

**USAID/PEPFAR Ethiopia In-Country Reporting System (IRS)
Reporting Template**

Jhpiego

ANNUAL PROGRAM RESULTS

FOR

FISCAL YEAR 2017

(OCT 1, 2016 TO SEPT 30, 2017)

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LIST OF ACRONYMS

BSC	Balanced Score Card
COC	Certificate of Competence
CDC	Centers for Disease Control and Prevention
CPD	Continuing Professional Development
CRC	Compassionate, Respectful and Caring
CTS	Clinical Training Skills
EAA	Ethiopian Association of Anesthetists
EMwA	Ethiopian Midwives Association
EMT	Emergency Medical Technician
ETS	Effective Teaching Skills
FMOH	Federal Ministry of Health
FMOE	Federal Ministry of Education
FMHACA	Food, Medicine and Healthcare Administration & Control Authority
HC	Health Center
HEIs	Higher Education Institutions
HERQA	Higher Education Relevance and Quality Agency
HEWs	Health Extension Workers
HR	Human Resources
HRDA	Human Resources Development and Administration
HRH	Human Resources for Health
HRIS	Human Resource Information System
HRM	Human Resources Management
HSEDC	Health Sciences Educational Development Center
IDS	Instructional Design Skills
IQA	Internal Quality Assurance
IST	In Service Training
IT	Information Technology
JD	Job Description
MOU	Memorandum of Understanding
MNCH	Maternal, Newborn and Child Health
OSCE	Objective Structured Clinical Examination
PSE	Pre-Service Education
QA	Quality Assurance
QI	Quality Improvement
RHB	Regional Health Bureau
RHSC	Regional Health Science College
RMNCH	Reproductive, Maternal, Newborn and Child Health
SNNPR	Southern Nations, Nationalities and Peoples Region
TVET	Technical and Vocational Education and Training
WorHO	Woreda Health Office
WHO	World Health Organization
ZHD	Zonal Health Department

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1. Reporting period

From: October 1, 2016	To: September 30, 2017
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2. Publications/reports

Did your organization support the production of publications, reports, guidelines or assessments during the reporting period?

No/Not Applicable
 Yes If yes, please list below:

Publications/Reports/Assessments/Curriculums

Title	Author	Date
Amhara National Regional State Health Bureau – Regional Human Resources for Health (HRH) Biannual Profile/ Report	Amhara RHB	March 2009 E. C.
Recruitment and Selection – Beninshangul-gumuz	Beninshangul-gumuz RHB	February 2017
Trainers' perception of the learning environment and student competency: A qualitative investigation of midwifery and anesthesia training programs in Ethiopia	HRH Project	May 2017
Education, Practice, and Competency Gaps of Anesthetists in Ethiopia: Task Analysis	HRH Project	May 2017
“ Now I can stay focused on my dreams” Empowering Female Health Science Students in Ethiopia: A Case Study	HRH Project	June, 2017
Summary Report Annual Performance Data Collection, 2009 E.C. (October 2016- September 2017)	HRH Project	October 2017

If Yes, Please attach an electronic copy of each document as part of your submission.

3. Technical assistance

Did your organization utilize short-term technical assistance during the reporting period?

No/Not Applicable
 Yes Please list below:

Consultants/TDYers

Name	Arrival	Departure	Organization	Type of Technical assistance provided
Jane King and Susan Fawcett	February 18	February 26	Open University	Conduct a portfolio and action research workshop for faculty teaching the human resources for health and health economics courses

If Yes, Please attach an electronic copy of the TA report as part of your submission.

4. Travel and Visits

Did your organization support international travel during the reporting period?

No/Not Applicable
 Yes Please list below:

International Travel (All international travel to conference, workshops, trainings, HQ or meetings).

Name	Destination	Departure	Arrival	Host Organization	Purpose of the travel
Daniel Dejene and Ashebir Kidane	Tokyo, Japan	October 16	October 20	International Society for Quality in Health Care (ISQua)	Present an abstract titled “Using Evidence Generated from Task Analysis Study to

					Strengthen Medical Practice, Regulation and Education” and complete fellowship requirement
Miruts Goshu	Ouagadougou, Burkina Faso	November 21	November 24	International Federation of Gynecology and Obstetrics (FIGO) Africa Regional Meeting	Present abstract titled “Are midwives in Tigray, Ethiopia, providing quality care during childbirth and the postpartum period? An Assessment of Competency”
Firew Ayalew, Ephrem Daniel, Girma Shifa, Desalegn Ademie	Bangkok, Thailand	February 19	February 24	Jhpiego	Attend the Jhpiego global monitoring and evaluation meeting
Mihereteab Teshome, Fantu Abebe, Equinet Misganaw	Philadelphia, USA	March 17	March 31	Foundation for Advancement of International Medical Education and Research (FAIMER)	Participate in the FAIMER fellowship training focusing on improving health professional education
Getachew Tollera, Alemseged Woretaw, Daniel Dejene, Tegbar Yigzaw	Hammamet, Tunisia	April 8	April 12	Network: Towards Unity for Health	Present findings from HRH Project implementation and research
Demeru Yeshitla	Geneva, Switzerland	May 10	May 12	WHO Global Forum on Medical Devices	Present abstract titled “Managing successful medical device warrant period maintenance”
Mesfin Kifle	Boston, Massachusetts	June 12	June 22	Harvard University School of Public Health	Attend Strengthening Human Resources for Health Course
Dr. Tegbar Yigzaw and Dr. Alemseged Woretaw – HRH Project and Mastewal Kerebih - FMOH	Helsinki, Finland	August 25	August 31	AMEE	Present at the AMEE 2017 International Medical Education Conference

Have any Monitoring Visit/supervision been made to your program in during the reporting period?

Visit	Date	Sites visited	Observation, onsite support, feedback and recommendations provided
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5. Activity

Program Area (Tick all which apply)	Activity ID	Activity Title (Please write the title of the activity)
<input type="checkbox"/> 01-PMTCT		
<input type="checkbox"/> 02-HVAB		
<input type="checkbox"/> 03-HVOP		
<input type="checkbox"/> 04-HMBL		
<input type="checkbox"/> 05-HMIN		
<input type="checkbox"/> 07-CIRC		
<input type="checkbox"/> 08-HBHC		
<input type="checkbox"/> 09-HTXS		
<input type="checkbox"/> 10-HVTB		
<input type="checkbox"/> 11-HKID		
<input type="checkbox"/> 12-HVCT		
<input type="checkbox"/> 13-PDTX		
<input type="checkbox"/> 14-PDCS		
<input type="checkbox"/> 15-HTXD		
<input type="checkbox"/> 16-HLAB		
<input type="checkbox"/> 17-HVSI		
<input checked="" type="checkbox"/> 18-OHSS		HSS

6. Accomplishments and successes during the reporting period

Result 1: Improved Human Resources for Health Management

The USAID funded HRH Project works in partnership with the Federal Ministry of Health (FMOH), Regional Health Bureaus (RHBs), Zonal Health Departments (ZHDs) and Woreda Health Offices (WorHOs), to build their Human Resources for Health Management (HRM) capacity and improve HRM practices to ensure availability and optimal performance of health workers at all levels of the health systems.

IR 1.1 Improved Human Resources for Health Management (HRM) Capacity

Enhancing the capacity of the HR department, HR managers and HR staff is crucial to improve performance of HR activities in the context of broader health systems strengthening which in turn is critical to achieve health development goals. The HRH Project supported the MOH to improve HRM capacity at national, regional and district levels by conducting the following activities in this reporting period:

1.1.1 Improve Human Resources (HR) structure and staffing at FMOH, RHB, ZHDs, WorHOs and health facility levels

Provide technical assistance to RHB HR Support Processes to organize and conduct consultative workshops with regional Civil Service Bureaus and Cabinets to secure approval for newly proposed HR positions, create additional positions, and support job grading.

In the last four years, the HRH Project has provided technical and financial support to the FMOH and RHBs to strengthen HRM capacity by increasing the number of HR positions (staffing levels) across the health system. As a result of this support, more than 1300 new HR positions were created, and 95% of these positions were filled. The plan for this year was to provide technical and financial support to selected regions to further increase their HR positions and staffing levels. The following support was provided:

- In **Amhara**, a meeting was held between the RHB and the regional civil service bureau in the second quarter to discuss restructuring and the creation of an independent HR function WorHO level. The two bureaus agreed to conduct an assessment on the functional status of the ‘civil service support pool’, its gaps, and current challenges, to justify the formation of an independent HR unit at this level. Subsequently, a task team was established to plan for the assessment, with five members drawn from both bureaus and the HRH Project.

In the fourth quarter, a team of 4 including 2 staff from the RHB and 2 from the Regional Civil Service Bureau conducted an HRM assessment in 5 zonal health and civil service departments, and 8 *woreda* health and civil service offices. The objective was to assess the functional status of the civil service pool system in addressing the HRH needs at zonal and *woreda* levels, and to document the existing gaps and propose solutions. A total of 210 individuals from both health and civil service organizations provided feedback and inputs during the assessment, and most of them felt that the current civil service pool system at zones and *woredas* was not adequately performing to deliver basic HRM functions such as recruitment and staff hiring. Thus, the team recommended restructuring the HR functions at zonal and *woreda* health offices to create dedicated HRM units, and filling the HR positions with competent HR managers and staff. The findings and recommendations of the assessment were presented at the regional HRH form organized in October 2-4, 2017.

- In **Oromia**, in the first quarter, an ad-hoc committee composed of senior managers and experts from various work processes in the RHB as well as HRH project staff reviewed the existing organizational structures (both Core and Support Work Processes) at the RHB, ZHDs, WorHOs, Hospitals, Town Administration Health Offices (ToAHOs), Blood Banks and Regional Laboratories, and developed improved structures for the respective institutions. The numbers of existing and new positions at all levels of the management hierarchies are summarized in the table, below.

Table 1: Existing and newly approved HR positions, Oromia Region

S. N	Level	# of existing positions	# of newly approved positions per institution	# of additional positions	# of Institutions (RHB, ZHDs, WorHOs, ToAHO)	Total approved positions
1	RHB	329	379	50	1	50
2	ZHDs	54	65	11	20	220
3	WorHO	38	46	8	322	2,576
4	Town “A”	39	45	6	6	36
5	Town 2nd “A”	33	39	6	6	36
6	Town 2nd “B”	27	32	5	6	30
	Total	520	606	86	361	2,948

Subsequently, the committee developed an implementation manual, job descriptions (JDs), job evaluation, and grading for the newly created positions. HRH Project staff played a significant role in developing the new structure, and organizing and conducting two consultative meetings between the RHB and the Regional Public Service and Human Resource Development Bureau (PSHRDB). Additional consultative meetings will be organized in the coming period to negotiate the approval of the new structures.

In the fourth quarter, the existing HRM and Development Work Process at the RHB was restructured and divided into two: the staff motivation and retention Case Team (Unit), and the In-service Training Case Team (Unit), and 8 new HR staff were assigned to further strengthen functioning at the two units. At the *woreda* level, the finance and operational activities were managed under the *Woreda* Pool System which was overwhelmed, thus causing operational delays and serious and frequent complaints by the WorHOs. Working in consultation with the RPSHRDB, the RHB created a finance and administration unit at *woreda* level to overcome this challenge, and 5 additional positions (Finance, Logistics, Purchasing, Cashier and Storekeeper) were created in each WorHO. As a result, a total of **1,962** new positions were created and will be filled with funding from the region. The HRH Project staff actively participated in the restructuring process and provided necessary support to the RHB in to successfully negotiate the positions with the RPSHRD Bureau.

- In **Somali**, a proposal to restructure the HR support process in the RHB was approved by the RHB management. The regional administration also carried out restructuring of Zonal and Woreda administration systems to increase access to the communities. As a result, the number of zones increased from 9 to 11, and the *woreda* administration increased from 72 to 97 (25 new WorHOs were created). Each WorHO has 2 HR positions. The Regional Government then approved a budget for the 2010 fiscal year (2017/2018) to fill 144 existing and newly created vacant HR positions. Accordingly, the heads of all WorHOs agreed to fill all vacant HR positions in their respective *woredas* and health facilities in the coming quarter. In addition, to support effective implementation of the Human Resources

The Somali RHB allocated more than 4.5 million Birr to support other non-salary HR activities, as well as implementation of the HRIS.

Information System (HRIS) and other non-salary HR activities, more than 4.5 million ETB (195,000 USD) was approved by the regional cabinet and allocated to the HRM support process with their own budget code, an indication of the local commitment ownership and sustainability of this activity.

The unequal distribution of health workers is one of the remaining HRH challenges in the region. To address this challenge and improve access to services in rural areas, the organizational staffing structure of the health centers (HCs) was also revised. Accordingly, the urban HC will have 18 health professionals and 1 HRM staff whereas the rural HC will be staffed with 14 health professionals and 1 HRM staff.

- In **Beninshangul-Gumuz**, Project staff supported the RHB to create 22 proposed HRM positions for the newly constructed primary hospitals (4) and HCs (3). These include 16 new HR positions for four primary hospitals (4 HR positions for each hospital) and 6 new HR positions for 3 HCs (2 positions for each). The position grades and job descriptions were developed for all positions according to the national facility staffing standard. All the positions were approved by the regional public service and HR development bureau. Project staff also supported the RHB to organize HR, and finance, procurement and property administration functions for the Regional Blood Bank Service and the Regional Public Health Laboratory Center. These institutions used to receive HR, finance and property management support from the functional pool system based in the Regional Cultural and Tourism Bureau, and the RHB. However, it was difficult for the institutions to receive timely support due to existing workload in their respective bureaus, and there were role and mandate conflicts resulting in challenges in setting annual plans and performing management functions, reporting, and accountability. Based on the consensus reached between the RHB and the regional public service and HR development bureau, two separate support work processes were proposed for each institution including 3 positions for HR and 4 positions for Finance, Procurement & Property Administration in the new structure.
- In **Tigray**, as a result of discussions during the regional HRH forum meeting, the RHB was supported to develop a draft proposal outlining the need for an HR structure, and present it to the RHB management team. However, the review and approval by the Regional Public Service and HR Development Bureau (civil service bureau) was not secured as the civil service bureau was fully engaged in a new initiative called Job Evaluation and Grading (JEG). It is expected that this initiative will also include restructuring of the organizational functions and staffing changes.
- In **SNNP**, The HRH Project supported an experience sharing visit to Oromia and Amhara RHBs, to facilitate learning by the SNNP team on structuring of the HR data and statistics support process. As a follow-up to this activity, the Project provided technical support to the HRM Support Process (HRM-SP) to finalize a proposal for an organizational change that will merge the HR Data and Statistics Support Processes under the HRM-SP, and divide the HR Administration and HR Development into two separate case teams, to form three separate case teams under HR Development and Administration (HRDA) Support Process. The proposal was submitted to RHB leadership for review, and findings from the experience sharing visit were also shared. The RHB then assigned a permanent full time HRM Manager to lead the HRM SP with three case teams as proposed. Final approval and implementation of the proposed three-unit is pending until the implementation of the new job evaluation and grading system that will also include organizational rearrangements.
- At the **Harari RHB**, Project staff provided technical support to the Hiwot Fana Hospital to revise its HR development and management structure in response to the growing demand for quality of services in the hospital. As a result, 4 senior new HRM positions including Senior Performance Evaluation and Training Expert, Senior Compensation and Benefit expert, Senior Plan and

Research expert, and Senior Grievance Handling Expert were created. The hospital recruited and hired well qualified candidates in these positions and deployed them after orientating them for the new roles they will play.

