

**SURVEY ON NURSING EDUCATION
IN THE PUBLIC SECTOR
AND NURSING SERVICES
AT SITES FOR CLINICAL PRACTICE
IN CAMBODIA**



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Human Resource Development Department/MoH
JICA project for Strengthening Human Resources
Development System of Co-medicals



Executive summary

HRD/MoH and JICA jointly conducted a situation analysis of nursing education in the public sector and nursing services at the clinical practice site as part of a five-year technical cooperation project funded by JICA. The scope of the project in the field of nursing was to develop nursing regulations and build the capacity of teaching staff, but the analysis not only focused on this scope but also tried to cover other aspects of nursing with the intention of contributing to improving the quality of nursing education and nursing services. In February and March 2011, a team of HRD/MoH staff and JICA experts visited all five public institutes for nursing (TSMC, four RTCs) and the main teaching hospitals (five national hospitals, four referral hospitals in the provinces), and two health centers. Individual and group interviews using questionnaire, self-administered questionnaire and observation were used to collect information and the results were analyzed by the team. The main results are summarized below;

1) Nursing education

1. School syllabus

All schools organize their documents according to the school's organization. However, if schools don't have a school syllabus, which is an outline or other brief statement of the main points of a course, the subjects of a course of lectures, the contents of a curriculum including school vision, philosophy and goal, the school should develop a school syllabus to provide a quality education for its students.

2. School activities

All schools made annual school plan, however it was not appropriate activity plan to make an annual plan. It might be hard because the school year doesn't start in the given term. The issues should be resolved as soon as possible to improve the quality of education for both students and teachers. All schools have an annual activity plan. It is worthwhile to evaluate school management.

3. Education

All schools follow the National Curriculum, which was approved by the Ministry of Health (MoH) and the Ministry of Education, Youth and Sport (MoEYS) to provide nursing education, and to manage student evaluation systematically. The education is executed according to the national curriculum and evaluated systematically. High value should be placed on this observation.

On the other hand, schools don't develop appropriate course plans for subjects. The lecture plans for each subject are in a poor condition, are not based on the evidence and are not scientific. Some reasons for this are as follows. First, the curriculum guidelines don't include all nursing subjects in the national curriculum. It is necessary to align the contents and categorizing of nursing subjects in the curriculum guidelines, and develop it to create an appropriate lecture plan. Second, the teachers don't have appropriate teaching knowledge and skills. The teachers have to understand pedagogical methods, how to educate and evaluate students effectively. Many teachers have already taken pedagogy training courses; however, regrettably, this is not reflected in the lecture plans. The teachers who have undertaken pedagogy training have the responsibility to implement, disseminate and develop the study of pedagogy in the school. Another reason is the capacity of teachers. Using the textbook to make the lecture plan is the

minimum requirement for teachers based on medical and nursing science. But many teachers cannot read English. Is it necessary to provide textbooks in Khmer or to educate teachers in English? This is not an easy issue to solve, but needs to be discussed to reach a solution.

Schools need to manage educational activities more systematically according to an annual or semester course schedule for students. Without an annual or semester course schedule, it is difficult to create a teaching schedule for teachers, and students cannot undertake pre-study. To provide a quality education, it is necessary to offer a considered organization of schools such as an annual or semester course schedule.

4. Clinical Practice

Preparing for clinical practice for students starts before clinical practice in each school. However the planning of clinical practice is not scheduled as an annual plan when the school year starts. The school doesn't participate in student placement in each ward for clinical practice, and the teachers don't participate in clinical practice for management, or monitor this regularly. Clinical practice is an important part of nursing education, and it has to be provided under the supervision of the school. The schools should properly recognize their responsibility for clinical practice. It is also necessary for the clinical practice to be managed through the responsible school acting in cooperation with the hospital. Teachers should also frequently visit the hospital, and ensure more effective clinical practice.

The school has cooperative meetings with the clinical hospital, such as Technical Board Meetings and regular and irregular meetings, to exchange information and discuss how to solve the problems. However, the cooperative structure and function should be considered to further strengthen the Technical Board Meeting. It is necessary to establish an appropriate clinical practice system within the cooperation between school and hospital, and to provide clinical practice under the strong responsibility of the school.

The school uses a clinical logbook to note clinical performance and evaluations and consists of 24 nursing tasks. It is suitable for providing effective clinical practice for students. However nursing practice includes more than those 24 tasks. The clinical practice of nursing is concrete and individual, or tailor-made after receiving guidance and advice on the nursing in the hospital based on the scientific knowledge and skills acquired during the lecture and demonstration at school. Students learn to correctly understand the patients and nursing tasks through studying both sides of the school and hospital, and clinical practice, which is a study to integrate theory and skill. It is very important that the students can learn from a role model as a nurse in the clinical practice. The clinical practice should be provided with a view to providing holistic care, not only to teach skills. The clinical logbook used in each school should be considered and revised to serve as the holistic care standard for clinical practice.

5. Facility

The situation with the facilities is undesirable, particularly in terms of the ratio of students for the size of the classroom. There are too many students studying in a room. The situation makes education irrelevant. All schools, with the exception of TSMC, do not fulfill the national standard guidelines from the MoH. The number of classrooms has also been enacted in the guidelines, but there were insufficient classrooms and demonstration rooms in each school. The demonstration rooms are in a very poor condition, and the equipment is not managed and maintained properly.

There are a moderate number of books donated by donors in the library. But most of the books

are written in English, and many teachers cannot read it. There are no standardized textbooks for students and teachers in Cambodia. It is necessary for teachers to develop the books to use. Also, the library is not actively used by students, perhaps because of the opening time for students.

It is the responsibility of the school to manage facilities and the environment for providing effective education. The school director has overall management of schools such as the number of teachers and students and their quality, and the school environment to provide a quality education, including class rooms, demonstration rooms and the library. The director's ability in school management need to be further developed.

6. Teachers and students

The main problems are firstly, the shortage in the number of full-time teachers. in TSMC in particular, Total in 5 schools, overall number of full-time nursing teachers is only 19.5% of the MoH standard and 66 more teachers are needed. The lack of teachers influences the quality of education. TSMC is a higher educational facility in terms of nursing science. The situation makes the problem serious and it should be immediately improved for both TSMC and RTCs. If the number of teachers cannot be increased, it will be necessary to consider decreasing the number of students. Increased student intake influences facility management and school activities such as classroom usage and the start to the school year, and also influences clinical practice. This situation has a strong negative influence on the provision of quality education.

Secondly, several teachers at primary level are still working as nursing teachers. Even though the number of primary nurse and midwifery teachers is small, it is not desirable that they teach at secondary level. The educational level of primary nurses and midwives is insufficient to educate nursing students. The level of education is not set in the national guidelines as a qualification for nursing teachers; however, the teachers who work in TSMC should have at least a bachelor's degree or above, and the teachers who work in RTC should have at least a diploma or above.

Lastly, the teachers lack clinical experience. The ratio of teachers with experience working in the clinical field is only 28.7%. How can teachers without any clinical practice experience, especially clinical skills, are teaching students? It is necessary to provide for teachers clinical practice training that covers the deficiencies of their clinical experience.

2) Nursing services

1. General information on hospitals and hospital management

Hospitals with larger numbers of beds and larger numbers of patients tend to have more nursing staff, but it was not possible to analyze in this report whether the number of nursing staff is appropriate because the government has not established any standard for the number of nursing staff to be placed in hospitals. Standard staffing for both referral hospitals and national hospitals needs to be defined by the MoH to promote appropriate allocation of nursing staff in public hospitals in Cambodia.

2. Nursing department organization and nursing management

There are nursing departments in all nine target hospitals, and key personnel including the nursing department director were assigned according to the organizational chart of nursing department. However, the organizational chart for the nursing department was hardly included in any of the overall organizational charts of the hospitals. Without a formal positioning of the

nursing department or an official acknowledgement by the hospital manager team, it is fairly difficult for the nursing department to receive support from hospital managers, such as budgetary support for its activities. These results reveal that nursing departments currently at teaching hospitals do not function or properly manage their nursing staff to improve the quality of nursing services at hospital.

Standards relating to nursing services and standard operating procedures exist in six of the nine target hospitals. The contents of these documents include “pre- and postsurgical procedures, hand-washing, and waste management”. Only a part of these nursing service procedures was standardized within the hospitals by these documents. Most of nursing service is not standardized inside the hospital, which makes it difficult to ensure the quality of the nursing service.

3) In-service training for nursing staff

Key personnel of the nursing department, including the nursing department director, etc., were also in charge of in-service training.

The problem with in-service training is that the conditions for providing systematic in-service training are not guaranteed due to the inadequacy or lack of a training program and budget.

4) Pre-service training for nurses and midwifery students

The system for conducting clinical practice at teaching hospitals is inadequate at present. In particular, the following points are problems that need to be solved: the preparation and organization of students based on the annual plan of clinical practice is inadequate in hospitals, even though communication mechanisms exist among schools and clinical sites; there are large numbers of students; preceptors at national hospitals do not receive preceptors' training to ensure the quality of clinical teaching.

To improve the situation, strengthening nursing department will be the key action, since nursing managers are the principal resources for pre-service training in hospitals.

5) Nursing service and nursing ethics

Patient care (support of the patient during recover) is mainly entrusted to nurses and the patients' families, and curing the patients (assisting with medical treatments) is mainly entrusted to nurses. Our observations suggest to us the following specific areas for improving the quality of nursing services:

1. Nursing is practiced with insufficient scientific evidence, such as correct knowledge about medicines or without any practice of nursing assessment and nursing diagnosis.
2. Nursing practice harming the patients, such as through interruption of treatment due to inadequate observation of the patient by the nurse.
3. In regard to nursing ethics, several nursing behaviors that posed ethical problems were observed.
4. Several cases were observed in which patient privacy was not protected. However, responses given in this regard during interviews were that patient privacy was respected, indicating a problem because of the considerable dissociation between the awareness of nurses concerning privacy and actual on-site nursing practice.

6) Nursing records

For the purpose of offering a certain level of nursing service, the MoH is promoting the introduction of nursing processes such as a nursing record. It was confirmed that the “Information Handover Sheet”, prepared as a part of the above-mentioned promotion, was not actually in use in two of the nine target hospitals. In seven hospitals where it was used, however, assessment is not recorded as a part of continuous nursing process, indicating that the sheet is not sufficiently utilized. Managerial direction is required to expedite correct usage of the sheet by on-site nurses. Also there is no column on the information handover sheet for describing the “nursing plan”, which is important for nursing process, indicating that the design of the sheet requires revision.

The main recommendations are:

1) Nursing education

1. Appropriate student intake numbers according to the capacity of schools (students-teacher ratio)
2. Improving working condition for teachers (salary, motivation, etc.)
3. Strengthen clinical practice system, by strengthening the roles and responsibilities of schools
4. Strengthen teacher's capacity in teaching skill and knowledge
5. Improving the management capacity of schools, by introducing school fee or other schemes

2) Nursing services

1. Appropriate allocation of nursing staff based on the standards developed
2. Strengthen the nursing department through the official positioning of the nursing department, and the acknowledgement and support of hospital managers
3. Strengthen in-service training for nursing staff, preferably under the guidelines of continuous training
4. Strengthen pre-service training for nursing and midwifery students, by setting up an appropriate monitoring system of student numbers, a continuous training system for trainers, and possible consideration of private hospitals as clinical practice sites
5. Improve nursing services by clarifying the role of nurses as care providers in nursing regulations, revising and preparing the nursing standards and standard operating procedures
6. Dissemination of information about nursing ethics
7. Improve nursing records.

According to the recommendations from the education and nursing service side, this report suggests the following points as overall recommendations.

- Many problems in the nursing service occur as a result of the lack of management capability of nursing managers, and the lack of nursing management. Problems of in-service training, non-standardized nursing care, shortage of nursing knowledge based on evidence and

ethics, non-scheduled clinical practice and the matter of preceptor training, it is possible that most will be solved by strengthening organization of the nursing department and management of the health facilities. The MoH should provide/develop a national nursing management policy and endeavor to improve the capability of nursing management in healthcare facilities.

- It is necessary to improve the relationship between schools and hospitals in terms of clinical practice. Regarding the problems of the education and nursing service, there are many issues for clinical practice. To solve these problems, we need to set up a system of clinical practice that is clearly under the responsibility of the school. Schools need to understand that clinical practice is one of the Nursing Science subjects in the curriculum and should perceive the clinical practice as being as important as school-based academic activity. On the other hand, hospitals also need to understand their role in clinical practice. To improve clinical practice, schools and hospitals need to have commitment and be prepared to discuss the solution.

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Abbreviations

ADN:	Associate Degree of Nursing
HRD:	Department of Human Resources Development
ISAR:	Infirmier Spécialisé en Anesthésie et Réanimation (French) Nurse Specializing in Anesthesia and Resuscitation (English)
JICA:	Japan International Cooperation Agency
MoEYS:	Ministry of Education, Youth, and Sports
MoH:	Ministry of Health
MW(s):	Midwife(wives)
NH:	National hospital
Ns:	Nurses
PN(s):	Primary nurse(s)
PMW(s):	Primary midwife(wives)
RH:	Referral hospital
RTC:	Regional Training Center
SN(s):	Secondary nurse(s)
SMW(s):	Secondary midwife(s)
TSMC:	Technical School of Medical Care
UHS:	University of Health Science
VSO:	Voluntary Service Overseas

1. Background

The MoH/JICA project for Strengthening Human Resources Development System of Co-medicals began in June 2010 and will run for five years. The purpose of the project is to improve the educational basis for quality co-medicals by enhancing management of the HRD department of the MoH, with two areas of focus being capacity building of the teaching staff for nursing and midwifery (existing and new teachers), and basic regulations for health professionals (primarily nursing). Based on the agreement from the 1st Joint Coordination Committee meeting with MoH in October 2010, the project team prepared a situation analysis as a project baseline to collect information and create a brief overview of the situation of nursing education and nursing services in clinical practice sites.

2. Objectives

1. Collect information and analyze the nursing education situation focusing on the capacity of teaching staff.
2. Collect information and analyze the actual nursing services¹ to assist in the preparation of nursing regulations.

3. Methods

1. Nursing education

1) General information on educational institutions

Questionnaires and interviews with the school managers were used to collect information, such as school ethos, organizational structure, teaching courses, the annual school plan and schedule, the numbers of students and teachers, curriculum, communication with hospitals about clinical practice, lecturer plans, approval of promotion and graduation, and examination and evaluation methods (Appendix 1).

2) Individual information on school teachers

A self-administered questionnaire was used to collect information, such as educational background and training, work experience, and clinical experience (Appendix 2).

3) Lecture observation

Lectures at RTC were observed and analyzed by a nursing education expert.

2. Nursing services

【Hospital】

1) General hospital information (Questionnaire and interview)

General information was collected through questionnaires and interviews with hospital

¹ The definition of the term “nursing service” in this report refers to all support activities that nursing staff provide for patients, such as support in recovery and the provision of medical treatment.

managers on hospital organizations, including numbers of staff and beds, statistics (numbers of outpatients, inpatients, and deliveries), etc. (Appendix 3).

2) Nursing management of hospital (Questionnaire and interview)

Information on nursing management was collected through questionnaires and interviews with directors/deputy-directors of nursing departments, nursing department managers of nursing organizations and activities, nursing services, in-service training, pre-service training, etc. (Appendix 4).

3) Nursing services at hospital (Group interview)

Providers of nursing services were identified through group interviews with nurses and/or midwives (nursing department member, chief nurse, nursing staff member) working in hospitals. Nursing services (52 items) were classified into three categories: 25 items related to “Care”² (supporting patient recovery), 24 items related to “Cure” (assisting medical treatment), and three other items (infection control, patient safety) to identify the service provider (nurse, physician or other professional, and family). Eleven specific items for nursing services were added to confirm the service provision by nurses at hospitals. (Appendix 5)³.

4) Nursing services at hospital (Observation)⁴

Nursing services provided by nurses were observed by a Japanese Nurse/Midwife who had experience working in hospitals in Cambodia, using Questionnaire B2 as an observational tool (Appendix 6).

【Health center】

1) General information and nursing management in health centers

Information was collected through questionnaires and interviews with the directors of health centers on organization, statistics and functionality as a pre-service training site, through the use of Questionnaire A-3 (Appendix 7)

2) Nursing services at health center (Observation)

Nursing services provided by nurses were observed by a Japanese nurse/midwife who had experience working in hospitals in Cambodia, using Questionnaire B2 as an observation tool (Appendix 6).

² The definition of the term “nursing care in this report” is that nursing staff and/or other (family member etc.) support patients to recover.

³ Questionnaires were devised in reference to: 1) a Cambodian pre-service training document (*Preceptor Clinical Logbook for Guiding and Evaluating the Clinical Practicing Skills of Associate Degree Students in Nursing, 2009*); 2) a formal document on nursing in Cambodia (*Prakas on Identification of the Roles and Responsibilities of Nurses, 2003*); and 3) guidelines by the Japanese Ministry of Health, Labor and Welfare (*Guidelines for Training New Nursing Staff, 2009*), pertaining to the fundamentals of nursing.

⁴ The method of observation of the ethics of the nursing staff was performed in reference to “The ICN Code of Ethics for Nurses” by the International Council of Nurses (ICN).

3. Sites, duration, and study team

1) Sites

Educational field: All five public institutions for nursing/midwifery education

- Battambang RTC
- Kampot RTC
- Stung Treng RTC
- Kampong Cham RTC
- TSMC

Clinical practice and nursing services: Main sites for clinical practice of students

- National hospitals (5)
 - National MCH Center
 - Calmette Hospital
 - National Pediatric Hospital
 - Preah Kosomak Hospital
 - Khmer-Soviet Hospital
- Referral hospitals (4)
 - Battambang referral hospital
 - Stung Treng referral hospital
 - Kampot referral hospital
 - Kampong Cham referral hospital
- Health centers (2)
 - Battambang
 - Kampot

2) Duration: February – March 2011

3) Supervisor:

Prof. Keat Phuong, Director of HRD (HRD/MoH)

4) Study team

Ms. Noriko Mochizuki (JICA)

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4. Main results

4-1. Nursing Education

1) School Syllabus

Table 1: School Syllabus

Category	Contents	TSMC	RTC			
			Battambang	Stung Treng	Kampot	Kg.Cham
School Syllabus	School Philosophy	Yes	No	Yes	Yes	Yes
	School Syllabus or School Guidedance	No	No	No	Yes?	No
	School Objective	Yes	Yes, Delivery of Qualified Health Services	Yes	Yes	No
	School Regulation	Yes	Yes	Yes	Yes?	Yes
	School Organization Chart	Yes	Yes	Yes	Yes	Yes

1-1) Results (Table 1)

1. All schools have a school Organizational Structure
2. All schools have school Regulations (Rule)
3. All schools except Battambang have a School Philosophy (see Appendix 8)
4. All schools except Kampong Cham RTC have a School Objective.
5. None of the schools have a School Syllabus for students.

2) School Activities

Table 2: School Activities

Category	Contents	TSMC	Battambang	Stung Treng	Kampot	Kg.Cham
Activities	School year ※	Oct-Sep	Dec-Jan	New student: Nov-Sep Other student: Oct-Sep	Nov-Jan	Nov-March/may
	Annual school Plan	Yes	Yes	Yes	Yes Follow the AOP	Yes
	Number of staff and category ※1					

※1 See Appendix 9

2-1) Results (Table 2)

1. School year

The new school term starts from October to December, and finishes in September, January and March depending on the situation and condition of schools. It is unavoidable that the school year starts do not start at the same time for all schools, but varies and sometimes is delayed. This occurs as a result of the limitation of classrooms and the numbers of teachers compared with the new student intake numbers.

2. The annual school plan is made in each school.

3) Education

Table 3: Education

Category	Contents	TSMC	Battambang	Stung Treng	Kampot	Kampong Cham
Education	Curriculum	Yes (by MoH)	Yes (by MoH)	Yes (by MoH)	Yes (by MoH)	Yes (by MoH)
	Subject lecture plan	Yes (by MoH) Curriculum guideline	Yes (by MoH) Curriculum guideline	Yes (by MoH) Curriculum guideline	Yes (by MoH) Curriculum guideline	Yes (by MoH) Curriculum guideline, teacher name list with
	Lesson plan	Yes	Yes	Yes	Yes	
	Couse schedule	Yes	No	No	Yes ? but only teachers name	Yes ? but only weekly schedule
	Teaching hour per week	8 hours/week based on UHS regulation	4~40 hours/semester	5~24 hours/week	1 teacher has 60h/semester(Ave)	5-6 hours/week
	Textbook	No Teacher makes document for student and student makes a copy.	No Teacher makes document for students. 1 page costs 100R	No Teacher makes document for student and student makes a copy.	No Teacher makes document for student and student makes a copy.	No teacher produce a document for the student. 1 page 100 Riel
	Accreditation System of Promotion	Based on examination. Each semester have 1 exam. Student who passed exam will proceed to the next year level. Students who failed can take next exam.				
	Accreditation System of Graduation	Exit examination 1.Theory (writing exam)-question are selected from whole year studied. 2.Practice - Students who failed can take second exam 2 months later depend on RTC schedule..				
Evaluation system	Subject-Semester examination; has lecture examination. Students have to aquire credit completely and pass the semester examination. 15% absent student can not take exam Practice-Preceptor evaluate the student. 15% absent student can not take exam. And the students who are under 70% passed the log book checking can not take exam, but they will proceed to the next year level. Exit examination-the students who passed semester examination can take exit examination. It has lecture and practice exam					

3-1) Results (Table 3)

1. Curriculum`

All schools use the national curriculum authorized by MoH and MoEYS.

2. Subject educational plan

All schools are using the Curriculum Guidelines authorized by MoH as a subject educational plan. However it does not cover the entire structure of nursing subjects, and the content is still limited for providing effective lectures.

3. Lesson plan

Each teacher makes the lesson plan before classroom teaching according to the Curriculum Guidelines authorized by MoH. However the lecture plan does not set the lecture goal, objective, concrete development of the lecture, or the reaction of the students to the lecture and evaluation. All that is required of the student is to memorize the contents prepared by the teacher without seeing any academic and scientific evidence. Moreover, the instructions provided to the students are not adequate. There is only one-way communication from the teacher, and students just memorize through observation of the lecture in each school.

4. Course schedule

Only TSMC makes the semester course schedule. However, the course schedule which is made in RTCs is only a weekly study schedule and an appropriate semester course study is not scheduled in RTCs.

