Kingdom of Cambodia

Nation Religion King

Ministry of Health

Guidelines
on
Minimum Package of Activities
For Health Center Development

2008 ~ 2015

Issued on December 31, 2007

Translated version

Forward

This "Minimum Package of Activity Guidelines (MPA) for Health Center Development" is resulted from efforts of the Ministry of Health MPA Taskforce for Review and Revision of Guidelines on Minimum Package of Activities.

The purposes of this guidelines are to provide a comprehensive guidance on MPA services and some essential activities to be provided by health center including services to be provided at health center and some main services to be provided at community.

This guidelines was developed as a detail and stand alone document as well as a companion of the "Guidelines on Complementary Package of Activities for Referral Hospital Development", which was revised and introduced by the Ministry of Health on December 15, 2006.

This guidelines was also developed as a guidance for health center staff for implementation of their work, as well as for provincial and district health officers for their management work in accordance with the development of health sector. It is also a basic and direction for central departments and institutions according to their respective role, especially for formulating training plan and necessary supply for functioning of health center.

This guidelines is also useful for all concerned stakeholders including health officers and donors to understand, involve and support activities of health centers in the whole country aiming to achieve the goals of the National Health Strategic Plan 2008-2015.

Phnom Penh, December 31, 2008
For Minister
Secretary of State

Prof. Eng Huot

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Abbreviation and Definition of Terminology

AD	:	Auto-Disable Syringe
ANC	:	Antenatal Care
BCG	:	BCG vaccine
BMI	:	Body Mass Index
BPOC	:	Basic Package of Oral Care
CBHI	:	Community Based Health Insurance
DTC	:	Diphtery Tetanus and Coqueluche Vaccine
DTP,	:	Diphtery Tetanus and Polio Vaccine
FEFO	:	First Expired, First Out
GMP	:	Good Manufacturing Practice
HBC	:	Home Based Care
HC	:	Health Center
HCMC	:	Health Center Management Committee
HepB	:	Hepatitis B Vaccine
HIS	:	Health Information System
HIV	:	Human Immune Deficiency Virus
IEC	:	Information, Education and Communication
IMCI	:	Integrated Management of Childhood Illness
ISO	:	International Standard Organization
IOs	:	International Organization
MDTs	:	Multi Drug Treatment
MPA	:	Minimum Package of Activity
NGOs,	:	Non Governmental Organization
OD	:	Operational District
OI/ART	:	Opportunistic Infection/Anti Retroviral Treatment
PMTCT	:	Prevention Mother To Child Transmission
RH	:	Referral Hospital
STD	:	Sexually Transmissible Disease
TB	:	Tuberculosis
TB-DOTS	:	Tuberculosis-Direct Observed Treatment Service
TBAs	:	Traditional Birth Attendant
TT	:	Tetanus Toxoid Vaccine
UV	:	Ultra-Violet
UNICEF	:	United Nation Children Fund
VCCT	:	Voluntary Counseling Confidential Testing
VHSG	:	Village Health Support Group
VMW	:	Village Malaria Worker
VVM	:	Vaccine Vials Monitor
WHO	:	World Health Organization

Minimum Package Activities of Health Center

Services Delivery	Management and Support Services
Outpatient Consultation Services	**Patient Referral System**
Mother, Newborn, Child and Reproductive Health Services 1- Antenatal care 2- Normal delivery and delivery with intervention 3- Postpartum care 4- Provision of immunizations to children and mothers/women 5- Nutrition 6- Prevention of Mother to Child Transmission of HIH/AIDS 7- Neonatal and young child care 8- Integrated Management of Childhood Illness (IMCI) 9- Birth Spacing 10- Adolescent Reproductive Health 11- Breast-uterine cancer consultation 12- Safe abortion and post abortion care	**Planning, Budgeting, Monitoring, and Evaluation** 1- Working schedule 2- Ensuring 24 hour services 3- Developing the annual operational plan 4- Budget management for health center 5- Monitoring the implementation of quarterly plan 6- Hold regular staff meeting 7- Attending the meeting at Operational District 8- Organizing and attending the meeting of Health Center Management Committee 9- Organizing meeting of Village Health Support Committee 10- Conducting demographic census in the HC catchments area 11- Hygiene, health care wastes management and safe water 12- Daily record, making activity report, and inventory
Communicable Diseases Service 1- Sexually transmitted diseases 2- HIV/AIDS 3- Tuberculosis; 4-Leprosy 5- Malaria/ dengue fever; 6- Bird Flu	**Human Resources Management & Development** 1- Staff training and continuous education 2- Promotion on performance of staff 3- Provision of continuing education to community through members of Village Health Support Group
Non-communicable Diseases Service and Other Health Problems: 1- Hypertension 2- Diabetes 3- Breast cancer/ uterine cancer 4- Mental health 5- Oral health 6- Eye care 7- Minor surgery and wound dressing	**Drug and Medical Equipment Management** 1- Drug Store 2- Medical Equipment Management and Maintenance
Health Education and Health Promotion 1- Health education 2- Health promotion	**Health Financing** 1- National Budget 2- User Fee 3- Equity Fund 4- Community-base Health Insurance
Outreach Services 1- Guide for Outreach Services 2- Implementation of Outreach Services 3- Community Participation	**Services provision at health post** Some of services are same to services provided at health center including management

Content

Chapter 1: Introduction and Objective

1. Background of Health Center and Its Coverage Services

In 1995, the Ministry of Health launched the reform of the health system in accordance with public administrative reform of the Royal Government of Cambodia. The purpose of this reform was to improve the quality of services delivery to all people especially those living in remote areas through the implementation of the district health system.

Health coverage plan, as a part of the health sector reform, specifies the location and number of health center and referral hospital, and also defines responsible areas of these health facilities in providing health services to the people.

The health coverage plan was developed based on two criteria: number of people served by each health facility and geographical accessibility to the services, and also based on operational district as implementing level, in which health center provides “Minimum Package of Activities" (MPA) and referral hospital provides "Complementary Package of Activities" (CPA). This new health system has been implemented since 1996 till now.

At the beginning, according to the health coverage plan, there were 71 operational districts and 942 health centers. Currently, the number of operational district increases to 77 and number of health center increases to 960.

The provision of MPA services has been implemented over 10 years. In accordance with the progress of health system as well as people’s health need, especially based on the necessary for addressing the current prioritized health problems, review of all services and activities to be provided by health center is required.

(Annex-1: Number and Name List of ODs, HCs and HPs)

2. Purpose of the guideline

The main objective of this guideline is to provide comprehensive guidance on various services of the "Minimum Package of Activities" and some main activities to be provided by health center in line with progress of the current health system, for at least in the next 5 years.

These services include main services to be provided in-side of the health center encompassing primary health care as well as main services to be provided at community level, especially outreach activities and community participation in the health care.

Additionally, some activities to sustain and to support services delivery such as: training and management of health personnel and community’s member, drug and supply management, information system management, hygiene and waste management, are also described in this guideline.

This guidelines is to be used at national, PHD and OD levels, as a direction for organizing, planning, training, monitoring, and supervision as well as for allocation of resources in order to improve services in terms of both quantity and quality at health center level including community level. This guidelines is also developed for health workers in health center and community levels, as a principle for providing effective services.

Department of Planning and Health Information System of the Ministry of Health is mandated to implement health coverage plan, which include the review of criteria for allowing the start of the functioning of health center/health post; the review of the proposal for construction of health center/ health post as well as to give approval on provision of drugs and supply, construction, number and staff training in accordance with this MPA guidelines.

The Hospital Services Department of the Ministry of Health is mandated to monitor and evaluate the performance of the health center for both in-side and outreach activities.

Evaluation of overall performance of health center will be held once a year within the 4th quarter by a joint working group whose members are from department of planning-department of hospital services and some other related departments.

Chapter 2: Roles and Responsibilities

1. Roles and Responsibilities of Health Center

The role of the health center is to provide Minimum Package of Activities service to local people especially to the poor and vulnerable people. These include quality mother-child and reproductive health service; communicable diseases control service, non-communicable diseases and other health problem services, health education and outreach activities services.

Besides, health center has also a role in taking into account quality improvement for its effectiveness according to the national policy on quality improvement in health sector consisting of 6 strategic activity plans as follows:

1. Promotion of client rights
2. Legislation and institutional management
3. Clinical practice
4. Professional development
5. Managerial development
6. Inclusion of quality improvement in institution

Health center should strengthen its health service delivery including preventive and curative services focusing on population need and in accordance with a quality standard.

Health center should focus on human resources development through refresher training or staff motivation.

Health center should well manage health financing/user fee with a transparency, enhance service quality and improve infrastructure as well as participate in community health insurance.

Health center should well strengthen information system and referral system, and should have good governance, harmonization with development partners and community.

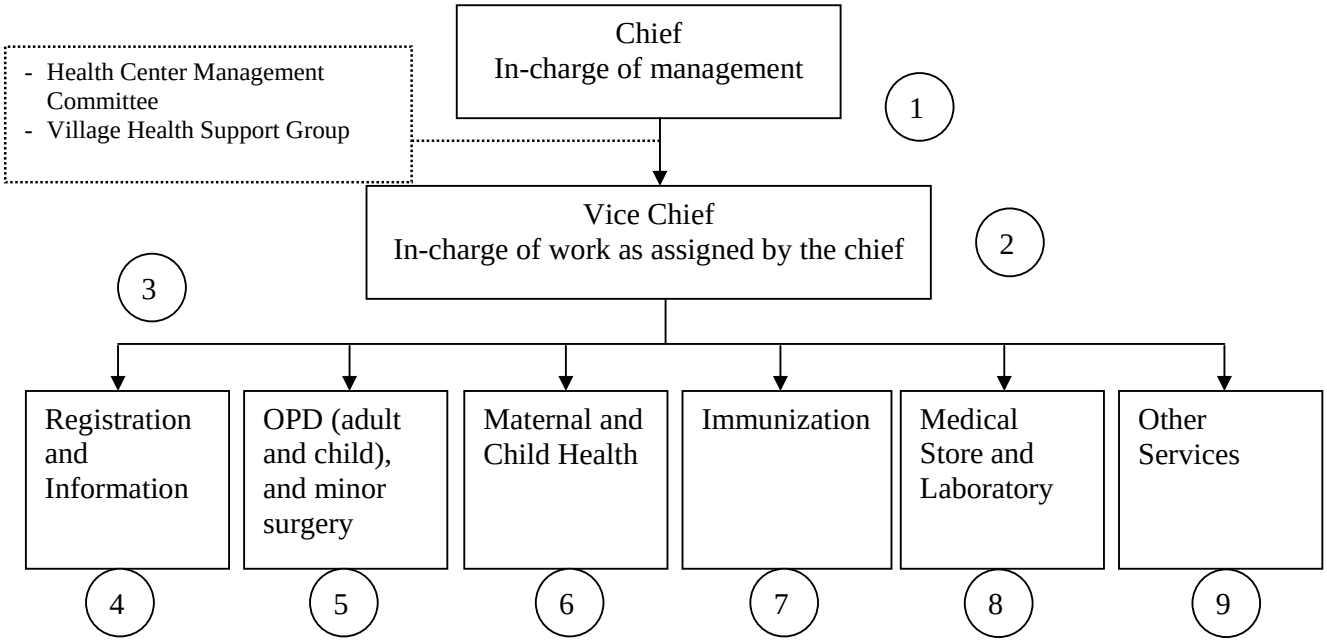
(Annex-2: Prakas on management of health center located in or near referral hospital)

2. Organization Chart

Each health center should have clear organizational structure for its management and function. The following organization chart shows how to allocate the tasks. The organizational chart below is model example and it may be varied upon number of staff in a

health center. For example, in your health center there is staff in-charge of mental health or dental care.

Table 1



3. Staff Standard

Staff standard is concerned with number and type of (technical qualification) of personnel which is the Ministry of Health requires for health centers in the whole country in accordance with their activities and function including:

- Provision of general 24 hour services (24h/24h)
- Ensuring of regular outreach services

Generally, to enable a health center to ensure good function, it requires at least 8 people. For any operational district where human resource is available, number of staff may be more than this; it can be up to 11 people. The number mentioned above does not include number of staff working at health post. Please see the table below:

- Medical doctor/ Medical assistant (0-1)
- Secondary midwife (1-2)
- Primary midwife (1-2)
- Secondary nurse (2)
- Primary nurse (2)
- Other staff, if necessary (2)

Number of HC staff variable from 8 to 11. Each Health post should have one nurse and one midwife.

Table 2

Category of staff for a health center

No.	Type of personnel	A	B	C	D
1	Medical doctor/ Medical assistant	0	0	1	1
2	Secondary midwife	1	2	2	2
3	Primary midwife	1	1	1	2
4	Secondary nurse	2	2	2	2
5	Primary nurse	2	2	2	2
6	Other staff	2	2	2	2
Total		**8**	**9**	**10**	**11**

4. Roles and duties of health center staff

4-1. For all Health Center Staffs

4-1-1. Roles:

- Respect internal regulation and organizational chart of the health center including putting on medical uniform and ID card. Involve in keeping good hygiene always in health center.
- Be conscientious and responsible for all works in the provision of services in health center and outreach services.
- One staff member may take one or two tasks upon capability-skill trained by national programs.
- Take responsibility and care for all medical materials including supplies. Annual inventory should be also completely made.
- Attend monthly meeting and closely collaborate with Village Health Support Group.
- Ensure proper hand over of the work to the next responsible staff.
- Properly record all the data of the responsible area/unit and actively involve in making annual operational plan.
- Make daily and monthly report, and submit to the chief of health center.

4-2. Chief of Health Center

4-2-1. Duties Summary

- Take responsibility for managing health center and involve in Health Center Management Committee
- Participate in service provision, consultation/care, prevention and health promotion
- There should be 1 or 2 vice-chiefs as assistant to the chief-responsible for management, outreach service, service provision in health center and health education, etc.

4-2-2. Duties in Details

- Ensure that staff is permanently present at health center in both working time and on duty time

- Hold regular personnel meeting and attend monthly meeting at operational district
- Allocate tasks for all of health center staff including outreach services (Immunization, epidemic disease control, follows up of chronic disease, etc.)
- Motivate personnel who have capacity and good performance
- Monitor on rational use of drug and medical materials and making inventory at health center
- Monitor on maintenance of facilities, transportation, and hygiene in health center
- Properly manage the implementation of user fee
- Discuss on income and expense with staff at the staff meeting and at the management committee meeting
- Check monthly report of income-expense, and send it to the operational district office
- Ensure correct and regular collection, record and report of health information:
    - Monthly activity report
    - Alert report
    - Inventory report
- Analyze and interpret health information in the report and in the Table for Monitoring of Activities
- Participate in out patient consultation or antenatal care and provision of other services, both inside and outside of the health center (immunization, epidemic disease control, follow up chronic diseases, etc.)
- Arrange patient referral and feed back system

4-2-3 Qualification

- Be with technical skill, at least secondary nurse or secondary midwife
- Be good professional conscience, honest and responsible for work
- Be good tolerance and friendliness with staff and patients

4-3. Staff In-charge of OPD

4-3-1. Duties Summary:

Provide examination/consultation and medical care service to patients at health center

- Enhance awareness to patient and patient family regarding prevention-control of communicable diseases and health promotion
- Actively participate in development of minimum services for health center:
    - Participate in outpatient consultation service, minor surgery for both of adult and child including Integrated Management of Childhood Illness for under-five-years children, diagnosis and management of sexually transmitted diseases, diagnosis and management of acute and chronic diseases
    - Provide health education to patient and family about their health
    - Monitor the status of immunizations, growth, vitamin “A” supplementation and Mebandazole, of children under 5 years where available, and provide appropriate treatment
    - Provide appropriate emergency care for severe patient before referral to referral hospital.

- Advise patient and family to continue treatment at health center for follow up of evolution of the sickness
- Ensure that every diagnosis and treatment is correctly recorded
- Correctly record and report of all activities
- Take responsibility for request and maintenance of all medical materials and supplies.
- Decontaminate, clean and disinfect on every medical material and equipment to be used for wound care (surgery/ pus drainage, wound cleaning, wound suture, etc.)

4-3-2. Qualification:

At least a secondary midwife licensed by the Ministry of Health.

4-4 Staff In-charge of Antenatal Care and Postnatal Care

4-4-1. Duties

Antenatal Care

Responsible for provision of consultation and examination to pregnant women as follows:

- Ask about history of the patient properly: previous pregnancy, previous history of the sickness, current pregnancy (if any), tetanus toxin vaccination
- Properly check: blood pressure, body weight, height, anemia, cardiac diseases/thyroid gland, abdominal edema and vagina, etc.
- Provide proper counseling and health education regarding food intake, exercise, alcohol drinking, smoking, malaria, exclusive breastfeeding, preparation around birth
- Provide proper counseling and referral for HIV test
- Provide iron tablets and proper tetanus toxin vaccination
- Identify risk factors and properly referral
- Decontaminate, clean and disinfect on medical materials/ equipment required for antenatal care and postnatal care
- Take responsibility for request maintenance of all medical materials and supplies
- Record all information and data in Record book and Card (antenatal care, tetanus toxic vaccination, provision of vaccine. Submit monthly report as required.
- All services above should be provided both in health center and at outreach activity

Immediate Postpartum Care:

For mother:

- Regularly take vital signs, hemorrhage and recovery of the uterus until mother becomes stable
- Help mother to give breastfeeding
- Provide health education, counseling, vaccine and vitamins properly

For baby:

- Apgar score: check and record

- Regularly monitor vital signs, sucking breast, general conditions, and umbilical cord
- Completely check baby: body weight, length, head size and other abnormalities
- Provision of vaccines: BCG, hepatitis-B, etc.

Follow up Postpartum Care

All services above should be provided both in health center and at outreach activity

For mother:

- Check abdomen and vagina; provide iron tablet and tetanus toxic vaccination, information about family planning, counseling and health education
- Provide health education, counseling, vaccines and vitamins properly
- Provide or transfer for PMTCT service if necessary

For baby:

- Properly reared and weight gained, received vaccine on time

4. Qualification

- A secondary midwife certificate holder licensed by MoH, or a primary midwife licensed by the Ministry of Health (under supervision of the secondary midwife).

4-5. Staff In-charge of Delivery

4-5-1. Duties:

- Provide appropriate care for women at labor time (taking vital signs, evolution of the labor, and detection of risk signs and refer if necessary)
- Provide safe delivery and actively manage at third stage of the labor, at health center or at woman's house if necessary
- Provide emergency care and refer if necessary
- Provide health education and counseling
- Decontaminate, clean and disinfect on medical materials to be used for clean and safe delivery
- Provide or refer for PMTCT service if necessary
- Record all information in Partograph or in a Record book, etc.
- Take responsibility for request of every of supply, and maintain every supply and medical material to be used

4-5-2. Qualification:

- A secondary midwife certificate holder licensed by MoH, or a primary midwife licensed by the Ministry of Health (under supervision of the secondary midwife).

4-6. Staff In-charge of Abortion and Post Abortion Care

4-6-1. Duties:

For a health center where there is staff trained on abortion care:

- Provide proper counseling and non-judgmental to partner regarding pregnancy, abortion, family planning, etc.
- Provide proper, safe and clean care for a woman to be aborted. Provide health education and counseling
- Clean and disinfect on medical materials to be used for safe and clean abortion
- Provide post abortion care including follow up of patient, provide counseling regarding family planning and birth spacing method if accepted/requested
- Detect status of tetanus and provide appropriate vaccination
- Take responsibility for request of supplies and maintain all supplied and medical materials to be used for the service
- Record all information/data in Record book and submit monthly report as requires

4-6-2. Qualification:

- A secondary midwife licensed by the Ministry of Health and trained on abortion and post-abortion care

4-7. Staff In-charge of Family Planning

4-7-1. Duties:

- Properly history of patient about: previous pregnancy and sickness, current pregnancy, tetanus toxic vaccinations
- Properly examine: blood pressure, body weight, height, anemia, cardiac diseases/ thyroid gland, abdominal edema, vagina, etc.
- Provide proper counseling and health education regarding methods and family planning including side effects
- Detect risk factors and refer properly
- Provide methods of family planning as requested by the client
- Detect status of tetanus and provide proper tetanus toxic vaccinations
- Decontaminate and disinfect on medical materials to be used for vaginal examination or for insertion of IUD
- Take responsibility for request of supplies and maintain all supplied and medical materials to be used for the service
- Record all information/data in Record book and submit monthly report as requires
- Make appointment for next visit and provide proper counseling
- All of the services should be provided both in health center and at outreach activity

4-7-2. Qualification:

- A secondary midwife certificate holder licensed by MoH, or a primary midwife licensed by the Ministry of Health (under supervision of the secondary midwife).

4-8 Staff In-charge of Immunizations:

4-8-1. Duties:

- Research and provide vaccinations to children under 5 years and women aged 15-49 at health center
- Record all information/data in Record book and Patient Health Record, and submit monthly report as required
- Make appointment for next visit and provide proper counseling
- Take responsibility for request of supplies and maintain all supplied and medical materials to be used for the service
- Decontaminate, clean and disinfect on medical materials which may be used
- All of the services should be provided both in health center and at outreach activity

4-8-2. Qualification:

At least nurse or a primary midwife licensed by the Ministry of Health (under supervision of chief of health center) and was trained in this field.

4-9. Staff In-charge of TB Control

4-9-1. Duties:

- Detection and diagnosis of TB-patient history, collect sputum and make sputum smear
- Provide counseling and education to patient regarding taking sputum, prevention of TB transmission, necessity of respecting to protocol/ guidelines, and treatment completion
- Provide proper treatment to TB patient and counseling- health education regarding treatment completion
- Take responsibility for request of supplies and maintain all supplied and medical materials to be used for the service
- Record all information/data in Record book and submit monthly report as required
- Make appointment for next visit and provide proper counseling
- Decontaminate, clean and disinfect on medical materials and equipment which may be used

4-9-2. Qualification:

A secondary or primary nurse trained on TB control.

4-10. Staff In-charge of HIV/AIDS

4-10-1. Duties:

- Provide pre and post confidential counseling and testing (based on plan of the Ministry of Health and National Center for HIV/AIDS, Dermatology and STD Control)
- Do blood test using Rapid Test, or refer the patient or blood sample for HIV test at VCCT center (based on plan of the Ministry of Health and National Center for IHV/AIDS, Dermatology and STD Control)

- Provide STD treatment based on syndromes (based on plan of the Ministry of Health and National Center for IHV/AIDS, Dermatology and STD Control)
- Take responsibility for request and maintenance of drug, medical materials and reagents upon work demands
- Participate in refer and treatment of AIDS and STD in close collaboration with referral hospital where provides AIDS/STD service and home-based care team as well as with home-based care
- Maintain all the records with information and data which were filled up, and submit monthly report to Operational District Health Office (based on standard form of the Ministry of Health)

4-10-2. Qualification:

A secondary or primary nurse trained in this field.

4-11. Staff In-charge of Leprosy

4-11-1. Duties:

- Diagnosis of leprosy
- Provide treatment, make appointment for next visit, provide health education and counseling relevant to health center level
- Provide counseling on confidentiality properly to patient
- Take responsibility for request of supplies and maintain all supplies and medical materials to be used
- Record all information in Record book and Patient Health Record, and submit monthly report

4-11.2 Qualification

A nurse trained in this field.

4-12. Staff In-charge of Malaria

4-12-1. Duties:

- Do blood test (Rapid Test or by Microscope) for malaria parasite, if health center can do it
- Provide treatment, make appointment for next visit, provide health education and counseling properly according to health center level
- In case health center has no ability to treat, refer severe malaria patient to referral hospital after provide first dose treatment (first aid).
- Take responsibility for request of supplies and maintain all supplies and medical materials to be used
- Record all information in Record book and Patient Health Record, and submit monthly report as requires

4-12.2 Qualification

A nurse trained in this field.

4-13. Staff In-charge of Dengue Fever

4-13-1. Duties:

- Carefully examine on child in case of severe fever for many days as told by mother

- Rapidly check for dengue fever signs in order to refer patient to referral hospital on time
- Not to give Aspirin to the child, it is possible to give an appropriate dose of Paracetamol to reduce fever. Please read Guideline on Dengue Fever Treatment of the National Program.
- Provide education on cleaning of house and using mosquito net to prevent mosquito bitten

4-13-2. Qualification:

A staff who in-charge of OPD consultation.

4-14. Staff In-charge of Pharmacy at Health Center

4-14-1. Duties:

- Responsible for management of pharmacy at health center
- Responsible for distribution of drug to patient based on prescription
- respect regulation and organizational structure of the health center
- Make daily-weekly-monthly-quarterly and yearly in-out report
- Record in list and make balance of daily-weekly-monthly-quarterly consumption regularly, and report in case of out of stock.
- Well and carefully maintain-store the drug
- Ensure proper use of drug, avoid drug expiry, and report to the chief of health center in case of drug spoiled or over stock
- Advise patient how to make proper drug use-time of use according to prescription and write name of drug on the pack
- Advise patient to return to receive drug again in case prescribed
- Participate in provision of outreach service (vaccinations, epidemic diseases control, follow up of chronic diseases and so on).

4-14-2. Qualification:

- A primary nurse or primary midwife licensed by the Ministry of Health.

It should be remarked as follows:

Chief of health center should allocate tasks to his/her staff according to their respective ability, technically trained by national centers and national programs. Each staff may be allocated with several tasks in accordance with his/her capacity.

Chapter 3: Service Delivery

1. Services Delivery at Health Center

1-1. Outpatient Consultation Services (OPD Services)

Outpatient consultation services are essential for health center since it is the place where health problems of people who came for consultation concerning their health can be identified. These services can attract patients to utilize health center, if responsible personnel is skillful and possess good behavior.

Responsible Personnel

- There should be one staff to register, ask information, take body temperature, body weight, blood pressure, count pulse and breathing, and inform the section where patients should go next before they go to the waiting hall.

Outpatient consultation should be at least provided by secondary midwife or nurse.

- Staff should know how to provide primary emergency medical service and know risk signs to ensure that emergency care is provided or referred on time to the referral hospital, for example in case of dengue fever, malaria, bird flu, etc.
- Physicians or staff in OPD should be provided with information and trained continuously on protocols/ guidelines necessary to properly identify health problems for clients.
- Physicians or staff at health center should know about health facilities and place where the patients/ injured should be referred to, for further treatment or rescue.

Services Provided at Outpatient Unit

1-1-1. General Medicine Consultation and Treatment

Health center provides consultation and primary care service of health problems which frequently occur such as: communicable diseases, non-communicable diseases, chronic diseases, and emergency care.

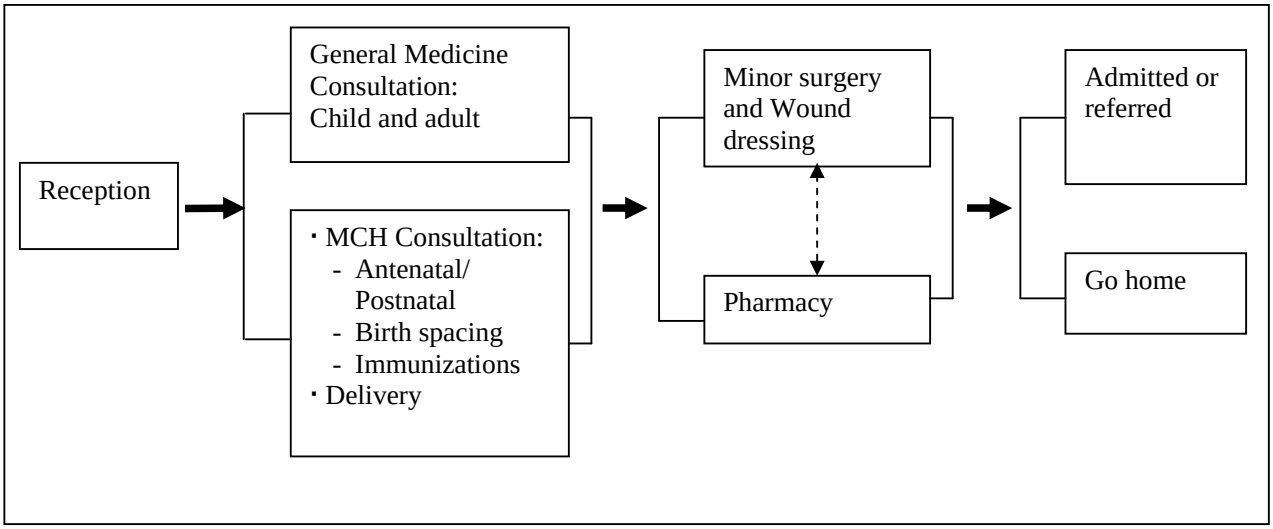
- Patient consultation and treatment should be done thoroughly to identify health problems and provide correct treatment following protocol and guideline of national programs as well as clinical guide, or refer on time to referral hospital in case the patient cannot be cured at health center.
- Consultation and treatment for adult should be provided inclusively of health education in order to make clients be aware of prevention and understand procedure of treatment provided. Clearly confirm how to use medicine and advantage of illness follow up.
- Consultation and treatment for a child should be followed the Guideline on Integrated Management of Childhood Illness in order to avoid missing of other health problems unknown by client, which may cause children face those problems next time.
- Outpatient department should have all documents concerning patient registration list, treatment protocol, guideline for treatment and health education, clinical guidebook and health education materials. These documents should be always available and up to date.
- Regarding physiotherapy service, even though it is not available at health center, physicians and staffs should know a place or a referral hospital where this service is available so that patient is referred to the right place for correct treatment.
- In order to improve the communication between patients and staff of health center, physician or staff should be informed on the client rights and the rights and duty of health provider.

(*Annex-3: Registration list for outpatient)*

1-1-2. Patient Flow

Patient flow is the arrangement of the flow within the health center for the patients. This flow must be well arranged in order to avoid confusion (patients don't know where to go) and void waste of time. **Table 3**

Patient Flow



1. Patient must be registered at reception before he/she goes to the consultation-counter 2. Then, patient enter to consultation-counter, child-adult and/or enter to antenatal, birth spacing, delivery 3. And then, patient needs to go to vaccination, wound dressing room, or pharmacy	4. Final stage is exit from health center: patient goes back home, or is referred to the referral hospital 5. Health education must be done inclusively of consultation 6. Post partum care and reproductive health

(For more information, read "health center manual")

1-1-3. Emergency Service

Emergency service provided at health center aims to support life of a victim-making his/her condition stable, before the victim or the patient is referred to referral hospital. Emergency care must be provided to patients or victims from any accidents at the time she/ he arrived at health center before he/she is referred to referral hospital for further care and treatment. To provide an effective emergency service, health center staff must clearly know about emergency risk signs to be resuscitated, and must know well how to triage, how to resuscitate and how to refer the case. Generally, this service is within outpatient service.

Physician and staff working at health centers must know how to provide first aid and basic life support care to ensure that people's life is saved on time and properly referred. First aid and basic life support care requires for:

- Asphyxia resuscitation
- Drowning

- Bleeding of injury
- Shock
- Convulsion
- Unconsciousness, health center staff is required to know about level of unconsciousness of Glasgow
- Fracture
- Burnt and inflammation
- Poisoning
- Dog bitten
- Snake and poisonous insect bitten

1-1-4. Follow Up and Referral Patient

Health center is responsible for follow up of patients in its coverage areas.

A. Follow up of Patient who came for Consultation and Suspected Cases

A patient who came for consultation at OPD, especially non-communicable and chronic diseases, must receive explanation about time of regular check up on his/her health problems. A suspected case must be inquired in details about previous sickness and medical treatment history so that it is easy to identify clearly about health problems.

B. Follow up of Referred Patient

When a patient has complicated health problems and cannot be treated at health, he/she must be referred to referral hospital for further treatment since complementary service is provided there. In this case, health center, especially staff in-charge of outpatient consultation, must know clear about services available at referral hospital.

After receive feedback from referral hospital about patient referred, OPD staff should explain to patient who has returned about his/her health problems, which needs further treatment at home or at health center.

C. Patient Refer

Patient must be referred to referral hospital with a Referral Form, and if patient is in severe condition or has just received emergency care, there should have a health staff accompanies with.

In case the patient is injured of road accident, the Road Accident Report Form must be attached together with Referral Form.

(Annex-4: Referral Form)

1-1-5. Ancillary Services

At health centers, most of health staffs are not laboratory technicians. They should, however, have simple ancillary services which can assist in determining health problems at the health center level. The main ancillary services which should be done at the health center level include the following:

1. Urine test by using dipstick for detecting proteins, pH, and glucose. In case of suspected diabetes, a patient should be referred to a referral hospital.
2. Blood test by using rapid test as hemoglobin color scale to detect hemoglobin concentration in order to assess the level of paleness which will require treatment or referring.

3. Malaria test by using rapid test and send blood smear to laboratory department of a referral hospital to get confirmation of the diagnosis.
4. Tuberculosis test (sputum test), make sputum smear, and then, send it to laboratory department of a referral hospital.
5. Pregnancy test by using dipstick.

1-1-5-1 Sputum Examination:

At any time, health center staffs can collect sputum from pulmonary TB suspected patient 3 times within 2 days following the below instruction:

1-1-5-1-1 First Consultation with a Patient:

1. Health staffs (health center/ laboratory) must collect sputum at the first time from a suspected pulmonary TB patient by instructing him/her to try to cough strongly and spit under direct observation of health staff. This is called sputum collection on the spot.
2. After that, a sputum cup with the number written at the outside of the cup (but not on the lid) should be given to the patient to put his/her sputum at dawn in his/her home and take it to health staff when seeing him/her at the second time. This is called dawn sputum collection.

1-1-5-1-2 Second Consultation with a Patient

The patient returns to a health center or laboratory with his/her second sputum collected in the morning and gives it to the health center staff. And the third sputum collection should be done under direct observation of health staff.

To collect the best quality sputum and to avoid sputum getting infected by other microbes or germs, health center staff should explain the patient as follows:

Tasks to be undertaken prior to sputum collection:

Sputum collection is for detecting microbes and diagnosing the disease on time. This purpose must be clearly explained to a patient by health staffs. The lab form must be correctly filled. The form will be sent to a laboratory department of a referral hospital with 3 sputum cups or smear of the patient. “Only one lab form is filled for the three-time sputum collection from one particular patient”

(Annex-5: Lab Form for Tuberculosis Sputum)

Sputum Collection:

Health staffs should comply with the following sputum collection procedures:

- Sputum collection must be done under the observation of health center staff.
- Patient should gargle with water before spitting out the sputum.
- Sputum collection should be done in open space or in a room with cross-ventilation windows, and the room is used for sputum collection only.
- Health staffs have to demonstrate to patients on how to cough for taking their sputum, and then tell them to spit it out strongly.

- Health staffs should tell the patients to cough again if they could spit with only saliva or with sputum less than 3 milliliters.
- Health staffs should tell patients to spit in sputum cup in order to avoid making the outside of the cup dirty.
- Instruct them how to close the cup with it cap correctly.
- Health staffs must clean their hands with water and detergent.

1-1-5-1-3 Sputum Preservation

Sputum should be preserved as follows:

- A cup with sputum should not be kept under the sun light
- When transporting cups with sputum to a laboratory department, they must be put in a special box.
- If cups with sputum cannot be transported immediately to a laboratory department, they must be kept in a refrigerator or in a cold environment. A place for preserving sputum must be reserved for preserving sputum only.

1-1-5-1-4 Smear Making

The quality of sputum examination depends on quality of sputum smear. If sputum collection was not done properly, the result of sputum examination may be false. Likewise, if the smear was made too thick or too thin or heterogeneous, the result would be false too.

1. Slides must be put in order according to the written serial number.
2. Matching the number written on a sputum cup with the one written on the slide. After that, open the cap of a sputum cup carefully, and then, put it on the aluminum tray.
3. Use bamboo or platinum stick for making smear
   - **Procedure 1:** The smear can be made by using bamboo stick by making the point of the bamboo stick rough. After smearing, the already-used bamboo stick must be dipped into an alcohol-sand bottle prior to discarding it.
   - **Procedure 2:** The smear can be made by using platinum stick. Before smearing, it is advised to burn the end part of Nikel string of platinum stick with Bigmensen flame or alcohol lamp until it becomes red, and leave it to cool off and then, use it to make smear. After use, dip the platinum stick into an alcohol and sand bottle with the content of 300-500 milliliters, then burn it with the flame of Bigmensen or an alcohol lamp once more and then leave it to cool off.
4. Making all other smears must be done in compliance with the aforementioned procedures.
5. Hold the slide on the written-number part, and then smear the sputum in a spiral shape homogenously.
6. Making smear within 2 cm wide and 3 cm long (but not exceed this size).
7. Leave the slide to get dry in a room with normal temperature. Do use the fire flame to dry it.

1-1-5-1-5 Sputum / Smear Transportation:

Sputum must be kept carefully in a box for transportation, attached with lab forms and list of TB suspected patients.

1-1-5-1-6 Referring a TB suspected case to a place where sputum can be collected

If health staff cannot collect sputum form tubercular patients, they should refer them to a referral hospital with laboratory services.

1-1-5-1-7 Referring Patients for Diagnosis

If the result of sputum examination indicated BK positive "at least two positive slides with BK" , the patient must suffer from positive Pulmonary TB, and the treatment must be done without delay.. Fill treatment form, patient form and then record the case in the list of tuberculosis patients and provide them with health education.

If the result of one time among the three–time sputum examined was BK positive, the patient should be referred to a referral hospital for other assessments. If the result of the assessments indicated that he/she has active pulmonary tuberculosis, the patient can be considered as a pulmonary tuberculosis patient with positive BK and he/she should be treated. In case the results of all three-time sputum examined were BK negative, the patient must be treated by using normal antibiotic for the period of 10 to 15 days. If the patient's condition can not improve, the 3 cups of sputum must be examined again. If the result remains BK negative but x-ray indicated TB suspected sign, the patient must be treated for pulmonary TB with positive BK.

(For details, please refer to "Manual for tuberculosis case management at health center")

1-1-5-2 Examination to detect parasites causing malaria

1-1-5-2-1 Microscopic examination of blood smear to detect parasites causing malaria:

Clear diagnosis could be achieved through only smear examination detecting mycrobacterium. This is a common standard for malaria diagnosis.

1-1-5-2-2 Rapid test "Dipstick"

- All health centers located in the epidemic areas must have dipstick.
- Malacheck test can be done to diagnose malaria caused by plasmodium or falciparum. But these parasites can continue living inside the patient's body within 2-3 weeks after the treatment.
- Test by using optimal can done to diagnose malaria caused by plasmodium-falciparum, and other parasites.
  (For more details, please refer to the National Guidelines for Malaria)

1-1-5-3 HIV Test (HIV/AIDS Testing at Health Center Level: Volunteer Confidential Counseling Testing (VCCT))

1-1-5-3-1 Introduction

Volunteered Confidential Counseling and Testing Center is the essential unit for HIV transmission prevention program and continuum of care and support to AIDS patients. This is a key strategy in the 2004-2007 strategic plan for controlling and prevention of HIV/AIDS epidemic and treatment, care and support to PLHAs. The strategic policy and guidelines on volunteer confidential counseling and testing approved by the Ministry of Health in 1995 and revised it in 2002 and 2007. Any institution in both public or private sectors providing

volunteer confidential counseling and testing services must seek permission from the Ministry of Health.

According to the 2003-2007 strategic plan on the prevention of HIV transmission and continuum of care, the Ministry of Health plans to increase VCCT centers up to 250 places in 2010 at referral hospitals, former district hospitals and some health centers.

1-1-5-3-2 Staff's roles and responsibilities

Health center staffs responsible for voluntary confidential counseling testing at health centers are Ministry of Health officers who have been trained on VCCT by the National Center for HIV/AIDS, Dermatology and STDs. Those officers are physicians and nurses who work at health centers.

Health center's staffs responsible for providing VCCT at health center assume the following responsibilities:

- Provide education/promotion on prevention of HIV and STD in community to people who utilize health center services for and encourage them to utilize initiated testing and counseling service. Health center's staff should encourage and give information on VCCT service to all clients who come to health center for using other health services. And then, send them to have VCCT service, if they volunteer.
- HIV test must be conducted on a volunteer-basis and it must be agreeable from a client prior to testing.
- Pre and post counseling must be provided during every HIV Testing.
- HIV test procedure must comply with the Ministry of Health's protocol.
- All results of HIV test must be kept confidential.
- Provide counseling and HIV test to pregnant women who come to utilize health center services through PMTCT Program.
- The staffs of health center responsible for TB-DOTS activities and the TB clinician staffs of former district hospitals should provide counseling and referring TB patient (pulmonary TB, non-pulmonary TB and other TBs) to have HIV test at a nearby VCCT center on volunteer basis.
- In case the test result is positive, the patient should receive further counseling and support. Providing counseling and supporting are very important. It can help clients for solving some situations. Counselors should refer a client who has HIV positive result to HIV-AIDS home care or continuum of care services (treatment of opportunistic diseases and anti-retroviral therapy) nearby.
- Produce monthly report on activities and balance of reagent consumption and regularly submit it to an operational district office.
- Make a request for reagents and other materials on time and submit it to operational district office.
- Well collaborate with provincial or district national program for AIDS/STD control in order to get technical capacity strengthening..

1-1-5-3-3 Need for drugs, materials and medical equipment

In this unit, it requires adequate reagents and medical materials so that effective quality service delivery can be provided.