Provide ongoing technical support to the FMOH, RHBs, ZHDs, and WorHOs to fill newly created or existing vacant HR positions.

In this reporting period, the HRH Project staff continued to provide technical assistance to RHBs to fill vacant HR positions at RHBs and local levels. Specific support provided by the HRH staff included advocating for HR budgets, reviewing JDs, developing and posting vacancy announcements, and selection, orientation and deployment of newly employed staff. A total of **260** HR personnel were recruited and deployed in nine regions (See table below).

Table 2: Number of HR staff recruited and deployed by region, October 2016 – September 2017

Oromia	Amhara	Harari	SNNP	A.A	B-G	D.D	Tigray	Somali	Afar	Gambella	Total
31	98	3	80	7	28	3	6	4	-	-	260

In **Amhara**, recent graduates of the HRM (8) and health economics (13) master’s program supported by the HRH Project were given new positions based on their new qualifications. For example, 4 graduates were assigned at the health sector planning support process, 2 in Finance and 3 in a university and regional health science college (RHSC) where they can provide their professional services.

Support the SNNP RHB to update HRM staffing status and conduct a gap analysis

In response to a request from the SNNP RHB, the HRH Project provided technical support to update the region’s HRM status. The following are key findings:

- All HR positions (100%) in Hawassa town administration, 86% of HRM positions in all ZHDs, 75% of HRM positions in special WorHOs, 78% of HRM positions in WorHOs, 74% of HRM positions in hospitals, and 41% of HRM positions in HCs are filled with permanent HRM staff.
- The Hawassa City Administration health department and the ZHDs’ HRM units are functioning at their full or near-full HRM capacities. The largest gap is at the HCs, indicating the need for additional efforts at this level (See Table 3). Strengthening HRM units at HC levels would make HRM services available and accessible to large number of health workers working in rural settings who otherwise would have to travel to WorHOs to get even basic HRM services such as processing leave (annual, maternity, etc.) and handling of simple disciplinary issues.
- Despite the narrowing gap between the expected/standard for HR staffing and the available number of HRM staff, there is still high HRM staff turnover. In some zones (e.g. Wolaita) attrition is up to 50%. The main reason for attrition of HRM staff is the perceived work pressure in the HRM units and lack of equitable compensation and incentives. For the same salary level, many HRM staff prefer to work in other work processes where they assume the work pressure is relatively low. Consequently this creating a need to revise the grading of HRM positions and the new job grading and evaluation system is expected to address the problem. In the meantime, the absolute shortage of HRM staff, especially in health care facilities, and the high turnover at all levels require a two-pronged approach. There is a need to intensify and sustain advocacy to facilitate the filling of vacant HRM positions at health care facilities, and also increase the HRM In-service training and post training follow up activities to improve the capacity of newly hired (as a *replacement or new employment*) HRM staff

Table 3: HRM positions filled in SNNPR, 2013, 2015 and 2017

Institution	Total #	HRM Officers						
		Standard per institution	Total # of expected staff	Available HR staff in 2013 (Baseline)	Available HR staff in Aug 2015	Available HR staff in March 2017	Filled since June 2013	Yet to be filled
		a	b	c	d	E	f	g/(f-d)
RHB	1	9	9	5	8	9	4	0
ZHD	14	2	28	22	26	24	2	4
City Admin	1	2	2	2	2	2	0	0
SWorHOs	4	2	8	4	8	6	2	2
WorHO	134	2	268	208	217	210	2	58
Hospitals	45	2	90	27	N/A	67	40	23
HCs	677	1	677	N/A**	N/A	276	276	401
Total	876	N/Ap*	1082	268	261	594	326	488

*N/Ap- not applicable

**N/A- Data Not Available

Provide technical support to RHBs for recruitment, selection and orientation of new staff (mainly health care providers)

In addition to the HR positions filled, RHBs were provided with technical support to recruit and deploy **9400** health professionals who were deployed in all regions. The Project assisted recruitment committees in each region in drafting or updating job descriptions and position announcements, and determining need-based allocation and deployment of these professionals. Table 4 below shows detailed information by RHB and gender. (A detailed regional distribution of health professionals is in *Appendix 15*.)

Table 4: Health professionals hired deployed, October 2016 – September 2017

Regional Health Bureau	Number of Health Professionals Deployed		
	Male	Female	Total
Addis Ababa	134	226	360
Afar	197	290	549
Amhara	1428	539	2115
Benishangul-Gumuz	97	32	141
Dire-Dawa	55	90	151
Gambella	267	329	715
Harari	43	42	90
Oromia	1430	336	1842
SNNP	663	825	1581
Somali	277	307	584
Tigray	575	1218	1859
Total	5166	4234	9400

Support Oromia RHB to recruit seconded staff

In the first quarter, **Oromia** RHB recruited 8 seconded staff for the posts of: Malaria Prevention and Control Program Technical Advisor, Neglected Tropical Disease/NTD Regional Technical Assistant, Specialist TB-HIV Program Advisor, MDR-TB Program Technical Advisor, Regional Lead Hospitals HIV/AIDS and related services Clinical Mentor, Regional In-Service Training Coordinator, and Zonal CDC Supported Project Coordinators (2 positions Horo-Guduru Wolega and Bale). The HRH Project staff provided technical support to the RHB recruiting team in developing job descriptions and vacancy announcements, and supported the selection, orientation and deployment of these professionals.

Similar support was provided in the third quarter to recruit two information technology (IT) staff with financial support from the Global Fund, to support the information and database management system of the health bureau. In the fourth quarter, 47 providers were recruited, most of whom were deployed to ZHDs and WorHOs to support community level nutrition and TB programs.

Support the SNNP RHB team to organize an experience-sharing visit at the FMOH, Oromia and Amhara, to learn how the HR Support Process and HR Data Management (Archive and HR statistics) Process are organized.

Business Process Re-engineering (BPR) of the Southern Nations, Nationalities and Peoples Region (SNNPR) had organized the HR data and statistics (HRDS) Support Process as an independent Work Process instead of organizing it under the HRDA support process. This has been one of the major challenges to strengthen HR data management in the region. During a review meeting, it was proposed to integrate the HRDS and HRDA into one Support Work Process. Before going forward, the RHB management decided to learn from the RHBs who had organized the two support processes into one. For example, HRDS and HRDA are integrated in Oromia and Amhara RHBs.

The HRH Project provided technical and financial support and organized an experience-sharing visit from the SNNP RHB to the FMOH, and Oromia and Amhara RHBs in the first quarter. The main objective of the visit was to provide the SNNP team with an opportunity to observe and learn about how the HR management and HR data management processes are organized and managed in these institutions. The visit allowed them to learn about the coordination and management of health worker training (planning, implementation, and follow up), HRH data management and use of IT for data processing, designation of professional titles and determination of job grade levels for new categories of health professionals (from universities), health extension workers' career development issues, and management of allowances for professional risk, overtime/duty payments and other health workers' benefits and compensation schemes.

The visit took place from December 19-23, 2016, and the visiting team comprised of seven members including two officers from each of the SNNP RHB HRM support work process, HR Data and Statistics (HRDS support work process and health and health-related services inputs and quality control authority, and one staff from the HRH Project. The team developed a report documenting findings of the visit, and will share it with the RHB leadership in the coming quarter. The overall cost of the trip was shared between the HRH Project and the RHB. While the project covered the per diem of the participants, the RHB provided vehicles and covered fuel costs.

1.1.2. Human Resource Data collection and use

Collaborate with HRIS implementing partners to strengthen HR data management at regional level

The HRH Project has been collaborating with Tulane University to support RHBs and health facilities to install HRIS software, provide HRIS training for HRIS officers, and initiate data entry and collection at various levels. Regional accomplishments in this reporting period are summarized below:

In **Addis Ababa**, the HRH Project provided technical support to health offices in the sub-cities to provide HRIS training and install HRIS software database, and supported training for 257 participants. The training was financed by the United States Centers for Disease Control and Prevention (CDC) while technical support was provided by the HRH Project and Tulane University. HRIS database maintenance and troubleshooting training was also provided for 75 HR officers who previously received the basic HRIS training. Additional support provided by the Project included:

- Transport to facilitate installation of the HRIS database in 44 HCs. Currently, 89 out of 98 HCs, hospitals (6), sub city health offices (10) and the RHB have a functional HRIS database.

- Version II of the HRIS Database was upgraded in all 105 institutions including the RHB to improve the database comprehensiveness.
- Coaching on data entry and use in six hospitals and 10 Sub City Health Offices.

In **Afar**, Tulane University has seconded a staff member to the RHB, and this person was supported by the HRH Project staff during the first quarter to install HRIS software at the RHB and provide technical support to HRIS officers to enter data for 2,586 health workers. In the second quarter, the Project advocated for an HRIS training opportunity for HR officers from the region. As a result, two HR officers attended an FMOH-led 5-day training of trainers (ToT) on HRIS. In the third quarter, support was provided to enter employee data from 4 hospitals and 6 WorHOs into the HRIS software. The HRH Project also supported installation of HRIS software at Dubti WorHO and Dubti Hospital to pilot the software below the RHB level. A plan is in place to provide basic HRIS training and install the software in other *woredas* and hospitals. Since the beginning of the HRH Project, a total of 4,624 staff data have been entered, accounting for 85% of the health workforce in the region.

In **Tigray**, HRH Project staff worked with the HR data officer hired by the CDC to assess the completeness and consistency of the HR data reported from health facilities. All primary hospitals (19), and all HCs (203), have up-to-date HR data. However, 14 general hospitals have not yet fully started implementing the new HRIS software. In the fourth quarter, HRIS training was provided for 132 staff involved in collecting and reporting HR data including 52 WorHO planning experts, 52 WorHOs HMIS officers, 14 HR and 14 HMIS officers from the hospitals. In the absence of a dedicated HRM structure below the RHB level, the planning experts and HMIS staff support HR functions in addition to their regular duties in planning or health sector data management. The HRH Project co-facilitated the training in collaboration with the RHB.

In **Amhara**, with advocacy and technical support from the HRH Project, the RHB management team assigned HRIS-trained staff to each zone and hospital to manage HR data, and a total of 66 hospitals and 13 ZHDs (97.5%) started using the HRIS database in the first quarter. In the second quarter, HR data was entered in the HRIS software at the RHB, 54 out of 65 hospitals, all ZHDs (13), HCSs (5), blood bank offices (6), regional laboratories (2) and research institutions. Accordingly, there are a total of 42,198 (22,076 females) health workers in Amhara region in all public health institutions. Out of the total health workforce 28,656 (54.1%) were health professionals working in rural and urban areas. With this data the six months' HRH Profile of the region was produced for future reference as a planning tool.

In **Harari**, strengthening HRIS implementation was one of the key agenda items discussed during post-training follow-up and supervision visits to the WorHOs and health facilities in the first quarter. A team composed of the HR staff from the RHB, Tulane University and the HRH Project was formed to identify and address the HRIS challenges. The team found that though the HRIS software installed in the RHB, the two public hospitals, eight HCs and Harar Health Science College is fully functional, there were gaps in the knowledge and skills required to use the software. The team produced a comprehensive report with relevant recommendations to address the challenges identified. In the second quarter, technical support was also provided to the HRDA to integrate HRIS activities into the regional CDC COP17 work plan. Training was also provided for 22 HRIS and HRM officers, as well as 12 HC heads and hospital CEOs, to improve data management at the RHB and all health facilities in the region.

In **SNNPR**, the HR Data and Statistics Support Process collected complete and current HR data from all ZHDs (15), Special Woredas (4) and RHSCs (4) with technical support from the HRH Project. HRIS training was also provided to 65 participants including Zonal & Special *Woreda*

HRM officers (17), Zonal & Special *Woreda* HR Data and Statistics officers (14), CDC project Zonal M&E officers (8), HRM officers from Regional Health Science colleges (3) and various RHB work processes (23). Financial support for the training came from CDC Project whereas the HRH Project facilitated the training along with the CDC Project staff. The RHB HR Data and Statistics Support Process (HRDS SP) and CDC-funded Project also agreed to hire and train data collectors and encoders for zones and special *woredas* on a contractual basis to improve data management.

In **Somali**, HR data was collected from 188 HCs and 7 hospitals in the second quarter, and updated in an MS-Excel database as HRIS was not functional. Based on the data, the RHB developed criteria for redistribution of the health workforce, including seniority (years of service/employment), performance, community involvement and award or recognitions received. The HRIS software issue was fixed in the third quarter with support from the FMOH and Tulane University.

In **Benishangul-Gumuz**, the Project assisted the RHB HRDA staff to submit a proposal to the RHB management requesting for funding to strengthen HRIS in the region. The RHB allocated 120,000 ETB for HRIS training. As result the RHB's HRDA staff jointly with Project staff trained 30 HRM officers. HRIS software was also installed at the RHB, all 3 ZHDs, all functional hospitals (2), and 10 out of total 21 WorHOs in the region who have computers.

The Beninshangul-Gumuz RHB allocated 120,000 ETB for HRIS training, resulting in training for 30 HRM Officers

HRIS is fully functional in **Dire-Dawa** RHB and HR data is up-to-date. The RHB also conducted a three-day refresher training on HRIS basics for 19 HR officers to fill the knowledge and skills gaps identified during supervision visits.

Provide technical support to strengthen regular HR data reporting

Ongoing support is being provided to the RHBs to reinforce regular HR data reporting across all levels. In **Addis Ababa and Tigray** regions, the reporting system is functional and all entities are sending regular quarterly reports. In **Afar and Beninshangul Gumuz**, the standard HR data reporting tool was developed and distributed to all administrative structures and health facilities with the technical support of the Project. In **Afar** the newly hired *woreda* HR officers are collecting and reporting the necessary HR data quarterly except in hard to reach (very remote) *woredas*. In **Oromia**, the Project staff and the Oromia RHB HR staff utilized post HRM in-service training follow up visits as a platform to increase the attention of various institutions on timely reporting of HR data. Delays in reporting HR data from hospitals and ZHDs were discussed with respective HR data offices. All ZHDs and hospitals discussed locally appropriate solutions such as allocating focal persons to collect and report the HR data, providing close follow up and support by supervisors, and having the RHB send regular reminders. There was HR staff instability (recurrent loss of HR staff) in **Gambella** region and staff were not replaced until recently due to a shortage of suitable candidates. In **Benishangul-Gumuz**, zones and *woredas* have agreed with the RHB to submit quarterly HR data regularly starting from July 2017 i.e. fiscal year 2010 (2017/2018).

The Project also collected annual monitoring data from all regions (see Result 4 for details), and onsite feedback on strengths and gaps was provided to each institution from which the data were collected and the compiled annual data report from the Project was shared with the RHBs. In addition, all RHBs sent their annual HR data report to the FMOH with technical support from the HRH project staff. The HR data reporting has progressively improved over the last few years though ongoing technical support is needed to ensure timeliness, completeness and accuracy of the HR data collected and reported from each region. There is a need to continue strengthening the

overall HRIS by deploying dedicated HRIS staff, providing training and support to build their capacity, and improving infrastructure and tools for collection, storage, analysis and use of HR data for evidence-based decision-making.

