months of the grant. There is a proposal from development partners to offer a capacity development plan, jointly funded as part of the funding following HSSP 2.

With the appointment of a new Director General for Admin Finance, there is an opportunity to conduct a health workforce review for admin finance staff including human resource personnel. This is a good opportunity to use this grant to identify capacity needs which can be fulfilled by RGC and development partners. Following a meeting with the DG, she does not want a capacity plan for finance staff but encourages capacity development of Personnel and the new legal dept.

Compensation reform is a RGC priority for the next political mandate from June 2013 but it is widely expected to result in the flattening of salary scales and the continuance of the across the board 20% salary increase for all civil servants, including health workers. The dialogue between international development partners and the RGC on compensation reform has dwindled with the termination of the Priority Operating Cost (POC) scheme and the expressed desire of the RGC that compensation reform remains internal to the RGC.

With private sector opportunities in health being so great, it is likely that the areas of compensation most influential are in the private sector and with development partner paid incentives. The World Bank recently commissioned an incentive survey reviewing SOAs payments mostly. Preliminary results have been released and indicate that nurses are able to earn 200-400 USD per month with all compensation sources (Govn, incentive, private practice, user fee) and doctors can command 800-2000 USD per month. This award plans a labour market survey to further capture the private sector and comparators within region inlight of the ASEAN free trade agreement for labour in 2015.

Plans for the Next 6 Months:

- Contribute to the joint development partner planning of a capacity development plan
- Annual update of the Projection Tool for monitoring the strategy to address the shortage for 2020
- Annual report on HRH

Maternal Child Health Mid Term Review

The specific areas of focus are: 1) Technical support to the RMNCH task force, 2) FTI costing, 3) Multifaceted communication campaign including a convergence of mass media, public relations, interpersonal communication through existing networks, administrative advocacy and health facility promotional materials to address myths and superstitions around use of modern methods of contraception and maternal/neonatal danger signs and appropriate referral, 4) Strengthening maternal death audits including institutionalization of use of data in planning and resource allocation, 5) Evaluating existing neonatal and intrapartum hospital care provision and developing health training institutions and professional bodies, evidence-based neonatal quality of care standards and guidelines.

2. Outputs of the project:

2.1. Reproductive and Maternal health

2.1.1. Strengthen competency of midwife

From Aug 27th to Sept 21st NMCHC had organized one month training course to build the capacity of 20 new MWs that just joined the public service and has been allocated to work at health centers in following

provinces: Prey Veng, Kampong Thom, Pursat, Kampong Chnang, Kampot and Kampong Cham. The course design focuses more on real practice. In the morning there is practical session at different NMCHC services, classroom theory occurred at the afternoon time. Trainees were also assigned for on duty task at day, night and during weekend.

2.1.2. Cambodia Midwife Day event

On May 5th 2012, Cambodia Midwife Association (CMA) had organized Midwife Day event under the theme "Midwife Save Life" which had 350 midwives from all 24 provinces participated. The objective of the event is to celebrate Cambodia Midwife Day and to acknowledge the importance role of midwife in the society in providing care to mother and newborn. The event also helps to strengthen midwife professional through building close link with International Confederation of Midwife (ICM). It also provides opportunity for midwives to build networking, share experience, learn new interventions and progress made toward MDG 4 and 5. This event is co-funding support from various development partners such as: WHO/AusAID, JICA, MSI, PSI, UNFPA.

2.1.3. Finalization of Maternal Death Audit (MDA) Protocol

In May 2011, WHO provided TA and financial support to National Reproductive Health Program (NRHP) to conduct MDA peer review workshop to review all maternal death cases that happened in 2010. One suggestion that came out of the workshop was to update the existing MDA published in 2004. In late 2011, WHO consultant reviewed and drafted the new protocol. With WHO/AusAID funding, NMCHC convened 5 working group meetings to review the proposed protocol and develop necessary forms. These drafted documents and forms has been presented during MDA Annual workshop in late December 2012 for comments. Following this workshop, NRHP/NMCH plan to convene another set of working group meetings to review the feedback and comments from MDA annual workshop and conduct field test to finalize the MDA protocol and forms.

2.2. Newborn and Child health

2.2.1. Improving immediate newborn care in Kampong Cham province

27 sessions of immediate newborn care (INC) coaching for 320 participants from the provincial hospital, 7 district referral hospitals and 95 health centers were conducted at 7 operational districts (ODs) Kampong Cham province. These coaching sessions were organized from June to October 2012. Additionally, 3 sessions of INC for 16 supervisors of the 7 ODs was conducted at Kampong Cham provincial referral hospital. The facilitators were the MCH/PHD team and provincial referral hospital staff.