Reagents and Test Instruments:

1	Serodia HIV1/2
2	Genscreen HIV1/2
3	Uni-Gold
4	Determine HIV1/2
5	Vacutainer tube
6	Vacutainer needle
7	Microplate
8	Yellow tube
9	Glove
10	Pipettes (micropipettes) 20-200ul
11	Pipettes 20-1000ul
12	”U” shaped micro plate
13	Centrifuge
14	Plate shakers
15	Refrigerator

1-1-6. Boil/ Steam Sterilization of Medical Materials

It is very improtant for staff to ensure that all medical materials used for wound dressing, wound suture, delivery, abortion, insertion of IUD, etc., must be sterilized by boil or steam. All the health center staffs who use these medical materials must decontaminate (soak the medical materials in disinfectant solution), clean (wash with brush) and dry them prior to sterilize by boiling/steam sterilizers. Inadequate cleaning of medical materials will cause transmission of germs from a person to another. Each health center should have Autoclave for sterilization of medical materials. This boiler/steam sterilizer kills germs by vapor. Sterilization by boiler must be done at least at 121℃ for 20 minutes (boiling temperature and time might be more than this if medical materials more tighly packed). It is essential for staff to follow instruction for boiling/sterilization thoroughly. If not, germs containing on medical materials would not be completely killed and may transmit to patients, those include Hepatitis-B & C Virus, HIV, and so on.

(for more details, read Communicable Diseases Control Manual)

1-2. Mother, Newborn, Child and Reproductive Health Services

Standard

Maternal, neonatal and child health care services at health center is responsible for provision of a good quality care for women at child bearing age, at adolescent, during pregnancy, during delivery, postnatal and neonatal. Those include prevention of mother-to-child-transmission, prevention and treatment of STD-AIDS, birth spacing, safe abortion, care/treatment of post/unclean abortion complications, provision of education on personal hygiene, risk signs during pregnancy/delivery/postpartum, birth preparedness, nutrition and breast feeding, and refer of pregnant women suffered from domestic violence or other violence.

(For more details, read the description about ancillary services).

Minimum Package of Activities:

- Antenatal care
- Normal delivery and delivery with intervention

- Postpartum care
- Tetanus toxic vaccination
- Anemia prevention and counseling on nutrition
- Prevention of mother-to-child-transmission of HIV/AIDS service
- Neonatal care
- Birth spacing
- Adolescent reproductive health
- Integrated management of childhood illness
- Breast-uterine cancer consultation
- Safe abortion and post abortion care

1-2-1. Antenatal Care (ANC):

Antenatal care should be done periodically (4 times at least).

First ANC Visit: should be done within first quarter of pregnancy age:

- It is to confirm that woman is really being pregnant. If real pregnancy, confirm whether it is a normal pregnancy or a hydatidiform mole or an ectopic pregnancy or threatened abortion or intrauterine fetal death.
- Check health condition, provide iron/folic acid tablets, and treatment for pregnant woman with paleness, severe morning sickness and sad-feeling of pregnancy.
- Check for any other chronic diseases such as: heart diseases, diabetes, hypertension, etc.
- Provide PMTCT counseling according to PMTCT guidelines
- Provide education to pregnant woman about personal care and hygiene (enough relax, sleep under insecticide treated bednet if woman lives in malaria area, prevent infection by having safe sex and taking shower, and avoid lifting heavy objects), nutrition (take sufficient healthy foods required for pregnant woman and fetal growth, discuss carefully and advise against food taboos, not to drink alcohol or smoke, not to take medicine without prescription), determine expected date of delivery and be prepared for delivery (prepare money, transportation and materials).
- Discuss on exclusive breastfeeding and provide information about optional child feedings for pregnant woman with HIV positive *(please read National Guideline on PMTCT, chapter 5)*.
- Well collaborate and communicate with Home-base Care Team or PLHA Group so that they can help for taking care of those HIV positive women.
- Explain to return upon appointment or prior when any risk signs.
- Provide emergency care and refer the woman to referral hospital on time

Note: PMTCT leaflet must be provided to all women whom came for ANC first visit and to the women whom yet the HIV test result were not informed.

Second ANC Visit: should be done within second quarter of gestational age:

- Follow up check the fetal growth
- Take blood pressure
- Follow up health condition of the mother especially after morning sickness is over
- Provide PMTCT counseling according to PMTCT guidelines

- Provide iron tables/acid folic and Mebendazol given
- Provide tetanus toxic vaccination
- Check for malaria symptoms if woman lives in malaria area, sleep under insecticide treated bed net to prevent malaria infected on pregnant woman; in case of malaria symptoms appear, treat or refer according to National Guideline on Malaria Treatment for Pregnant Women issued by the National Center for Malaria Control, 2004.
- Check for inverted nipples and provide treatment
- Discuss on birth spacing and birth preparedness, reconfirm about date of delivery and date of appointment, and advise woman to meet health service provider in case of necessary
- Provide emergency care and refer the woman to referral hospital on time.

Third ANC Visit: should be done at early third quarter of gestational age:

- Follow up check on health status of mother and fetal growth
- Check for tetanus toxic vaccination
- Provide iron/ acid folic tablets
- Detect for malaria symptoms, and then provide treatment or follow up
- Provide PMTCT counseling according to PMTCT guideline
- Check for threatened premature delivery
- Determine actual date of delivery, detect risk signs: hemorrhage, paleness, urine test, check blood pressure, hands-legs-face edema, headache, dizziness, abnormal body weight gain (usually, woman may gain weight within 9~12Kg during pregnancy) or no weight gain, too short in body height (shorter than 145cm), primipara (especially elderly primipara, over 35 years old), too young primipara (less than 17 years old), woman with many children (more than 5), abnormal size of pregnancy, and look for caesarean scar of a previous child.
- Discuss on safe delivery at health facility, right time to go to the delivery facility, family who will go with her for support during labor and delivery and materials to bring with her, and birth spacing counseling.
- HIV-carried-women should be reminded about importance of delivery at hospital or at health center where PMTCT service is available, and then they should be referred to maternity facility provide PMTCT service.
- Further discuss with pregnant women with HIV test result positive regarding exclusive breast feeding and other options of infant feeding.

  (Please read National Guideline on PMTCT, Chapter 5)
- Explain about labor signs, danger signs which may happen, and advise mother to bring Mother Health Record Book, Vaccination Card and other necessary cards/records with her.
- Provide emergency care and refer the woman to referral hospital on time.

Forth ANC Visit: should be done at term

- Follow up check health status of mother and fetal growth
- Detect for danger signs
- Confirm about actual date of delivery and delivery facility
- HIV-carried-women should be reminded about importance of delivery at hospital or at health center where PMTCT service is available. Cesarean section may reduce risk of HIV transmission form mother to child compared with vaginal delivery (however, cesarean section is not recommended for every of HIV-carried-women), and woman should be referred to deliver baby

at maternity facility where PMTCT service is available. Further discuss about exclusive breastfeeding and other options of infant feedings *(please read National Guideline on PMTCTC, Chapter 5).*

- Discuss on post partum care, baby care at home, risk signs which may occur on mother and baby, return to health center when any problems or for birth spacing service when necessary.
- Provide emergency care and refer the woman to referral hospital on time.

Antenatal Care for a Young Mother

- Health service provider at health center may meet young pregnant woman (adolescents), either she is married or not married; health service provider should provide her the service without any prejudgment about marital status. She shall be provided a discussion and consultation using an easily understandable-simple language and she shall be encouraged to ask any question she wonder or concern about. Any explanation, advice and support should be provided especially knowledge on infection prevention, birth spacing, and health promotion for mother and baby, nutrition and infant feeding.

(Annex-6: ANC Register)

1-2-2. Normal Delivery Case and Delivery with Interventions

In case of a trained midwife:

- Attend normal delivery using Partograph, record on Mother's Health Record Book and perform management of third stage of labor using Oxytocine. *(Annex-7: Partograph).*
- HIV status should be recorded for every of woman who came for delivery at health center (if there is in the future). Pregnant women with HIV unknown status shall be tested for HIV at labor time.
- Safe delivery following universal precaution shall be provided to every woman (for detailed information, please read "National Guideline on PMTCT".
- ARV shall be provided to mother with HIV test result positive during labor and delivery, and ARV shall be provided to baby after birth.
- Emergency care (repair vaginal or cervix tear, antibiotics, oxytocic drugs, anticonvulsants, manual removal of placenta, removal of retained products) shall be provided to the women, and they must be referred to referral hospital on time in case of complicated delivery in which the emergency obstetric service (cesarean section) is required.

  In case of untrained midwife: attends normal delivery case, and refers the women on time to health center or to referral hospital where have enough capacity and ability.

(Annex-8: Delivery Register)

1-2-3. Postpartum Care:

Postpartum care is divided into two parts: immediate postpartum care and periodical postpartum care or 2 times at least.

Immediate postpartum care within 2 hours after delivery:

- Observe mother every 15 minutes so that risk signs can be detected (vaginal tear, paleness, fever, high blood pressure or low blood pressure, pulse, severe

headache, dazzle...etc). Assess the amount of vaginal bleeding, uterine contraction (firm or supple uterus). Record in Partograph, Mother's Health Record Book, or other necessary documents.

- Check body temperature and general condition of the newborn
- Put baby suck mother's breast within first hour after birth
- Encourage woman to drink water, encourage to pass urine and assess urine volume
- Provide emergency care and refer the women on time

Periodical postpartum care or 2 times at least

- **<u>The first examination, within twenty four hours after birth:</u>**
  - Check body temperature, blood pressure, pulse, urine volume, assess vaginal bleeding, vaginal tear or edema, paleness, breast problems. Record woman's health condition in Mother's Health Record Book, Postpartum Checklist and other necessary cards/forms. If the woman's health condition is normal, provide immunizations (if necessary), deworming tablets, 42-iron tablets and vitamin A tablets (if necessary) before she is discharged. Mother should be assisted in, explained and discussed about: initiated breastfeeding and exclusive breastfeeding, nutrition, personal hygiene, birth spacing; frequency and necessity of postpartum care and examination, care for normal/low birth weight and premature baby (explanation and demonstration of Kangaroo method), date of appointment for next visit, danger signs, when to return to health center, sleeping under insecticide treated nets if malaria area, and safe sexual intercourse.

- **<u>The second examination, within 1st week (should be done at second or third day after delivery together with baby examination, if possible):</u>**
  - Examine the women's health condition, examine the wound-suture or vaginal tear, detect danger signs (bleeding, severe headache, convulsion, fever, paleness, difficult breathing, abdominal pain, breast swelling, cracked nipples, urinating pain, bleeding with bad smell) and record in the Mother's Health Record Book). If the women are in the good condition, they should be discussed and reminded about danger signs and advised to revisit health center immediately when problems happen. The woman and family should also be discussed on: an accompanied person, facility (health center), transportation, preparation of money and materials, seeking for assistance from community, and asked to bring with Mother's Health Record Book and other necessary cards/forms. Then the woman should be provided advice on post-natal care and personal hygiene, baby care, nutrition, birth spacing, and tetanus toxic vaccination (if requires).
  - The women should be discussed on alternative infant feedings especially for HIV-carried mothers (please see National Guideline on PMTCT, chapter 5). Location and relevant services i.e. OI/ARV, HBC should be discussed with HIV-carried mother and she should be referred for those services.
  - Check and follow up at the following week: this is to identify postpartum condition of the mother and uterine evolution, to detect risk signs, and provide care and treatment for baby. Provide health education to mother.

- **Examination within 6 weeks of postpartum (when brings baby for vaccination):**

  Check health conditions of the mother (bleeding, body temperature, blood pressure, pulse, uterus height, perineum condition, breasts, urinating problem), and record in the Mother Health's Record Book. If the mother's condition is good, she should be checked on breast feeding, reminded about danger signs, reminded to visit health center immediately when any problems. The mother should be consulted on birth spacing and contraceptive methods should be provided immediately if the woman chooses and use it voluntarily. The mother should be encouraged exclusive breastfeeding until baby becomes 6 months, should be explained about baby care. Follow up check baby's growth (*please read the section described about nutrition*).

- **Other essential examinations** should be done within 6-months of postpartum, in case of necessary or if any problems relevant to mother and baby.

(Annex-9: PNC register)

1-2-4. Immunizations for Children and Mothers/women

1-2-4-1. National Immunizations Program (NIP)

The goals of NIP are:

- To provide immunizations to all children to combat preventable diseases, before the first day of their birth.
- To provide vaccinations to women at reproductive age (15-44 years old) 5 times, especially for pregnant women, 2 times of tetanus toxic vaccinations should be provided.

The main purpose of the program is to reduce morbidity, disability and mortality rate caused by 7 diseases (tuberculosis, diphtheria, poliomyelitis, tetanus, whooping cough, measles and hepatitis B).

To achieve aforementioned goals, health staff shall:

- Increase health education activity by mobilizing population on awareness of immunizations program is strongly enhanced.
- Increase routine maintenance of cooling system is improve
- Wherever the health services are provided, immunizations must always be provided so that target population does not lost chance to receiving immunizations.
- All hospitals and health centers where cooling systems are available must provide immunizations to all children and women who came for outpatient and inpatient service.
- Regular immunization program and outreach activity must be carried out by every of health center. Outreach activities should be done according to dimension and geographical status of the community.

Health centers shall have rotation plan of qualified health staff to the immunization unit. All the staffs (except untrained staff: cleaners/secretary) must be able to perform immunization. These may be a solution of shortage of staff, and minimum immunizations are provided.

1-2-4-2 Health Center Staff Activity on Immunizations

1-2-4-2-1 Effective immunizations to target groups

A. Be aware of all coverage areas of the community covered by the program and relevant problems to immunizations:

- Maintain all records which indicate target groups to be covered or villages where problems occurred, and then improve it year by year.
- Use information the villages made outreach activity plan.
- Ensure that each village knows about coverage

B. Periodical immunizations for women and children at health center

- Ensure that every member of target groups has proper/specific Immunization Card (Yellow Card, Pink Card, and Mother's Health Record Book).
- Immunizations shall be provided periodically and all the time

C. Provision of immunizations through outreach activity

- Conduct outreach activities to all communities under the coverage areas using information made by communities, the plan and the activity for individual community.
- Annual outreach activity plan should be made by health center team and community and should be verified monthly so that their needs can be reviewed.

1-2-4-2-2 Management of Immunizations Service at Health Center

A- Maintain an effective system so that good and effective vaccines will be handed over

- A systematic requesting and receiving of vaccines must exist
- A good cooling system with a proper control must be available to ensure a successful vaccinations

B- Ensure that all health staffs are able to provide immunizations safely

- Staff rotation system should be performed for immunizations activity
- Ensure that every health staff is able to provide immunizations safely with sound technique and comply with guideline of the national immunization program.
- Ensure that every health staff is able to record and correctly explain about record of immunizations.
- Ensure that every health staff is able to correctly fill in the statistic report and record of immunizations provided by the health center.

C- Integrate immunizations activity with other services at health center

- Ensure that immunizations are provided to all target groups, when disappears, on site visit or appointment should be made (at outpatient consultation, antenatal consultation, postpartum care, or when baby is brought with mother who comes birth spacing service)
- Integrate vitamin "A" into national immunization program and record it properly.

- Integrate education of nutrition into national immunization program for community.

D- Evaluate national immunization program on its coverage rate and quality, and make future plan

- Maintain the concrete records provided by the national immunization program and evaluate its coverage including future plan upon lesson learned.
- Evaluate quality of coverage rate, identifying problems and solutions stage by stage (exact age, good timing and cooling system).
- Participate in monitoring activity to enable successful monitoring by the national immunization program

E- Participate in national immunization program campaign when suggested

- Be able to conduct complementary immunizations campaign
- Be able to involve communities in supplementary immunizations campaigning activity

1-2-4-2-3 Collaborate with communities to ensure good coverage rate

A. Working with communities to ensure that good coverage rate can be obtained in each community of the coverage areas

- Work with Health Center Management Committee
- Work with well-known community's members such as: local authority, teacher, wise-man, TBA, health volunteer, etc.
- Encourage communities to make outreach activity plan and annual plan.
- Be available of working system so that can communicate with communities
- Discuss with well-known community's members and support them in problem solving.

B. Follow up to target patients:

- Note patients to be followed up by the community.
- Work with community to create good working system.

1-2-4-2-4 Provide Health Education and Health Promotion to Support National Immunization Program

A. Give proper instruction during providing immunizations

- Give instruction about minor side-effect, reaction and follow up after immunizations.
- Give instruction on how to record about immunizations.

B. Provide proper education to community

- Explain to mothers' group.
- Explain to Immunizations Support Group, Chief of Health/Development Committee, health volunteers, traditional birth attendants, teachers and other groups.
- Provide special information when campaigns on immunizations and when necessary.

1-2-4-3 Immunizations Plan

A plan for national immunizations program should be made annually by the chief together with a working group of the health center. The policy of Ministry of Health should be used a guidance for determining the frequency and the date of outreach service. When a plan of outreach activity is made, other integrated activities should be also considered, for instant, provision of supplementary vitamin A and study on nutrition. And, it should be also considered if there are activities of (antenatal examination, postpartum examination, birth spacing, TB or HIV/AIDS to be followed up), and specific activities should be included if there enough staff number.

Immunizations plan should be made in compliance with the following 5 stages:

1. Estimate target population
2. Estimate number of recipients of immunizations
3. Calculate number of days to provide immunizations in each village and in each month
4. Inform to each village precisely about date and time
5. Make annual plan for immunizations

1-2-4-4 Vaccines available from the National Immunizations Program

1-2-4-4-1 Introduction:

At present, vaccines which are available from National Immunizations Program includes BCG, DTC-HepB, HepB, Polio, Rouvax (Measles) and TT. These kinds of vaccine are acknowledged by World Health Organization. These vaccines can prevent Tuberculosis, Diphtheria, Pertusis, Hepatitis-B, Poliomyelitis, Measles, and Tetanus. Therefore, children should be immunized with all kinds and a complete dose of these vaccines in compliance with National Immunization Program's calendar.

1-2-4-4-2 Kinds of vaccine:

Vaccines are produced from:

- Living virus that its cruelty is reduced such as: BCG, Polio, Rouvax (measles)
- Dead virus such as DTC, TT, DTP-HepB, HepB

1-2-4-4-3 Factors That Spoil the Vaccines

Vaccines can be easily spoiled if they are stored in a bad condition. Spoiled vaccines are neither longer quality nor effective, thus no immunes system created although children are immunized.

Most of the vaccines are sooner spoiled because of: heat, sunshine and chemical elements (such as soap, alcohol).

1-2-4-4-3 Important Points for Preservation of the Vaccines

To keep vaccines in a good quality and effective, knowledge about temperature and preservation of them are required. Preserve the vaccines in a place where temperature can be controlled and avoid aforementioned factors that spoil the vaccines. The National Immunization Program defined the following main points about temperature for preservation of vaccines:

A. Temperature:

At health center level: it should be preserved for one week in the freezer and for one month in refrigerator, as long. All kinds of vaccine must be preserved within +2℃ to +8℃.

B. Materials Required for Preservation of the Vaccines:

All kinds of vaccine require to be preserved in a suitable temperature and within a limited period. Thus, some of the following preserving materials are required so that their effectiveness can be ensured:

- Frozen rooms, cooled room (at national level)
- Refrigerator, Freezers, Isotherm Box, Frozen box

C. Vaccines Conditioning Table:

Vaccines	Preserved temperature	Spoiled after frozen	Sooner spoiled by heat	Sooner spoiled by (UV) light	Use and dispose after opened	
					At health center	At outreach
BCG	+2℃to +8℃	NO	Yes	Yes	Dispose	Dispose
OPV	+2°c to +8°c	NO	Yes	NO	Keep for next time use	Keep for next time use
DTC	+2°c to +8°c	Yes	NO	NO	Keep for next time use	Keep for next time use
DTP-HepB	+2°c to +8°c	Yes	NO	NO	Keep for next time use	Keep for next time use
HepB monodose	+2°c to +8°c	Yes	NO	NO	Keep for next time use	Keep for next time use
Rouvax (measles)	+2°c to +8°c	NO	Yes	Yes	Dispose	Dispose
TT	+2°c to +8°c	Yes	NO	NO	Keep for next time use	Keep for next time use

- Vaccine vial must be checked before use to ensure that it is good in quality and effective. Check label on the vaccine vial; dispose it of if over expiry date, and a vial without label is not recommended for use.
- A removed or cracked on vial must be check, and dispose of if it is spoiled.
- Shake the DDC, Hepatitis-B and Tetanus vaccine vial, before they are provided to target population.
- Temperature must be checked for each step of cooling system handled with.
- Principles of the Policy of National Immunization Program must be complied with for the vaccines which are kept for next time use.

1-2-4-5 Storage and Use of Vaccines

Vaccines must be rechecked every time before use. The checkpoints are as follows:

- The label pasted on the vial (name of the vaccine)
- The dose
- The expiry date

1-2-4-5-1 Checking and defining quality when receiving vaccines:

A. Checking:

Health center staff must carefully check vaccines on the following main points:

- The label of name and dosage of each vaccine
- The expiry date
- The lot number of the vaccine and its diluting water
- The diluting water and vaccine must same manufacturing.
- The cross mark on the vaccine vials
- The labels of " Vaccine Vials Monitor" (VVM)
- The frozen vaccines, for DTC, DTP-HepB, HepB, TT
- The quantity of vaccines and diluting water, for BCG, Rouvax (Measles)
- The quantity of vaccines and drops (for Polio)

B. Vaccines Quality Check Sheet:

Found on		Accept	Not to accept
Label removed or disappeared from vaccine vials			
Vaccine is at or over expiry date			×
There are 3 or more cross marks on label of vaccine vials			×
Label of (VVM)		✓	
		✓	
			
			×
			×
Never spoiled vaccines		✓	
Spoiled vaccines			×

1-2-4-5-2 Packaging and Transporting

- Freezers or vaccine carrier should be used when transport vaccines.
- Icepack should be put up to 2/3 of total capacity of the vaccine carrier prior to receive the vaccines so that temperature can be ensured within +2 to +8^{o}C. Icepack should be put 15 minutes before the vaccines are put into the carrier.
- After checking properly, DTP-HepB, HepB and TT vaccines must be packed in another layer of paper to prevent direct contact with ice which may cause frozen.
- To avoid vaccines wet by liquefied ice, they must be packed in a plastic bag with closed edge which water cannot be leaked inside.

- Freezer or vaccine carrier should be firmly covered after vaccines are put inside of it.
- Vaccines should be transported as quickly as possible, and a freezer or carrier with vaccines inside should be immediately placed in a shade area while taking a rest on the roadside.

1-2-4-5-3 Preservation of Vaccines at Health Center Level:

Vaccines should be properly preserved in a refrigerator (for a health center where refrigerator is available)

- Frozen compartment: where ice is produced, icepack should be placed in it.
- Cooling compartment: where vaccines are preserved in it.
- Vaccines arrived first should be put on the left side and next on the right side.
- Vaccines arrived first should be used first.

Note:

- Do not open freezer or refrigerator if not necessary. During the vaccination period at health center, vaccines should be taken out from the freezer/refrigerator, kept in the vaccine carrier and used until vaccines finishes or until end of vaccination period. Vaccines which can be used for next time should be returned into the freezer or refrigerator.
- Vaccines must be preserved within +2 to +8^{o}C, and temperature should be routinely checked (every morning and evening) using a temperature check sheet.
- Store Card should always available for all kinds of vaccine and their moved-in/moved-out and damaged data should be recorded daily.

1-2-4-5-4 Vaccines Use at Health Center Level:

Vaccination techniques are as follows:

1- Use a sterile disposable syringe and needle; that is Auto-disable syringe.
2- Never recap for the Auto-disable syringe or disposable syringe. The disposable syringe, needle and cap must be disposed of in a safety box. A filled safety box must be incinerated properly in an incinerator.
3- Never use when label is removed from vaccine vials.
4- Never use expired vaccines.
5- Never use any vaccine which VVM indicates in bad quality. Never use DPT, DPT-HepB, HB and TT vaccines which were frozen. If any suspicious, shake again.
6- Diluted vaccines ((BCG and measles) must be disposed of, at end of vaccination occasion or after a six hour use, even though the vaccination is provided at place where the refrigerator is available.
7- Vaccines OPV, DPT, DPT-HepB, HB, TT can be used for the following 4 weeks in compliance with the following conditions:
   - Vaccines are not over expiry date
   - Vaccines are properly preserved in a functioning refrigerator within +2 to +8^{o}C
   - Withdrawal of vaccines is properly complied with zero-viral technique
   - VVM does not indicate discoloration in which vaccine is to be disposed of

- Needle stick point for withdrawal vaccine is not dropped in no-sterile water (liquefied ice, well water, etc.).

8- Vaccines OPV, DPT, DPT-HepB, HB, TT can be used for following vaccination occasion at outreach activity, if aforementioned conditions are respected. VVM must exist on all of vaccine vials. During the vaccination occasion, all vaccines must be always preserved in a vaccine carrier, even at health center. Diluting water must be always kept together with vaccines in the vaccine carrier. The following aspects should be undertaken when vaccination is provided:

- A syringe used for withdrawal of a vaccine is not reused for another.
- Never open vaccine vial or dilute vaccine before a baby, a child or a woman arrived.
- For one kind of vaccine, only one vial should be diluted or opened cap.
- A diluted and being used vaccine should be inserted into a sponge hole of the vaccine carrier.
- Immediately cover isothermal box and vial cap after a vaccine is used.
- Used syringes must be disposed of in a safety box.

1-2-4-5-5 Vaccinations Prohibition:

- Never provide vaccinations to a child with fever, over 38^{o}C, or a child in a bad health condition.
- Never provide BCG to HIV infected child

1-2-4-5-6 How to manage vaccines remained from vaccination's days?

A. For outreach service:

- All kinds of vaccine, which vial caps opened and diluted, should be safely destroyed at health center after vaccination's day ends.
- Vaccines which were not diluted and their vial caps were not opened should be returned into a freezer or a refrigerator, and then cross on the vials so that they would be used first for the next vaccination day.
- Vaccines with VVM should be destroyed whenever spoiled vaccines indicated by the VVM.

B. For in-house service (at health center or at hospital…)

When vaccination's day ends, opened remained vaccines should be:

- Destroyed for BCG and Rouvax (measles)
- Kept for next time use for DTP, DTP-HepB, HepB, TT and Polio (as long as VVM indicates a vaccine is not spoiled).

1-2-4-5-7 Monitoring of Vaccine Situation Using Store Card:

An ideal request and distribution management requires a well-understanding about general situation of materials and vaccines received and used at previous time and especially actual number of the remained items. This information is available from store card, which each item was routinely recorded. Store card can clearly identify:

A) The number of materials and vaccines received and distributed.
B) The dates of receiving and distribution of materials and vaccines.
C) The sources where materials and vaccines received from and distributed to.

D) The current number of the remaining materials and vaccines.

Store card is more important for the remaining vaccines, since a direct and frequent count disturbs cooling system and may cause vaccines spoiled. Therefore, store card must be recorded correctly, timely and precisely.

1-2-4-6 Safety Injection

1-2-4-6-1 General Situation:

Serious infections caused by unsafe injection include Hepatitis-B, Hepatitis-C, and HIV. The World Health Organization has estimated unsafe injection might cause of transmission with following rates:

- Hepatitis-B, from 8 to 16 millions people per year
- Hepatitis-C, from 2.3 to 4.7 millions people per year
- HIV, from 80,000 to 160,000 people per year

1-2-4-6-2 Group at Risk of Unsafe Injection

- **Recipient:** after receiving an unsafe injection, that person would be transmitted by virus remained on syringe or needle from the previous injected person.
- **Practitioner:** a person who injects for the others would be incidentally **transmitted through** needle stick which virus remained on it after he/she injects for a patient.
- **Communities:** untidy disposal of injection materials in public areas may cause of stick and infection on people living around the areas.

1-2-4-6-3 What is Safe Immunizations?

Safe injection is an action in which risk is not caused to recipients, service providers, and communities.

1-2-4-6-4 Safe Immunization Using Auto-disable Syringe

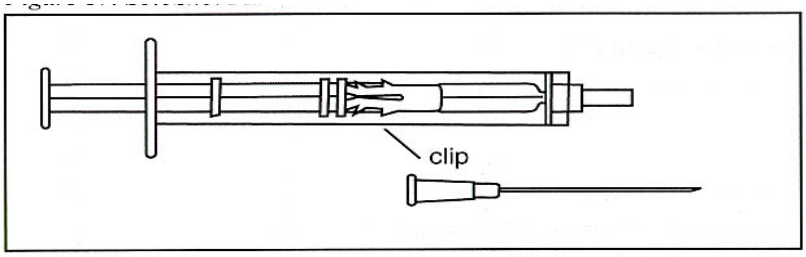
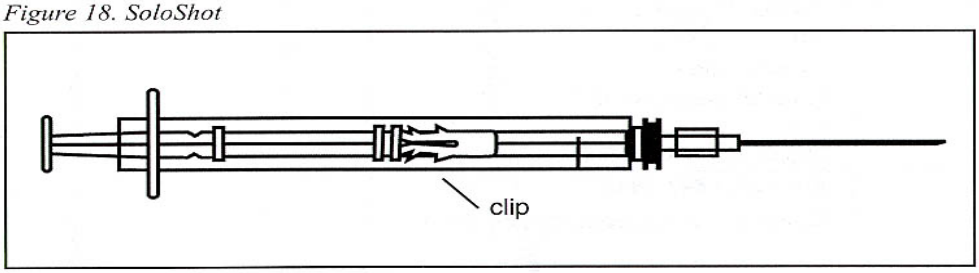


Figure 18. SoloShot



Auto-disable syringe or AD syringe applied with a new technique that can prevent infections through injection since it cannot be used more than one time, and its piston can be moved up and down only one time with an adjustable size for a single dose.

Note:

The following actions should be taken by health staff so that safe immunizations are provided and waste of AD syringe can be reduced:

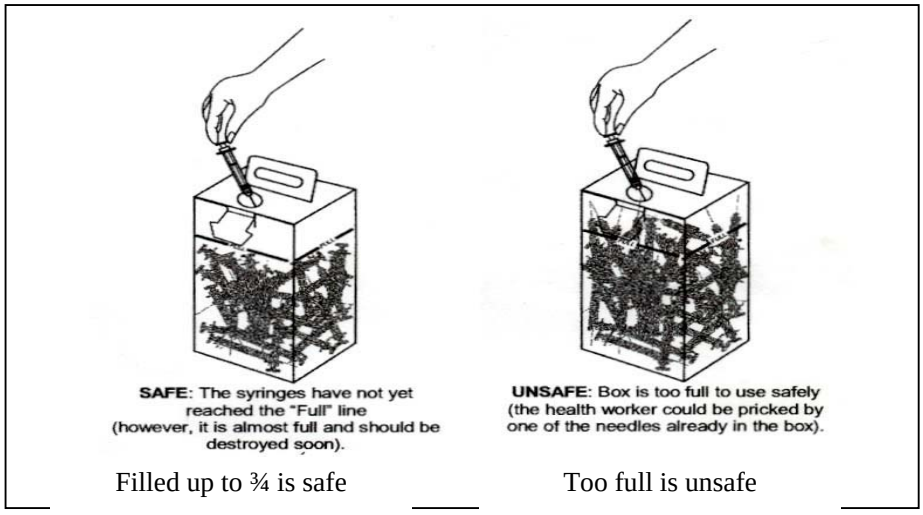
1. Every time when vaccination's day opens, health staff should take AD syringes equally to the dose of the vaccines
2. Never move up or down piston of the syringes if not necessary.
3. Care must be taken for draw of vaccine to prevent many air get into AD syringe.
4. Never recap the needle after injection since it may cause of needle stick.

This figure is from WHO network for safety injection

5. Every time after vaccination's day ends, staffs should collect the remaining AD syringes and safely keep in stock of the health center.

1-2-4-6-5 Safety Box

Safety box is a hard-carton-made box used for putting in the used AD syringes when vaccination is provided. Safety box is necessary when vaccinations activity is carried out since safety is ensured when syringes, needles, sharp materials, piston caps and needle caps are dropped into the box.



Vaccinations provider should remember the following aspects when use safety boxes:

- Safety boxes must be available every time when open vaccination's day.
- Safety boxes must be safely assembled following instruction illustrated on the box.
- Only syringes/needles, sharp materials, piston and needle caps are put in safety box.
- Safety boxes should be always kept dry and placed in a safe area.
- Never transfer the used AD syringes from a safety box to another.
- Fill the used syringes up to 3/4 of the safety box only (see the above figure). A safety box still can be used if it is not filled up to 3/4 of its capacity.
- Number of safety boxes to be distributed must be equal to total number of syringes divided by 150 (it means that, an average, 150 syringes can be put in one safety box).

1-2-4-6-6 Safe Incineration

SICIM is a special incinerator which authorized by the Ministry of Health and supported by the World Health Organization. It can burn hospital wastes and safety boxes well. The full safety boxes must be collected and burnt in this incinerator. Since SICIM is a high-temperature incinerator during burning (over 800^{o}C), burning syringes and needles in this incinerator, therefore, toxic smokes can be reduced. In addition, microbes contaminated on needle can also be killed. All full safety boxes must be burnt in this SICIM incinerator.

1-2-4-6-7 Monitoring and Evaluation

A. At end of vaccination's day:

Immunizations provider should clearly check the number of syringes and needles used and the remaining ones, comparing to number of recipients of injection.

B. At end of month:

Actual remaining number should be clearly checked with number in the report and in store card, and quality should be also verified.

C. Quarterly:

- Try to calculate the rate of loss and find causes of high abandoned rate.
- Try to solve the problems as much as possible.

1-2-4-7 Vaccination Calendar

1-2-4-7-1 For Children

Child's Age	**Kinds of Vaccine**
• At birth	BCG, HepB
• At 6 Weeks	OPV1, DTP1 or DTP-HepB1
• At 10 Weeks	OPV2, DTP2 or DTP-HepB2
• At 14 Weeks	OPV3, DTP3 or DTP-HepB3
• At 9 months	Measles (Rouvax)

* HepB Vaccine (an exclusive HepB, not a mixed DTC-Hep-B) should be provided to baby within 24 hours after birth. If not it should be provided as soon as possible, but not later than one week after birth. Nowadays, DTC-HepB vaccine is being used in stead of DTC.

1-2-4-7-2 For Women

Schedule of Tetanus Toxic Vaccinations for Women

First time: When meet first time (although at early age of pregnancy) or at least 2 weeks before delivery
Second time: At least 4 weeks after the first vaccination
Third time: At least 6 months after the second vaccination or at next pregnancy
Fourth time: At least one year after the third vaccination or at next pregnancy
Fifth time: At least one year after the fourth vaccination or at next pregnancy

* Each dose should be provided early if possible, after a specified minimum period.

1-2-4-7-3 Vaccine Dose and Vaccinated site

Vaccine	Dosage	Vaccinated site	Mode of provision
BCG	0.05ml	Left shoulder	Superficial injection
OPV	2 drops	Mouth	Drink
DTP/DTP-HepB	0.5ml	Right thigh	Muscle injection
MEASLES	0.5ml	Left shoulder	Hypodermic injection
HepB	0.5ml	Right thigh	Muscle injection
TT	0.5ml	Left shoulder	Muscle injection

1-2-5 Nutrition

1-2-5-1 Infants and Child Feeding Program

- Initiate breastfeeding within the first hour after birth.
- Provide exclusive breastfeeding for the first 6 months of child life.
- Start providing complementary feeding to child after 6 months old and continued breastfeeding until 2 years old at least or beyond.

- A pregnant woman with HIV positive result should be discussed on exclusive breastfeeding and informed about alternatives *(read PMTCTC Guideline, Chapter 5).*
- Provide information about infant feedings to all of HIV positive mothers (especially at every time when mother brings baby for vaccinations or whenever mother change feeding method, e.g., stops breastfeeding at 6 months and replaces by supplementary nutrients), and provide ARV, Cotrimoxazole and HIV test for children *(read PMTCTC Guidelines, Chapter 5).*

1-2-5-2 Monitoring and Improvement of Child Growth Program

Indicators of child growth obtained by measuring on child, is used to monitor and evaluate the child growth, considering on age and measurement. Interpretation of indicators of child's growth is as follows:

- **Body weight against age**

  Defining concrete indicators depends on child age and relevant measuring of body height in standing position or measuring of body length in lying position. The indicator shall be marked on the male/female Child Growth Monitoring Chart, thus, it takes time to identify the trend and issue of the growth. It is essential that Growth Record Book by gender is used since the growth of a male is quite different from a female's. Health worker should know how to measure in order to:
  - mark indicator of the growth on the weight/ age chart
  - interprete the mark point for indicator of the growth, and identify normal and abnormal growth
  - interprete the trend of the growth on the chart and define whether the child is in a normal or abnormal growth, or is facing growing problems.
  - provide proper education.

  (Read annex-11: Child Growth Monitoring Chart)

1-2-5-3 Anemia Control Program

Overall view of (direct and contributive) interventions for prevention and control of anemia of iron-deficiency in Cambodia are:

- Provision of supplementary (daily) iron tablets-acid folic to pregnant women and mothers of postpartum through antenatal care and postpartum care at health facilities and at outreach service activity of health centers.
- Provision of supplementary (weekly) iron tablets-acid folic to schoolgirls of secondary school.
- Treatment of anemia patient (children and women) at health facilities.
- Food security program and family food program for enhancement of productivity and for rich-nutrient food intake
- Prevention against diseases caused by infection and parasite such as: malaria, intestinal worms, diarrhea and HIV/AIDS
- Antenatal/postpartum care activities and safe motherhood activities.
- Birth spacing and reproductive health programs
- Child health such as: integrated management of childhood illness (IMCI)
- School health program such as: education on personal hygiene, living residency and deworming
- Micronutrient food fortification such as: iron fortification into fish sauce and Soya sauce.
- Evaluate on nutrition and malnutrition case management, especially babies born to HIV positive mothers

1-2-5-4 Vitamin "A" Deficiency Elimination Program:

A variety of several strategies are needed to achieve and support vitamin A deficiency elimination.

- Vitamin A capsule supplementation using multiple channels
- Dietary modification-promoting behavior change for better nutrition
- Food fortification
- Prevention of diseases

1-2-5-4-1 Universal vitamin A capsule supplementation

Universal vitamin A capsule supplementation to group of population at risk is the main strategy in Cambodia due to the high rate of vitamin A deficiency. The vitamin A supplement should be distributed prior to starting of a season which may cause of problems while food-rich in vitamin A is in shortage, for instance, dry season (April ~ June), and during the common occurrence of measles or diarrhea. The areas where severely affected by vitamin A deficiency are firstly prioritized for the distribution. The whole country now is considered as vulnerable area and also is area for providing universal medicine.

Priority target groups are:

- Children at 6 months to 5 years of age (6-59 months)
- Postpartum women (not concerning baby feeding methods), within 6 weeks

Those main strategies are:

- Screening and administration of vitamin A capsule at any contact with routine health services, including immunization and maternal health services
- Universal vitamin A capsule supplementation twice a year (around May and November), as part of regular outreach services.
- Supplemental distribution during campaigns when vitamin A capsule distribution is feasible, such as national supplementary polio immunization day, national school health day and during insecticide treated mosquito net distribution campaign.

1-2-5-4-2 Provision vitamin A to target group

Provision vitamin A to target group protects individuals at high risk of vitamin A deficiency-related diseases and its complications.

Priority target groups are:

- Children at 6 months to 12 years of age with measles clinical symptoms or at risk of contacting measles, severe malnutrition (protein and energy), and persistent diarrhea (diarrhea over 14 days).
- Adult (especially women of reproductive age) with clinical symptoms of vitamin A deficiency like night blindness, xerophthalmia.

The main operational strategies are:

- Diagnosis of disease and administration of vitamin A during consultation at health center and at referral hospital
- Diagnosis of disease and administration of vitamin A during measles outbreak investigation and response.

1-2-5-4-3 Dietary diversification promote behavior change for better nutrition

Operational strategies are:

- Public education to raise public awareness about effect of diseases caused by the vitamin-A deficiency and to increase consumption of vitamin A rich foods.
- Breastfeeding promotion, protection and support to reduce diseases and prevent vitamin-A deficiency.

- Increase the availability and access to nutrient rich foods from plants, poultry and animal sources through promoting and strengthening through households and community based food production.
- Strengthen clinical and counseling skills of health workers through integrated management of childhood illness strategy enacted by the Ministry of Health.

1-2-5-4-4 Vitamin A food fortification

Food fortification has received increasing attention as a strategy to prevent and control the micronutrient deficiency. The National Maternal and Child Health Center of the Ministry of Health will collect the information as well as conduct a study to explore the potential of food fortification with vitamin A.

1-2-5-4-5 Diseases Prevention

There is a significant correlation between vitamin-A deficiency and overall diseases burden. Public health measures such as immunizations and sanitation services that address diarrhea, measles, and helminthes infections and malnutrition contribute to both directly and indirectly to vitamin-A deficiency reduction, and will be strengthened.

1-2-5-5 Iodine Deficiency Elimination Program

The intervention for tablets supplementation (short term): the Decree, the Prokas on the Management of Iodized-salt Business

Sustainable Interventions:

- Universally use of iodized salt.
- Food fortification with iodine

1-2-6 Prevention of Mother-to-Child Transmission of HIV/IADS Services

Health centers should involve in provision of this service in order to:

- Prevent women, sex partners and their child from getting infected with HIV
- Prevent HIV infected women and family from discrimination and stigmatization
- Provide care and support services to HIV carrier and to improve this health care network
- Involve in improvement of accessibility to and utilization of quality health services, accessibility to information about reproductive health, HIV/AIDS and STD.

Prevention of mother-to-child transmission of HIV/AIDS during pregnancy shall be performed with pre and post test counseling, voluntary testing (on the spot if possible) should be provided after an informed consent about HIV/AIDS, confidential counseling and testing as well as other services. Provide support to women comply with the national protocols including counseling, giving ARV, birth spacing, safe sexual intercourse, infant feeding, prevention against other opportunistic infections, especially at postpartum. Provide mental health support, share their anxiety-fear, and help them contact with community base care network or friend helps friend group. Clarify about the importance of blood testing for husband or partner. Encourage the HIV

infected women to deliver baby at hospital, follow up health condition and care for baby as need arises and periodically.