Provide ongoing technical support to reinforce HR data analysis and evidence-based decision making

Ongoing technical support was provided to all RHBs to compile, analyze and prepare summary data, and use the information for decision making.

In **Addis Ababa**, HRIS data analysis in the fourth quarter showed that the health worker population ratio has improved for critical health cadres, as summarized in table below:

Table 5: Health worker's population ratio to population of some critical health cadres in Addis Ababa, September, 2017

Professional Category	Number and ratio to population in 2016		Number and ratio to population in 2017		Comparator for Ethiopia (2016) ¹	World Health Organization bench mark (cadre per population)
	Total Number	Ratio	Total Number	Ratio		
All Nurses	3,577	1:979	3,946	1:887	Not Available	1:5000
Health Officer	1,066	1:3,283	1,200	1:2,917	Not Available	N/A
Midwives	777	1:4505	1,031	1:3,394	1:8,200	1:5000
All MD	391	1:8,951	502	1:6,972	1:17,720	1:10,000
Anesthesia	81	1:43,210	92	1:38,043	Not available	N/A

In **Afar**, the HR report from WorHOs and health facilities indicated that there was a critical staffing shortage for the pharmacy, laboratory and environmental health professionals compared to the national health facility staffing standards. This finding was communicated to the RHB senior management and a decision was made to hire diploma level professionals to fill the current gaps while working on long-term solutions to address the shortages. HR data was also submitted to the regional public service and HR development bureau to use for salary adjustments. Similarly, in the third quarter, data analysis conducted by the RHB showed that two support staff will retire, 12 health professionals will get salary increases and 7 additional new positions need to be filled in July 2017. They used this information to secure a budget for the next fiscal year to cover the salary increment and replacement for the retiring staff.

In the fourth quarter, the Project technically supported the RHB in analyzing the HR data against the approved staffing standards. There are six public hospitals, 97 HCs and 325 health posts with established health workforce standards. As an input, all the health facilities and 34 WorHOs submitted their current health workforce data to the RHB. The staffing gaps were identified and informed to the FMOH to plan for deployment of HCPs graduating from universities. This a major shift compared to the past where the FMOH used to assign the HCPs without knowing the potential need of the RHB. This created inconveniences to the RHB as well as to HCPs as the RHB sent some graduates back to FMOH due to lack of budget.

¹ National HRH Strategic Plan 2016-2025. Federal Ministry of Health. Addis Ababa 2016. Page 30

In **Amhara**, quarterly HR data collection, reporting, analysis and data use for decision making continues to improve. For example, in the second quarter, 65 (71%) lower level organizations submitted HRM quarterly reports using the integrated regional HRM reporting format on time to the RHB, which improved to 79 (86%) in the third quarter, enabling them to produce a regional report to guide planning and decision making.

In **Oromia**, the HRH Project provided technical support to 52 HRM Officers from WorHOs and health facilities (hospitals and HCs) on HR data analysis and evidence based decision making during the HRM mentorship visits, and HR data helped to guide deployment of 362 newly recruited health professionals, based on the demand from health institutions, employees' personal interest, availability of vacant positions and budgets at respective *woreda* and zonal offices. During the third quarter, 30 WorHOs received hands on support during mentorship visits to update their HR data collection tools to make them comprehensive, and were shown how to analyze and use HR data for decisions on recruitment, transfer, training and development functions. An additional 35 HRM Officers from WorHOs and health facilities (hospitals and HCs) were also oriented on HR data analysis and evidence-based decision-making during the HRM mentorship visits. At the RHB level, the HRH Project supported the RHB to analyze and use HR data for recruitment and deployment of 57 health professionals.

In **Dire Dawa**, the Project supported data analysis, which found that there was a big rural and urban disparity, with only 28% of health professionals serving the rural population while 72% are working in urban areas. The findings were presented to the RHB management to inform future deployment decisions to the rural areas. Data from exit interviews conducted from July 2016 – April 2017 were also analyzed and presented to the RHB management.

In **Tigray**, the HRH Project provided technical support for the cleaning and checking of HR data reported from 52 WorHOs and 14 hospitals. Written feedback was provided to all 52 *woredas* and 14 general hospitals for data verification and to fill missed information

In **Benishangul-Gumuz**, the RHB was assisted to organize and analyze the data of its health workforce by professional categories, location (urban vs rural) and against the population distribution. The density of the health workforce in the region is 2.54 per 1000 population with 9.41 per 1000 population in the urban areas and 1.47 per 1000 population in the rural areas. This information was shared with the RHB senior management team and the Regional Public Service and HR Development (PSHRD) Bureau for decisions to appropriately distribute HCWs in the coming budget year.

Provide ongoing technical support to RHBs to organize personnel files

In the past, health worker personnel files were not well organized and were usually incomplete, misplaced or lost altogether. As a result, health workers had to travel back and forth between health facilities and management structures to obtain necessary personnel information, resulting in wasted time and affecting their morale.

The HRH Project has been supporting RHBS to improve their personnel file management practices. In this reporting period, new personnel files were opened and/or properly documented for newly employed health professionals and HR staff deployed across the regions as summarized in the table below:

Region	Personnel Files
Addis Ababa	<p>1,818 personnel files were organized and entered into a computer database at Yekatit 12 Memorial Hospital (1,140), Triunesh-Beijing Hospital (532) Yeka Sub City Health Office (37), and 109 at 3 Sub-City Health Offices (Kolfie Keranyo, Akaki kality, and Gullellie)</p> <p>Personnel files were also organized for all 763 staff working at the Menilik II Memorial Hospital, and for 352 out of the total 647 staff at the Zewditu Memorial Hospital.</p>
Afar	<p>Provided technical support to recruit and hire an experienced archive worker on a three-month contract in order to organize close to 1,800 personnel files in 11 WorHOs. In the fourth quarter, 926 personnel files were arranged at the RHB which increased the overall number of updated personnel file to 2,738 (50.2%).</p>
Amhara	<p>Personnel files were organized in every hospital using the 5s-KAIZEN-TQM approach.</p>
Beninshangul-Gumuz	<p>technical support was provided to the RHB to complete missing HR data for 168 staff in the RHB. As a result, hard copies of various personnel information such as annual performance evaluation results, certificates for in-service training taken, marital status and birth certificates of 168 staff were completed in each employee file. This will facilitate the entry and completeness of HR data into HRIS.</p>
Dire Dawa	<p>Three HCs reported a list of incomplete and missing personnel files. The HRH project staff with the HR staff in the RHB copied the missing documents from the RHB archive and sent them to the health facilities. In addition, Laga Harre HC was supported technically to complete 58 personnel files.</p>
Harari	<p>185 personnel files were sorted, updated, and organized</p>
SNNP	<p>100 employees' files at the RHB were checked and the missing file components identified. Out of these, 85 employee's files were completed as staff brought the missing documents.</p>
Tigray	<p>The RHB was supported to check 1381 personnel files for completeness, with 23 files sent back to respective facilities to complete the missing documents. The Project staff also advocated with RHB leadership, resulting in the RHB providing desktop computers for the archive department to computerize all employee information at the RHB level.</p>
Oromia	<p>The HRH Project reviewed sample employee files at WorHOs to check the availability of all documents in each personnel file. Corrective measures were taken on employee files that were found to be missing important documents such as annual and sick leave formats. The staff also negotiated with WorHOs to buy extra secured shelf boxes to facilitate efficient filing. More importantly, negotiations were made with the WorHOs heads to work with relevant stakeholders to move the employee files back to their respective WorHOs from the civil service pool administration (function) where the HR management was situated in the past.</p>

As a result of the support from the HRH Project, major improvements have been observed in personnel file management in **Oromia RHB** in recent years. To capitalize on the momentum, the Project organized a visit for senior RHB management to lobby for mobilization of additional resources to further modernize personnel file management to cater for the growing number of HCPs in the region. As a result, the RHB purchased modern fire and water-proof file cabinets, each equipped with a modern security locker system, to replace the existing file cabinets. Each of the file cabinets contains more than 60,000 employee files with coding and reference that facilitates easy identification of the individual files. In addition to the cabinets, electronic copies of employee personnel files will be saved using a modern scanning machine which was recently purchased to support the HRIS department at the RHB. The machine has a capacity of scanning and storing soft copies of more than 50 pages at a time. Selected staff were oriented on how to operate the machines.



Modern file cabinets recently purchased in Oromia RHB

1.1.3. Improve performance management systems and practices

In the last ten years, the Ethiopian health sector has introduced a series of health sector reform agendas such as result-oriented performance planning and appraisal, business process reengineering (BPR), and currently, Balanced Scorecard (Management by Objective, MBO) and 5S-Kaizen total quality management. The overall goal of these reforms is improving the health systems performance, and increasing access to and quality of health care and public health services in the country. An effective performance management system includes clarifying job roles with providing JDs or performance standards/expectations, setting shared performance goals and targets, monitoring performance through regular supportive supervision and feedback, and conducting semiannual or annual performance appraisal (evaluation) and reward mechanisms. The HRH Project has continued to support these efforts as outlined below:

Provide technical support to review, update, develop and distribute job descriptions

In the last four years, the Project has provided significant support to RHBs to build their capacity to develop, and review/adapt health professional JDs, and distribute the JDs to all employees. This support continued in the reporting period as per the selected examples outlined below:

In **Somali**, the team developed job descriptions based on the 9 job evaluation criteria determined by the national civil service ministry. Accordingly, rates for various components of the jobs were knowledge (16%), work complexity (15%), level of responsibilities (14%), innovation (10%), work interface/relation (10%), work by self-individual (8%), role (8%), effort (8%), skill (6%) and working condition (5%). The next step will be considering the above 9 evaluation criteria for each job positions like (directorate, team leader, Officer IV, Officer III, Officer II, Officer I)

In **Oromia**, with the technical support from the Project, a job evaluation and grading exercise is underway, and revised draft JDs for each professional cadre are being developed. These JDs will replace the existing ones and will help to advance the performance management system including introduction of performance-based remuneration expected to be approved in the coming period.

In the third quarter, **Tigray, Afar, and Addis Ababa** were provided with onsite and phone call follow-up support to develop and distribute JDs for health cadres. JDs were provided to a total of 259 staff in Tigray (145), Addis Ababa (107) and Afar (7).

Benishangul Gumuz region is planning to develop a new organizational structure using the FMOH structure as a benchmark in 2010 EFY. The new structure will include additional work processes and job positions. Considering this, the HRH Project drafted and submitted JDs of 54 new job positions for six departments for the RHB to review.

In **Dire Dawa**, JDs were not distributed because the public service and HRD Bureau did not allow the sector bureaus (including the RHB) to distribute JDs as they recommend utilization of the “team chart” instead of individual JDs for planning and performance management.

Provide on-site technical support to RHBs to consolidate implementation of Balanced Score Card (BSC) at ZHDs, Woreda, and Hospitals

The HRH Project has been providing technical and financial support to FMOH and RHBs to improve the knowledge and skills of HR staff to facilitate implementation of BSC at various levels of the health system. Selected activities in this reporting period are highlighted below:

In **Oromia**, the HRH Project provided technical support to 10 ZHDs and their Woreda level structures during quarterly mentorship in the first quarter, and supported 75 HR officers in the second quarter, to assess implementation of BSC and address identified challenges. The support helped to identify and address the existing confusion related to completing performance appraisal formats, calculating and grading performance and ensuring transparency during performance appraisals. In the third quarter, the Project provided onsite technical support to 7 ZHDs, 30 WorHOs and 35 HRM officers to assess implementation of BSC and address identified challenges. The support helped to identify and address the existing confusion related to completing performance appraisal formats as per the RHB and Civil Service guidelines, calculating and grading performance, and ensuring transparency during performance appraisals.

In **Amhara**, all ZHDs, hospitals, RHSCs, and blood bank have a harmonized BSC based annual plan. Accordingly, quarterly plan-performance monitoring and evaluation was conducted through 1-to-5 peer review on daily basis, and weekly monitoring meetings conducted at all levels of the health system in the region.

In **SNNP**, all the ZHDs, WorHOs and Health Care Facilities implement BSC, though there are gaps in quality and contents of performance planning and performance appraisal. Post-training follow-up showed that there are gaps in properly executing the BSC system due to turn over of supervisors and work process heads. In addition, some managers and supervisors do not understand the value of performance management and do not pay attention to the process. To address the problem of poor attention senior managers give to the reinforcement of BSC, the RHB, in collaboration with the HRH project and the regional PS HRD Bureau organized a half day seminar for Senior management of the RHB on June 10/2017 in the presence of the head of the RHB. Operational staff were also coached on addressing the challenges identified. The supportive supervision checklist for HR activities was also revised to incorporate items related to the implementation status and existing challenges with BSC. In the fourth quarter, technical support was provided to 4 zonal health departments (Debu Omo, Gamo Goffa, Wolaita, and Hadya), 10 WorHOs and 1 RHSC as part of follow up of HRM IST. An agreement was reached for timely planning, compilation, submission and documentation of the second phase of the Ethiopian Fiscal Year 2009 Performance appraisal, and emphasis on the performance planning exercise for the first six months of 2010 EFY.

In **Harari**, the HR supportive supervision checklist was revised and indicators which help to assess BSC implementation, system of identifying and recognizing best performing employees and 5S-KAIZEN implementation for the health care facilities were incorporated. The BSC implementation was assessed during post training follow up visits by using the updated HRM checklist. Key findings were that the BSC has been properly implemented as a performance management tool in Jugol Hospital and 75% of the 8 HCs.

In **Tigray**, 4 WorHOs and 7 hospitals were visited in the reporting period to assess implementation of BSC. Most WorHOs and hospitals have institutionalized BSC at the case teams and individual level. Accordingly, every (individual) staff has developed a weekly and monthly performance plan, and performance of each staff was assessed and rated against those plans by immediate supervisors. However, these are still some challenges such as failure to clearly state key activities or lack of specific activities in an individual performance plan, limited knowledge regarding measurement and target by supervisors and staff, and inconsistent application of BSC guidelines among visited facilities and WoHOs. Feedback was given to the heads of the institutions on how to overcome the challenges.

In **Dire Dawa** implementation of BSC was assessed in 7 health facilities in the second quarter, and 6 facilities in the third quarter. Major challenges identified include limited skills of staff to develop individual performance plans using BSC tools, lack of proper documentation and irregularity and incompleteness of reporting. Staff were coached on and encouraged to address the challenges identified. In the fourth quarter, the Project provided technical support to Wahil HC as it is among those underperforming rural health facilities. The main gap with this health facility was the fact that the HC did not have a BSC plan in place and lacked a strong system to review and improve performance. During the follow up visit the HRH project staff and the RHB staff had discussions with the HC management and agreed to strengthen BSC system.

Provide technical support to initiate BSC implementation at RHBs

The HRH Project planned to provide ongoing technical support regions to initiate BSC implementation in collaboration with the RHBs and regional civil service bureaus. In **Somali**, the technical working group which was formed to develop a performance management plan using the BSC tool submitted the draft document to the RHB management for their comments. In the second quarter, 9 participants from RHB attended an FMOH-led ten-day training on BSC. After the training, the Project provided technical support in preparation and documentation of individual staff performance plans, and helped the trained staff to initiate implementation of the program.