Three months after coaching, the follow up supervision was conducted in all health facilities. The certificate of attendance was provided after assessment of performance of health workers through skill demonstration.

- 313 copies of "Certificate of Attendance" were provided to 313 health workers who completed the INC coaching in 7 operational districts (ODs) of Kampong Cham province (296 participants and 17 supervisors).
- 211 aprons were provided to health workers at delivery services of 7 district referral hospitals (RHs) and 95 health centers (HCs) in 7 ODs of Kampong Cham provinces .
- 45 pink aprons (for simulated skin of mother in INC coaching demonstration) were provided to Kampong Cham provincial hospital, 10 OD supervisor teams, 5 regional training centers (RTCs) and also to the National Maternal and Child Health Center (NMCHC).

2.2.2. Improving immediate newborn care in the National Maternal and Child Health Center (NMCHC)

- 1 pre-coaching meeting was conducted on 10 May 2012 with 10 participants from the National Maternal and Child Health Center (NMCHC), MCH/PHD and provincial hospital of Kampong Cham province.
- 9 sessions of immediate newborn care (INC) coaching for 113 participants (100 female midwives and 13 doctors and nurses) from delivery wards and newborn care unit (NCU) of NMCHC (including 7 from NGOs, 8 from the Technical School of Medical Care and 5 from the EmONC regional training sites) were conducted at NMCHC from May to September 2012.

2.2.3. Scaling up INC coaching for health workers of provincial hospitals

- An orientation workshop for provincial MCH coordinators was conducted on 8th October 2012 at NMCHC. It aims to inform them about the coaching plan, invited participants and process of scaling up immediate newborn care coaching to all 24 provincial referral hospitals and set up the appropriate schedule to be available for the participants and the facilitators at national and provincial level. 24 participants attended the 1-day workshop.
- A total of 212 participants who were mostly midwives coming from 9 provincial MCH offices, 9 provincial referral hospitals, 27 district referral hospitals of 27 ODs in 9 provinces (Kg. Thom, Prey Veng, Svay Rieng, Battambang, Pursat, Banteay Meanchey, Siem Reap, Oddor Meanchey and Pailin) completed the 20 sessions of two-day coaching at NMCHC. Among them, 22 participants were selected to attend 2 more sessions for becoming facilitators of INC coaching. The facilitators were the NMCHC team with technical support from WHO/Cambodia and RACHA.

2.2.4. Technical support for newborn and child health

- An expatriate technical adviser, Ms. Chris Newsome, was contracted for providing technical support to the NMCHC, provincial and operational district maternal and child health programs, relevant NGO networks and health workers. She has involved in INC coaching for health workers and follow up supervisory visits at health facilities to assure that INC is applied routinely for all birth deliveries by health workers. The contract covers the period from 10 September 2012 to 9 September 2013.
- A National Professional Officer of newborn and child health was recruited in October 2012. His contract continues until September 2013. His roles are to support strengthening newborn and child care especially coordination with the national maternal and child health center (NMCHC) for scaling up immediate newborn care in whole country. He also assists the RMNCH Task Force for improving the implementation of Fast Track Initiative Road Map (FTIRM) for reducing the maternal and neonatal mortality in Cambodia.

2.2.5. Technical support for RMNCH Task Force

- RMNCH Task Force plays an important role in cross-cutting coordination within the MoH institutions, departments and national programmes and health development partners and NGOs. For continuing this supports, a temporary MCH/WHO team leader was recruited for a transitional period of one month (while this position is still vacant) to provide technical support to the MoH especially the strengthening of child survival strategy implementation.
- A short-term contract staff (SSA) was recruited to assist the Task Force secretariat to conduct monthly meeting and the annual workshop. He played the role of coordination with task force members and between RMNCH Task Force and health partners. This position is closed at the end of September 2012 when the NPO of newborn and child health was recruited.

2.2.6. Strengthening Integrated Management of Child Illness (IMCI)

- A transcript of IMCI training video was translated from English to Khmer version by the IMCI management team of the MoH. It will be used to translate the voice recording of IMCI training video into Khmer. Then, the video will be used for improving IMCI training for health workers.

3. Activities plan for next 6 months (January-June 2013):

3.1. Reproductive and maternal health

- National day for Maternal and Newborn and Child Health
- Finalization of Maternal Death Audit protocol

- Upgrading skill of health providers on partograph use
- Revise Safe Motherhood protocol for Health Center

3.2. Newborn and child health

- Continue to scaling up INC coaching (Kampot, Phnom Penh & Steng Treng regions) to cover all provincial hospitals and looking for the possibility to scaling up to the district referral hospitals and health centers.
- Improving Integrated Management of Child Illness (IMCI) training curriculum and supervision.
- Continue to support RMNCH Task Force especially for improving child survival strategy implementation.