1-2-7 Neonatal and Young Child Care

1-2-7-1 Neonatal care within 24 hours after birth

Examine conditions of the newborn baby, evaluation by Apgar score, body temperature management of the baby (especially 12 hours after birth through immediate drying baby, wrapping baby with clean and dry cloth, wearing cap, and appropriate room temperature), breastfeed to baby and observe suck and suckling, check skin, provide immunizations, check umbilical cord (bleeding, redness around the cord), and check breathing and breathing rate of the baby.

1-2-7-2 Care of baby within 3-6 days after birth

- Detect risk signs of infection, umbilical cord bleeding or discharge, detect risk sign (tetanus), and provide immunizations, exclusive breastfeeding and lactation problems management.
- Fill in PMTCT-related problems in the card of baby at risk of HIV infection, and attached with Child Health Monitoring Card.

1-2-7-3 Care of baby within 6 week after birth

- Provide immunizations, monitor child growth (take body weight), exclusive breastfeeding
- Provide information about infant feeding to HIV positive mothers (especially when mother brings a baby for immunization and when change mode of infant feeding, for example, stops breastfeeding for baby at 6 months and replace by complementary feeding). Provide ARV to baby (Cotrimoxazole) and HIV test (for more details, read National Guidelines for PMTCT, Chapter 5).

1-2-7-4 Referral and Special Care for Baby

- Before a baby is referred, danger signs of infection should be defined (convulsion, not sucking, difficult breathing or fast breathing over 60/mn, fever over 38^0C or body temperature lower 35.5^0C, umbilical pus), and then baby must be referred on time with a complete referral document and mode of transportation.
- Special care for (premature baby, low-birth-weight baby under 2500g, twin) should be done in compliance with the national protocol. For a very low-birth-weight baby (under 1500g) should be referred to a facility where special care is available. For a baby within 1500-2500g or twin babies, if good conditions, daily care are necessary for them including breastfeeding if baby can suck, or using an alternative feeding method if baby cannot suck. Mother or family should be trained on breastfeeding, kangaroo-mother care method, detection of risk signs and monitoring of baby health. Support should be provided to mother or family until they can help their baby.
- HIV positive mother and baby at risk of HIV infection should be referred for OI/ART and follow up services so that baby can receive Cotrimoxazole and HIV test. (If available for the future) Cotrimoxazole and HIV test

should be provided at some of health centers where located far away from VCCT service and Pediatric OI/ART.
- Follow up care for HIV positive mother and baby at postpartum.
- Well collaborate and communicate with home-based care team and HIV carrier support group.

1-2-8 Integrated Management of Childhood Illness (IMCI)

Most of children brought to health facility always have more than one health problems, and more than half of them suffer from malnutrition. Therefore, the provision of integrated childhood illness consultation is essential for child survival.

Staff at health facility responsible for outpatient consultation has a main role to provide integrated management of childhood illness especially to all under-5 years children visiting to health facilities. Provision of IMCI service enables health staff thoroughly assesses health problems of a child beginning with detection of the general danger signs that threat a child's life, and then continue to detect for major signs as follows:

- Signs of respiratory tract infections (cough, difficult breathing)
- Signs of dehydration, dysentery and persistent diarrhea
- Signs of fever (malaria, dengue and measles)
- Ear infections

IMCI consultation service also consists of examination of nutrition and immunizations status of children focusing on maternal health (health center staff should refer to IMCI strategy and clinical management guidelines of the Ministry of Health).

1-2-9 Birth Spacing

Birth spacing services should be provided to women of reproductive age as needed, voluntarily, optionally and acceptably, and it should be also provided to adult and adolescent men up on need arises. A birth spacing method should be provided to client after counseling, provision of right information and client decision-making without any force, any product promotion. Client should be sufficiently informed about available birth spacing methods (condom, pill, injection, IUD and Implant) as well as permanent contraceptive methods such as (tubal sterilization and vasectomy) to avoid rumors misunderstanding and misuse. If any of contraceptive method is not available at health center, client should be informed a certain facility where the service is available and should be referred for the service. The information must be filled in the Birth Spacing Register, Clinic Card, Client Card and Health Information System data. An appointment for a regular continued contraception as well as health follow up for clients are important for provision of birth spacing services at health center. Be referred to (national guidelines on PMTCT) for prevention of women of reproductive age from getting infected by HIV, prevention of HIV positive women from having unwanted pregnancy, voluntary confidential counseling and testing, and for health education. Birth spacing service can be also provided to clients at community through community based distribution (CBD).

(Annex-12: Birth spacing register; Annex-13: Birth Spacing Appointment Client Card)

1-2-10 Adolescent Reproductive Health

Health service provider at health center should provide to adolescences of:

- A support by explaining about risks which might happen on too-young mother during pregnancy although it is a wanted or a planned pregnancy. Explain about socio-economical problems to avoid too-young women having pregnancy.
- Knowledge about anatomy and reproductive physiology, change when a woman becomes puberty and reason leads to a pregnancy.
- Service and counseling on birth spacing, examination and treatment of reproductive tract infections, antenatal care, delivery care, postpartum care, nutrition, substance abuse and gender.
- Encouragement on delay of sexual intercourse contact until they think that they are able to have responsibility for sexual practices
- Advice for making a concrete decision when they feel that they want to have sexual intercourse with someone

1-2-11 Breast-Uterine Cancer Consultation

Policy:

Women mortality rate caused by breast-uterine cancer is reduced.

Activities:

- Train women at community on self-examination of breast to prevent breast cancer
- Refer the women to referral hospital in case they face any problems so that they can be treated on time.
- Promotion of awareness of women on importance of cervical examination for detection of cervical cancer and provision of cervical examination service so that women can be treated on time *(at present, cervical examination service is available at national hospital and at some NGOs' clinics only)*.

1-2-12 Safe Abortion and Post-abortion Care

1-2-12-1 Safe Abortion

Abortion can be performed at health center in accordance with the Abortion Law and the Implementation Guide of the Abortion Law. Health center should have sufficient equipments, materials and measures required for the service i.e. service provider should be a trained secondary midwife, a medical assistant or a medical doctor, and is authorized to do abortion. A safe abortion includes pre-during and post abortion counseling, procedures of abortion, provision of birth spacing service and post abortion follow up care.

1-2-12-2 Post Abortion / Unclean Abortion Care

Post abortion /unclean abortion care can be performed at a health center where available with a service provider trained on this field. Post abortion /unclean abortion care includes clinical management of hemorrhage, retained products of

conception, birth spacing counseling, maintaining conditions of the women and referring the women on time to a health facility where has ability and capacity to provide treatment.

1-3 Communicable Diseases Services:

1-3-1 Sexually Transmitted Diseases (STD) and Gynecology

1-3-1-1 Purpose

The purpose is to provide a comprehensive service based on diagnosis and treatment of syndromes frequently happen in Cambodia. A timely and effective care and treatment of STD may contribute to a reduction of HIV/AIDS transmission in Cambodia.

Those syndromes are as follows:

1. Urethral discharge on the men
2. Vaginal discharge on women
3. Genital ulcer
4. Genital warts
5. Lower abdominal pain resulted from uteritis or salpingitis

Method of clinical management of the above syndromes is described in details in the National Guideline on Syndromes-Based STD Clinical Management developed by the NCHADS and NMCHC.

A severe or incurred case should be transferred to family health clinic (STD clinic) at referral hospital where available this service so that clinical care will be provided based on the result of a laboratory test.

Generally, this service is included with out patient consultation service for men and in the gynecological examination, antenatal examination and birth spacing services at health centers where health staff had been trained on Syndromes-Based STD Clinical Management.

1-3-1-2 Responsible person and Terms of Reference

Health center staff responsible for STD service at health center should be the ones who were trained on syndrome-based STD management. They should be a physician or a nurse providing outpatient consultation for men and providing gynecological examination, antenatal examination and birth spacing services for women at health center. Service provider and patient should be same in gender so that shyness can be avoided and confidentiality can be kept.

Tasks of health center staff responsible for providing STD care-treatment service are as follows:

- Be a disseminator to clients and community the prevention of STD transmission, especially about correct and durable use of condom.
- Inquire and record history of the disease to define STD diagnosis based on syndromes told by the patient.
- Provide care-treatment for patient following national guidelines, including education for patient about timely and correctly taking medicine as prescribed.
- Motivate and encourage STD patient to do HIV test so that he/she can receive care-treatment service on time.

- Make monthly report of STD 5-syndromes and the balance of drug and medial-material consumption, and regularly submit to the operational district office.
- Make drug and medical-materials proposal and timely submit to OD office.
- Well cooperate with National Program for AIDS/STD Control and National Program for Reproductive Health so that technical capacity can be improved.

1-3-1-3 Requirement of drug/materials and medical equipment

It requires sufficient drug and medical materials to support a high quality and effective services.

Sort of Drug
Cefixime (200mg)
Doxycyline (100mg)
Erythromycin (250mg)
Metronidazole (250mg)
Clotrimazole (500mg)
Nystatine (200000UI)
Ciprofloxacin (500mg)
Cotrimoxazole (960mg)
Benzathine PN 2.4 UI inj
Podophyllin (25%)

1-3-2 HIV/AIDS

Implementation of home-based care at health center and at community

At this level, the activity is implemented by home-based care team. Members of the team may be varied from 3 to 5 people depending on scope of the work. This team undertakes their task within coverage area of each health center. However, in case of not enough in number of people living with AIDS (less than 100 people), the team can undertake more than one health center's coverage areas. Three options were recommended depending on participation of health centers and NGOs.

The following are the roles of home-based care team whose members are staff of health center:

- Provide technical support and share to other team members the information about treatment of opportunistic infections and antiretroviral therapy, voluntary confidential counseling and testing, treatment of TB and prevention of mother-to-child transmission of HIV/AIDS.
- Provide counseling and education to AIDS patients and their family
- Manage-prepare home-based care kits
- Manage treatment of minor symptoms
- Visit to patients' house
- Facilitates on refer of patient to access to other services at operational district, implement voluntary confidential counseling and testing. The roles

of health center staff responsible for voluntary confidential counseling and testing are as follows:

- Voluntary confidential counseling and testing must be arranged in compliance with the guideline of the Ministry of Health;
- Every HIV test must be provided with pre and post test counseling. Procedures of HIV test must be complied with protocols of the Ministry of Health;
- In case of test result is positive; a consequent supportive counseling is required. Supportive counseling is essential to enable clients solve many circumstances. Counselor should transfer clients with test result positive to home-based care team or to continuum of care (for treatment of opportunistic infections and anti retroviral therapy) near by there;
- Make monthly activity report and balance of reagent-materials consumption, and then regularly submit to OD office;
- Timely make proposal of reagents and medical materials, and then submit to OD office;
- Well collaborate with the National Program for HIV/STD Control of the district and province so that technical capacity can be improved.

(*For details, refer to Rules and Procedures for Implementation of Home-based Care and Community-based Care, and voluntary confidential counseling and testing of NCHADS)*

1-3-3 Tuberculosis

A part of the health center staff work is responsible for control of TB in the area under management of the chief of health center. Tasks of health center are as follows:

1. An implementer and disseminator of guideline of the national program to the community
2. Explain to TB suspected case, coughing > 15 days, to come for screening at health center
3. Identify TB suspected case, collect sputum, transfer sputum cup or sputum slide to a place where laboratory test available
4. Explain and refer severe case to referral hospital
5. Responsible for provision of TB tablets to patients (mobile DOTS) and collect sputum of 2^{nd} , 5^{th} and 6^{th} month, and then send to laboratory for a control test
6. Timely and correctly register all TB patients to be treated
7. Make monthly activity report and regularly submit to the OD office
8. Make proposal of TB tablets and materials, and send to OD monthly
9. Search for, explain and invite absent TB patients for treatment again
10. Conduct DOTS supervision to community regularly
11. Well collaborate with local authority, NOGs and community for better TB activity
12. Participate in care for and advice to TB-AIDS patients
13. Encourage and implement health education on TB

(Annex-14: TB Patient Referral Form and Annex-15: TB Treatment Card)

1-3-4 Leprosy

Health center staff in the whole country has the role to take responsibility for leprosy as follows:

- Record every of suspected patient, refer and make writing notice to leprosy responsible person of OD
- Provide information, education and communication (IEC) about leprosy
- Participate in leprosy campaigns and research for new patients
- Provide medicine to patients at health center and every 4 week provides medicine to patients who have no ability to visit to the health center. Encourage patient to come for receiving medicine regularly.
- Explain patients how to take MDT daily and monitor patients take MDT monthly
- Health center staff must contact OD for sufficient MDTs
- Inform and refer patients with a leprosy allergic symptoms, or with side effect or relapsed to the leprosy responsible person at OD

Document management:

- Fill in the Patient Treatment Ledger Book and Treatment Card
- Fill in the report following Health Information System (HIS)

1-3-5 Malaria and Dengue Fever

Policy

Health center should ensure provision of treatment, prevention, and promotion of health services relevant to malaria and dengue fever to community with a high quality and effectiveness in accordance with guidelines and national protocols of the National Malaria Center and acceptable by the community.

Strategies:

- Expand strategy, early diagnosis and treatment at health centers where provide full MPA.
- Use proper approaches for behavior change communications such as group education or peer education on awareness of prevention against malaria and dengue fever.
- Strengthen referral system from community to health center and referral hospital and feedback information to community.
- Resources mobilization for malaria case management especially malaria with a multi-drug resistance.
- Every malaria diagnosis confirmed by microscope or by dipstick
- First line treatment for malaria in Cambodia is a combination of Mefloquine and Artsunate for Plasmodium-Falciparum, and chloroquine for Plasmodium-VIVAC. *(For more information, read strategic plan 2006-2010 of the National Center for Malaria Control).*
- In case of dengue fever outbreak, education must be enhanced; Abate application and hygiene must be mobilized at villages in collaboration with Village Health Support Group, Village Volunteer and local authority.
- Provide emergency care in compliance with guidance of National Program for Dengue Fever Control
- Refer on time to referral hospital

1-3-6 Avian Influenza

A- Purpose:

Instruct health center staff how to observe a suspected case of acute respiratory disease like Avian Influenza so that the case can be reported to the Rapid Response Team for counter measure, and education on this disease shall be provided to patient family and community. The patient must be transferred to the hospital where the Ministry of Health authorized for Avian Influenza care so that patient can be rescued on time following standard precautions for infectious diseases control and in compliance with guidelines of the Ministry of Health and WHO.

B- Definition

Avian flue is caused by an influenza virus and causes of lower-part respiratory infection at bronchus and alveoli.

C- Transmission of virus

Avian flu virus can rapidly spread inside of a human body. It can be transmitted through direct touch with droplet, especially when touch sputum, mucus of chicken or birds while they are sick, coughing or sneezing. In the other way, it can be transmitted through eating non-well cooked chicken or birds especially non-well cooked eggs. Common clinical symptoms are: fever, coughing, breathless, throat pain or difficult breathing, and rare symptoms such as: abdominal pain, diarrhea.

D- Standard precautions

Standard precautions include wearing surgical mask, gloves, eyeglass or facial protective veil when taking care of a patient with symptoms of coughing and panting to prevent scattered sputum or fluid. Routinely wash hands with water and soap for 30 seconds before and after touching with patient, alcohol hand rub $70^{o}C$ if water and soap is not available.

Note: never touch patient mentioned above without protective materials.

E- Community education

Health center staff should understand about:

- Mode of contamination and prevention of transmission at community: protect airway by closing nose-mouth when coughing-sneezing, wash hand with water and soap for 30 seconds or wash with alcohol if water and soap is not available, before and after touching the dead-sick chicken-birds and before and after cooking chicken-birds.
- Chicken and egg must be well cooked since the virus can be killed at a temperature of $>71^{o}C$
- Follow up body temperature of a person who touched sick-dead birds, by taking body temperature twice a day at least
- If suspect that a respiratory patient touched sick-dead birds within previous ten days, immediately report to Rapid Response Team of OD, PHD and MoH for an intervention on time.
- Kill virus around patient's domicile using protective materials if available at community.

1-4 Non-Communicable Diseases Services

Overall Goal:

- To promote awareness of non-communicable diseases and risk factors
- To provide care-treatment services
- To provide education on Healthy life style to prevent and control non-communicable diseases

1-4-1 High Blood Pressure

- Screen for high blood pressure patients
- Provide health education-treatment for simple high blood pressure patients (without complications)
- Refer complicated high blood pressure patients to referral hospital

1-4-2 Diabetes

Screen for people at high risk of diabetes so that they can be provided with health education, advice and referred to diabetes clinic for a confirmed diagnostic.

1-4-3 Breast Cancer/ Uterine Cancer

- Know fist sign of common cancer
- Educate women about self breast examination to prevent breast cancer
- Promote women's awareness of risk factors cause of breast cancer
- Promote women's awareness on the importance of cervix screening to detect cervix cancer, and measure for prevention of cervix cancer.

Overall Roles:

- Promote community's awareness of risk factors of non-communicable diseases
- Educate people for stop smoking
- Evaluate and manage risk factors of non-communicable diseases
- Perform health check for adult (Health Record Book)
- Know about non-communicable/chronic diseases (be able to identify symptoms and signs of asthma, chronic pulmonary diseases, etc.) and referral system
- Collaborate with relevant partners to promote community's awareness of living in a healthy life style, physical exercise, diet, overdose consumption of alcohol and school-based health education. *(For more details, read National Strategy for Prevention and Control of Non-communicable Diseases 2007-2010 of MoH).*

1-4-4 Mental Health

A- Personnel

Health centers where available with physician or nurse trained on basic mental health are able to provide mental health services in compliance with the guideline of the Mental Health Program.

B- Service delivery

- Provide basic mental health service

- Accept continuum of care for mental patients transferred from referral hospitals or national hospitals
- Provide tablet or education
- Collaborate with local authority or all authority levels, NGOs, Village Health Support Group to conduct surveillance for severe mental patients who might cause accident to themselves or to others, so that they can be referred to referral hospital or national hospital
- Educate to community, mental patients and patient family about mental health
- Visit to treatment-abandoned patient and advise to return for treatment
- Well collaborate with relevant organizations to call for support and development of mental health service at community level.

C- Mental patients allowed for treatment at health center

- Common anxiety
- Depression
- Chronic psychiatry
- Non-convulsion alcohol abused
- Epilepsy
- Senile

1-4-5 Oral Health

Oral health can be provided by health centers where available with dental nurse only. Basic package of oral care to be provided by those health centers are:

- Oral urgent treatment, traumatic restorative treatment and afford fluoride toothpaste through dental nurses at health centers.
- A dental nurse at health center has two roles: one is a basic package of oral care service provider and another is a usual nurse. A dental nurse can be a care provider and an educator to community people using dental kit, and an oral health educator to schoolchildren of schools located near health center.

1-4-6 Eye Care

A- Materials:

- E letter chart
- Torch
- Tetracycline ointment 1%
- Ciprofloxacin drop 0.3

B- Feasible treatment:

- Conjunctivitis
- Trachoma

C- Identify and refer the cases to referral hospital

- Eye injury
- Glaucoma
- Cataract
- Refractive error

1-4-7 Minor Surgery and Wound Dressing

1-4-7-1 Minor surgery

Definition:

A minor peripheral surgery without anesthesia or with local anesthesia, and needs no respirator/ventilator. Examples of minor surgery are: wound surgery, lard-removal surgery, etc.

Basic materials:

- Sterile tambour or sterile cloth-box with a whole on its center
- Box, sterile gauze
- Box, instrument
- Scalpel Handle
- Kelly forceps 1
- Scissors, Operating
- Scissors, Mayo Dissecting
- Cup for disinfectant solution
- Gloves (sterile and non-sterile)

1-4-7-2 Wound dressing

Definition:

Wound dressing is a package activity of wound treatment.

Purposes: purposes of wound dressing are:

- To prevent:
  - infection on wound
  - hitting on wound
- To accelerate the growth of the tissues
- To absorb or suck discharge from wound
- To kill germs in the wound
- To stop bleeding

Basic Instruments:

- Cart, dressing
- Box/kit sterile instrument
- Forceps, Pinsetters
- Forceps, Haemostatic
- Scissors Mayo Dissecting & Scissors, Operating
- Box, sterile gauze
- Basin Kidney
- Tray Instrument
- Gloves (sterile and non-sterile)
- Disinfectant (antiseptic) solution
- Rubbish bin

General principles for minor surgery and wound dressing

- Sterilize surgical/wound dressing instruments in boiler or in autoclave
- Carefully wash hands before and after surgery-wound dressing
- Inform patient about time of surgery or wound dressing
- Surgery or wound dressing should be done in a separated room if possible

- Clean the room daily. A table where the instruments place on it should be clean every interval of surgery or wound dressing for each patient
- Arrange instruments in a good order
- Use a sterile instrument (kit) for surgery or wound dressing, one kit for one patient at least
- Disinfection on and around incision or wound must be always started from a clean to an unclean area
- Wash with chloramines, scrub with brush and then sterilize again of the instruments used

1-5 Health Education and Health Promotion Services

Health center staff has the role to provide health education at health center at outreach activity, and Village Health Support Group has the role to provide health education at community in accordance with manual for Village Health Support Group and Village Volunteers.

1-5-1 Health Education

1-5-1-1 Definition:

Health: state of being well in body, mind and society, not only being free from sickness or disability.

Health Education: dissemination of information relevant to diseases prevention and makes people accept new habit or new performance brought with health.

1-5-1-2 Purpose of Health Education

Purpose of health education is to assist people to have good health through effort and direct implementation of health staff. It is done to make people understand that, making themselves good health are significantly related to their behavior, meaning is that they should live in a proper way and good hygiene.

The main purposes of health education are:

- To provide and upgrade new knowledge about health to people
- To change behavior and performance, which may harm to health
- To protect and prevent people from sickness that harm to their health.
- To contribute to reduction of poverty and to provide healthy human resources for development of the country.

To make people accept new ways of living with hygiene and safety, it is required to:

- **Upgrade knowledge:** populations are educated with multi media on health so that necessary countermeasures for preventing them from diseases and harm to health are provided.
- Mobilize people: populations are mobilized to accept countermeasures taken for their better health.

1-5-1-3 Health Education Strategies:

Great result could be achieved from a work as long as appropriate strategies are designed. As well, health educator should specify strategies reflecting to the status and living environment of the population.

- Clearly define the behavior to be accepted by the population
- Clearly define target population
- Check whether new behavior to be accepted by the population requires new additional capacity
- Try to understand about the current knowledge, attitude, belief and behavior of target group regarding to health issues
- Check, how the educated people accepted new behavior
- Inquire the information sources provided to target population regarding to health
- Choose education network or methods, which greatly influence on target population
- Arrange in advance all health education message
- Organize health education program adapting to tendency of health program or other development programs
- Evaluate health education activity
- Provide continuing education and update health education message regularly.

1-5-1-4. Health Education Techniques

Heath educator should have proper technique, skill, experience and ability to provide an effective health education and response to the actual health problems of clients. Therefore, health educator should be trained on basic knowledge such as health education technique, coordination, interpersonal communication, behavioral change, and use of health education materials, etc.

Health education can be done in 7 steps of education procedures during or after clinical care for clients. Counseling technique is also used in this health education process.

7 Steps of Health Education

7 steps of health education were used for providing health education to clients during or after clinical care, focusing on health problems they are facing in order to:

- Provide immediately to clients the health education message such as: necessary measure to be taken or avoided regarding treatment and care.
- Provide to clients the health education message concerning preventive measures useful for future so that they can avoid complications which may happen on their health.

Examples of health education are: education on diarrhea, dengue fever, malaria, tuberculosis, typhoid fever, other communicable diseases, wound care and neonatal cord care, etc.

The 7 steps of health education procedures are:

- First step: Define problems for providing education
- Second step: Choose correct clinical contents
- Third step: Choose proper health education contents
- Forth step: Choose methods for health education
- Fifth step: Choose teaching material
- Sixth step: Find feedback information and evaluate the education
- Seventh step: Record activities and results

Counseling Techniques

It is another process in the health education procedures and is used for:

- Showing and telling to clients about appropriate applicable methods
- Providing many choices, most appropriate and useful for client
- Encouraging clients toward better behavior and safety
- Supporting clients to clearing doubt and reducing anxiety
- Supporting clients to make correct decision by themselves

Examples of counseling are: birth spacing counseling, antenatal care, immunization, HIV/AIDS, and no smoking, etc.

GATHER technique is used for counseling with the following steps:

- Greeting: greeting to each other
- Asking: collecting the information
- Telling: telling the information
- Helping: helping for making decision
- Explaining: showing and practice
- Returning: Returning for service and return with a satisfaction

1-5-2 Health Promotion

1-5-2-1 Definition:

Health promotion: a combination of health education, political and economical activities, and organization structure aims to facilitate for creation of environment and practice leading to health improvement or prevention.

1-5-2-2 Implementation of Existing National Programs for Health Promotion Activities

Health staff has an important role to function the existing National Program for activities of health promotion at their health facility. Those programs include behavioral change in smoking or health, environmental health, food hygiene, primary health care and maternal and child health, etc. Taken into actual implementation of these programs according to individual annual operational plan based on available human, material and financial resources are very essential and important to sustain the health promotion activities.

1-5-2-3 Cooperation and Participation of Community for Health Promotion

Inter-sectional cooperation for health promotion

For coordination and cooperation among communities at commune level, Commune Council should take responsibility for administrative works relevant to health care activities. And, health center should play role as a secretariat and a technical coordinator for community health care works. A regular meeting should be held to disseminate the information and exchange experiences in developing annul action plan, implementation plan and problems solving. The members of the meeting are Commune Council, Health Center Management Committee, Village Health Support Group, Village Volunteer, Village Development Committee, NGOs and international organizations. Chief of health center is responsible for technical coordination and chief of Commune Council is a chairman.

Generally, health center should collaborate with local authorities to mobilize all kinds of health service provider to involve in dissemination of related health information to clients and communities. Health center should provide them all the health education materials such as: posters, leaflets and flipcharts, and they should be explained about simple method for use and dissemination of those materials.

Community Participation in Health Promotion

Community participation leads people contribute to development of health service and other development activities at their community. Community participation leads community to take responsibility, make decision and perform which something helps for health promotion, and enable people take care of their health by themselves. The Ministry of Health supports the establishment of relation and management structure at community level such as: Commune Council, Health Center Management Committee, Village Health Support Group and Village Health Volunteer. This structure is used to mobilize all groups of people in community to participate in health care activities and to strengthen linkage between communities and health center.

Health center plays an important role for management and coordination of health promotion activities at community. Those include strengthening the community structure through capacity building for Health Center Management Committee, Village Health Support Group and Village Health Volunteer, and strengthening the facilitation mechanism among these committees/groups through regular meeting, monitoring on materials distribution, behavioral change through communication and health campaign at communities, especially mobilize community to participate in health sector at community level.

1-5-2-4 Requirements of Health Promotion on Implementation of 12 keys for Family Health

At present, Cambodia people are facing with many health problems. Among those problems, maternal and child health status is the priority of the Ministry of Health. Therefore, health center staff has the role to improve the maternal and child health by implementing the following 12 keys for family health:

1. Exclusive breath feeding for infant until first 6 months of his/her life
2. Complementary feeding for infant at 6 months and continued breath feeding until 2 years of age or beyond.
3. Feeding with sufficient micronutrient (Vitamin A, Iron, Zinc, Iodine)
4. Latrine use
5. Complete immunizations to children within 1 year of age
6. Children are prevented from malaria
7. Children are ensured for good mental health and growth
8. Continued or increased complementary feeding when children get sickness
9. Correct treatment is provided to sick children
10. Child’s sickness required specific treatment should be identified and should be treated by skilled physician.
11. Treatment for children should be followed physician instruction, children should be followed up and referred to hospital as required
12. Pregnant women received proper antenatal care service.

1-6 Inpatient at Health Center

Health centers where were authorized for admission of patients, for in stance, former district hospitals must use Admission Form, Registration List, etc., provided by the Ministry of Health. Moreover, health centers must comply with clinical guidelines for referral hospital as well as guidelines for national programs concerning inpatient.

(Annex-16: Health Center Discharge Form)

2- Outreach Services

2-1 Guideline for Outreach Services

A method to provide services at community level by health center staff to fulfill the services provided at health center so that all levels of people access to essential health services especially preventive services, and with no affect to the function of health center.

Outreach services aims to:

- Enable an effective service provision and high coverage rate which may reduce morbidity and mortality rate, especially for mother and child.
- Enable majority of people in the coverage area especially people living far from health center access to essential health services and health education.
- Enable people acknowledge clearly about activities of health center and encourage to utilization of the services at health center and refer the patient for examination at health center by community.
- Strengthen the communication between health center and community through bringing the health center staff to community so that they know each other and aware of health problems at community level.

2-2 Implementation of Outreach Services

Health center should have plan of outreach activity to all villages except a village where the health is located in.

2-2-1 Coverage Areas of Outreach Services

a. An essential service package for the near villages: where transport takes less than one hour by available means of the villages

b. Complementary service package for remote villages: where transport takes longer than one hour by available means of the villages

2-2-2 Frequency of Outreach Services

a- It should be at least once a month in a village, it means that at least 12 times per year in a village.

b- For complementary service package, it should at least once every 2 month in a village; it means that at least 6 times per year in a village.

c- When health center makes annual action plan for outreach services, number of staff, size of individual village with available resources, mode of transportation and seasoning status should be carefully considered.

d- In case of any occurrence of natural disaster or incidental phenomena, outreach service program should be reviewed and revised or increased in frequency up on actual needs arise.

2-2-3 Package Services of Outreach Activity

2-2-3-1 Essential service package:

a- Immunizations service
b- Vitamin A supplementation to children and postpartum women
c- Health promotion service, focusing on key implementation in the family for improvement of health including education on dengue by using health education materials (it needs no specific health education day, opportunity should be taken for providing education or medical advice or health information during outreach services).
d- Provision of Oralyte to children of diarrhea
e- Birth spacing service
f- Regular deworming
g- Follow up of TB and leprosy patients
h- Iron tablet complementation to postpartum women
i- Home-based care and follow up of AIDS patient

2-2-3-2 Complementary services package at remote villages

Essential services package plus:

a- Antenatal care service
b- Follow up of birth spacing activity
c- Neonatal care and counseling on breast feeding and complimentary feeding
d- Health promotion focusing on family key practices including education on protection against communicable and non-communicable diseases and oral health.
e- Follow up of some diseases in the community
f- Malaria treatment
g- Distribution of insecticide treated nets and re-dyeing

2-2-4 Budget support

a- Mission fee from national budget must be at least 8,000 riel per person per day
b- Transportation fee: up on actual cost when transport to each village
c- Traveling fee: up on actual cost when travel to each village
d- Ice: at least 1000 riel per day
e- Per diem for members of Village Health Support Group for the outreach activity and meeting

2-2-5 Monitoring and Report on Outreach Services

To provide effective outreach services, health center staff should make report of activities had been carried out, drugs consumed, and should fill in all forms or lists introduced by national programs and other problems faced during the work.

Information of outreach activities must be included in health information system report of the health center.

2-3 Community Participation

To enable this work well function, health center staff should provide the information about the program of outreach activity to the village chief and Village Health Support Group so that they are able to manage and cooperate with health center.

All problems faced during outreach activity should be raised at the Health Center Management Committee meeting.

Chapter 4: Management and Support Services

1- Development of Action Plan, Budget Plan, Monitoring and Evaluation

1-1 Working Program

1-1-1 Working Program of the Personnel

Chief of health center should collaborate with personnel to make 24 hours work. And then, a monthly time table should be made with name of personnel, working day, duty time, outreach service and other works.

1-1-2 Staff Rotation

It is a consecutive and periodical shift of individual staff from a section/unit to another within a health center.

Example: in case of necessary, chief of health center rotates between staff of reception and staff of injection-wound dressing. Staff rotation aims to:

- Upgrade multi-skills of staffs
- Motivate staffs
- Avoid interval when a staff is vacant

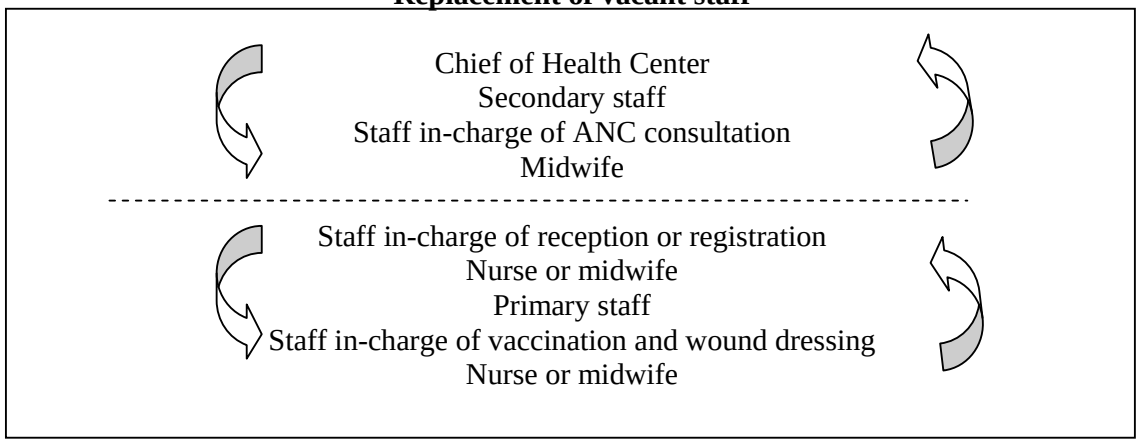
1-1-3 Replacement of a vacant staff

To avoid interruptive performance of the health center, chief of health center must make plan for replacement of a vacant staff by another staff based on:

- Capacity
- Workload and
- Willingness to the work

In this case, the delegation of work is essential.

Replacement of vacant staff



Explanation:

- At health center there are 2 groups of staff can be rotated each other
- Secondary staff can be rotated among secondary staff
- Primary staff can be rotated among primary staff
- In case of necessary, secondary staff can replace primary staff but primary staff cannot replace secondary staff

Example:

- If staff in-charge of health center is absent, one of secondary staff (e.g. secondary midwife) must replace.
- If reception staff is absent, staff in-charge of vaccination-wound dressing must take reception work as an additional work. In this case, chief of health center should help if it is huge work.

1-2 Ensure 24-hour services

- Health center is the place where provides health care services to people in the local area after the referral hospital.
- Provision of care or examination/consultation services is the basic activity which attracts the people to receive the service in the case they need.
- Although the service is limited, it is a quality, effectively service and functioning 24 hours over 24 hours. So, to avoid waste of budget and time, the health center should inform to the community about:
  - ✧ Services available at the health center
  - ✧ Time and activity of the health center
  - ✧ Presence of health center staff

Provision of services to people should be based on the following main factors:

- Enough staffs and proper technique according to standard of Ministry of Health
- 24 hours service can be ensured and managed patient flow
- Planning for functioning of health center and availability of duty staff on duty time

- Ensure the good communication with patients, increase of staff reliability since those factors make constant increase of usage of health center services.

1-3 Development of Annual Operational Plan

The tasks to be undertaken for development of annual operational plan are:

- Timely and periodically make Annual Operational Plan with participation by all departments of health centers, Health Center Management Committee, Village Health Support Group, health partners, etc.
- After the Annual Operational Plan is made, breaks it into Quarterly Operational Plan
- After the Quarterly Operation Plan is made, breaks it into Monthly Operational Plan

(For more details, read the guidelines of Department of Planning and Health Information System of the Ministry of Health).

1-4 Budget Management for Health Center:

Tasks to be undertaken for management of budget for health center are:

- Health center should recruit a competent staff who is able to manage the budget with transparency (except the chief or relatives of the chief)
- Budgetary and documentary management must be followed the instruction of the Department of Budget and Finance, Ministry of Health
- User fee and its documentary management must be followed the Health Financing Schemes of the Ministry of Health
- Report the income-expense of budget to the health center staffs and Health Center Management Committee through monthly meeting (for transparency)
- The income-expense report of budget must be submitted to Operational District periodically
- Every budgetary document management must be well maintained as stated in the instruction

1-5 Monitoring on Implementation of the Quarterly Plan:

Tasks in implementation of quarterly plan are:

- Set up regular quarterly meeting schedule
- Participants include: all units of the health center, Health Center Management Committee, health partners and Operational District Representative (to instruction and advice)
- Identify strengths and weakness to outline the direction and implementation plan for following quarter
- Make the minutes of meeting clearly following the standard form and then use it for follow up at next quarterly meeting
- One set of minutes should be kept at health center for documentation, one set sent to Operational District, one set sent to Health Center Management Committee, and 1 set to each partner.

1-6 Regular Personnel Meeting

It is necessary that the health center manager should know about daily work of his/her staffs. Therefore, a regular staff meeting, at least once a month, is an indispensable need in order to:

- Follow up the process of implementation of the work
- Provide other information regarding implementation of the work of staffs or information received from other places.
- Show all the staffs the result of implementation compared to the plan.
- Give the opportunity to staff to speak out the problems they face and find the common solution.
- Give opportunity to the staff to consider on the activities they had performed, what activities should be improved? And by how?
- Try to understand from staffs whether or not the clients are satisfied with services.

To enable regular personnel meeting with mutual understanding, achieving good result and avoiding incidental phenomenon or wasting time, chief should choose a proper opportunity or change the meeting program if possible.

1-7 Attending meeting at Operational District

The tasks to be undertaken are:

- Chief/vice-chief should regularly attend meeting at operational district every three months or according to the necessity of the operational district
- Record all the problems and proposals raised at the Health Center Management Committee Meeting, Village Health Support Group Meeting, Staff Meeting or any other problems that could not be solved, and then report to the meeting at operational district level to discuss and solve on time.
- Disseminate the solutions and proposals got from the operational district level to Health Center Management Committee, Village Health Support Group and health center staffs through the its respective meeting.
- Disseminate the information, new policies got from the operational district level to the staffs of health center management committee and village health support group to implement together
- Record the opinions, good experiences raised at the meeting and take into implementation at the health center

1-8 Organizing and Attending Meeting of Health Center Management Committee

The tasks to be undertaken are:

- Set up regular meeting schedule once a month (monthly meeting)
- Present monthly activity report of health center and budget (problems and obstacles) at the meeting to discuss and find the solution for continuing implementation
- Raise the problems that cannot be solved by the village health support group at the meeting to review-discuss and find the solution for continuing implementation at community

- In case the problems cannot be solved, record them and call for the recommendations from the operational district
- Make minutes of meeting clearly and then use it for follow up activities at the next meeting
- Minutes of meeting should be, one set kept at the health center, sent to operational district, one set sent to District/Khan Office (in case the health center is located in the district/Khan town), and one set sent to Commune Council located in the coverage areas.

1-9 Organizing Meeting of Village Health Support Group

Tasks to be undertaken are:

- Set up regular meeting schedule every two months (bimonthly meeting).
- Raise at the meeting the essential issues of health center concerning community in order to discuss and find solutions for continuing implementation
- Discuss on the report submitted by Village Health Support Group
- Disseminate the plan of outreach services, the time and place, aiming at seeking for the cooperation
- Provide enough time to members of Village Health Support Group to raise the main problems the community thinks those are necessary for health in order to discuss and find solutions
- Distribute the health education materials to Village Health Support Group for promotion at the village
- Make minutes of meeting clearly and use it for monitoring on the activities in the next meeting
- Minutes of meeting should be kept, one set for health center, one set sent to Health Center Management Committee, one set send to the village chief of all villages in the coverage areas for cooperation and implementation
- In case the issues are essential but unable to solve, those must be immediately reported to the Operational District for recommendations and solutions.

1-10 Demographic Census in Responsible Areas

- Health center staffs should know its geographic location clearly.
- The place where the health center locates in should be recorded clearly the number of population in that area, correctly categorize the number of men, women, children, adult, etc., and should also involve in routine monitoring of the growth of the population. Since the growth of the population influences the services of health center, and on the other hand, to ensure the provision of effective service, health center should group and prioritize them so that it is easy for interventions.

Example:

- How many pregnant women have received immunizations?
- Group of people living in contact with communicable disease
- Group of people has other language and culture
- Group of people living far from the health center
- Group of people living in the flooded area

- Group of people living near the improper atmosphere zone (waste stack, waste water draining pipes) or near factories where emitting poisoning wastes, bad smell and noisy.
- Group of people with other problems which care requires for them.

1-11 Hygiene, Health Care Waste Management and Safe Water

1-11-1 Hygiene

In most heath care places, transmitting agents can be health staffs, patients or surrounding environment. Various microorganisms can be transmitted from one person to another directly (by hands) or indirectly (such as by things, used instruments or linen) and through air (coughing or sneezing) or through transmitting agents (flies, parasite). Indirect contamination happens more frequently than others.

Standard

There must be a working system organized to reduce the risk of infection to both patients and staffs. This working system becomes a part of infection control program in the health center.

Policies and Procedures

- The responsibility for enforcement of hygiene that mean the system to ensure implementation of hygiene should be routinely carried out by general medical and other staff.
- The responsible staff and related staff should understand clearly the principles of hygiene and properly carry out according to methods of cleaning, sterilizing (boiling) and disinfecting of the used materials as well as burning of wastes in incinerator.
- The safety policy includes:
  - Ensure safety for utilizing, throwing after use or cleansing, sterilizing, disinfecting for sharp objects (needles or surgical material).
  - Ensure safety for utilizing and throwing out of used materials of biological, chemical and other unclean materials.
- Have a program education which is include an important topics related to hygiene as described below:

Principles of keeping hygiene

An important principle which determines several measures in regard of hygiene should have a measure for the purpose of preventing from infection of opportunistic diseases at health facilities.

All things which are touched directly by a patient (even known and unknown infectious) should be considered that they may cause infection.

Important Measures

Separation of transmission sources from other sections of the health centers, if possible, including isolation of patients and those who contacted with patients should be done in case of serious contamination.

Stopping of transmitting ways by destroying used things and materials which are not reusable, and properly cleansing, sterilizing or disinfecting things which are reusable before using them again *(for more information, read Guideline for Hospital Infection Control).*

Principle of Cleaning

Cleaning is the most basic important means in keeping good hygiene in health center and especially in the health center compound.

