

# SEMI-ANNUAL PROGRESS REPORT

The Health Information, Policy and Advocacy (HIPA)

Project

October 2015 - March 2016

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Program Title: The Health Information, Policy and Advocacy (HIPA) Program

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#### **ABBREVIATIONS**

APN Asian Pacific Network
CDC Centre for Disease Control

CDHS Cambodia Demographic and Health Survey

CDI Futures Group Center for Development Informatics
CENAT National Center for Tuberculosis and Leprosy Control

CNM National Center for Parasitology, Entomology and Malaria Control

COP Chief of Party

CRVS Civil Registration and Vital Statistics

DAI Development Alternatives International

DPHI Department of Planning and Health Information

F Female

FIC Family of International Classification (WHO)

GDI General Department of Identification (of Ministry of Interior)

HC Health Center
HF Health Facility

HIPA Health Information, Policy and Advocacy (Project)

HIS Health Information System

HISB Health Information System Bureau
HMIS Health Management Information System

HSS Health System Strengthening IT Information Technology

M Male

MOH Ministry of Health
MOI Ministry of Interior
MOP Ministry of Planning

NCHADS National Center for HIV/AIDS, Dermatology and Sexually Transmitted Diseases

NH National Hospital

NIS National Institute of Statistics (of Ministry of Planning)

NMCHC National Mother & Child Health Centre

NTP National TB Program
OD Operational District
PD Project Director
PH Provincial Hospital

PHD Provincial Health Department
PMRS Patient Medical Records System

RH Rural Hospital

TWG Technical Working Group

SHPA Social Health Protection Association

UIC Unique Identification Code
UIS Unique Identify System
WHO World Health Organization

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# HIPA PROJECT SEMI-ANNUAL PROGRESS REPORT

# 1. PROGRAM OVERVIEW

Program Name	Health Information Policy and Advocacy Program		
Activity Start Date And End Date	March 6, 2014 until March 5, 2019		
Name of Prime Implementing Partner	Palladium		
Contact Information	Project Director: Chetna Chawla, Chetna.Chawla@thepalladiumgroup.com Chief of Party: Dineke Venekamp, Dineke.Venekamp@thepalladiumgroup.com Contracts Officer: Renee McElrath, Renee.McElrath@thepalladiumgroup.com		
[Contract/Agreement] Number	AID-442-A-14-00005		
Name of Subcontractors/ Sub-awardees			
Major Counterpart Organizations	Royal Government of Cambodia – MOH		
Geographic Coverage (cities and or countries)	Cambodia		
Reporting Period	October 2015 – March 2016		

# 1.1 PROJECT DESCRIPTION

The Health Information Policy and Advocacy (HIPA) Program targets to 1) foster ownership by Cambodia's Ministry of Health (MOH) of health information systems (HIS) at the district, regional, and national levels; 2) build ministries' management and technical capacity with a focus on strong HIS oversight; and 3) bring HIS partners together across national programs to better coordinate their resources to support the MOH. The approach is geared toward making actionable Cambodia's vision of a comprehensive health management information system (HMIS) capturing broad health data from all elements across the continuum of care. It will empower decision-makers to achieve faster, better health assessments and evaluate the impact of service programs on Cambodia health populations.

The project supports the Royal Government of Cambodia (RGC) Health Information System Strategic Plan and USAID focusing on three key objectives:

OBJECTIVE 1:	Improved data for decision-making
OBJECTIVE 2:	Increased capacity and accountability of government staff and institutions
OBJECTIVE 3:	Increased Access and Improved Quality of Targeted Prevention Activities

#### 1.2 SUMMARY OF RESULTS TO DATE

# October 2015 - March 2016

- (1) HMIS enhancements and Help Desk support
- (2) Private Health Service providers improving reporting to MOH strategies defined
- (3) ICD-10 simplified version field trial
- (4) Improving data quality training workshops
- (5) Dashboard design and development
- (6) Capacity building of DPHI
- (7) Support to Ministry of Health Health Strategy Plan (HSP3) 2016 2020
- (8) TB MIS defined functional requirements and modules development

Over this half year HIPA has facilitated 12 workshops with a total of 386 participants of which 15% female and one field visit In October for CENAT staff to Kampong Speu.

# 2. ACTIVITY IMPLEMENTATION PROGRESS

# 2.1 PROGRESS NARRATIVE

# 2.1.1 Achievements

# Objective 1: Improved data for decision-making

# Component 1.1: Strengthening the Relevance and Accuracy of the HMIS

1.1.1 Stabilizing and enhancing HIS 3.0 application with data validation tools, GIS and data use applications

HIPA continued work towards stabilizing and enhancing the features of the HMIS application for increased reliability and robustness. The project has established a process of issue reporting that is being maintained through an Issue Tracker. The issue tracker is an effective tool being used to record, monitor and status of all the issues/bugs reporting and resolution status. Issues are reported to DPHI, directly to HIPA IT help desk or noted during user training sessions. Till date 197 issues have been reported of which 24 are pending resolution.

Besides the issue/ bug resolution, some of the key enhancements implemented over the last 6 months in the HIS 3.0 include:

- Finalization of Indicator report in HIS 3.0
- Further data capture controls in HIS 3.0. The Yes/No tool was further refined and helps in validating the data reported and correctly track the status of data submission by each sections of indicator in HC1 and HO2 forms in the current HIS system. The system, via the inventory report module, is now able to track any section of indicators that user does not report or submits incomplete reports in the system. The enhanced tool was introduced during the data quality training in March/April'16 to all 25 PHD and 95 OD HIS officers.
- Several data validation rules including alert messages built in at the data capture stage of HIS 3.0.
- The list of HIS indicators' definitions have been uploaded to HIS 3.0 live server after review by National Programs and DPHI
- 1.1.2 HMIS incorporates more accurate subnational population denominators, leading to more accurate subnational coverage estimates.

Procurement process underway for hiring of consultant demographer/consultancy firm to develop guidelines for HMIS target populations and long term population projections and advice on the most appropriate population data source.