In **Benishangul-Gumuz**, regional-level BSC implementation was already started at Pawi and Assossa hospitals and the RHB. However, none of ZHD, WorHOs and HCs have started BSC implementation and the RHB has planned to initiate its implementation at those levels in the coming Ethiopian Fiscal Year 2010 (2017/2018). In **Afar**, the RHB assigned a reform officer to coordinate and lead BSC implementation. Accordingly, each department has revised and submitted a team charter and citizen charter to the reform officer including the HRM support work process. In the third quarter, a five-day basic BSC training given to 60 (6 Female) staff selected from WorHOs and health facilities. Woreda-based health sector planning was also carried out using the BSC planning software to encourage its implementation. In the fourth quarter, BSC training was provided for 150 RHB, WorHOs and hospital staff, and preparations were made to cascade planning to the case teams in the RHB work processes and WorHOs using the BSC tools. In **Gambella**, during the regional mentorship visit in the third quarter, the HRH Project revitalized discussions with the RHB on the importance and implementation of BSC. Further discussions are planned for the coming period.

IR 1.2 Improved HRH Motivation and Retention Schemes according to the country context

Findings from the national retention study conducted by the Project have shown that improving salary and benefits, management and supervision, and recognition and appreciation were independent predictors of job satisfaction. In this reporting period, the Project provided the following support to address issues related to compensation, recognition, and management/supervision.

Support the FMOH to conduct a job grading and evaluation workshop

To support the FMOH to improve the fairness of compensation and benefits for health workers, Project staff provided technical support for an FMOH-led job grading workshop in the second quarter. Support was provided to develop job descriptions and point ratings for anesthetists and Emergency Medical Technician (EMT) professionals.

Provide technical support to RHBs to institutionalize, reward and recognize best performing institutions and staff

Effective utilization of the BSC performance management system can lead to the identification of high performing employees and institutions. The HRH Project has been encouraging RHBs to use the results of BSC implementation to introduce performance based rewards with the aim of motivating health workers. The RHBs developed criteria, and a fair and transparent process to identify and recognize health workers based on their performance. Some regions also started performance-based rewards including recognizing the health workers by awarding certificates, and providing material and financial gifts for their achievements. The plan for Project Year 5 was to provide technical support to RHBs to institutionalize the reward and recognition systems, and ensure the sustainability and ownership of the performance appraisal system at all levels to enhance motivation and retention of health workforce. Achievements of the regions in this reporting period are summarized below:

- In **Amhara**, the RHB, all zones and hospitals developed staff recognition criteria, which will encourage monthly follow up and recognition of best performing staff as basis for staff selection for annual recognition. In addition, all 56 newly opened hospitals in the region conducted a staff job satisfaction survey using a standard survey tool and findings are being analyzed to develop comprehensive reports which will be used to develop locally appropriate staff performance recognition strategies.
- In **Harari**, there is an established system of recognition and rewarding best performing staff and institutions on annual basis at the RHB level, which has been in practice for the past few years. For example, the RHB and Jugol Hospital regularly post the list of best performing employees on a notice board on biannual bases. In the second quarter, with technical support from the Project, the HRDA Support Process developed a plan, criteria and process to select the most compassionate, respectful and caring (CRC) health workers in the region. The plan is to conduct quarterly selection and staff recognition ceremonies in collaboration with a CDC Project in the region. The region is also planning to extend the practice of reward and recognition to the facility and *woreda* levels in the future. In the fourth quarter, the RHB identified and recognized best performing *woredas* and employees in the fiscal 2016/2017 fiscal year. Certificates of recognition and financial awards were provided to best achieving institutions and individuals in the regions during the regional health sector annual review meeting. The RHB also recognized non-governmental organizations, including the HRH Project, for their productive partnership and improved performance and contribution for quality of health services in the region. The Project staff provided ongoing technical support in setting the award criteria and organizing and conducting the annual review meeting.
- In **Addis Ababa**, the RHB, sub-city health offices and health facilities provide rewards for best performers every year during annual review meetings. Furthermore, all facilities are posting the pictures of best performers in their internal notice board on a monthly basis. The HRH Project is supporting the RHB to institutionalize and sustain this recognition process.
- In **SNNP**, as a result of ongoing Project advocacy, in the fourth quarter, the ZHD and 3 WorHos in **Wolaita** Zone, and 3 WorHOs and Worabe Hospital in Silte Zone held employee recognition

programs. A total of 26 HCPs were recognized and awarded various incentives. (See details in table below). Other *woredas* in both zones were not able to conduct the events due to competing priorities and postponed the activity.

Table 6: HCPs recognized and awarded in Wolaita and Silte Zones

Zones	Entity	Work Unit	# of Staff	Award	Remark
Wolaita	ZHD	Various	4	Educational opportunity	1 each from MNCH, HRM, Medical Services and Public Health Emergency Work Processes
	Kindo Koysha Woreda	Health Facility	4	2 further Education 2 certificates of recognition	1 Health Officer (to Medicine) 1 Midwife (to BSc study) 1 Pharmacy Technician & 1 Clinical Nurse
		HEWs	2	Certificate	
		WorHO	2	Cash & certificate	1 Accountant 2000 ETB 1 Clinical Nurse 1000 ETB
		Dugna Fango Woreda	HEWs	2	Certificate
	Dugna Fango Woreda	WorHO	1	Certificate	
		Damot Gale Woreda	HEWs	1	Certificate
	Damot Gale Woreda	WorHO	1	Educational opportunity	1 Public Health Nurse (for First degree)
		Mirab Azernet Woreda	HEWs	1	Certificate & back bag
	Silte	Alichu Wurero Woreda	HEWs	1	Certificate & Back bag
Silti Woreda		HEWs	1	Certificate & back bag	
Worabe Hospital		Clinical Staff	3	Laptop & Smart mobile phone	1 st received a laptop 2 nd phone worth 3500 ETB 3 rd “ “ 2500 ETB
		Admin Staff	3	Smart mobile phone	1 st phone worth 3000 ETB 2 nd “ “ 2500 ETB 3 rd “ “ 2000 ETB
2	6	26			

- **Afar** RHB has set criteria for performance rewards that will take place at the end of fiscal year 2009 (2016/2017). Agreed criteria include readiness to recognize and lead changes in his/her team, and willingness to support changes in other teams, role modeling to other colleagues, work ethics (adhering to the organizational working rules and regulations), abiding by and practicing the principles of CRC services, and recognized by the community for their good deeds. The winners will be awarded with certificates of recognition, or smart phones and tablets along with certificates. It was also suggested that non- health professionals such as HR officers, HIT, guards, janitors and others to be included in the award schemes to increase their motivation and retention, and to show that health outcomes are a result of team efforts.

Provide technical support to develop region-specific staff motivation and retention strategies

With technical support from the HRH Project, RHBs are developing various strategies in line with the overall FMOH National HRH Strategy and results of the motivation and retention study. Examples include:

In **Amhara**, the region developed and cascaded the employee handbook with clearly stated staff motivation and retention strategies to various hospitals. In addition to the RHB, all hospitals and ZHDs are conducting staff exit interviews to collect, analyze and use information to improve staff motivation and retention by addressing the push factors. Based on the interview responses, the RHB decided to work on reforms focused at improving work climate/environment. Accordingly, by negotiating with the Regional Civil Service Bureau, the RHB was able to restructure itself and establish a unit for good governance and reform in the RHB where one of the major tasks will be to be improving work environment and employee satisfaction.

Employee Handbooks adapted by Wereilu, Finoteselam and Durbete hospitals in Amhara



In **Afar**, high staff turnover and the shortage of specific health professionals such as pharmacy, laboratory and environmental health professionals are the major challenge. To attract and retain such professionals, the Region offered to hire diploma holders irrespective of having Certificate of Competence (COC) provided that they pass the entrance examination prepared by the RHB. Once recruited these staff will be given a time limit to pass the COC exam and submit their certificates in order to maintain their job. They are hired with the same salary as those who have CoC but they cannot compete for any continuing education. Some *woredas* in the Region also give salary top ups amounting 1500-2000 ETB (65-87 USD) per month to health professionals who agree to work in remote locations while other *woredas* pay overtime to midwives who work at health post level where traditionally, there is no duty (overtime) payment at the health post level. The above specific *woreda*-level incentive packages are found to be more attractive for the health professionals.

Additional activities conducted by the RHB include:

- Opening a medical laboratory department at the RHSC and enrolling 50 students in this year to produce new professionals to fill the gaps in the future.
- Paying different salaries to Level-3 and Level-4 Diploma holders. In the past, they were put on the same pay grade (salary level) which was causing attrition.
- Providing educational opportunities for 10 female pharmacy professionals who entered into a special commitment to serve the region for an extended period upon completion of their education.
- The WorHOs are providing special treatment such as provision of hardship allowance, overtime/duty payments as well as leave permission when the need arises for the existing professionals with particular attention to the pharmacy and laboratory cadres.

In **Oromia**, the HRH Project provided technical support to revise the existing HR policy to include region-specific HR motivation and retention strategies in order to consistently guide the region's effort. For example, the reward and recognition directive and regional Continuing Professional Development (CPD) guideline (regional policy document to select health workers for professional

upgrading training) were revised to streamline motivation and retention activities in the region, and HR staff were oriented to the revision versions. Some *woredas* in the region also reward best performing employees with mobile phones. The RHB has created a subunit under HRM Support Process that divides the HR Administration sub process into personnel admin and motivation retention, to lead the overall regional motivation and retention activities. Headed by a senior HR staff and having three members, this sub process was given responsibility of designing and implementing motivation and retention strategies, handling performance appraisals for promotion, identifying and communicating policy options to the RHB management and conducting different staff motivation and retention trainings including that of CRC.

The **Somali** RHB developed a questionnaire for health care workers to collect inputs for the preparation of region specific motivation and retention schemes and redistribution strategies. The questionnaire is under revision. A delay in the implementation of duty payments was one of the challenges to motivation and retention of HCPs in the region. During the fourth quarter, the payment process was initiated and is expected to boost staff morale in the near future.

The **SNNP** RHB added a work climate improvement need assessment in its HRM SP annual work plan that was being revised for the second half of Ethiopian Fiscal Year 2009 (*2016/17 Fiscal year*).

Other achievements include:

- In **Tigray**, the Project provided technical and financial support for an experience-sharing visit on staff motivation and retention to other regions. A team of experts visited Addis Ababa, Oromia, SNNP and Amhara RHBs, and reported their lessons learned and recommendations to the RHB management. The Tigray's regional benefit and motivation guideline was revised with inputs from the experience sharing visit. One of the inputs from experience sharing was the approach of duty payment for HCPs, and hourly based duty allowance payments were included into the revised guidelines instead of the lump sum payments that have been provided in the past. The revised guideline was approved by the Regional Civil Service and subsequently distributed to public hospitals and WorHOs for implementation.
- **Harari** RHB plans to implement new FMOH benefit packages such as the health workers extra hour payment in its public health facilities after they get approved by the Harari Regional State Federation House.
- **Addis Ababa** RHB has developed a staff motivation and retention strategy document to standardize employee motivation and retention schemes. The document is ready for dissemination to hospitals and sub city health offices for review and inputs to finalize and implement the guideline.
- The HRH Project presented the findings from the national retention study to the **Dire Dawa** RHB management to advocate for the development of a region-specific motivation and retention strategy.

1.2.2 Develop and implement Work Climate improvement programs

Conduct follow up and coaching to strengthen implementation of work climate improvement (through KAIZEN)

The implementation of 5s-KAIZEN-TQM is promoted through the FMOH's Quality Improvement (QI) Directorate as part of nationwide implementation of QI strategies. 5s-KAIZEN-TQM is also a critical component of the Clean And Safe Health Facility (CASH) initiative of the FMOH. The ongoing technical support to the RHBs through training and follow-up by the HRH Project is showing significant gains.

In the first quarter, the Project conducted follow-up visits in **Tigray** and **Addis Ababa** to review the progress made so far. In both regions, before the provision of kaizen training, the working

environment was disorganized and poorly managed. Files were not well arranged, incoming and outgoing correspondence was not well sorted and usually placed in the same tray, and there were many unnecessary documents, files or materials that were not sorted and disposed. Kaizen training was provided to the RHB HR staff and hospital HR coordinators, and was then cascaded down to all case teams of hospitals and implemented by integrating it with the Clean and Safe Health Facility (CASH) program. As a result, files, documents and policies have been organized and labeled, and office spaces well arranged. (see figure 2 below).

- In **Tigray**, Suhule Hospital was one of the best among the 14 general hospitals selected as a model by the North West Zone Civil Service. As a result this hospital hosted a learning visit from 115 civil service workers from 8 *woredas*. All HR activities including filing system, documentation, cleanliness, offices and materials arrangement were well organized and exemplary.



- In **Oromia**, the RHB started implementing Kaizen after the team received training with technical and financial support from the HRH Project. An ad-hoc committee composed of trained individuals, HRH Project staff, and senior management representatives was set up to guide the process, and unnecessary files, documents and material were removed from all corridors and inside offices. Subsequently, the RHB allocated the necessary budget to re-arrange the office layout and to buy new chairs, tables, laptops and others materials to apply kaizen principles. Thirty six HRM officers were also coached and mentored to improve office set up at WorHOs, and material management at health facilities, to avoid risk and mismanagement of medical equipment.



Before and after application of KAIZEN at HR Process, Oromia,

- In **SNNP**, 5S-KAIZEN TQM training was provided to 86 participants in February 2017, and participants developed action plans for their respective institutions at the end of the training. However, implementation was not started as it was deemed important for the RHB management to assume responsibility and own the implementation process. Upon further discussion with the RHB Head, the HRH Project and the Regional Bureau of Public Service and HR Development (PS&HRD) organized a half-day sensitization meeting for all the RHB management team members in June 10, 2017. During the meeting, the RHB Head, Dr. Abraham Alano, instructed his team to lead and facilitate the implementation of 5S-KAIZEN TQM in the RHB. It was agreed that the *Change Programs Coordinating Unit* of the RHB (which already exists) would incorporate it into its activities and coordinate implementation.
- In **Amhara**, with continued support from the HRH project, all trained staff in the hospitals and zones have continued implementing 5s-KAIZEN-TQM. In more than 20 hospitals, the tool is being scaled up beyond the HRM Process to other departments including maternity (labor) wards, card rooms, finance, infrastructure, stores, etc. Preparations are also underway to start implementation of 5s-KAIZEN-TQM at *woredas* levels in three zones of the region (Wag, West Gojam and North Wollo).
- In **Harari**, a regional KAIZEN committee held monthly meetings with members from HR, procurement and finance, medical service and regional pharmacy store as part of improving implementation and ensuring sustainability. Encouraging results including improved office layout, disposal of unnecessary materials, proper labelling of documents, and organized personnel files are being observed in the region with regard to improving the RHB work environment. As a result, the HR staff are enjoying the clean, suitable and sufficient work space created.

IR 1.3 Improved Human Resources for Health Policies and Practices

1.3.1 Improve access to and compliance with HR policies and procedures

Provide technical support to RHBs to assess the availability of HR policies and procedure manuals

In an effort to improve the accessibility and utilization of regional HR policy documents (directives, circulars, guidelines and manuals), ongoing support through assessments and follow-up visits was provided to RHB HRDA support processes. Key findings in this reporting period are:

In **Dire-Dawa**, an assessment found that HR policies and procedure manuals are available in 3 out of 11 departments of the RHB. Similarly, 17 health facilities were assessed for availability of HR policy documents, and only 8 health facilities had the policy documents in place. The RHB developed an action plan to provide the missing policy documents to all institutions with gaps. A similar assessment was conducted in **Tigray** region at 3 hospitals and 2 *woreda* offices (see Table 7 below).