The major purpose of this cleaning is to destroy mechanical power of visible dirtiness by pouring water on the dirty places and diluting them until dirty spots cannot be seen and then pouring away the cleansing water.

Soap and soap powder can help the delusion of bacteria and other microorganism. This helps refrain their activities and they need to be cleaned from the floor/flat surface. Therefore, cleansing has strong effect on microorganisms.

Dilution and getting rid of dirtiness can destroy sources for breeding of bacteria and fungus as well.

Soap and soap powder has low chemical activity against microorganisms so cleaning cannot get rid of microorganisms more than 90%.

Negligent or rough cleaning not only has no effectiveness but has negative impact because it makes the microorganism spread over things and create more opportunity to infect other things as well. Therefore, cleaning should be properly according to the standard.

The effectiveness of disinfection and sterilization depends on cleaning proceeded.

Principle of Disinfection

Disinfection is an important part of hygiene practice in the health center. There are various disinfectants and they are different in effectiveness. The more effective disinfectants, the more poisonous they are. Using disinfectant solution can be reasonable if there is a good balance between its action and poison.

The Principle of Sterilization

In combination with good cleaning and sterilization is more effective in destroying microorganisms.

Sterilization is not completely secured. It can kill over 99% of microorganisms.

To reduce level of infection by used materials, sterilization should be made for used materials which have been already cleansed (the dirtiness is invisible).

Sterilization can be done by physical or chemical means: physical mean is based on heating (using humid or dry Autoclave), or drying in sunlight or filtration. By chemical mean includes: sterilization by using oxidized ethylene or other gases, dipping materials into antiseptic solution or sterilizing equipment (for example glutaraldehyde solution).

Safety of Hygiene Practice in Medical Process

Health center should have a clear policy and open information about safety in carrying out the works, which include at least:

a- Using gloves, face-masks and uniform appropriately to procedures relating to liquid substance for cleansing hands and contaminated things.

b- Throwing away in safe manner of all sharp pointed and contaminated things (including the warning on the risk of needle recapping)

(For details, read Guideline on Safety Injection for Referral Hospitals).

Burning wastes

Health care services inevitably produce a lot of wastes and those wastes can create risks to the health. All the wastes resulted from activities of health facilities contain more potential infection and injury (risk) than other wastes. Therefore, safe and reliable means for wastes management is very important. Incomplete and inadequate waste management can cause serious consequences to public health and greatly affect to the surrounding environment.

Burning of wastes in incinerator is the best option for destroying the wastes. The referral hospitals must have a well-functioning incinerator, which locates in a bid far from patient wards and kitchens. And, the incinerator should be included in the maintenance program.

Keeping hygiene in health center

At health center: inside of building, garden, flag-yard, well, fence, entrance and compound:

a- In side of the health center building: should be cleaned daily, kept beauty, kept opened for good atmosphere and with light. Avoid allowing mice, cockroaches, termites, spiders net and dust inside of it.

b- Building compound: clean and collect the garbage daily, fill with soil to tiny ponds and clean up grasses/plants to make fresh air and enough sunlight get in. Monthly cleaning schedule (labor's day) should be set up on every Saturday first week of the month, for two to three hours each time.

c- Others: for instant, toilets, drainages, wells, gardens, etc. also need to be cleaned.

1-11-1-1 <u>Wastes Management</u>

The wastes must be segregated into two categories, general waste and medical waste.

General waste (condemned office materials, tree-leaves, grass and so on):

- Office wastes such as condemned papers, plastic bags, clothes and other objects
- For a health center where has a lot of trees, the fallen tree-leaves, the cut-grasses or the cut-tree-branches, must be burnt behind and far from the health center building.
- The debris of spoiled drugs from pharmacy must be buried or incinerated.
- The empty vials shall be put separately and packed in plastic bags for recycling.

Medical wastes

Any objects contaminating with blood, pus, lochia and bacteria, are called medical garbage or medical wastes:

- Sharp: the disposable objects such as: syringes, needles, scalpels, slides and lancet must be disposed of in a safety box; when the box is full, bring

to burn in SiCim incinerator and never keep a safety box have used for longer than one month.

- The broken slides contaminating with germs, should be dipped in antiseptic solution.
- The empty-vials should be put separately in a plastic bag for recycling. The vaccine-vials should be dipped in antiseptic solution prior to recycling.
- Cotton wool and bandage contaminating with blood/pus can cause infection; those need to be incinerated.

1-11-1-2 Incinerator Management

The incinerator should be operated every end of workday.

1-11-2 Safe Disposal of Wastes

This purpose is to provide information about safe disposal of wastes from health center. Safe disposal of wastes helps to:

- Prevent the spread of infection to clinical personnel who handle waste and to local community
- Protect those who handle the wastes from getting injured accidentally.
- Prevent open pile of waste, which can become contaminated soil and may cause of infection through flies, other insects and mice.
- Provide the clean environment (uncollected wastes cause foul smell, unsightly, and may pose fire hazard).

An open wastes pile is dangerous!! Bring the wastes of the health center to burn at a place where there is fence surrounded. All the wastes should be burned or buried.

The wastes in the health center can be contaminated and non-contaminated. The waste doesn't bring with microorganism is called non-contaminated waste. These are the examples of non-contaminated wastes: kitchen waste, paper-made boxes, plastic-made-containers have been used by the health center. Contaminated wastes are the wastes bringing with microorganisms of risks and may cause infection to patients, health care workers and people in the community. Here several examples about contaminated wastes: blood, pus, urine, stool and other body fluids as well as other objects containing with them such as the used bandage or syringes and needles.

Common Means for Safe Disposal of Wastes

- Use a separate instrument for putting contaminated wastes.
- Use heavy and rusty-proof (plastic made is better) for storing wastes. All of the waste buckets should have lid.
- Never use the waste bucket for other purposes at the health center.
- Use a separate bucket for different categories of the waste as follows:

  The used syringes and needles, two-faces-scalpel and other sharp pointed things: shall be disposed of in the safety box, thus they cannot cause injuries. These things can cause risks as well as epidemic of HIV and hepatitis B virus. *(For more information, please read the Safety Injection Guideline).*

Combustible Wastes: Collect and put in a separate bucket. Combustible wastes include papers, carton papers, kitchen waste and contaminated waste such as used gauzes and bandage.

Incombustible Wastes: Collect and put in a separate bucket and bring to burying place or to the municipal/ provincial or district waste collection place. The incombustible wastes include glass-made, metal-made and plastic-made objects.

- Always wash hands after handling the wastes.

1-11-2-1 Safe Collection of Non-contaminated Wastes

Purpose: To prevent keeping wastes pile opened and scattering of wastes.

Materials:

a Plastic rubbish bins with lid
b Thick gloves, broom, and shovel
c Incinerator or enclosed container for burning

Procedure:

a- Collect wastes and put in bin that does not let fluid out.
b- Place bin at convenient locations so that they will be used.
c- Encourage patients to use the bins.
d- If burning is used for wastes disposal, segregate incombustible waste such as bottles and cans.
e- Wear the thick gloves whenever handling and transporting the wastes. This will help to prevent injured.
f- Collect the waste buckets once a day, or more if necessary, and bring them to burning or burial. A casters-equipped cart or big bucket with lid can be used for transporting the wastes to the burning or disposal site.
g- Immediately clean up if anything spilled out, using broom and shovel.
h- Wash all waste buckets using soap powder and water everyday.
i- Wash hands after handling rubbish bins.

1-11-2-2 Safe Collection of Contaminated Wastes

1-11-2-2-1 Disposal of Sharp Objects: Examples used syringes and needles, two-faces-scalpel, and small scalpel.

Purpose: to prevent injury and transmitting of HIV or Hepatitis-B virus infection to health care workers and the community

The most common way in which health care workers are at risk to getting infected with HIV and Hepatitis-B Virus is through accidental injury with sticking sharp objects.

Examples: a bottom-mended-bucket, which might be made by thick plastic, cartons and metal using local raw materials such as tinned cans or thick carton boxes.

Procedure:

1. Neither breaks nor bend needles or other sharp objects prior to throwing away of them. Put them into safety boxes after use.
2. Never recap needles after use *(please follow the Safety Injection Guideline).*

3. Collect all sharp objects and put them in a safety box.
4. Put safety box at a place where it is used. For examples: safety box should be put in the trolley while provide injection at health center, and bring along with while provide immunizations at communities.
5. When it is ¾-full, close the lid of the buckle to avoid spilling or falling down of syringes.
6. Wear the thick gloves while touching and transporting the wastes. This will help to avoid getting injured.
7. Collect containers once a day generally or more frequently if necessary, and then bring it to the disposal site or to the provincial garbage collection place (usually there is a big garbage collection truck from municipal, provincial or district town). SiCim incinerator is the place where can safely incinerate sharp objects and incinerator at health center can incinerate ordinary wastes.
8. Wash hands after handling waste containers.

1-11-2-2-2 Disposal of Solid Wastes:

For example, the used bandages, gauzes or other items contaminated with blood, pus, stool or other body fluids

Purpose: To prevent the spread of microorganisms from contaminated waste to the staffs, patients, and the community.

Examples:

- A separate plastic bucket with lid without water leakage
- Thick gloves
- Broom and shovel
- Solution hypochlorite 0.5% or other disinfectants

Procedure:

a- Collect and put wastes in a separate bucket. A different in colors can be painted for contaminated wastes. Example, red-painted plastic bucket is for contaminated wastes only.
b- Put buckets in places where they will be used.
c- Wear the thick gloves when touching and transporting the wastes.
d- Collect the wastes once a day or more frequently if necessary and then bring them burning or burial site or to the municipality's/ the province's or the district's dump.

Contaminated solid wastes should be incinerated at health center.

e- The spilled-things must be cleaned using broom and shovels, and that place must be decontaminated with solution Eau de Javel 0.5%.
f- Decontaminate all the buckets everyday by using solution Eau de Javel 0.5%, and then clean them with soap powders and water.
g- Wash hands after handling wastes buckets.

1-11-2-2-3 Disposal of Liquid Wastes

Example: blood, urine, stool, pus, sputum, water or fluids.

Purpose: To prevent the spread of microorganisms from contaminated liquid waste to the staffs, patients, and the community.

Examples:

- Public drainage pipes, or public latrines
- Solution of Chlorine bleach 0.5%, and other disinfectants
- Gloves

Procedure:

a- Wear thick gloves when handling and transporting the wastes.
b- Directly and carefully pour the blood, urine, and other body fluids into the public drainage pipes or public latrines to avoid splashing of it.
c- Wash water-containers or latrines carefully and thoroughly with water.
d- Decontaminate the dirty bucket by using 0.5% Chlorine bleach solution.
e- Decontaminate and clean immediately the spilled things by using 0.5% Chlorine bleach solution or other chemical disinfectants.
f- When stool or sputum is collected and put onto the sample-container-papers, those must be considered as a contaminated solid waste.
g- Wash hands after handling the liquid waste.

1-11-2-2-4 Disposal of Microbiology Laboratory Wastes

Purpose: To prevent the spread of microorganisms from Microbiology Laboratory wastes (used culture plates and specimen containers) to staffs, patients, and the community.

Examples:

- Autoclave or pressure cooker
- Separate plastic bucket without any holes.

Procedure:

a- Sterilize in Autoclave of all plates and test-tubes have been used to grow microorganisms.
b- After sterilizing, discard disposable petri dishes and test-tubes into the waste-containers.
c- After sterilizing, remove the culture materials from the reusable test-tubes and petri dishes, and then discard them in the waste bucket.
d- Wash and dry the reusable test-tubes and petri dishes.
e- Collect the wastes once a day or more frequently if needed and then bring them burning or burying places or to the provincial waste collection company.
f- At each day, decontaminate by using solution of bleach 0.5%, and then wash with soap powder and water.
g- Wash hands after handling the waste bucket.

1-11-2-2-5 Disposal of Used Chemical Containers

Purpose: To prevent poisoning from container has been used to store toxic substances such as formaldehyde, or glutaraldehyde (cidex).

Equipment:

- Detergent
- Clean water
- Gloves

Procedure:

a- Wear gloves
b- Glass container: Rinse well with water, and then wash with soap powder and water, thus it can be used again.
c- Plastic container: Rinse with water, and then bury other solid wastes. It must be sure that these instruments cannot be used at community.
d- Wash hands after handling the used chemical disinfectant container. Plastic container have been used to store chemical are dangerous! Don't reuse it for another purpose.

1-11-2-3 Solid Waste Disposal Methods

1-11-2-3-1 Incineration or Burning

Incineration is a process of burning wastes at a high temperature. Incineration requires special instrument and bottle gas or other fuel sources. Incineration is the best way to destroy the contaminated wastes. However where incineration is not available, this should be executed using a large simple stoves. Advantage of incineration and burning are as follows:

- Microorganisms are destroyed by heat;
- Large amount of wastes that require a lot of space are reduced to ashes.

Open-burning is dangerous! Incinerate all wastes in special stove located in enclosed areas.

How to build and use a simple stove for burning wastes:

a- Choose a place in a parallel direction of the wind inside health center, former district hospital or clinic.
b- Build a simple stove using the local materials (mud or rock) or a used fuel-tank.
c- Place the stove onto a hard ground or concrete base.
d- Make sure that a stove has:
  - holes on its bottom, enough air circulation for good combustion;
  - a separated metal bars, for holding up wastes and for falling down of ash.
  - enough space so that more wastes can be added on top and ash can be removed at bottom.
  - a long enough chimney, for good draught air circulation and removal of smoke
e- Burn all combustible wastes such as papers, cartons, used bandages and other contaminated wastes.
f- If those wastes are wet, add more kerosene to make ember burn out all the wastes. Gather up wastes to be burnt and then put them in a waste bucket with lid.
g- Ash resulted from a stove and an incinerator is considered as non-contaminated residue.

1-11-2-3-2 Disposal of Waste by Burying under the Ground:

When contaminated and non-contaminated wastes cannot be burned, those need to be buried under the ground. Even those wastes are collected by municipal/provincial collection system, it is better for health sector manager to make sure that those wastes are thrown safely. When wastes are buried under the

ground, some demands were solved; meaning is that animals cannot scratch them. The advantages of burying the wastes under the ground are as follows:

- Avoid reuse of unburnable objects i.e. glasses or plastics
- Prevent from getting injured by sharp objects, and possible infection from harmful microorganisms i.e. HIV, hepatitis and tetanus.

How to Make and Use of a Waste-Burying-Site

a. Dig the hole at a specific location.
   - Choose a site where is at least 50 meters away from water source to avoid transmission of microorganisms to water supply source.
   - There should be a site where there is appropriate mainstream far from a well and a place where has water permanently.
   - Remember that wastes burying place would be never flooded area.

b Dig a hole with 2-meters in depth and 1-meter-width. Bottom of the hole should be 6-feets over surface of water sources.

c Make fence to prevent animals and children enter there. Wooden fence or a strong wall should be made using local equipments such as rock, concrete, wood, thorn-plants.

d Wear the thick gloves when touch waste bucket.

e Pour out the unburnable wastes from the waste bucket into ground-hole everyday.

f Thinly cover soil on the wastes buried each day, and lastly should be covered 10cm (4 inches) in depth.

1-11-3. Excreta Disposal Systems

Proper arrangement of human excreta is very essential since it can reduce diseases and can also keep source of water clean. When flies, other insects and gnawing animals touch our stool, it definitely affects our health. If no proper sewage system, epidemic of helminthiasis caused by contaminated soil would definitely occur.

Prevent the spread of diseases by proper disposable of human excreta.

Three important points of attention should be taken to keep good condition for our sewage system: (1) public sewers must be clean (2) communities use them correctly and (3) they must be properly maintained.

A suitable excreta disposal system should be:

a- simple and easy for constructing using domestic materials
b- easy for maintenance
c- separated and free from climatic influence
d- good in hygiene

Communities should be trained how to use and well maintain of public latrines.

Most of health centers have inpatient bed but no sewage system connected to the municipal/provincial/districts manhole, therefore, they need their own system. There are various systems, some system requires water and some does not. A system applied with water is better than the one doesn't apply with water. In this case, water must be

available all the times. Contact local authority for further details about the figure and construction method, Hospital Services Department, World Health Organization Expert, or organizations concerned.

Points to be Remembered When a Public Latrine is Constructed

1. Construct public latrine on a dry place and easy for draining out.
2. Build a public latrine downhill far from the well, which well-water is used for drinking. The latrine should be at least 25 meters far from each well.
3. It should have at least one latrine for 10 patients.
4. Sufficient water and soap for hands washing and cleaning latrine should be available.
5. It should have separated facilities for men and women if possible.
6. Signs should be pasted inside of latrine so that users understand how to use.
7. Latrine cleaner need to be trained well so that he/she is able to clean latrine properly and periodically.
8. Latrine cleaner should be provided with cleaning materials (such as: waster tank, soap, brush, and disinfectants) as well as a space for keeping those materials.

A good maintenance and operational system should be organized to keep latrine clean and in good working condition.

1-11-4 Water Supply and Sewage

1-11-4-1 Safe Water Supply in Health Center

A safe water supply for good health must:

- not be contained with dirtiness caused by foreign bodies or bacteria in the water.
- not be contained with poison, and it must be clean, clear, colorless, smell less, and drinkable.

Clean water should be enough for:

Health Center: 500 liters- 1500 liters a day for a health center.

One way to produce clean water for drinking, that is to boil water and keep boiling for 10 minutes at least.

In some areas wells were protected properly and located far away from source of microorganisms; and proper catching rainy water can also provide sufficient clean water and need no more sterilization.

1-11-4-2 The Way to Kill Small Amount of Germs by Using Eau de Javel (chlorinated lime)

Materials:

- Chlorinated lime (bleach powder)
- A plastic container for dilution of bleach powder with water
- Plastic container with lid for putting diluted solution
- A clay-made pot or a big plastic-made bucket with a drain spout
- A spoon for measuring, and a big piece of wood for stirring.

Procedure:

a- Dilute solution 1% for use; 40 grams (three spoons) make up with 1 liter of water, and then stir it and keep for 30 minutes.
b- Pour that clear chlorine stock into a water tank or a bottle and keep for use.
c- Always keep stock solution in a cold and dark place.
d- Disinfect water by putting 3 drops of solution into one liter of water with dim-white in color, and 6 drops of solution into one liter of tea-colored water.
e- After putting the chlorine solution into water, stir well and keep it for 30 minutes before it is used.
f- Use a clean water tank with a drain spout for keeping disinfected water for use.
   - Clean water tank once a week or when it is dirty.
   - When clean water tank, use boiling water or water disinfected with 6 drops of disinfectant solution into one liter of water. Eau de Javel must be kept in dry and dark place free form air and rust, for example, in a plastic-made tank.

1-11-4-3 Well protecting Method for Obtaining Safe Water

Equipment:

- Hand-pump proportioning to the depth of the well.
- Cements and reinforcement.
- Instruments for paving the concrete and assembling the hand pump installation.

Procedure:

1- Choose a strong and easy maintenance hand pump and adoption to condition of that area. Two types of pump are commonly used; pumping type is used in Cambodia.
2- Cover with cement on lateral sides of the well, 2 meters in depth, to prevent contamination from the surface entering the well.
3- Make a cover and protective barrier to prevent dirty-thing dropping into the well.
4- Cover should have an outlet allowable for water drainage away from the well.
5- The pump must be assembled on top of the well.
6- A precise arrangement for maintenance of the well including spare parts stock is required. A good idea is to call for support from MOH, UNICEF or WHO….etc, for dealing with water supply project. To supply sufficient water, it requires regular maintain of the well. Well maintenance procedures should be well arranged.

Draining pipe

Draining system can be a piping-drainage, an opened-drainage (in row or without row), a subsoil drain, a vertical drain or a permeable pond. It is important to have drainage system allows water flowing out and preventing the insects living in it. Permeable pond or hole is a hollow piece of land filled up with stones and these holes should be dug surrounding a tap or a hand pump where is publicly used.

At health center where have unclean-tiny-pond should be filled up with soil, and then an opened-trench or a piping drainage system should be built.

The wasted water is so dangerous, hence never touch it.

1-12 Record information daily, make activity report and inventory list

⇒ Sum up information report of HC1

(For details, reads explanation in Guideline on Health Information System of the Ministry of Health and annex17~26). At present, the Ministry of Health is reviewing and revising this "Guidelines on Health Information System".

2- Development and Human Resources Management

2-1 Ensure that health center staffs have been trained on proper techniques and skills

It is indeed, patient consultation at health center is the first service of health care prior to access to the referral hospital. Health center staffs as well as other health worker use their occupational knowledge, skills and experiences toward enabling their services be actively and effectively functioned. In this meaning, the manager of health center should be aware of what the quality is.

Therefore, to keep constant quality health care services at health center, manager should be able to manage time for staffs to receive continuous trainings according to their skill, and they also can be provided with newly additional technique. Doing so, the staffs would be doubly motivated for their work, which is the factor to enable health center regularly function and either people's well-being would be sequent improved.

In this meaning, the leader of health center can raise some questions relevant to the training:

1. How were the training backgrounds of health center staffs?
2. Based on daily practice, do they apply their technique correctly? Which points were they unclear? And which points should they study more?
3. How training plan should be prepared?
   - What levels of staff should attend this training?
   - Whom the training are targeted for?
   - Evaluation of pre, during and post training

2-2 Promotion on Performance of Staff

To make a health center well functioned, attention and a mechanism for staff motivation is required. This mechanism includes financial and non-financial motivation. Health center should also encourage staff appraisal of their performance.

2-3 Provision of continuing education to community through members of Village Health Support Group

The community's participation in developing and functioning of Health Center is important and essential to sustain the health service provision to all levels of the people at communities. To link community and health center, the Village Health

Support Group was established. The Village Health Support Group members are the volunteers who provide health service under the monitoring of health center staffs. The group has at least 2 people for one village, one woman and one man, selected by election and according to selection criteria. The tasks of the Village Health Support Group are: to disseminate all health messages to their community and attend the health-related meetings as a representative of the community and ensure to forward the information to all levels of people at community, facilitate communication between health center and community, support for the transparency and accountability of health center, promote the ownership of health center by community, support health center activities, assist in resources mobilization for sustainability of health center, be a feedback transmitter of problems and recommendations from communities to the Health Center.

So, what should be trained for Village Health Support Group?

According to the responsibilities of Village Health Support Group, this group should be trained on:

a- Every of health education message
b- Measures for Health Prevention
c- Risk sings need to be referred or provided with first aid
d- How to provide first aid
e- Forms of report from community to health center
f- Signs of sickness to be further followed up by health center
g- Health services provided under coverage of health center and referral hospital
h- Any health-related Prokas, regulation, instruction and so on
i- Other services available in community that they need to communicate for health service
j- Rights and responsibilities of client, and rights and obligation of health service provider.

3- Drug and Medical Materials Management

3-1 Drug store

3-1-1 Drug Management

Health center should organize a drug store in order to support the services delivery to patients and clients who are using the health center services. Drug store has an important role to manage drug and medical materials, supply, record and ensure the sustainability of drug and medical materials in store in order to acquire sufficient drug and medical materials for effectively improving the treatment and care as well as health prevention. Therefore, person in-charge of drug store shall incorporate with other health center's staffs to manage, utilize and supply drug and medical materials transparently.

To ensure the quality of drug and medical materials management, health centers should have:

- A drug store manager and an assistant store manager
- A drug store with appropriate size and location according to the standard of Ministry of Health available with shelves and crossbar pieces for storing drug and medical materials as described in the guideline.

Health center where has health post, drug and medical materials should be supplied to health post under its responsibility (comply with the structure of [OD]), and monthly income-expense report of drug and medical materials of health post should be monitored.

3-1-1-1Receiving of Drug and Medical Materials:

Generally, the drug store manager receives drug and medical materials from the drug store of OD as informed by OD office, except some cases, OD transports to HC. Before signing for acceptance of drug and medical materials from OD store, it is necessary to verify the **items** and **quantity** in invoice. Marks on any irregularities found on invoice and ask for signature by pharmacist from OD and OD director approval on the issues, and avoid deleting or correcting any figure has been already printed and singed. After returning to health center, the issues must be reported to chief or vice-chief of HC. Drug and medical materials which were additionally bought by user fee or other budget also need invoice and delivery notice with signature, following the same process to the ones received from OD. In some cases, health center has the right to refuse irregular drug and medical materials such as: spoiled drug-medical materials, quantity differs from invoices, or any drug-medical materials which are over MPA level-unable to be used by the health center, etc.

3-1-1-2 Arrangement of Drug-Medical Materials Store

To maintain quality, safety, and to avoid drug-medical materials getting spoiled prior to distribute them to the patients, the drug store manager should obey the following principles:

- Drug store should have enough ventilation, dry, not under direct sunlight (via window/ Venetian blind).
- Arrange the drug-medical materials by alphabetical order, types and by each national program separately.
- Keep the heavy drug-medical materials such as serum or 1-liter antiseptic solution on the crossbar piece or on lowest drawer of the shelf.
- All drug-medical materials must be kept in the store (except the drug-medical materials to be used for outreach services and for duty shelf).
- Follow the principles of the drug-medical materials that, First Expired, First operation (FEFO).
- All kinds of drug-medical materials or other materials exist in the store; the stock number must be exactly same to the number recorded in the Store Card. In case of the difference in number, it must be thoroughly inspected and verified.
- Drug store should have **fire extinguisher.**

A committee should be organized to inspect all items and quantity of drug-medical materials received from drug store of operational district or other sources before they are kept in the store and supplied.

3-1-2 Drug Supply

Drug and medical materials shall be supplied to the patients or clients according to prescription. The drug store manager or drug store assistant shall supply drug-medical materials in accordance with **“A guide on drug and medical material supply management for health center”** such as:

- Expense for outpatient: keep all prescriptions in the drug store by tying or clipping it day by day in order to sum up number of daily/monthly supply of drugs and medical materials, and then record it on Store Card every 15 days.
- Expense for inpatient: (in case health center has beds) should compile the request forms and then hand over it to Inpatient Department to sum up the number of daily/monthly supply of drugs and medical materials, and then record on Store Card.
- Expense for outreach services: to make easier in use of drugs for outreach services, the officer in-charge can borrow in advance the drug and medical materials with permission from the chief or vice-chief of health center, and then make the income-expense report of those drugs and medical materials to the drug store within the month (not allow over 1 month).
- Out of working time expense: a duty shelf or box should be prepared with specified item and quantity of drugs and medical materials necessary for patient treatment. An appropriate list with name and quantity of those drugs and medical materials should be made with approval of the chief (this number is not withdrew from the number of stock of drug and medical materials in the store). Every time when use drug-medical materials, the consumption report or prescriptions must be sent to the store manager for compensation according to the item and quantity specified.

3-1-3 Record and Report

In-out record is an indispensable job for drug-medical materials management. Store Manager and assistant must follow and use the sample forms as defined below:

1- Collection of daily consumption of drug and medical materials: tie or clip with prescription in each day by writing the date and number of prescriptions on the back of this document. *(Annex-28: Daily report of drug-medical material consumption).*

2- Collection of monthly consumption of drug and medical materials: tally up the monthly expense of drug and medical materials from daily consumption and sum up 15-daily, and then record on Store Card. *(Annex-28: Monthly report of drug-medical material consumption).*

3- Income-expense report of drug and medical materials for outreach services: it shall be kept one set each by the store manager and by person in-charge of outreach services so that they can be verified once a month. *(Annex-30: income-expense of drug-medical materials for outreach activities).* **Store Card:** routinely record in-out movement and provide information clearly about the stock quantity in the store after a-half month used, inside and outside of health center. *(Annex-31: Store Card)*

4- Record of drug and medical materials: report the quantity of drug and medical materials received (from all sources), consumption, latest balance of all items of drug and medical materials, and then calculates the proposal for next cycle of the health center.

5- Drug and medical materials acceptance record: Before input drug and medical materials in the store, a committee with at least 3 members should be assembled to inspect all items received and make record of inspection.

6- Accumulated drug hand-over sheet: store manager should make accumulated drug hand over sheet to operational district to solve drug and medical materials which are over the needs in its store with approval of the

chief, must be approved by director of operational district at the last. *(Annex-32: Report of accumulated drug and medical materials).*

7- Record of spoiled drug and medical materials: health center needs to make record of the spoiled drug and medical materials, and never release for use.
8- Invoices of drug and medical materials supply to health post (in case of health center with health post): health center is the remote control of OD's drug and materials store regarding supply of the necessary drug and medical materials to health posts under its responsibility according to their income-expense report and the need of those health posts. Furthermore, the health center also has the obligation to supporting the technical unit of health post regarding drug management.
9- Proposal-hand over form for inpatient (health center where has beds/former district hospital): should made daily (in the morning) by specifying the number of patients, diagnosis, number of items and quantity of drug-medical materials used for treatment of individual patient. The document must be checked and signed by chief of ward/ officer who fills in the form, handed over person-recipient, drug store manager/assistant and chief of health center. *(Annex-33: Drug-medical materials proposal-hand over form).*
10- Report of drug-medical materials expense for duty shelf (health center where has beds/former district hospital): fulfillment of duty shelf should be made every day before a staff is off-duty, with participation by drug store manager/assistant and next duty staff, and drug-medical materials must be received from the drug store. In the same manner, supply of drug-medical materials from health center to duty shelf is done based on a list temporarily determined, but not allowed to withdraw from the drug store of the health center.

Note: *All management documents should be kept for at least 5 years, except in a special case, which has a particular instruction.*

3-1-4 Proposal for fulfillment of stock:

It should be respected to the formula and procedure in *"Instruction Manual for Drug-medical Materials Supply Service Management Method for Health Center"*. To avoid out of stock, drug store of health center should make proposal for fulfillment of stock and submit to operational district at least 10 days before the monthly supply so that drug store of the operational district is able to monitor and supply on time and accurately. Drug store of health center should try to constantly maintain a reserved or safety stock, and report or provide the information about consumption to operational district so that the stock can be controlled. The safety or reserved stock is allowable for 1 month or at least 60% of stock to be released for monthly consumption.

Drug store manager of health center should be trained on Drug-medical Materials Supply Service Management Method for Health Center so that he/she will be able to implement the work effectively.

3-2 Medical Materials Management and Maintenance

Minimum Package of Activity Kit (MPA kit)

POLICY:

DEFINITION:

MPA kit is the package of medical equipment and instrument, which are required for providing and supporting medical services at health center. The contents of MPA kit is defined according to necessary medical services shown in the MPA guideline.

MPA kit aims mainly the following medical services;

1) Primary health care
2) Reproductive health (mother and child health, Birth Spacing, etc,)
3) National programs (TB, HIV etc,)
4) Dental equipment (exceptional)

However, MPA kit doesn't include specific medical equipment and/or instrument for the special activities of particular program. It is necessary to examine a selection of the additional equipment or instrument when MPA kit would be implemented considering area's needs, existing items, environment, and/or national programs.

MPA kit was assembled with paying attention on the following conditions

- Easy operation
- Easy maintenance
- Easy to get consumable items
- Unbreakable (simple structure)
- Easy to get spare parts (low cost)

REMARKS ON USE

When Health Center starts to provide medical services using MPA kit, the following remarks may be referred;

- Only the operator who acquired the skill may use the items.
- Execute necessary sterilization.
- Confirm the condition and sterilization before use.
- Pay attention to secondary infection after use.
- Do not leave used items where ordinary people access.

The operator should keep the instruction manual beside of the medical equipment if the equipment has it. (Sterilizer, vaccine refrigerator etc,)

The equipment, witch has a risk of explosion (Sterilizer, absorption vaccine refrigerator, gas stove etc) need to be inspected the safety condition every before use. If the operator finds some abnormal or unusual symptom, do not use and report to OD/PHD.

When the Health center uses electrical apparatus for example electric vaccine refrigerator, the stability of power supply needs to be examined. If electricity is unstable or the power cut often happened, the refrigerator needs to equip the special power supply regulator for refrigerator. It is recommended to install a fuel type absorption refrigerator in such area.

MANAGEMENT

1) Some of the medical equipment should bring an instruction manual in Khmer such as sterilizer, vaccine refrigerator, because operator always needs to pay attention when he/she handles.
2) Concerning such a simple equipment or instrument, there are many low quality items available in the market. To avoid buying the low quality items, purchaser may consider adding some pre-conditions for example GMP certify, UN qualify, ISO, or country industrial standard etc, when procured.
3) When health center or OD/PHD have an opportunity to receive the second hand medical equipment or other item from donor, it is necessary to examine carefully. Used medical equipment may bring some trouble and there is the risk of maintaining accuracy and safety as a medical devices. When the equipment breaks, it may happen the spare parts could not be found in the market.

4) PHD/OD may assign the person in charge of the management of items in health center. The person in charge should collect the information of center's items and maintain it. Inventory check and inspection of the items should be performed at least once a year.
5) The operator should execute minimum preventive maintenance for particular equipment. (Scale removal of sterilizer, cleaning of gas burner etc,)
6) The operator should execute minimum safety inspection for particular equipment. (safety valve and gasket of sterilizer, burner of vaccine refrigerator etc,)
7) Health center/OD/PHD should prepare operating budget (running cost) properly for efficient usage of the items. And try to allocate a budget for maintenance (spare parts and repair cost) of MPA kit in case if items need to be attended repair work.
8) In case of medical equipment breaks, the person in charge of the management should report to PHD/OD and try to reduce un-serviceable span with this equipment.

4- Health Financing

Budget sources of health center can be from national budget, user fee, equity fund and community-base health insurance, etc.

4-1 National Budget

To improve budget management, all health centers should:

- Make own annual operational plan (AOP) according to standard form of the Ministry of Health-Department of Planning and Health Information System
- Regularly monitor on and record the implementation according to budget sources, and record activity code number
- Record every income-expenditure of the health center and then report on time to the operational district
- Register in property list (according to instruction of the Ministry of Health).

4-2 User fee

There should have a clear payment system of user fee, for transparency. Health center should have a common payment place, called "**payment counter**" responsible for income from user fee.

⌦ **Cutting apart of user fee income for allocation to a particular department/section should be avoided.**

Health Financing Management

- Health Financing Committee at health center level should be the Health Center Management Committee *(see guidelines for operational district).*
- Budget allocation *(see the declaration of Inter-ministries in the guidelines*).
- Process of filling up the report *(see the report form of Ministry of Health).*
- Income from user fee should be used for development of services

4-3 Equity Fund

A health center where provides sufficient services with a high quality maybe able to receive equity fund.

Main Purposes:

- To increase utilization of public health services by the poor people
- To ease ability of the poorest to utilize public health services, which contributes to reduction of poverty
- To contribute to the improvement of the quality of the public health care system
- To assist the poor to succeed on barrier of service utilization (financial and other barriers)
- Contribute to pave the way for social health safety nest toward accessing to a universal health insurance.

Spending of budget collected from equity fund

Income collected from this project should be allocated: 60% for staff incentive and 40% for quality improvement of services (Prakas of the inter-ministries N^{o} 809 សនរ.ប្រក dated on 13 October, 2006 on principle of support for poor patients).

Evaluation of poor patients

For operational districts where had no pre-evaluation by the government through the Ministry of Planning, an evidence-based evaluation should be done when patients come for the service, using evaluation tools of the Ministry of Health.

4-4 Community-based Health Insurance

Definition:

Social health insurance is process of financial protection against hazardous expenditure for health care through a pooled fund to cover the financial burden among the people and their circumstance. The word "Society" is referred to as a mechanism

of pooling fund to be a mean of unity in the society, sharing a hazard and gathering fund among insured people based on their common hazard *(Department of Planning and Health Information System of the Ministry of Health of 2006: Implementation Guideline for Community-based Health Insurance Project, Page 04).*

Roles, tasks and responsibility of health center:

- Make contract with project implementer of the community-base health insurance on the provision of health care service of minimum package of activities to the member of the community based health insurance
- Mobilize people to participate as the member of community-base health insurance project
- Provide the health care service of minimum package of activities to the insured people and their family members were listed in Cambodian Family Book.
- Ensure the referral mechanism available for effective health service management for all members.
- Participate as a member of Management Committee of the Community-base Health Insurance Project in order to give opinions, rise and solve problems and concerns relevant to health service delivery.
- Take responsible for reporting about indicators which were agreed or approved with Ministry of Health and related people including indicators of quality assurance provided to all the members of the community-base health insurance project.
- Report to the project implementer and the Director Committee of Community-base Health Insurance Project on expense of fund from the insurance project. *(For more details, refer to the Implementation Guideline for Community-based Health Insurance Project)*

5- Referral System

A Guide for Health Center

Operational district should ensure that every health center has completed with following conditions to make successful referral system in own coverage areas. The conditions include solution for third lateness-that is shortage of a proper care at the health facility.

Personnel

1. It should have at least one skilled health personnel accompanying with patient in the ambulance.

Patients Allocation

2. All of health centers should have a patient allocation system. Thus, when an emergency case or a severe case arrives at health center, he/she is given higher priority than a mild case. The patients' condition must be controlled prior to refer.
3. All of health centers should have a common registration system to record every case referred to the referral hospital (some health centers already exist a referral registration list, for both of out patients and pregnant women). However, some of the health centers just record at the

section/department where refers the patient only, for example, OPD list or ANC list).

Communication System:

4. Every health center should have a functional communication system such as: communication radio connected to referral hospital or operational district. A health center where electricity is permanently not available, there must have a battery.
5. A communication radio should be placed where it can be communicated all the times, even out of working time.
6. Health center should daily communicate with referral hospitals to check function of radio at referral hospital.
7. Communication radio must be set at a wave (frequency) agreed with operational district and it is never switched off.
8. Health center should communicate with referral hospital for every of referral case even though patient use a private transportation (please read section 56 below about detail information to be provided to referral hospital), before a patient is referred.
9. If telephone service is available at the place or near the health center, it should have telephone numbers of referral hospital staffs, referral hospital itself, director of referral hospital (or telephone number of staff who is assigned by the director as in-charge of ambulance health center), as well as the telephone number of ambulance drivers. Referral hospitals should instruct all health centers whether who should be called in case of using the telephone service. Private telephone numbers shouldn't be shown in public (only telephones of referral hospitals should be shown to public).

Provision of referral services and qualities of care

10. Staffs should understand when to refer a patient who requires nursing care service at referral hospital (see the detail explanation in the clinical guideline for health center). Staffs make their best to refer patients to the nearest hospitals.
11. All the health center staffs (including the contracting staff and ambulance driver of health centers, if there is) should be trained on first aid so that proper care and management of emergency case can be ensured before a patient is referred to the hospital.
12. Health Center staffs should provide enough information to patients about the situation of illness, provide counseling on importance of a referring and encourage the patients to follow referral procedures.

Emergency Materials:

13. Emergency materials should be available all the time for staff who works at out of working time and for night duty staff.
14. Emergency kits must be ready for bringing with when a patient is referred (annex- 34: referral kit). Chief of health center and drug manager are responsible for fulfillment of the kit after each referral case.
15. Kit must be checked every time when OD conducts supervision to health center.

Transportation System:

16. A patient can be referred to the referral hospital by:
    a. Private mode
    b. Mode of health center (if there is)
    c. Ambulance of the referral hospital
17. Transportation mode depends on several factors such as:
    a. Severity of the patient
    b. Location, and possibilities- some villages can be accessible by vehicle, or even it is possible but takes time. In this case it may wastes the valuable times to wait for ambulances from referral hospital to pick up the patient.
    c. Availability of transportation- patient has his/her own transportation, or availability of modes of transportation.
    d. Many health centers are under the coverage area of a referral hospital; only one ambulance cannot pick up patients from different places at the same time, thus priority will be given to the emergency patient. Transport fee should not be a referral barrier. Health centers and referral hospitals should give exemption to a patient who has no ability to pay for transportation (including the case that the patient died before paying or during referring).
18. Health center should refer patient properly and on time. If patient has his/her own transportation and suitable for his/her condition, he/she shall be received emergency care after a referral form has been received.
19. If a patient does not have his/her own transport, health center has to should call an ambulance from referral hospital, or use ambulance of the health center (if available) or help arranging a proper private transportation for patient.
20. The health center (in collaboration with HCMC and commune council) should prepare in advance a private transportation upon availability at their level, thus they can use immediately when whey need. Transportation fee should be fixed and acceptable so that it doesn't waste time for negotiation during such urgent circumstance.

Ambulance of the health center (if there is) for referral case

21. An exemption system must exist to ensure that the poor patients can use the referral system as required. Health center should use the user fee for transportation if required.
22. A health staff is required to accompany with a patient to the health center and to the referral hospital, for example, a midwife should assist woman during labor. Emergency kits should be brought with during referring.
23. Patient's conditions must be observed and continuously treated during referring, for woman at labor or for other diseases. All documents should be filled in and handed over when arrive at the referral hospital.
24. The staff who accompanies with a patient should bring with a communication radio or a telephones that is necessary for additional consultation.