Subsequent to development of guidelines, HPA will facilitate consultation between MOH, MOI and MOP to agree on way forward.

HIPA is awaiting the request letter from MOH to MOP to receive most updated MOP census data up to village level.

1.1.3 Data integration of Maternal Death Surveillance- (MDS), PMTCT-, health coverage plan (HCP) data bases and health facility quality assessment scores with HMIS

HIPA facilitated a consultative meeting in close cooperation with DPHI on the Health Coverage Plan (HCP) system development on 19 Feb'16. The participants of this meeting were from selected health institutions including MOH departments, PHDs, ODs, hospitals and UNICEF known for their active participation in HCP in the past. Design and development of web-based Health Coverage Plan (HCP) application is underway. The HCP will be integrated in HIS and will capture also health facility quality scores.

HIPA met with WHO in March'16 to understand their ongoing initiative with DPHI on maternal death surveillance data assessment in the field with as aim to improve maternal death recording. HIPA proposes to support the DPHI activity in 9 provinces. Remaining provinces may be supported by WHO. Thereafter it will be decided in consultation with DPHI to revitalize and incorporate the Maternal Death Surveillance data base in HIS or to develop a case based birth and death module in HIS. This is also part of activity 1.2.2.

1.1.4 Continuation of collaboration with national programs (CNM, CENAT, NCHADS) to identify key performance indicators and annual update of all program indicators

Several requests have been received over the last half year from national programs (NMCHC RH/Nutrition/Immunization), National Blood Transfusion Center and mental health) regarding their additional information needs and subsequently needed changes in HIS effective from 2017. In order to approve these additional indicators from a current 544 to 666 indicator variables, a meeting between National Programs and DPHI will be scheduled in May'16 to discuss NPs revisions in HIS and feedback received from users during data quality workshops in March'16 regarding their proposed changes. NPs should also be made aware that their role will be to take care of revised formats at data capture point, clear definitions and instructions to health staff.

HIPA team met with NCHADS twice to discuss interoperability regarding the HIV/AIDS indicators in HIS and interoperability between TB and HIV/AIDS indicators in collaboration with CENAT. It was agreed that HIS 3.0 will incorporate key HIV/AIDS indicators in the HC1 reports. Awaiting NCHADS feedback on HIV/AIDS indicators in HIS and revisions regarding TB indicators.

1.1.5 Technical assessment of the national programs application systems to confirm feasibility of technical data exchange. (if agreement on 1.1.4)

Since HIPA is responsible for design and pilot implementation of TB MIS application, HIPA will ensure that the KPIs between CENAT and HMIS are consistent and necessary data exchange protocols are implemented between HIS 3.0 and eTB Manager by end of 2016.

HIPA has advised Malaria Consortium regarding the development of the CNM web based Malaria MIS and compatibility for data exchange with HIS.

Once the KPIs between the national programs of NCHADS, CNM and HMIS are harmonized and their respective application systems and databases are available and upgraded, HIPA will conduct a technical assessment of the national program application systems to confirm feasibility of technical data exchange.

# 1.1.6 Support the M&E of HSP 3 Key performance indicators

HSP 3 core group is in the process of finalizing the list with key performance indicators. Once the M&E HSP 3 indicators are officially approved, HIPA will integrate the applicable indicators in HIS 3.0 under section 12 of the indicator report HSP3 key indicators.

### 1.1.7 Review of existing data quality assessment tools and guidelines and review of data quality index

HIPA conducted two training workshops in close cooperation with DPHI on improving HIS data quality on 22-23 and 29-30 March'16. The training was attended by 15 PHD and 64 OD HIS officers. The workshop focused on several components of data quality, review of data quality index, introducing the newly developed HIS 3.0 tools (missing reports, completeness of reports, user accounts etc.), HIS new formats, dashboard and any other outstanding issues reported by HIS users. The third workshop for the remaining 10 provinces will be organised in April.

The data quality index in HIS will be revised according to the comments received during the training. A data quality supportive supervision tool has been drafted, which will be used by DPHI when conducting data quality supervision visits in June/July'16.

# 1.1.8 Develop strategy for increasing private sector reporting to HMIS

Several meetings were held between DPHI, Department of Health Services (DHS) and HIPA team to discuss the simplified reporting format for private sector. The workshop on private sector reporting in HIS was organized on 18 March'19. The overall objective of this workshop was to support improvement in data reporting by private health service providers to Ministry of Health. The main topics discussed were the current legislation, new report format for private sector, constrains and challenges for private sector to report. The workshop was attended by 90 participants with representation from 25 PHD and 10 OD directors, selected private hospitals, policlinics, clinics, cabinets, NGOs clinics, and selected MOH institutions.

HIPA is currently working on the proposed revisions of the private sector reporting format, data interface, monthly report and indicator report to be built in HIS before the HIS training in July/August. At these training workshops PHDs and ODs will be again encouraged to register private health service providers in HIS.

# 1.1.9 Expand HIS 3.0 application usage

The HIS3.0 application has been enhanced to include all indicator reports and data use dashboards (discussed in the subsequent section) to enhance the use and usefulness of the application. HIPA has also supported HIS and data quality trainings to continue to build skills within the DPHI staff on effective and efficient use of the HIS 3.0.

# Component 1.2: Strengthening the Civil Registration and Vital Statistics system to improve the data quality and Maternal Death Surveillance

1.2.1 Provide technical assistance to the MOI/GDI-CRVS system to improve the data quality and use of birth and death records in HIS 3.0

No activities have been undertaken over the last 6 months, while awaiting further news on the development of web-based MOI/GDI-CRVS system.