Table 7: Institutions assessed for availability of HR policy documents, Tigray, Mar 2017

Policy	Name of health facility / WoHO				
	Alamata hospital	Quiha hospital	Mekelle hospital	Alamata WoHO	Enderta WoHO
Civil Servant Proclamation 189/2009	√	√	√	√	√
Civil Servant Proclamation 71/2004	√	√	x	√	√
Recruitment and Selection Policy 2006	√	√	√	X	√
BPR documents of 4 Core processes	√	√	√	√	√
Revised training & deployment policy	√	x	x	X	x

2006					
Discipline & Grievance Policy 2004	√	√	√	√	√
Citizens Charter	√	√	√	√	√
Orientation & Induction Handbook	√	√	√	√	√
Revised benefit package guideline 2008	√	x	√	√	x
Package of 4 circulars	√	√	√	√(1)	√
Professional qualification policy for employee position grade V, 2006	√	√	√	√	x
Revised work experience policy 2008	√	√	√	X	x
COC guideline	√	√	√	√	√
BSC guideline	√	√	x	x	x
Percentage of available policies	14/14	12/14	11/14	10/14	9/14
	(100%)	(86%)	(79%)	(71%)	(64%)

In **Addis Ababa**, all HR policy documents were available and properly applied in all the visited sub-city health offices. With technical support from the HRH Project, the RHB also organized orientation sessions on the HR policies, produced leaflets on selected policy themes and distributed them to unit managers as well as made the copies available in libraries where it is applicable. In **Afar**, relevant HR policy documents were available and properly applied in all visited WorHOs and health facilities.

One of the best practices was observed at **Oromia** RHB. One of the RHB's challenges was that it was missing policy documents because they were taken by staff but were not returned. As a solution with technical support from the HRH Project, the RHB collated all the policy and procedure manuals into one and distributed sample copies to its different Work Processes in RHB and other institutions. The package now consists of 1,076 pages and includes the following key documents; the Regional Employee Proclamations 61/94 by the Oromia Regional State (draft working document), the Regional Proclamation on Employee Discipline, Termination and Grievances Procedures 36/99, implementation guidelines for HCPs' Career Structure, Regional Employee Promotion and Development Proclamation 4/2000, National IST Guideline and Motivation and Retention and Benefit Packages. This has reduced the loss of the documents as staff will no longer be able to take the policy package out of the office because of its bulky size. After seeing the advantage of collating the policy package, the RHB printed 1,520 copies of the policy package and allocated its own budget to distribute the package to all ZHDs, WorHOs and hospitals (with 100% coverage) and HCs (with 77%) coverage.

In **SNNP Region**, the HRH Project supported the RHB Public Service and Human Resources Development (PSHRD) bureau to identify 16 directives issued by the PSHRD, 1 issued by Bureau of Finance and Economic Development (BoFED) and 11 specific directives decreed by the health sector. All the directives were put together to produce a compendium of general and health sector-specific HR rules and regulations. One compendium was given to the RHB whereas the remaining two kept at the HRH Project so that they can be used during post training follow-ups. Supervisors and mentors will make these materials available to ZHDs, WorHOs and hospitals for copying if any of them are missing at the particular entity being visited.

In **Benishangul-Gumuz Region**, during post-training follow up and supportive supervision, 2 ZHDs, 10 WorHOs, 2 hospitals and 12 HCs were assessed for availability of HR policy documents with technical support from HRH project. Eight institutions including 1 primary hospital, 3 HCs & 4 WorHOs have only some of the 15 revised regional HRM guidelines. Gaps were documented,

and if available, the visiting team provided the soft copies of the policy documents. For other documents, the team agreed to print and send copies to those institutions in the coming quarter. On the other hand, a newsletter was developed on a thematic area of recruitment and selection with technical support from HRH project staff. Two hundred (200) copies of recruitment and selection newsletter and 150 copies of discipline and grievance handling newsletter (that was developed in previous quarter) were photocopied and distributed to 10 WorHOs and 10 HCs.

In **Amhara Region**, all HR policy documents were available and properly applied in 14 regional hospitals, 3 ZHDs, 5 WorHOs, 1 HSC and 1 blood bank visited during post-HRM training mentorship. With technical support from the HRH Project, the RHB also organized orientation sessions on the HR policies to staff and managers, produced leaflets on selected policy themes and distributed them to the unit managers. All zones and hospitals in the region are providing orientation to all new staff using appropriate organization-specific orientation manuals.

In **Somali**, regional HR policies were available and utilized in 2 zones and 19 HCs visited during the regional supportive supervision. Similarly, all HR policy documents were available and properly used in all health facilities (10), RHSC and RHB in **Harari** region as verified during quarterly post training follow up. Even though all HR policy documents are available and in use in **Gambella** RHB, further support is required to improve both availability and consistent application at the lower levels.

Provide orientation to HR staff to improve utilization of Regional HR Policy documents

A national and generic Employee Handbook (also called Employees Orientation Manual) was developed by the FMOH in 2013. Subsequently, the RHBs adapted and distributed the manual to use as a new staff orientation guideline. In this reporting period, the HRH Project staff provided technical support to **Amhara, Harari, Oromia, Gambella and Somali** regions to orient **4,578** newly deployed staff using the handbook. In **Oromia**, a two-day training was given to a total of **6,791** health workers including all HR staff, ZHD and WorHO heads and deputies, hospital managers, medical directors and others staff on the newly approved HRM Training, Recruitment, transfer and re-deployment directive. A summary of the changes included in the new directive is below.

Table 8: Policy issues amended in the new HR policy directives - Oromia

Issues not addressed in the old Policy Directive	Amendments in the new Directive
The age at which health workers can upgrade from diploma to the first degree was restricted	Age restriction was improved
Benefits after transfer due to medical board decision was restricted	Entitlements of benefits due to medical case is maintained as those in normal transfer
Self-sponsored educational opportunity out of working hours was illegal.	Self-sponsored private and government education opportunity is allowed in such a way that it does not affect work hours
The directive was primarily designed to address the rights and benefits of health professionals	Revised to include rights and benefits of both health professionals and non-health professionals
Transfer was allowed only once a year	Employee transfer is allowed twice a year
Health Extension Workers (HEWs) transfer opportunities did not exist	Transfer for HEWs is permitted
Employee transfer was centralized at the RHB	Employee transfer is decentralized; mandated to ZHD

Supported the FMOH to develop a regulation for a Health Professionals' Council (Ad hoc request)

In the past, registration, licensing and regulation of health care professionals were managed by the Food, Medicine and Healthcare Administration & Control Authority (FMHACA). However, a recent assessment conducted by the FMOH with technical and financial support from the UK Department for International Development (DFID) showed that FMHACA was overstretched and could not effectively manage the health care administration as well as the health workforce components. The assessment provided several recommendations, one of which was for the FMOH to reorganize FMHACA functions so that food and drug control remains within the FMHACA while HCPs and health facility licensing and regulations move to the FMOH and RHBs.

In order to facilitate this transition, the FMOH organized a taskforce and requested the HRH Project to provide technical and financial assistance to draft a Health Professional Council Regulation, review and align the draft Health Care Proclamation (developed by FMHACA), and review the existing structure of the FMOH to accommodate the new teams and responsibilities from FMHACA. The Project provided financial and technical support through the active participation of its Senior HRH Management Advisor as a member of the taskforce assigned with these tasks. The taskforce conducted a desk review to identify best practices on HCPs Councils in various African countries (mainly, Ghana, South Africa and Uganda), and developed a draft HCPs Council Regulation that will be presented at the Council of Ministers meeting. The taskforce also updated the Health Care Proclamation to improve the health worker's registration, licensing and regulation component in order to align it with the draft HCPs Council Regulation. It also revised the existing HR Directorate organizational structure to accommodate HCPs Registration and Licensing Team and Medico-legal Team. The draft document will be presented to stakeholders for final approval.

1.3.2 Support the FMHACA to strengthen/establish Health Professionals Regulation (HPR) policies, systems, programs and practices

Strengthen medical ethics programs and newly formed ethics committees at national and subnational levels

The HRH Project is providing technical and financial support to establish and strengthen ethics review committees at federal and regional levels in order to strengthen the quality of health care delivery. In the previous program year, ethical review committees were established at the four big regions and two city administrations with support from the Project. In the first quarter, with the financial support of the HRH Project, the Federal ethics committee visited the SNNP regional ethics committee to strengthen the process of reviewing regional medical complaints. During the visit it was observed that:

- As per the regional proclamation number 135/2008, the regional ethics committee members were nominated.
- The national ethics directive has been adapted to the regional context
- The committee has not yet started reviewing complaints due to lack of experience among committee members. Ongoing consultations with the federal team could help to address this problem.

In the second quarter, the Project supported FMHACA to organize an experience sharing forum for federal and regional ethics committees to facilitate sharing of lessons learned, and create a sense of positive competition. The table below summarizes highlights from the discussions.

Table 9: Experience forum discussion highlights

Regional Ethics Committee	Selected Inputs
Addis Ababa	<ul style="list-style-type: none"> - Established in March 2008 (G.C.) and meets every 2 weeks - Has reviewed 91 cases, addressed 17 cases, closed 12 cases, and processing 53 cases - Some decisions have included revoking licenses, probation, and requiring supervision for provision of services
Dire Dawa	<ul style="list-style-type: none"> - Has conducted 11 sessions and reviewed 3 complaints - Has conducted promotion and advocacy
Beninshangul-Gumuz	<ul style="list-style-type: none"> - The regional ethics directive has been finalized and endorsed, and a committee established at Assossa Hospital and University. - The committee has had 2 sessions and reviewed 1 case - Incentives for committee members is a challenge
Tigray, Gambella	<ul style="list-style-type: none"> - The regional ethics directive has been finalized and endorsed and a committee established. No cases have been reviewed yet.
SNNP, Harari, Afar, Somali, Oromia, Amhara	<ul style="list-style-type: none"> - The regional directive is still under development and establishment of the committee is underway

At the conclusion of the forum, each region developed an action plan to strengthen regional ethics case handling process. The federal ethics committee will focus on overseeing activities at the national level, and focus on policy. In the third quarter, the Federal ethics committee visited Harari, Somali, Dire Dawa and Amhara to establish ethics committees or support committees that are already established. In the fourth quarter, the Project provided technical and financial support to the Federal ethics committee to coach and strengthen the Gambella regional ethics committee to support the region’s medical complaint review system. During the visit it was observed that the Gambella regional ethics committee has nominated its members and customized their own directive to handle medical malpractice complaints in the region.

Provide technical and financial support to the Ethiopian Medical Association (EMA) and the national Ethics Committee to develop a training module on medical ethics

The HRH Project collaborated with the Ethiopian Medical Association to update the code of conduct for medical doctors. This included the addition of content in the following areas:

<ul style="list-style-type: none"> • Good Medical Practice • Medical Error and Malpractice • Privacy and Confidentiality • Infection Prevention • Doctor and the community • Terminal Illness and Palliative Care • Transplant Medicine • Health Professional Regulations (self-regulation) 	<ul style="list-style-type: none"> • Professional Licensing • Continuing Professional Development • Clinical Trials • Violence and Sexual Assault • Genetics • Clinical Ethics Consultation and Clinical Ethics Committees • Medical Insurance
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The revised version of the code of conduct was made available for participants at the 53rd Ethiopian Medical Association General Assembly.

Support FMHACA during the installation, testing, and configuration of online registration infrastructure in all regions and city governments

The HRH Project is supporting FMHACA to implement the integrated health professionals' licensure system that allows the Authority to be networked with 11 regional regulatory bodies and automate the current manual processes. This will ultimately ensure that regions access information and share it with each other, and provide access to non-sensitive information to health professionals and the general public via the web. In the first quarter, technical support was provided to SNNPR to deploy ICT infrastructure and create a database for the health professional licensing system, including installation of a server and HRIS licensed module, testing of the system and network performance, and installation of antivirus software. Training was also provided for 14 Regulatory office experts and two IT staff on the HRIS license system, server installation and configuration, storage device configuration, etc.

In the second quarter, the Project covered travel expenses for FMHACA's IT expert to conduct supportive supervision to regulatory offices in Amhara, Harari and Dire Dawa. This was an ad hoc request by FMHACA supported by the Project. Key findings are summarized below:

Amhara	<ul style="list-style-type: none">▪ Regulatory experts and directors are highly motivated to use the HRIS licensing system; 41,900 entries have been made in HRIS and there is no data backlog▪ Immediately after the on-the-job training, regulatory experts begun registering health professionals, updating their license and generating certificate from electronic template
Dire Dawa	<ul style="list-style-type: none">▪ The Dire Dawa Health Regulatory Office has made 1481 entries on HRIS license software▪ One Dire Dawa regulatory body IT expert has been trained on HRIS license system
Harari	<ul style="list-style-type: none">▪ At the Harari Health Regulatory Office 3552 entries have been made in HRIS license software▪ The Harari regulatory IT department head is highly motivated to support HRIS licensing system.

Support the FMHACA and 11 champion hospitals to integrate the internal regulatory audit with existing quality management (quality audit) systems and processes

The national health care quality strategy was launched in March 2016 with the aim of providing person-centered, efficient, effective, equitable and high quality health care, resulting in improved health outcomes for the country. The health sector transformation in quality (HSTQ) document was developed to facilitate and sustain the implementation of the health sector transformation plan, and health professionals' regulation audit is part of the HSTQ. The HRH Project continued to support FMHACA to strengthen the internal regulatory audit process at 11 champion led hospitals using a tool that has the following key components:

1. Human Resource Management
2. Registration of health professionals
3. Licensure and re-licensure of health professionals
4. Continuing Professional Development
5. Scope of Practice
6. Professionalism and Ethics
7. Employees' Health Evaluation (Medical Checkup)
8. Confidentiality of records of patients and employees
9. Privacy of patients
10. Patient complaints and medical error reporting and management
11. General remark on health professional regulation systems, process and practices, strengths, unique opportunities

Key findings at Ayder Hospital included:

- The institution has clear and systematic patient confidentiality and privacy practices
- No system for regular annual employee medical checkups
- Lack of an organized HRIS system
- Lack of a standardized and centralized complaints & medical errors handling and reporting system

At Felegehiwot Hospital, key findings included:

- The institution has an established processes to identify and report incidents
- Though it is monitoring health professionals' registration, it is no monitoring those who are eligible for re-licensure.
- Though it has an established CPD program, it does not document and maintain records of CPD activities.
- There is no mechanism to enforce the scope-of-practice program

Dilchora and Hiwot Fana hospitals were provided with onsite support to conduct the audits, and the remaining sites were provided with email or phone follow-up.

Provide technical and financial support to FMHACA to organize a training on principles, approaches and standards of professional regulation for federal and regional regulatory bodies

To increase the capacity of regulatory bodies in providing customer oriented health professionals regulatory services, a total of 38 participants from the federal and regional regulatory offices received a regulation training in May 2017. Participants were trained on CPD, scope of practice, medical ethics review system, and registration and licensing system.