Record of referred cases

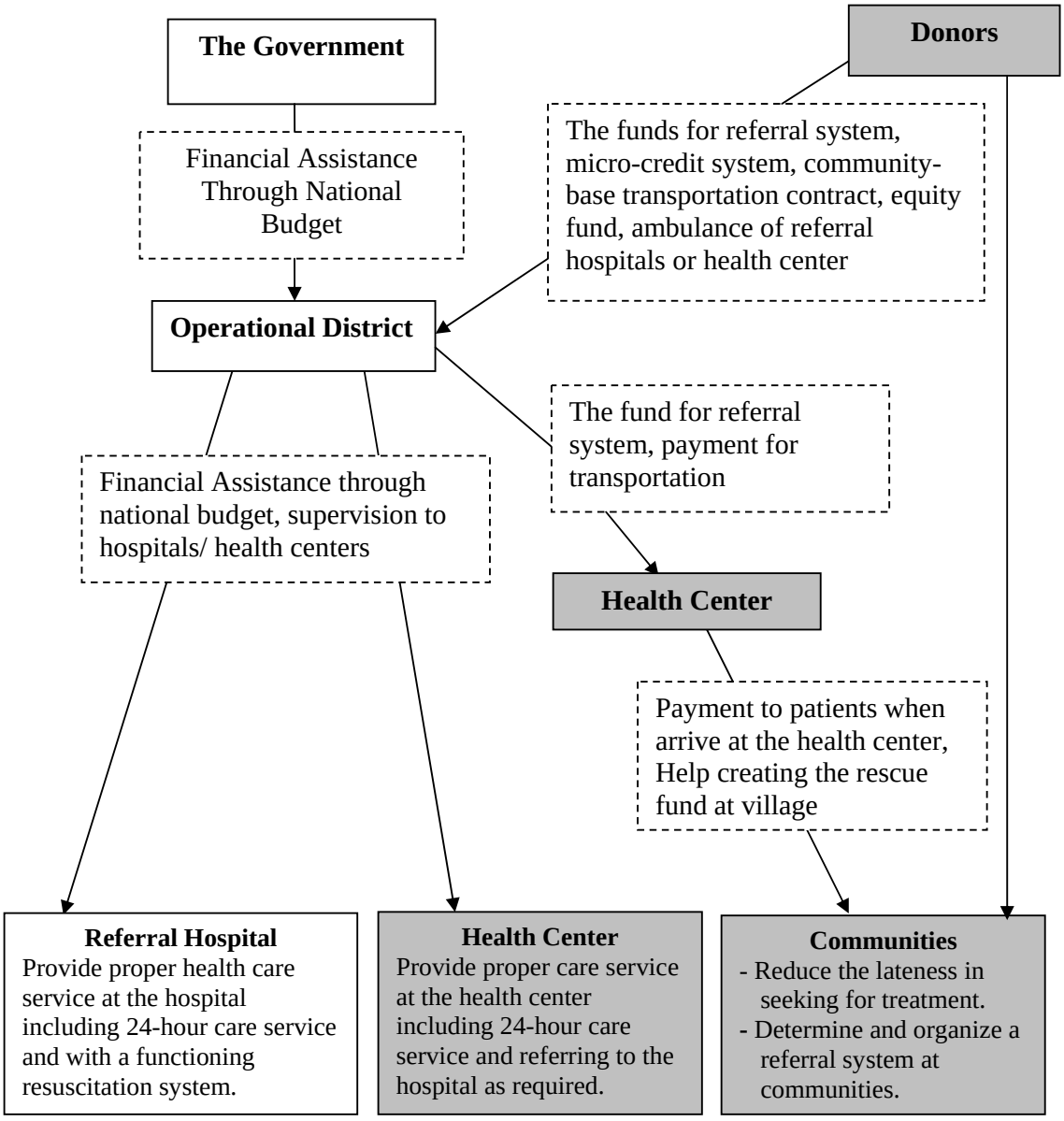
25. A writing referral letter must be made for every of the patient referred to the referral hospital, consisting of patient's name, age, sex, complaint,

diagnosis, treatments provided before referred and the name of referral person.

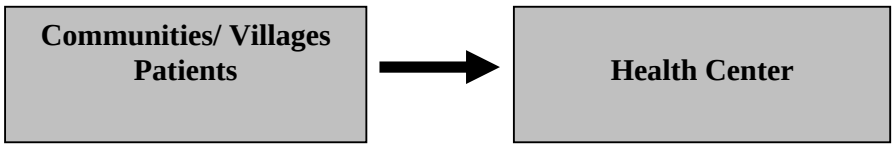
26. Duplicated sets of this referral letter should be completely filled in. One set is kept at the health center.
27. As mentioned above, every case referred from health center should be recorded in a list and reported monthly to the operational district (using form HC1)
28. Referral letters of health center and the number of referred patients recorded in the referral registration book should be summed up at the end of the month.
29. Referral letters of the previous month must be brought with when attend monthly health center chief meeting to receive feedback from hospital (if the feedback has not been received before the meeting) and the presentation about correct referring. *(Please read the Guideline for Referral System)*. If discharge letter has been received, it should be kept with the referral letter.
30. At some operational districts, patient referred by a village volunteer can be done according to the standard since a specific program was established and supported by NGOs such as: traditional birth attendant is responsible for referring of pregnant women complications; Village Health Support Group or DOTS Watcher may refer TB suspected cases; Village Malaria Worker is responsible for referring of malaria suspected patients (some volunteers have received incentive). At some operational districts, volunteers fill in the referral cards. Therefore, document of every case referred by volunteers to health center should be kept and collected monthly by health center. The feedback should be provided to VHSG through monthly meeting and to other referral persons when health center provides outreach services. At monthly meeting, a forum should be given to VHSG to inquire or receive advices about patients referring.

Summary about Referral System at Operational District

Operational districts should ensure that their health facility is functioned and referral system is performed. Operational districts should motivate and support the community participation in receiving of services from health facility. However, it requires support from other institutions to educate the communities about the services provided and solve barriers to access to the health facilities. Other institutions include commune council, NGOs/IOs, can help mobilizing communities to ensure participation in strengthening of the referral system from villages to health center. Budget from donors can help the community-base referral fund, micro-credit system, and support or pay for transportation to communities where contracted.


The Government
Donors
Financial Assistance Through National Budget
The funds for referral system, micro-credit system, community-base transportation contract, equity fund, ambulance of referral hospitals or health center
Operational District
The fund for referral system, payment for transportation
Financial Assistance through national budget, supervision to hospitals/ health centers
Health Center
Payment to patients when arrive at the health center, Help creating the rescue fund at village
Referral Hospital
Provide proper health care service at the hospital including 24-hour care service and with a functioning resuscitation system.
Health Center
Provide proper care service at the health center including 24-hour care service and referring to the hospital as required.
Communities
- Reduce the lateness in seeking for treatment.
- Determine and organize a referral system at communities.

Responsibilities of Community, Health Center and Hospital for Referral System of Operational District

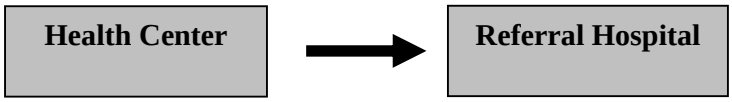


Recognize Referral Requirements
- Refer by health center or by village volunteer

Arrangement transportation
- Arrange in advance of existing transportation (fixed price)
- Private transportation
- Establish the village-base emergency care system (if it is available at the health center)
- The ambulance of health center or hospital

Establish and use emergency fund
- Community/village fund
- Direct payment (equity fund), or other established systems
- Micro-credit system
- Equity fund

- Patients allocation
- Provide proper care service
- Register the cases referred in
- Provide feedback if the case is referred by a village volunteer
- health volunteer
- Send the ambulance to pick up patients (if there is at health center)



- Recognize referral requirements
- Manage patient conditions
- Arrange transportation
  - Private transportation
  - Set up or contracted for community-base transportation
  - Ambulance of the health center
- Ambulances of the referral hospital
- Communicate with referral hospital
- Provide the referral letter
- Register the referred cases

- Send the an ambulance, if necessary
- Patient allocation
- Provide proper care service
- Register the referred cases
- Give feedback to health center

(For more details, read the "Guideline for Referral System)

Chapter 5: Community Participation

Health center should have good communication with communities. Community participation may greatly contribute increase possibility to receive services, development of health center activities and improvement of quality of services provided by health center staff. Community participation is an important factor enabling health center well functioned.

- Community participation aims to provide good health care services with a reasonable price to the population in the coverage areas of the health center, and people are able to utilize the services. “Community participation shows population that health center is their own property”.
- Community participation leads community to take responsibility for making decision, changing behavior for their health improvement, and make them know about health care by themselves.
- The Ministry of health uses Health Center Management Committee, Village Health Support Group and village health volunteers for mobilizing all groups of people in community to involve all stages of primary health care activities and for strengthening linkage between community and health center.
- Advantage of community participation is that people can know what are being done by health center and what services can be provided by health center. Relevant information is disseminated from health center to community and from community to health center through representatives of communities in the Village Health Support Group and Health Center Management Committee. And, health center also knows what problems they are faced to and what they need.
- Community participation helps not only provide information to people but also create good communication especially on three points that may motivate people to utilize services; those are: staff friendliness, staff reliability and quality of the services, and cost-transparency. If people know that health center welcomes them, friendly staff, good services, appropriate cost, and know in advance how much they should pay, they will use services of the health center more frequently.
- Community participation supports to a social fairness, service fee (tariff) should be determined together with community so that community may have ability to pay for the services. An exemption system for the poor people should be precisely explained to the community representatives.

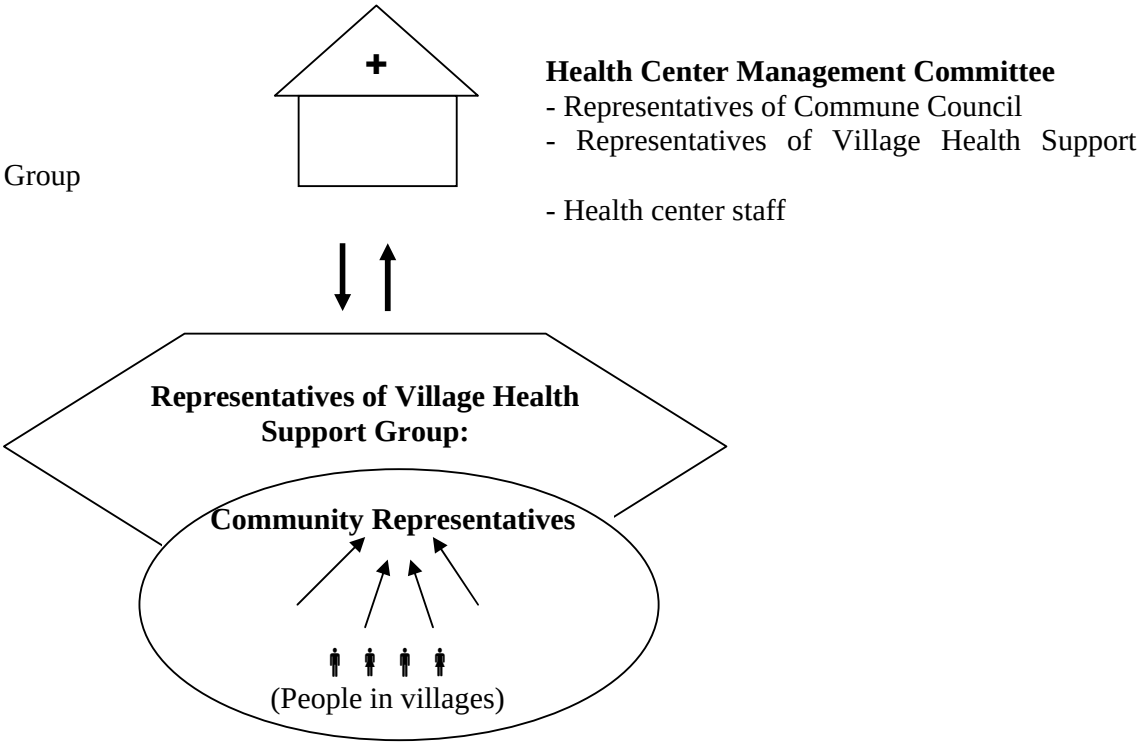
1- Health Center Management Committee

Community participation can smoothly be functioned depending on a clear structure so that a framework is provided to all parties especially the health center staff group and community representatives in order to work together within this framework in a manner of a real partner.

Experiences in the implementing process of community participation in health sector at many provinces in Cambodia shows two aspects in communication between health center and community: 1st is co-management and 2nd is information exchange in which both of them are considered as key ideas in determining scope of work and in identifying a structure for community participation.

Therefore, a structure to be established and reflected to co-management aspect is “**Health Center Management Committee**” and the information exchange aspect is “**Village Health Support Group**”.

In principle and in actual practice, Health Center Management Committee and Village Health Support Group should play a role to complete each other. Another meaning is that they each should fulfill purposes for significant aspects of relevant participation from community in functioning of health center. It should be remarked that there is a numerous community representatives in these two structures.



Membership

- Health Center Management Committee is composed of the representative of health center staff group, representatives of community and Commune Council. A health center, which covers more than one commune, the representative of a commune council the health center is located in is selected to be a chairman of the of Health Center Management Committee.
- Health Center Management Committee should have at least 7 members in total (9 or 13 or 15 people) according to the number of communes covered by the health center. This number is the most proper for commission to decide:
  - Health center: 2 or 3 people (a chief and midwife or a chief, a deputy chief and a midwife), the members of Health Center Management Committee must the odd number and midwife is involved. Chief of health center must be the permanent vice-chairman of the Health Center Management Committee.
  - Representatives of Commune Council: a chief of Commune Council or a member of Commune Council in-charge of the health sector per commune. If the health center covers more than 1 commune, there must have a representative from each commune.

- Chief of health center must be the permanent vice-chairman of the Health Center Management Committee.
- Representatives of Village Health Support Group: In case of health center covers one commune, there should have 2 women and 2 men (4 people). In case of health center covers more than one communes, there should have one woman and one man as representatives from each commune (2 people per commune). Those representatives must be elected.

1-1 Roles and Functions of the Health Center Management Committee

The main roles of the Health Center Management Committee are to make orientation for the management works and give recommendations to the health center staff group ensure the availability of services at health center according to the Minimum Package Activities of Ministry of Health and the people in the responsible areas of health center are able to use those services.

1. **Chairman** of Health Center Management Committee has the roles to:
   - Chair the monthly meeting of the committee and make decision depending on majority of opinions of the meeting members in compliance with the national policy.
   - Support and coordinate the health works within coverage areas of health center.
   - Participate in seeking for budget from other sources for the development of the community health.
   - Encourage every activity of the Village Health Support Group and other volunteers for the development of the community health.

2. **Vice-chairman** of Commission of Health Center Management has the roles to:
   - Chair the monthly meeting of the committee and make decision depending on majority of opinions of the meeting member instead of chairman and then report to the chairman, in case of the chairman is vacant.
   - Prepare relevant documents, agenda, invite the members to join the monthly meeting, and make minutes of the meeting.

3. **Member** of Health Center Management Committee has the roles to:
   - Attend the meeting as invited by the chairman or vice-chairman.
   - Propose inclusion of topics in agenda of the meeting.

1-2 Tasks of the Health Center Management Committee

1-2-1 Involve in determining management works and development of health center services on the following aspects:

- Involve in making annual operation plan of the health center
- Monitor and evaluate the implementation of annual operation plan of the health center (activities and results).
- Discuss on financial management and implementation such as: payment of user fee, determining on tariff and reviewing in case of necessary, and identifying poor people to be exempted.
- Seek for the resources source and monitor the budget management of health center including national budget, user fee income, private and other donors.

- Monitor on maintenance/repair of the buildings and transportation for referred patient, which supports to provision of services at health center.
- Arrange transportation for referred patients from village to the health center or to referral hospital.
- Monitor and evaluate the quality of services provision at health center, the community, the Village Health Support Group and other volunteers.

1-2-2 Provide the linkage between the health center and community

Coordinate efforts of multi-sectors -population mobilization and other sectors in order to promote community participation concerning health problems and health relevant problems:

- Find proper solutions for provision of services by health center reflecting to the proposals and complaints from the community so that high effective services will be provided.
- Ensure that Village Health Support Group and Village Volunteers disseminate health information and new information about HIV/AIDS, Tuberculosis, Malaria, Dengue, etc. to communities especially about outbreak of epidemic diseases such as: Avian Influenza, Cholera, Diarrhea, etc.
- Constantly keep information exchange between the community and health center, by providing the information to the community of services available at health center and receive back the information about health problems in the community.
- Facilitate the arrangement and process of meeting of Village Health Support Group, setting up the place, the date and agenda of the meeting, etc.

1-2-3 Promote community participation in health center activities

By mobilizing population and other sectors in community to take actions for public benefits:

- Mobilize community to participate in health activities such as: immunization program, preventive measures against epidemic of communicable diseases (such as: diarrhea, cholera, dengue, avian influenza), sanitary activities at school, villages, markets, etc.
- Participate in campaign of prevention against all kinds of communicable diseases, especially HIV/AIDS, tuberculosis, malaria, dengue, avian influenza, etc.
- Encourage the people in community to use the service on time at health center when they have health problems.

1-2-4 Strengthening effective functions of Health Center Management Committee:

- Regular hold and make minutes of monthly meeting, and the minutes should be used for following up the activities in the next meeting. The meeting minutes signed by a health center staff and approved by chairman of Health Center Management Committee should be: kept one set at health center, sent one set to Operational District and one set to Commune Office.
- Review monthly report of health center (activities and financial status), which was made by chief of health center, and discuss on all problems

facing during implementing the activities of health center and measures to be taken in the future.

- Review the report of Village Health Support Group made by this group; and then discusses and solves problems which were raised through monthly and quarterly activity plan of the health center.
- Disseminate the health center report (by the representative of the committee) through the meeting of Village Health Support Group so that the information will be forwarded to the people to be aware of activities and results of health center and other important problems relevant to health.

To enable Health Center Management Committee complete the roles, the health center and Village Health Support Group should:

1-2-4-1 Health center should carry out the following activities:

- Organize annual review meeting (results)
- Provide information to all stakeholders through monthly meeting of health center and commune to prepare for making plan.
- Develop annual operation plan, involving by all stakeholders
- Follow up the monthly, quarterly, semi-annually, and yearly activity's results
- Manage uniforms and duty staff
- Transparently manage the user fee and regularly report to the Health Center Management Committee
- Evaluate the facility maintenance/repair works and arrange transportation for referred patients/ communication system for provision of services of health center.
- Prepare the hygienic grace at health center to attract the community to use the health center services.
- Disseminate information about assembling of Health Center Management Commission (monthly meeting at Operational District), proceed assembling of Health Center Management Committee and hold regular meeting of the committee.
- Inform to operational district and community about the date of the meeting of Health Center Management Committee and Village Health Support Group 1 week in advance (5 weekdays), minutes of the meeting must be made and submitted to the operational district and commune office.
- Strengthen the provision of quality services at health center.
- Regularly hold the meeting of Village Health Support Group, and follow up with the health education report, receive the proposals from the community.
- Meeting with Commune Council every months
- Organize monthly meeting of the committee, report to the meeting about the activity's results, difficulties/ problems encountered, usage of user fee, budget from donors; make next action plan and call for support from the committee.
- Request for supports from the operational district the problems relevant to the service provision activity at health center.
- Follow up the report and take immediate intervention when outbreaks of epidemic diseases, disaster, etc.
- Organize meeting: place, agenda, invitation letter, relevant documents (monthly activity report, financial report, and recent health information),

and meeting minutes. The minutes must be submitted to Commune Council and Operational District, and set kept at health center.
- Motivate members of Health Center Management Committee by available means.

1-2-4-2 Health Center Management Committee should carry out the following activities:

- Voluntarily provide constructive opinions in making plan of health center
- Involve in monitoring on implementation of the plan of health center
- Participate the evaluation meeting, changing of service price, and looking for the resource source to develop the health center operation.
- Bring information from communities for improvement of services provision of health center
- Attend meeting on evaluation, revision of service fee, and seeking for resources for the development of health center
- Mobilize relevant people in establishing emergency referral system to the health center or to referral hospital.
- Organize regular meeting of the Health Center Management Committee so that problems/suggestions can be received, solved and facilitated for the communities.
- Commune Council involves in solving all problems relevant to local authority.
- Regularly hold monthly meeting, make meeting minutes, and the minutes should be used follow up of activities at the next meeting. Meeting minutes with the signature of health center staff and approval of chairman of the Health Center Management Committee should be: kept one set at health center, and one set submitted to Operational District and one set submitted to Commune Office.
- Check monthly report of health center (activities and financial status), which was made by health center working group and discuss and have the measure of activating for the future.
- Check the report of Village Health Support Group; discuss and solve problems raised problems through monthly and quarterly action plan of health center.
- Disseminate the health center report (committee representative) through the meeting of Village Health Support Group so that the information will be forwarded to the people about the activities and results of health center and other main problems relevant to health.

2- Village Health Support Group

Village Health Support Group provides information from health center to community and from community to health center. 2 members, 1 male and 1 female are elected by the community.

- Representative of Village Health Support Group provides the opinions for making plan of health center.
- Support health center staffs to provide the services in the community and mobilize population to use health center services.
- Involve in establishing emergency referral system to health center or to referral hospital.

- Involve in dissemination of information about establishment and selection of Health Center Management Committee.
- Provide health information to community on time.
- Provide information about community's health status, problems, suggestions and report to the health center.
- Well cooperate with health center staffs when provide outreach services.
- Urgently report to health center when outbreaks of epidemic diseases, disaster, etc.
- Disseminate the services available at health center and then report to health center about the number of people attended.
- Involve in refer of patients from community to health center or to referral hospital.
- Fill in list of target population at villages.
- Representative of Village Health Support Group regularly attends meeting as invited by chairman of Health Center Management Committee.
- Provide community health report to the Health Center Management Committee and disseminate information from health center to community.
- Attend Health Center Management Committee meeting and Village Health Support Group meeting at the health center.
- Village Health Support Group disseminate health message the community on time.

3- Village Health Volunteers

- Village Health Volunteers are the activist in the villages, but not a Village Health Support Group.
- Cooperate with the health center, Village Development Committee and other organizations to promote health sector and improve health status of community.
- Work up on their ability and available time.

★Tasks of Village Health Volunteers:

- Provide the health education and counseling to the villagers regarding the health problems such as: immunizations, birth spacing, and communicable diseases through:
    - Mobilizing villagers to use the health services and involve in health works such as immunizations and birth spacing
    - Participate in following up of the growth of under 5 years children.
- Provide first aid when there is disaster or outbreaks of diseases in the villages.
- Cooperate with the community, health center staffs for referring the patients to the health center or to referral hospital.
- Cooperate with non-governmental organizations, international organizations working in the communities, especially with relevant institutions, local authorities in order to improve the health status, hygiene in the village.
- Cooperate with Village Health Support Group, Health Center Management Committee, Village Development Committee, local authorities, and villagers in making health plan and village development plan.
- Village Health Volunteers should cooperate with the Village Health Support Group

- Participate in monitoring and evaluation of the health promotion activities in the villages, with the health center staffs, Village Development Committee, institutions/ organizations and local authorities.

Chapter 6: Facility Infrastructure

1- Health Center

960 health centers were established under the permission of the Ministry of Health. Most of these health centers already had location and building. However, some of the buildings do not match to the standard since they were constructed by NGOs and other institutions within the past 50 years. Among buildings which were not matched to the standard, some of them can be renovated to adapt the standard, but some need to be destroyed or leave for another purpose. It means that each health center should assess own building condition, and then make a concrete plan. *(For detailed information, read "Guideline on Health Center Building Briefs" developed in August 2007).*

Poor design of health center building with bad road condition can be an obstacle for women to come for delivery and postpartum care at health centers. Thus, these two services should be also provided by a competent health staff through outreach activities. Nevertheless, the mechanism documentation, follow up, and adequate quality control should be kept to ensure that those services provision are part of public sector service, but not an illicit private activity of a health center staff; and make sure that official payment of user fee has been implemented always. It is also necessary for all health centers to paste the tariff on the wall of the veranda of the health center building.

An investigation on usability of existing health buildings is required and must be carried out.

Since services provision to patients are required even during the health center building is being constructed/expanded or renovated as a civil construction, a plan must carefully made to ensure that construction work and health service provision are synchronically functioned. *(Annex-35: Standard Health Center Design)*

Health center should have adequate transportation means (such as motorbike, boat, bicycle, etc.) for outreach services activity.

All the rooms, especially Delivery Room of health center should be equipped with electrical system adequately and electricity source is provided such as by Solar Panel, electricity generator or government electricity supply or private electricity supply.

Health centers should have telecommunication such as communication radio and/or telephone system so that they are able to communicate with operational district, and the system should be integrated in the drawing of the building.

Attention and measures should be taken by health center for good management-maintenance of buildings, medical equipments, transportations and furniture.

ANNEX 1
TABLE OF FACILITIES AND FUNCTION
FOR NON FLOOD PRONE AREA HEALTH CENTER

1. CLINICAL AND CLINICAL SUPPORT SERVICES

	1.1. OUTPATIENTS CONSULTATIONS		Staff Nos	Room Nos	Area of service room in (M2)
MPA	*The outpatient consultation receives patients who are referred by the health posts within/between catchment areas for complementary diagnosis or for health problems that cannot be managed by the health posts. Referral consultation should be an autonomous service with its own staff.*				
	All health centers should have *ramp* with ***1/10*** slope instead of front stair that can serve disable and non disable people who come to get services. Rear stair or exit should be taken into account				
	Rooms should be clearly labeled. Admissions are registered by the reception and primary examination and diagnoses of patients effected so as to direct them to the appropriate rooms				
	1.1.1.	Waiting Area / Registration -Veranda (at first floor level)		1	28-30
	1.1.2.	Dispensary (pharmaceuticals supplied by OD Pharmacy)		1	9-12
	1.1.3.	Laboratory for TB, malaria and HIV/AIDS, etc. tests with sink. The room should have good source of natural light and counter with window giving in to the public circulation for staff to hand in samples for TB smear.		1	9-12
	1.1.4.	Examination room for children with wash basin		1	11-12
	1.1.5.	Examination room for adults with wash basin		1	11-12
	1.1.6.	National program/ birth spacing room		1	11-12
	1.1.7.	Delivery room with obstetric consultations (ante-natal, preventive, family planning, lactation, etc.) with wash basin		1	12-14
	1.1.8.	Post delivery room. It should be next to delivery room		1	12-14
	1.1.9.	Antenatal care/counseling room		1	11-12
	1.1.10.	Sanitary facilities 1 for men and 1 for women (At first floor level)		2	4-5
	1.1.11.	Disable Toilet (At ground floor level)		1	4-6
	1.1.12.	Store - technical equipment & medical supplies		1	6-8
	1.1.13.	Store - house-keeping		1	2-3
	1.1.14.	Corridor and circulation (recommended 2 meters width minimum)		1	24-28
	TOTAL SURFACE				154-180

Note:

Health and Community Education, other health program activities, visitors/patient relative temporary accommodation and future expansion of health facilities on the ground floor level.(125-131 m2)

2. TECHNICAL SUPPORT SERVICES

	2.1. WASTE MANAGEMENT		
	The management of waste should be designed to reduce the risk of infection to both patients and staff. For efficiency, the flow of hazardous and non hazardous waste should be carefully studied.		
MPA	2.1.1.	Incinerator - to be provided on the periphery of the health center grounds with easy access and a discreet location	
	2.1.2.	Sharps are hazardous and should be disposed of into safety boxes that can be collected and disposed of through incineration. Each Province has 1 or 2 SICIM incinerators where hazardous waste can be destroyed.	
	2.1.3.	Enclosure with tanking for waste storage before disposal - toxic and non toxic (no contaminated water should filter into the ground)	

ANNEX 1
TABLE OF FACILITIES AND FUNCTION
FOR NON FLOOD PRONE AREA HEALTH CENTER

3. EXTERNALS AND INFRASTRUCTURE

			Remarks
MPA	**3.1. ELECTRICITY**		
		The electrical and water installations are closely connected, as water needs energy to be pumped. Therefore the two should be studied conjointly. Cambodia's standard distribution is 220-240 V.	
	3.1.1.	Mains electricity supply should be provided if possible	
	3.1.2.	Envisage solar panels to complement electricity supply, or in certain cases generators to complement solar energy	
MPA	**3.2. TELECOMMUNICATIONS AND INTERNAL COMMUNICATIONS**		
		Telecommunications are evolving every day in Cambodia and available systems are likely to change fast over the next few years. All health centers require communications with District Health Centers and Health Posts. Adequate solutions should be found for each location.	
	3.3. WATER		
MPA	*Water is the most important pre-requisite for running a health center. Provision of safe, potable water contributes to the well-being of patients and reduces the risk of infections and propagation of diseases such as dysentery, gastro-enteritis and other water-borne diseases.*		
	Adequate water is vital to the Health center's functioning. An assessment of the available resources should be made before deciding on the best solution for each Health centers		
	3.3.1.	Water supply – preferably mains supply, but if not available, ground or surface	
	3.3.2.	Wells - when other sources of drinking water are not available well-water can be provided from the aquifer - water pump	
	3.3.3.	Water treatment system may be necessary to eliminate germs, minerals and guarantee the right ph.	
	3.3.4.	Tanks - water reservoirs should be provided for building, fire-fighting and emergency water supply from rainwater. Not used for washing.	
	3.3.5.	Rain water should be disposed of separately from sewage and septic water, preferably into open ponds that can serve as reservoirs with the overflow into public drainage.	
	3.3.6.	Water treatment – septic and dirty water should be filtered and decanted to remove any fatty substances. This water can then be added to sewage and treated in a bacterial operated septic tank and filter system, with clean water overflows, located in the grounds of the hospital.	
MPA	**3.4. EXTERNALS**		
	3.4.1.	Fence should be simple but well built to need low maintenance	
	3.4.2.	Gate should measure at least 4M wide (2x2) and be well designed to need low maintenance. The entrance and exit should be by the same gate for security purposes.	
	3.4.3.	Access road - the internal vehicle circulation should be carefully studied to separate the circulation of vehicles from people.	
	3.4.4.	Car park - provide adequate parking space for cars and motorbikes at strategic places in the site design.	
	3.4.5.	External lighting - especially of access roads and entrances to buildings should be taken into account.	

2- Health Post

Construction of a health post must be complied with standard design of the Ministry of Health *(see annex-36: Health Post Standard Design).*

Chapter 7: Medical Equipment and Furniture

1- Health Center

1-1 Furniture

List of furniture for health center

No.	Item description	Specification (measurement in mm)	QTY
1.	Metal office desk with glass cover, single pedestal with 3 drawers and one cental drawer with locks and keys	1066 W x 660 D x 740 H	7
2.	Folding chair, padded seat and back	445 W x 463 D x 770 H	14
3.	White board with metal frame, including one set of eraser and marker (small and medium sizes)	1.2m x 1.8m & 1200 W x 800 D	4 (2+2)
4.	Three drawers filling cabinet	463 W x 620 D x 1017 H	3
5.	Adjustable metal 6 shelves for drugs	920 W x 470 D x 1800 H	2
6.	Metal bookcase with glass	914 W x 457 D x 1830 H	4
7.	Hospital bed		4
8.	Pin board with metal frame	1200 W x 800 D	2
9.	Metal partition screen (3 pannels) with 3 pieces of upholstered with cloth	1200 W x 1600 D	2
10.	Metal folding table with drawer	1200 W x 800 D x 730 D	1
11.	Generator	5 KVA	1
12.	Baby cit (post delivery)		1
13.	Table for diagnostic & wound dressing (optional)		1
14.	Refrigerator for pharmacy (optional)		1

1-2 Medical Equipment

LIST OF MPA Kit			
	(NAME OF ITEMS)	(SPECIFICATIONS)	(QTY)
[CONSULTATION (OPD)]			
A1	Otoscope set	One piece handle and diagnostic head Fiber optic light Battery operation (type AA) Specular 2.5, 3, 4 and 5mm pory., re-usable Protection case	1
A2	Weighing Scale	For Child to Adult Flat head (Bathroom type) Metric system Weight capacity maximum more than 120kg minimum reading 500kg Size approx. 300mm x 300mm Zero point manual calibration Shell of scale approx. 1mm thick steel Anti corrosion coated	2 (OPD,ANC
A3	Sphygmomanometer, Adult	Aneroid, Portable Range 0~300mmHg Cuff for adult Zero point manual adjustment Protection case	1
A4	Sphygmomanometer, Child	Aneroid, Portable Range 0~300mmHg Cuff for child	1

		Zero point manual adjustment Protection Case	
A5	Stethoscope	Binaural Dual type (double stem chest piece) Combined bell and diaphragm Plain spring non-folding frame Diaphragm size approximate 45mmφ	2
A6	Stethoscope, Fetal, Monaural	Pinard, Monaural Unbreakable plastic	1
A7	Tongue Depressor	Stainless steel sterile Length 150mm~170mm Width 15mm~22mm Both ends slightly curved in opposite direction	2
A8	Thermometer	Clinical type oral and rectal Mercury type Prismatic type Scale 35~42 Celsius With protection case	3 OPD,ANC FPg
A9	Scale with Trousers	Scale: Portable infant weighting scale Salter, suspension, hanging type Metric indication Maximum capacity: approx. 25kg Minimum graduation: 100g With manual calibration Trousers: Infant weighting trousers With strap for suspension Size: approx. 320mm waist x 280mm height at center 140mm crotch width, 145mm leg opening 1270mm suspension strap length	1
A10	Tape, Measure	Vinyl coat fiberglass Graduations: metric and inches Length: 1.5m and 60 inches	1
A11	Weight for Height Chart	Laminated paper Size: 140 x 100cm roller mounted Chart Indications: Vertical columns each marked with a different weight (5-25kg) Three colored at upper end Child is placed against the appropriate weight column Color at the top of the head indicates the child's nutritional	1
A12	Height measuring instrument	Direct reading of measurement up to 2m, Wall mounted	1
[VACCINATION (EPI)]			
B1	Vaccine Refrigerator	Refrigerator and freezer Absorption type (LPG gas) Vaccine storage capacity:15-20 litter Meets WHO/UNICEF Hot zone appliance equipment CFC free Meets WHO/ UNICEF standard E3/RF.2 Energy sources : LPG gas 2 sets of operation manual in Khmer Manufacture should be certified GMP	1
B2	Vaccine Carrier	Short range vaccine carrier Vaccine storage capacity:0.1-3.0 litter Weight fully loaded 2.0-3.0 kg Holdover time: minimum 8 hours at 43^{o}C air temperature With carrying handle and / or shoulder strap Included 1 set of icepacks Complies with WHO Performance Specification E4/VC.0.	1
B3	Ice Pack	Capacity: 0.4 litter With crew cap Complies with WHO Performance Specification E5/P.2.	4
(WOUND DRESSING)			
C1	Basin Kidney	Stainless steel	2

		Small size Approx. 205 x 110 x 40mmm, 0.8mm thick	
C2	Bottle Wash	Laboratory Use Polyethylene Volume: 250ml Squeeze type with bent delivery tube	2 (1for saline 1for povidone)
C3	Hand Brush	Scrubbing, Surgeon's Nylon Bristles, Plastic block Block size: approx 100mm x 40mm 7 x 16 or 7 x 18 rows	2
C4	Forceps, Pinsetters	Pinsetters, Dressing, Standard Size: approx. 155mm Stainless steel Serrated round tips	2
C5	Forceps, Haemostatic	Haemostatic, Artery, Straight, pean (Rochester) 160mm(6 1/4") Box lock, Multiple ratchet Stainless steel	4
C6	Needle Holder	Straight, Mayo-Hegar 160mm(7") Narrow jaw, Box lock, Multiple ratchet Stainless steel	2
C7	Scalpel Handle	No.3, Minor surgery Rustles nickel alloy or stainless Fit with surgical blade No.22 (item No.13)	2
C8	Director Grooved	With prove point approx. 140mm long Tongue-tie, round point, grooved Stainless steel	2
C9	Scissors Mayo Dissecting	Curved, Screw lock Blunt and blunt, Approx. 145mm long Stainless steel	2
C10	Scissors, Operating	Standard, Operating Straight, Screw lock Blunt and blunt point, Approx. 145mm long Stainless steel	2
C11	Tray Instrument	With cover with holding knob Size approx. 225 x 125 x 50mm Stainless steel	1
C12	Tray Instrument and Catheter	Stainless steel, with cover, Size: approx. 225 x 125 x 50mm	1
C13	Tourniquet	Army type With buckle Size: approx. 1060 x 38mm	4
C14	Pail diaper	Polyethylene Capacity approx. 12littlers (3 gallons) With cover	1
C15	Box, Syringe	Aluminum, Size: approx. 160 x 100mm, Hold four 1ml syringe or more, with cover and removable syringe holding plate,	2
C16	Box, Instrument	Stainless steel, With cover Size: approx.170 x 90 x 40mm	2
C17	Tray Instrument, Small	Stainless steel, Size: approx. 225 x 125 x 50mm With flat overlapping cover, center recess and crossbar handle,	1
C18	Tray Instrument, Shallow	Stainless steel Size: approx. 345 x 245 x 16mm	1
C19	Cart, Dressing	Ward use, Knock down construction, Size approx.180(L) x 60(W) x 80(H)cm Two shelves, with rubber tired castors, Maximum capacity 100kg or more,	1
C20	Light, Operating, Stand type	Stand type, One halogen lamp, Power supply 220v-240v AC50Hz,	1
(MATERNAL, NEW BORN AND REPRODUCTIVE HEALTH)			

	[DELIVERY KIT (MATERNAL AND NEW BORN)]		for3 kits
D1	Scissors, Mayo Dissecting	Same as C9	3
D2	Scissors, Episiotomy	Braun-Stapler 145mm (5 1/2)" Angular with one guarded blade Stainless steel	3
D3	Scissors, gynecological	Surgical scissors, 200mm, Curved with blunt end blades, Stainless steel	3
D4	Scissors, Deaver	Scissors, Deaver, 140mm, Curved, s/b	3
D5	Forceps, Haemostatic	Same as C5	6
D6	Forceps, tissue, standard	Dissecting forceps, 145mm, with spring , flexible arms, Stainless steel,	3
D7	Forceps, artery, Kocher	Haemostatic forceps, 140mm, curved, b/b, Stainless steel,	9
D8	Forceps, Dressing, Cheron	Vaginal dressing forceps, cheron, 250mm, without teeth, flexible arms, with ratchet lock, Stainless steel,	6
D9	Scalpel Handle	Same as C7	3
D10	Basin Kidney	Same as C1	3
D11	Bed Pan	For Adult, Sterile, Polypropylene Size approx.(L)360 x (W)290 x (front H) 110mm	2
D12	Hand Brush	Same as C3	3
D13	Pail Diaper	Same as C14	1
D14	Delivery Bed, 3-Section	Three section structure (Head, Buttocks and Foot) Material: Coated steel or stainless Size approx. L1800 x W550 x H800mm Head section could be raised manually with ratchet, Foot section could be lowered vertically and raised with ratchet Thick plastic foam filled pads (All section) Pads are covered with waterproof and washable material Complete with knee crutches/ poles, S.S. basin with holder,	1
D15	Bottle Wash	Same as C2	2
D16	Needle Holder	Same as C6	3
D17	Sphygmomanometer, Adult	Same as A3	2 ANC,FPg
D18	Stethoscope	Same as A5	2 ANC,FPg
D19	Pinard stethoscope	Stethoscope, foetal, Pinard	2
D20	Catheter, Urethral	200mm Female, Stainless steel,	3
D21	Box, Syringe	Same as C15	3
D22	Box, Instrument	Same as C16	3
D23	Tray, Instrument	Same as C17	3
D24	Tray, Dressing	Tray, Dressing, stainless steel, 300x200x30mm	3
D25	Cart Dressing	Same as C19	1
D26	Light, Operating ,Stand type	Same as C20	1
D27	Bowl	Bowl, Round, 600ml, Stainless steel	3
D28	Jar	Jar, forceps, pp, 180mm, w/o cover	3
D29	Jar	Jar, thermometer, pp, 11cm, w/o cover	3
D30	Thermometer	Thermometer, clinical, digital, 32-43 °C	3
D31	Aspirator, Portable, foot operated	Pump aspirating, Portable, Suction pump for pharyngeal and tracheal suction, Max suction capacity 300mm Hg or more, Operated by foot or hand, Collection container capacity approx. 1000ml, Overflow mechanism allows for container	1
D32	Scale, Infant	Clinic type, includes tray for infant Metric indication Maximum. capacity: approx. 16kg-20kg Minimum graduations:50g or 100g Mechanical balance	1
D33	Measuring length	Needs to be a horizontal piece of equipment with tape measure attached to accurately record baby's length post delivery	1
D34	Apron	Apron, protection, plastic	3
	(ADDITIONAL EQUIPMENT FOR REPRODUCTIVE HEALTH INCLUDING FAMILY PLANNING & ABORTION)		

D35	Forceps, uterine, tenaculum	Duplay, tenaculum, double curved, 280mm, Stainless steel,	3
D36	Forceps, Dressing, Cheron	Vaginal dressing forceps, cheron, 250mm, without teeth, flexible arms, with ratchet lock, Stainless steel,	3
D37	Uterine sound	Martin, malleable 32cm, 1cm GRAD	3
D38	Scissors, uterine	Curved Sims 200mm stainless steel	3
D39	Speculum Large	Vaginal, Bi-Valve, graves Large size approx.115mm x 35mm Bi-Valve (Duckbill) Stainless steel	3
D40	Speculum Medium	Vaginal, Bi-Valve, graves Medium size approx. 95mm x 35mm Bi-Valve (Duckbill) Stainless steel	3
D41	Speculum Small	Vaginal, Bi-Valve, graves Small size approx. 75mm x 35mm Bi-Valve (Duckbill) Stainless steel	3
D42	Tray Instrument	Tray instrument, stainless steel, 310x195x63mm with cover	3
(LABORATORY)			
	(EQUIPMENT)		
E1	Slide Mailer	Robust Protection of 75 x 25mm, 3slide in one, Specimen during transportation	5
E2	Alcohol Lamp	Glass 70-100ml	1
E3	Slide drying rack	Woods or plastic for drying slide (76x26)	1
E4	Reagent bottle	Wide mouth, clear glass with well-ground, dustproof glass stopper, 250ml	1
	(CONSUMABLE)		
F1	Microscope slides	Frost type tropical Package, 72pcs/box, Slides are separated by tissue	real activity
F2	Sputum Container	Screw Cap 40ml Plastic Wide mouth ,leak proof	real activity
F3	Haemoglobine Colour Scale	Haemoglobine colour Scale Kit	real activity
(OTHERS)			
G1	Stretcher	Foldable Extractable handles Push wheel in front Corrosion resistant (aluminum and /or stainless) PVC coated nylon fabric base Size: approx.(L)2,000 x (W)570 x (H)150mm	1
G2	Pressure Sterilizer	Fuel-heated pressure type Chamber volume: approx. 24litter Internal diameter approx.30cm x 30cm deep Portable, Heavy cast aluminum alloy construction Metal lid with six wing nuts to hold cover down With pressure safety vale Removable cover with heat isolated handle Manual pressure release vale Pressure/temperature gauge	2
G3	Gas Stove	Single burner Burner size: approx. dimension 15cm Base size: approx. dimension 35cm With ignition function Fit with pressure sterilizer (item No. E2)	2
G4	Gas Cylinder	LPG gas cylinder Volume: 15kg LPG Screw type outlet with closing vale Meets Cambodian industrial standard Cylinder safety tested or retested within 3 years	2
G5	Gas Regulator with hose	LPG pressure reducing regulator Screw type connector (fitted with gas cylinder item No.E4) Meets Cambodian industrial standard Gas hose: Lenght:3m Reinforced with nylon mesh With 2 pieces of hose clamp	2
G6	Drum, Sterilizing	Cylindrical sterilizer drum	3

		Size approx. Diameter 240mm x Height 150mm 0.7mm gauge Stainless steel Perforated sides Airtight sliding band to cover perforations Hinged lid with lifting handle and efficient fastener Fit with pressure sterilizer (item No.E2)	
G7	Water Filter	Purification of Drinking water Ceramic candle type Water drop through candle filter by natural gravity Stainless steel body with an outlet tap Upper tank with 2 candle filters, Lower tank is water storage Size :approx. dimension 30cm x height 80cm	1
G8	Calculator	8 character display Performs basic arithmetic and memory function Operating on Solar and Battery Body Size: Approx. 140 x 180mm	1
MEDICAL FURNITURE			
H1	Bed (post delivery)		1
H2	Table, Diagnostic		1
H3	Baby cot (post delivery)		1
H4	Refrigerator (pharmacy)		1
H5	Cabinet for drugs		1

MPA kit for oral health, only for health centers where have dental nurse

S.N	Items	Quantity	Remarks
I	***Instruments***		
1	(dental chair)	01	
2	(pressure cooker)	01	
3	(30 cm x 20 cm x 10 cm) (instrument tray with cover (30 cm x 20 cm x 10 cm))	05	
4	(flat trays)	10	
5	(Examination set (10 sets)) (mouth mirror with handles) - explorers - tweezers	 10 10 10	
6	(dental forceps)		
	upper molar	02	
	- upper universal	02	
	- upper root	02	
	- cowhorn	02	
	- ផ្ដាមក្រោម (lower molar)	02	
	- lower universal	02	
	- lower root	02	
7	**Elevators**		
	- Straight elevators (Small, Medium, Large tip)	02 (for each type)	
	- Cryer elevators (Left & Right)	02 sets	
8	**ART instrument set (2 set)**		
	- Double-ended excavators (Small, Medium, Large tip)	02 (for each type)	
	- Enamel chisel (double-ended)	02	
	- Cement carver spatula	02	
	- Metal mixing spatula	02	
9	Dental cartridge syringes	05	
10	Anterior scaler	05	
11	Posterior scaler	05	
II	***Supplies***		
1	Local Anesthesia		
2	Disposable dental needles (Long) 27G x 35 mm		
3	Disposable dental needles (Short) 27G x 21 mm		
4	Glass Ionomer Cement (Fuji IX) and (Fuji VII)		
5	Eugenol		
6	Oxide de Zinc		
7	Cotton		
8	Masks		
9	Gloves		
10	Disinfectant solution		
11	Solution for cleaning (surface cleaning)		

2- Health Post

List of medical equipment for health post

No.	Names, signs, specifications	Qty.
1.	(Sphymomanometer Aneroide 300mm Hg with adult cuff)	1
2.	(Spare cuff for sphygmomanometer, adult size velco strip)	1
3.	(Sphymomanometer Aneroide 300mm Hg with children cuff)	1
4.	(Spare cuff for sphygmomanometer child size Velcro strip)	1
5.	(Stethoscope binaural)	4
6.	(Tong depressor metal 14.5 cm)	2
7.	(Thermometer clinic, oral/rectal)	2
8.	(Kidney basin 20cm, 475ml S/S)	2
9.	(Forceps dressing spring type 15.5cm S/S)	2
10.	(Forcepts haemostatic Rochester Pean str 16cm)	1
11.	(Needle holder Mayo-Hegar str 16cm)	1
12.	(Blades surgical N 22 disp. sterile)	2
13.	(Handle for surgical blade N 4)	1
14.	(Sterilizer instrument with cover 222x82x41cm (instrument tray))	1
15.	(Probe, round point & tong tie 14.5cm)	1
16.	(Scissors dissecting Mayo Curved 14.5cm b/b)	1
17.	(Scissors surgical straight 14cm b/b)	1
18.	(Tray instrument 225x150x45cm with lid S/S)	1
19.	(Forceps dressing/Spong holding forester str 20cm)	1
20.	(Weighing scale baby with sliding weight 16kg/10g)	1
21.	(Stethoscope foetal Pinard, Aluminium)	1
22.	(Tape measure 150cm)	1
23.	(Weight height wall chart, colored)	1
24.	(Ice pack for coolbox 300cc)	4
25.	(Vaccin carrier 1.5L + 4 ice packs)	1
26.	(Stretcher folding dim 200x57x15cm)	1
27.	(Tourniquet heavy type 90x50cm)	4
28.	(Pocket calculator, solar)	1
29.	(Pail diaper, 12L with cover polyethylene)	1
30.	(Water filter Polished S/S with 4 candle 2.5L/Hrs)	1
31.	Candle for water filter standard	4

Chapter 8: Criteria for Health Post

Health post can be established instead of increasing in number of health center for coverage population can be enhanced. Health post should be located in the remote area and functioning as lowest level in district health system. Thus, it is the first meeting points of people and governmental health services in the low population density provinces. Health post is not commune nursing center but it is a place where provides health services in remote areas. Therefore, criteria must be strictly complied with when a health post is established.