1.2.2 Provide technical assistance and training in medical and non-medical death certificates, including cause of death and ICD codes

HIPA attended the preparatory workshop in January and participated in the Field Trial Orientation workshop on ICD-10 APN Simplified Beta 3 version on 4-5 Feb'16 in Phnom Penh. This event was organized by DPHI with technical and financial support from WHO- Family of International Classification (FIC) Asia-Pacific Network (APN) and HIPA. The simplified ICD 10 version of WHO-FIC-APN was trial tested in 10 hospitals till 31 March'16 and their work evaluated by WHO-FIC-APN trainer. The field trial in Cambodia will be one of topics of the agenda of the annual WHO-FIC-APN regional meeting in June in Bangkok.

The Thai medical death certificate, following WHO recommended form and including ICD10 codes is translated in English and Khmer and will be used as example for development of Cambodian medical death certificate. A small core group workshop will be organized to discuss validity and applicability with DHS and DPHI by end of May.

Maternal deaths in health facilities and at home are already recorded in HIS. To validate the accuracy of these data HIPA in collaboration with WHO and DPHI will carry out an assessment to compare the maternal deaths captured by HIS, MDS data base and actual maternal deaths occurring in sample of 9 provinces. See also activity 1.1.3.

1.2.3 Provide technical assistance to the review of ICD 10 and ICD 11 and its applicability to Cambodia

HIPA will start with the technical assistance regarding ICD 10 including simplified version and ICD 11 in the second half of FY3.

### 1.2.4 Technical implementation of ICD-10/11 in HMIS

Depending on the results and recommendations of the field trial mentioned under 1.2.2, the review of ICD versions and approved implementation plan only then HIPA can start with ICD coding in HIS.

# Objective 2: Increased capacity and accountability of government staff and institutions

# Component 2.1: Strengthening Data Use for Decision-Making and Advocacy at Sub-National levels

2.1.1 Continuation development of user-friendly dashboards and graphic interfaces incorporated within the HIS

On 3 Nov'15 HIPA organized a second Dashboard consultative meeting with participants from MOH national and sub-national levels, UNICEF and WHO representatives. A total of 17 participants attended this meeting aimed at developing the conceptual design for the HIS dashboard. Proposed variables were defined in order to retrieve data from the current HIS dataset.

HIPA in close cooperation with DPHI, facilitated a workshop on dissemination of DDIU survey report and HIS dashboard on 29 Jan'16. The participants of this workshop included PHD directors and HIS officers from 9 provinces, national programs, WHO and USAID.

The HIS Dashboard was also presented at data quality training to all PHD and OD HIS officers in March. The Dashboard will be further refined and deployed in HIS by July'16.

HIPA started collaboration with USAID partner ECH project to promote health data use at commune level. Pilot communes in the provinces of Banteay Meanchey and Pailin have been selected. HIPA will develop a training kit on data use.

# 2.1.2 Set up of public MOH-DPHI web portal

DPHI web portal is seen as a strong data dissemination platform that would provide published health information of MOH for the health as well as non-health stakeholders of DPHI. HIPA proposes to commence consultation with DPHI towards design of the web portal in June'16.

# Component 2.2: Building the Capacity of the MOH Department of Planning and Health Information

2.2.1 Continuation of capacity building to DPHI based on initial training needs assessment and further need

HIPA supported a 5-days training course from 2 to 6 November'15 on Descriptive Data Analysis/Interpretation and report writing skills at the Cambodian National Institute of Public Health (NIPH) for 6 DPHI officials. The course aimed at enhancing skills of the MOH staff in analysis and reporting of health information.

HIPA HMIS advisor is based at DPHI two days per week to advise and assist DPHI-HIS Bureau staff and to facilitate communication.

HIPA also supported the development of the Health Strategy Plan 3 2016-2020 as members of the core and task group and supported DPHI in the costing of HIS strategies.

# 2.2.2 Training workshop on enhanced HMIS (train-the-trainer)

HIPA will assist DPHI staff in organizing the annual training workshops to HIS key officials from all 25 provincial health departments, 95 ODs and 109 referral, provincial and national hospitals. This training workshop aims to build the capacity of key HIS officers in the data use, analysis and management of the HMIS solutions. The OD HIS officers will become local core trainers (in this train-the-trainer approach) to provide local training to the HIS staff in health centers. Training workshops will be organized in July-August'16.

### 2.2.3 Set up of a Help Desk at DPHI and on the job training by seconded IT staff

HIPA has seconded one IT staff at DPHI to support HIS 3.0 application implementation and management and train DPHI IT staff in HMIS management. The established HMIS Help Desk is functioning well. Over the last half year 175 calls have been received from HIS users, with an average of 29 calls per month and a maximum up to 6 calls per day. Most issues could be solved the same day. Out of 218 issues reported till date on which support was requested since the start of the Help Desk the end of July 2015, 5 remain which requires enhancement of the system and IT team is working on.

# Objective 3: Increased access and improved quality of targeted prevention activities

# Component 3.1: Automating the TB MIS

# 3.1.1 System design and further development of eTB manager

HIPA and CENAT conducted a joint field visit to Kampong Speu province from 6-8 October, 2015 being the last of the three pilot provinces to be visited. The objectives of the visit were (1) to study the current flow of presumptive TB to diagnose and treatment at health centre and referral

hospital (2) to explore the data capture from all levels which starts from community (DOTS watcher), health facility, OD and province.

The team continued to define the user requirements of TB MIS of the remaining modules on TB suspect, TB case, laboratory, medicines and reports to be prepared for the consultative meetings with CENAT and field staff.

On 9 December' 15, HIPA facilitated a meeting at CENAT to continue the discussion on TB MIS functional requirements and patients flow at health facility level. The analysis on the current TB burden by operational district and health facility were also presented and discussed during the meeting. The meeting was attended by 13 CENAT senior staff, including the PHD medical TB supervisors of the three pilot provinces Svay Rieng, Kampong Speu and Kampong Cham. A follow-up meeting was organised on 17 December'15.