Provide technical support to FMHACA in developing quality audit tool for health care control

Health care control at public and private health facility level is one of the many responsibilities FMHACA has in addition to that of food factories, food item distributors and pharmacies. Though FMAHA has accreditation tools to issue license to health facilities it does not have an inspection tool for monitoring facilities after they have acquired their licenses. As a result, the Authority is currently planning to start conducting periodic regulatory audits to health care facilities to ensure regulation of health care is maintained. It is expected that this regulatory audit will have standardized inspection tool that enables the Authority to identify critical regulatory gaps of audited health institutions. In response to an ad-hoc request of FMHACA, the HRH Project supported the development of this inspection tool based on the needs and revisions of the Authority. The newly developed inspection tool includes variables of health professionals' regulation.

Provide technical support to FMHACA to promote CPD and related regulatory activities during annual professional association conferences

The HRH Project promoted CPD and provided a presentation on mechanisms of handling medical ethics cases for Ethiopian Association of Anesthetist (EAA) members during the general assembly of the Association held in June 2017.

Conduct a workshop for professional associations (EMwA, EMA and EAA) and eleven champion/lead facilities to support integration of CPD activities into their strategic and short term plans

Professional associations are considered as major providers for CPD and health facilities are responsible to identify their CPD needs. To facilitate this, the HRH Project organized a workshop for 27 participants to integrate CPD into strategic plans of the Ethiopian Midwifery Association (EMwA), EAA and selected hospitals. Representative from the Ethiopian Medical Association

(EMA) were not able to attend this meeting due to conflicting priorities. The workshop enabled participants to jointly discuss the mission, vision and strategic objectives of the associations and hospitals for implementing CPD, plan CPD activities (trainings and promotional activities), discuss existing CPD unit staffing and organograms, and identify mechanisms to ensure quality of CPD courses. Institutions also developed their action plans.

IR.1.4 Enhanced Human Resources for Health Forums at Federal and Regional Levels

Provide technical and financial support to strengthen existing HRH forums by conducting regular meetings (linked to HR review meetings)

The HRH Project supported the FMOH and RHBs to establish multi-stakeholder HRH forums, and has been working with these institutions to ensure regular meetings of these forums for coordination and effective partnership to address HRH challenges. In this reporting period, regular HRH forum meetings were conducted in **Afar, Benishangul-Gumuz, Dire-Dawa, Harari, Tigray, Oromia, SNNP and Addis Ababa** regions with the financial and technical support of HRH Project.

The forums were led by the respective RHB heads, and they provided an opportunity to discuss regional HR challenges and priorities of the health sector. The main agenda items included the application of CRC, and current regional HRH challenges and solutions. At the end of the forums, regional HRH priorities were set and action items were agreed upon. As an example, in **Harari** region, participants reviewed the annual plan and achievements of two public hospitals, eight HCs and Harar HSC. The main challenges identified include a shortage of specialists at hospitals and skill gaps of HR staff deployed in rural HCs. Appropriate actions were agreed-upon and the members shared responsibility to implement the agreed solutions. In **Afar**, 25 participants from the RHB, Civil Service Bureau, Semara HSC, Semara University, Dubti and Asaeta hospitals attended the meeting, where the annual plan and performance of the Regional HRDA support process, and the national retention study findings were presented and discussed.

In **SNNP**, the RHBs HRM Support Process presented a consolidated nine-month performance report which highlighted major improvements and gaps, as summarized in the table below:

Table 10: Strengths and gaps discussed in the 22 April 2017 review meeting, SNNP RHB

Strengths	Limitations /Challenges
<ul style="list-style-type: none"> ▪ Improved recruitment practices and need-based deployment of health workers to zones and special <i>woredas</i> ▪ Timely implementation of health workers' career adjustment has minimized complaints and grievances in some zones ▪ Improved customers' handling with limited but efficient number of staff in the unit ▪ Smooth implementation of selection of trainees to join the four HSCs in the region. 	<ul style="list-style-type: none"> ▪ Weak capacity of HRM units at WorHO and health care facilities, and limited support from the RHB to build their capacity ▪ Poor coordination of training and development activities, and lack of ownership of this activity ▪ FMOH deploys newly graduated health workers to the RHB beyond the expressed need and available budget at the RHB. Some zones refused to accept the health workers assigned resulting in the frustration on the newly recruited health workers ▪ Health workers' grievance due to irregularities and delays in effecting duty payments and professional allowances. While there is significant improvement in some zones, this problem persists in others. ▪ Irregularity and lack of uniformity in the salary payments for health extension workers ▪ Shortage of office space for HRM officers at the RHB, ▪ Increasing demand for HRM services and constrained capacity to meet all the demands

In **Oromia**, the second regional HRH Forum for the current project year was conducted at Bishoftu from September 24-25, 2017. The meeting was attended by a total of **60** participants from all universities in the region, RHSCs, the Head and Deputy Head of the RHB, HR leaders and managers at the RHB and HRH Project staff. The forum discussed strategic issues pertinent to the quality of pre-service education (PSE) including in-depth discussions on HR demand and supply issues in the region, and how to further strengthen networking and collaboration between the stakeholders or members of regional HRH Forum.

Table 10: Summary of Major Challenges and Proposed Actions during Oromia Regional HRH Forum, Sep. 2017

Major Challenges	Proposed Actions
The critical shortage of laboratory, pharmacy and anesthesia professionals especially at HC levels	The RHB and RHSCs agreed to increase the number of HCPs for these cadres
Poor networking and collaboration among the RHB, management institutions and training institutions	Establishing memorandum of understanding between universities, colleges and health facilities to collaborate in training, research and improved service delivery
Poor community service	RHB to support research and dissemination (publications) to improve community services.
Poor quality of pre-service education	Promoting the quality of education with regular supervision and support from the RHB and Technical and Vocational Education and Training Agency (TVET) agency , and performance review meetings to identify saturation levels of professionals
Complaints by HCPs who completed new training or changed their profession (example, from laboratory to pharmacy), that their previous service years are not counted towards career development nor educational opportunities	The RHB acknowledged the existence of the challenge and stated that this is not a mandate of the RHB and should be resolved at the FMOH level.
Role confusion regarding who supervises the Regional Health Sciences Colleges (RHSCs) i.e. the Oromia RHB and Regional TVET Agency. Though the legal arrangement puts RHSCs under the direct supervision of the RHB, the TVET is highly involved in routine activities that creates misunderstanding among the parties. The regional proclamation has been drafted (Negarit Gazeta) but it does not clearly demarcate the authority for the two parties.	The RHB and TVET agreed to work together to alleviate the existing problem which needs further discussions as to how implementation directives will be prepared and put in action.

A regional HRH forum was also conducted in **Addis Ababa** region in July 2017, and 44 participants attended. The forum was financed by the RHB while the HRH Project provided technical support in setting the agenda items and identifying priority issues of the RHB HRDA support process. The RHB annual HRH performance report was presented by the RHB HR head and challenges related to recruitment and selection, HR policies, and status of HRIS utilization were discussed and improvement action plans developed.

IR 1.5 Improved Management of Staff Training

Conduct HRM IST at FMOH and RHBs

The HRH Project provided financial and technical support for a five day HRM in-service training for 592 HRM managers, newly hired HR officers and other line managers in regions (See table below).

Table 12: HRM In-service Training, October 2016 – September 2017

Regions	Number of participants		
	Male	Female	Total
Beninshangul-Gumuz	23	3	26
Oromia	145*	49*	194
Dire Dawa	14	7	21
Amhara	45	15	60
Somali	26	4	30
Gambella	17	2	19
SNNPR	96	9	105
Afar	21	1	22
Harari	11	4	15
Tigray	20	5	25
Addis Ababa	33	42	75
Total	451	141	592

**Oromia RHB allocated its own resources to train 135 participants, covering all participant expenses, while the Project covered facilitator expenses*

Technical support from the HRH Project was also provided for HRM roll out training for a total of 101 HRM officers from **Addis Ababa** and **Benishangul-Gumuz** regions, 75 and 26 trainees, respectively. The HRH project provided both technical and financial support to all trainees from **Benishangul-Gumuz** as well as 24 trainees from Addis Ababa Region. On the other hand, the training cost for 51 participants from Addis Ababa was covered by Kolfe-Keranyo (27) and Arada (24) the sub-city health offices. This clearly shows that the RHB is committed to take ownership to improving HRM functions.

Conduct quarterly post-HRM In-service training follow up for HRM training participants

In collaboration with the respective RHBs, the Project provided technical and financial support for post-HRM training follow-up and mentorship visits for a total of 795 staff (232 in the first quarter, 221 in the second quarter, 267 in the third quarter, and 75 in the fourth quarter). The follow up helped to consolidate their knowledge, skills and basic HRM functions. Generally, improvements were observed in the understanding and implementation of the various aspects of HRM functions: HR policies, HR planning and staffing, health workforce retention and motivation, training and development, performance management and HRIS. It was observed that the communication between health institution heads and HRM Unit staff has improved and efforts to strengthen the HRM system and improve the work climate have been initiated. In addition, a health worker career structure registration book developed to help HR officers to identify health workers entitled for promotion and salary increment (on Tir and Hamle bases) was distributed to institutions in Harari and Somali. At the end of each visit, feedback was provided and action plans were jointly developed for some of the gaps identified. Some of the recommendations include:

- Prioritize hiring and coaching of new HRM staff given the high staff turnover.
- Ensure transparency and sustainability of reward and recognition activities.
- There is need for continued awareness creation on BSC to increase its application among the health workforce.
- RHBs to expand training and development opportunities linked to rewards including for staff working at lower health facilities
- Encouraging progress in HRIS, but the HRIS software in some ZHDs was not fully functioning and not supporting evidence based decision making.

RESULT 2: Increased Availability of Midwives, Anesthetists, HEWs and Other Essential Health Workers

The FMOH recognizes the need for more HCPs to achieve health sector transformation goals and objectives. To date, the HRH Project has contributed towards the graduation of over 39,419 HCPs, including 12,863 midwives, 1,002 anesthetists, 11,515 level III HEWs, 12,244 level IV HEWs, 31 human resource managers, 56 health economists, 441 nurse specialists and 1,165 other health care workers. The HRH Project has continued to provide support to training colleges and universities to increase the supply and availability of priority cadres by strengthening the capacity of education institutions to increase production while assuring quality.

IR 2.1 Increased Availability of Anesthetists

The HRH Project has been supporting the efforts of the Government of Ethiopia to increase availability of anesthetists. As a result, the number of anesthesia training institutions increased from three to twenty-two in the last six years. Annual student enrollment in anesthesia programs also increased to 560 compared to 56 students six year ago. In line with expansion in training site and enrollment, the Project has been implementing education quality enhancement measures As part of these quality enhancement measures, the HRH Project continued its interventions in this quarter with special emphasis on cultivating a culture of continuous quality improvement in anesthesia training programs.

2.1.1 Faculty development

In an ongoing effort to improve quality of anesthesia education by strengthening capacity of faculty teaching skills in Higher Education Institutions (HEIs) the following and technical update trainings were provided for 121 anesthesia faculty members:

Pedagogical trainings:

- **An Effective Teaching Skills (ETS) training** was provided for 36 newly recruited anesthesia faculty from 14 HEIs provided them with competency-based essential principles of effective teaching.
- **An Instructional Designing Skills (IDS) training** was provided for 28 anesthesia faculty from 15 training institutions to equip them with the required knowledge, skill and attitude to design and develop training materials and resources. Participants demonstrated mastery of instructional design competencies by successfully completing their assignment of developing a training material for a total of 12 anesthesia courses from the curriculum. These participants will be good resource persons to cascade this training to their respective institutions with the financial support from Fixed Amount Award (FAA).

Technical update training:

- A training was provide for 57 anesthesia preceptors on priority topics such as pediatric advanced life support. Beyond improving routine anesthesia practice, the hands on practice

sessions of the training will help build confidence of preceptors to mentor students' during clinical practice.

2.1.2 Strengthening clinical education

Identify clinical education sites for anesthesia training and facilitate signing of memorandum of understanding (MoU) with new clinical practice sites

To ensure that students have adequate exposure to working with patients in the clinical setting and develop hands-on practical experience before graduation, HEIs should expand their affiliated clinical education sites to accommodate the increasing number of their students. The HRH Project has been supporting institutions to do this through mapping of potential sites, facilitating meetings and signing of MoUs outlining the roles and responsibilities of the clinical practice sites and the teaching institutions as it relates to students' clinical practice. This year, anesthesia departments the following HEIs were supported to renew and/or identify and sign MoUs with healthcare facilities (See table below).

Table 11: HEIs and their expansion of clinical practice sites for Anesthesia clinical practice sites

Institution	Clinical Practice Sites
Axum University	Added Ayder Hospital
Debre Birhan University	Signed MoU with Debre Birhan Referral Hospital and Alem Ketema Primary Hospital.
Debre Tabor University	Signed a Memorandum of Understanding (MOU) with Felege Hiwot Referral Hospital.
Mekelle University	Added Adigrat and Mekelle hospitals.
Nekemte HSC	In addition to Nekemte Referral Hospital, added Nejo, Shambu, Gibi and Mettu Karl hospitals site for Level V anesthesia by signing MoU with each hospital
Wollo University	Updated its MoUs with Dessie Referral, Woldia General, Hidar 11 and Mekane Selam Primary hospitals. In addition, the University faculty were temporarily assigned at the clinical sites, particularly in primary hospitals, to provide and strengthen clinical services. This partnership allows anesthesia faculty to build confidence in practicing their profession and actively supporting their students in clinical education.

Print and distribute anesthesia practice standards and protocols (management algorithms, functionality checklists, flowcharts)

As part of standardizing clinical anesthesia education, the HRH Project distributed 1,000 copies of 20 service standards and algorithms at 22 public hospitals (6 in Oromia, 7 in SNNPR, 4 in Tigray, 4 in Amhara, and 1 in Dire Dawa regions). The standards and algorithms distributed include:

1. Obstetric Failed Intubation Algorithm	12. Unanticipated Difficult Tracheal Intubation
2. Checklist for Anesthesia Apparatus Checkout	13. Doing Rapid Sequence Induction of Anesthesia in non-obstetric adult patient
3. Emergency Management of Maternal Collapse & Arrest (ALS)	14. Extubating: At Risk Algorithm
4. Management of Severe Local Anesthetic Toxicity	15. Cannot Intubate & Cannot Ventilate (CICV) in a paralyzed Anesthetized child 1 to 8 years
5. Pre-Induction Checklist	16. Doing Routine Induction of Anesthesia in a child aged 1 to 8 years
6. Master Algorithm- Obstetric General Anesthesia & Failed Tracheal Intubation	17. Management of patient with suspected bronchospasm during general anesthesia
7. Management of Hypoxia during Anesthesia	18. Laryngospasm
8. Neonatal Resuscitation Algorithm	19. Adult Bradycardia with a pulse Algorithm
9. Adult Cardiac Arrest	20. Management of unanticipated tracheal difficult intubation in adult
10. Pediatric Advanced Life Support	
11. Difficult Mask Ventilation (MV)	

Develop standard clinical practice syllabi for BSc anesthesia program

Poorly planned and inconsistent clinical practice is one of the major barriers to providing sufficient opportunity for learners to develop and refine expected competencies in a healthcare setting. To overcome this challenge, the HRH Project provided financial and technical support to the FMOH to organize a two-day workshop to review standard clinical practice syllabi for the BSc Anesthesia Program. During the workshop, a representative from the EAA, department heads of all 19 institutions providing BSc training in anesthesia (16 universities and 3 HSCs), and 6 invited senior anesthesia tutors finalized and endorsed standard syllabi for national anesthesia program clinical practice education. The standardized syllabi were adapted from the syllabi of Dire Dawa University and clearly indicates intended learning outcomes, area of practice, teaching- learning strategies, and assessment methods. In addition to clinical competencies, the syllabi indicated the outcome, teaching and assessment methods for non-technical skills such as leadership and management, communication, advocacy and health education pertaining to anesthesia practice. The syllabi also ensured allocation of adequate time for infectious diseases in anesthesia practice. For instance, as part of anesthesia practice IV, students will have 3 hour seminars, 2 hours skills lab session and hospital attachment for malaria and HIV/AIDS to address the special anesthetic considerations for patients going under surgery/anesthesia.