5. Teaching hours per week

TSMC teachers teach 8 hours per week in a class according to UHS regulations, and the teachers in RTCs teach 5–24 hours per week, and 4–60 hours per semester. RTCs don't have regulations concerning teaching hours for teachers. The difference in teaching hours by teachers between schools and teachers is remarkable, which makes it difficult to provide an effective and systematic education.

6. Text books

None of the schools provide any textbook for students. Some teachers make notes, instead of using textbooks, which they make themselves using English textbooks; however, in many cases, even notes are not given to the students.

There are nursing science reference books in the libraries, but the real problem is that many of the teachers are unable to read English.

7. Accreditation system for promotion

All schools have accredited systems for promotion through the examination of students based on regulations that are approved by the MoH. Each semester has an examination and the students who pass this examination can proceed to the next year. In case of failure, the student can retake the examination the next time it is held.

8. Accreditation system for graduation

All schools have an accreditation system for graduation. There are two methods for evaluating graduation: theory and practice. The theory examination is evaluated by a written test and practical examination is evaluated by a practical performance.

In case of failure, students should attend the second examination several months later depending on the school situation as in Appendices 10, 11.

9. Evaluation system

All schools evaluate students systematically by written examination and practical examination of all subjects each semester, and the exit examination is evaluated in the end of school attendance for graduation. Each examination is managed systematically as shown in Appendix 11.

4) Clinical Practice

4-1) Results (Table 4)

1. Annual clinical practice plan

All the schools responded that they make clinical practice plans annually. However the schools make a schedule for each practice only one or two weeks before clinical practice, and the communication between the school and the site for clinical practice (mainly hospitals) is by a letter with information about students including number, practical subject and content. The annual plan for clinical practice is not shared between schools and hospitals at the beginning of the school year.

2. Clinical practice manual

All schools use the clinical logbook approved by the MoH as a clinical practice manual. The clinical logbook is provided for teachers, students and clinical trainers, and used in practical demonstrations in the schools and clinical practice in the hospitals. The content of the practice logbook consists of 24 nursing activities and the confirmation and evaluation of practice are executed in the nursing process steps.

3. Placement plan of students for clinical practice in the hospital

All schools answered that they had a placement plan for students. But it does not mean the placement of students in the hospital for clinical practice. It is an official letter of practice, which is to be submitted before clinical practice. The schools don't place students for clinical practice, and the students are allocated to wards by the hospital in each practice facility.

4. Orientation of clinical practice

All schools provide clinical practice orientation to students before clinical practice. This includes the clinical logbook, schedule, information about the clinical hospital, notification of practice, uniform etc.

5. Educational requirements before clinical practice

Out of five schools, two schools have educational prerequisites before clinical practice can be undertaken. But three schools don't have any prerequisites for clinical practice and all students can take clinical practice regardless of passing or failing the examination.

6. Coordination meeting for clinical practice with the clinical hospital

All schools have coordination meetings with clinical hospitals such as Technical Board Meetings, regular and irregular meetings to exchange information and discussions to solve problems. However, the teachers don't visit the hospital during clinical practice for management and information exchange.

Table 4: Clinical Practice

Category	Contents	TSMC	Battambang	Stung Treng	Kampot	Kampong Cham
Clinical Practice	Annual clinical practice plan	Yes in an annual school activity	Yes School has annual clinical practice plan. But contents is annual schedule as a school activity, not student detail information for clinical practice.	Yes School has annual clinical practice plan. But content is annual schedule as a school activity, not student detail.	Yes School has annual clinical practice plan. But content is annual schedule as a school activity, not student detail.	Yes School has annual clinical practice plan. But content is annual schedule as a school activity, not student detail.
	Clinical practice manual	No Only annual schedule and log book.	No Only annual schedule and log book.	No Only annual schedule and log book.	No Only annual schedule and log book.	No Only annual schedule and log book.
	Placement plan of clinical practice in the hospital	Yes ? No? School make assignment and hospital make placement plan in the hospita.	Yes Before semester start school confirm the hospital feasible number of student. And 1 month before the clinical practice teacher prepare the schedule , 2weeks before teacher announce schedule and placement to student.	Yes?No? Before clinical practice the school send letter to inform number of student, student name, practice contents and date of clinical practice. But school doesn't have placement plan	Yes? No? Before clinical practice school inform the number of student, contents and term to the hospital. But school doesn't have placement plan.	Yes the letter which the school send to the hospital as placement plan for clinical practice.
	Orientation of clinical practice	Yes Before sending students for clinical practice, school provide orientation. Contents are subject, semester, curriculum, and logbook.	Yes Contents are explanation of the log book, practice point, policy of hospital and uniform etc.	Yes One week before the clinical practice, school has orientation. Contents are schedule, attendance requirement, clinical requirement and name of practice facility.	Yes contents are term, facility and name of student.	Yes Usually school has orientation a week before clinical practice. Contents are how to use the log book and how to assess student practical knowledge.
	Educational requirement before clinical practice	No	No Every student can go to take the clinical practice.	Yes Students have to finish the lecture of clinical practice subject before clinical practice.	Yes Before clinical practice student must pass demonstration exam	No Every student can go to take the clinical practice.
	Coordination meeting for clinical practice with hospital	Yes School provide annual meeting of clinical practice with hospitals. 1time/1year	Yes - After the annual pain, the school invite all RH to confirm the number of student for clinical practice. - Have a technical board meeting every 2 months. Contents are exchange information of students, problems and practice plan etc.	Yes 1. School send letter or e-mail to clinical practice facility 2. Have a technical board meeting for every 3 months 3. Have a preceptor meeting for evey 6 months supported by VSO	Yes 1. 1st day meeting 2. Coordination board meeting 3. Technical board meeting	1. Technical Board Meeting every 3 months. 2. Preceptor workshop twice a year.

ST;1. VSO supports the budget for clinical practice in the hospital and community. for clinical practice in the hospital, meal \$1 and travel for student. For clinical practice in community meal \$1, accomodation and stay for students.

2. VSO supports the preceptor meeting evey 6 months. Members are preceptors and teachers. Contents are to improve the clinical practice and solve the problems.

A point that should be paid attention to, VSO is supporting clinical practice and through school management in Stung Treng RTC. Also the VSO supports the budget for clinical practice in the hospital and community. For clinical practice in the hospital, they provide a daily allowance of \$1 for a student's meal and travel. For clinical practice in community, they provide support to students of \$1 for meals, and money for accommodation and staying.

The VSO also supports having a trainers' meeting every six months. Participants are trainers and teachers, and discuss how to improve the clinical practice and solve problems. The teachers in the Stung Treng RTC supervise the clinical practice regularly. Other schools don't hold the trainers' meetings that Stung Treng RTC does.

5) Facility

Table 5: Facility

Category	Contents	TSMC	Battambang	Stung Treng	Kampot	Kampong Cham
Facility	Classroom	※	4m×16~20m	7.3m×8.80m	9m×13m 90 studentt	9m×9m
	Educational equipment	White board,OHP, Computer, Screen	There is white board only. Some teachers take the educational equipment and use.	There is white board only. Some teachers take the educational equipment and use.	LCD, white board, Over Head Projector	16 LCD, each room was equipped with LCD, white board
	Equipment in Demonstration room ※					
	Equipment list		Yes –maybe No Because we have not seen. There are 2 persons in charge of equipment, but they cannot understand English and equipments.	Yes—but that is donation equipment list. There is one person in charge of equipment	yes→	No, there is only equipment list on the equipment donated by UNFPA. no specific staff responsible for equipment.
	Library			no library	yes size (12×9)	yes size (12×11)
	Librarian	4	3		3	1 ADN
	size	24m×8m	8m×16m		12×9	12×11
	Management of Category	Good	No good condition			
	Number of book	3990 (in 2009)	4000 –but around 1200 books are in the book list and it looked around 1000 books in the library.	KH254 EN435 Total 689	2200 books, arranged by coding number. All books have been listed in the booklist, the books are arranged on the shelves.	1350 books, arranged by coding number. All books have been listed in book list, the books are kepts on the shelves.
	Opening hour	7:00-17:30	8:00-11:00 14:00-17:00		7:00-11:30,14:00-17:00pm	7:45-11:00 2:00-5:00
	Lunch time	Open	Close		close	close
	Number of student/day	Around 50 students/day	Around 25 students, but 10~12 students signed in the registration book.		around 1 student	18 students
	Condition of maintenance		none			fair
	Demonstration room			No demonstration room	2 demonstration (M+N)	2 demonstration (M+N)
Room condition		very poor			good	
Management of equipment		very poor	very poor	good	fair	

ST ; There is no separate library. The books are kept in the big meeting room and student cannot use the book.

※ TSMC BSN: Classroom using 4 rooms → size 12m×14m, readied 24rooms → 12rooms 12m×8m and 12rooms 8m×8m

AND: Classroom 9 size 10m×7m Demonstration room 3 →12m×7m

ADM: Classroom 5 → 12m×7m 1Demonstration room 12m×7m

5-1) Results (Table 5)

1. Class room

The size of classrooms varies, from 4 meters to 9 meters long and 8 meters to 20 meters wide, and around 90 students study in a class using small desks. The classroom is very narrow and not all students can see the white board and screen. The education in the school is not provided effectively.

2. Educational equipment in the class

All classrooms have a white board but there is no other equipment, and LDC, screen and computer were carried and used depending on the situation and teacher.

3. Equipment list (see Appendix 12)

All schools organize an equipment list, however we could not find any list for the management and maintenance of equipment, but found only a list of donated equipment. We have information about donated equipment, but do not have information about condition and loss. Four schools placed a person in-charge to manage the equipment.

4. Library

Except for Stung Treng RTC, all schools have a library, and have allocated several in-charge persons as librarians.

- a. The size of the libraries varies from 8 meters to 24 meters long and 8 meters to 16 meters wide depending on the school's size.
- b. There are 689 books to 3990 books [in the libraries], which are managed by librarians. However the condition of the management and maintenance of the books varied in each school. Only TSMC manages the books adequately, and the other school libraries are poorly managed.
- c. Students can use libraries from the time schools open to the time they close, and with the exception of TSMC, they are closed during lunch time.
- d. The average number of students who use the library in a day differs greatly among the schools. Around 50 students use the library in TSMC, but in Kampot RTC only one student used the library per day. In Battambang RTC and Kampong Cham RTC, around 10 to 20 students use the library per day.
- e. All schools, with the exception of Stung Treng RTC, have a demonstration room for clinical practice. However the condition of the demonstration room is not adequate. The demonstration room in Battambang RTC, it is in a particularly poor condition, because it is located under the roof, in hot, humid and dusty conditions.
- f. The equipment in the demonstration room is also managed and maintained in a poor situation, with the exception of TSMC and Kampot RTC.

6) Teachers and students

6-1) Results

1. Numbers of teachers (Table 6 and Table 7)

The numbers of nursing teachers who are teaching nursing are: at TSMC is 205, at Battambang RTC is 57, at Steong Treng RTC is 39, at Kampot is 38 and at Kampong Cham is 23. The number of full-time nursing teachers is: for TSMC is 40, for Battambang RTC is 35, for Steong Treng RTC is 24, for Kampot RTC is 34 and for Kampong Cham RTC is 16. The ratio of full-time teachers to the number of all teachers of nursing, in TSMC is 19.5%, in Battambang RTC is 61.4%, in Stung Treng RTC is 61.5%, in Kampot is 89.5% and in Kampong Cham is 69.6%.

2. Professional category of nursing teachers

Four primary nurses and one primary midwife work as full-time teachers in TSMC, Stung Treng RTC and Kampot RTC. There are a total of only three teachers, found in TSMC, with bachelors' degrees and who work as full-time teachers.

Table 6: Number of nursing teachers

Category /Professional	TSMC			RTC												Total
				Battambnag			Stung Treng			Kampot			Kam.Cham			
	Total	Full.T	Part.T	Total	Full.T	Part.T	Total	Full.T	Part.T	Total	Full.T	Part.T	Total	Full.T	Part.T	
B-Nurse	10	3	7	0	0	0	0	0	0	0	0	0	0	0	0	10
S-Nurse	145	25	120	36	19	17	28	19	9	27	26	1	15	10	5	251
P-Nurse	1	1	0	0	0	0	0	0	0	2	2	0	1	1	0	4
S-Midwifery (3 yrs)	42	10	32	21	16	5	8	2	6	6	3	3	3	1	2	80
S-Midwifery (3+1 yrs)	7	1	6	0	0	0	2	2	0	3	3	0	4	4	0	16
P-Midwifery	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
Total	205	40	165	57	35	22	39	24	15	38	34	4	23	16	7	362

B: Bachelor S: Secondary = Associate degree P: Primary

Table7 Total number of nursing teacher

Category	Total	Full.T	Part.T
B-Nurse	10	3	7
S-Nurse	251	99	152
P-Nurse	4	4	0
S-Midwifery (3 yrs)	80	32	48
S-Midwifery (3+1 yrs)	16	10	6
P-Midwifery	1	1	0
Total	362	149	213

B: Bachelor S: Secondary= Associate degree P: Primary

Table 8: Number of Students at educational facility

Category	Year	TSMC			RTC Battambnag			RTC Stung Treng			RTC Kampot			RTC Kg.Cham			Total					
		Enl Cap.	Total	F	M	Enl Cap.	Total	F	M	Enl Cap.	Total	F	M	Enl Cap.	Total	F		M				
B-Nursing	1st		100	64	36	0	0	0	0	0	0	0	0	0	0	0	0	100				
	2nd	250	147	95	52	0	0	0	0	0	0	0	0	0	0	0	0	147				
	3rd		481	250	231	0	0	0	0	0	0	0	0	0	0	0	0	481				
	4th	62	50	31	19	0	0	0	0	0	0	0	0	0	0	0	0	50				
S-Nursing	1st	150	109	57	52	120	114	51	63	60	59	18	41	120	108	59	49	120	106	38	68	496
	2nd	120	88	47	41		108	39	69		59	18	41		110	69	41		104	38	66	469
	3rd	160	114	70	44		107	42	65		57	38	19		98	55	43		114	52	62	490
P-Nursing	1st		0	0	0	40	32	8	24	40	36	2	34	40	35	9	26	40	40	8	32	143
S-Midwifery (3 yrs)	1st	150	122	122	0	80	78	78	0	60	54	54	0	80	85	85	0	80	75	75	0	414
	2nd	160	135	135	0		77	77	0		52	52	0		70	70	0		83	83	0	417
	3rd	200	196	196	0		61	61	0		47	47	0		70	70	0		71	71	0	445
S-Mid (3+1 yrs)	1 yts	50	49	49	0	30	35	35	0	0	0	0	0	40	39	39	0	40	44	44	0	167
P-Midwifery	1st		0	0	0	40	57	57	0	40	46	46	0	40	56	56	0	40	59	59	0	218
Sub-Total			1591	1116	475	669	448	221	410	275	135	671	512	159	696	468	228	4037				
S-DN	1st		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	45	14	31	45
	2nd		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	16	32	48
	3rd		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41	17	24	41
Sub-Total			0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	134	47	87	134
Total			1591	1116	475	669	448	221	410	275	135	671	512	159	830	515	315	4171				

3. Number of students (see Table 8)

In TSMC, a total of 1591 nursing students are studying, and 778 students are in the Bachelor course. The number of nursing students in each RTC are: 669 in Battambang RTC, 410 in Stung Treng RTC, 671 in Kampot RTC and 696 in Kampong Cham RTC, and none of RTCs provide a bachelor's nursing program. And the student capacity which was enacted as a guideline by MoH, in case of TSMC, the student capacity of the Bachelor course is 100, for the Secondary Nursing course is 150, for the 3-year Midwifery course is 150, and the 3+1 year Midwifery course is 50 in 2011. The student capacity of Stung Treng RTC, for Secondary Nursing is 60, for the 3-year Midwifery course is 60, for Primary Nursing is 40 and Primary Midwifery is 40, and the student capacity of the other three RTCs for Secondary nursing is 120, for the 3-year Midwifery course is 80, for the 3+1 year Midwifery course is 30 to 40, for Primary Nursing is 40 and for Primary Midwifery is 40 in 2011.

4. The ratio of teacher to students (see Table 9)

The ratio of a nursing teacher to students: for TSMC is 39.8, for Battambang RTC is 19.1, for Stung Treng RTC is 17, for Kampot is 15.1 and for Kampong Cham is 29.3. According to MoH guideline₁₎ of the ratio of teachers to student, there is a shortage of 66 nursing teachers in TSMC, and the shortfall of nursing teachers in each RTC is as follows: for Battambang RTC is 10, for Stung Treng RTC is 3, for Kampot is 11 and for Kampong Cham is 15. Only Kampot RTC fulfills the national guidelines for the number of teachers.

Table 9: Ratio of a full-time nursing teacher to student

		Number of full-time nursing teacher	Number of student	Number of student per a teacher	Necessary number of teacher according MoH guideline	Lack of teachers number based on MoH guideline
TSMC		40	1591	39.8	106	66
RTC	Battambnag	35	669	19.1	45	10
	Stung Treng	24	410	17.1	27	3
	Kampot	34	512	15.1	34	0
	Kam.Cham	16	468	29.3	31	15
Total		149	3650	24.5	243	94

1) MoH guidelines on full-time teacher; at least 4 teachers per 60 students and 1 additional teacher is needed for each increase of 20 students

5. Age, teaching experience, clinical experience of teacher (RTC) (Table10, Table11, Table12)

Table 10: Age(RTC) n=87

	Number	%
20's	21	24.1%
30's	23	26.4%
40's	18	20.7%
50's	25	28.7%
Total	87	100.0%

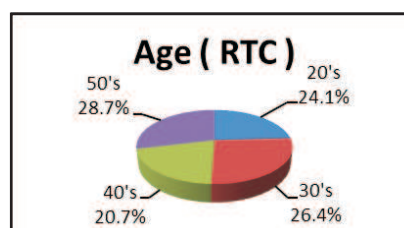
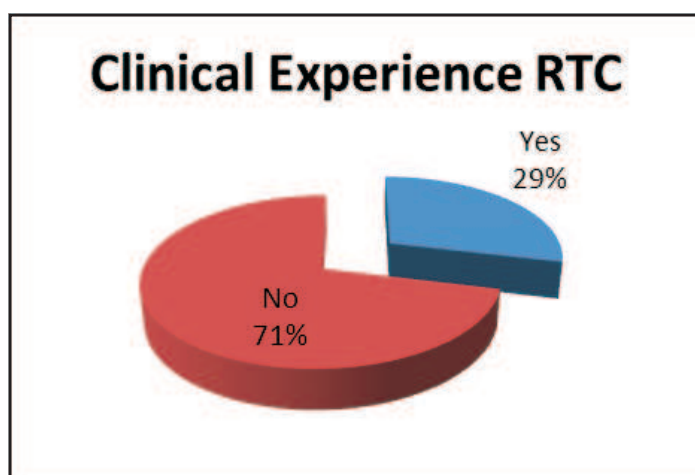


Table 11: Teaching Experience (RTC) n=87

	Number	%
1~5y	28	32.2%
6~10y	13	15%
11~15y	17	20%
16~20y	17	20%
21y~	6	7%
0	6	7%
Total	87	100%

Table 12: Clinical Experience(RTC) n=87

	Number	%		Number	%
Yes	25	28.7%	Under 2y	7	28.0%
			Over 3y	18	72.0%
No	62	71.3%			
Total	87	100.0%			



The ratio of teachers by age is: for 20's is 24.1%, 30's is 26.5%, 40's is 20.7% and 50's is 28.7%. The ratio of teaching experience for 1 year to 5 years is 32.2%, for 6 years to 10 years is 14.9%, for 11 years to 15 years is 19.5%, for 16 years to 20 years is 19.5% and for over 21 years is 6.9%, and for teachers who don't have any experience is 6.9%.

And the ratio of teachers who have experience working in the clinical field is only 28.7%, and teachers without clinical practice make up 71.3% of all teachers. The teachers who have working for longer than 3 years make up 72.0% and for under 2 years makes up 28.0% [of the total] number of teachers who have experience working in the clinical field.

6. English skills and computer skills (RTC) (see tables 13, 14)

Table 13: English Skill (RTC) n=87

	Number	%
Very Good	3	3.4%
Good	78	89.7%
Poor	6	6.9%
Total	87	100.0%

Table 14: Computer Skill (RTC) n=87

	Number	%
Very Good	5	5.7%
Good	80	92.0%
Poor	2	2.3%
Total	87	100.0%

The ratio of teachers who answered that they had very good English skills is 3.4%, good is 89.7%, and poor is 6.9% and the ratio of teachers who have very good computer skills is 5.7%, good is 92.0% and poor is 2.3%.

7) School fees and teachers' salaries

7-1) Results (Table15)

TSMC has two types of students: scholarship and general. General students pay \$1,000 annually for the bachelor course and \$800 for the ADN course, and scholarship students don't need to pay the school fee. Students don't pay any school fee in any of the RTCs.

The basic salary for a full-time teacher is paid by government according to the salary regulations and scale, and teachers are paid 2,000 R per hour for lectures as an additional salary. The salary includes a position allowance, travel expenses and family allowance. For example, the monthly income from school is 231,000 R (around \$57.70) for teachers who start working in the 1st year, and 415,900 R (around \$103.90) for teachers who have worked for 27 years. Part-time teachers are paid 2,000 R per hour for a lecture.]

Table 15: School fee and salary

Category	Contents	TSMC	Battambang	Stung Treng	Kampot	Kampong Cham
Student	Class and practice	Scholarship; No fee Fee; Bachelor \$1000/y AD \$800/y	No All students don't need to pay the fee, it's free of charge. But students have to pay the accommodation of clinical practice by themselves.	No All student don't need to pay the fee, it's free of charge.	No	No
Teacher	Full-time teacher	Basic salary is paid by government according to the Salary Regulation. ex: 1year ADN teacher is 231000R 27 Year ADM teacher is 415900R	Basic salary is 280000R(\$70) and one class teaching get 2000R/hour	Basic salary is paid by the government according to the Salary Regulation. ex: 1 year ADN teacher is 231000R 27 Year ADM teacher is 415900R	one class teaching, teacher receives 2000R/hour nurses 5200R doctors	one class teaching, teacher receives 2000R/hour nurses 5200R doctors
	Part-time teacher	Nurse and midwife 2000R/hour Doctors 5200R/hour				
	clinical preceptor	Allowance from government				

※ Salary is paid from government for all government staffs including part-time staffs and clinical preceptor
Contents of salary are basic salary, position allowance, travel expenses and family allowance.