HIPA continued support to eTB manager for PMDT (MDR TB to the users and regular monitoring of data entry.. HIPA conducted training on the usage of eTB Manager for MDR-TB treatment sites from 15-17 Feb'16 in Siem Reap province and from 23 to 25 Feb'16 in Kep. The training served the objectives (1) to train relevant health staff from PMDT sites and TB supervisors on the use and operations of e-TB manager (2) to strengthen the utilization of e-TB Manager System and (3) to collect more feedback from the users in relation to e-TB Manager utilization. 47 participants were attending (8 females) from the MDR treatment sites of Khmer Soviet national hospital, CENAT hospital, Kampong Cham, Battambang, Mongkol Borey Kandal, Svay Rieng, Takeo, Kampong Chhnang and Siem Reap provincial hospitals.

HIPA continues to work on design and development of the TB MIS solution. The TB MIS case module is ready for testing by CENAT.

### 3.1.2 Pilot testing and training

The pilot in the selected 3 provinces is expected to start in July/August'16. Prior to the training a draft user manual will be prepared.

# 3.1.3 Continuation of modules enhancement based on pilot and training

This will take place during above mentioned pilot phase.

# Component 3.2: Linking of HIV/STI and TB Information System and HMIS

# 3.2.1 Presentation of strategy at consultation workshop on UIS

HIPA will evaluate the current credible UIS initiatives in health and non-health sector and recommend the best possible candidate UIS that can be adopted nationally and develop a high

level roll-out roadmap for adoption of the UIS nationally. Local procurement for the consultancy did not produce proposals from technically capable consultants or consultancy firms. Currently HIPA is awaiting the approval of the travel request for international expert to commence the assessment. Once this assessment has taken place, the results of this assessment will be presented and discussed in a workshop with all stakeholders.

3.2.2 Collaborate with national programs and implementing partners to assess the feasibility of technical implementation of the proposed common UIS framework

This will also take place after UIS assessment.

### Workshops, study and field visits

Over this half year HIPA has facilitated 12 workshops with a total of 386 participants of which 15% female and one field visit In October for CENAT staff to Kampong Speu being the last field visit to one of the three selected pilot provinces for the TB MIS development.

### **USAID Deliverables**

- Monthly bulleted updates all submitted
- The HIPA Semi-Annual Progress Report from April 2015 –September 2015 and the Performance Indicator Tracking Table Report for the financial year 2015 were submitted to USAID on 28 October'15
- HIPA FY3 work plan submitted to USAID on 17 July'15 and approved on 27 January'16

# 2.1.2 Progress according to FY3 submitted and approved annual work plan

Green marked is implemented. Red marked is delay in implementation

Components/Activities	2015			2016		
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Activity 1.1.1 Continuation of stabilizing and enhancing HIS 3.0 application with data validation tools, GIS, mobile applications etc.	х	х	х	x	x	x
Activity 1.1.2  HMIS incorporates more accurate Subnational population denominators, leading to more accurate subnational coverage estimates	x	х	х	х	х	
Activity 1.1.3  Data integration of Maternal  Death Surveillance-, PMTCT-,  health coverage plan (HCP) data bases (currently) and health facility quality assessment scores in HCP with HMISOngoing -		х	х	х	х	х
Activity 1.1.4 Continuation of the collaboration with national programs (CNM, NCHADS) to identify key performance indicators of each of programs and annual update of all program indicators Ongoing-	х	х	х	х	х	
Activity 1.1.5 National Program Data Exchange and Integration Strategy if agreement on 1.1.4 and if technically feasible. Depends on 1.1.4						х
Activity 1.1.6 Key indicators of HSP 3 in HMIS Awaiting final MEP HSP3 indicators				х	x	х

Components/Activities		2015		2016		
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Activity 1.1.7 Review of existing data quality assessment tools and guidelines and review of data quality index				х	х	х
Activity 1.1.8  Develop strategy for increasing private sector reporting to HMIS		x	х	х	х	х
Activity 1.2.1 Provide technical assistance to the MOI/GDI/CRVS system to improve the data quality and use of birth and death records in HIS 3.0				x	x	x
Activity 1.2.2 Provide technical assistance and training in medical and nonmedical death certificates, including cause of death and ICD-codes – Ongoing-					х	х
Activity 1.2.3  Provide technical assistance to the review of ICD-10 and ICD-11 and its applicability to Cambodia –Ongoing-	х	х	х	х	х	х
Activity 1.2.4 Technical implementation of ICD- 10/11 in HMIS Depends on 1.2.3						x
Activity 2.1.1 Continuation development of user-friendly dashboards and graphic interfaces incorporated within the HIS 3.0 – Ongoing-	x	х	x	x	x	х
Activity 2.1.2 Set up public MOH-DPHI web Portal – after decision DPHI on agreed information for public site				х	х	х

Components/Activities	2015			2016		
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.
Activity 2.2.1 Continuation of capacity building to DPHI based on training needs assessment and further needs	х	х	x			
Activity 2.2.2 Training workshops on enhanced HIS 3.0 (train the trainers) – will be in July/August						
Activity 2.2.3 Set up of a Help Desk at DPHI and on the job training of IT by seconded IT staff	x	x	х	х	х	х
Activity 3.1.1 System design and development of eTB manager	х	x	х	х	х	х
Activity 3.1.2  Pilot testing and training – start  will be July'16					x	x
Activity 3.1.3 Continuation of modules enhancement based on pilot and training for MDR throughout the year	х	х	х	х	х	x
Activity 3.2.1  Presentation of strategy at consultation workshops on UIS  Will be after UIS assessment in May'16	х	х				
Activity 3.2.2 Collaborate with national programs and implementing partners to assess the feasibility of technical implementation of the proposed common UIS framework. Will be after 3.2.1			х			

# 2.1.3 Performance Monitoring and Evaluation plan. Financial Year 16 Indicators

Performance Indicator	Targets PITT	Actual Result	Remark
Number of people	20	25	2 persons from 10
trained (TOT) on ICD			hospitals were trained in
(10/11) classification of			ICD10 simplified version
diseases Number of			for the field trial in
people trained (TOT) on			February'16 and DPHI
ICD (10/11) classification			
of diseases Number of			
people trained (TOT) on			
ICD (10/11) classification			
of diseases			
Number of health staff	130	169	Dashboard training and
trained on data use for			workshop and training
analysis and decision			course at NIPH for DPHI
making			staff
Number of health	130	135	Improving data quality
service providers trained			workshops
on use of HIS data			
quality improvement,			
monitoring and			
management			

Results of all other indicators will be reported at end of fiscal year as mentioned in the Performance Indicator Reference Sheet. It also takes time to see result of FY3 interventions regarding data quality improvements, private sector reporting to MOH, interoperability with TB/HIS indicators etc.