Support anesthesia departments to strengthen utilization of simulation based anesthesia education

The use of simulation allows learners to develop clinical competencies safely and effectively. In the past four years, the HRH Project has supported anesthesia departments through provision of skills lab materials, faculty development trainings, and development and dissemination of competency based teaching and assessment checklists and a skills lab reference guideline. The Project has continued to advocate for expansion and effective utilization of the skill lab centers and simulators in teaching skill competencies. To highlight results of the support, we have selected the followed examples:

- **Debre Tabor University** has established an exemplary simulation center for anesthesia students, which is accessible for students' independent practice 24 hours a day and 7 days per week.
- **Debre Birhan University** started providing anesthesia training in the 2015/16 academic calendar year. The department has secured a separate space for an anesthesia skills lab and began to mobilize resources to procure materials and simulators. The department also conducted a 2-day orientation for faculty on simulation based education.
- **Wollo University** is using the nursing skills development lab for its anesthesia program. The anesthesia faculty use simulators both for independent and peer exercises before teaching a particular skill to their students.
- **University of Gondar** has increased the number of anesthesia skills lab to two, one for undergraduate and the other for postgraduate trainings. They are using Objective Structured Clinical Examination (OSCE) to facilitate skills teaching and assessment, and have also developed standardized learning guides, Standard Operational Procedures (SOPs) and teaching and assessment checklists.

Provide preventive maintenance for universal anesthesia machines

The HRH Project has provided technical support to anesthesia training institutions for the procurement and installation of various skills learning equipment and simulators to be used by anesthesia students. Regular maintenance by skilled professionals is necessary to maximize the functionality of this equipment, both in skills labs, as well as at clinical practice sites.

The Project provided maintenance support for machines at the Wolaita, Dessie, Dilla, Gondar, Debre Tabor and Nekemte Hospitals and Wolaita Sodo University. This included changing spare parts and calibration of the machines. Communication was also initiated with manufacturer to obtain additional spare parts as per the warranty agreement. This has ensured that ongoing emergency and elective surgical care services can be provided, and patient waiting times reduced. The support also created the opportunity for skills transfer to biomedical technicians working in these hospitals from the Project's experienced biomedical engineers.



During equipment maintenance and checkup Wolaita Sodo University

Support the establishment of a national anesthesia forum to facilitate dialogue and collaboration between anesthesiologists and anesthetists working at universities, colleges and hospitals

This year the Project provided financial and technical support for the establishment of a national anesthesia forum, with the objective of creating an opportunity to discuss how to strengthen the quality of anesthesia education, explore inter-institutional collaboration and support, and identify and utilize local experts to address anesthesia faculty shortages. During the 1 day forum, 40 experts participated from EAA, Ethiopian Anesthesiologists Professional Association (ESAPA), FMOH, Ethiopian Medical Association (EMA), universities, colleges and hospitals. Participants discussed potential opportunities and challenges for collaboration among different levels of the anesthesia workforce, and agreed upon and prioritized potential opportunities, threats and the way forward. Finally, a national anesthesia forum council was established comprising 7 members (2 from EAA, 2 from ESAPA, 2 from HEIs and 1 from clinical service area). The forum council will be tasked with organizing national workshops, advising the FMOH and anesthesia teaching institutions on relevant matters, and monitoring the overall education and practice of anesthesia in the country.

2.1.4 Curriculum development and strengthening

Support the FMOH to review and revise the Level V anesthesia program curriculum

In Year 4 the HRH Project supported the FMOH/TVET to review and finalize the TVET Level V anesthesia program occupational standards (OS). The Project provided financial and technical support to the FMOH to review the level V anesthesia program curriculum in line with the revised OS. A 12-day workshop was held for experts drawn from teaching institutions, professional associations, the TVET, the FMOH and NGOs. A selected group worked on reviewing and revising of Level V anesthesia program curriculum as per the revised OS. The revisions to the curriculum included allocating time for theoretical and practical teaching according to the 70/30 principle, incorporation of missed content for required competencies, development of new modules, and removing and/or merging of some modules. At the end of the workshop, 13 anesthesia modules were reviewed and/or developed as per the TVET standards and guidelines.

Support the FMOH to develop a national anesthesia roadmap

The FMOH has prioritized development of a national anesthesia roadmap, with the objective of providing key stakeholders with information and guidance on the current state and future plans for anesthesia education and practice in the country. The HRH Project provided technical support to the FMOH in the establishment of national technical working group for this purpose, and contributed to the drafting of a roadmap document based on existing national and international evidence. The draft document was then presented to 40 national and international experts from the FMOH, anesthesia teaching institutions, EAA, ESAPA, EMA, ESOG, Jhpiego, AMREF and other relevant partners, and their comments were incorporated to produce a final draft of 5 year national

anesthesia strategic roadmap. The final document focuses on HR, quality, pharmaceuticals and supplies, and innovation and leadership.

Develop model assessment blueprint for BSc anesthesia program

Currently, student assessment in the anesthesia BSc. program is not in line with the latest evidence, and students are not appropriately assessed against all the core anesthesia competencies. To improve the overall assessment practice and inform future curriculum revision, the HRH Project initiated the draft blueprint preparation with self-motivated faculty from Dire Dawa University in the third quarter of the year. The blueprint was developed for all (21) courses under the program using a content-by-process two dimensional matrix². The assessment method, instrument to use and the level of emphasis for each outcome was identified as per the criticality, frequency, time spent in learning the topic and level of performance required by students. This year, the Project supported the FMOH and the EAA to organize a 2-day workshop in May 2017 to refine, finalize and endorse the model blueprint as a national document to guide all assessments in the BSc anesthesia education program. Nineteen anesthesia teaching institutions (16 universities and 3 HSCs) participated in the workshop and will use the model blueprint at their institutions moving forward. Additionally, it was recommended that the blueprint be used as an input for the national licensure exam.

Support anesthesia teaching institutions to develop competency based assessment tools

Following the development of an assessment blueprint and clinical practice syllabi for the BSc anesthesia training program (described in the previous activity), the HRH Project led the standardization of assessment practices across all anesthesia schools by supporting the development of sample competency based assessment tools. In a 2-day workshop, 31 experts from the FMOH, EAA, and teaching institutions developed 67 standard skills assessment tools which will be used to assess students throughout the four semesters (using 17, 13, 13 and 24 tools for each semester, respectively). These tools will be used for skills demonstration, coaching and student independent practice. The tools addressed malaria and HIV/AIDS topics by designing individual clinical decision making assessment tools focusing on anesthetic management of a patient with infections. Participants agreed to ensure successful implementation of these tools - to date, 5 anesthesia teaching institutions have used these tools for their final comprehensive examination to evaluate the competency of graduating anesthetists. In the coming year the FMOH, EAA and the HRH Project will jointly work to ensure application of these tools across all institutions.

2.1.5 Monitor and improve anesthesia education quality

Provide coaching and mentorship visits to anesthesia clinical practice sites

Throughout the year the HRH Project conducted regular visits to anesthesia departments in supported HEIs to coach, motivate and supplement their efforts of improving anesthesia education. Findings from selected institutions include:

- **University of Gondar:** One of the gaps identified during the assessment using program level standards was related to establishing a robust assessment system. The Project provided technical support to faculty in the anesthesia department to develop assessment blueprints and assessment tools. With funding and technical support from the Project through the FAA mechanism, the anesthesia department developed robust tools to assess student performance, including an OSCE format, and standardized assessment tools for the simulation center.
- **Debre Tabor University** upgraded the conventional anesthesia curriculum into an innovative hybrid one, which is characterized by student-centered teaching and learning approach, early

² A content-by-process matrix addresses what level of outcome are being required in relation to each content (1st dimension) and across all perioperative patient management processes (2nd dimension).

and longitudinal exposure to clinical practice using a network of clinical and community learning settings, adoption of problem-based learning (PBL), integration of basic and clinical sciences, as well as social and population health issues, and inculcation of inter-professional education.

Best practices

Teaching and service delivery are integrated in the anesthesia departments at University of Gondar and Debre Tabor University. In addition to academic roles, faculty members in the department are regularly assigned in operation rooms to help improve service delivery and offer opportunities to coach and mentor their students.

Each student has the opportunity to have hands on practice on real patients and receive feedback on their performance following direct supervision by their teachers.



Students administering anesthesia, University of Gondar

This approach has helped faculty to be fully engaged in service delivery and support their students in the operation rooms.

- **Dilla University** was supported in its first implementation of the standardized workplace assessment approaches which help to minimize student assessment bias during clinical practice. This approach uses three assessments to evaluate students' skills during clinical attachments; a practical clinical evaluation, a case based discussion, and direct observation. The department reported obtaining positive feedback from faculty and students on this approach.
- **Axum University** was supported to introduce the nationally standardized course syllabi for four anesthesia clinical practice courses: Introduction to Principles of Anesthesia I, Anesthesia Management II, Anesthesia Practice III and Anesthesia Practice IV. As most of the clinical courses do not have a well-developed syllabus, provision of a standardized syllabus will strengthen the clinical education in the anesthesia program.
- **Nekemte HSC:** The College has separate skills lab for anesthesia program and five clinical practice sites are identified and MoU signed. Some of the gaps identified during the mentoring visit include lack of permanent teaching staff and clinical preceptors at clinical practice sites. The College agreed to work with the RHB to get new anesthesia faculty assigned and use of the clinical practice manual as a guide to select motivated preceptors that can support clinical practice. The Project offered support to train the clinical preceptors and arrange the skills lab in a user friendly manner for effective teaching
- **Harar HSC** has identified 4 hospitals in different parts of the country, where students will be attached during their summer vacation close to where they live. The department has also started using OSCE for performance assessment. The main challenge of the department is shortage of rooms and they are using the skills lab both for theoretical and practical teaching, which made organizing and managing the skills lab difficult. As a short term solution, it was agreed that the College will liaise with the nearby teachers training college to share classrooms was proposed and accepted by, meanwhile the college is constructing new building. Staff turnover is also another challenge.

Using the nationally endorsed anesthesia education standards, provide quarterly mentorship and coaching to anesthesia teaching institutions, supporting them to use the standards to improve quality of education

Out of the 20 BSc anesthesia teaching institutions, 18 conducted internal quality assessment (IQA)

using the Higher Education Relevance and Quality Agency's (HERQA) national anesthesia education standards, which has 209 basic and 116 advanced standards organized in 10 areas. Half of the institutions achieved more than 75% of the basic standards, while 4 institutions fulfilled less than 50% of the standards. Institutions performed better in meeting standards related to program goals and learning outcomes (77.2%), program relevance and curriculum (76.3%), teaching/learning and assessment (78.9%), and student progression and graduate outcomes (83.3%). On the other hand, anesthesia departments scored low in research and development (50.9%), educational resources (58%) and continual quality assurance (60.7%), necessitating greater attention (See table below).

Table 13: Anesthesia departments' current IQA result by the 10 thematic area of HERQA educational standard, September 2017

S. No	Name of Teaching Institution	Percentage Achievement Per Major Area (Basic Standards)										Cumulative Achievement
		A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	
1.	Dilla University	77.8	80.0	76.1	81.7	88.9	97.8	98.1	100	100	50.0	84.0
2.	Addis Ababa University	94.4	70.0	70.4	90.0	88.9	91.3	100	100	66.7	83.3	83.0
3.	Bahirdar University	94.4	70.0	71.8	81.7	83.3	93.5	90.7	83.3	91.7	91.7	81.5
4.	Jimma University	94.4	85.0	60.6	95.0	88.9	91.3	100	100	66.7	83.3	81.0
5.	University of Gondar	88.9	65.0	79.6	75.0	80.6	67.4	94.4	100	83.3	75.0	79.6
6.	Arsi University	77.8	65.0	68.3	73.3	97.2	93.5	96.3	100	66.7	58.3	78.6
7.	Debre Birhan University	94.4	80.0	72.5	78.3	83.3	84.8	88.9	100	58.3	50.0	78.6
8.	Debre Tabor University	100	65.0	66.2	73.3	72.2	97.8	100	100	83.3	58.3	78.1
9.	Adama Hospital MC	83.3	90.0	82.4	75.0	61.1	78.3	81.5	83.3	50.0	66.7	77.8
10.	Dire Dawa University	72.2	50.0	60.6	71.7	75.0	87.0	68.5	83.3	66.7	50.0	67.7
11.	Arbaminich University	55.6	80.0	69.7	61.7	58.3	69.6	61.1	66.7	75.0	75.0	66.5
12.	Mekele University	94.4	65.0	50.0	56.7	61.1	78.3	81.5	100	58.3	25.0	62.3
13.	Wolaita Sodo University	94.4	45.0	45.1	51.7	75.0	67.4	53.7	83.3	66.7	33.3	55.4
14.	Harar HSC	61.1	50.0	53.5	51.7	38.9	69.6	66.7	50.0	33.3	33.3	54.4
15.	Hawassa University	66.7	55.0	28.9	50.0	36.1	56.5	66.7	100	41.7	25.0	45.1
16.	Menelik II HSC	38.9	55.0	45.1	28.3	36.1	60.9	46.3	50.0	50.0	50.0	44.3
17.	Axum University	55.6	40.0	30.3	45.0	55.6	34.8	72.2	66.7	33.3	8.3	42.4
18.	Wollo University	44.4	15.0	13.4	16.7	33.3	54.3	53.7	33.3	0.0	0.0	26.6
19.	Ambo University	Not yet done										
20.	Wachemo University	Not yet done										
Area 1: Program goal and learning objective		Area 6: curriculum relevance					Area 7: Teaching learning and assessment					
Area 2: Governance and leadership		Area 8: Student progression					Area 9: Quality assurance					
Area 3: Educational resources		Area 10: Research and development										
Area 4: Academics and support staff												
Area 5: Student admission and support												

*N.B.: The highlighted boxes indicated exceeding performances of departments in the indicated areas
Source: Institutions' IQA assessment results, 2017*

Conduct national anesthesia education quality review meeting

Although anesthesia departments were implementing quality improvement activities, there was not a strong mechanism for anesthesia teaching institutions to come together, share achievements and learn from one another. In this quarter, a 2-day national anesthesia education quality review meeting was organized. Seventeen anesthesia teaching institutions and representatives from the Federal Ministry of Education (FMOE), and the EAA attended the meeting. Anesthesia departments presented their performance across the ten major quality areas. Improvements in student performance assessment, standardization of clinical education and staff capacity building were recognized as strengths. The key gaps discussed at the meeting included missing components in generic BSc curriculum, scarcity of educational resources, and low participation in research. Exhibition stations were prepared for better performing departments to share their experiences. Moreover, a half-day session was allocated for participants to visit 5 different education areas

(Classroom based teaching, Simulation based teaching, Student performance assessment, Clinical education, and Research and leadership) at the University of Gondar (UOG) Anesthesia Department. These visits were followed by general reflections and discussions enabling participants to share experiences and provide feedback to the host department. Based on self-audit and peer review results, Dilla, Addis Ababa and Gondar were recognized as the three top best performing universities of the year. Finally, the meeting was completed by developing four cluster-based action plans.