Remark; 1 USD = 4,000 R

4-2. Nursing services

[Hospital; national hospitals and referral hospitals]

1) General information about hospitals

Responses to questionnaire A-1 were given by all nine hospitals surveyed with interviews with the head of hospital administration to confirm the responses (Appendices 13, 14).

1-1) Overall Organization

Table 16: Hospital Organizational Chart and Vision/Mission Statements (n=9)

Name of Health Facility		Hospital Organizational Chart	Vision/Mission Statements
National Hospital	A	○	○
	B	○	Unclear answer
	C	○	○
	D	○	×
	E	○	×
	sub-total	5	2
Referral Hospital	F	○	×
	G	○	○
	H	○	×
	I	○	○
	sub-total	4	2
Total		9	4

○ = Present, × = Absent

In Table 1, all hospitals responded that they had organizational charts, and this was confirmed by investigator observation. Four hospitals responded that they had mission/vision statements: two (50%) national hospitals and two (50%) referral hospitals, indicating no difference between national and referral hospitals.

1-2) Numbers of Nursing Staff

Numbers of staff by occupation were confirmed by personnel management, and “numbers of nursing staff” are listed in Table 17.

Table 17: Numbers of Nursing Staff (n=9)

Name of Health Facility		No. of Staffs				Total No of staff		
		SNs	PNs	SMWs	PMWs	Ns	MWs	Total Ns/MWs
National Hospital	A	65	19	91	0	84	91	175
	B	282	5	62	1	287	63	350
	C	215	8	0	0	223	0	223
	D	143	14	23	2	157	25	182
	E	185	18	60	2	203	62	265
	sub-average	178	13	47	1	191	48	239
Referral Hospital	F	101	18	61	4	119	65	184
	G	30	10	14	7	40	21	61
	H	50	12	19	4	62	23	85
	I	82	31	35	1	113	36	149
	sub-average	66	18	32	4	84	36	120
Average		128	15	41	2	143	43	186

In Table 17, the average total number of nursing staff⁵ across all hospitals was 186 (range: 61 to 350). A comparison of the average numbers of nursing staff of national and referral hospitals, [shows that] national hospitals had nearly twice the staff members (n = 239) of referral hospitals (n = 120).

1-3) Patients Statistics

Patient statistics were available in all nine hospitals, and data on numbers of beds and annual numbers of patients are shown in Table 18.

Table 18: Numbers of Beds and Annual Numbers of Patients (2010) (n=9)

Name of Health Facility		Beds number	Annual number		
			Outpatient	Inpatient	Delivery
National Hospital	A	154	60,449	8,570	5,912
	B	340	72,138	24,361	7,738
	C	150	110,053	9,869	No service
	D	250	19,946	8,622	391
	E	500	123,792	18,363	1,493
	sub-average	279	77,276	13,957	3,884
Referral Hospital	F	270	30,401	12,263	2,602
	G	90	2,208	3,737	758
	H	155	1,277	6,448	1,217
	I	260	57,961	16,023	2,360
	sub-average	194	22,962	9,618	1,734
Average		241	53,136	12,028	2,809

The average number of beds was 241 across all nine hospitals (range: 90 to 500). The average number of annual outpatients was 53,136 (range: 1,277 to 123,792), and that of annual inpatients was 2,028 across all nine hospitals (range: 3,737 to 24,361). The average number of annual deliveries averaged 2,809 across all hospitals (range: 391 to 7,738). Comparing the average data between national and referral hospitals, national hospitals had: (i) approximately 1.4 times as many beds, (ii) 3.4 times as many outpatients, (iii) 1.5 times as many inpatients, and (iv) 2.2 times as many deliveries as did referral hospitals, indicating that national hospitals had both more beds and treated more patients annually.

2) Nursing management of hospital (Questionnaires and individual interviews)

Responses to Questionnaire A-2 were given by all nine surveyed hospitals. (Appendices 15, 16). Aspects of nursing management, including (1) organization of nursing, (2) nursing services, (3) in-service training, and (4) pre-service training, are described below.

2-1) Organization of nursing

In regard to the organization of nursing departments, we confirmed the presence or absence of nursing departments, nursing department organizational charts, nursing committees, and nursing department mission/vision statements.

⁵ Total numbers of nursing staff indicate numbers of all nursing and midwifery staff. These include nurses placed in both clerical sectors and clinical sectors and other nurses and midwives not performing direct clinical services.

Table 19: Organization of nursing departments (n=9)

Name of Health Facility		Nursing departments	Organizational charts	Nursing committee	mission/vision statements
National Hospital	A	○	○	○	○
	B	○	○	○	×
	C	○	○	○	○
	D	○	○	○	×
	E	○	○	○	×
	sub-total	5	5	5	2
Referral Hospital	F	○	○	○	×
	G	○	×	×	×
	H	○	○	○	×
	I	○	○	○	○
	sub-total	4	3	3	1
Total		9	8	8	3

○ = Present, × = Absent

In Table 19, all the hospitals responded that they had nursing departments and had placed persons in charge of their departments. Eight (89%) hospitals responded that they had organizational charts. However, one hospital commented that, “We have an organizational chart and have placed persons in charge, but these are not active.” Furthermore, most of the hospitals had not included their nursing departments in their overall hospital organizational charts.

Eight (89%) hospitals responded that their nursing department had a nursing committee. Only three (33%) hospitals responded that they had a nursing department vision/mission statement. A comparison of national and referral hospitals reveals there was little difference in the results of the responses on the organization of nursing departments.

We also confirmed the activities of nursing departments by asking if they have regular meetings, or activities other than regular meetings, and their own budgets.

Table 20: Activities and Budgets of Nursing Departments (n=9)

Name of Health Facility		Activities of nursing department		Budget
		Regular meetings	activities beside regular meetings	
National Hospital	A	×	○	×
	B	○	unknown	×
	C	○	○	×
	D	×	×	×
	E	○	○	×
	sub-total	3	3	0
Referral Hospital	F	○	○	×
	G	○	×	×
	H	×	×	×
	I	○	×	×
	sub-total	3	1	0
Total		6	4	0

○ = Present, × = Absent

In Table 20, in regard to the regular meetings of nursing departments, six hospitals (67%) responded that they had such meetings, and many of them responded that they also had chief nurse meetings. Of the four (50%) hospitals that responded that they had activities in addition to regular nursing department meetings, three (75%) were national hospitals and one (25%) was a referral hospital, indicating that national hospitals held more of these activities. None of the hospitals had specific budgets for their nursing departments.

2-2) Nursing services

The situation of nursing services were described by asking about: (i) the nursing systems, and (ii) the documents and records used that are related to nursing.

2-2-1) Nursing system

Table 21: Types of Nursing Systems (n=9)

Name of Health Facility		team nursing	primary nursing	Other
National Hospital	A	<input type="radio"/>		
	B		<input type="radio"/>	
	C	<input type="radio"/>		
	D	<input type="radio"/>		
	E	<input type="radio"/>		
	sub-total	4	1	
Referral Hospital	F			<input type="radio"/> nothing special
	G	<input type="radio"/>		
	H	<input type="radio"/>		
	I	<input type="radio"/>		
	sub-total	3		
Total		7	1	1

In Table 21, the majority of hospitals (78%) responded that they used a “team nursing” system, one (11%) hospital used “primary nursing”, and another one (11%) hospital responded that they “did not follow a particular nursing care system but left it to the discretion of the chief nurse of each ward”. A comparison of national and referral hospitals reveals both primarily used “team nursing”, and the difference in the nursing care systems used was not significant.

2-2-2) Documents and Records Related to Nursing

Table 22: Nursing Standards/Manuals and Usage of Nursing Records and Nursing Processes (n=9)

Name of Health Facility		Nursing standard/manual	Nursing record	Nursing process/information handover sheet by MoH
National Hospital	A	○	○	×
	B	×	○	○
	C	○	○	×
	D	×	○	○
	E	○	○	○
	sub-total	3	5	3
Referral Hospital	F	○	○	○
	G	×	○	○
	H	○	○	○
	I	○	○	○
	sub-total	3	4	4
Total		6	9	7

○ = Present, × = Absent

In Table 22, six hospitals (67%) responded that they had nursing standards/manuals. They were preparing standards/manuals in accordance with the hospital's own methods or in tandem with the MoH or development partners, by following standards/manuals prepared by NGOs or the MoH. The contents of the standards/manuals are mostly concerned with common pre- and postsurgical procedures, and hand-washing and waste management. All other nursing services at hospitals were not covered by the existing standards/manuals. Moreover, the Director of the Nursing Department of one referral hospital said they had prepared their standards/manual themselves because “pre- and postsurgical procedures were different from ward to ward and it had become a problem”, suggesting the problem that nursing care procedures were not standardized.

All the hospitals responded that they had nursing records. Seven hospitals (78%) responded that they “were using” nursing processes, which means that they use the “information handover sheet”⁶ from the MoH. Further, comparing its usage in national and referral hospitals, four (100%) referral hospitals were performing nursing processes versus three (60%) national hospitals.

⁶ The information handover sheet is a standard format that the Nursing and Midwifery Bureau, Hospital Service Department of MoH use for recording nursing process. The contents of the information handover sheet include “time, date, assessment, health problem / required care, implementation (intervention/activity), result, and name and signature of the nurse”.

2-3) In-service training

Table 23: In-Service Training, Budgets, and Programs for In-Service Training (n=9)

Name of Health Facility		Nurses in-charge of in-service training	Own budgets for in-service training	In-service training programs
National Hospital	A	○	×	○
	B	○	×	○
	C	○	×	×
	D	○	×	×
	E	○	×	○
	sub-total	5	0	3
Referral Hospital	F	○	×	○
	G	×	×	×
	H	○	×	○
	I	○	×	×
	sub-total	3	0	2
Total		8	0	5

○ = Present, × = Absent

In Table 23, eight hospitals responded that they had nurses in charge of in-service training and that usually the nurse in charge was the Director of the Nursing Department (at four hospitals). One national hospital said it had a nurse in charge “not functioning, but only on paper”, suggesting dissociation between the presence of nurses in charge and their actual activities. None of the hospitals responded that they “had a budget” for in-service training. Five hospitals (55%, or about half) responded that they had training programs, and there was no difference in this response between national and referral hospitals.

2-4) Pre-service training

With regard to pre-service training, we describe: (i) cooperation between hospitals and schools; (ii) the hospital system for acceptance of clinical practice and numbers of nursing and midwifery students accepted; and (iii) the situation of trainers.

2-4-1) Cooperation between Hospitals and Schools

Table 24: Agreements on Coordination with Schools (n=9)

Name of Health Facility		Meeting with school	Schedule form school
National Hospital	A	×	○
	B	○	○
	C	×	○
	D	○	○
	E	○	○
	sub-total	3	5
Referral Hospital	F	○	○
	G	×	○
	H	○	○
	I	○	○
	sub-total	3	4
Total		6	9

○ = Present, × = Absent

In Table 24, all of the hospitals had agreements on cooperation with schools through either direct meetings or in writing. Six hospitals (three national, three referral) had meetings with schools, and of them, one (20%) national hospital and three (75%) referral hospitals held meetings last year, showing that referral hospitals were more active in meetings with schools. All hospitals responded that they “had received” clinical practice schedules in writing from the schools.

2-4-2) Hospital System for Clinical Practice and Numbers of Nursing and Midwifery Students Accepted

Table 25: Hospital Annual Plan for Clinical Practice and Responsible Staff for Pre-service Training (n=9)

Name of Health Facility		Annual Plan for clinical practice	Responsible person
National Hospital	A	×	○
	B	○	○
	C	×	○
	D	○	○
	E	○	○
	sub-total	3	5
Referral Hospital	F	×	○
	G	×	○
	H	○	○
	I	×	○
	sub-total	1	4
Total		4	9

○ = Present, × = Absent

In Table 25, of the four hospitals that responded that they “were preparing” annual plans for clinical practice of their own hospital, three (75%) were national hospitals and one (25%) was a referral hospital, indicating that referral hospitals were preparing fewer annual plans.

All hospitals answered they had persons responsible for clinical practice, and those persons were “nursing directors (at three hospitals), preceptors (at three hospitals) and ward chiefs (at three hospitals)”.

Multiple answers regarding appraisal of students' performance at the nine hospitals were by “preceptors from six (67%) hospitals, by ward chiefs / vice-chiefs from four (44%), and by others (chief preceptors, preceptor supervisors, and technical bureaus) from three (33%).

Table 26: Numbers of Nursing/Midwifery Students and Hospital Beds (n=9)

Name of Health Facility		No. of Ns/MW students per year	Bed number
National Hospital	A	40	154
	B	858	340
	C	810-820	150
	D	115	250
	E	559	500
	sub-average	476-478	279
Referral Hospital	F	335	270
	G	123	90
	H	247	155
	I	800-900	260
	sub-average	376-401	194
Average		432-444	241

Table 26 shows that annual numbers of students varied widely by hospital, ranging from 40 to 900. When we compared annual numbers of students with numbers of hospital beds, hospitals with many beds did not tend to have many students.

2-4-3) Situations of Preceptors

Table 27: Numbers of Preceptors and Numbers and Rates of Preceptors Attended Training Courses in Hospitals (n=9)

Name of Health Facility		Preceptors					No Preceptors attended training course			% of Preceptor attended training course			
		SNs	PNs	SMW	PMW	Total	Ns	MW	Total	% Ns	% MW	Total	
National Hospital	A	0	0	6	0	6	0	6	6	—	100.0%	100.0%	
	B	34	7	10	0	51	4	7	11	9.8%	70.0%	21.6%	
	C	2	0	0	0	2	2	0	2	100.0%	—	100.0%	
	D	20	0	0	0	20	0	0	0	0.0%	—	0.0%	
	E	4	0	0	0	4	4	0	4	100.0%	—	100.0%	
						83				23			27.7%
Referral Hospital	F	23	0	6	0	29	23	6	29	100.0%	100.0%	100.0%	
	G	7	0	7	0	14	7	7	14	100.0%	100.0%	100.0%	
	H	10	0	4	0	14	10	4	14	100.0%	100.0%	100.0%	
	I	21	0	7	0	28	21	7	28	100.0%	100.0%	100.0%	
						85				85			100.0%

Table 27 shows that the numbers of preceptors varied widely by hospital and ranged from 2-51 (overall average, 19). The average rate of preceptors attending training courses, standardized by the MoH, was 64% for all hospitals. Comparing rates of attendance between national and referral hospitals, the 27.7% rate of national hospitals was lower than the 100% rate of referral hospitals. Some national hospitals have never sent their staff to attend preceptor training courses by the MoH, and one national hospital was training preceptors on its own.

Table 28: Ratios of Numbers of Preceptors and of Students per Year (n=9)

Name of Health Facility		No. of Ns/MW students per year	Number of preceptors	students/preceptor
National Hospital	A	40	6	7
	B	858	51	17
	C	810-820	2	405-410
	D	115	20	6
	E	559	4	140
	sub-average	476-478	17	28
Referral Hospital	F	335	29	12
	G	123	14	9
	H	247	14	18
	I	800-900	28	29-50
	sub-average	376-401	21	18-19
Average		432-444	19	23

Table 28 shows that annual numbers of students per preceptor (annual students/preceptor) varied widely by hospital, ranging from 7-410 (average, 71-74). Furthermore, the average number of annual students/preceptor was different between national and referral hospitals, 28 for national and 18-19 for referral hospitals.

3) Nursing services (Group interview)

They were given by all nine hospitals and a total 33 nurses (2–5 persons per group in each hospital) were interviewed using Questionnaire B-1.

3-1) Provider of nursing services

As a result, we identified nursing care providers (nursing staff, doctors, other medical workers, non-medical workers/cleaners, family members) of a total of 52 items (Appendix 17). Multiple answers were given.

The 52 items were classified into three categories: (i) 25 items in “Care” (support patient recovery), (ii) 24 items in “Cure” (assist medical treatment), and (iii) others (infection control, patient safety). The results of these three respective categories are described below.

3-1-1) Providers of nursing services related to “Care”

Of the 25 tasks related to care (support patient recovery), 13 tasks (52%) are performed by nurses in more than half of the surveyed hospitals. In contrast, 15 tasks (60%) were performed by someone other than nurses in more than half of these hospitals, of which 12 tasks (48%) were performed by patients' families. In addition, more than half of the hospitals gave multiple answers for three tasks, “Perform nutrition by nasogastric feeding tube,” “Manage a urine catheter for urine collection,” and “Change patients' clothing,” indicating that these tasks were performed by both nurses and patients' families.

As shown in the above results, the number of items related to care performed by nurses is almost the same as that performed by patients' family members, indicating that family members are as important as providers of care as nurses. Details are shown in Tables 29-1 and 29-2.

Table 29-1: Nursing services related to “Care”, performed by nurses in more than half of the hospitals (n=25, multiple responses)

Performed by	Care	total n=25	%
Ns	1.Organize medical treatment environment of patient 2.Perform nutrition by nasogastric feeding tube 3.Perform intubation the client with a nasogastric feeding tube 4.Perform enema(tube into rectum for enema) 5.Insert an indwelling catheter for urinary collection 6.Manage an indwelling catheter for urine collection 7.Perform extraction of fecaloma (disimpaction) 8.Perform urethral catheterization 9.Perform safety transfer for patient 10.Perform position change 11. Perineal care and/or genital care 12. Change patient’s clothing 13. Supprt of comfortable position when patient have pain	13	52%

Table 29-2: Nursing services related to “Care”, performed by someone other than nurses in more than half of the hospitals (n=25, multiple responses)

Performed by	Care	total n=25	%
Doctor		0	0%
Other professional ※	1.Perform motion exercise, prevents disease syndrome	1	4%
Cleaner, worker	1. Perform bedside hygiene 2. Suport nutrituon/food such as to setting for confined to bed by illness	2	8%
Family	1. Perform nutrition by nasogastric feeding tube 2. Perform Elimination and urinary support such as to set up bedpan 3. Manage on indwelling catheter for urine collection 4. Perform to support of walking 5. Support patient’s sleep 6. Perform bed bath and/or to take a shower 7. Take care the shampoo(washing of hair) 8. Take care and wash patient’s mouth 9. Perineal care and/or genital care 10. Change of diaper(swadding band) 11. Change patient’s clothing 12. Ease the pain except medication such as massage and fomentation	12	48%

※ Other professional; Physiotherapist or ISAR or Laboratory technician.

Also, nurses commented that although they “do not perform nursing services, such as assistance in cleaning the patient's body,” they do “supervise and manage such services and provide guidance to the families.”

3-1-2) Providers of nursing services related to “Cure” (n=24, multiple responses)

Of the 24 items related to cure (assisting in medical treatment), 22 items (92%) were

performed by nurses in more than half of the surveyed hospitals. In contrast, three items (13%) were performed by someone other than nurses in more than half of these hospitals. One item that called for more expertise such as anesthesia was performed by physicians and ISARs. As for the item “Perform abscess incision,” more than half of the surveyed hospitals gave multiple responses, indicating that this service was performed by both nurses and physicians.

These results indicate that it is mainly nurses who play a central role in providing services related to the “Cure” area. Details are as shown in Tables 15-1 and 15-2.

Table 30-1: Nursing services Related to “Cure”, performed by nurses in more than half of the hospitals (n=24, multiple responses)

Performed by	Cure	total n=24	%
Ns	1. Perform Nasal cannula or oxygen mask 2. Perform Oro pharyngeal suctioning 3. Perform dressing change 4. Perform Small Wound Suture 5. Change position to prevent of Pressure Ulcer/Bed Sore 6. Perform intermittent sutures removal 7. Perform Abscess Incision 8. Perform Subcutaneous Injections 9. Perform Intradermal Injections 10. Perform Intramuscular Injections 11. Perform Intravenous Therapy 12. Perform Blood Therapy 13. Monitor for Adverse Reactions to Transfusion 14. Perform vaccination 15. Insert gastric tube into stomach for aspiration 16. Change to intubation tube of tracheotomy 17. Measure Body Temperature 18. Measure Respiration 19. Measure Radial Pulse 20. Measure Arterial Blood Pressure 21. Collect sputum for examination 22. Perform tuberculin test	22	92%

Table 30-2: Nursing services related to “Cure”, performed by someone other than nurses in more than half of the hospitals (n=24, multiple responses)

Performed by	Cure	total n=24	%
Doctor	1. Give anesthetic 2. Perform Abscess Incision	2	9%
ISAR	1. Give anesthetic	1	5%
Cleaner, worker		0	0%
Family		0	0%

3-1-3) Providers of nursing services related to “Others (infection control, patient safety)”

All three items comprising “Others (infection control, patient safety)” were performed by nurses in more than half of the hospitals (cf. Table 31).

Table 31: Other nursing services (n=3, multiple responses)

Performed by	Others (infection control, patient safety)	total n=3	%
Ns	1. Perform wash and/or disinfection and/or sterilization of material 2. Perform patient safety such as to prevent fall and/or fall down 3. Perform patient safety such as to prevent misidentify the other patient	3	100%
Doctor		0	0%
Other professional		0	0%
Cleaner, worker		0	0%
Family		0	0%

3-2) Provision of other nursing services

Table 32. Provision of other nursing services (n=9)

category	Nursing services	Number of Yes	Number of No	Other
1 Infection control	1 Implement so call standard precaution	9	0	
2 Communication	2 Explain the patient before nursing care	9	0	
	3 Report to the doctor when there are abnormalities	9	0	
3 Ensure the privacy	4 Ensure privacy when take care the patient	9	0	
4 Nursing record and others	5 Make nursing process	3	1	1:Unclear answer 4:Remark ✕
	6 Make nursing record	9	0	
5 Assessment of the patient	7 Re-assess blood pressure when the result measure it in the case of 160/100mmHg	9	0	
	8 Observe client to determine response/side effect to therapy	9	0	
	9 Coordinate dripping speed of intravenous therapy	9	0	
	10 Observe client for insertion site after intravenous therapy	9	0	
	11 Perform mental care when a patient is in an uneasy state	9	0	

Remark ✕

- 2:It's not completely.
- 1:just start it.
- 1:We use information handover sheet.

All nine hospitals responded that their nurses were providing 10 of the 11 (91%) nursing service tasks shown in Table 32. For the remaining one item (nursing process), only three hospitals (two national hospitals and one referral hospital), which accounted for 33% of all surveyed hospitals, answered that their nurses were implementing it, of which two commented “Not completely.”