# 2.2 IMPLEMENTATION CHALLENGES

# 2.1.1 Problems encountered, solved or outstanding

#### **HIPA Staffing**

Considering the deep technical nature of the project and the range of technology platforms operational (PHP, Java, Tableau), there has been a need to further strengthen the team. HIPA hired an additional IT Java programmer to support TB MIS development and an eTB manager consultant to continue support to the 10 TB MDR sites currently using eTB manager.

#### **Stakeholders**

The limited capacity of DPHI-HIS Bureau and their involvement in several donor funded projects has delayed HIPA activities. Planned activities had to be postponed due to the work overload and conflicting schedules of our main counterpart. A transition/hand-over plan will be discussed with DPHI in June'16,

which would clearly address all aspects of sustainability including staff skills, infrastructure needs and financial resources once the project finishes.

# 2.1.2 Proposed solutions to new or ongoing problems

On 15 January'16 HIPA had a meeting with USAID AOR and M&E officer in which meeting the progress on achieving the project results were discussed. Some results areas experienced delays in implementation. These has been addressed by the following strategies.

HIPA Project		Project duration: March 20	14 – March 2019	
Program results in PD	Status (1-As planned 2-Behind schedule 3- Not moving)	Justification to the Status	Strategies to move forward	Implementation March'16
Component 1.1 Streng		Relevance and Accuracy of th	e HMIS	
Result 1: HMIS incorporates more accurate subnational population denominators, leading to more accurate subnational coverage estimates.	3.	-HIPA held separate meetings with MOI and MOPIt was decided on TWG HMIS 12 March 2015 meeting to use MOP population data. MOP does not want to submit the raw (village) level data to HIPA, necessary to calculate target populations (% of U1, U5, WRA etc.). Draft letter from MOH to MOP submitted to DPHI still to be sent.	<ol> <li>Facilitate meeting between DPHI, MOI and MOP about population denominators to stress importance of this issue</li> <li>Propose to DPHI to inform PHD/OD/HFs to use and yearly update commune population data in HIS. (63% % on average of 1148 HCs use and update commune data. Others use MOP data (=automatic calculation/generation of census data by HIS)</li> <li>HIPA will contract a consultant demographer to prepare guidelines for calculating target population in health (from e.g. census data, CDHS, including migration pattern etc.)</li> <li>After above this could be discussion topic for TWG HMIS again</li> </ol>	-In HIS asked for 2016 update of commune population -Advertisement placed for demographer

			5.	HIPA will map agreed population data set in HIS	
Result 3: Increased interoperability between the HMIS and other key national data systems.	3.	-Workshop and thereafter several consultative meetings with NPs held and assessment of current data base systems of TB (eTB manager), malaria and HIV/AIDS systemsAwaiting web-based and/or, single credible data source for data exchange HIS and malaria, HIV/AIDS and TB	2.	TB MIS will have data exchange protocols for data integration with HIS by end of 2016 Technical assessment of NCHADS data bases and recommendations regarding data integration (does not imply implementation of improving data base) if agreed upon Improving malaria MIS data base, outside scope of HIPA program. Interoperability and Data exchange will be implemented as soon as above mentioned systems are amenable	-TB MIS development ongoing -Two meetings held with NCHADS
Component 1 2 Strong	+h o min m + h o	CDVC Customs and Maternal D	\	for data exchange	
Result 2: All births	1 and 3	CRVS System and Maternal D  1HIPA held several			
Result 2: All births and deaths occurring in government health facilities will be registered through the CRVS.	1 and 3	1HIPA held several meetings with CRVS, attend their conferences and attended the training on CRVS web-based system -Data exchange established between HIS and CRVS web based system in 21 communes in 3 ODs regarding all births and deaths occurring in public health facilities in these 21 communes. Note: HIS is aggregated data base and CRVS data base in these 21 communes can only check the numbers born or died in a public health facility but not the names and origin (from which village, only per HF). Current	2.	Data exchange protocols will be established when national GDI/CRVS data base is functional (or in parts/pilots?) Protocols have been established, but webbased CRVS system is not yet extended to a national data base and has limited utility for data exchange To add case based data as module in HIS which captures dates of births, dates of deaths, including at home instead of a module MDRS. To be discussed with stakeholders	

		CRVS system issues birth certificates up to one month and certified birth certificates after one month up to any age whenever needed  3. Awaiting national web based data base for GDI (CRVS)	
Result 3: Improved capture of maternal deaths, including those by indirect causes.	2.	-Awaiting decision on ICD classification system (simplified version ICD 10 or ICD 11) -Complicated, involves many stakeholders (ministries) and agreements	<ol> <li>Base line survey on death certificates in 2016. To discuss in collaboration with ECH project</li> <li>Training in death certificates for medical staff at hospitals</li> <li>To develop a simple form for death recording for HC health workers and for commune chiefs (in collaboration with ECH) and pilot in sample communes in 9 provinces.</li> <li>Training in death investigation at home for HC staff. Commune council to cooperate with HC staff.</li> <li>Approval needed from MOH&amp;MOI and funding for home visits?</li> </ol>
Result 4: MOH will be able to estimate the current maternal mortality ratios with reasonable accuracy and disaggregation by province and OD.	2.	-In discussion with DPHI on supporting MDSR data base. Also included in work plan FY3	1. Include latest CDHS 2014 data in HIS Dashboard (only national data available for maternal death)  2. Maternal death surveillance data base as module in HIS or develop births&death case based special module in HIS (see also component 1.2, result 1)  3. Implement a survey to compare maternal deaths reported in HIS and actual maternal deaths in sample of