Criteria for establishment of health post (low population density provinces)

1- Location of Health Post:

- Population criteria: health post must be located in a remote village/commune where population ranged from 2,000 to 3,000 people. In case, number of

population is lower than this, other options should be considered such as: increasing outreach service activities and organizing health volunteers.

- Geographical criteria: the distance from the village/commune to the nearest health center is farther than 15Km (3 hours by walk) and geographical obstacles (river, mountain, bad road condition).

2- Support from Health Center: health posts must be linked to a health center, which supervises and manages those health posts. For example a health center with 10,000 people of coverage population may have several health posts in its responsible areas, thus resources for supporting health posts should be included.

3- Personnel: for a long time work, each health post should be allocated with at least one secondary nurse-the existing staff of health center who has been trained and upgraded in his/her capacity. Each health post should not have more than 2 staffs.

4- MPA: health post should provide some preventive service, basic treatment and health education such as: immunizations, antenatal care and postpartum, delivery care, and treatment of diarrhea, respiratory infection, malaria, avian influenza, normal tuberculosis, leprosy, and refer complicated cases

5- Essential Drug: health post should receive drug cota from health center according to scope of work reported in health information system.

6- Infrastructure: it should have appropriate building according to standard design of the Ministry of Health *(annex-37: Health Post Standard Design)*. If no building, try to seek for resources for construction of the building in accordance with standard design of the Ministry of Health.

Chapter 9: Annexes

Annex -1: Number and Name List of Operational Districts, Health Centers, and Health Posts

No.	Name of Province	Name of Operational District	Name of Referral Hospital	Name of Health Center	Name of Health Post
1	Banteay Meanchey	1. Mongkul Borei	Provincial Referral Hospital	1- Makak 2- Bosbov 3- O Ambil 4- Teuk Thla 5- Kampong Svay 6- Pheneat 7- Serey Sophorn 8- Russey Krok I 9- Russey Krok II 10- Seur 11- Chamnom 12- Bat Trong 13- O Prasat 14- Banteay Neang 15- Srah Reing 16- Sam Bour 17- Koy Meng 18- Phnom Toch 19- Kok Balaing	
		2. Or Chrov	Or Chorv	1- Poy Pet I 2- Poy Pet II 3- Poy Pet III 4- O Russey 5- Sophi 6- Nimit 7- Kob 8- O Bey Chhan 9- Seung 10- Malay 11- Toul Pong Ro 12- Balaing	
		3. Preah Net Preah	Preah Net Preah	1- Chnour Meanchey 2- Preah Net Preah 3- Ro Hal 4- Phnom Leab 5- Toeuk Chor 6- Chub Va Ry 7- Prasat 8- Srah Chik 9- Poy Char 10- Phnom Dey 11- Poan Ley 12- Nam Tao	
		4. Thmor Pourk	Thmor Pourk	1- Kum Rou 2- Phum Thmey 3- Kok Romeat 4- Banteay Chmar 5- Beung Tra Kuon 6- Phkoam 7- Treah 8- Svay Chek 9- Slor Kram 10- Ta Pho	1. Tlork
2	Battambang	1. Thmor Koul	Battambang	1- BanSay Treng 2- Roung Chrey 3- Boeung Pring	1. Bavil I 2. Bavil II 3. Kliang Meas

				4- O Ta Ki 5- Anloung Run 6- Ta Poung 7- Ta Meun 8- Kok Khmum 9- Bavil I 10- Bavil II 11- Kdol Ta Hen 12- Ampil PramDaum 13- Prey Kpous 14- Lovea 15- Knach Romeas 16- Kliang Meas 17- Chroy Sdau	4. Prey Kpous
		2. Mong Russey	Mong Russey	1- Prey Svay 2- Russey Kraing 3- Chrey 4- Ta Laos 5- Kokoh 6- ThibaDey 7- RoBos MongKoul 8- Mong 9- Kea 10- Prey Toch 11- Prey Tralach 12- Prek Chik 13- Kas Kralor	
		3. Sampov Luon	Sampov Luon	1- Serei Meanchey 2- Angkor Ban 3- Baraing Thlak 4- Pich Chen Da 5- Trang 6- Kom Rieng 7- Ta krey 8- Chakrey	
		4. Battambang	Provincial Referral Hospital	1- Svay Por 2- Sla Ket 3- Kdol 4- Tuol Ta Ek 5- Wat kor 6- OrMal 7- Chrey 8- Rattanak 9- ChamKar Samrong 10- Chheu Teal 11- KanToeu II 12- Snoeung 13- Ta Kream 14- Phnom SamPov 15- Sdau 16- Treng 17- Phlov Meas 18- Sam Lot 19- Chamlong Kuoy 20- Ta Sanh 21- Kampong Lpov 22- Cheng Maenchey	
		5. Sangke	No	1- AnLung Vil 2- Wat Tamim 3- Kampong Preang 4- Kampong Preah 5- O DamBang II 6- Rokar 7- O Dambang I 8- Raing Kesey 9- Ta Pon 10- Prek Norin	

				11- Samrong Knong 12- Prek Loung 13- Peam Ek 14- Prey Chas 15- Koh Chivaing	
3	Kampong Cham	1. Chamkar Leu - Stung Trang	ChamKar Leu	1- Daun Thi 2- Bos Khnor 3- Ta Ong 4- Taing Krang 5- Svay Teap 6- Speu 7- Chey Yo 8- Chamkar Andong 9- Ta Prok 10- Lovea leu 11- Me Sor Chrey 12- Dang Kda 13- So Pheas	
		2. Cheung Prey – Batheay	Cheung Prey	1- Sampong Chey 2- Pring Chrum 3- Sdaung Chey 4- Saang 5- Skun 6- Daun Dom 7- Kknol Dambang 8- Tum Nup 9- Cheung Prey 10- PhaAo 11- Cheung Chhnok 12- BaTheay 13- San Dek 14- Sambo	
		3. Kampong Cham – Kampong Siem	Kampong Cham Referral Hospital	1- Beung Kok 2- Sambur Meas 3- Veal Vong 4- Han Chey 5- Kean Chrey 6- Koh Samrong 7- Koh Mit 8- Koh Roka 9- Ampil 10- Vihear Thom 11- Kro La 12- Trean 13- Prek Tanoung 14- Moha knhoung 15- Koh Sotin 16- Peam Pro Tnous 17- Lovee 18- Kampong Reab 19- Prek Kak 20- Toul Pras Khlang 21- Peam Chileing 22- Tonle Bet	
		4. Kroch Chhmar- Stung Trang	Kroch Chhmar	1- Chum Nik 2- Roka Khnol 3- Peus II 4- Svay Khlaing 5- Brachhes Kandal 6- Prek Achi 7- Kampong Treas 8- Khpop Ta Gnoun 9- Peam Koh Sna 10- Arek Tnot	
		5. Memuth	Memuth	1- Memut 2- Choam Treak 3- Samrong	

				4- Chan Moul 5- Dar 6- Kam Poan 7- Thmor Totung 8- Sla 9- RomChek 10- Choam Krovan	
		6. O Reang Ov-Koh Sotin	O Reang Ov	1- Sre Spey 2- Thnol Keang 3- Chork 4- Damrel 5- Ampil Tapok 6- Miern 7- Preh Theat 8- Pung Ro-Moha Leap	
		7. Ponhea Krek-Dam Be	Ponhea Krek	1- Trapaing Pring 2- Krek I 3- Chi Peang 4- Veal Mlou 5- Koang Kang 6- Po pel 7- Chey Nikum 8- Kandol Chhrum 9- Duan Tey 10- Ponley 11- Ta Am 12- Teuk Chrov 13- Dam Be 14- Chong Cheach 15- Bongheir Kleng 16- Seda	
		8. Prey Chhor-Kong Meas	Prey Chhor	1- Trapaing Preh 2- Mean 3- Sra Nger Samrong 4- So Sen 5- Chrey Vean 6- Kor 7- Baray 8- Kroch 9- Thmar Pourn 10- Lvea 11- Tong Rong 12- Peam Chikang 13- Prek Krabao 14- Angkor Bann 15- Sor Kong	
		9. Srey Santhor-Kong Meas	Srey Santhor	1- Prek Rumdeng 2- Vsay Sach Phnom 3- Prek Dam Bok 4- Tong Tra Lach 5- Prek Po 6- Baray 7- Mean Chey 8- Svay Poth 9- Pram Yam 10- Kchao 11- Roka Ar 12- Sdao 13- Reay Pay	
		10. Tbong Khmum-Kroch Chhmar	Tbong Khmum	1- Rokar Po Pram I 2- Rokar Po Pram II 3- Kor Lngieng 4- Vihear Loung 5- Soung I 6- Chiklor Mong Riev 7- Chub Mong Riev 8- Chi Ro II	

				9- Thmor Pich 10- Anh Chreum 11- Sra Lorp 12- Tuol Snoul 13- Chhouk 14- Suong II	
4	Kampong Chhnang	1. Kampong Chhnang	Kampong Chhnang Referral Hospital	1- Phar Chhnang 2- Kampong Chhnang 3- Preh Kosamak 4- Prey Khmer 5- Cheung Kreav 6- Svay Chrum 7- Chrey Bak 8- Sre Thmey 9- Psa 10- Tro paing Chan 11- Pun Ley Boribo 12- Chnok Trou 13- Prey Kri 14- Peam Chhkok 15- Aphiwatt 16- Chiep 17- Taing Krasaing 18- Kraing Skear 19- Kampong Hao 20- Svay RumPear 21- Chror Nouk 22- Prolay Meas	1- Kro Sang Dosleung
		2. Boribo	No	1- Ponlay 2- Phsa 3- Tropiang Chan 4- Svay Chroum 5- Krangskor 6- Chnock Trou 7- Prorlay Meas 8- Pong Ro	1. Kdol 2. Pich Changvar
		3. Kampong Tralach	Kampong Tralach	1- Kg Tralach Leu 2- Sala Lek Pram 3- Ampil Teuk 4- Tacheh 5- Seb 6- Loung Vek 7- Koh Thkeuv 8- Svay Chhouk 9- Svay 10- Kraing Lovear 11- Thlork Vean	1- Kdol 2- Pich Chang Va
5	Kampong Speu	1. Kampong Speu	Kampong Speu Referral Hospital	1- Dom Kravan 2- Chbar Thom 3- Rokar Tep 4- Trapang Kong 5- Kraing Pneay 6- Rolang Sen 7- Samrong Sambo 8- Rolang Chok 9- Kraing Skous 10- Kaheng Ta Or 11- Kroch Meas 12- Vor Sar 13- Treng Trayung 14- Ta Lat 15- Samrong Romduol 16- Trapaing Kraloeung 17- Moha Sang 18- Krosang Chek 19- Phnomtoch Pang Lovear	

				20- Prey Chum Pou Mean Ang 21- Roka Koh 22- Oral	
		2. Kong Pisey	Kong Pisey	1- Srang 2- Prey Nhiet 3- Pich Mony Teuklaork 4- Snam Krapeu 5- Sdok 6- Moha Russey 7- Prey Vihear 8- Chung Ruk 9- Veal Ang Popel 10- Preh Nipean 11- Rumpea Meanchey 12- Tuol Ampil 13- Po Angkrang 14- Barsedth Po Mreal 15- Kak Preah Khe 16- Tuol Sala Svau Cho Chep 17- Kat Phlouk Pheakdey 18- Phong 19- Nitean Chamroeun	
		3. Oudong	Oudong	1- Veing Preh Sre 2- Damnak Smach 3- Damnak Chan 4- Cheung Ros Samaki 5- Ksemksan Trach Torng 6- Dom Kvet 7- Monor Rung Roeung 8- Anluong Chrey 9- Amleing	
6	Kampong Thom	1. Baray- Santuk	Baray- Santuk	1- Ti Po 2- Taing Krasaing 3- Prasat 4- Kg Thmor 5- Laok 6- Thnot Chum 7- Balaing 8- Chaung Daung 9- Kro Va 10- Chong Dong 11- Boeung 12- Chhouk Ksach 13- Baray 14- Treal 15- Sro Lau 16- Kreul 17- Taing Kok 18- Srah Ban Teay 19- Protong	
		2. Kampong Thom	Kampong Thom Referral Hospital	1- Thbong Krapeu 2- Sra Yov 3- Prey Kuy 4- Damrey Chan Kla 5- Kampong Thom 6- Acha Leik 7- Kokos 8- Kampong Kor 9- Kok Ngoun 10- San Kor 11- Prey Praos 12- Kampong Svay 13- Chey 14- Damrey Slap	

				15- Sala Visay 16- San Dan 17- Chheu Teal 18- Mean Chey 19- Sam Bo 20- Chhouk 21- Taing KraSau	
		3. Stong	Stong	1- Samdach Ou Kroyasakrea 2- Dong 3- Banteay Stong 4- Sam Proch 5- Cham Na Leu 6- Cham Na Kraum 7- Stong 8- Masa Krang 9- Trea 10- Pro Lay	
7	Kampot	1. Angkor Chey	Angkor Chey	1- Daem Dong 2- Tani 3- Ang Phnom Toch 4- Pro Phnom 5- Cham Pey 6- Dan Kom 7- Dambok Kpous 8- Sam Rong 9- Trapaing Sala Kaut 10- Wat Ang	
		2. Chouk	Chouk	1- Sat Pong (Chouk) 2- Kraing Snay 3- Mean Chey 4- Tro Meng 5- Ba Neav 6- Watt Pratheat 7- Watt Koy 8- Koh Sla 9- Dang Toung 10- Ang Romeas 11- To Toung 12- Tra Paing Raing 13- Sre Cheng 14- Chres 15- Chum Pou Van	
		3. Kampong Trach	Kampong Trach	1- Russey Srok 1- Svay Tong 2- Prek Kreus 3- Beung Sala 4- Kan Thor Lech 5- Kampong Trach 6- Damnak Kantout 7- Sre Chea 8- Touk Meas 9- Sdach Kong 10- Banteay Meas 11- Thnot Chong Srang	
		4. Kampot	Kampot Referral Hospital	1- Kraing Ampil 2- Treuy Koh 3- Kampong Kandal 4- Kon Sat 5- Tra Paing Sangke 6- Prey Khmum 7- Chakrei Ting 8- Kampong Kreng 9- Koh Toch 12- 10- Trapaing Lopov	
8	Kandal	1. Ang Snoul		1- Bek Chan 2- Kambol	

				3- Prey Pouch 4- Poeuk 5- Damnak Ampil 6- Samrong loeu 7- Snor 8- Makak	
		2. Keansvay	Keansvay	1- Kampong Phnom 2- Prek Tunloap 3- Prek Dach 4- Sandor 5- Prek Eng 6- Kbal Koh 7- Phom Thom 8- Dey Eth 9- Banteay Dek 10- Samrong Thom 11- Koki Thom 12- Arey Ksat 13- Sarika Keo 14- Peam Oknha Ong 15- Teuk Khlaing 16- Koh Keo 17- Prek Russey	
		3. Koh Thom	Koh Thom	1- Koh Thom “B” 2- Prek Thmey 3- Prek Sdey 4- Pthi Rea Mea 5- Sampeou Poun 6- Koh Thom “A” 7- Puthi Ban 8- Kampong Kong 9- Chruoy Takeo 10- Loeuk Dek 11- Chheu Khmao 12- Prek Chrey	
		4- Ksach Kandal	Ksach Kandal	1- Koh Choram 2- Preah Prasab 3- Prek Tameak 4- Puk Russey 5- Prek Ampil 6- Prek Loung 7- Vihear Suor 8- Kampong Cham Lang 9- Rokar Chunlung	
		5. Muk Kam Poul	No	1- Koh Dach 2- Prek Anh Chanh 3- Russey Chruoy 4- Prek Dambang 5- Sambour Meas 6- Roka Kong	
		6. Ponhea Leu		1- Prek Pneou 2- Samrong 3- Pugnearpon 4- Kampong Luong 5- Vihear Luong 6- Phnom Bath 7- Punhea Leu 8- Chrey Loas 9- Tumnoup Thom 10- Koh Chen	
		7. Saang	Saang	1- Prek Koy 2- Teuk Vil 3- Koh Khel 4- Prek Ambel 1 5- Prek Ambel 2 6- Saang Phnom 7- Kraing Yov	

				8- Svay Pro Teal 9- Treuy Sla 10- Ta Lun 11- Kporp 12- Prasat	
		8. Ta Khmao	Provincial Referral Hospital	1- Ta Khmao 2- Prek Ho 3- Prek Samrong 4- Anlung Romiet 5- Siem Reap 6- Rolous 7- Daum Rus 8- Roleing Ken 9- Beoung Kiang 10- Tro Peing Veng 11- Svay Rolum 12- Sitbo 13- Chheu Teal 14- Prek Thmey 15- Kampong Svay	
9	Koh Kong	1. Smach Mean Chey	Provincial Referral Hospital	1- Smach Mean Chey 2- Stung Veng 3- Bak Khlang 4- Neang Kok 5- Trapeang Roun 6- Koh Sdach 7- Russey Chrum	1- Russey Chrum 2- Ta Tay 2 Koh Kapi
		2. Sre Ambel	Sre Ambel	1- Boeung Preav 2- Sre Ambel 3- Thmar Sar 4- Andong Teuk 5- Chiphath 6- Tak Kavith 7- Keo Phos	
10	Kratie	1. Chhlong	Chhlong	1- Cham Bok 2- Ta Mao 3- Prek Prosop 4- Ksach Andet 5- Pong Ro 6- Chroy Thmor 7- Kanhchor 8- Dam Rey Phong 9- Snoul 10- Ksim	1- Stung Thom 2- Dounmeas 3- Sreneam
		2. Kratie	Provincial Referral Hospital	1- Snoul 2- Ksem 3- Bos Leav 4- Kantout 5- Thmor Kre 6- Thmey 7- Rokar Kandal 8- O Russey 9- Chroy Ban Teay 10- Saup 11- San Dan 12- Sambo 13- O Kreang 14- Svay Chres 15- Tropiang Sre	1- Doun Meas 2- Sreroneam 3- Beung Char 4- Rolous 5- Rum Puk 6- Chang Krong 7- Vattanak 8- Kbal Damrey 9- Mouyroypram
11	Mundoulkiri	1. Sen Monorom	Provincial Referral Hospital	1- Sen Monorom 2- Koh Nhek 3- Pichda 4- Or Raing 5- Keo Sema 6- Memang	1- Pou Loung 2- Phum Toul 3- Ro Yor 4- Sre Ampum 5- Pou Chrey 6- Krong Tehs 7- Andong Kraleung

					8- Dak Dam 9- O Oum 10- O Char 11- Pou Trom 12- Sre Ey 13- Mou Yel 14- Peam Chi Mat 15- O Klor 16- Kdoy 17- Sre Chrey 18- Sre Thom
12	Phnom Penh		Phnom Penh Municipal Referral Hospital		
		1. Chheung	Samdach Ov Referral Hospital	1- Kilometre 9 2- Chroy Changva 3- Anlung Kangan 4- Daun Penh	
		2. Kandal	Chamkar Mon Referral Hospital	1- Phsa Deum Thkove 2- 7 Makara 3- Toul Svay Prey	
		3. Lech	Pochentong Referral Hospital	1- Pong Teuk 2- Samrong Krom 3- Khmuonh 4- Teuk Thla 5- Tuol Kork	1- Samaky 2- Kork Roka 3- Trapaing Anchanch
		4. Tbong	Mean Chey Referral Hospital	1- Stung Mean Chey 2- Chamkar Dong 3- Niroth 4- Prey Veng 5- Chak Angre	1- Anlung Korng
13	Preah Vihear	1. Preah Vihear	Prvincial Referral Hospital	1- Chhep 2- Saang 3- Chrach 4- Ro Vieng 5- Phnom Dek 6- Chhnuon 7- Cham Roeun 8- Kou Len 9- Boribo 10- Chom Ksan 11- Sa Em 12- Tbeng Meanchey 1- 13- Yeang	1- Kampong Sralau 2- Kunapheap 3- Putrea 4- Sre Veal 5- Doun Mar 6- Svay Damnak 7- Tnol Kuong 8- Sre 9- Ta Seng 10- Ta Pas 11- Sra Yang 12- Tnol Bek 13- Kdark 14- Pring Thom 15- Prasat 16- Kan Tuot 17- Kraing dong 18- Po 19- Kampong Pronak
14	Prey Veng	1. Kam Chay Mear	Kam Chey Mear	1- Kok Kong Lech 2- Tnuot 3- Kanch Chreach 4- Preal 5- Cheach 6- Krabau 7- Kra Nhoung 8- Doun Keung 9- Smong Cheung 10- Smoung Thbong 11- Seang Kveang	
		2. Kampong Trabek	Kampong Trabek	1- Ko Kchok 2- Prasat 3- Kansom Ok	

				4- Cheang Dek 5- Cham 6- Peam Muntea 7- Thkov 8- Protheat 9- Prey Chhor 10- Prey Pon 11- Kampong Trabek	
		3. Mesang	Mesang	1- Trapaing Sre 2- Angkor Sor 3- Prey Rumdeng 4- Chreh 5- Prey Totung 6- Svay Chrum 7- Prey Khneh 8- Svay Andong 9- Chipuch 10- Boeung Preah	
		4. Neak Loeung	Neak Loeung	1- Prek Neak Loeung 2- Peam Ro 3- Babong 4- Prek Khsay “B” 5- Banlech Prasat 6- Peam Meanchey 7- Svay plous 8- Prek Sambour 9- Kampong Soeung 10- Rum Chek 11- Lvea 12- Cheung Phnom 13- Sdau Kaung 14- Speu “A” 15- Speu “B” 16- Reak Chey 17- Rong Damrey	
		5. Peareang	Peareang	1- Prey Phnoeu 2- Kanhchom 3- Prey Sralet 4- Roka 5- Kampong Russey 6- Reap 7- Mesor Prachan 8- Kampong Popil 9- Kampong Praing 10- Prek Changran 11- Chrey Khmum 12- Rum Lich 13- Pnoeu 14- Prey Daum Thneung 15- Po Ti	
		6. Preah Sdach	Preah Sdach	1- Chey Kampot 2- Reathor 3- Angkor Reach 4- Senareach Odom 5- Boeung Daul 6- Banteay Chakrey 7- Preah Sdach 8- Russey Srok 9- Kampong Prasat	
		7. Prey Veng	Provincial Referral Hospital	1. Svay Antor 2. Chrey 3. Chea Khlang 4. Po Poes 5. Mebonn 6. Damrey Poun 7. Angkor Tret 8. Peanraung	

				9. Samrong 10. Teuk Thla 11. Theay 12. Po Rieng 13. Prek Chrey 14. Kampong Leav 15. Prey Kandeang 16. Kdoeng Reay 17. Chong Ampil	
15	Pursat	1. Bakan	Bakan	1- Boeung Khnar 2- Snam Preah 3- Trapaing chong 4- Meteuk 5- O Tapong 6- Svay Daunkeo 7- Khnar Totung 8- Rumlech 9- Boeungbotkandol 10- Talo	
		2. Sampov Meas	Sampov Meas	1- Peal Nhek 2- Koh Chum 3- Prey Nhi 4- Prek Thnot 5- Wat Loung 6- Wat Po 7- Kandieng 8- Sya 9- Sre Sdok 10- Raing Til 11- Krakor 12- Kampong Luong 13- Chhoeu Tom 14- Boeung Kantout 15- Chhouk Meas 16- Ansa Chambok 17- Kravanh 18- Pro Ngil 19- Somrong 20- Ta Sah 21- Pra Moy	1- Anlong Reap 2- Krapeu Pii 3- O Sam 4- Thmo Da
16	Rattanakiri	1. Rattanakiri	Provincial Referral Hospital	1- Ochum 2- Lumphat 3- Andong Meas 4- O Yadav 5- Borkeo 6- Voeun Sai 7- Banlung 8- Ta Veng 9- Ka Chon 10- Kaun Mum	1- Poy 2- Samaki 3- Labaing 1 4- Seda 5- Gnag 6- Ta Lav 7- Somthom 8- Ya Tong 9- Bor Kham 10- Long Khung 11- Kechong 12- Koklak 13- Hatpak 14- Pakalan 15- Sre Ang Kroag 16- Serey Mongkol 17- Teun
17	Siem Reap	1. Kra Lanh	Kra Lanh	1- Kampong Thkov 2- Sen Sok 3- Rong Ko 4- Sam bour 5- Srey Snam 6- Sleng Spean 7- Prey Chrouk 8- Chanleas Day 9- Sra Nal 10- Prey	

		2. Siem Reap	Provincial Referral Hospital	1- Chreav 2- Mondul I 3- Kok Chok 4- Siem Reap 5- Sambour 6- Po Mean Chey 7- Chong Kneas 8- Angkor Thom 9- Peak Sneng 10- Banteay Srey 11- Preah Dak 12- Rum Chek 13- Kan Dek 14- Prasat Bakong 15- Mean Chey 16- KanTreing	
		3. Soth Nikum	Soth Nikum	1- Dam Dek 2- Kachas 3- Sam Rong 4- Popel 5- Chan Sor 6- Dan Run 7- Kean Sangke 8- Kampong Kleing 9- Svay Leu 10- Kampong Kdey 11- Spean Thnot 12- Loveng Russey 13- Kok Thlok Krom 14- Anloung Samnor 15- Sang Veuil 16- Pong Ro Krom 17- Khvao 18- Kok Thlok Leu 19- Russey Lok	
		4. Angkor Chum	Angkor Chum	1- Doun Keo 2- Puork 3- Sosor Stom 4- Reul 5- Teuk Vel 6- Somrong Yea 7- Angkor Chum 8- Cha Chuk 9- Norkor Preas 10- Kok Dong 11- Bort 12- Varin 13- Svay Sar 14- Damnak Slagn 15- Krabey Real	
18	Sihanouk Ville	1. Sihanouk Ville	Municipal Referral Hospital	1- Stung Hav 2- Teuk Laok 3- Veal Rinh 4- Andong Thmor 5- O Oknha Heng 6- O Chrov 7- Ream 8- Sangkat I 9- Krong Sihanouk 10- Cheung Ko	1- Koh Roung 2- Prek Kranh
19	Stung Treng	1. Stung Treng	Provincial Referral Hospital	1- Stung Treng 2- Srah Russey 3- Thala Bariwat 4- Preah Romkel 5- Chamcar Leu 6- Siem Pang 7- Kamphon	1- Kbal Romeas 2- Svay Rieng 3- Chrob

				8- Sre Kor 9- Sre Krasaing 10- Koh Preah	
20	Svay Rieng	1. Chi Phu	Chi Phu	1- Prey Ankunh 2- Bavet 3- Prey Kaki 4- Mesa Thkak 5- Samley 6- Thnort 7- Kset 8- Porpet	
		2. Romeas Hek	Romeas Hek	1- Kampong Trach 2- Ang Prasre 3- Dong 4- Am Pil 5- Krasaing 6- Chrey Thom 7- Mouk Da 8- Mream 9- Chantrey	
		3. Svay Rieng	Provincial Referral Hospital	1- Svay Rieng 2- Basack 3- Chamlang 4- Chek 5- Svay Chrum 6- Ta Suos 7- Kruos 8- Krol Kor 9- Svay Yea 10- Daun Sar 11- Svay Thom 12- Svay Ang 13- Kandieng Reay 14- Sang Khor 15- Svay Rompea 16- Gnor 17- Sam Yong 18- Preah Ponlea 19- Thna Thuong 20- Chak	
21	Takeo	1. Ang Roka	Ang Roka	1- Kus 2- Tram Kak 3- Trapaing Pring 4- Ta Phem 5- Ang Ta Som 6- Prey Chour 7- Prey Sbat 8- Trapaing Andeuk 9- Ang Roka	1- Bos Phang
		2. Bati	Bati	Dong Chambok Kan Deung Tonle Bati Put sar Lompong Trapaing krasaing Kraing Leav Tram Khna Khvau Chumrah Pen Roveang Samrong	
		3. Don Keo	Provincial Referral Hospital	1- Beung Tranh 2- Lom Chang 3- Trea 4- Baray 5- Rokar Khnong	

				6- Rokar Krau 7- Sambour 8- Thlok 9- Khvau 10- Prey Sleuk 11- Roneam 12- Sra Nge 13- Sre Ronoung 14- Leay Bor 15- Oudam Sorya	
		4. Kirivong	Kirivong	Prey Rum Deng Kam Peng Kork Prech Som Phnom Den Kam Nop Pech Sar (Ang Prasat) Prey Melong Krapum Chhouk Prey Youthka Romenh Kampong Kra Sang Borey Chulasar Kork Po Dong Khpos Ang knol Chi Khmar Sanlumg PPram Bei Mum Chann Chum	1- Ang Kroch
		5. Prey Kabass	Prey Kabass	1- Kork Thlork 2- Angkor Borey 3- Ba Sre 4- Prey Phdam 5- Pun Lei 6- Sla 7- Tang Yap 8- Prey Lovea 9- Kampeng 10- Champa 11- Kampong Reap 12- Va Cheang 13- Khen Lak	
22	Odor Mean Chey	1. Sam Rong	Provincial Referral Hospital	1- Sam Rong 2- Kon Kriel 3- Bosbao 4- Chong Kal 5- Ampil 6- Kok Mon 7- Kok Khpos 8- Anlung Veng 9- Trapaing Prey 10- Tra Paing Prasat 11- O Smach 12- Beng 13- Pong Ro Tapen 14- Tumnub Dach	
23	Kep	1. Kep Ville	Kep	1- Prey Thom 2- O Krasa 3- Pong Teuk 4- Angkol	
24	Pailin	1. Pailin Ville	Municipal Referral Hospital	1- Suon Koma 2- O Chra 3- Phnom Spung 4- Phnom Preal 5- Phsa Prum	1- Kra Chab
Total	24	77		960	

Annex-2: Prakas on Management of Health Center Located inside or nearby RH

Kingdom of Cambodia
Nation Religion King

Ministry of Health
No. 055 អបស.ធពស

Phnom Penh, date: August 22, 2003

Prakas on
Management of Health Center Located inside or nearby Referral Hospital
****

Senior Minister and Minister of Health

- Seen the Constitution of the Kingdom of Cambodia
- Seen Royal decree No. ស/រកត/1198/72, dated on November 30, 1998 on the nomination of the Royal Government of Cambodia
- Seen the Royal Law No. 02/នស/94, dated on July 20, 1994 declared on the use of law on the organization and nomination of the Council of Ministers
- Seen Royal Law No. នស.រកម 0196.03, dated on January 24, 1996 on the use of law on the establishment of the Ministry of Health
- Seen Sub-decree No. 97 អនក្រ.បក, dated on October 22, 1997 on organization and implementation of the Ministry of Health
- Seen circular No. 85 ស.កកឌ, dated on May 25, 1995 of the Ministry of Health on development and implementation of Commune-District Health Coverage Plan
- With response to the Instruction for Developing Operational District, dated on January 10, 1998 of the Ministry of Health
- With response to the Instruction for Complementary Package of Activities Referral Hospital, dated on February 28, 2003 of the Ministry of Health
- Had considered on necessity of the Ministry of Health

Decided as follows:

Article 1: Health center where located in or near Referral Hospital must be under the management of director of that Referral Hospital.
Article 2: Health center must continue to provide minimum package of activities including outreach service activities.
Article 3: Drug-medical equipment supply from OD store to health center must be complied with existing system (MPA Kid) through the referral hospital.
Article 4: Annual budget of health center made and allocated following the existing system through, but must be referral hospital.
Article 5: Health center must submit its reports to the operational district through the referral hospital.
Article 6: Any charter differs from this Prakas is annulled.

Article 7: Cabinet Office, Directorate General for Health, Directorate General for Administration and Finance, Inspectorate General of the Ministry of Health, and Provincial/municipal Health Departments must effectively comply with Prakas from the undersigned date.

Dr. Hong Sun Huot

C.C.:
- Ministry of Royal Palace
- Secretariat General of Senate
- Secretariat General of Parliament
- Cabinet Office of Prime Minister
- Office of Council of Ministers
- Ministries Concerned
- Provincial-Municipal Hall

} (For information)

- As in article 7 (For dissemination and implementation)
- Documentation

Annex-3: Outpatient Record Book

Outpatient Record Book

1	2	3	4	5	6				7		8	9			10	11	12	13	14	15	16
No	Registration No	New cases	Old cases	Name	Age				Sex		Present address	Responsible areas			Referred from	Symptom	Health problems	Treatment	Referred to	User fee	Observe
					0-4 years	5-14 years	15-49 years	≥50 years	M	F		a	b	c							

Annex- 4: Referral Letter

Kingdom of Cambodia
Nation Religion King

Province: ……
District: …….
Hospital's name: ……
Number: …….

Referral Letter

Patient's name: ……. Age: …….. Sex: ……..
Address: ……. Village: …… ……Commune: …….. District: ……..
Referred date: ……. Time: …….
Hospital arrival date: ……...

Current history:

Examination at arrival time:
Vital signs: Body temperature: ……. Pulse: ….. Heart beat: ……. Blood pressure: ……..

Treatment when referring:

Initial diagnosis
Medicine given this time

Reasons for refer:

Signature ……. Name …… Position…….

Annex-5: Tubercular sputum test form

Sputum smear transportation No.: ……...

Sputum Test Form

Health Center name …….....
Operational District: ……Municipality or province: ……
Name and sure name: ……Age: …….. Sex: M❑ F❑
Address: ……...

Analysis [redacted]	Result	
❑ Research	Laboratory No. …….....	
	1st Slide	
	2nd Slide	
	3rd Slide	
❑ Control-and Number of Treatment Center	Control slide	

Date: ……
Signature and Name of Request Person

Date: ……
Signature and Name of Laboratory Staff

Annex-6: Antenatal Care Register

								No.	
								First time	
								Second time	
								Third time	
								Fourth time	
								Fifth time	
								Name	
								Age	
								Client code No.	
								Address	
								Refer from	
								Age of pregnancy in week	
								Date of Delivery	
								Gravida /Para	
								High at risk pregnancy woman	
								Received iron tablet	
								Received tetanus toxic vaccination	
								Date	HIV test
								P	Test result
								N	
								U	
								Refer to	
								User fee	
								Others	

Annex-7: Partograph

Delivery

Time	Baby heart beat	Mother pulse	Mother blood pressure	Others

Time delivered: ……..Date: ……
Other problems regarding delivered: ……..
…….
…….

Time delivered placenta: …….Procedure: .....Weight: .....
Delivered by: ……...
Perineum: ……
Suture: …….....

Baby

Sex …… Weight …….Height ……Head perimeter……Chest perimeter……..