4) Nursing services at hospital (Observation)

We performed on-site observation of nursing services provided by a total of 40 nurses in nine hospitals to 38 patients (Appendix 11). These nursing services were classified into 18 types, but mainly including intravenous therapy, changing dressings, and checking vital signs (Table 33).

Table 33. Nursing services observed in hospitals (n=9)

	Contents of observation	number of cases
1	intravenous therapy	8
2	dressing change	7
3	Vital signs check	6
4	assist doctor's cure	2
5	findings on admission	2
6	perineal care	1
7	Antenatal care	1
8	Baby bus	1
9	counseling	1
10	medication/drug administration	1
11	Delivery care	1
12	electrocardiography	1
13	food bus by disinfectant	1
14	Intramuscular therapy	1
15	blood specimen collection	1
16	Oro pharyngeal suctioning	1
17	physical therapy/motion exercise	1
18	examination of blood sugar	1
	Total	38

Using our observations as a basis, we reported on: (1) steps for nursing actions, (2) nursing ethics, (3) nursing practice, and (4) nursing records and the nursing process / information handover sheet as follows.

4-1) Steps for nursing actions

In 7 of 38 cases that were closely observed, we checked by observation and examination of the nursing records⁷ whether the six nursing action steps⁸, namely: “(i) assessment, (ii) nursing diagnoses, (iii) planning, (iv) implementation, (v) results and evaluation, and (vi) recording and reporting,” were implemented⁷. The results are as shown in Table 19.

⁷ The information handover sheet was checked. The contents of the information handover sheet were “time, date, assessment, health problem / care needed, implementation (intervention/activity), result, name and signature of Ns,” and “health problem / care needed” was considered to be the same as (ii) nursing diagnoses in the nursing steps.

⁸ These six nursing action steps were specified pursuant to the steps in providing nursing care according to the Logbook by the MoH.

Table 34: Implementation of each nursing action step

No.	Contents of nursing services	Implementation of each nursing action step					
		1.Assessment	2.Nursing diagnoses	3.Planning	4.Implementation	5.Result and Evaluation	6.Recording and reporting
1	Dressing change	×	×	×	○	○	×
2	Dressing change	×	×	×	○	○	○
3	Dressing change	×	×	×	○	○	○
4	Intravenous therapy	×	×	×	○	×	○
5	Medication/drug administration	×	×	×	○	×	○
6	Temperature measurement	×	×	×	×	×	○

○=Present, × = Not identify

“Assessment” and “nursing diagnoses” were not entered in the nursing records. Implementation of “planning” could not be confirmed because the nursing record (information handover sheet) did not have a column for such an entry. The implementation of “results and evaluation” was confirmed in half of the observed cases. “Implementation” and “recording and reporting” were generally being carried out.

4-2) Nursing ethics

4-2-1) Ethical actions

Our observation of the nursing services provided by a total of 40 nurses to 38 patients showed that in only one case did the nurse explain the patient's condition to the patient after providing the nursing service. This revealed that nurses rarely inform patients of their medical conditions and other results of treatment after providing nursing care.

Nurse actions that did not reflect ethical considerations were also found. Examples of such cases are shown below. (BOXES 1, 2, 3)

BOX 1. Case in which the nurse provided no explanation to the patient or ignored the patient's reaction while providing nursing care

While performing a nursing treatment, even though the patient expressed pain, the nurse did not give any response or explanation.

BOX 2. Case in which the nurse ignored a patient unable to take medicines by himself

A nurse gave medicines to a bedridden patient and gave verbal instructions twice to “take the medicine.” Although the patient responded to the nurse's instruction, he could not sit up by himself nor could he take the medicine. Later, the family member of another patient in the same room helped him to take the medicine. After seeing that the patient took the medicine, the nurse left the room.

BOX 3. Case in which nursing care (determination of body temperature) was not conducted but should have been recorded in the record

The record contained columns for “body weight, blood pressure and body temperature.” The nurse did not determine the patient's body temperature but recorded it as “37°C.” When the investigator inquired as to why the nurse did not take the body temperature but just recorded it, the nurse answered, “Because there is no problem.”

4-2-2) Ensuring patient privacy'

During observation, multiple instances of the failure to ensure patient privacy were observed (BOXES 4, 5).

At the group interview, all nine hospitals responded that they were “ensuring privacy,” but during on-site observation, ensuring of privacy was not observed in many cases, suggesting a large dissociation between the nurses' responses and actual practice.

BOX 4. Case in which the privacy of a hospitalized patient was not ensured

A hospitalized baby underwent insertion of a urine catheter. The lower part of the baby's body was not covered, and the pubic region was remained exposed.

BOX 5. Case of non-use of facilities and equipment to ensure privacy

The inpatient ward was structured to have walls between every two beds to ensure privacy. However, only two beds near the entrance were used, and the privacy walls were not functional.

4-3) Nursing practice

The basic nursing techniques performed on the 38 patients observed were approximately correct compared with basic nursing techniques in Japan.

An incident in which the interruption of treatment because of lack of observation of nursing service was witnessed (BOX 6). An incident in which nursing was provided despite the absence of scientific rationale was also witnessed (BOX 7).

BOX 6. Case of interruption of an intravenous drip (IV) infusion because the nurse did not observe the patient

An inpatient with a hearing disorder who was unattended by family members was undergoing IV infusion therapy. The infusion had finished, but because the nurse did not change the infusion bottle so interruption of the continuous IV infusion ordered by the doctor occurred.

BOX 7. Case in which drugs were administered despite the absence of scientific knowledge about the drugs

The nurse administered oral drugs to a patient as ordered by the doctor. When we asked the nurse about the efficacy and adverse reactions of the oral drugs, the answer was “I don't know the effects and side effects of these drugs. However, I know the effects and side effects of some main drugs,” and the nurse administered the drugs despite inadequate knowledge about them.

4-4) Nursing record and nursing process/information handover sheet

During our observation, the balance sheet designed by the Bureau of Nursing and Midwifery, Hospital Services Department or other formats were used as a nursing record.

In regard to the nursing process, the “information handover sheet,” recommended by the MoH to introduce the nursing process, was found at hospitals. However, two national

hospitals were not using the information handover sheet. In the remaining seven hospitals, use and recording were confirmed to be inadequate as described in 4-1). For example, in seven cases carefully observed, the assessment was not filled out and the nursing process was not implemented completely. Moreover, the comment heard from many of the directors of nursing department was that, “It is too difficult for the older generation to use,” which was consistent with the “not perfect” comment at group interviews where the difficulty of the use of nursing process/information handover sheet was noted.

【Health center】

Both health centers possessed organizational charts, understood the number of staff required for each job category and collected patient statistical data (numbers of outpatients, numbers of deliveries, etc.).

Table 35: Status of clinical practice facilities in the health centers (n=2)

	No. of Ns/Mw Students per year	No. of Preceptor
A Health Center	18	0
B Health Center	10	2

Clinical practice was conducted by both health centers, and the numbers of students accepted in the year (2010) were 10 and 18, respectively. One health center had no preceptor. The appraisal of students' performances was by a referral hospital staff member or school teacher.

We observed nursing services mainly related to maternal and child health, but their duties are comprehensive, from public health services (preventive vaccination, etc.) to consultation, therapeutic treatment actions such as diagnosis and prescription of medicine, determination of transportation to hospital and preparation of requests for transportation.

The basic nursing care techniques performed that were observed were approximately correct compared with nursing care in Japan, but similar concerns about ethical considerations were noted.

The nursing record and medical chart did not exist at health centers, but general information (name, disease, etc.) was mainly managed through the registration book provided by the MoH.

Because of the limited time, only two health centers were surveyed, and since nurses were not present in the health centers on the day of the visit, observation of nursing care was conducted only on the midwives. The results of these health centers cannot be construed to represent the nursing care provided by nurses in health centers across the whole of Cambodia.

5. Summary

5-1. Nursing education

1) School syllabus

All schools prepared documents for school organization. However, schools surveyed don't have a school syllabus, which is an outline or other brief statement of the main points of a course, the subjects of a course of lectures, or the contents of a curriculum including a school's vision, philosophy and goals. The school should create a school syllabus to provide quality education for students.

And BB RTC should set School Objectives and make its mission clear.

2) School activities

All schools made annual school plans, however to make an annual plan might be difficult because the school year doesn't start in the given term. The situation makes an effective educational plan difficult. It isn't a proper educational situation with students being provided with quality education. The issues for both students and teachers should be resolved as soon as possible.

All schools have an annual activity plan; it is worthwhile to evaluate school management.

3) Education

All schools follow the National Curriculum, which was approved by MoH and MoEYS, to provide nursing education and to manage student evaluation systematically. The National Curriculum is the most basic standard for nursing science, and the MoH needs to disseminate national guidelines to provide assurance about education quality, and each school has the responsibility to develop the curriculum. The education is executed by the national curriculum and evaluated systematically. High value can be put on this observation.

On the other hand, schools don't develop appropriate subject education plans. Lecture plans for each subject are in a poor condition, not based on the evidence and unscientific, and it is a teacher's memo that provides the explanation rather than the development of the educational theory. Some reasons for this are in this background material. Firstly, the curriculum guidelines don't have all nursing subjects following the National Curriculum. It is necessary to confirm the contents and the categorizing of nursing subjects in the Curriculum guidelines, and to develop it to make an appropriate lecture plan. Secondly, the teachers don't have appropriate teaching knowledge and skills. The teachers have to understand pedagogical methodology, how to educate and evaluate students effectively. Many teachers have already taken a pedagogy training course; however, regrettably, it was not reflected in the lecture plan. The teachers who took pedagogy training have the responsibility to implement, disseminate and develop the study of pedagogy in the school. Another cause of insufficient education is textbooks for teachers. Using a textbook based on medical and nursing science to make the lecture plan is the minimum requirement for teachers. But many teachers cannot read English. Is it necessary to provide textbooks in Khmer or to educate teachers in English? It is not an easy issue to solve, but needs to be discussed to find a solution.

Also, the schools need to manage educational activities more systematically according to

an annual or semester course schedule for students. Without an annual or semester course schedule, it is difficult to create a teaching schedule for teachers, and students cannot undertake pre-study. It is no exaggeration to say that the education executed is random. To provide quality education, it is necessary to offer a carefully considered preparation of schools, such as an annual or semester course schedule.

4) Clinical Practice

The orientation of clinical practice for students was operated before clinical practice in each school. However the planning of clinical practice is not scheduled as an annual plan when school starts. The school doesn't participate in student placement in each ward for clinical practice, and the teachers don't participate in clinical management practice, or monitor this regularly. Clinical practice is an important part of nursing education, and it is part of the schools' responsibility to provide this. The schools should properly recognize their responsibility regarding clinical practice. It is also necessary for the school, in cooperation with the hospital, to allocate students to each ward of the hospital for clinical practice. The teacher should visit the hospital frequently, and maintain and improve the effectiveness of the practical activities.

The school surveyed holds cooperative meetings with clinical hospitals, such as the Technical Board Meeting, regular and irregular meetings, and to exchange information and discuss how to solve the problems. However, the cooperation between the school and the hospital needs to be strengthened. The cooperative structure and function should be considered to strengthen the Technical Board Meeting.

It is necessary to establish an appropriate clinical practice system through cooperation between school and hospital, and to provide clinical practice under the strong responsibility of the school. Moreover the development of the function of the Technical Board Meeting needs to be considered in order to strengthen cooperation between schools and hospital regarding clinical practice.

The school uses a clinical logbook to record clinical performances and evaluations and it consists of 24 nursing tasks. It is suitable for recording effective clinical practice for students. However, nursing practice consists of more than 24 activities and the clinical practice of nursing is made up of concrete and individual practice through receiving guidance and advice on nursing in the hospital based on scientific knowledge and skills learned from the lectures and demonstrations in the school. Students learn to correctly understand the patients and nursing tasks through studying both sides of the school and hospital, and clinical practice, which is a study to integrate theory and skill. It is very important that the students can learn from a role model as a nurse in the clinical practice. The clinical practice should be provided with a view to providing holistic care, not only to teach skills. The clinical logbook used in each school should be considered and revised to serve as the holistic care standard for clinical practice..

The clinical practice should be provided with a view to promoting holistic care, not only skills. The clinical logbook used in each school should be considered and revised to provide a holistic care standard for clinical practice.

5) Facility

The situation regarding facilities is undesirable, especially in terms of the ratio of students to the size of classroom. There are too many students studying per room, a situation that makes education irrelevant. According to the MoH guidelines, classrooms should have at least

1.30 m² for one student, and there should be no more than 40 students in a class. The only school that meets this standard is TSMC. And also the number of classrooms has been enacted in the guideline, but the number of classrooms is insufficient in a teaching school. This applies not only to classrooms, but also to demonstration rooms. The situation with demonstration rooms is very poor, with equipment that is not managed and maintained well.

There are moderate numbers of books donated by benefactors to the library, but most of the books are written in English, which many teachers cannot read. There are no standardized textbooks for students and teachers in Cambodia. Teachers need to develop the books to use. Also, the library is not used actively by students because the library is not open at times that suit the students. The library should open at times that suit the students, such as before and after class, and at lunch time.

It is the responsibility of the school to manage facilities and to create an environment suitable for providing effective education, and also under the responsibility of the school director.

The school director has overall management of the school, for things such as the numbers of teachers and students and their quality, and for creating a school environment suitable for providing quality education, including classrooms, a demonstration room and a library. The Director's capability in terms of school management need to be further developed.

6) *Teachers and students*

The main problems are firstly, the shortage in the number of full-time teachers. In TSMC in particular, full-time nursing teachers make up only 19.5% of the total number of teachers and they are limited to only 66 teachers. The lack of teacher numbers influences educational quality. TSMC is a high educational facility in the area of nursing science. The situation makes the problem serious and it should be immediately improved for both TSMC and RTCs. If the number of teachers cannot be increased, it is necessary to decrease the number of students. The over capacity of student numbers influences facility management and school activities such as those related to classrooms and the start of the school year, and also influences clinical practice. The situation has a negative influence on providing good quality education.

Secondly, several teachers educated only to primary level are still working as nursing teachers. The number of primary nurse and midwifery teachers is small, but it is not desirable for education. Nurses and midwives educated to only primary level should not educate nursing students. The level of education is not set in the national guidelines as a prerequisite for nursing teachers, however the teachers who work in TSMC should have at least a bachelor's degree or above, and the teachers who work in RTC should have at least a diploma or above.

Lastly, is the lack of clinical experience of teachers. The ratio of teachers who have experience working in the clinical field is only 28.7%. How can teachers teach students without any clinical practice experience, especially clinical skills. It is necessary to provide teachers with clinical practice training to cover the shortage in their clinical experience.

5.2. Nursing Services

1) *General information on hospitals and hospital management*

Each hospital had information on the numbers of staff and beds as well as the numbers of patients/year (numbers of outpatients, inpatients and deliveries) and possessed an

organizational chart. The mean numbers of beds, outpatients, inpatients and deliveries for each hospital were 241, 53,136/year, 2,028/year and 2,809/year, respectively. The mean number of nursing staff was 186.

Hospitals with larger numbers of beds and larger numbers of patients tend to have greater numbers of nursing staff, but it was not possible to analyze in this report whether the number of nursing staff is appropriate because the government has not established any standard for the number of nursing staff to be placed in hospitals⁹. Standard staffing for both referral hospitals and national hospitals needs to be defined by the MoH to promote appropriate allocation of nursing staff in the public hospitals in Cambodia.

2) Nursing department organization and nursing management

A nursing department existed in each of the nine target hospitals, and the key members, including the nursing department director, were assigned according to the organizational chart of the nursing department. However, an organizational chart for the nursing department was hardly included in any of the overall organizational charts of the hospitals. Without a formal positioning of the nursing department or an official acknowledgement by the hospital manager team, it is somewhat difficult for the nursing department to receive the support of hospital managers, such as budgetary support for its activities. The results showed that only half of the nursing departments have a vision and mission; two out of nine hospitals had no nursing department activities; and no hospital had a budget to support the activities of a nursing department. These results revealed that current nursing departments at teaching hospitals do not function and properly manage their nursing staff to improve the quality of hospital nursing services.

The mainstream nursing system used in the wards was “team nursing”, a system by which the nursing staff look after patients as a team. Standards relating to nursing services and standard operating procedures existed in six of the nine target hospitals. The contents of these documents include “pre- and postsurgical procedures, hand-washing, and waste management”. Only a part of these nursing service procedures was standardized within the hospitals by these documents. Most of the nursing service is not standardized inside hospital, which makes it difficult to ensure the quality of the nursing service.

3) In-service training for the nursing staff

The key members of the nursing department, including the nursing department director, etc., were also in charge of in-service training, indicating that these members play administrative roles for in-service training in the hospital.

A budget for in-service training was not allocated in any of the target hospitals. Only five out of nine hospitals provided a training program for nursing staff.

The problem with in-service training is that the conditions for providing systematic in-service training are not guaranteed due to the inadequacy or lack of a training program and budget.

⁹ *The number of nurses assigned to referral hospitals is partly prescribed in National Guidelines on Complementary Package of Activity for Referral Hospital Development from 2006 to 2010 (the CPA Guideline) prepared by the Ministry of Health. The contents indicate two or more nurses for outpatients, but this is only partially applicable to referral hospitals, and the total number of nurses required in the hospital is not defined.*

4) Pre-service training for nurses and midwifery students

There is a system for providing cooperation between the hospital and school at the time of pre-service training. For example, communication through formal documents was found in regard to the training schedule. On the other hand, an annual plan was prepared in only four of the nine target hospitals, indicating that the students are not accepted for training according to the plan in five hospitals.

The mean numbers of students accepted annually were 476–478 in national hospitals and 376–401 in referral hospitals, indicating that both the former and the latter are accepting large numbers of students. The mean annual number of students per trainer was 28 in national hospitals and 18–19 in referral hospitals. The ratio of trainers who received trainers' training was 100% in all the referral hospitals, whereas the mean ratio was 28% in the national hospitals, suggesting that the pre-service training system does not function adequately in the national hospitals.

Key members of the nursing department, including the nursing department director, etc., are also concurrently the persons responsible for pre-service training and for the evaluation of training for students, indicating that these members play important roles in pre-service training.

The system for conducting pre-service training in teaching hospital is not adequate at present. The following points are problems that particularly need to be solved: the preparation and organization of students based on the annual clinical practice plan is insufficient in hospitals, even though the communication mechanism exists among schools and clinical sites; the number of students is large; trainers in national hospitals do not receive trainers' training to ensure the quality of clinical teaching.

Strengthening nursing departments will be the key action to improve the situation, because the nursing managers are the main resources for pre-service training at hospitals.

5) Nursing service and nursing ethics

Patient care (support of patient recovery) is mainly entrusted to nurses and patients' families, and patient cure (assisted medical treatments) is mainly entrusted to nurses.

Our observations suggest to us the specific points needed to improve the quality of nursing services.

1. Nursing is practiced in the absence of scientific evidence, such as correct knowledge about medicines or without any practice of nursing assessment and nursing diagnosis.
2. Nursing practice causes harm to the patient, such as interruption of treatment due to insufficient observation of the patient by the nurse.
3. In regard to nursing ethics, several nursing behaviors were observed to pose ethical problems.
4. Several cases were observed in which patient privacy was not protected. However, responses given in this regard during interviews were that patient privacy was respected, indicating a problem because of the considerable dissociation between the awareness of nurses concerning privacy and actual on-site nursing practice.

6) Nursing records

For the purpose of offering a certain level of nursing service, the MoH is promoting the introduction of nursing processes such as the keeping of a nursing record. It was confirmed that the “Information Handover Sheet”, prepared as a part of the above-mentioned promotion, was not actually in use in two of the nine target hospitals. In seven hospitals where it was used, however, assessment is not recorded as a part of continuous nursing process, indicating that the sheet is not sufficiently utilized. Managerial direction is required to expedite correct usage of the sheet by on-site nurses. Also, there is no column on the information handover sheet for describing the “nursing plan”, which is important for the nursing process, indicating that the design of the sheet requires revision.

6. Recommendations

On the basis of the survey results, the following are proposed to the MoH to further improve nursing education and nursing services in Cambodia.

6-1. Nursing Education

1) Intake of an appropriate number of students

According to the survey results, the large intake of students creates numerous problems, such as a disorderly start to the school year, an inappropriate educational environment, and difficulty in managing clinical practice. Its problems have been strongly influenced by the decline in the quality of nursing education. The Ministry of Health should determine student intake to match the number of teachers and the school's capacity to provide quality nursing education.

2) Improving treatment for teachers

Another cause of a lower quality of education is inadequate treatment of teachers. Many people do not want to be teacher because of the low salary. To ensure quality education adequate numbers of teachers need to be secured. Improving the treatment of teachers is a pressing matter.

3) Strengthen the clinical practice system

Clinical practice is important in nursing education as well as theory and it is a strong influence on students. The schools follow the clinical practice system such as through the Technical Board Meeting and the clinical log book which is issued by MoH. However this is insufficient. Clinical practice should teach students about appropriate nursing care with a view to providing holistic care. It is necessary to further improve the system to provide quality clinical practice under the management of the school.

4) Strengthen teachers' capability

There are some problems with teachers' capability such as lack of knowledge of teaching methods, inadequate teaching plans, a shortage of clinical experience, lack of professional knowledge. The teachers need pedagogical training and also need to be trained in Nursing Science. Many teachers have already received training in many courses. However it is difficult to improve their abilities. To strengthen knowledge of Nursing Science, it is important to provide academic education such as a bachelor's degree and to study evidence-based Nursing Science.

5) Improving the management capacity of schools

None of the schools have a school syllabus to provide comprehensive information for the students and people concerned. All information on education should be provided for students and others to provide quality education and ensure good recruitment. The results of the survey reveal the related shortage of management capacity such as the school activity schedule and school statistics. The management capacity of schools should be improved to ensure quality of education. There also needs to be a system to provide regular reports of school information to MoH.

6-2. Nursing Services

1) Appropriate allocation of nursing staff

It is desirable to prepare a standard to serve as a basis for systematic allocation of the required number of nursing staff (for example, a standard for the number of beds per nurse) at all levels of hospitals, and to assess the current status of nursing staff allocations on the basis of this standard, that is, whether the number of nursing staff is appropriate or insufficient.