<u> </u>	1	1	1	1
			communes of 9	
			provinces.	
Result 5: Increased	2.	-Not yet scheduled	See also result 3 above	
reporting of deaths			1. To develop a simple	
at home with simple,			form for HC health	
standardized			workers and/or for	
information related			commune chiefs (in	
to the circumstances			collaboration with ECH)	
of the death.			Note: in Thailand HC	
			workers pay home visits	
			to verify and classify	
			deaths at home, without	
			incentive	
Component 2.1 Streng	thening Dat	a Use for Decision-making an	d Advocacy at Subnational Leve	els
Result 5: Increased	2.	-Not yet started with this	1. Access to HIS indicator	-Meeting scheduled
accuracy of the		activity	report via HCs to	with NCDD
health indicators in		-Awaiting HSP 3 M&E	commune councils	(April'16)
the Commune		indicators	and/or via mobile	
Database (CDB) and			application.	
linkages between the			2. Allow CDB (NCDD)	
CDB and the HMIS,			access to HIS indicators	
where appropriate.				
	ng the Capac	ity of the MOH Department of	of Planning and Health Informa	tion
Result 5: Increased	1. and	1. TWG HMIS supported	Facilitate and support	
leadership and	3.	by HIPA. First meeting	TWG HMIS on a	
ownership of DPHI		12 March 2015	quarterly basis.	
staff of MOH HMIS		3. Follow-up meetings		
and other health		not (yet) scheduled		
information.				
Component 3.1 Autom	nating the TE	B HMIS		
Result 1: TB	2.	-Assessment of best	1. Functional requirements	-Functional
information system		practices of TB MISs	finalized and agreed	requirements
will be automated		-Study visits to assess TB	upon by stake holders	finalized
from at least the OD		MIS in Bangladesh and	2. Development of	-Development of
level and up		Philippines	requirements in eTB	requirements by IT
			manager	staff ongoing
		Due to late decision on TB	3. Continuation of support	-Training for eTB
		MIS the start of this	to eTB manager for MDR	manager (MDR TB)
		activity was in July 2015	TB, includes training for	organized in
		-Planning approved	staff at 10 treatment	February'16
		-Field visits to 3 pilot	sites	,
		provinces organized	4. Provision of user training	
		-Several consultative	in eTB manager	
		meetings organized about	5. Pilot testing to start in	
		functional requirements	May/June'16	
		for TB MIS	6. National roll-out in 2017	
		-Continuation of support	(proposal submitted to	
		to eTB manager for MDR	USAID)	
		TB	,	
		-Hand-over of eTB		
		manager by MSH and		

	1	T		Т
		familiarization of software		
	_	by HIPA IT staff		
Result 3: Automation	2.	Delay due to above	1. TB MIS (eTB manager)	
and interoperability			will have data exchange	
of TB information			protocols with HIS.	
with HMIS and social			2. HIS has already data	
health protection			exchange protocols with	
(SHP) databases to			SHP. It will be discussed	
improve service and			if more integration	
resource planning,			bridges are needed or to	
and to increase			build direct links	
access to services by			between SHP and TB MIS	
poor TB patients.			once agreed upon on a	
			UIS	
Component 3.2 Linking	g of HIV/STI	and TB Information System a	nd HMIS	
Result 1: HMIS will	2.	-Delayed due to delayed	1. During development of	-Two meeting with
include up-to-date		decision on TB MIS which	TB MIS, discussion will	NCHADS held
HIV/AIDS, STI, and TB		will have links (data	start about indicators	
indicators.		exchange protocols) builds	and data integration	
		in with HIS	with HIS, so that data	
		-Meeting with NCHADS to	exchange can take place	
		discuss indicators to be	about agreed set of	
		scheduled	indicators	
		5611644164	2. STI indicators in HIS and	
			with NCHADS	
			Schedule meeting with	
			NCHADS	
Result 2: UIS will be	2.	-Difficulty to find local	UIS assessment in	-UIS assessment.
in place, making it		expert for UIS via local	February'16	Awaiting USAID
possible to verify the		advertisement. In house	2. After assessment and	travel request
array of services		international expertise	recommendations,	approval.
received by specific		-Because data bases for TB	organization of	αρρίοναι.
patients across		and HIV/AIDS are not yet	consensus meetings with	
multiple databases,		suitable for data	stakeholders	
including the HMIS,		integration this activity	3. HIPA will support UIS	
HIV, TB, and health		,	implementation for	
equity fund (HEF)		was not a priority yet.	HMIS and TB	
systems, and to track			information system once	
cross-program			systems are ready.	
referrals.  Result 3: UIS will link	2	Augiting IIIC assessment	1 LUDA will develop a clear	
	2.	-Awaiting UIS assessment	1. HIPA will develop a clear	
to SHP databases,		and implementation by	roadmap for integration of HMIS with the SHP	
making it possible to		stakeholders		
assess the extent to			database using the UIS	
which SHP schemes			framework.	
cover services for				
PLHIV, TB patients				
and MARPs.				
Result 4: Improved	2.	-Awaiting UIS assessment	1. HIPA will develop a clear	
access to, and uptake		and implementation by	roadmap for integration	
of, family planning,		stakeholders	of HMIS with the SHP	
maternal/child				

health, TB services by			database using the UIS	
MARPs and PLHIV.			framework.	
Result 5: Improved screening for HIV/TB co-infection and related referrals for TB/HIV services.	2.	-Delayed due to delayed decision on TB MIS which will have links (data exchange protocols) built in with NCHADS data base -NCHADS MIS (data bases) however not suitable yet for data integration with other systems	Data exchange protocols     will be built as soon as     NCHADS MIS is     technically up to date     and agreed upon data     exchange with TB MIS	

# 3. Success stories

It has been a defining moment to finally have all stakeholders around the table to prepare the workshop "Increasing private health services providers reporting to the Ministry of Health". This event required collaboration between two MOH's departments who were not informed about their respective activities regarding private sector reporting.