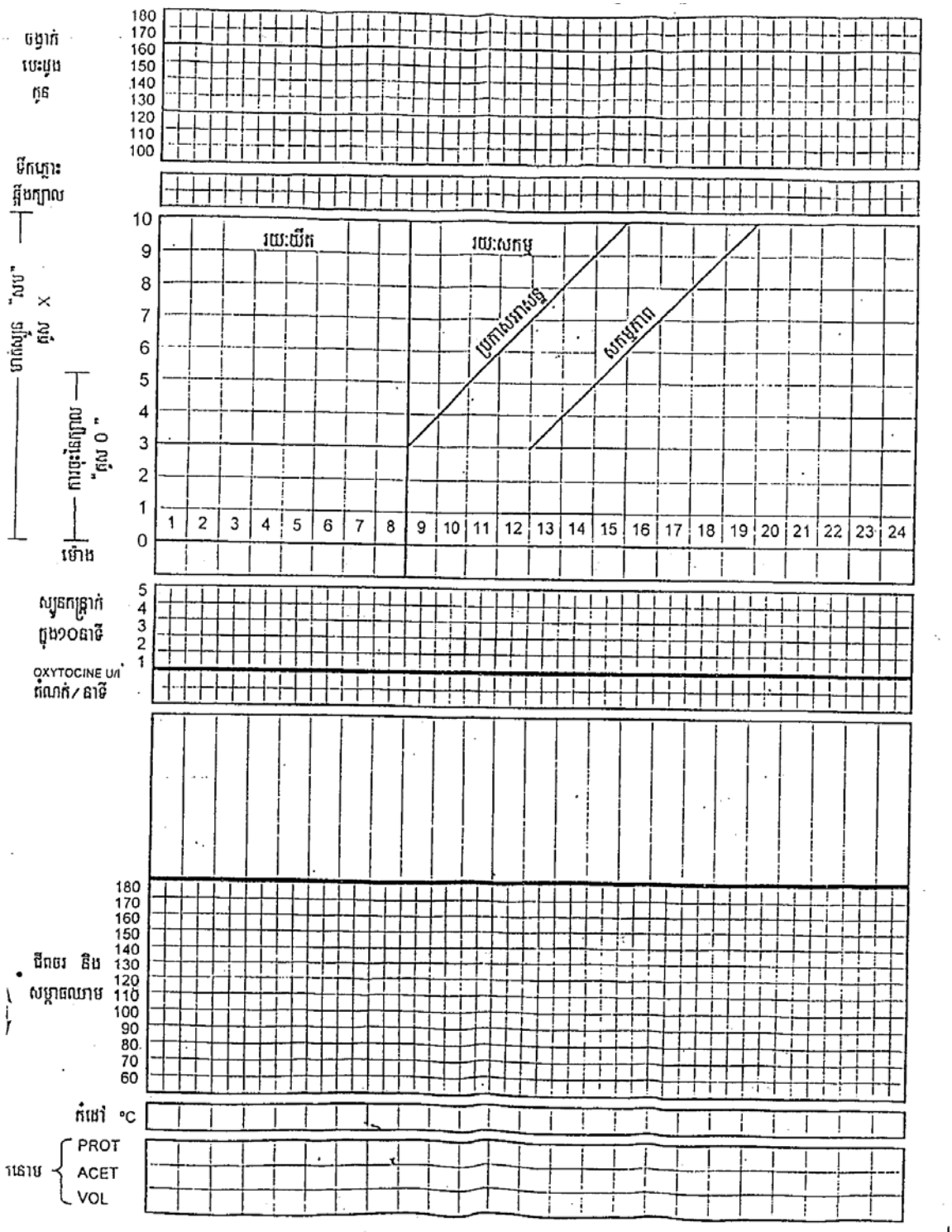
Apgar score

Communication Factor	Deliver	5 minutes after delivery	10 minutes after delivery
Heart rate Respiratory effort Color Muscle tone Color			

Other problems of delivery: …….
……...
……..

Partograph

Name: …….. Number of pregnancy: …….. Deliver: ……
Admission number …… Admission date…… Admission time …….. Rupture of membrane: ……..



Annex-8: Delivery Register

								No.	
								Health center admission date	
								Name	
								Age	
								Address	
								Refer from	
								Delivery code No.	
								P	Test result during pregnancy
								N	
								U	
								Date	Test at Gynecology Department
								P	Test result at Gynecology Department
								N	
								U	
								Delivered by health center staff / traditional birth attendance	
								Place of delivery	
								Refer to	
								Normal	Delivery
								Complicated	
								Maternal death	
								Date of newborn	
								Live birth	
								Still birth	
								Dead birth	
								Sex	
								< 2 kg	
								> 2 kg and <2.5 kg	
								≥ 2.5 kg	
								Mother breast	Baby feeding
								Mixed	
								Birth spacing counseling	
								Discharge date	
								Duration of Inpatient	
								User fee	
								Others	

Annex-9: Postpartum Care Register

Postpartum Care Record Book

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
No.	1st Time	2nd Time	3rd Time	3rd Time …	Name	Age	Address	Delivery Date	Delivery Place	Delivered By	Sex	Weight	Height	Treatment	Referred To	User Fee	Observation	

Annex-10: Women Tetanus Toxic Vaccination Card

Kingdom of Cambodia

Ministry of Health
Immunization Card
Tetanus

Province/ Municipality: ……
No. ……

Name: ……Age……
Address: ……

Tetanus	Date	Health Center	Physician

Appointment date:
2nd Time: ……..
3rd Time: ……..
4th Time: ……..
5th Time: ……..

Ministry of Health
Published year 2003

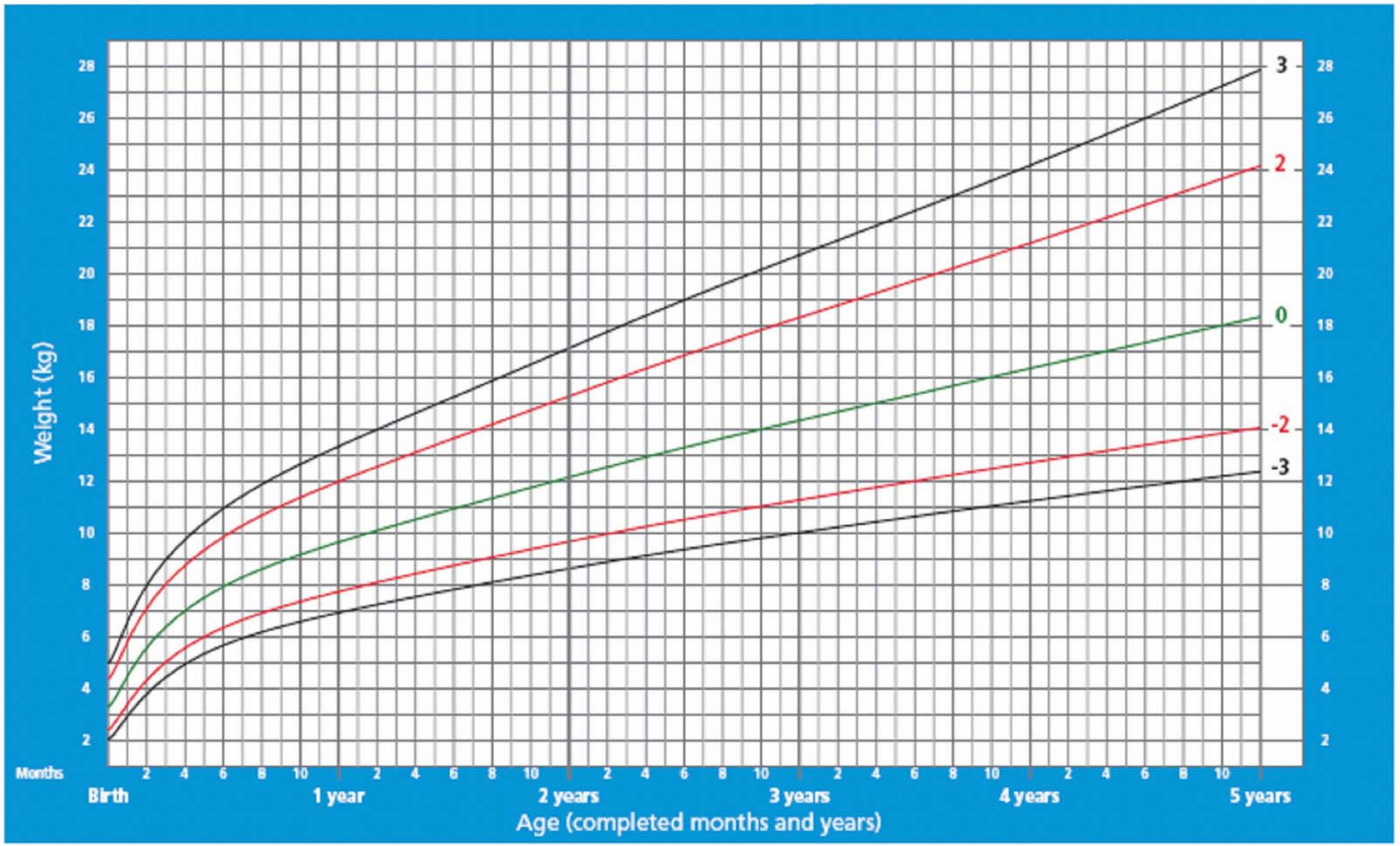
This vaccination can be preventing tetanus on woman and newborn when they received periodical injection as follows:

Schedule			
Tetanus toxic vaccination	**Woman age is at 15-44 years**	**Pregnant woman**	**Validity**
1st time	≥15 year	When start having pregnancy	0
2nd time	1 moth after the 1st time	1 month after the 1st time	3 years
3rd time	At least 6 months after the 2nd time	Next pregnancy	5 years
4th time	At least 1 year after the 3rd time	Next pregnancy	10 years
5th time	At least 1 year after the 4th time	Next pregnancy	Full life

Annex-11: Child's Growth Follow-up Card (Yellow card)

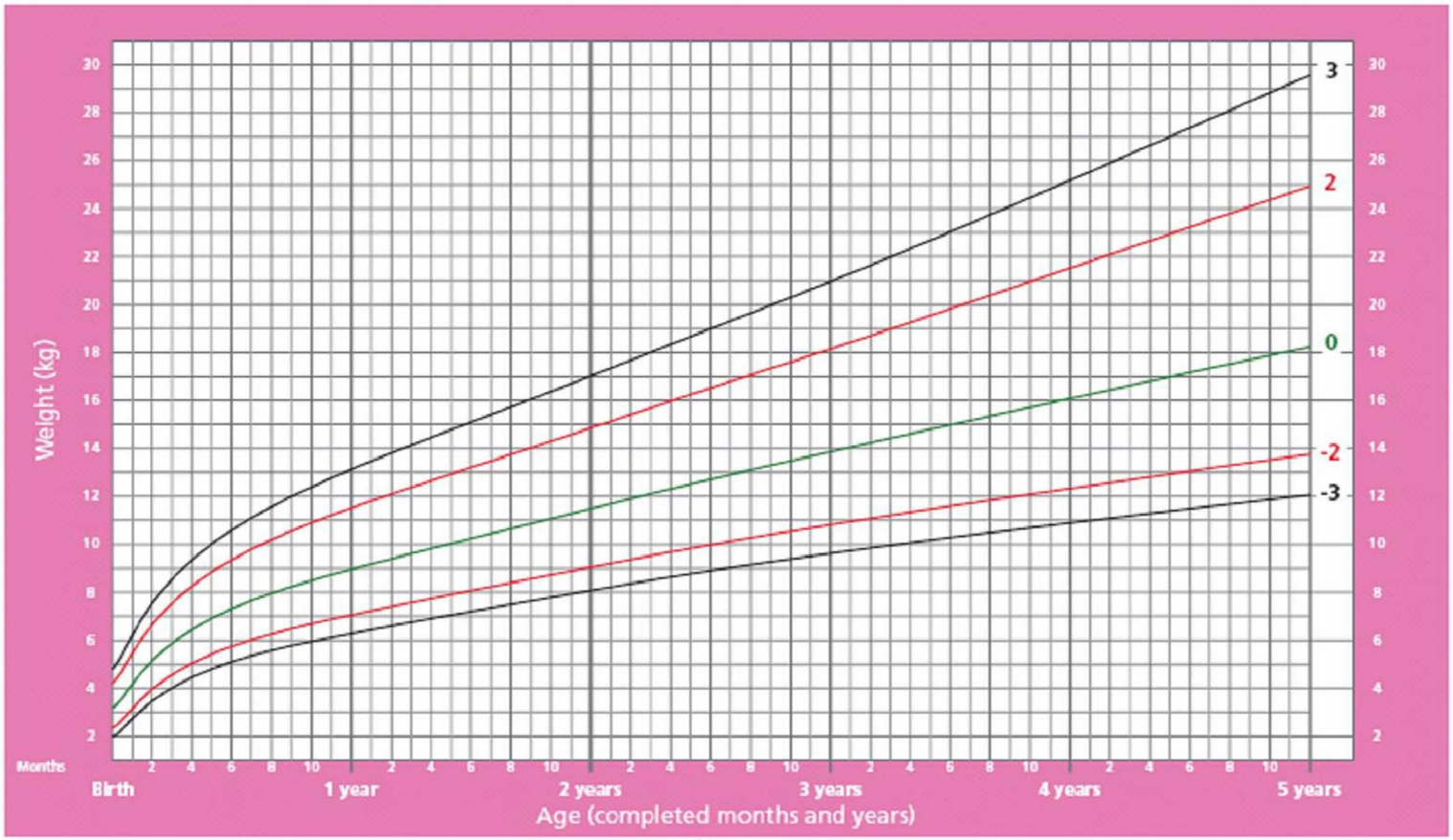
Chart of weight compare with age of the boy (Since it was born until 5 years old)

World Health Organization



WHO Child Growth Standards

Chart of weight compare with age of the girl (Since it was born until 5 years old)



Annex-12: Birth Spacing Register

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
No.	Date	Client Number	Client Name	Age	Address	# of Child	Old or New Client			Contraceptive Method					Others Related to Health	Appointment Date	User Fee	Others
							New		Old	Pill	Injection	Condom	IUD	Implant				
							First time	Used to have birth spacing										

Annex-13: Birth Spacing Appointment Client Card

Appointment Date

Day	Month	Year	Others

* Annual health examination is necessary for you. Even though your health condition is good, you should come regularly according to appointment date of the birth spacing clinic.
* If you have any problems, please come to the birth spacing clinic for consultation during working time.

(Please bring this card a long with you.)

Ministry of Health
National Maternal and Child Health Center
Birth Spacing Program

Birth spacing clinic: ……..
Client's name: …….
Address: …….....

Contraceptive method: ……
Type: ……...

Please come back for examination on : ……....
No. ……

Annex-14: TB Patient Referral Form

Kingdom of Cambodia
Nation Religion King

Ministry of Health
National Tuberculosis Program
No. …… …….date: ……

Referral Form

Refer from health Center: ……Operational district: ……...
Province/ Municipality: ……...
BT patient record book No.: ……Refer to health center: ……...
Operational district: …….. Province/ Municipality: ……...
Patient's name and sure name: ……Age: …… Sex: Male ❑ Female ❑
Address:……
Date of initial treatment: ……..Date of refer: …….
Type of disease: Pulmonary TB (BK+) ❑ Pulmonary TB (BK-) ❑ Non-pulmonary TB ❑
Specify: ……

Month	Sputum Examination			Weight (Kg)
	Date	Result	Lab No.	
0				
2/3/4				
5				

Type and number of drug used:

1. Adult:	Formula 1	Formula 2	Formula 3
Initial treatment stage	RH Z E ❑ ❑ ❑	RH Z E S ❑ ❑ ❑ ❑	RH Z ❑ ❑
Continuing treatment stage	RH ❑	RH E ❑ ❑	RH ❑

2. People Under 15 years old:	Formula 1	Formula 3
Initial treatment stage	RHZ E or RHZ S ❑ ❑ ❑ ❑	RHZ ❑
Continuing treatment stage	RH ❑	RH ❑

Proposal: ……..
……..

Signature
Physician

Seen and Approved
Chief of Health Facility

Annex-15: TB Treatment Card

Number of TB Patient Registration:……...
Number of TB Patient Book:……..

Refer by: Themselves ☐ Community ☐
Public Service ☐ Private Service ☐
Other ☐: Clarify…….

	First stage	Continuing stage
In-patient DOTS	☐	☐
Mobile DOTS	☐	☐
Home DOTS	☐	☐
Community DOTS	☐	☐
Not DOTS	☐	☐

Tuberculosis Treatment Card

Health Facility……Date of Starting Treatment…….
Full Name of Patient……..Age……..year……Sex Male ☐ Female ☐
Permanent Address……
Name and address of person who can be contacted:……..
BCG: No scar ☐ Invisible scar ☐ Slightly visible scar ☐

Disease Condition
-Pulmonary TB (BK +) ☐
-Pulmonary TB (BK -) ☐
-None Pulmonary TB ☐
Confirmation: ……
……
……

Type of Disease	
New Cases	☐
Refer in★☐ Refer out★★	☐
Returnable post abandon	☐
Recurrent	☐
Fail	☐
Others★★★	☐

Month	Sputum Examination			Weight (Kg)
	Date	Result	Laboratory	
0				
2/3 3/4				
5				
6/7/8				

1. First Stage
Please tick (✓) in the correct box and write the amounts of tablets and doses of daily medicines

First type
New Cases ☐
Pulmonary TB BK (+) TB/HIV
Pulmonary TB BK (-) or
Severe non-pulmonary TB

Second type
Treatment again ☐
Recurrent, Fail, Others
Returnable post abandon

Third type
New cases ☐
Simple pulmonary TB BK(-)
Simple non-pulmonary TB

Adult ☐ ☐ ☐ ☐ ☐☐☐ ☐ ☐
RH Z E RH Z E S RH Z
Child ☐ ☐☐ ☐
RHZ + E or S (TB Meningitis) RHZ

TB-AIDS

	Date	Result
HIV test		
Start CPT		
Start ART		
Join HBC/OI		

Date of lung echo: ……
Result: (+)☐ (-)☐ Not do ☐

(RH: Rifampicin and Isoniazid, RHZ: Refampicin, Isoniazid and Pyrazinamide, E: Ethambutol, Z: Pyrazinamide, S: Streptomycin)

Day / Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Please tick (✓) in the correct space when we see patients taking pills one time, Tick (-) when we do not see patients taking pills and keep the space blank if patients don't have pills.

★ Transfer patients from one health facility to other health facilities inside operational district for continuing treatment (Do not record the kind of transferring patient into TB patient record book of operational district).
★★ Transfer patients from one health facility to other health facilities outside operational district for continuing treatment.
★★★ Please note the type of disease clearly in the observation sheet at the back side of page.

Supported by GFATM

2. Continuing Stage

2. Continuing Section

	First Type	Second Type	Third Type
	New cases ☐	Treatment again ☐	New cases ☐
Adult:	☐ everyday (4 months)	☐ ☐ everyday (5 months)	☐ everyday (4 months)
	RH	**RH E**	**RH**
Child TB:	☐ everyday (4 months)	☐ everyday (4 months)	
	RH	**RH**	

Day / Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

Please tick(✓) in the correct space when we see patients taking pills one time. Tick(-) when we don't see patients taking pills and keep it blank when patients don't have pills.

Observation:
Please record all necessary activities and dates such as constrain, follow up patient, solution, diagnosis of TB BK (-) and Non-pulmonary TB.

……
……
……
……
……
……
……
……

Treatment Result:
Recovery ☐ Stopped treatment ☐ Death ☐ Failed treatment ☐ Abandon ☐ Refer in★☐ or refer out★★☐
In case referring (in or out), please confirm clearly on where the patient refer to as follows:
Health facility: ……Operational District: ……Province: ……
Date…….....
Signature

★ Transfer patients from one health facility to other health facilities inside operational district for continuing treatment (Do not record the transferring patient into TB patient record book but it should be write down in notice sheet, sheet No. 29 of the TB patient record book).
★★ Transfer patients from one health facility to other health facilities outside operational district for continuing treatment. (Record the result of transferring patient into TB patient record book on sheet No. 28, in case we don't know the result of the treatment result).

Supported by GFATM

Annex 16: Health Center Discharge Form

Kingdom of Cambodia
Nation Religion King

Provincial Health Department:……
Operational District:……....
Health Center:…….

Health Center Discharge Form

Name…….……Age……Sex……...
Present Address……
Career……...
Admission date…….
Diagnosis at discharge time……..
Discharge Date…….
Physician comment……..

……., Date: ……..……..

Physician in charge

Annex 17: Report of HC1 on Outpatient Consultation

Monthly Report

Date: from 1st to the last day of the month.....200…

Province: .....
Operational District: .....
Health Center: ..... **Code No.** : .....

Number of communes covered by Health Center: .....
Population covered by Health Center.....
Number of poor patients exempted from user fees: ..... (.....%)
Number of poor patients subsidized by equity fund: ..... (.....%)

I. Out-patient Consultation

1. Quantities of Zoning Activities	Zone A	Zone B	Zone C	Male	Female	Total
Total of new cases						
Total cases						

Zone A: Is the village where has health center located.
Zone B: Out side the village where has health center located but it is under the coverage of health center.
Zone C: Patients come from other responsible area.

	2. Health Problems (New cases)	0-4 years	5-14 years	15-49 years	≥ 50 years	Total	Refer to
1	Simple diarrhea						
2	Severe diarrhea						
3	Dysentery						
4	Upper ARI						
5	Lower ARI						
6	Cough > 21 days						
7	Malaria						
8	Dengue Fever						
9	Measles						
10	Diphtheria						
11	Pertussis						
12	Acute Flaccid Paralysis						
13	Neonatal Tetanus						
14	Other Tetanus						
15	High Blood Pressure						
16	Skin Infection						
17	Urethral Discharge						
18	Vaginal discharge						
19	Genital ulcer						
20	Genital warts						
21	Road Accidents						

22	Mine Accidents						
23	Eyes Diseases						
24	Goiter Problem						
25	Substance Abuse						
26	Other Mental Health						
27	Malnutrition (Weight/Age)						
28	Other Health Problem						
	Total						

Annex-18: Report of HC1 on In-patient Activities

II. In-patient Activities (Former District Hospital)

1. Activities Evaluation (For health center that has bed)

	# of Beds	**Discharge with Permission**	**# of Unauthorized Discharge**	**Referral**	**Death**	**Hospital Mortality Rate % ①**	**# of Hospitalization days**	**Average Hospitalization days ②**	**Bed Occupation Rate ③**
Inpatients except tuberculosis									
Tuberculosis									

① Hospital Mortality Rate = (# of dead/ total # of discharge) x 100
② Average Hospitalization day = # of hospitalization days/ total # of discharge
③ Bed Occupation Rate = # of hospitalization days / (# of beds x # of days of the month) x 100
Total discharge = (discharge with permission, unauthorized discharge, referral and dead)

2. Number of Illness and Deaths in the Former District

Discharged Diagnosis	**0-4 years**		**5-14 years**		**15-49 years**		**50 years**		**Total**	
	Sick	Dead	Sick	Dead	Sick	Dead	Sick	Dead	Sick	Dead
Simple malaria										
Severe malaria										
Diarrhea										
Cholera										
Dysentery										
Respiratory infection										
Dengue fever										
Dengue										
Typhoid fever										
Non-Tubercular meningitis										
Measles										
Acute Flaccid Paralysis										
Diphtheria										
Pertussis										
Neonatal tetanus										
Other tetanus										
Tuberculosis										
AIDS										
Male STD										
Female STD										
Gynecology										
Delivery										
Road accident										
Mine accident										
High blood pressure										
Cardiopathy										
Diabetes										
Eyes diseases										
Marask, Kwashiorkor										
Substance abuse										
Other mental health										
Other										
Total										

Annex-19: Report of HC1 on Laboratory Activities

III. Laboratory Activities (for health center that have laboratory unit)

1. Quantity of laboratory activities

# of Analysis									# of positive cases							
													Feces			
* BK	Blood formula	VDRL	HIV	VCCT	Urine	Feces	Discharge	Other analysis	** BK+	VDRL	HIV+	VCCT	Round worm	Hook worm	Ameba	Schystosomias

* BK: All blood slides include analytical blood sides and checked.
** BK: Analytical blood slides for new cases.
VDRL: Venereal Disease Research Laboratory; VCCT: Voluntary Counseling Confidential Testing

2. Malaria

2.1 Slides

Slides for diagnosis	0-4 years	5-14 years	15-49 years		≥ 50 years		Total
			Male	Female	Male	Female	
Positive							(1)
Falcifaraum							
Vivax							
Combined							
Negative							(2)
				Total slides to be rechecked			(3)
				Total analyzed slides			(1+2+3)

2.2 Dipsticks

Dipsticks for diagnosis	0-4 years	5-14 years	15-49 years		≥ 50 years		Total
			Male	Female	Male	Female	(1)
Positive							
Falcifaraum							
Vivax							
Negative							(2)
Total analyzed dipsticks							(1+2)

2.3 Deworming: Mebendazole

Providing mebendazole	Child 12-23 months	Child 24-59 months	Child 6-15 years		Pregnant women 4-9 months	Breastfeeding women
			Male	Female		
Health Center						
Outreach						
School						
Total						

Annex-20: Report of HC1 on Pre and post natal examination and delivery

IV. Antenatal and post-partum cares, and delivery

1. Antenatal examination and at risk pregnancy detection

1st Time (1)	2nd Time (2)	3rd Time (3)	4th Time (4)	5th Time (5)	Total 1+2+3+4+5+...	At risk pregnancy	Referral women	VCCT Pregnant women	Pregnant women with HIV+

VCCT: Voluntary Counseling Confidential Testing

2. Post-partum cares

1st Time (1)	2nd Time (2)	3rd Time (3)	Total (1+2+3+....)

3. Folic acid and iron supplementation

# of pregnant women received iron tablet at HC			# of delivered women received 42 iron tablets at HC	# of pregnant women received iron tablet at Outreach			# of delivered women received 42 iron tablets at Outreach
1st Time (60 tablets)	2nd Time (30 tablets)	3rd Time + ... (30 tablets)		1st Time (60 tablets)	2nd Time (30 tablets)	3rd Time +... (30 tablets)	

4. Delivery

Place	Total delivery	Normal delivery	Difficult delivery (use Forceps / vacuum extractor)	Bleeding	Delivered women received PMTCT	# of mortality women	Referral women
At Health Center							
At home: - Skilled birth attendance							
- Traditional birth attendance							
Total							

PMTCT: Protection Mother to Child Transmission

5. Abortion and Induced abortion **6. Causes of maternal deaths ***

	Total	# of Referred to	Bleeding	Obstruct labor	Eclampsia	Uterus rupture	Spontaneous abortion	Induced abortion	Other causes
Spontaneous abortion									
Induced Abortion									

* Including research result from maternal death audit at villages

7. Neonatal Birth

Weight	Do not weigh	< 2 Kg		2Kg and <2.5 Kg		≥ 2.5 Kg		Live birth *		Dead birth		Stillbirth
		Male	Female	Make	Female	Male	Female	Male	Female	Male	Female	
# of newborn												

* Number of live births not included number of stillbirths.

Annex-21: Report of HC1 on Birth Spacing

V. Birth Spacing

People received program	**Pill (Pack)**	**Injection (Dose)**	**Condom (Unit)**	**Intra Uterus Doppler (Unit)**	**Implant**	**Total**	**Other discussion**
New client							
Total # of clients							
# of contraceptives used							
# of new acceptors							
# of drop-out clients							
# of current users							

Annex-22: Report of HC1 on Activities of Immunization Program

VI. Expanded Program on Immunization

1. Children under 1 year

	# of days according to the plan	# of actual implementation day	# of children (BCG)	# of children received HepB at Birth			# of children (OPV1)	# of children (OPV2)	# of children (OPV3)	# of children (DPT1-HepB1)	# of children (DPT2-HepB2)	# of children (DPT3-HepB3)	# of children (Rouvax)	# of children received fully immunization
				< 24 hours	24 hours and < 3 days	3-7 days								
At Health Center														
Outreach														

2. Pregnant women

	Tetanol 1 # of women	Tetanol 2 # of women	Tetanol 3 # of women	Tetanol 4 # of women	Tetanol 5 # of women
At HC					
Outreach					

3. Non-pregnant women aged 15-44 years

Tetanol 1 # of women	Tetanol 2 # of women	Tetanol 3 # of women	Tetanol 4 # of women	Tetanol 5 # of women

4. Children > 1 year

	OPV 1 # of children	OPV 2 # of children	OPV 3 # of children	DPT1-HepB1 # of children	DPT2-HepB2 # of children	DPT3-HepB3 # of children	Rouvax # of children
At HC							
Outreach							

Annex-23: Report of HC1 on Vitamin A program, Leprosy and Dental

VII. Vitamin A

Prevention			Treatment		
Children aged 6-11 months Number of children	Children aged 12-59 months Number of children	Post delivery women within 8 weeks * Number of women	Dry eye diseases and darkness blind Number of children	Measles Number of children	Malnutrition/ continuing diarrhea/ chronic diarrhea Number of children

* Recently delivered women and breastfeeding women (after birth until 2 months)

VIII. Activities of Leprosy

	Treated at early month	New cases discovered in the month			End of treatment in the month	Recurrent/ dropping, dead, changed the place	Treatment in the end of the month
		Total of new cases	Disability Grade 2	Under 15 years			
PB1							
PB2-5							
MB							
Total							
Rate		/100,000	%	%			/10,000

PB1 = Single Lesion Paucibacillary
PB2-5 = Paucibacillary
MB = Multibacillary
Dis. Gr2 = Disability Grade 2

IX. Activities of Dental

# of patients	Extraction		Dental Filling		Dental curettage	Others	Referring
	Natural Teeth	Permanent Teeth	Provisional Teeth	Permanent Teeth			
Age < 15 years							
Age ≥ 15 years							
Total							

Annex-24: Report of HC1 on Other Activities and Comments

X. Other Activities and Comments

(Summarize key issues occurring in the operation of health center. Describe other activities undertaken that are not in the report.)

Chief of Health Center Signature

Date: .....

Reporter Signature

Annex-25: Report of HC1 on Zero Report

Guidelines for Epidemic Disease Report

1. Definition

1. Acute Flaccid Paralysis/ suspected poliomyelitis

- Children under 15 years old who have an acute flaccid paralysis immediately.

2. Jaundice

- Disease case: Patients have got severe jaundice. They have yellow eyes and skin and urine is dark yellow, not hungry, exhausted, and the upper right of the abdomen is hard.
- Group: Has 3 cases or more related to time and place (ex: The source from one family, the same village, one school, and an inpatient.

3. Pneumonia

- Disease Case: Person is age over 5 years old, have temperature over 38^{o}C, cough or difficult to breathes, or breathe quickly
- Or children from 1 to 5 years old have cough symptom or difficult to breathe and have breathe quickly more than 40 per minute.
- Or children from 2 months to 1 year have cough symptom or difficult to breathe and breaths quickly more than 50 per minute.
- Group occurrence: Has 3 cases or more than this occurs in the same community or in the same health institution during 2 weeks. It doesn't include in chronic lung disease such as tuberculosis.

4. Severe diarrhea

A. Severe diarrhea

- Disease case: Abnormal water defecation 3 times or more than this during 24 hours with or without dehydration.

B. Cholera

- Disease Case: In the region that we not sure it have cholera or not, patients over 5 years old have severe dehydration or die cause by sever diarrhea.

6. Dengue fever

- Disease Case: Patients under 15 years old have high temperature from 38^{o}C to 40^{o}C and this heat is not easy to reduce by using decreased-heat medicines and have bleeding from s the skin, mucus, stomach, or Lachtei sign In this case the laboratory should have Hemoconcentration over 20% compare with normal value and the rate of Plaquet dicrease (Thrombophenie 100,000/ mm3)

7. Diphtheria

- Disease Case: We can recognize patient by havinglaryngitis or pharyngitis, or tonsillitis and tensils and pharynx.

8. Measles

- Disease Case: In this case it has red irritated skin, fever and cough, running mucus or red eyes (not Chicken pox)

9. Encephalitis and Meningitis

- Disease Case: The individuals who have high temperature equivalent to 38 degree Celsius or more or have one of these signs as follows: Hard neck, lose consciousness, or other mental diseases.
- Suspected children under one year old having fever with swelling fontanel.
- Exclude the cause of having severe epidemics such as Tuberculosis, and Aids.

10. Neonatal Tetanus

- Disease Case: Neonates normally can be able to suck and cry during the first 2 days of their lives. From 3 to 28 days they can't be able to suck and their necks become hard or quickly movable (spasm).

11. Rabies

- Disease Case: Person who has severe mental disease (meningitis) likes the crazy dogs or like mute crazy dogs, they will slowly become unconsciousness or death during 7 to 10 days after the appearance of the first initial symptom cause by weakness of respirator.

- Or in the area transmitted by cholera, patients under 5 years old have a severe diarrhea with or without vomit. **5. Dysentery** - Disease Case: Is person who used to have severe diarrhea and have stool with blood - Group Occurrence: There are 5 cases or over that related to the same time and place (e.g. Come from the same village, cause of using same water supply, or working together).	**12. Group of disease that we don't know the symptom:** Disease case which happening in group or in the local area and we don't know the symptom.

2. Weekly Emergency Report

All orderly reports of communicable diseases surveillance system: Health Center, Referral Hospital, Operational District, and including Provincial Health Department must prepare weekly emergency report.

The weekly emergency report form must have the same content for all levels except provincial and operational district levels which need to be included the number of health centers, referral hospitals, and operational districts.

The weekly emergency report record information related to disease, syndrome and 12 new cases. Furthermore, it also records the unidentified diseases that happen as a package during short and same time.

Weekly Emergency Form-Health Center

Province/ Municipality:……..
Operational District:……...
Health Center:…….
Week: …… From Wednesday……/……../……. To Tuesday…../……../…….

Disease/ Syndrome	**New Case**	
	Sick	**Dead**
Severe Diarrhea/ Cholera* (Suspected Case)		
Dysentery		
Measles* (Suspected case)		
Acute Flaccid Paralysis/ suspected poliomyelitis* (Suspected case)		
Pneumonia		
Dengue fever (Suspected case)		
Meningitis (Suspected case)		
Yellow fever		
Diphtheria* (Suspected case)		
Rabies * (Suspected case)		
Neonatal Tetanus* (Suspected case)		
Group of disease that we don't know the symptom*		

* In case the diseases marked by one star (*), It suspected that it is only one kind of disease and need to report to the officers in-charge of communicable diseases monitoring at Operational District by using Infectious Disease Report form. For other diseases doesn't marked by star (*), It is also need to report immediately in case there are 5 cases of diseases or more than this or 1.5 time more than expected number.

Date:	Date: ……..
Chief of Health Center	Reporter

Main Objectives of Weekly Emergency Report are that:

- Push to report immediately of disease case that needs to be detected immediately.
- To find out the spread of diseases that usually happen in the community and it could not be found at that place but it could be found through the analysis at province level.
- Push to report immediately of suspected case which occurred in the region and need to be detected immediately.

In case need to be reported immediately

The selected diseases that seriously harmful people health was considered as epidemic disease which needs to be detected immediately and repeat response on time in order to avoid its threatening. These diseases must be report as suspected disease without any confirmation from laboratory. In the weekly emergency report form, those diseases must be marked by star (*).

Weekly Report

Diseases that regularly occur in community, purpose of follow-up of these diseases are to find out increasing of new cases in order to limit the disease spreading. Only one case, we don't need to detect it. The increasing of disease can be found by only provincial levels through regular analysis of data which collected from other places to compare with previous data.

Report Infectious Disease on Time

Report infectious diseases happening regularly (Those diseases don't need to put star in the report) and other unidentified diseases will be happened and suspected in some areas and it also need to report immediately.

Recently, the criteria to be considered Health Center or Referral Hospital level having epidemic disease are as follows:

- There are five cases of disease during one week in a Health Center or in a hospital.
- There are seven cases of disease during two weeks in a Health Center and in one hospital.

It doesn't mean that they don't need to report some infectious diseases which are not listed in the report and some epidemic diseases that harmful the community. The following are amount of alert threshold at health department:

- 1.5 times over expected cases reported to province at the same time of previous year.
- 1.5 times of average cases reported to provinces to compare with previous three weeks.

Example:

District: X	Disease: Y
First week…….. 10	Average of 1st week – average of 3rd week = 11
Second week…….. 12	Alert threshold 1.5 x 11 = 16.5
Third week……..11	
Fourth week……..*18	The spread of this disease will be defined

3. Dead Report

Dead report means every health center and referral hospital has to record the disease cases defined in the definition weekly even though it is zero case. Before fill in dead report, it should be checked daily patient record book, whether is it match with the existing case definition? Without making regular dead report, we cannot consider whether is it having new cases or health center or hospital didn't have the report.

4. Disease Case and Report of Infectious Disease Detection

Detection group has to detect when the epidemic disease happen. Even though it is suspected disease or communicable disease spread in community.

Must fill in form correctly and on time following the instruction for each special disease (see part II), the specific information should be collected through the following standard form:

- Detection Form-Fill in every suspected case
- Infectious Disease Report Form- Summary the disease case and disease spread
- Specimen Collection Form- Form attached with each sample. The information that needs to fill in it is similar to information of other disease and infectious disease. In necessary circumstance, we also need additional information for separate diseases. During spreading, we have to fill every disease case in the Infectious Disease Report Form with the collection of sample. These documents need to be maintained by the detection group for inputting data or for referent document. Specimen Collection Form needs to be filled in based on the remark with collected sample in order to make laboratory staffs can notify which samples is belong to which patient. Therefore, the information about Epidemiology and symptom are related with laboratory result.

Infectious Disease Surveillance Form

Province/ Municipality:……. Place :(House/ Road/ Group/ Village/ Commune/District Operational District:…….. …… Health Center:……..... …… Date/ Month/ Year:…/……../… ……
1. Patient Identification Case No.…….. Name…….. Address:……. Date of Birth:……./……../…… Age:…….. Sex: Male Female

2. Clinical Symptom

Date of getting sick…/……../……..

- ☐ Temperature: ……..^{o}C
- ☐ Sever dehydration
- ☐ Dysentery
- ☐ Red Irritated Skin
- ☐ Vomit
- ☐ Cough
- ☐ Difficult to breathe
- ☐ Jaundice
- ☐ Unconsciousness
- ☐ Hard neck
- ☐ Soft muscle/ cripple

Other signs:

……

…….

Problem used to face with : (Ex: Food, Water, contact with patient)

…….

…….

Diagnosis (Suspected Disease) _____

3. Laboratory

Collect sample 1…… Collection Date: …../……/……Laboratory Receive Date:…../……/……...
2……. …../…../……. ……/…../……

Laboratory name……

The type of Test…… Result Date……/……/…… Result: Positive Negative

4. The Class of the Last Disease

a. Verified: By laboratory By Clinical Symptom (circle it)
b. Extracted from investigation: ……..

Date of last diagnosis…../……/…….

5. Detection Official

Name:……

Position:…… Signature……

Note: One form for one disease case

5. Follow-up Patient through Rumor

The first report of infectious diseases could be received from unofficial source or rumor such as:

- Propaganda system
- People
- Public health staffs
- Private health staffs
- Non government organization

These reports sometimes couldn't be useful for community. However, sometimes it is fact. Therefore, all received reports must be:

- Record it in documents or in special book
- Verify it with local officers, local health personnel, and community

In the first verification if infectious disease occurring cannot be removed, the detection of infectious disease should be started.

Clear detection are including descriptive analytical collection, pick up hypothesis of source of virus and its infection. Follow-up patient, contacted people and continue study

about the Epidemiology in necessary case. All suspected case should report to responsible level for information and top leaders could also provide counseling and support regarding to the verification and countermeasure for prevention of disease.

Annex-26: Report of HC1 on Traffic Accident

The traffic accident form can be used while patient needs to be treated in referral hospital and health center.

1. When the traffic accident patient arrive health center and in case patient can be treated by health center, health center staff should fill in the following forms:
    - First step: Fill in interview information
    - Second step: Fill in all patient information except the box describe about diagnosis of disability
    - Third step: Fill in all information regarding accident
2. Health center must submit this report form with report HC1 to Operational District office for sum up report, and then, send it to provincial-municipal health department.
3. When traffic accident patient arrive health center and health center need further refer patient to referral hospital, health center staff should fill in some points in the first step such as1-2-3-4-5-8-9-10-11-12-12-13 (except description box) and -14 if they have enough time before referring.
4. While referring patient, health center staffs have to attach these forms with patient.