2) Strengthening of the nursing department

Firstly, the overall position of the nursing department needs to be clearly specified in the nursing regulations with a legal foundation. MoH and each hospital could officially acknowledge the nursing department in the formal hospital organizational chart. It is also necessary to continue to provide opportunities, including training, etc., that will improve the abilities of key members of hospital nursing departments.

3) Strengthening in-service training for nursing staff

Each staff member needs to develop their capacity through in-service training. As with the position of the nursing department, it is necessary to clearly specify the place of in-service training in the nursing regulations for implementation.

Moreover, the guidelines for continuous training for nurses need to be prepared as a clear directive based on the nursing regulations.

Actual implementation inside the hospital requires the continuous support of the nursing department so as to: “(i) obtain a budget for in-service training, and (ii) to consolidate the training program.”

4) Strengthening pre-service training for nursing and midwife students

To further grasp the current status of the teaching system for students at teaching hospitals, it is necessary to “confirm (with the hospital) the total number of students accepted each time from all schools,” to compare the number with the national standard, “five students per preceptor” defined by the MoH and Ministry of Education¹⁰. Also, an appropriate monitoring system needs to be in place to determine whether the current number of students accepted is appropriate.

Based on the above monitoring, it is necessary to “(i) nurture preceptors, (ii) adjust the number of students accepted for training, and (iii) prepare a system to expand the number of training institutions to include private hospitals, etc., if the number of training institutions is excessively insufficient.

5) Improvement of nursing services

To support the practice of nursing care, it is necessary to: (i) “clearly state in the nursing regulations that “the role of the nurse is to provide nursing care,” and to (ii) “promote a suitable working environment by appropriate allocation of nursing staff, etc.”

¹⁰ The Ministry of Health and Ministry of Education Youth & Sports specified the “ratio of preceptors to students: 1/5” as one requirement of the Competency of Preceptors in the Associate Degree in Nursing Training Curriculum Standard.

To provide a standard of nursing service, it is necessary to: 1) expedite the mutual sharing of existing nursing standards and standard operating procedures between hospitals, 2) prepare necessary nursing standards and standard operating procedures for on-site utilization that will support the hospital nursing department.

6) Dissemination of nursing ethics

Firstly, the issue of nursing ethics should be addressed in the nursing regulations.

Moreover, it is necessary to provide nursing staff and nursing educators with the opportunities to directly learn nursing practices in various countries where the quality of international nursing is proven and to provide a foundation to further deepen nursing concepts, including that of “nursing ethics.”

It is also necessary for Cambodia as a country to address the spread of nursing ethics through cooperation between the nursing staff and nursing educators who have learned nursing abroad so as to improve nursing ethics in pre- and in-service training.

7) Improvement of nursing records

In the nursing regulations, it is necessary to clearly specify what is required on the nursing record and it is the role of the nurse to record that on the nursing record.

To improve the present situation of nursing record use, it is necessary to: “(i) modify the information handover sheet, which is the record sheet formed by MoH in the practice of the nursing process, by including the nursing plan; and (ii) to continue outreach to hospitals currently practicing nursing so that nursing is practiced on the basis of scientific evidence and is visualized by the record.

6-3. Overall recommendations

1) Intake of an appropriate number of students

According to the recommendations from the Education and Nursing side, this report suggests several points as overall recommendations.

- Many problems on the nursing service occur as a result of the lack of management capability of nursing managers, and nursing management. Regarding the problems of in-service training, non-standardized nursing care, shortage of nursing knowledge based on evidence and ethics, non-scheduled clinical practice and the matter of trainers' training, most will possibly be solved by strengthening the organization of the nursing department and the management at health facilities. The MoH should provide/develop a national policy of nursing management and endeavor to improve the capability of Nursing Management in the health facilities.
- It is necessary to improve the relationship between schools and hospitals regarding clinical practice. Regarding the problems with the education and nursing service, there are many issues related to clinical practice. To solve these problems, we need to set up a system of clinical practice that is under the clear responsibility of school. Also, schools need to understand that clinical practice is one of the subjects on the Nursing Science curriculum and should understand that clinical practice is as important as a school academic activity. On the other hand, hospitals also need to understand their role in clinical practice. To improve clinical practice, schools and hospitals need to have a commitment and discuss solutions.

Sheet of General Information on Educational Institution

Date: / 2011

Name of school _____

Interviewer: _____

Interviewee: _____

School Syllabus	<School Philosophy> ※R-a		<School Syllabus or Guidance> ※R-b	
	<School Objective> ※R-c		School Organization Chart ※	
	<School Regulation> ※R-d			
Activity	School Year			
	Annual School Plan ※R-e		Yes No	
	Number of staff and category		See table1	
Teacher	Number of Teacher , category and specialty		See table1	
	Record of training		See survey-B	
	Working Experience		See survey-B	
Student	Method of student selection			
	Enrollment capacity of student		See table2	
	Number of student		See table2	
	Number of graduated student in 2011		See table3	
	Number of entered student in 2011		See table3	
	Availability of the record of graduated student ※R-f		Yes No	
	Number of repeated/withdrawn student		Repeated student Withdrawn student	
Education	Curriculum		Yes No (Authorized by)	
	Subject lecture plan ※R-g		Yes No	
	Lesson plan ※R-h		Yes No	
	Course schedule ※R-i		Yes No	
	Teaching our per week of a teacher(assignment)		hour/week	
	Text book		Yes No (detail information)	

Support of Other health partner	
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※ Collect the document

R-a → See Definition of Terminology of “a”

Questionnaire A-1.

General information of Hospital

ver.2011.2.18

ID:

Date: Time Name of Interviewer:

Province name: Hospital name:

Hospital category: National hospital, RH(CPA1), RH(CPA2), RH(CPA3)

Name of respondent/position:

No	Question	Answer
General		
Q1	Do you have the organogram of your hospital? If you have, please write down or give it to us.	Yes No
Q2	Do you have some special role except of clinical field? If you have, please write down or give it to us.	Yes No
Q3	Do you have the vision or mission of your hospital? If you have, please write down or give it to us.	Yes No
Clinical services		
Q5	Which services do you have in your hospital? (ie: Surgery, Pediatrics etc...)	
Q6	How many beds do you have?	
Q7	From what time to what time is the working hours for outpatient services?	
Q8	How do you provide inpatient services?	1.Open for 24hours for the same services 2.Open for 24hours, but treatment and care is only in the morning 3.Open only in the morning for treatment and care 4.Others

Q9	How many outpatients do you have? (per month, last year)	per month(in Jan.) per year (in 2010)
Q10	How many inpatients do you have? (per month, last year)	per month(in Jan.) per year (in 2010)
Q11	What are the most frequent diseases for outpatients last year (No.1 No.2 No.3)? How many patients?	1. cases/2010 2. cases/2010 3. cases/2010
Q12	What are the most frequent diseases for inpatients last year (No.1 No.2 No.3)? How many patients?	1. cases/2010 2. cases/2010 3. cases/2010
Q13	How many deliveries per month, and last year (2010)?	/month(in Jan.) /year in 2010
Management of information		
Q14	Do you have any health information system? (for example, patient has unique ID) If you have, please write down.	Yes No
Q15	Do you have management on patients document such as standard format for outpatient and inpatient? If you have, please write down.	Yes No

Personnel Management		
Q16	How many staffs do you have in total?	Government staff() temporary staff()
Q17	How many staffs per each categories?	SNs.() PNs.() SMWs.() PMWs.() MD.() MA.() Phamacist() Secretary() Other ()
Q18	How do you provide staff salary?	1.Based on the MOH standard 2.Hospital has its own standard 3.Others
Q19	How much is the minimum monthly salary for your staff by government?	SNs.() PNs.() SMWs.() PMWs.() MD.() MA.()
Q20	How much is the minimum monthly incentive except government salary?	SNs.() PNs.() SMWs.() PMWs.() MD.() MA.()
Other		
Q21	Do you have any problem in your hospital? If you have, please write down it?	Yes No

Questionnaire A-2.

General information on Nursing Department and Nursing Management

ver.15 Feb 2011

ID:

Date:

Time

Name of Interviewer:

Province name:

Hospital name:

Hospital category: National hospital, RH(CPA1), RH(CPA2), RH(CPA3)

Name of respondent/position:

No	Question	Answer
Organization of Nursing		
Q1	1-1 Do you have the Nursing Department in your hospital? 1-2 Do you have Organization structure of Nursing Department? 1-3 Do you have job description of Director, and Deputy Director in the Nursing Department? if you have please give give us the document?	1. Yes No 2. Yes No 3. Yes No
Q2	How many nurse and Midwifery staffs do you have per each category?	SNs.() PNs.() SMWs.() PMWs.() Total:.....
Q3	Do you have vision or mission in the Nursing Department? If you have, please write down or give it to us.	Yes
Q4	Do you have any committee in the Nursing Department?	Yes
Q5	1. If you have committee, does the committee have roles? If they has, please write down 1. Their role. 2. Their activities.	Role: Activities:
Q6	1. Does the Nursing Department have any regular meeting? 2. If it has, please write down the Agenda and how often	1. Yes No. 2.
Q7	Please tell us about any activities in coordination with other sections inside the hospital (i.e.; Coordination meetings with the doctor)	

	Could you write down if you have any other activities by Nursing Department. (ex. workshop. meeting....)	
Q8	1 Do you have own budget of nursing Department? 2. If you have own budget, how do you use it?	1. Yes No. 2.
Q9	How do you manage your staffs? (i.e. promotion, rotation, supervision)	
Nursing services		
Q10	What kind of nursing care system do you use ? (i.e., team nursing, primary nursing)	
Q11	Do you have the standard of number of patient per nurse? If you have, please give me it.	
Q12	Do the nurses use Nursing Process? If they use, please show us it.	
Q13	Do you have nursing standard (manual)? If you have, please show us it	
Q14	Do the nurses use nursing record? If they use, please show us it.	
Q15	1. Do you have a standard of manual or protocol on hospital safety management? 2. Do you have a committee for hospital safety management? 3. Are there any training of it to the staff? 4. Are there any staffs responsible for hospital safety management?	1. Protocol : Yes No 2. Committee: Yes No 3. Training: Yes No 4. Responsible staff: Yes No
In-service Training		
Q16	Is there any nurse who is in charge of in-service training?	
Q17	What are the role and activities of in-service training nurse? (i.e., to make a training schedule,)	1. Role : 2. activities :

Q18	1. Do you have any budget for in-service training? 2. How do you use budget for in-service training?	1. Yes 2.	No
Q19	Do you have some program of in-service training? Please write down activities of in-service training?		
Pre-service training			
Q20	Do you have any annual plan for clinical practice? Term, number of student, school name, practice subject....etc. If you have, please show us it	Yes	No
Q21	1. Does the school inform you about the schedule of clinical practice ? a. When? b. How? If you have, please show it.	1. Yes a. b.	No
Q22	How many students do you receive per year?		
Q23	How many students come for practice per time?		
Q24	Do you have schedule during clinical practice for students? If you have, please show us it.	Yes	No
Q25	Do you have meeting with the school? A. How often? B. What contents?	Yes a. b.	No
Q26	1. Do you have criteria of clinical practice preceptor in your hospital? 2. if you don't have how you choose preceptor? 3. if you have please write down each?	1. Yes 2. 3.	No.
Q27	How many nurse and Midwifery preceptors do you have per each category?	SNs. () PNs. () SMWs. () PMWs. () Midwife+1 () Total:.....	

Q28	Is there any nurse who is responsible person of pre-service training?	Yes	No
Q29	How many nurses have already attended preceptor training course?		
Q30	Beside clinical preceptors, do you have someone in charge of student?		
Q31	Who makes an evaluation for student?		
Others			
Q32	1 How many nurses are member of Nursing Association? 2 How many nurses are member of Nursing Council?	1.Number of association 2.Number of Council	
Q33	1 Do they attend Association activities? 2 Do they attend Council activities?	1. Yes 2. Yes	No No
Q34	Do you have any problem on nursing in your hospital? If you have, please tell us?	1. Yes	No

QuestionnaireB-1 (Group interview)

Current situation on patient service at hospital

ver 2 .March 2011

ID _____ Date: _____ Province name: _____

Question

“Who is providing these services in your hospital? By nurse, cleaner or worker, family, doctor, other professionals, or by nobody?”

Big item	Medium item (14)	Small item (52)	Services provided by whom				
			Nurses	Cleaner	Dr	Family	
1 Care; support patient recovers (Medium item 6, Small item 25)							
1 Bedside Hygiene		Organize environment of patient 1 (ie,temperature and/or humidity and/or light and/or bad smell and/or noise) 2 Perform bedside hygiene					
2 Nutrition		3 Support nutrition/food such as setting for confined to bed by illness 4 Perform intubation the client with a nasogastric feeding tube 5 Provide nutrition by a nasogastric feeding tube					
3 Elimination and urinary support		6 Perform Elimination and urinary support such as to set up bedpan 7 Perform enema(tube into rectum for enema) 8 Perform extraction of fecaloma (disimpaction) 9 Insert an indwelling catheter for urinary collection 10 Manage an indwelling catheter for urinary collection 11 Take and throw away urine 12 Perform urethral catheterization					
4 Support on activity and repose		13 Perform safety transfer for patient					

	44	Measure Respiration	
	45	Measure Radial Pulse	
	46	Measure Arterial Blood Pressure	
12 Examination	47	Collect sputum for examination	
	48	Perform tuberculin test	
		Give anesthetic	
13 Other	49	By doctor or nurse or nurse with anesthesia-reanimation certificate (ISAR)	
3 Others (Medium 2, Small 2)			
15 Patient safety	50	Perform patient safety such as to prevent fall and/or fall down	
	51	Perform patient safety such as to prevent misidentify the other patient	
14 Infection control	52	Perform wash and/or disinfection and/or sterilization of material (ie: tweezers, kocher clam etc...)	

Question “Do you implement xxx?”

Question		Yes	No
1	Infection control Do you implement so call standard precaution? Standard precaution: the nurse protect by gloves and other material when they dispose of body fluid such as urine and blood etc..		
2	Communication Do you explain the patient before nursing care?		
3	Ensure the privacy Do you report to the doctor when there are abnormalities?		
4	Nursing record and others Do you ensure privacy when take care the patient? (ie; To cover the skin with a towel)		
5	Assesment of the patient Do you ensure privacy when take care the patient? (ie; To cover the skin with a towel)		
6	Do you make nursing record?		
7	Do you re-assess blood pressure when the result measure it in the case of 160/100mmHg?		

	8	Do you observe client to determine response/side effect to therapy?			
	9	Do you coordinate dripping speed of intravenous therapy?			
	10	Do you observe client for insertion site after intravenous therapy?			
	11	Do you perform mental care when a patient is in an uneasy state? (ie; to explain about health condition)			

Information of Health Center

Date :

Time

Province Name:

Name of Interviewer:

Health Center category: A. MPA..... B. Non-MPA.....

Health Center Name:

Name of respondent/position:

No	Question	Answer
General Information		
Q1	Do you have Organogram of the Health Center (could we have your Organogram?)	
Q2	How many staffs do you have in each category?	SNs () PNs () SMWs () PMWs () MD () MA () other.....()
Q3	Do you have vision and mission of your Health Center? If yes, please proceed to Q4 sheet	Yes -Q4 No
Q4	Could you explain us the vision and mission of your health center? If you have written document, could you give us one copy?	
Q5	what are the services provided by your health center?	
Q6	From what time to what time does each service provide?	
Q7	How many outpatients do you have? (Last month and last year)	Last Month: Last Year(2010):
Q8	what are the most common diseases for outpatients you have last year, please describe at least 3 cases and how many patient for each cases?	1. Cases/2010 2. Cases/2010 3. Cases/2010
Q9	How many deliveries cases for last month and how many cases in the whole year of 2010?	1. Cases/month 2. Cases/2010
Q10	Do you have nursing record, could you show us?	1.Yes..... 2.No.....
Q11	Do you use nursing process/protocol could you show us if you have?	1.Yes..... 2. No.....
Q12	Do nursing and midwifery students conduct their clinical practice at your health center? If yes, please proceed to	Yes.....(Q13-27) No.....

Clinical Practice for Nursing and Midwifery Students			
Q13	1.Do you have annual plan of clinical practice for student?Could you show us? 2.Does the school inform you about the schedule for clinical practice? Could you show us?	Yes..... Yes.....	No..... No.....
Q14	How many Nursing & Midwifery students do you receive per year?		
Q15	How many students come for practice per time?		
Q16	Did you set the schedule time for student clinical practice in your Health Center?	Yes.....	No.....
Q17	Do you have equipment using for only student practice?	Yes.....	No.....
Q18	How do you communicate to the school? (ex. Regular meeting)		
Clinical Preceptor			
Q19	Do you have any clinical preceptors in your Health Center? If yes, please fill in Q24, Q28	Yes -Q24 -Q28	No.....
Q20	How many clinical preceptors do you have?		
Q21	what are the qualifications of the clinical preceptors? (ex. SNs, PNs, SMWs, PMWs, Other....)	SNs, PNs, SMWs, PMWs, Other....	
Q22	How many years of clinical experiences do preceptors have after graduate?		
Q23	How many years of experience as preceptor?		
Q24	Do they need to attend teaching methodology course to be recognized as preceptors?	Yes.....	No.....
Others			
Q25	Besides clinical preceptors, do you have anybody in charge of students?		
Q25	who makes an evaluation for the student's performance?		
Q26	what are the problems of your Health Center?		

Appendix 8

School Vision and Mission

Facility	Vision and Mission
TSMC	<p><u>Vision</u>: The University of Health Sciences-Cambodia (UHS-C) aims to build highly competent and internationally recognized health professionals in order to effectively and efficiently improve the health status of the Cambodia people.</p> <p><u>Mission</u>: UHS-C is dedicated to foster the highest standard in education, research and professional practice aiming at promoting health, well-being and optimal quality of health of the country</p> <p>In addition to its core mission in capacity building of Cambodia's health workforce mandated by sub-decree 127 of Royal Government of Cambodia, the UHS-C shall become a multidisciplinary University by the year 2012 as recommended by Sub-Decree 54 of the Government.</p>
Battambang RTC	No mission and vision
Stung Treng RTC	<p><u>Vision</u>: To develop human resources of Co-Medical and to fulfill school duty in coordinating, managing, leading and providing education of health science in order to contribute the development in the hospital, health Center located within the region of the School.</p> <p><u>Mission</u>: In order to achieve the vision, the school has made AOP for 2011-2012 that have priority action plan as follow.</p> <ol style="list-style-type: none"> 1. Increase In quantity and Quality of Education. 2. Expand and strengthen infrastructure.
Kampot RTC	<p><u>Vision</u>: To participate in Human Resource development of Co-Medicals, by developing Nursing science professionals to meet the health service needed with quality of national and international standard Mission to go out and serve health service in Cambodia and abroad especially Asian country.</p> <p><u>Mission</u>: 1. Provide basic/pre-service and in-service/continuous education on nursing science. 2. To manage human resource data base of co-medical with quality and effective assurance, and recognized by law and job Market. 3. To work in accordance with respective role, professional ethics, law and legislations that has written in Cambodian Law and world health organization. 4. Participate in poverty reduction that has set as Triangle strategy of Cambodian Government.</p>
Kampong Cham RTC	<p><u>Mission</u>: to appropriately train co-medical and paramedical technical care professionals, through pre-service, post-basic and in-service education, on both level primary and secondary level based on the national health Policy & Strategies for Human Resource Development.</p>

Appendix 9

Number Of Staffs At Each Educational Facility In Year 2011

Category	TSMC			RTC Battambang			RTC Stung Treng			RTC Kampot			RTC Kampong Cham			Total
	Total	Full.T	Part.T	Total	Full.T	Part.T	Total	Full.T	Part.T	Total	Full.T	Part.T	Total	Full.T	Part.T	
B-Nurse	10	3	7	0	0	0	0	0	0	0	0	0	0	0	0	10
S-Nurse	145	25	120	36	19	17	28	19	9	27	26	1	15	10	5	251
P-Nurse	1	1	0	0	0	0	0	0	0	2	2	0	1	1	0	4
S-Midwifery (3 yrs)	42	10	32	21	16	5	8	2	6	6	3	3	3	1	2	80
S-Midwifery (3+1 yrs)	7	1	6	0	0	0	2	2	0	3	3	0	4	4	0	16
P-Midwifery	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1
Sub-Total	205	40	165	57	35	22	39	24	15	38	34	4	23	16	7	362
MD	72	12	60	25	2	23	5	1	4	7	5	2	18	2	16	127
MA	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	2
DEN	2	0	2	3	3	0	0	0	0	0	0	0	3	3	0	8
DA	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
FA(pharmacist)	42	4	38	4	2	2	1	1	0	3	2	1	5	0	5	55
Sub-Total	116	16	100	32	7	25	6	2	4	12	9	3	27	6	21	193
Laboratories	53	10	43	1	1	0	0	0	0	0	0	0	1	0	1	55
Physio Therapist	48	5	43	0	0	0	0	0	0	0	0	0	0	0	0	48
Radiologist	48	0	48	0	0	0	0	0	0	0	0	0	0	0	0	48
Sub-Total	149	15	134	1	1	0	0	0	0	0	0	0	1	0	1	151
Admin	8	7	1	0	0	0	0	0	0	*10	*10	0	0	0	0	8
Admin Assistant	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1
Teacher Assistant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Accountant	0	0	0	1	1	0	1	1	0	*3	*3	0	2	2	0	4
Cleaner	1	1	0	0	0	0	2	2	0	3	3	0	4	4	0	10
Security	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Driver	0	0	0	2	2	0	1	1	0	1	1	0	3	3	0	7
Librarian	0	*3	0	3	3	0	1	1	0	*3	*3	0	0	*1	0	4
sub-Total	9	8	1	4	4	0	5	5	0	4	4	0	10	10	0	32
Director	*1	*1	0	*1	*1	0	*1	*1	0	*1	*1	0	*1	*1	0	0
Vice-Director	*4	*4	0	*4	*4	0	*1	*1	0	*3	*3	0	*3	*3	0	0
Total	479	79	400	94	47	47	50	31	19	54	47	7	61	32	29	738