# 4. Areas of collaboration with MOH, USAID, USG partners and development partners

# 4.1 Ministry of Health

# MOH-DPHI

HIPA has two staff members stationed at DPHI for 2 and 4 days a week respectively. HIPA is working in close consultation with DPHI and DPHI staff are extensively involved in all project activities including developing Terms of References (TORs) for workshops and meetings, defining HMIS protocols, identifying trainings workshops, HIS enhancements and testing, Data Demand and Information Use (DDIU) and HIS dashboard, ICD -10 framework etc.

DPHI approves the HIS enhancements before they are released to the production server HIS 3.0.

# **CENAT-National TB Program (NTP)**

HIPA has been working closely with CENAT staff and meets at a regular basis to discuss the implementation plan for the development of the TB MIS, preparation and conducting field visits and the organization of several consultative meetings on the functional requirements of the TB MIS.

# 4.2 USAID, PEPFAR and US-CDC

- HIPA team attended PEPFAR meeting on 1 October"15. Participants were briefed on service delivery and data analysis by PEPFAR.
- HIPA Team met with USAID AOR and M&E officer on 29 October'15. During this meeting the
  comments on HIPA FY3 work plan were discussed including 1)- UIS and Interoperability, 2)- TB
  MIS, 3)- Private health facilities and reporting to MOH, 4)- Data exchange with CRVS and 5)DDIU assessment.
- COP attended USAID Health partner meeting on 2 November'15.
- On 13 November'15, HIPA team had a meeting with USAID AOR and M&E officer to discuss work plan FY3, MEP - PITT (Performance Indicator Tracking Table) and PIRS (Performance Indicators Reference Sheet and budget revision request
- HIPA team met with AOR USAID and Ms Lori Newman, PEPFAR on 23 November'15 to discuss
  potential HIPA support to the evaluation of NCHADS database systems and the interoperability
  between these systems and HIS 3.0.
- COP and PD met with USAID AOR on 8 December' 15 to discuss the budget revision request and spoke briefly with Ms Lori Newman about NCHADS MIS (data base) assessment.
- HIPA team had a coordination meeting with US CDC, on Wednesday 16 December'15 to discuss support to DPHI.
- On 15 January'16, HIPA team attended a meeting with USAID, AOR and M&E officers to discuss and finalize the HIPA strategies towards achieving results matrix from the project agreement document.
- HIPA team met with USAID gender expert and M&E officers on 19th January'16 to discuss the
  people level indicator disaggregated by sex in HIS. Already 81% in HC1 (for HCs) and 71% in HO2
  (hospitals) indicators are disaggregated by sex.
- HIPA attended the USAID Environmental Sound Design and Management/Regulation Overview meeting on 25 January'16.
- HIPA attended PEPFAR meeting on the FY2016 Country operational plan on 25 January'16.
- On 27 January'16, HIPA team attended meeting with USAID M&E specialists, to finalize the HIPA (PITT) in M&E plan and PIRS.
- On 24 February'16 Dr COP attended USAID implementing partner meeting at which event the
  new ambassador Mr William Heidt was introduced, the Mission Director giving an update and
  USAID new media means were introduced such as the use of Twitter and Facebook.
- HIPA attended meeting with USAID development assistant specialist for TB, M&E officer and USAID consultants Elisa Adelman, and William Wells on 7 March'16 to discuss usage of eTB manager and the progress on HIPA TB MIS development.
- HIPA facilitated USAID field visit to Kampong Cham provincial hospital on 9 March'16 for three delegates from USAID. A demonstration on how to use electronic TB MIS for MDR-TB was given
- On 17 March'16, HIPA team met with DPHI and USAID team at DPHI office to discuss sustainability plan (exit strategy) of HIPA project. It was agreed that HIPA will draft the transition plan and discuss the plan with DPHI with the deadline set at June'16.

- HIPA team attended the PEPFAR meeting on 21 March'16 in which meeting the draft of the FY 2016 COP for PEPFAR was presented and discussed.
- HIPA team met with USAID M&E officer on 22 March'16 to discuss the revised indicators for USAID M&E plan.

# 4.3 Development partners

- HIPA attended USAID HMIS coordination meeting on 22 October'15. At the meeting the following topics were discussed: 1) HIS 3.0, 2) PMRS and 3) UIS
- HIPA team attended USAID TB partner meeting on 8 December'15. The meeting focused on the
  update on the coordination matrix from each partner. Two presentations were given by WHO on
  quality of childhood TB diagnosis in Cambodia and cough triage by Challenge TB.
- HIPA team attended the USAID HMIS Partners meeting on 25 January'16. The DDIU survey results were presented by HIPA.
- HIPA team met with URC QRS project team on 6 November'15 to discuss the HIS 3.0 data sharing
  and access authorization. A follow-up meeting was planned with URC at USAID office under the
  lead of USAID AOR and M&E officers on 10 February'16 to agree upon the URC access to HIS data
  tables via web service. HIPA tea also attended the PMRS demonstration by URC staff on 21
  January'16 at URC office.
- Two meetings were scheduled with RACHA-ECH project team on 2 February and 15 March'16. The
  main purpose of these meetings has been the cooperation on improving data use and decision
  making among commune council members.
- HIPA team attended the preparatory meeting with DPHI on ICD10 APN simplified version field trial organized by WHO-FIC-APN and HIPA on 7 December'15 and facilitated the training on ICD10 simplified version to 10 hospitals on 4 and 5 February'15 in collaboration with WHO-FIC-APN.
- HIPA team met with PSK team on 10 February'16 to discuss the challenges in relation with HIS
   3.0 user account for private health facilities to report to MOH. HIPA briefed PSK about the upcoming Private Sector reporting workshop on 18 Mar'16 to which they are invited.
- HIPA team had meeting with Malaria Consortium team. Using Global Fund grant through UNOPS, Malaria Consortium are going to develop web-based malaria MIS which followed the current MS Access-based application. HIPA briefed them about their current cloud service providers and basic information on the instance specifications.
- HIPA met with WHO on 25 March to understand their ongoing initiative with DPHI on maternal
  death surveillance data assessment in the field and to discuss joint cooperation between WHO,
  DPHI and HIPA to compare maternal deaths reported in HIS, Maternal Death Surveillance data
  base and actual maternal deaths.