Annex-27: Essential Drug List for Minimum Package of Activities

KINGDOM OF CAMBODIA

Nation Religion King

MINISTRY OF HEALTH
DEPARTMENT OF DRUGS AND FOOD

ESSENTIAL DRUG LIST

Nº	Nº	Description	strength	Form	MPA	CPA1	CPA2	CPA3	Comments
I- BASIC MEDICINES									
I-1- ORAL MEDICINES									
1	1	Acetylsalicylic Acid	500mg	Tab	*	*	*	*	
2	2	Aluminium Hydroxide	500mg	Tab	*	*	*	*	
3	3	Aminophylline	100mg	Tab	*	*	*	*	
4	4	Amoxicillin	250mg	Tab	*	*	*	*	
5	5	Amoxicillin	500mg	Cap	*	*	*	*	
6	6	Amoxicillin Dry Powder 60ml	125mg/5ml	Btl	*	*	*	*	IMCI
7	7	Ampicillin	500mg	Tab	*	*	*	*	
8	8	Atenolol	50mg	Tab	/	*	*	*	
9	9	Bromhexin	8mg	Tab	SN	*	*	*	
10	10	Bromhexine Syrup 60ml	4mg/5ml	Btl	*	*	*	*	
11	11	Charcoal Activated (Carbon Absorbent)	500mg	Tab	*	*	*	*	
12	12	Chlorpheniramine maleate	4mg	Tab	*	*	*	*	
13	13	Chlorpromazine	25mg	Tab	/	*	*	*	Psychiatry
14	14	Cimetidine	200mg	Tab	/	*	*	*	
15	15	Ciprofloxacin	500mg	Tab	SN	*	*	*	STD,Opthl,AIDS
16	16	Cloxacillin	250mg	Tab	/	*	*	*	
17	17	Cloxacillin	500mg	Tab	/	*	*	*	
18	18	Co-trimoxazole	100+20mg	Tab	*	*	*	*	
19	19	Co-trimoxazole	400+80mg	Tab	*	*	*	*	
20	20	Co-trimoxazole Suspension 60ml	200+40mg/5ml	Btl	*	*	*	*	IMCI
21	21	Diazepam	5mg	Tab	/	*	*	*	Psychiatry
22	22	Diclofenac	50mg	Tab	/	*	*	*	Pain/Cancer
23	23	Digoxin	0.25mg	Tab	/	*	*	*	
24	24	Doxycycline	100mg	Tab	/	SN	SN	SN	
25	25	Enalapril	10mg	Tab	/	/	SN	SN	
26	26	Erythromycin	250mg	Tab	SN	*	*	*	STD,Dermato,AIDS
27	27	Erythromycin stearate Dry Powder 60ml	125mg/5ml	Btl	SN	*	*	*	IMCI
28	28	Ferrous fumarate Suspension 60ml	100mg/5ml	Btl	*	*	*	*	IMCI
29	29	Ferrous Sulphate + Folic Acid	200+0.40mg (60mg Iron element + 0.4 mg Folic acid)	Red Tab	*	*	*	*	Nutrition
30	30	Fluconazole	100mg	Tab	SN	*	*	*	
31	31	Folic Acid	5mg	Tab	*	*	*	*	

32	32	Furosemide	40mg	Tab	/	*	*	*	
33	33	Glibenclamide	5mg	Tab	/	SN	SN	SN	Diabetes
34	34	Glyclazide (Diamicron)	80mg	Tab	/	SN	SN	SN	Diabetes
35	35	Hydralazine	25mg	Tab	*	*	*	*	
36	36	Hydrochlorothiazide	50mg	Tab	*	*	*	*	
37	37	Indometacin	25mg	Tab	/	*	*	*	Pain/Cancer
38	38	Isosorbide Dinitrate	10mg	Tab	/	*	*	*	
39	39	Mebendazole	500mg	Tab	*	*	*	*	Schistosomiasis
40	40	Metformine (Glucophage)	500mg	Tab	/	SN	SN	SN	Diabetes
41	41	Methyldopa (Aldomet)	250mg	Tab	/	*	*	*	
42	42	Metoclopramide (Primperan)	10mg	Tab	/	SN	SN	SN	Palliative Care
43	43	Metronidazole	250mg	Tab	*	*	*	*	STD
44	44	Misoprostol (Cytotec)	200mg	Tab	/	*	*	*	
45	45	Multivitamins + Mineral		Tab	*	*	*	*	STD + IMCI
46	46	Nalidixic Acid (Negram)	500mg	Tab	SN	*	*	*	IMCI
47	47	Niclosamide	500mg	Tab	*	*	*	*	
48	48	Nifedipine (Adalate)	20mg	Tab	/	*	*	*	
49	49	Nystatin	500.000IU	Tab	SN	*	*	*	STD, AIDS
50	50	Oral Rehydration Salts (Low osmolarity 1L), for glucose-electrolyte solution	Glucose: 13.5g/l, Sodium chloride:2.6g/l, Potasium chloride 1.5g/l, Trisodium citratedihydrate 2.9g/l	Sachet	*	*	*	*	
51	51	Paracetamol	100mg	Tab	*	*	*	*	NIP
52	52	Paracetamol	500mg	Tab	*	*	*	*	
53	53	Paracetamol	500mg	Rectocap	*	*	*	*	Malaria
54	54	Paracetamol Syrup 60ml	125mg/5ml	Btl	*	*	*	*	IMCI
55	55	Phenobarbital	50mg	Tab	SN	*	*	*	Psychiatry
56	56	Phenoxymethyl Penicillin	250mg	Tab	*	*	*	*	
57	57	Potassium Chloride	600mg	Tab	/	*	*	*	
58	58	Prednisolone	5mg	Tab	/	*	*	*	AIDS
59	59	Promethazine	25mg	Tab	*	*	*	*	
60	60	Promethazine 0.1% syrup 60ml	5mg/5ml	Btl	*	*	*	*	
61	61	Retinol / Vitamine A blue color capsule with nipple)	100,000IU	Soft Cap	*	*	*	*	NIP/Nutrition
62	62	Retinol / Vitamine A red color capsule with nipple)	200,000IU	Soft Cap	*	*	*	*	NIP/Nutrition
63	63	Salbutamol	4mg	Tab	*	*	*	*	
64	64	Salbutamol Solution for Inhalation 50doses	0.1mg/dose	Vial	/	*	*	*	
65	65	Thiabendazol	500mg	Tab	/	*	*	*	AIDS
66	66	Tiemonium (Visceralgine)	50mg	Tab	/	*	*	*	Pain/Cancer
67	67	Vitamin B1 B6 B12	250+250+1mg	Tab	*	*	*	*	
68	68	Vitamin B1	250mg	Tab	*	*	*	*	
69	69	Vitamin B6	50mg	Tab	*	*	*	*	
70	70	Zinc Sulphate (Dispersible)	20mg	Tab	*	*	*	*	MCH

I-2. INJECTABLE MEDICINES

71	1	Adrenaline	1mg/1ml	Amp	/	*	*	*	
72	2	Ampicillin	500mg	Vial	SN	*	*	*	IMCI
73	3	Ampicillin	1g	Vial	/	*	*	*	
74	4	Atropine Sulphate	1mg/1ml	Amp	/	*	*	*	
75	5	Bupivacaine 0.5% Spinal heavy	20mg/4ml	Vial	/	/	*	*	
76	6	Butylscopolamine (Hyoscin, Buscopan)	20mg/2ml	Amp	/	*	*	*	
77	7	Calcium Gluconate 10%	1g/10ml	Amp	/	*	*	*	
78	8	Ceftriaxone	1g	Vial	SN	*	*	*	STD
79	9	Chloramphenicol	1g	Vial	/	*	*	*	
80	10	Chlorpromazine	50mg/2ml	Amp	/	*	*	*	Psychiatry/Pain/ Cancer
81	11	Cimetidine	200mg/2ml	Amp	/	*	*	*	
82	12	Cloxacillin	1g	Vial	/	*	*	*	
83	13	Dexamethasone	4mg/1ml	Amp	/	*	*	*	Opthalmology/S TD
84	14	Dextrose 50%	50ml	Amp	/	*	*	*	
85	15	Diazepam	10mg/2ml	Amp	SN	*	*	*	Psychi/IMCI
86	16	Dopamine	200mg/5ml	Amp	/	*	*	*	
87	17	Ephedrine (for dilution)	50mg/1ml	Amp	/	/	*	*	
88	18	Ergometrine Methyl (Methergin)	0.2mg/1ml	Amp	/	*	*	*	
89	19	Etamsylate (Dicynone)	250mg/2ml	Amp	/	*	*	*	
90	20	Fentanyl	0.1mg/2ml	Amp	/	/	*	*	Pain/Cancer
91	21	Furosemide	20mg/2ml	Amp	/	*	*	*	
92	22	Gentamycin	80mg/2ml	Amp	SN	*	*	*	Opthalmology +IMCI
93	23	Hydralazine Powder + Solvent	20mg/1ml	Amp	/	*	*	*	
94	24	Hydrocortisone (as Sodium succinate)	100mg/2ml	Amp	/	*	*	*	
95	25	Insulin, Neutral Injection 10ml	40IU/1ml	Vial	/	SN	SN	SN	Diabetes
96	26	Insuline isiphane (NPH)	100UI/ml	Vial	/	/	SN	SN	Diabetes
97	27	Ketamine	500mg/10ml	Vial	/	/	*	*	Pain/Cancer
98	28	Lidocaine 2%	50ml	Vial	SN	*	*	*	
99	29	Magnesium Sulphate 50%	10ml	Vial	/	*	*	*	
100	30	Metoclopramide (Primperan)	10ml/2ml	Amp	/	*	*	*	Pain/Cancer
101	31	Metronidazole	500mg/100ml	Vial	/	*	*	*	
102	32	Morphine (Hydrochloride or Sulfate)	10mg/1ml	Amp	/	/	*	*	Pain/Cancer
103	33	Neostigmine	0.5mg/1ml	Amp	/	/	*	*	
104	34	Oxytocin	10IU/1ml	Amp	*	*	*	*	
105	35	Penicillin - G, IM/IV	1MIU	Vial	/	*	*	*	
106	36	Potassium Chloride 10%	10ml	Amp	/	*	*	*	
107	37	Salbutamol	0.5mg/1ml	Amp	/	*	*	*	
108	38	Sodium Bicarbonate 8.4%	20ml	Amp	/	*	*	*	
109	39	Suxamethonium	500mg/10ml	Vial	/	/	*	*	
110	40	Thiopental	1g	Vial	/	/	*	*	
111	41	Vecuronium + Solvent	4mg/1ml	Vial	/	/	*	*	
112	42	Vitamin K1 (Phytomenadione)	10mg/1ml	Amp	/	*	*	*	
113	43	Water for Injections	5ml	Amp	SN	*	*	*	

I-3. IV FLUIDS

114	1	Dextran 40 + IV giving set	500ml	Btl	/	*	*	*	Malaria
115	2	Dextrose 10% + IV giving set	500ml	Btl	SN	*	*	*	Malaria
116	3	Dextrose 5% + IV giving set	500ml	Btl	/	*	*	*	
117	4	Dextrose 5%+0.45% Saline + IV giving	500ml	Btl	/	*	*	*	

		set							
118	5	N S S 0.9% + IV giving set	1000ml	Btl	*	*	*	*	
119	6	Plasma Substitute + IV giving set	500ml	Btl	/	*	*	*	
120	7	Ringers Lactate + IV giving set	1000ml	Btl	*	*	*	*	DHF +IMCI
I-4. EXTERNAL MEDICINES									
121	1	Benzoic Acid 6% + Salicylic Acid 3%	500g	Jar	*	*	*	*	
122	2	Benzyl Benzoate 25%	1L	Btl	*	*	*	*	
123	3	Chloramine	500mg	Tab	*	*	*	*	
124	4	Chlorhexidine gluconate 20%	1L	Btl	*	*	*	*	
125	5	Gentian Violet Powder	25g	Jar	*	*	*	*	
126	6	Fluorthane (Halothane)	250ml	Btl	/	/	*	*	
127	7	Hydrogen Peroxide (20 volumes)	1L	Color Glass Btl	*	*	*	*	
128	8	Polyvidone Iodine 10%	200ml	Btl	*	*	*	*	
129	9	Potassium Permanganate	250g	Btl	*	*	*	*	
130	10	Soda lime (Chaux Sodee)	4.5kg	Btl	/	/	/	*	
131	11	Vaseline	500g	Jar	*	*	*	*	
132	12	Zinc oxide 10%	500g	Jar	*	*	*	*	
II- CONSUMMABLE									
133	1	Adhesive Bandage (Elastic)	10cm x 5m	Roll	/	/	*	*	
134	2	Adhesive Tape Zinc Oxide	5cmx5m	Roll	*	*	*	*	
135	3	Adhesive Tape Zinc Oxide perforated	18cmx5m	Roll	*	*	*	*	
136	4	Airway (ambuls oxygene)	Size 1	Pcs	/	*	*	*	
137	5	Airway (ambuls oxygene)	Size 2	Pcs	/	*	*	*	
138	6	A-Scan Biometry		Pcs	/	/	/	*	Eye Unit Program
139	7	Bandage, Crepe	8cmx4m	Roll	/	*	*	*	
140	8	Bandage, Gauze Roll Non-sterile	7.5cmx10m	Roll	*	*	*	*	
141	9	Blades for Surgical Knife	#15	Pcs	/	*	*	*	
142	10	Blades for Surgical Knife	#22	Pcs	/	*	*	*	
143	11	Blood Collection Bag (CPD)	350ml		/	/	/	*	
144	12	Burr cylinder Highspeed		Pce	/	/	SN	SN	Oral Health
145	13	Cataract with Intra Ocular Lens Set		Pcs	/	/	*	*	Eye Unit Program
146	14	Catheter Foley, Ballon 2 ways, 10ml sterile	CH12	Pcs	/	*	*	*	
147	15	Catheter Foley, Ballon 2 ways, 10ml sterile	CH14	Pcs	/	*	*	*	
148	16	Catheter Foley, Ballon 2 ways, 10ml sterile	CH16	Pcs	/	*	*	*	
149	17	Catheter Foley,Ballon 3 ways 5-15ml	CH22	Pcs	/	*	*	*	
150	18	Catheter IV	18G	Pcs	SN	*	*	*	
151	19	Catheter IV	20G	Pcs	SN	*	*	*	
152	20	Catheter IV	22G	Pcs	SN	*	*	*	STD,AIDS
153	21	Catheter IV	24G x 1	Pcs	SN	*	*	*	
154	22	Catheter IV	25G x 1	Pcs	SN	*	*	*	
155	23	Colostomy Bags, Disposable	38mm	Pcs	/	/	*	*	
156	24	Cotton Wool Absorbent	500g	Roll	*	*	*	*	
157	25	Cotton Wool Non Absorbent	500g	Roll	/	*	*	*	
158	26	Developer for X-Ray Film	1 Gallon	Btl	/	SN	*	*	
159	27	Diasheric (Volk) lens 90D		Pcs	/	/	/	*	Eye Unit

									Program
160	28	Drainage Strip (Delbet)	25x3cm	Pcs	/	/	*	*	
161	29	Eye Shields		Pcs	/	/	/	*	
162	30	Fixer for X-Ray Film	1Gallon	Btl	/	SN	*	*	
163	31	Gauze Compress parafine Impregnated	19x19cm	Pcs	/	*	*	*	
164	32	Gauze Rolls (PB 17g/m^2)	90cmx91m	Roll	*	*	*	*	
165	33	Glove Exam non sterile Latex	Small	Pcs	*	*	*	*	
166	34	Glove Exam non sterile Latex	Medium	Pcs	*	*	*	*	
167	35	Glove Exam non sterile Latex	Large	Pcs	*	*	*	*	
168	36	Gonio Lens 4 Mirrors		Pcs	/	/	/	*	Eye Unit Program
169	37	High Quality Printing Paper Upp-110s	110mm x 20m	Pcs	/	*	*	*	
170	38	Indirect Ophtalmoscope	20 D	Pcs	/	/	/	*	Eye Unit Program
171	39	Indirect Ophtalmoscope	28 D	Pcs	/	/	/	*	Eye Unit Program
172	40	Infusion Set with Burette 100ml, Disposable	60drops/minute	Pcs	/	/	/	*	
173	41	Iol Intra Ocular Lens	N18	Pcs	/	/	/	*	Eye Unit Program
174	42	Iol Intra Ocular Lens	N19	Pcs	/	/	/	*	Eye Unit Program
175	43	Iol Intra Ocular Lens	N20	Pcs	/	/	/	*	Eye Unit Program
176	44	Iol Intra Ocular Lens	N21	Pcs	/	/	/	*	Eye Unit Program
177	45	Iol Intra Ocular Lens	N22	Pcs	/	/	/	*	Eye Unit Program
178	46	Keratometer		Pcs	/	/	/	*	Eye Unit Program
179	47	Medical Plastic Bags (Khmer printing)	7cm x 11cm	Pcs	*	*	*	*	
180	48	Medical X ray films	18cm x 24cm	Pcs	/	SN	*	*	
181	49	Medical X ray films	18cm x 43cm	Pcs	/	SN	*	*	
182	50	Medical X ray films	30 cm x 40cm	Pcs	/	SN	*	*	
183	51	Medical X ray films	35cm x 35cm	Pcs	/	SN	*	*	
184	52	Monitoring Electrode with Micropore Tape Backing and Solid gel	Ag/Agcl	Pcs	/	/	/	*	
185	53	Needle Disposable	19G x 1 -½	Pcs	SN	*	*	*	
186	54	Needle Disposable	21G x 1 -½	Pcs	SN	*	*	*	
187	55	Needle Disposable	23G x 1 -½	Pcs	SN	*	*	*	
188	56	Needle Disposable	25G x 5/8	Pcs	SN	*	*	*	
189	57	Needle Disposable	25G x 1	Pcs	SN	*	*	*	
190	58	Needle Luer, Reusable	19G	Pcs	SN	*	*	*	
191	59	Needle Luer, Reusable	21G	Pcs	SN	*	*	*	
192	60	Needle Spinal Disposable	20G/0.5x75mm	Pcs	/	*	*	*	
193	61	Needle Spinal Disposable	22G/0.7x38mm	Pcs	/	*	*	*	
194	62	Needle Spinal Disposable	25G/0.5x90mm	Pcs	/	*	*	*	
195	63	Needle Spinal Disposable	22G/0.7x90mm		/	*	*	*	
196	64	Needle Spinal Disposable	25G/0.5x50mm		/	*	*	*	
197	65	Needle Spinal Disposable	25G/0.5x90mm	Pcs	/	*	*	*	
198	66	Needle Suture Cutting	Assorted	Pcs	*	*	*	*	
199	67	Needle Suture Round	Assorted	Pcs	*	*	*	*	
200	68	Operating Loupe 2.3X		Pcs	/	/	/	*	Eye Unit Program
201	69	Oxygen mask with reservoir bag	Children	Pcs	/	*	*	*	

202	70	Oxygen mask with reservoir bag	Adult	Pcs	/	*	*	*	
203	71	Paper face mask 2 plies			*	*	*	*	
204	72	Personal Protection Equipment consisting of: Gant, Blouse economique polypropylene probase 200, Lunettes, Masque Anti-poussiere 3M FFP3 avec soupape taille L-taille 8835		Set	SN	SN	SN	SN	
205	73	Plaster of Paris Rolls	10cm	Roll	/	*	*	*	
206	74	Plaster of Paris Rolls	15cm	Roll	/	*	*	*	
207	75	Plaster of Paris Rolls	20cm	Roll	/	*	*	*	
208	76	Plaster Syringe + Disposable needle 0.5ml	23 x 1''	Pcs	/	/	*	*	
209	77	Pleural Drain non-return valve		Pcs	/	/	*	*	
210	78	Red O Pack		Set	/	/	*	*	
211	79	Rubber bulb with Valve for sphygmomanometer		Pcs	/	/	*	*	
212	80	Safety Box for Used Syringe	5L	Pcs	*	*	*	*	
213	81	Safety Box for Used Syringe	10 L	Pcs	*	*	*	*	
214	82	Scalp Vein	18G/20G	Pcs	/	*	*	*	
215	83	Scalp Vein	24G	Pcs	*	*	*	*	
216	84	Scalp Vein	25G	Pcs	/	*	*	*	
217	85	Scalp Vein	27G	Pcs	/	*	*	*	
218	86	Sterile eyes pads		Pcs	/	/	/	*	
219	87	Stomach Wash Out tube, Fraucher Type	CH27	Pcs	/	/	/	*	
220	88	Surgical Glove sterile, Long Cuff	Small	Pcs	*	*	*	*	
221	89	Surgical Glove sterile, Long Cuff	Medium	Pcs	*	*	*	*	
222	90	Surgical Glove sterile, latex	Small	Pcs	/	*	*	*	
223	91	Surgical Glove sterile latex	Medium	Pcs	/	*	*	*	
224	92	Surgical Glove sterile latex	Large	Pcs	/	*	*	*	
225	93	Surgical Glove non sterile, latex	Small	Pcs	*	*	*	*	
226	94	Surgical Glove non sterile, latex	Medium	Pcs	*	*	*	*	
227	95	Surgical Glove non sterile, latex	Large	Pcs	*	*	*	*	
228	96	Surgical stanless Steel wire 51mm straight double cutting 35cm	1	Pcs	/	/	/	*	
229	97	Surgical stanless Steel wire 26mm tape curve 20cm mono loop	2/0	Pcs	/	/	/	*	
230	98	Sut/Catgut Chromic25mm½circle Rb75cm	2/0	Pcs	/	*	*	*	
231	99	Sut/Catgut Chromic30mm½circle Rb75cm	3/0	Pcs	/	*	*	*	
232	100	Sut/Catgut Chromic35mm½circle Rb75cm	0	Pcs	/	*	*	*	
233	101	Sut/Catgut Chromic38mm½circle Rb75cm	1	Pcs	/	*	*	*	
234	102	Sut/Catgut Chromic40mm½circle Rb75cm	2	Pcs	/	*	*	*	
235	103	Sut/Catgut Chromic85mm B P Cvd Rb	2	Pcs	/	*	*	*	
236	104	Sut/Catgut Plain 22mm curved cutting 75cm	3/0	Pcs	*	*	*	*	
237	105	Sut/Catgut Plain 25mm½ circle Rb 75cm	2/0	Pcs	*	*	*	*	
238	106	Sut/Catgut Plain 30mm½ circle Rb 75cm	0	Pcs	*	*	*	*	
239	107	Sut/Coated, Braided Polyglycolic Acid Violet 30mm½ circle cutting point 75 cm	1	Pcs	/	*	*	*	
240	108	Sut/Coated, Braided Polyglycolic Acid Violet 30mm½ circle cutting point 75 cm	0	Pcs	/	*	*	*	

241	109	Sut/Coated, Braided Polyglycolic Acid Violet 30mm½ circle tapercut	2/0	Pcs	/	*	*	*	
242	110	Sut/Coated, Braided Polyglycolic Acid Violet 30mm½ circle tapercut	3/0	Pcs	/	*	*	*	
243	111	Sut/Surgisorb 27mm ½ circle Rb 90cm	3/0	Pcs	/	*	*	*	
244	112	Sut/Surgisorb 38mm ½ cut point 40cm	2/0	Pcs	/	*	*	*	
245	113	Sut/Surgisorb 40mm ½ cut point 45cm	1	Pcs	/	*	*	*	
246	114	Suture Nylon 30mm ½ circle Rb 75cm	2/0	Pcs	*	*	*	*	
247	115	Suture Nylon 30mm ½ circle Rb 75cm	4/0	Pcs	*	*	*	*	
248	116	Suture Nylon 5mm double micro-point spatula 30mm	10/0	Pcs	/	*	*	*	
249	117	Suture Nylon Curved Rev cutting 26mm	3/0	Pcs	*	*	*	*	
250	118	Suture Silk 8mm double needle micro-point spatula ½ circle 30mm	8/0	Pcs	/	*	*	*	
251	119	Suture Silk 16mm curved 45mm	4/0	Pcs	/	*	*	*	
252	120	Suture Silk 6mm curved 38mm	6/0	Pcs	/	*	*	*	
253	121	Suture Silk double needle micro-point spatula curved 30mm	10/0	Pcs	/	*	*	*	
254	122	Syringe Disposable	20ml	Pcs	/	*	*	*	
255	123	Syringe Disposable	50ml	Pcs	/	*	*	*	
256	124	Syringe Disposable & Needle 23G	5ml	Pcs	*	*	*	*	
257	125	Syringe Disposable & Needle 23G	10ml	Pcs	*	*	*	*	
258	126	Syringe Disposable & Needle 25G	2ml	Pcs	*	*	*	*	
259	127	Syringe Disposable & Needle 25G	5ml	Pcs	*	*	*	*	
260	128	Talc	1kg	Box	*	*	*	*	
261	129	Tape Test for Autoclave		Roll	/	*	*	*	
262	130	Tape Umbilical Non sterile 3mm		Roll	*	*	*	*	
263	131	Tape/Strips Test For Poupinel		Roll	/	*	*	*	
264	132	Thermometer Oral/Rectal °C		Pcs	*	*	*	*	
265	133	Thorax Drain + Trocart	CH12	Pcs	/	*	*	*	
266	134	Thorax Drain + Trocart	CH14	Pcs	/	*	*	*	
267	135	Thorax Drain + Trocart	CH16	Pcs	/	*	*	*	
268	136	Thorax Drain + Trocart	CH18	Pcs	/	*	*	*	
269	137	Thorax Drain + Trocart	CH20	Pcs	/	*	*	*	
270	138	Thorax Drain + Trocart	CH24	Pcs	/	*	*	*	
271	139	Tongue depressor wood adult		Pcs	*	*	*	*	
272	140	Tracheal tube	#4	Pcs	/	/	*	*	
273	141	Tracheal tube	#5	Pcs	/	/	*	*	
274	142	Tracheal tube	#6.5	Pcs	/	/	*	*	
275	143	Tracheal tube	#7	Pcs	/	/	*	*	
276	144	Tracheotomy tube	#4	Pcs	/	/	*	*	
277	145	Tracheotomy tube	#5	Pcs	/	/	*	*	
278	146	Tracheotomy tube	#6	Pcs	/	/	*	*	
279	147	Tracheotomy tube	#7	Pcs	/	/	*	*	
280	148	Tube Liaison For Redon Drain	110cm	Pcs	/	/	*	*	
281	149	Tube Nasogastric/Feeding	CH5	Pcs	/	/	*	*	
282	150	Tube Nasogastric/Feeding	CH8	Pcs	/	/	*	*	
283	151	Tube Nasogastric/Feeding	CH12	Pcs	/	/	*	*	
284	152	Tube Nasogastric/Feeding	CH14	Pcs	/	/	*	*	
285	153	Tube Nasogastric/Feeding	CH16	Pcs	/	/	*	*	

286	154	Tube Redon Drain	CH12	Pes	/	/	SN	*	
287	155	Tube Redon Drain	CH16	Pcs	/	/	SN	*	
288	156	Tube Suction Disposable	CH8	Pcs	/	*	*	*	
289	157	Tube Suction Disposable	CH12	Pcs	/	*	*	*	
290	158	Tube Suction Disposable	CH16	Pcs	/	*	*	*	
291	159	Tubular Elastic Bandage	8mm x 4cm	Pcs	/	/	/	*	
292	160	Tubular Elastic Net Bandage	8mm x 4cm	Pcs	/	/	/	*	
293	161	Ultra Sound Gel	1 kg	Btl	/	/	*	*	
294	162	Umbilical cord clamp		Roll	*	*	*	*	
295	163	Urine Drainage Bag with non-return valve	2litre	Pcs	/	*	*	*	

Annex-28: Daily Record of Drug and Medical Materials Consumption

Operational District:……. **Daily record of drug and Medical material consumption**
Health Center:…….. **Date:** ……. **200**……

No	Name list of Drug and Medical Material	The Amount of Expense in one day	Total
1	Acetylsali, Acid 500mg,Tab		
2	Alu,Hydroxide 500mg,Tab		
3	Amoxicillin 250mg, Tab		
4	Amoxicillin 500mg, Cap		
5	Amoxicillin Dry Powder,125mg/5ml		
6	Ampicillin500mg,Tab		
7	Bromhexine Syrup, 4mg/5ml		
8	Co-trimoxazole120mg, Tab		
9	Co-trimoxazole 480mg, Tab		
10	Fer-Folic Acid 200/0.40 mg Tab		
11	Folic Acid 5 mg Tab		
12	Metronidazole 250 mg,Tab		
13	Multivitamins Tab		
14	O.R.S(1liter water) Sachet		
15	Paracetamol 100mg, Tab		
16	Paracetamol 500mg, Tab		
17	Paracetamol Syrup 60ml		
18	Phen. Pencillin 250mg, Tab		
19	Promethazine 0.1% Syrup		
20	Promethazine 25mg, Tab		
21	Vitamin B1 B6 B12, Tab		
22	Vitamin B1, 250mg Tab		
23	Tetracycline eye oint 1% Tube		
24	Ethambutol 400mg,Tab		
25	Ethambutol/Isoniazide 400/150mg		

Annex-29: Monthly Record of Drug and Medical Materials Consumption

MONTHLY CONSUMPTION REPORT

Name of Health Center:……. From date:……..
Ward:……

No.	Description/ Form/ Dose												Total												Total	Grand Total
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										
15																										
16																										
17																										
18																										
19																										
20																										

Annex-30: Income-Expense Report of Drug-Medical Materials for Outreach Services

Provincial Health Department:……
Operational District:……
Health Center:…….

Drugs & Consumables Consumption Report for Outreach Services
Start from Day……Month…..to Day…..Month…..Year 200….

No	Description	Strength	Form	Incoming	Outgoing	Balance	No of Receiver	Observation
1	Ferrous Sulphate+Folic Acid	200+0.40mg	Tab					
2	Mebendazole	500 mg	Tab					
3	Oral Rehydration Salts(for 1 liter)		Sachet					
4	Paracetamol	100mg	Tab					
5	Retinol/ Vit.A	200,000 IU	Cap					
6	Retinol/ Vit.A	100,000 IU	Cap					
7	Progesterone+Oestradiol (Microgynon)	0.03/0.15mg	Blister					
8	Progesterone(Overrette)	0.075 mg	Blister					
9	Condoms	49 mm	Pcs					
10	Depot Medro Progest Ace+Syr+Ndle	150mg/3ml	Vial					
11	Blister A+ M2	50+250mg	Blister					
12	Blister A+ M3	50+250mg	Blister					
13	Blister A+ M4	50+250mg	Blister					
14								
15								
16								
17								
18								
19								
20								

Date: ……200…..
Seen and Approved
Health Center Director

Signature

Date: …… 200…..
Provider Order person
Signature

Note: Fill in two copies before borrowing: One for drug store and one for person bring along with drug when go to out reach services and for making report.

Annex-31: Stock Card
Provincial Health Department:……
Operation District:…… **Code No:**……...**Sheet No**…….
Health Center:……...

STOCK/BIN CARD

Generic Name:……
Strength:…… Form:……..

Date	No of Invoice	Received from/issued to	Incoming	Outgoing	Adjustment	Balance	Expiry Date	Observation

Annex-32: Overstock Report of Drug-Medical Material

Operational District:……..

Health Center:……..

Overstock Report of Drug-Medical Material in Drug Stock
From Date: ……. 200….to Date:…….Year……..

No	Code	Description	Strength	Form	Qty. Overstock	AMC	Expiry Date	Observation
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

Note: These overstock drugs and medical equipments were supplied by Operational District or by donors.

Date: …….. Date: ……

Chief of Health Center Drug Stock Management Officer

Annex-33: Order/ Delivery Form of Drug-Medical Material for In-patient

ORDER/ DELIVERY FORM FOR IN-PATIENT

Ward:……. Date…….…….……

No of Inpatient:…….

			Description of Drugs-Medical Material																				
Name of Patient	Diagnosis	No of hospitalization day																					
Number of Order (Total)																							
Number of Delivery (Total)																							

Chief of Health Center Signature Drug Stock Manager Signature Chief of Ward Signature Receiver Signature Provider Signature

Annex-34: Emergency Kit for a Referral Patient

This kit must be kept in health center stock all the times, at the place where health center staff can take it out easily for bring along with them while referring patient. The staff must bring the kit along with them while referring patient to referral hospital. Those staff should responsible for recording all materials used during referring patient and return it back to health center when come back. Pharmacists should fill in additional material to the kit as soon as possible or within same day.

The Kit components are as follows:

- Thermometer
- Stethoscope
- Sphygmomanometer (Child and adult)

In case pregnant patient or during labor, they can bring along with the delivery kit takes form maternal and child health section.

Materials:

- Alcohol
- Gauzes
- Cotton
- Gloves
- Mask
- A set of Intravenous Injection (Scalvene, infusion set, Garo, forceps, scissors)
- Catheter (children and adult size)
- Adhesive tape
- Pins (different size)
- Syringes (different size)
- Bandage
- Safety box
- Flashlight
- Canal
- Suction unit operated by hand

Drugs:

- Paracetamol (tablets and injection)
- Oralit (pack)
- Diazepam injection
- Serum (at least 2 packages)

Copies of the above medical-material list should be put in the kit, and the staff should mark what they have used along the way so that it is easy for them to refill additional material

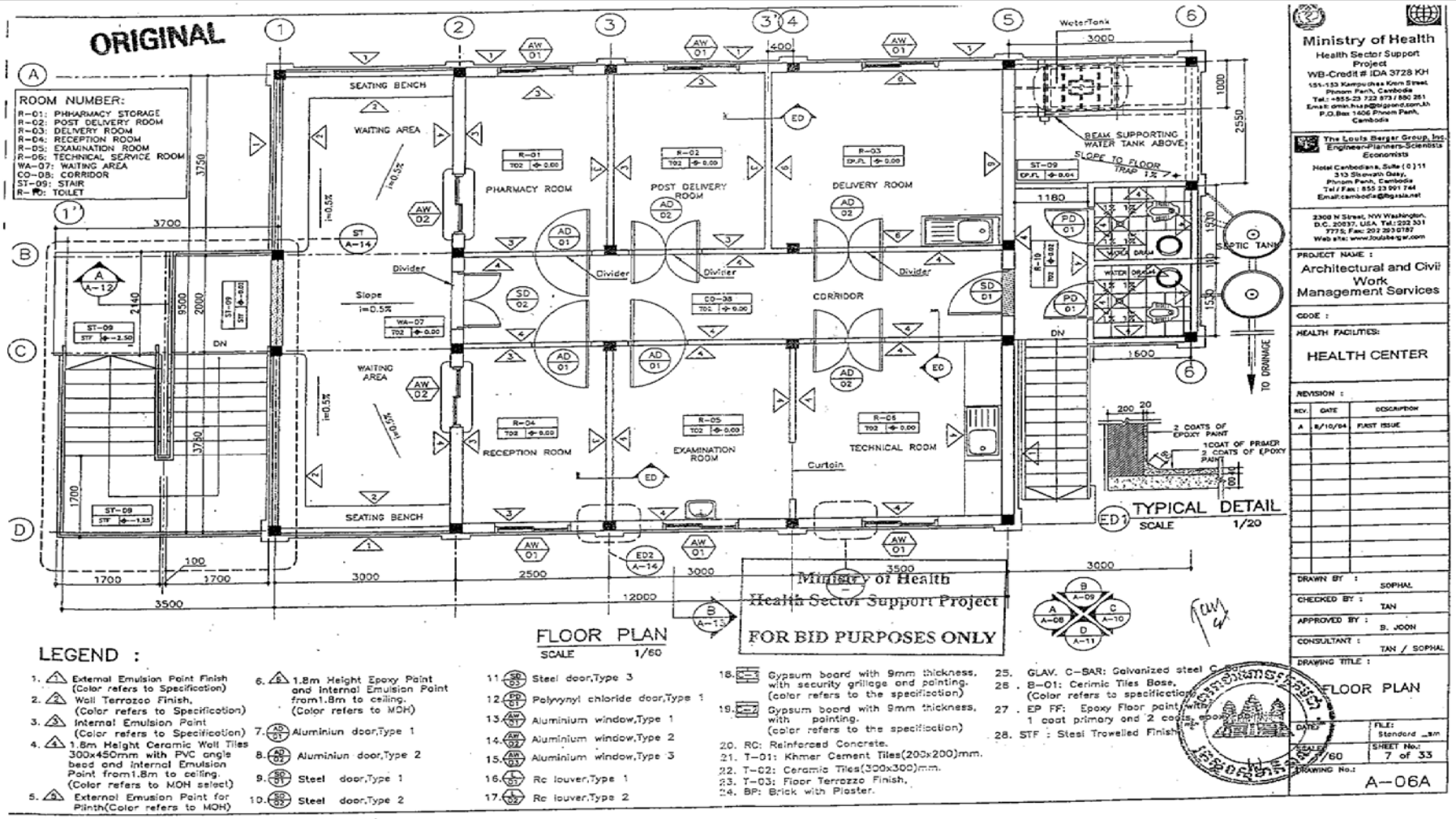
The purpose of preparing emergency kit

Emergency box is prepared for supporting health center midwife for easily facilitating and providing emergency maternity on time, because, the drugs and necessary materials are already prepared in this box.

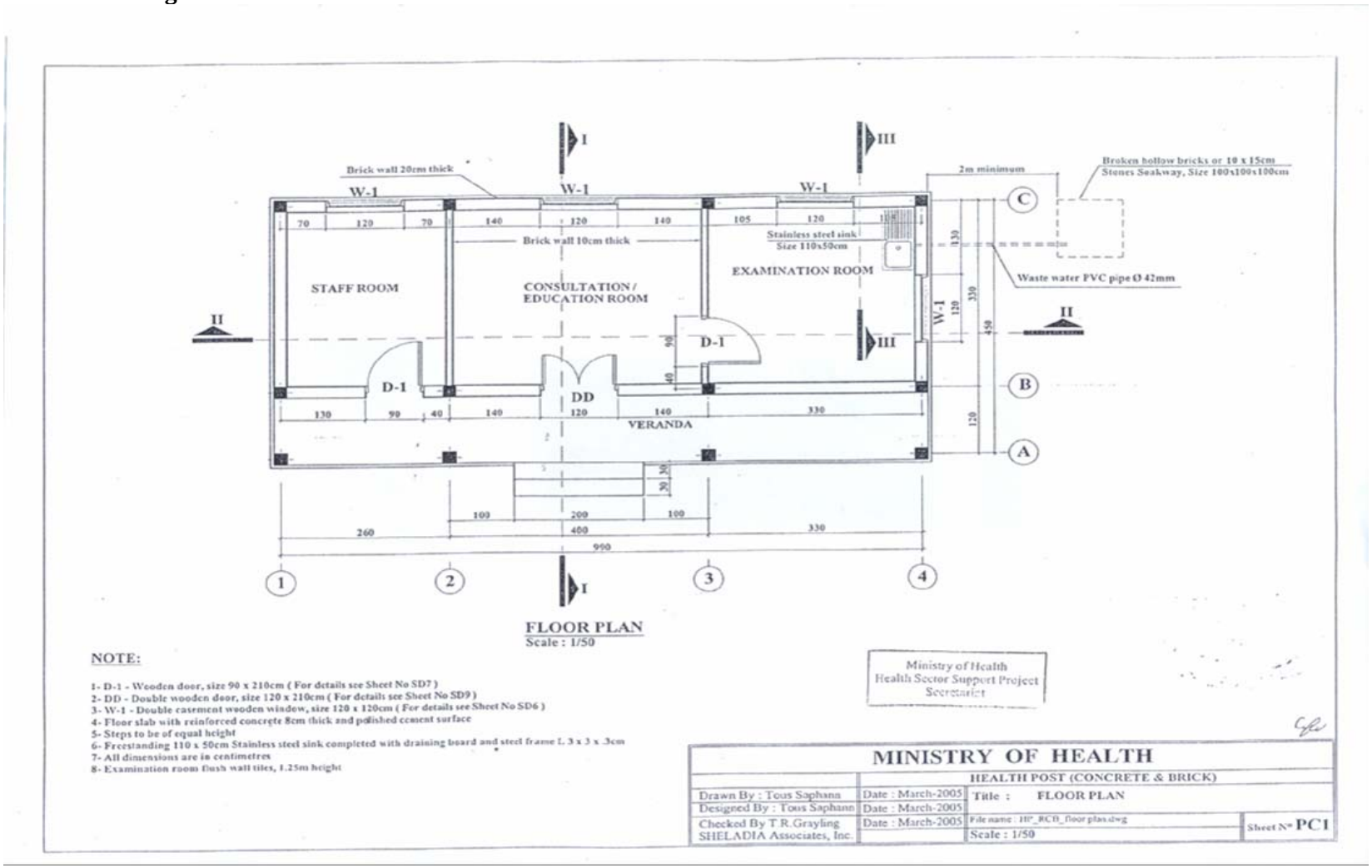
Nº	Description	Form	Strength	Amount
Drug				
1	Oxytoncine	Amp	10 UI	5
2	Diazeparn	Amp	10 mg	5
3	Amoxilline	Pill	500 mg	10
4	Paracetamol	Pill	500 mg	10
5	Ringers Lactate	Bottle	1.000 ml	1L
6	N S S 0.9%	Bottle	1.000 ml	2 L
7	Lidocaine	Bottle	50 ml (2%)	1
Antiseptic and Disinfection Solution				
1	Povidone Iodine	Bottle	200 ml (10%)	1
2	Soap	Piece		1
Small Surgery Box				
1	Catgut and Chromic with needle			4
2	Needle holder			1
3	Scissor			1
4	Tissue forceps			1
5	Haemostatic forceps			1

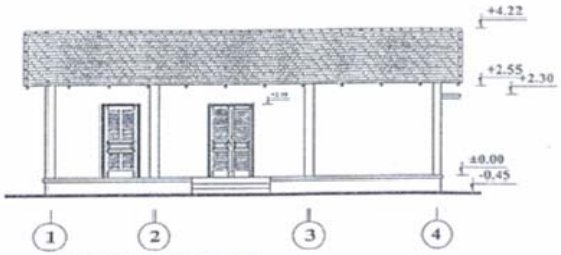
Nº	Description	Form	Strength	Amount
Delivery box				
1	Scissors			2
2	Forceps			2
3	Needle holder			1
4	Tissue forceps			1
5	Urine catheter			1
Material				
1	Canule de Mayo or Guedel		Plastic	1
2	Ambu bag		Latech	1
3	Urine Bag		Plastic	1
4	Cather folley site:18F/Ch 30ml/CC		Latech	1
5	Adult Bulb Syringe		Latech	1
6	Baby Bulb Syringe		Latech	1
7	Fetal Stethoscope		Iron	1
8	Blood Pressure Cuff			1
9	Stethoscope			1
10	Thermometer			1
11	Gauze sterile			
12	Syringe and Pin (5/10cc)		Plastic	5
13	Catheter (for adult) G20		Plastic	2
14	Catheter (for child) G24		Plastic	2
15	Adhesive tape			1
16	Clean cotton and alcohol			
17	Glove sterile		Latech	3 Pairs
18	Glove non sterile		Latech	5 Pairs
19	Home Birth Kit			1
20	Flashlight (2 Battery A1)			1

Annex-35: Drawing of Standard Health Center

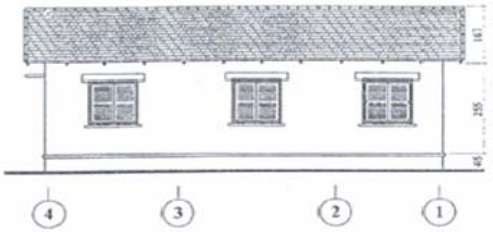


Annex-36: Drawing of a Standard Health Post

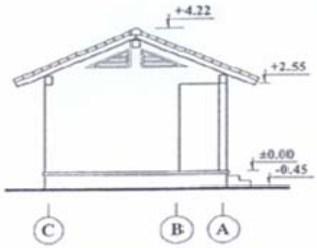




FRONT ELEVATION
Scale : 1/100



REAR ELEVATION
Scale : 1/100



RIGHT ELEVATION
Scale : 1/100

LEFT ELEVATION
Scale : 1/100

NOTE:
All dimensions are in centimetres unless otherwise indicated
All level are in metres

MINISTRY OF HEALTH			
	HEALTH POST (CONCRETE & BRICK)		
Drawn By : Tous Saphann	Date : March-2005	Title : FRONT, REAR, RIGHT & LEFT ELEVATIONS	
Designed By : Tous Saphann	Date : March-2005		
Checked By T.R.Grayling SHELADIA Associates, Inc.	Date : March-2005	File name : HP_RCB_Elevation.dwg	Sheet N° PC5
		Scale : 1/100	