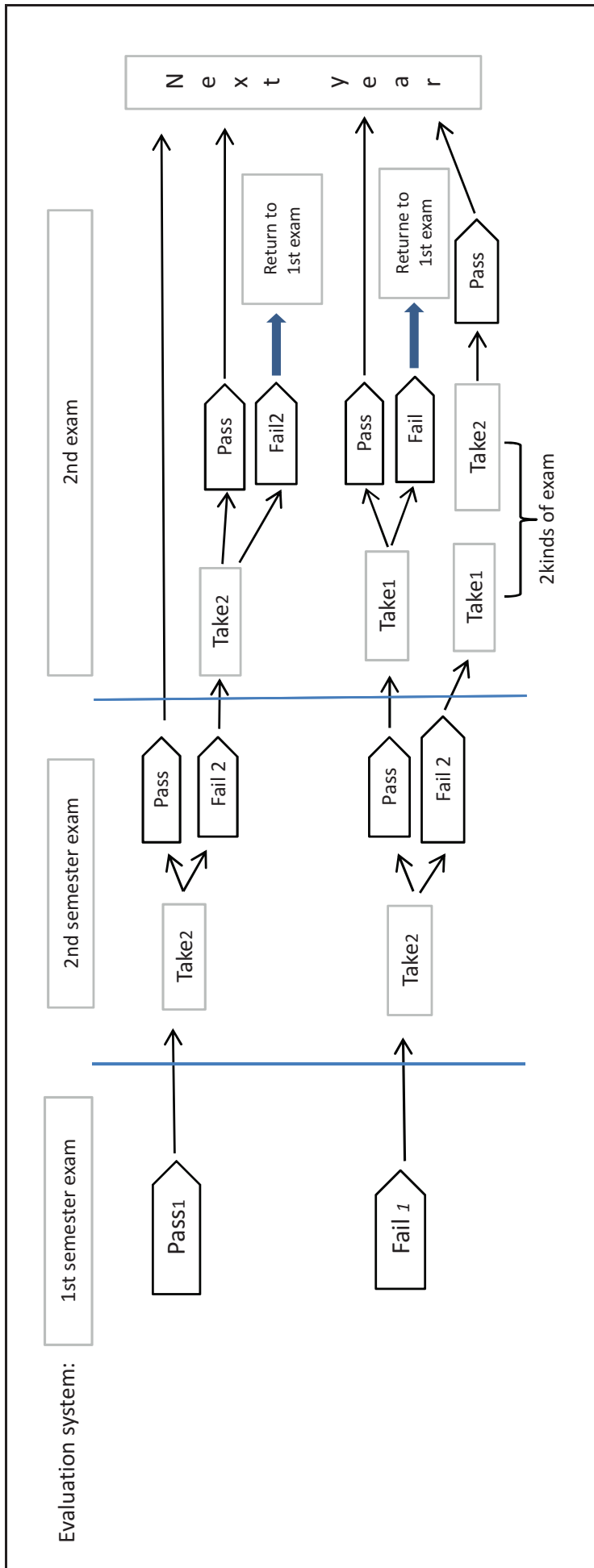
* already counted above

Teacher and Student

Category	Contents	TSMC	Battambang	Stung Treng	Kampot	Kampong Cham
Teacher	Number of teacher, category, speciality ※					see table 1
	Record of training ※					individual table
	Working experience ※					individual table
Student	Method of student selection	Bachelor: After graduated from high school, students take entrance examination. Selection is depend on the score. Associate: After graduated from high school, student take entrance examination provided by MoH, UHS, TSMC and MoEYS.	All students who want to enter the school apply a form to MoH. And MoH provide committee meeting for selection. Members of committee, Primary Course: Secretaries of State, HRD, RTC(1), PHO(1) Secondary Course: Secretaries of State, HRD, RTC, PHO			↑
	Availability of the record of graduated students	No	No	No	Yes but only number of graduate students, not their working place	No
	Number of repeated / withdrawn student in 2010	*Repeated: 28 Withdrawn: 2 ADM 1yr:1 2yr:1	Repeated-17 students AND 10, ADM 7 Withdrawn 42 students (mostly 1 year students)	Repeated- 7students (ADN1y-1, ADN3y-5, ADMW2y-1) Withdrawn- 14 students (ADN1y-5, ASMW1y-4, ADMW2y-2, PMW-3)	Repeated-9 (ADM 1yr=9) Withdrawn=1 yr ADN	Repeated: 11 a. ADN 1st: 5 b. ADN 2yr: 3 c. ADN 3yr: 3 Withdrawn: 19 a. ADN 1yr: 12 b. DN 1yr: 6 c. PM : 1

*TSMC Repeated students BSN : 2nd→18 3rd→1, AND : 1st→2 2nd→1 3rd→1, ADM : 1st→4 2nd→1

Evaluation System



Appendix 12

List of equipments for ADN

No.	Items Designation	Ratio	Requir	Battambang		Stung Treng		Kampot		Kampong Cham	
				Actual	Remark	Actual	Rmark	Actual	Remark	Actual	Remark
	Bed and Accessories										
1	Bed for adult (adjustable)	1:10		7		1		3		2	
2	Bed frame for orthopedic procedure (Demonstration only)		1	0				0		0	
3	oxygen cylinder and wheeled support	1:10		4		1		1	dysfunction	1	
4	Manometer and humidity system	1:10				0		1		1	
5	rolling stretcher (bed style)	1:40		1		0		6		1	
6	Trolley cart/Dressing cart	1:10		6		4		11		7	
7	Wheelchair		2	5		1		1		1	
8	Adjust scale with height measurement		1	4		0		0		0	
	Model and Manikins										
9	Human Anatomy		1	2		1		0		0	
10	Human Skeleton		1	5		2		2	dysfunction	1	
11	Blood circulation system		1	1		0		1		0	
12	Cardiac anatomy		1	4		1	old	2		1	
13	Respiratory organ		1	2		1		2		1	
14	Digestive organ		1	1		1		2		1	
15	Muscle		1	1		0		0		1	
16	Derma system		1	1		0		0		0	
17	Structure of eye and ear (ear 4,eye 1)		1	5		1		1		1	
18	Dental structure		1	3		1		1		1	
19	Structure of Nose, pharynx and larynx		1	1		1		1		0	
20	renal and Urinal system		1	1		1		2		0	
21	Pelvis		1	4		0		2	dysfunction	1	
22	Pregnant uterus		1	0		0		0		0	
23	Fetus development		1	0		0		1		0	

53	basin (big, medium and small)		12	10		5	18	28
54	chest drainage system		2	2	1	0	1	19
55	thermometer	1:05			1	8		

Questionnaire A-1.

General information of National hospitals

No	Question	A hospital	B hospital	C hospital	E hospital	D hospital
General						
Q1	Organization chart	Yes (See the document)	Yes (See the document)	Yes (See the document)	Yes (See the document)	Yes (See the document)
Q2	Role of hospital besides clinical field	Main activities - Top referral hospital for OBGY - National program center - Training center	Pre-service training (1) Domestic: Dr, Ns (2) Abroad	1. curative service 2. supporting service; para-clinic(lab, x-ray, pharmacy) Remark: Lab receive examination from private hospital/clinic. 3. training; pre-service training 1) Medical student: UHS, IU, Military 2) Nursing student: TSMC, Military, Private (Chenla University, International university (IU), Life university) 3) Pharmacy student: UHS, Military in-service training to other hospital's staffs (MD, MA, Ns) 4) Research: To have research activity on rotavirus with Korean team. (See the documents)	1) Pre-service training (1) Medical students: UHS, IU, Military school (2) Nursing students: TSMC, IU, Chenla university, Military 2) In-service training • target/trainee: Dr and intern • frequency: 2 times/month 3) Workshop and forum • target/trainee: Dr and intern • frequency: 2 times/year • budget: MoH, drug company	1. Pre-service training/training center for student 1) Medical student: UHS, , International University (IU), Military 2) Nursing student + Midwifery student: TSMC, IU, Military 3) Pharmacy student: UHS, IU, Military 4) Lab student: TSMC 2. In-service training to other hospital's staffs on traumatology (seminar, training) 3. Research
Q3	Vision or mission of the hospital	Access everybody our quality of services for the poor	Unclear answer	Yes. (See the documents)	Unclear answer	No

Clinical services						
Q5	Clinical services	<p>IPD (Maternity, Gynecology, Delivery, OT/recovery, Neonatology)</p> <p>OPD (Emergency, Obstetric, Gynecology, Birth spacing, Mother education, immunisation, Dental, PMTCT, CAC) Paraclinic (Laboratory, Radiology, Echo, ECG) Pharmacy</p>	<p>1) IPD General medicine, Infectious disease unit, Hepatogastric, Hematology, Diabetes, AIDS, Surgery, Urology, Stomatology, Traumatology, Neurology, ICU (NICU, serious, emergency), Maternity, Neonatology</p> <p>2) OPD General Otolaryngology Eye/ophthalmologic Skin/dermatology Dentistry Obstetrics and gynecology, postnatal care Anesthesiology</p> <p>3) Para clinic Imagery (Scanner, MRI, Abdominal echo) Laboratory (Biology, Serology, Semiology/symptomatology)</p> <p>4) Special disease Liver, Mammography, Metabolic syndrom</p>	<p>IPD (Medicine: Infectious disease and Dengue, HIV/TB, Malnutrition and diarrhea, Hepatology, Neurology, Nephrology, Dermatology, Education, Surgery, OT, ICU Hematology, Cancerology, Allergo-Immunology, Endocrinology, Cardio-Rheumatology, Pneumology, Kinesitherapy)</p> <p>OPD & Emergency, Child Health Improvement Consultation (HIV), Dental Paraclinic (Pharmacy, Laboratory, Radiology)</p>	<p>OPD and IPD General medicine, Pediatrics, Surgery, Outpatient, Emergency, Intensive care, ENT, Ophthalmology, dental, Pulmonary, Maternity, Gynecology, Oncology, Infectious disease, Phycology, Kinesitherapy, Physiotherapy, Neurology, Pharmacy, laboratory, Imagery, Histology</p>	<p>Medicine (Pneumology, Hepato-gastro-enterology, polyvalent medicine (Diabetics, nephrology, ophthalmology, cardiology), HIV, Dermatology, Psychiatry), Surgery (Orthopedics, Urology, General surgery (thoratic, endocrinology, repair surgery, neurosurgery), obstetric and gynecology) , OT, Laboratory, Pathology, Radiology</p>
Q6	Number of beds	154	340	150	500	250
Q7	OPD working hours	7:00-11:00 14:00-17:30 (2011-)	7:30-17:30	24 hours/ every day	General OPD: 7:30-11:30 Special OPD: 24 hours	7:00-17:00 (Monday-Friday)

Q8	IPD service	1. Open for 24 hours for the same services	1. Open for 24 hours for the same services	1. Open for 24 hours for the same services	1. Open for 24 hours for the same services/urgent
Q9	Number of OPD	5039 per month 60449 per year (in 2010)	6563 per month (in Jan.) 72138 per year (in 2010)	9947 per month (in Jan.) 110,053 per year (in 2010)	1,496 per month(in Jan.) 19,946per year (in 2010)
Q10	Number of IPD	714 per month 8570per year (in 2010)	2149 per month(in Jan.) 24361 per year (in 2010)	960 per month(in Jan.) 9869 per year (in 2010)	611 per month(in Jan.) 8,622per year (in 2010)
Q11	Frequent diseases at OPD	1. Risk pregnancies detected(Such as hypertension, pre-Caesarean Section) cases/2010 2. Diagnosis is an impossible 629cases/2010	1.ANC 20589 cases/2010 2.Traffic accident 1759 cases/2010 3.Hypertension 1687 cases/2010	1.upper ARI 39,559 cases/2010 2.Diarrhea 9,315 cases/2010 3.lower ARI 7,245 cases/2010	1. Multiple traffic accident 1,825 cases/2010 2. Gynecology, Obstetric 2,228 cases/2010 3. Dermatology 1,418 cases/2010
Q12	Frequent diseased at IPD	1. Preeclampsia and eclampsia 315 cases/2010 2. Placenta previa 199 cases/2010 3. Post partum hemorrhage 152 cases/2010	1.Delivery 7738 cases/2010 2.Traffic accident 4125 cases/2010 3.Hypertension 1417 cases/2010	1.Diarrhea 2,578 cases/2010 2.Dengue fever(DF),Dengue hemorrhage fever 1,676 cases/2010 3.ARI 1,513 cases/2010	1.Multiple trauma/traffic accident 1,825 cases/2010 2.Multiple trauma/Non-traffic accident 947 cases/2010 3.Acute diarrhea 506 cases/2010
Q13	Number of deliveries	493 /month 5912/year in 2010	495 /month(in Jan.) 7738 /year in 2010	N/A	28 /month(in Jan.) 391 /year in 2010

Q14	Health information system? (for example, patient has unique ID)	Patient has using ID card and only one file. File: keep for 10 years.	Yes Hospital manage by ID number system called number unit of patient(NUP)	Yes, we made system/document. 1) Outpatient record(Hospital number) 2) Inpatient record (Administration number) 3) soft copy (statistics) 4) hard copy (statistics)	Yes 1)To record the number of the case in logbook (in patient, out patient, death and transfer) 2)To give ID to patient	No??
Q15	Standard format for OPD and IPD patient document	To use standard format for OPD and IPD to use health information system.	Yes 1)Hospital use standard format for OPD and IPD. 2)Hospital keeps patient's file for 10 years	Yes, we made system/document. 1) Outpatient record (Hospital number) 2) Inpatient record (Administration number) 3) soft copy (statistics) 4) hard copy (statistics)	Yes To use standard format	Yes, we use the format of our hospital .
Personnel management						
Q16	Total number of hospital staff	Total 550 (Government staffs: 325, Temporary staffs: 25)	Government staffs (533) temporary staffs (268)	Government staffs (366) temporary staffs (105) *MoH:Bok lik on deth/floating staff 86 *Hospital: Bok lik job kich soni ya/contracting staff 19	Government staffs (567) temporary staffs (72)	Government staffs (389) temporary staff (total 54) *MoH:Bok lik on deth/floating staff 24 (non medical staff) *Hospital: Bok lik job kich soni ya/contracting staff 30.The majority are nurses.Because there are many retired nurses, but new employment is only 2-3 person per year.

Q17	Staffing by categories	SNs.(65) PNs.(19) SMWs.(91) PMWs.(0) MD.(91) MA.(9) Pharmacist(13) Secretary(25) Other(37)	Government, temporary SNs.: 231, 51 PNs.: 2, 3 SMWs.: 58, 4 PMWs.: 1, 0 MD.: 139, 10 MA.: 15, 3 Pharmacist: 8, 6 Secretary: 1, 20 Other: 78, 171	SNs.(215) PNs.(8) SMWs.(0) PMWs.(0) MD.(93) MA.(0) Pharmacist(7) Secretary() Other(43)	SNs.(185) PNs.(18) SMWs.(60) PMWs.(2) MD.(190) MA.(22) Pharmacist(15) Secretary(21) Other(65)	SNs.(143) PNs.(14) SMWs.(23) PMWs.(2) MD.(147) MA.(23) Pharmacist(5) Secretary(8) Other(24) *Remark:11 SNs are studying to become a medical doctor
Q18	Staff salary	1. Based on the MOH standard 2. Hospital has its own standard :User fee	1. Based on the MOH standard standard 2. Hospital has its own standard: user fee (Each section distribute 25-30% of the profit/user fee in the section between the staff)	1. Based on the MOH standard 2. Hospital has its own standard :User fee	1. Based on the MOH standard 2. Hospital has its own standard :User fee	1. Based on the MOH standard 2. Hospital has its own standard :User fee
Q19	Minimum monthly salary (by government)	Minimum salary from government SNs.(299200R) PNs.(214780R) SMWs.(299200R) MD.(511370R) MA.(495810R) *20% up/year	No answer	SNs.(231,000 R) PNs.(203,500 R) MD.(472,850 R) MA.(447,150 R)	Ns(PNs, SNs) 50\$ MD 100\$ Remark: Hospital receive 226535250 Riel/5663\$ as a monthly salary from MOH, and then allocate the salary to staffs.	SNs.(283,000 R) PNs.(197,500 R) SMWs.(231,000 R) PMWs.(175,450 R) MD.(347,550 R) MA.(330,750 R)
Q20	Minimum monthly incentive (except government salary)	Minimum salary from own hospital(User fee) SNs.PNs.SMWs(250000R) MD.(350000) MA.(290000)	No answer	SNs.(203,400 R) PNs.(203,400 R) MD.(270,500 R) MA.(252,500 R)	1. Hospital have standard on how to allocate the user fee. We allocate the salary type of occupation. (Same occupation is same salary)	SNs.(42,000 R) PNs.() SMWs.() PMWs.() MD.(65,000 R) MA.()

Other			<p>1. staffs are going to be turned over. Eg: No replace person from government last few years ago.</p> <p>2. Income user fee is small comparing to expenditure.</p> <p>3. Some medical equipment is old.</p>	<p>Yes</p> <p>Our hospital must offer equal medical care for the poor people as a national hospital. But difficulty on the financial side as caused by admitting a lot of poor people.</p>	<p>Yes</p> <p>1. Lack of modern equipment/medical supplies</p> <p>2. Number of doctors and nurses are not standardized</p> <p>3. Incentive (user fee) is still low</p> <p>4. 50% of inpatients cannot pay health services</p> <p>5. Not enough budget to run national pediatric hospital</p>	<p>Yes</p> <p>Lack of number of nurses</p>		<p>Yes</p> <p>1. The salary is limited and it cannot support living/family.</p> <p>2. Lack of number of nurse. (Some nurses are pursuing their bridging course in order to become a medical doctor.)</p> <p>3. Lack of material and medical equipment.</p>
Q21	Main problems in hospital							

Questionnaire A-1.

1 General information of Referral hospitals

No	Question	F hospital	G hospital	H hospital	I hospital
General					
Q1	Organogram of the hospital	Yes. See the document	Yes	Yes (See the document)	Yes (see the document)
Q2	Role of the hospital besides clinical field	Yes. 1. To strengthen eyecare. We want to provide primary eyecare training, but we don't have any budget this year. Previously, one organization supported this training, 2. To strengthen maternal and child health in HC. We follow the strategy of MoH, and we collaborate with HC.	Yes 1) Training; teacher in RTC, Clinical hospital on pre-service training 2) Health education to inpatient 3) Examination certificate(ie. Autopsy)	Yes. 1. To implement Pre-service training 2. To implement training to HC staff by NGO.(ie: safe abortion training etc...)	Yes, 1. In-service Training, 2. Pre-Service Training
Q3	Vision or mission of the hospital	No	Yes To fully become CPA3 RH	No	Kampong Cham Referral Hospital has his own missions as below: 1 Provide quality Health services according to CPA3 2 Provide support and clinical referral for District Referral Hospital and Health Center 3 Provide technical training to health staffs 4 Participate with development partners in research study in the hospital and community Participating in implementing Health Strategic Plan, Kampong Cham Referral Hospital has enacted 4 main strategies: 1 Reduce hospital mortality rates 2 Reduce the average duration of IPD(excluding TB and leprosy) 3 Strengthening management and uses of medicine based on MTP program 4 Increase delivery in the hospital

Clinical services						
Q5	Clinical services	Maternity, Surgery, General medicine, TB, Pediatrics, OPD, Otolaryngology, Ophthalmology, Dentistry, Psychiatry/Mental health, Dermatology, Laboratory, X-ray, Echo, Pharmacy, Opportunistic infection, diabetes	General medicine, Eye care, Emergency, Minor surgery, Obstetric, Sugery, Pediatric, Dental, Psychiatric, Echology, STD, PMTCT, OI/ART adult & children	OPD (General consultation, mental health, eye, dental), , para-medical (Laboratory, STD&VCCT, X-ray, Echo, ECG), IPD (General medicine, pediatric, surgery, TB, Ob&Gyn, Safe abortion) transfer (Ambulance).	- Surgery - General Medicine and Emergency - Diabetes - OPD - Infection Diseases - TB - Leprosy - Pediatric - Gyneco -Obstetric - Ear, Nose, Throat - Oral-Dentistry - Mental Health - Ophthalmology - Laboratory - Blood Bank - Imagery (x-ray, Scan, Echography, and Endoscope)	
Q6	Number of beds	270	90 beds (72+TB 18)	155	260	
Q7	OPD working hours	8:00-11:30	8:00-12:00, 14:00-17:00	7:30-11:30, 14:00-17:30	7h30-11h30 , 14h00-17h00	
Q8	IPD service	1. Open for 24hours for the same services	1. Open for 24hours for the same services	1. Open for 24hours for the same services	1. Open for 24hours for the same services	
Q9	Number of OPD	2323 per month(in Jan.) 30401per year (in 2010)	219 per month(in Jan.) 2208 per year (in 2010)	627 per month(in Jan.) 1277 per year (in 2010)	1,193 per month(in Jan.) 57,961 per year (in 2010)	
Q10	Number of IPD	1129 per month(in Jan.) 12263 per year (in 2010)	305 per month(in Jan.) 3737 per year (in 2010)	524 per month(in Jan.) 6448 per year (in 2010)	1,368 per month(in Jan.) 16,023 per year (in 2010)	
Q11	Frequent diseases at OPD	1. Upper ARI, 2781 cases/2010 2. Lower ARI, 1820 cases/2010 3. Diarrhea 848 cases/2010	1. ART(Acute Respiratory Infection) 94cases/2010 2. Traffic accident 293cases/2010 3. Simple Malaria 17cases/2010	1. Respiratory Infection (RI) 1499 cases/2010 2. Diarrhea 175 cases/2010 3. Hypertension 58cases/2010	1. Diabetes 8,191 cases/2010 2. Eyes 3,444 cases/2010 3. Mental Diseases 12,494 cases/2010	
Q12	Frequent diseases at IPD	1. ARI, 1064 cases/2010 2. Diarrhea, 401 cases/2010 3. Dengue, 274 cases/2010	1. ART(Acute Respiratory Infection) 428 cases/2010 2. Malaria 306 cases/2010 3. Traffic accident 277 cases/2010	1. Diarrhea 747 cases/2010 2. Respiratory Infection (RI) 569 cases/2010 3. Dengue fever 265 cases/2010	1. Diarrhea 619 cases/2010 2. RI 1,272 cases/2010 3. Traffic Accidents 1,386 cases/2010	