# 5. Best practices

# Development process of custom made software for TB MIS

Users at all levels have been intensively involved in the functional requirements for DS and MDR TB modules in TB MIS by jointly mapping the current patient flow and reporting requirements.

CENAT staff will also be involved in the testing of all newly developed and customized modules. HIPA will follow the best practices for testing including creation and documentation of test scenarios, test cases, conduct of trial runs and documentation of the results of the trail runs.

CENAT IT staff will be trained at recognized local training institute in software development and Java programming starting from May'16 and thereafter on the job training will continue by HIPA IT staff.

# 6. List of Upcoming events

# 2016

# May

- Meeting NMCHC and DPHI about indicators for 2017 and current maternal death indicators in HIS
- UIS assessment
- Core group meeting on Cambodia Medical death certificate development
- HSP 3 core group meeting to finalize M&E plan

### May-June

- TB MIS modules testing by CENAT
- Maternal death assessment by DPHI
- Meetings with NCHADS, CNM and DPHI to select indicators for interoperability

### June

- Dashboard launch and deployment in HIS
- WHO-FIC-APN regional meeting in Bangkok
- Field visit with RACHA to communes in BMC and Pailin to prepare collaboration project on improving data use at commune level

### June/July

- Data quality supervision visits by DPHI
- Start pilot in BMC and Pailin on improving data use at commune level

# July

Presentation of UIS assessment

#### July/August

- HIS training to 25 PHDs and 95 ODs HIS officers
- TB MIS start of pilot in 3 provinces

#### September

- MOH-DPHI Web Portal launch
- Presentation of guidelines for determining population denominators for health target populations to MOH, MOP and MOI.

# 7. MANAGEMENT AND ADMINISTRATIVE ISSUES

# 7.1 Office

The local company registration in Cambodia complete.

# 7.2 Staffing

Dr Chay Sokun, eTB Manager Expert started working for HIPA as consultant supporting implementation of current eTB manager and TB MIS development on 2 November'15.

Mr Panha Morn, IT Java Programmer joined HIPA team to develop the TB MIS on 1 January'16.

	ANNEX I. WORKSHOP AND TRAINING OVERVIEW: Financial Year 3 October 2015 - September 2016										
	Workshop title	Date	Location	Number of participants			FG Staff (Excluding support staff)				
No.				Female	Male	Total	% Female	Female	Male	Total	% Female
1,1	Component 1.1 – Strengthening the relevance and accuracy of the HMIS										
1.1.3	User Requirement for Health Coverage Plan Development	19-feb-16	Himawari Hotel, Phnom Penh	3	19	22	14	1	6	7	14
1.1.7	Improving Health Information System Data	22-23 Mar-16	Angkor Paradise Hotel, Siem Reap	6	37	43	14	0	2	2	0
1.1.7	Improving Health Information System Data	29-30 Mar-16	Moon Julie Hotel, Preah Sihanouk	6	40	46	13	0	2	2	0
1.1.8	Private Health Service Providers and Health Information System	18-mrt-16	InterContinental Hotel, Phnom Penh	17	66	83	20	1	2	3	33
	Subtotal			32	162	194	16	2	12	14	14
1,2	Component 1.2 – Strengthening the Civil Registration and Vital Statistics system and Maternal Death Surveillance										
1.2.2	Field Trial Orientation WHO-FIC-APN ICD-10 Simplified Beta 3 Version	4-5 Feb-16	Phnom Penh Hotel, Phnom Penh	6	22	28	21	1	1	2	50
	Subtotal			6	22	28	21	1	1	2	50
Act	Objective 2										
2,1	Component 2.1 - Strengthening Data Use for Decision-Making and Advocacy at Sub-National levels										
2.1.1	Continuation development of user-friendly dashboards and graphic interfaces incorporated within the HIS 3.0	3-nov-15	Goldiana Hotel	1	10	11	9	2	4	6	33
2.1.1	Dissemination of Data Demand, Information Use Survey Report and HIS Dashboard	29-jan-16	Sunway Hotel, Phnom Penh	5	28	33	15	1	4	5	20
	Subtotal			6	38	44	14	3	8	11	27
Act	Objective 3										
3,1	Component 3.1: Automating the TB MIS										

	TB Joint Field Visit to Kampong Speu province										
	as part of approved planning for e-TB		Kampong Speu								
3.1.1	managers extension	6-8 Oct 2015	province, Cambodia	1	5	6	17	0	1	1	0
	System design and development of eTB										
3.1.1	manager	9-dec-15	CENAT, Phnom Penh	0	13	13	0	2	3	5	40
	System design and development of eTB manager		Goldiana Hotel,								
3.1.1	munugei	17-dec-15	Phnom Penh	2	10	12	17	2	3	5	40
	System design and development of eTB manager		Himawari Hotel,	_							
3.1.1		15-jan-16	Phnom Penh	5	41	46	11	2	4	6	33
3.1.1	Training on the use of eTB Manager for MDR-TB treatment sites	15-17 Feb 17	Apsara Angkor Hotel, Siem Reap	2	24	26	8	1	3	4	25
3.1.1	Training on the use of eTB Manager for MDR-TB treatment sites	23-25 Feb 17	Rock Royal Hotel, Kep	6	17	23	26	0	3	3	0
			2 2 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2								_
	Subtotal			16	110	126	13	7	17	24	29
Total I	Financial Year 3			60	332	392	15	13	38	51	25

# Health Information, Policy and Advocacy Project Palladium

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