Q13	Number of deliveries	255 /month(in Jan.) 2602 /year in 2010	66 /month(in Jan.) 758 /year in 2010	137 /month(in Jan.) 1217 /year in 2010	202 /month(in Jan.) 2360 /year in 2010
Management of information					
Q14	Health information system? (for example, patient has unique ID)	No special system but follow health information system by MoH.	No ??	Yes 1) To use standard registration book in IPD & OPD. 2) To use standard IPD file by MoH	Yes, - OPD patients have their own ID card - IPD patients have only register number - The hospital has registration Book for IPD and OPD
Q15	Standard format for OPD and IPD patient document	Yes	Yes 1) To use standard registration book 2) To use standard IPD file by MoH	Yes 1) To use standard registration book in IPD&OPD. 3) To use standard IPD file by MoH	Yes, - OPD document- is kept by each section - IPD document- is kept at technical office
Personnel management					
Q16	Total number of hospital staffs	Government staff (272) temporary staff (40)	Government staff(77) temporary staff(1)	Government staff (130) temporary staff (2:driver)	Government staff(233) temporary staff(24) (Temporary Staff= Cleaner, Driver, PC, 1Ns
Q17	Staffing by categories	SNs.(101) PNs.(18) SMWs.(61) PMWs.(4) MD.(45) MA.(10) Phamacist(8)	SNs.(30) PNs.(10) SMWs.(14) PMWs.(7) MD.(7) MA.(0) Phamacist(0) Other(09: 1 Lab, 1 Dentist, 1 X-P, 2 mentmental health, 1 accounting, 1 anesthesia, 1 worker) *remark: staff have multiple tasks.	SNs.(50) PNs.(12) SMWs.(19) PMWs.(4) MD.(11) MA.(5) Phamacist(3) Secretary() Other (42)	SNs.(82) PNs.(31) Lab technician(8) Kinetic/PT(8) SMWs.(35) PMWs.(1) MD.(39) Specialists(9) Dentist (3) MA.(4) Dental Assistant(1) Phamacist.(3) Secretary (0) Other (9) Total = 233
Q18	Staff salary	1.Based on the MOH standard 3.Others: user fee	1.Based on the MOH standard 3.Others: user fee	1.Based on the MOH standard 2.Hospital has its own standard :User fee	1.Based on the MOH standard

Q19	Minimum monthly salary (by government)	SNs.(320000R) PNs.(230000R) SMWs.(320000R) PMWs.(220000R) MD.(500000R) MA.(460000R)	SNs.(284500R) PNs.(199000R) SMWs.(284500R) PMWs.(199000R) MD.(465000R) MA.()	SNs.(310,000 R) PNs.(231,000 R) SMWs.(310,000 R) PMWs.(231,000 R) MD.(565,000 R) MA.(502,000 R)	SNs.(191,000 Riels) PNs.(130,500 Riels) SMWs.(191,000 Riels) PMWs.(130,500 Riels) MD.(287,970 Riels) MA.(274,000 Riels)
Q20	Minimum monthly incentive (except government salary)	1. User fee income from RH SNs.PNs.SMWs.PMWs.(160000R) MD.MA.(180000R) 2. The person who works for National TB program and National HIV program receive incentive from each national program.	SNs.(115000R) PNs.(100000R) SMWs.(115000R) PMWs.(100000R) MD.(126000R) MA.(126000R)	User fee SNs.(403,000 R) PNs.(277,000 R) SMWs.(551,000 R) PMWs.(487,000 R) MD.(699,000 R) MA.(684,000 R)	SNs.(210,000 Riels) PNs.(170,000 Riels) SMWs.(210,000 Riels) PMWs.(170,000 Riels) MD.(310,000 Riels) MA.(280,000 Riels)
Other					
Q21	Main problems in hospital	1. User fee income is not enough. 2. Eye care training and MCH training for HC-staff are not enough. I want to strengthen HC care and referral from HC to RH. 3. Transfer from HC to RH is difficult. 4. Lack of equipment.	1) Lack of human resources(MD;specialist, MA, Labo technician) 2) Lack of medical/technical equipments 3) No kitchen for patients 4) Lack of office supplies (Computers, Laptop, Photocopy machines...)	1. Lack of number of doctor. 2. Lack of number of ambulance There is only one ambulance in the Hospital. When patient transfer RH to Phnom Penh, sometimes we need ambulance. Therefore, we need one more ambulance. 3. Lack of office equipment in administration office.	1, Government salary and User fee salary is not provided on time 2, User fee is low 3, SOA is low

Questionnaire A-2.

General information on nursing department and nursing management of National Hospitals

No	Question	A hospital	B hospital	C hospital	D hospital	E hospital
Organization of Nursing						
Q1	1-1 Nursing Department in hospital 1-2 Organization structure of Nursing Department 1-3 Job description of Director, and Deputy Director in the Nursing Department?	1. Organogram: see the ANNEX A. 2. Role/Job description see the ANNEX D. vice director(Role) 1) Education: pre-service training 2) Personnel: To make a role and responsibility, to control staffs and to make working time schedule. 3) Nursing care: To train the staffs, to control the quality of care. 3. Number of staffs 1) Director of nursing department: one person 2) Vice director of nursing department: three persons	1. Yes One chief to manage 2. Yes 3. Yes, we follow a description by MoH	1. Yes 2. Yes. see the ANNEX1 department *Vice directors of nursing department:2 persons (in charge of education, in charge of communication & infection control) 3. No	1. Yes 2. Yes 1) one director of nursing department 2) 4 vice directors of nursing department • personnel of each ward • raining • hygiene • information & communication Remark: Nursing department/ director of nursing department don't have room. Therefore, we can't manage some document. 3. No	1. Yes 2. Yes 1) One director of nursing department 2) 4 vice directors of nursing department • nursing • training • infection control • communication *it is not in function, because it is not clear who is in charged of the role. 3. Yes (we made it in 2004, but we lost the document)
Q2	Number of nursing and midwifery staffs by category	SNs.(65) PNs.(19) SMWs.(91) PMWs.(0) Total:.....175.....	SNs.(278) PNs.(6) SMWs.(61) PMWs.(1) Total:.....362..... *Physiotherapy nurse (10) *ISAR nurse (06): 2 years training at TSMC supported by France.	SNs.(214) PNs.(9) SMWs.(0) PMWs.(0) Total:.....223.....	SNs.(144) PNs.(16) SMWs.(24) PMWs.(2) Total:.....186...(date: 2010).....	SNs.(190) PNs.(18) SMWs.(60) PMWs.(2) Total:.....270.....
Q3	Vision or mission of the Nursing Department	Yes. To see the ANNEX B.	No	Yes, we are making now. see the ANNEX 2.	No	No

Q4	Committee in the Nursing Department	Yes Each committee held a meeting every month.	Yes	Yes. We have 1) infection control team under the infection control committee in the hospital and 2) education team	Yes, we have nursing committee	Yes
Q5	Role and activities of the nursing committee	To see the ANNEX C. The member of committees are formed chief of every wards.	* Role: Hygiene control * Activities: evaluate hygiene in the hospital. * Frequency: once/month	1) infection control team/committee * Role/Activities: To train nurses and cleaners 2) education team * Role/Activities: To educate nursing process and to evaluate nursing activities in each ward.	1&2. Role & Activities: 1). personnel of each ward 2). training 3). hygiene 4). information & communication 3. member of nursing committee 1). one director of nursing department 2) 4 vice directors of nursing department	Role: To promote nursing care in the hospital. Activities: The committee does not have any activity & budget. (No function)
Q6	1. Regular meeting at nursing department 2. Agenda and frequency of the regular meeting	No. Previously, we hold meeting, but now we don't have any meeting. Sometimes we have meeting once/month.	1. Yes 2. 1) Head nurse meeting * Agenda: on the nursing management * Frequency: two times/week * participants: head nurse of each section 2) Staff meeting in each section * Frequency: two times/week	1. Yes 1) Head nurse meeting 2) Chief nurse meeting 2. 1) Head nurse meeting * Agenda/activities: To check the report from each ward. To find the problem and to solve the problem. * Frequency: once/week * participant: director/vice director of nursing department and JICA senior volunteer 2) chief nurse meeting * Agenda/activities: To solve the problem. * Frequency: once/week * participants: director/vice director of nursing department, chief nurse of each section and JICA senior volunteer	1. No.	1. Yes 2. * Frequency: one/two weeks * Agenda: A problem and the solution that happened at a hospital * Participants: director of nursing department, chief/vice chief of ward, director/vice director of hospital

	Other activities by nursing department	Nursing meeting Clinical meeting General meeting Steering committee meeting Midwife meeting		Yes. 1. Activities: 1) Monthly cleaner training 2) Monthly nursing staff training 2. Budget 1) Tea break fee: hospital 2) Copy fee: JICA senior volunteer	No. Remark: NGO support traumatology training, we collaborate the training as organizer/trainer.	Morning meeting
Q7	Coordination activities with other sections inside the hospital	Clinical meeting with clinicians Steering committee with director of center	Meeting with doctor; Once/week	1. Infection control committee *Role/Activities: To train nurses and cleaners *members: 3 Doctors and 4~5 Nurses 2. in-service training to Doctor/Nurse in ICU	1. The technical meeting *Organizer: technical bureau *Frequency: weekly *participants: Doctors, members of nursing committee 2. Hygiene unit 3. The monthly meeting by hospital	No
Q8	Own budget of nursing Department	No	No	No	No.	No
Q9	Management of nursing staff (i.e. promotion, rotation, supervision)	We held reporting meeting when problem happen. Each vice director of nursing department have management Director to inspect the hospital.	Yes, we have promotion, rotation and supervision.	To give a motivation to staff by training, souvenir, position and speech.	<i>Not clear answer</i> Remark: We delegate the supervision to the each ward.	No
Nursing services						
Q10	Nursing care system (i.e., team nursing, primary nursing)	team nursing	primary nursing	team nursing	team nursing	team nursing
Q11	Standard of number of patient per nurse	No	No Normally, one Ns have 1-4 patients	No	No	No

Q12	Use of Nursing Process	No. Nursing activity provided by nursing process, but we don't have record.	Yes. But it is not all elements.	No.	Yes. We use handover information sheet by MoH.	Yes. But it is not complete. Some wards/people use 'information handover sheet'
Q13	Nursing standard (manual)	Yes	No. Hospital is preparing.	We developed pre-operation nursing guideline with MoH.	No	Yes
Q14	Use of nursing record	Yes	Yes, we use nurse's document	Yes	Yes.	Yes
Q15	Hospital safety management	1. Protocol : Yes 2. Committee: Yes 3. Training: Yes 4. Responsible staff: Yes	1. Protocol : Yes (From MoH) 2. Committee: Yes 3. Training: Yes 4. Responsible staff: Yes	1. Protocol : No 2. Committee: No 3. Training: No 4. Responsible staff: No	1. Protocol : No 2. Committee: No 3. Training: No 4. Responsible staff: No	1. Protocol : No 2. Committee: No 3. Training: No 4. Responsible staff: No Remark: Hospital follows infection control manual of MoH.
In-service training						
Q16	Existence of nurse who is in-charge of in service training	Yes. Director and vice director (response of nursing care) of nursing department	Yes, but not regularly. (Organize when necessary)	Yes, vice director in charge of training do it.	Chief nurse of ward	We have on the paper, but there is not the actual situation.
Q17	Role and activities of in service training nurse (i.e., to make a training schedule,)	1. Role : in-service training To make a schedule. To provide training 2. Activities : We want to assess staffs and to set up training, but we can not do it.	1. Role : Chief of ward is in charge of training 1) To decide training topic → planning → Implementation 2. Activities: 1) To contact with training partner (French) 2) To organize training procedures 3) To observe for the needs in each section	1. Role : To set up content/ topic of training 2. Activities : To organize the training.	1&2. Role & Activities : provide training based on needs in each ward/services	No answer
Q18	Own budget for in-service training	No.	No.	No.	No	No.

Q19	In-service training program	Nursing Division conducts monthly MW/NS meeting, and does in-service training sessions.	<p>Yes.</p> <ol style="list-style-type: none"> 1. Training system: Don't decide 2. Training for new staffs <ul style="list-style-type: none"> * duration: 3 days * contents: hospital rule, hygiene, role and responsibility and some special nursing (IV therapy, monitoring) 3. In-service training: We can't make a plan, because we don't have a budget. We hold a training based on problem. 4. Other: <ul style="list-style-type: none"> Support from French has finished in 2001. Thereafter it is difficult to make sure of budget. Many of our trainers/lecturers are from TSMC. Midwife: supported by France * French volunteers stay and support the Obstetric ward. <p>Number of volunteers: 3 persons(1-2 week)</p>	No we don't have. But now we are preparing a program. We provide the training such as 'Nursing care, nursing safety, nursing process and infection control' to the nursing staffs	No. However each ward have some program.	ABC training package to staff. *target:hospital staff and student *frequency: 4 times/month Remark: NGO(1.Cambodia health center: To donate by Angelina Jolie. 2.American Millionaire) support to a program 'Child living with HIV'	
Pre-service training							
Q20	Annual plan for clinical practice	Term, number of student, school name, practice subjectetc.	1.No	<p>Yes (From TSMC, Military)</p> <p>Remarks:</p> <ul style="list-style-type: none"> * At first, we check a schedule and contents from school, and then make a plan. * It is hard to make a plan, because it is lack of information from school. * School teacher come to our hospital at the beginning of the clinical practice, and then teacher doesn't come here anymore. This situation is difficult to exchange information. * Sometimes, teacher doesn't come to hospital at all. 	No We use an annual plan by school. We receive pre-service training from <ol style="list-style-type: none"> 1. TSMC 2. Chenla university 3. International university(IU) 4. Military university 5. Life university 	Yes, technical office make it. However, nursing committee don't make it.	Yes, technical bureau makes it. Technical bureau discusses with director of nursing department, and then determines the placement of students.

Q21	1. Does the school inform you about the schedule of clinical practice ? a. When? b. How?	1. No Administration office receive information from school, but nursing department doesn't receive any information.	1. Yes a. 2-3 days in advance b. official letter	1. Yes a. advance one week. b. Official letter	1. Yes a. At the same time when school send student b. official letter	1. Yes (only TSMC) a. advance one week b. official letter
Q22	Number of nursing and midwifery students per year	40 (TSMC-MW students only)	858	810-820 students/2010	115	559 (TSMC, Chenla, IU, Life)
Q23	Number of students coming for clinical practice per time	2 people	50-80 students	20-30 students/time	each school send student about 5-10 students per group	
Q24	Schedule during clinical practice for students	Yes	Yes 1) table of allocation 2) provide instruction according to each ward 3) first day's schedule of clinical practice: meeting, rule of clinical practice, allocate student and introduction of hospital.	Yes. To hold a meeting with nursing student on Monday, Wednesday & Friday at 10-11am in the morning.	Yes, each chief nurse of ward make it.	No
Q25	Meeting with the school. Frequency and agenda of the meeting	We don't communicate with school, but we communicate with the teachers when they bring students to the NMCHC.	Yes *Frequency: It is based on call from TSMC. 2009: one time, 2010: No meeting, 2011: Not yet have. *Content: clinical practice of students	No.	*Frequency: Recently we don't have meeting with TSMC (last year is zero). *Agenda: 1) collaboration between hospital and TSMC 2) Capacity and quality of pre-service training	Yes(TSMC) *frequency: 2 times/year *agenda: 1. exit examination, 2. collection, 3. student Logbook, 4. review checklist
Q26	Criteria of clinical practice preceptor in the hospital.	Yes. Chiefs and vice chiefs, team leaders who attended the preceptor training	Yes. 1) have working experience 2) attitude and ethic 3) respect discipline	No answer	1. Yes 3. 1) volunteer 2) experiences 3) ability 4) hard working 5) be model for other	1. Yes No.(Not clear answer) Good experience and good knowledge. Most of them are chiefs of ward who are active in their wards.

Q27	Number of nurse and Midwifery preceptor	SMW 6 Total 6	SNs.(34) PNs.(7) SMWs.() PMWs.() Midwife+1.() Total:.....46 *remark:X-ray(3), Physiotherapy(2)	SNs.(2) Total:.....2 (official preceptor) Hospital trained chief/vice chief of ward as a preceptor, therefore we have 27 preceptors in our hospital.	SNs.(20) PNs.() SMWs.() PMWs.() Midwife+1 () Total:.....20.....	SNs.(4) PNs.() SMWs.() PMWs.() Midwife+1 () Total:.....4.....
Q28	Nurse who is responsible for pre-service training	Yes. Chief or vice chief of the ward	Yes(in each section)	Yes. 27 preceptors. (To see the answer of Q27)	Yes director of nursing department and chief nurse of ward.	Yes, they are chief/vice chief of ward
Q29	Number of nurse preceptors have already attended preceptor training course	Yes. Number was not asked They could received the training from supported partner.	Ns & MWs in each section. Total 12 Ns/MWs(5 Ns, 7 MWs)	2	None (Not yet)	
Q30	someone in charge of students, besides clinical preceptors	Team leaders care for students.	Chief of ward and staff train the students.	25 persons/our original preceptors. (To see the answer of Q27)	Chief nurse of ward	chief/vice chief of ward
Q31	Evaluation of students	Preceptors	Chief of ward and supervisor of preceptor	chief/vice chief of ward	chief nurse of ward and technical bureau	4 preceptors
Others						
Q32	1 number of nurses (member of Nursing Association) 2 Number of nurses (member of Nursing Council)	1.Number of association member (83) 2.	1.Number of association: don't have 2.Number of Council: 241 and others are registering.	1.Number of association: 100 staffs 2.Number of Council: 11 persons	1.Number of association: 46 2.Number of Council: 9	1.Number of association: No 2.Number of Council: 5
Q33	1 Attendance of Association activities 2 Attendance of Council activities	Participation of association meeting: To join meeting occasionally 3. Activities with association attend 'Family Planning' training course	1. No. No activity 2. Yes	1. Yes, we attended a meeting. 2. No, we just registered as a member.	1. Yes 2. Yes	1. No 2. No

Q34	Problem on nursing in your hospital	<ol style="list-style-type: none"> 1. Lack of nursing care. 2. Number of MWs is still limited. 3. Knowledge of midwifery is limited. 	1. No	<ol style="list-style-type: none"> 1. Low education 2. Low knowledge 	<p>Yes</p> <ol style="list-style-type: none"> 1. Lack budget for in-service training 2. Lack of collaboration among nursing staffs 	<ol style="list-style-type: none"> 1. Yes <ol style="list-style-type: none"> 1) No budget on nursing 2) No continuous training/in-service training. 3) No motivation for nursing 4) Lack of equipment 5) No office room of chief of nursing 6) Weak on nursing process
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Questionnaire A-2.

General information on nursing department and nursing management of referral hospitals

No	Question	I hospital	H hospital	G hospital	F hospital
Q1	<p>1-1 Nursing Department in hospital</p> <p>1-2 Organization structure of Nursing Department</p> <p>1-3 Job description of Director, and Deputy Director in the Nursing Department?</p>	<p>1. Yes</p> <p>2. Yes :To see the ANNEX1</p> <p>1) one director of nursing committee</p> <p>2) 3 vice directors of nursing committee</p> <p>3. Yes, see the ANNEX</p>	<p>1. Yes</p> <p>2. Yes : To see the ANNEX1</p> <p>* Director of nursing department</p> <p>* Vice directors of nursing department: 2 persons</p> <p>* Chief of ward: each ward</p> <p>* Vice chief of ward: each ward</p> <p>3. No</p>	<p>1. Yes</p> <p>1) director of nursing department</p> <p>2) vice director of nursing department; Nursing, Midwifery</p> <p>2. No</p> <p>3. No</p>	<p>1. Yes</p> <p>2. Yes</p> <p>3. Yes (To see the ANNEX1)</p> <p>1 Director</p> <p>3 Deputy directors (Person A: in charge of in-service training, Person B: in charge of personnel, Person C: in charge of hygiene)</p>
Q2	Number of nursing and midwifery staff by category	<p>SNs.(82)</p> <p>PNs.(31)</p> <p>SMWs.(35)</p> <p>PMWs.(01)</p> <p>Total:.....165.....</p>	<p>SNs.(50)</p> <p>PNs.(12)</p> <p>SMWs.(19)</p> <p>PMWs.(4)</p> <p>Total:.....85.....</p>	<p>SNs.(36)</p> <p>PNs.(10)</p> <p>SMWs.(14)</p> <p>PMWs.(7)</p> <p>Total:.....67.....</p>	<p>SNs.(104)</p> <p>PNs.(13)</p> <p>SMWs.(61)</p> <p>PMWs.(4)</p> <p>Total:..182 (Government staffs). +4 temporary staffs</p>
Q3	Vision or mission of the Nursing Department	<p>Yes, Vision is to promote knowledge and understanding of nurses and midwives as other developed countries, as well as among the ASEAN Countries. And to organize the study tour of nurses to other countries.</p>	<p>No</p>	<p>No</p>	<p>No</p>

Q4	Committee in the Nursing Department?	Yes, we have nursing committee.	Yes A. Nursing committee: B. Preceptor program supported by GIZ	No	Yes. Link nurse (Infection control)
Q5	Role and activities of the nursing committee	Role & Activities: To manage team nursing, hygiene, pre-service training and in-service training.	A. Nursing committee: *member: Director of nursing department, Vice director of nursing department, Chief nurse of ward, Vice chief nurse of ward *Role & activity: 1) To control nursing activity in hospital 3) To contribute new information the staff B. Preceptor program supported by GIZ *Role & activity: 1) To evaluate to the student when they come to clinical practice 2) To provide the training to preceptor and some staffs 3) To hold a monthly meeting	Role: Activities:	Role: To control/manage/supervise hygiene in order to improve infection control. Activities: To manage wastes by checklist and monthly meeting. <i>(To see the ANNEX1)</i>

Q6	<p>1. Regular meeting at nursing department</p> <p>2. Agenda and frequency of the regular meeting</p>	<p>1. Yes</p> <p>2. *Agenda/activities: To review internal regulation, technic and collaboration, ethics, circulation of Ministry of Prevention. *Frequency: once/month *participant: Nursing committee member (director/vice director of nursing committee and chief nurse of ward)</p>	<p>No, it doesn't hold regular meeting.</p> <p>Remark: When nursing department need have meeting, we hold a meeting. *3~4 time/2010 * Agenda: To share new information with nursing staff.(ie: how to write down nursing record. Etc...)</p>	<p>1. Yes</p> <p>Name: Quarterly meeting Member: All nurses, vice directors of the hospital</p> <p>2. 1) Strengthening the nurse's note filling 2) Implementation of daily work 3) Problem/difficulty of nursing activities 4) Suggestion 5) Solution</p>	<p>1. Yes. Chief of ward meeting 2. every two months Agenda depends on the situation, but normally agenda are 1.Technical nursing care 2.Hygiene 3. Problem</p>
	<p>Other activities by nursing department</p>	<p>We don't have any activity of only nursing committee. However, we join regional workshop based on our master plan. * organizer:RTC * buget:HSSP * frequency: 3 times/year * Agenda: ie;sterilization</p>	<p>No</p>	<p>No</p>	<p>1. Semi-annual workshop 2. Study tour for preceptors: 1-2 times/year 1. Preceptor meeting 2. Link nurse meeting</p>
Q7	<p>Coordination activities with other sections inside the hospital</p>	<p>Yes. 1. To join as a member of infection control committee in the hospital (The vice chief of infection control committee is vice chief of nursing committee) 2. Every morning meeting</p>	<p>The nursing department occasionally join technical meetings.</p>	<p>No 3 years ago, VSO support 1) nursing process training; content is how to fill in nursing process 2) clinical workshop: content is how to teach nursing students.</p>	<p>Director of nursing department join many meetings organized by hospital and/or some committee.</p>

Q8	Own budget of nursing Department	No.	No.	No.	No.
Q9	Management of nursing staff (i.e. promotion, rotation, supervision)	To support technical issue. To nominate a person to join some special task such as to join workshop.	When nursing staff caused a problem, I have the following corresponding 1.To prepare the meeting with the director of hospital 2.To ask the director of hospital for decision how we do correspondence of the nurse 3.To request to follow of correspondence in each ward.	No	Nursing department have supervision in order to improve patient's services by using checklist.
Nursing services					
Q10	Nursing care system (i.e., team nursing, primary nursing)	team nursing	team nursing	team nursing	Nothing special. Chief of ward organize by themselves (To see the ANNEX3 as a reference)
Q11	Standard of number of patients per nurse	No	No	No	No
Q12	Use of Nursing Process	Yes. From one year ago, we have been used handover information sheet.	No. We use information handover sheet by MoH.	3 years ago, we started to use information handover sheet. But it is not completely nursing process.	Yes, we use information sheet. But nurses can write down the sheet around 30%-40%.

Q13	Nursing standard (manual)	We follow a picture's manual on hand washing supported by URC. And we also follow a picture's manual on waste management by MoH/WHO. On an earlier occasion we made a protocol on hand washing, but now we follow a new picture's manual.	Yes, we developed by ourselves. <i>To see the ANNEX2</i>	No	Yes. We developed some protocol together with GIZ such as dressing care in 2009.
Q14	Use of nursing record	Yes.	Yes	Yes	Yes. <i>Please see the document</i>
Q15	Hospital safety management	1. Protocol: No 2. Committee: No 3. Training: No 4. Responsible staff: No	1. Protocol: No 2. Committee: No 3. Training: No 4. Responsible staff: No	1. Protocol: No 2. Committee: No 3. Training: Yes URC provided 'safety box' training 4. Responsible staff: No	1. Protocol: No (Only infection control) 2. Committee: No (Only infection control) 3. Training: No (Only infection control) 4. Responsible staff: No (Only infection control)
In-service training					
Q16	Existence of nurse who is in-charge of in service training	Nursing committee; director of committee and vice directors of committee	Yes. This is director nursing department and GIZ's advisor. Remark: GIZ support preceptor program to preceptor and some nursing staffs	No	Yes. Director of nursing department. (Remark: Deputy director of nursing department in charge of LSS courses)

Q17	Role and activities of in service training nurse (i.e., to make a training schedule)	1. Role : Chief of Nursing Committee0 2. activities : with the approval from Director and Deputy Director of the Hospital, 2 or 3 topics have been selected, and train to the staffs and clinical students.	1. Role : To provide training to preceptor and nursing staffs 2. activities : To make a annual operational plan with GIZ.	No answer	1. Role: To collect the data of what the staff want to learn. 2. activities : To seek for supporters and funds, then starting out making schedule.
Q18	Own budget for in-service training 2. use of budget for in-service training?	1. no 2. By using the User Fee, 1000 Riels provided to each trainee, and 1000 Riels provided to Coordinator in each course.	1. no 2.	1. no 2.	Normally no. Now we have partner(URC, GIZ). Two years ago we received budget for in service training from user fee.
Q19	In-service training program	Previously, Nursing Committee had organized training in every semester. Ex: Performing IV transfusion, Blood Therapy and Monitoring for Adverse Transfusion.	Refresher course *target:preceptor and nursing staffs *contents:nursing care (ie; washing hands)	No	Infection control. Technical nursing skill (To follow new protocol)
Pre-service training					
Q20	Annual plan for clinical practice Term, number of student, school name, practice subject.....etc.	No. School make it. Remark:We receive pre-service training from 1. Kg cham RTC: 6 courses (SNs, PNs, SMWs, PMWs, 3year MWs, Dental Nurses) 2. International university:SNs, bachelor Ns 3. Military school:PNs	Yes. We combine annual plan from school. Remark:Hospital receives clinical practice from 1) Kampot RTC and 2)IU(only one midwifery student): To see the ANNEX3	No	No. This is the role of nursing school. We receive nursing student from 1. B.B.RTC, 2.Military school in B.B. province. 3.IU (private school in P.P.)

Q21	1. Information from school about the schedule of clinical practice a. When? b. How?	1. Yes a. inform in advance 2-3 weeks b. official letter	Yes. a. inform in advance one week b. official letter	1. Yes a. inform in advance about three days b. Official letter from ST RTC	When the school(B.B. RTC and Military school) make a annual plan, the school invite the meeting. But problem is the clinical site of pre-service training of Military school is only ower hospital.
Q22	Number of students per year	total 800-900 students	247 students/2010	123 students/ year 2010	Total 335 students * BB RTC: 205 students * Military school: 130 students
Q23	Number of students for practice per time	1. Kg cham RTC: minimum 7(1st semester) max. total 200(2nd semester) 2. International university(IU) SNs: 15-20 (2nd semester) Bachelor Ns: 10 3. Military university 65 students come as one group. * remark: number of students: 130 persons	pre-service training: * minimum number: 8 * max number: 30 remark: these numbers don't include internship training for nurse.	10-15 students/time	28-30 students/time
Q24	Do you have schedule during clinical practice for students? If you have, please show us it.	Nursing committee divide student according to their school year. We don't have official schedule, each ward make a schedule.	No	Yes	No. We try to implement together with GIZ pre/post-test and case study for student. But accurate rate is about 50% of pre/post-test.

Q25	Meeting with the school. Frequency and agenda of the meeting	<p>We have regional meeting with RTC.</p> <p>*Frequency: 4 times/year</p> <p>*Agenda:problem of clinical practice, activities of preceptor and lack of material(To request that student prepare the material such as stethoscope)</p> <p>Remark:The Hospital has requested for the Meeting with RTC since 2 or 3 years ago, but the school doesn't have time. However, there is Regional Technical Board Meetings which have been conducted quarterly.</p>	<p>Yes (RTC)</p> <p>*Name: quarterly meeting, technical meeting</p> <p>*frequency: quarterly</p> <p>*agenda: 1.how to evaluate clinical practice, 2. what hospital can help, 3.difficulty and easy of clinical practice, 4. recommendation</p>	No	<p>Yes.</p> <p>B.B. RTC organize technical meeting every three months. Director/vice director of nursing department and vice director of hospital attend this meeting from our hospital.</p>
Q26	Criteria of clinical practice preceptor in the hospital	<p>Yes</p> <p>The nurse and midwife that the hospital has chosen to be preceptor are those who have 3 year working experiences, and also teaching experiences, and have teaching preference.</p>	<p>Yes</p> <p>1) position:chief nurse of ward or vice chief nurse of ward</p> <p>2) clinical experience: at least 3-5 years</p> <p>3) skill: skillful on clinical</p> <p>4) other: commitment of hospital</p>	<p>Yes</p> <p>Chief of ward or vice chief of ward with at least 5 years of working experiences</p>	<p>Yes</p> <p>We follow the criteria of MoH</p> <p>To ask the opinion the staff.</p> <p>To consider the experience and position.</p>

Q27	Number of nurse and Midwifery preceptor	SNs.(21) PNs.() SMWs.(7) PMWs.() Midwife+1 () Total:.....28.....	SNs.(10) PNs.() SMWs.(4) PMWs.() Midwife+1 () Total:.....14.....	SNs.(7) PNs.() SMWs.(7) PMWs.() Midwife+1 () Total:.....14.....	SNs.(23) PNs.() SMWs.(6) PMWs.() Midwife+1 () Total:.....29.....
Q28	Nurse who is responsible for pre-service training	Yes Chief/vice chief of preceptor and preceptor	Yes, there is director of nursing department.	Yes (Chief of preceptor)	Yes. There is chief of preceptor/director of nursing department.
Q29	Number of nurse preceptors have already attended preceptor training course	28 persons in our RH (+ 5persons/2HC)	14	14	29 people from 12 ward. (one preceptor don't receive preceptor training not yet)
Q30	someone in charge of student, besides clinical preceptors	Chief nurse of ward, Chief of section and staffs(Dr, MA)	1.DED GTZ 2.chief of nursing wards	No	Chief/vice chief of ward and the person who have enough clinical experience assist the training.
Q31	Evaluation for student?	by preceptor	by preceptors and chief of nursing wards	by Preceptor	by Chief of preceptor and preceptor make it.

Others					
Q32	<p>1. Number of nurses (member of Nursing Association)</p> <p>2. Number of nurses (member of Nursing Council)</p>	<p>1. Number of association: 1</p> <p>2. Number of Council: 30 in hospital</p> <p>*Remark: National: 40, Regional: 36, Provincial: 36</p>	<p>1. Number of association: no</p> <p>2. Number of Council *this hospital: 2</p> <p>*Kampot province: total 11</p> <p>(To see the ANNEX 4)</p>	<p>1. Number of association: No</p> <p>2. Number of Council: No</p>	<p>1. Number of association 0</p> <p>2. Number of Council It is still none, but it is going on preparation step now. The member of committee in BB province will be 15 persons, and it will include 5 persons from this BB RH. All Ns who work this BB RH will become members of the council.</p>
Q33	<p>1 Attendance of Association activities</p> <p>2 Attendance of Council activities</p>	<p>1. Yes</p> <p>2. Yes</p>	<p>1. No</p> <p>2. Yes, they attend a meeting.</p>	<p>1. No</p> <p>2. No</p>	<p>1. No</p> <p>2. No</p>
Q34	<p>Problem on nursing in your hospital</p>	<p>1. Yes</p> <ul style="list-style-type: none"> - lack of medical equipment for daily activities and modern equipment for theory-Based practices. - Have differences opinion - Limited knowledge - Limited ethics and discipline 	<p>Yes</p> <p>1. Lack of budget for in-service training for nursing staffs in this hospital</p> <p>* Nursing staffs need to update their knowledge on daily nursing activities.</p> <p>2. Lack of duty room for students</p> <p>3. Lack of equipments</p>	<p>1. Yes</p> <p>1) Lack of human resources we need 10 more Ns/MWs. if we can get new more 10 staffs, we can manage three shifts on nursing services</p> <p>2) Lack of equipment; such as glove and sterilization.</p>	<p>Yes .</p> <p>1. Nursing process is not perfect.</p> <p>2. Lack of materials are not enough, especially for hygiene.</p> <p>3. We have nursing organogram, but it is not official organogram based on CPA's structure.</p>

Questionnaire B-1

Provider of Nursing Services (N=9; multiple answer)

			Medical staff			Non medical persons		Other
			Ns	Dr.	Other professionals	Cleaner,worker	Family	No case, no answer
1.1.Care; Support patients to recover (Medium item 6, Small item 25)								
1	Bedside Hygiene	1 Organize medical treatment environment of patient (ie;temperature and/or humidity and/or light and/or bad smell and/or noise)	6	1	0	4	3	
		2 Perform bedside hygiene	3	0	0	7	3	
2	Nutrition	3 Support nutrition/food such as to setting for confined to bed by illness	1	0	0	9	0	
		4 Perform nutrition by a nasogastric feeding tube	5	0	0	0	5	1
		5 Perform intubation to the client with a nasogastric feeding tube	8	1	0	0	1	1
3	Elimination and urinary support	6 Perform Elimination and urinary support such as to set up bedpan	2	0	0	0	9	
		7 Perform enema (tube into rectum for enema)	8	0	0	0	0	1
		8 Insert an indwelling catheter for urinary collection	8	0	0	0	1	
		9-1) Manage on an indwelling catheter for urinary collection	6	0	0	1	5	
		9-2) Take and throw away urine	1	0	0	0	4	5
		10 Perform extraction of fecaloma (disimpaction)	7	0	0	0	1	2
		11 Perform urethral catheterization	8	0	0	0	0	1
4	Support on activity and repose	12 Perform safety transfer for patient	6	0	0	3	3	
		13 Perform to support of walking	1	0	1	0	9	
		14 Perform position change	5	0	0	0	3	1
		15 Perform motion exercise, prevents disease syndrome	1	0	6	0	3	1
		16 Support patient's sleep	4	0	0	0	5	1
5	Promoting hygiene	17 Perform bed bath and/or to take a shower	2	0	0	2	8	0

		18	Take care the shampoo(washing of hair)	2	0	0	0	7	1
		19	Take care and wash patient's mouth	2	0	0	0	6	1
		20	Perineal care and/or genital care	9	0	0	0	3	
		21	Change of diaper(swadding band)	1	0	0	1	7	1
		22	Change patient's clothing	6	1	0	1	9	
6	Pain management, Comfort of patient	23	Supprt of comfortable position when patient have pain	7	0	0	0	4	
		24	Ease the pain except medication such as massage and fomentation	4	0	3	0	6	
2. Cure : Assist medical treatment (Medium 6 , Small 24)									
7	Airway management and Oxygenation	25	Perform Nasal cannula or oxygen mask	9					
		26	Perform Oro pharyngeal suctioning	9					
8	wound management	27	Perform dressing change	9					
		28	Perform Small Wound Suture	8	4				
		29	Change position to prevent of Pressure Ulcer/Bed Sore	7				3	1
		30	Perform intermittent sutures removal	9					
		31	Perform Abscess Incision	5	7				
9	medication	32	Perform Subcutaneous Injections	9					
		33	Perform Intradermal Injections	9					
		34	Perform Intramuscular Injections	9					
		35	Perform Intravenous Therapy	9					
		36	Perform Blood Therapy	9					
		37	Monitor for Adverse Reactions to Transfusion	9					
		38	Perform vaccination	9					
10	Treatment	39	Use manual defibrillator machine	1	4				4
		40	Insert gastric tube into stomachfor aspiration	7	1				1
		41	Change to intubation tube of tracheotomy	4	4				1
11	Vital sign, Management on Physiologic al function	42	Measure Body Temperature	9					

		43	Measure Respiration	9					
		44	Measure Radial Pulse	9					
		45	Measure Arterial Blood Pressure	9					
12	Examination	46	Collect sputum for examination	9					
		47	Perform tuberculin test	6		3			
13	Other	48	Give anesthetic By doctor or nurse or nurse with anesthesia-reanimation certificate (ISAR)	0	5	8			
3. Others (Medium 2, Small 3)									
14	Infection control	50	Perform wash and/or disinfection and/or sterilization of material (ie:tweezers, kocher clam etc...)	9				1	
15	Patient safety	51	Perform patient safety such as to prevent fall and/or fall down	6				4	
		52	Perform patient safety such as to prevent misidentification with other patient	9					

List of observed activities at hospitals

	Category	Duration	Number of cases	Contents of observation	Place of ward	Number of person
1	NH	half day	1	Baby bath	maternity ward	2
			2	Dressing change	maternity ward	1
			3	perineal care	maternity ward	2
			4	ANC	OPD	1
			5	PMTCT counseling	OPD	1
2	RH	one day	6	assist doctor's round	sugery ward	1
			7	Dressing change	ICU in surgery ward	1
			8	Vital signs check	OPD	1
			9	Intravenous therapy (change infusion bottle)	general medicine	1
			10	Dressing change	ICU in surgery ward	1
			11	medication/drug	general medicine	1
3	RH	one day	12	Delivery care	maternity ward	4
			13	Intravenous therapy	surgery ward	1
			14	Intravenous therapy	emergency ward	1
			15	findings on admission	emergency ward	1
			16	Vital signs check	emergency ward	1
			17	intravenous therapy	emergency ward	
4	NH	half day	18	assist doctor's cure	OPD	1
			19	BP check; Vital signs check	OPD	ditto
			20	electrocardiography	general medicine	2
			21	intravenous therapy	general medicine	1 +ditto
			22	food bus by disinfectant	sugery ward	1
5	NH	half day	23	Vital signs check	OPD	1
			24	Intravenous therapy	ICU	1
			25	Intravenous therapy	surgery ward	1
			26	Intramuscular therapy	sugery ward	1
6	RH	half day	27	BP check;Vital signs check	OPD	1
			28	Dressing change	surgery ward	1
			29	findings on admission	general medicine	1
7	NH	half day	30	blood specimen collection	ICU	1
			31	Oro pharyngeal suctioning	ICU	1
8	NH	half day	32	physical therapy/motion exercise	orthopedics ward	1
			33	Dressing change	orthopedics ward	1+ditto
			34	Dressing change	orthopedics ward	ditto
9	RH	one day	35	examination of blood sugar	OPD	1

			36	BP check; Vital signs check	OPD	ditto
			37	Intravenous therapy	emergency ward	1
			38	Dressing change	surgery ward	1
Total	9 hospitals		38 cases			40 persons

Questionnaire A3. Information of Health Centers

No	Question	Province A	Province B
General Information			
Q1	Do you have Organogram of the Health Center (could we have your Organogram?)	Yes.	Yes
Q2	How many staffs do you have in each category?	SNs (0) PNs (2) SMWs (2) PMWs (2) MD (0) MA (0) other.....(2)Temporary staff/non medical staff. They don't go to nursing school. Just took and train and work over 10 years. They work at HC as a part time job.	SNs (1) PNs (1) SMWs (2) PMWs (2) MD (00) MA (1) other.....() Total : 7
Q3	Do you have vision and mission of your Health Center? is yes please proceed to Q4 sheet	Yes -Q4	Yes
Q4	Could you explain to us the vision and mission of your health center? If you have any written document, could you give us one copy?	Prevention and Treatment, Health Education and Vaccination	Vision: - To fully become MPA by having enough medical equipment and transfer system in community and transfer system from HC to RH. Mission: - To increase the duty - To strengthen internal Regulations - To disseminate to community about Health Services at HC - To improve Attitude of staffs
Q5	what services does your Health Center provide?	1. OPD, 2. Birth Control, 3. Vaccination, 4. Minor Surgery, 5. ANC and HIV Blood Test, 6. STD, 7. TB Testing 8. Mental Health	OPD, Birth Control, Vaccination, ANC, Delivery, Post Natal Care, Post Abortion care
Q6	From what time to what time is each service provided?	7h30AM -5h00PM	7h30-11h30 14h00-16h00
Q7	How many outpatients do you have? (Last month and last year)	Last Month: 580 Last Year(2010): 8498 (OPD)	Last Month: 902 Last Year (2010): 7,666
Q8	what are the most common diseases for outpatients you have last year? Please describe at least 3 cases and how many patients for each case?	1. Gastritis 276 Cases/2010 2. Tonsillitis 432 Cases/2010 3. Respiratory Infection 456 Cases/2010	1. High ARI 401 Cases/2010 2. Low ARI 380 Cases/2010 3. Diarrhea 227 Cases/2010
Q9	How many delivery cases for last month and how many cases in the whole 2010?	(No Service provided at this Health Center)	1. 7 Cases/month 2. 66 Cases/2010
Q10	Do you have nursing record, could you show us?	Yes	No, there is Registration Book.
Q11	Do you use nursing process/protocol could you show us if you have?	Yes	Yes,

Q12	Do Nursing and Midwifery students conduct their clinical practice in your health center? if yes please proceed to Q13 to Q27	Yes	Yes,
Clinical Practice for Nursing and Midwifery Students			
Q13	1.Do you have annual plan of clinical practice for student? Could you show us? 2.Does the school inform you about the schedule for clinical practice?, could you show us?	1. No 2. Yes	Yes..... No..... 2. Yes,
Q14	How many Nursing & Midwifery students do you receive per year?	18 Students /per year	10 Students/per year from Kampot RTC
Q15	How many students come for practice per time?	6 students	5 Students
Q16	Did you set the schedule time for student clinical practice in your Health Center?	No	Yes, Nursing Students: Morning (OPD+ Pharmacy), Afternoon (OPD+ Pharmacy) Midwifery Students: Morning (ANC+ Birth Control) Afternoon (ANC+ Birth Control)
Q17	Do you have equipment using for only student practice?	No	No.
Q18	How do you communicate to the school? (ex. Regular meeting)	The clinical Instructor from School bring the students to the Health Center.	by telephone call by Clinical instructor from school who comes to health center. There was a meeting with the school in year 2009, but there is no meeting in 2010.
Clinical Preceptor			
Q19	Do you have any clinical preceptors in your Health Center? if yes, please fill in Q24, Q28	No	Yes,
Q20	How many clinical preceptors do you have?		2
Q21	what are the qualifications of the clinical preceptors? (ex. Sn, PNs, SMWs, PMWs, Other...)	SNs, PNs, SMWs, PMWs, Other....	One is Primary Midwife and one is Medical Assistant
Q22	How many years of clinical experiences do preceptors have after graduate?		15 years after graduate 1996 25 years after graduate in 1987
Q23	How many years of experience as a preceptor?		3 years of experiences
Q24	Do they need to attend teaching methodology course to be recognize as preceptors?		Yes,
Others			
Q25	Bedside clinical preceptors, do you have any body in charge of students?	One Midwife from Hospital and one nurse from Referral Hospital	Other staffs

Q25	who make an evaluation for the students performance?	2 persons: One Midwife and 1 Nurse in RH	Clinical instructors from school
Q26	what are the problems of your Health Center?	Lack of toilet, Small Consultation Room, narrow exit way	<ol style="list-style-type: none"> 1. Lack of recovery room after delivery 2. lack of human resources 3. No specialist

List of observed activities at health center

	Category	Duration	Number of cases	Contents of observation	Place	Number of person
1	HC	2 hours	1	vaccination service	Battambang	1
			2	vaccination service		ditto
			3	ANC		1
			4	ANC		ditto
2	HC	2 hours	5	birth spacing service	Kampot	1
			6	consultation		ditto
			7	ANC		ditto
Total		2 health centers	7 cases			3 persons (Midwives)