2.1.6 Strengthening the capacity of the Ethiopian Association of Anesthetists (EAA)

Provide financial and technical support to EAA to update its official association website

In the previous years of implementation, the HRH Project supported EAA to launch an official website with the purpose of improving its visibility through engaging members and other stakeholders by uploading relevant information and messages. It was identified that the website is not user friendly and does not allow members to access CPD courses. Thus, the HRH Project provided financial support to update the website, and provide a website user and administrator training for EAA staff.

Provide Clinical Training Skills (CTS) training for EAA in-service trainers

In project year 3, the HRH Project supported the EAA to develop 9 training packages to be used for in-service training of anesthesia professionals. To ensure that an adequate pool of skilled trainers is available to facilitate the conduct of these trainings, the Project conducted a 3-day Clinical Training Skills (CTS) training for 26 participants drawn from various anesthesia training institutions. The participants are expected to serve as trainers for the Association. Following the training, participants spent an additional 2 days critically reviewing and strengthening the 9 packages in light of feedback that was provided by the FMOH. The final packages were submitted to the FMOH for review and endorsement.

Support anesthesia institutions to develop exam blueprints

The HRH Project in collaboration with EAA facilitated a discussion on requirements, development and utilization of an assessment blueprint and clinical practice syllabi for undergraduate anesthesia training. A draft blueprint developed by Dire Dawa University with the Project's support was presented to 15 participating institutions. Then each institution took the assign to review specific courses, and send them to the HRH Project for compilation and dissemination. It was also agreed that the EAA would monitor implementation of the assessment blueprint and clinical practice syllabi in each training institution. Later in the year these assessment blue prints were endorsed by the FMOH and implemented by the schools. Linked to 2.1.4 Activity- Develop model assessment blueprint for BSc anesthesia program.

Support the EAA to organize its 13th Annual Conference

To facilitate networking and experience sharing among anesthesia providers, as well as support provision of technical updates, the HRH Project has continued to support the national EAA annual general assembly. In preparation for the 13th annual conference held in May 2017, the Project supported the Association to conduct a stakeholder mapping exercise to identify partners that can support the conference, selecting the theme and developing different documents for the general assembly. The 2-day conference with the theme of "Collaboration for Quality Maternal Surgery and Anesthesia Care" facilitated networking, learning and experience sharing for over 365 anesthetists and stakeholders. Panel discussions focused on updates on the latest evidence-based anesthesia practices, CPD sessions, presentations on relevant research findings and an award ceremony for outstanding anesthesia students, long serving anesthetists, and EAA partners. On this occasion Project disseminated study findings from the anesthesia graduates competency assessment

end line study. During the session recommendation were made on future intervention areas such as structuring clinical teaching, and availing clinical teaching resources including human resource for simulated teaching environment for PSE and strengthening mentorship system for newly graduated anesthetists joining the taskforce.

Developed and submitted a training proposal to FMOH as part of CPD activity

In view of upholding the provision of ethical anesthesia service, EAA has developed and submitted a CRC training proposal to FMOH where all 1,500 practicing anesthetists and educators nationally will have the opportunity to attend the course. This training proposal is submitted based on the request from the Ministry and upon approval, the Association will facilitate this training using the CPD unit established with support from the HRH Project.

Conduct promotional activities to raise anesthesia profile

The EAA has strengthened its efforts to raising the awareness of relevant stakeholders on anesthesia profession and professionals' profile. In this quarter, the Association continued web-based promotions using social media (Facebook and Twitter) and its official website. Responses from different viewers are being analyzed and documented for continuous improvement.

Facilitated an institutional conflict resolution

A professional conflicts among the Yekatit 12 hospital administrators and the 20 anesthetists of the hospital's Anesthesia Department temporarily halted provision of services. The dispute mainly resulted from the conflicting work schedule and performance issues within the department staff. The EAA held a one-day meeting for the department and its staff and recommended applying quality anesthesia service enhancement measures in work planning, organization and delivery. With this tool the team can establish an effective services and a professional working environment that significantly helps them to avoid conflicting issue related to low performance, scheduling and conflict of interest. The team agreed to implement quality anesthesia service enhancement measures including: Conduct of daily morning sessions and need-based case-base discussions, establishments of effective supply chain management, perioperative documentation and scheduling activities. The department has resumed its service with better coordinated and renovated care delivery system.

Handover HRH Project purchased vehicle to EAA

As part of strengthening the capacity of EAA, the HRH Project purchased a vehicle. The vehicle with plate number AO-42-235; Chassis Number: AHYZ59G-X908031337 and Motor Number 1KD-A848567; Model Number: KUN51L-NKM.SYN was handed over to EAA in May, 2017. In recognition, the EAA President Ato Leulayehu Akalu mentioned the importance of this vehicle for the association in developing the capacity and implementing different activities. During the transfer ceremony EAA staff were oriented on vehicle management.

IR 2.2 Increased Availability of Midwives

Increasing skilled attendance at birth with midwives as the primary professionals is recognized as the main strategy to reduce maternal and newborn morbidity and mortality. Despite encouraging efforts made to date, Ethiopia's health sector still lacks the required number of midwives to provide quality maternal and reproductive health services. Thus, HRH Project continued its capacity strengthening support to 49 midwifery training institutions to increase the quantity and quality of midwives graduating from pre-service education institutions.

2.2.1 Faculty development

Through the year the following need-based capacity develop trainings were provide for **216** faculty from midwifery training institutions with the HRH Project and by HEIs themselves through their

HSEDCs using the Project's funds. These trainings will enable faculty to use evidence based teaching and learning strategies.

Pedagogical trainings:

- An **ETS training** was organized at Axum, Adigrat, and Samara universities and Araya Kahsu RHSC for **newly hired midwifery faculty**. The training aimed to improve faculty's capacity on facilitation skills and student performance assessment. A total of 13 newly hired midwifery faculty attended the training in their respective institutions (4 Samara, 4 Adigrat, 3 Araya Kahsu, and 2 Axum).
- An **ETS training of trainers** was organized for **38 midwifery faculty** to build their capacity to teach others on facilitation skills and student assessment. During the 5-day training participants developed an exam blueprint for eight BSc midwifery courses and eight Level IV courses and reached consensus that it should be implemented across all midwifery schools. Each college and university developed action plans to guide the implementation of the blue print.
- A **simulation training** was provide for **21 midwifery skill lab assistants** from 21 institutions. The 5-day training provided participants with the required knowledge, skills and attitudes on the use of simulation to facilitate student learning. During the training, participants used the national midwifery education standards to assess the skill lab, practiced using high fidelity models such as "Noelle 550" and "Mama Natalie", and developed action plans to implement when they return to their respective institutions.
- An **IDS training** for midwifery faculty was provided for **30 midwifery faculty** from 30 training institutions. The 5 days enabled participants to review, appraise and standardize course materials such as curricula, syllabi, and strengthen their teaching methods. As a requirement for certification, each participant developed a draft clinical practice syllabus for the entire (4) years of the BSc midwifery program by applying the knowledge, skills, and attitudes acquired from the training.

Technical update training:

- A **training on respectful maternity care (RMC) and partograph use for midwife tutors** was provided for 42 midwifery tutors selected from teaching institutions. The training was organized to address a gap identified during a needs assessment conducted at those institutions. The goal of the training was to increase awareness of common abusive and disrespectful practices and attitudes in the care of mothers and newborns and promote use of the partograph as a decision making tool for women in labor. The training included topics such as disrespect and abuse in the maternity and newborn care services, universal rights of child bearing women, performance improvement standards in RMC and the role of midwives in RMC. In addition to lectures and group activities, a hand-on skills training was provided on use of partograph.
- **An essential newborn care training for midwifery faculty was provided** for 18 midwifery faculty. The training included components of the Helping Babies Breath (HBB), Essential Care for Every Baby (ECEB) and Essential Care for Small Babies (ECSB) training packages, and included skill demonstration and practice on models.
- The HSEDCs Araya Kahsu RHSC trained 3 midwifery faculty **on ART and TB**. Similarly the HSEDCs at Samara University trained 4 midwifery faculty on TB epidemiology, multi-drug resistant TB and TB/HIV.
- **An Essential New Born Care training** was provided for 18 midwifery skills lab assistants selected from 18 midwifery teaching institutions. This 3-days training equipped lab assistants with the required skills to assist midwifery student during practicing essential newborn care competencies such as warming newborns, attachment and breastfeeding, and newborn hygiene



Participants practicing skills in small group during the training

and sanitation.

- A training on **Early initiation of antenatal care and postnatal care** was provided for 29 skill lab assistants from 24 midwifery teaching institutions. The training helped skill lab assistants to upgrade their knowledge, skill and attitude to assist midwifery student during skills lab and clinical practice session on provision of evidence-based antenatal care, post natal care and women friendly care.

2.2.2 Strengthening clinical education

Provide a CTS training for midwifery clinical preceptors

Given the critical role clinical preceptors play in teaching, assessing, guiding and managing clinical practice opportunities for students, the HRH Project has provided ongoing support to build the capacity of preceptors at health facilities. Through the Project's technical and financial support HSEDCs at 4 institutions (Wollega, Haramaya, Mizan-Tepi and Hawassa Universities) trained 32 preceptors on CTS. The institutions were also supported to select appropriate preceptors based on the clinical practice guideline developed with the help of the Project. Participants gained theoretical knowledge and practical experience on planning and coordinating clinical practice, teaching clinical skills and assessing clinical competence.



Students during clinical attachment, Bahir Dar

Support midwifery teaching institutions to expand clinical education sites and sign MoU

To ensure that midwifery students are competent upon graduation, they require adequate exposure to practice on patients during clinical attachments. However, many students do not have an opportunity to do so given overcrowding at the clinical education sites which are limited. The HRH Project has been supporting institutions providing midwifery training to identify additional clinical practice sites and expand access for their students. During the reporting period, with funding from the FAAs, the following selected institutions signed MoUs to expand their clinical practice sites.

Table 14: HEIs and their expansion of clinical practice sites for midwifery clinical practice sites

Institution	Clinical Practice Sites
Arbaminch College of Health Sciences	Expanded its clinical practicum sites from 27 to 31 by adding 4 Shishicho and Kemba hospitals, and Beto and Shefe HCs
Arsi University	Increased the number of practicum sites to 11 by signing MOUs with Abomsa Hospital and 6 HCs (Kersa, Bokoji, Dera, Huruta, Iteya and Ogolcho)
Debre Tabor HSC	Signed MOUs with 17 affiliated sites and trained 8 preceptors selected from some of the facilities.
Debre Tabor University	Established effective collaboration with 6 affiliated practicum sites. The University supported the 6 health facilities with construction/expanding of service delivery units, fulfilling the equipment and materials needed in each facility and has assigned midwifery faculty to strengthen clinical preceptorship.
Debre Birhan HSC	Identified 11 potential sites to expand their affiliation given the increased student enrollment.
Dessie HSC	Currently working with 34 affiliated clinical education sites and has signed MoUs with all of them.
Dilla University	On process to sign an MOU with Yirgalem Hospital in addition to its

	existing 20 clinical practice sites.
Mettu University	Signed MoUs with Nekemte and Arjo hospitals and increased practicum sites to 10.
Mizan-Tepi University	Has signed and/or updated MoUs with 10 clinical practice sites
Pawi HSC	Planned to sign MoUs with three newly upgraded primary hospitals
Teda HSC	Signed MoUs with 12 affiliated sites and trained one preceptor from each site.

Distribute current guidelines to midwifery teaching institutions

As part of standardizing midwifery education through promoting evidence-based practices in clinical education sites, the HRH Project has continued to support the printing and distribution of relevant Maternal, Newborn and Child Health (MNCH) guidelines and FMOH protocols/standards. The following guidelines were distributed to Mekelle University, Semera University, and Araya Kahu RHSC.

1. Technical and Procedural Guidelines for Safe Abortion Services in Ethiopia, June 2006, Addis Ababa,	4. Tuberculosis, Leprosy and TB/HIV prevention and control program , FMOH,
2. National Guideline for Family Planning Services in Ethiopia, FMOH, Oct, 2011,	5. Health Sector Gender Training Manual, FMOH, Dec 2013
3. National Malaria Guidelines, 3rd edition, FMOH, Addis Ababa, Jan 2012,	

In addition, 5 neonatal resuscitation equipment (ambu bags) were donated from the USAID funded Maternal and Child Survival Program (MCSP) and distributed to midwifery departments at 3 RHSCs and 4 Universities.

Provide technical and financial support for the development of competency based assessment tools for student performance assessment

Dilla and Hawassa universities were supported to implement OSCE as a skills assessment approach and to strengthen their skills' teaching in skill labs. The support will help the institutions to ensure that their students have acquired the required competencies and prepare them for the national licensure examination.

2.2.3 Curriculum development and strengthening

Support the FMOH to conduct a midwifery degree curriculum consensus building workshop

The FMOH organized a 3-day consultative workshop to evaluate the generic BSc. midwifery curriculum to ensure that it addresses the essential midwifery competencies. A total of 46 participants from the FMOE, Education Strategic Center (ESC), HERQA, midwifery teaching institutions, and partner NGOs (HRH, UNFPA, CIRHT, AMREF) attended the workshop. Findings from 3 national studies conducted by the HRH Project (midwifery task analysis, midwifery graduates competence assessment and reproductive, maternal, newborn and child health -RMNCH service evaluation) were presented to guide the discussions. A consensus was reached that the current nationally harmonized BSc. midwifery curriculum is not organized around professional core competencies and similar contents and learning experiences are not integrated across the modules. As an example, related courses were clustered into one module without the actual integration of their content. Moreover, the curriculum is teacher-centered and did not indicate the students' responsibility and workload. The participants then reviewed the Debre Tabor University curriculum which was developed with support from the HRH Project. The curriculum follows the principles of competency based education and SPICES (Student-centered, Problem-based,

Integrated, Community-Based, Elective, and Systematic) curriculum model. Participants agreed that there was a need to review the national midwifery curriculum through establishing a national taskforce comprised of representatives from the FMOH, FMOE, ESC, midwifery teaching institutions and other relevant partners, using the University's curriculum experience as an input.

Support the FMOH to finalize and distribute modules developed for the Level IV midwifery program

With technical and financial support from the HRH Project, the FMOH was able to develop 6 midwifery learning modules in Year 3. The Project has been supporting the FMOH to update the content of the modules in line with the revised Level IV occupational standard and/or curriculum. The Project finalized 5 of the modules namely the gynecology care, FP, antenatal care, labor and delivery and postnatal modules, after incorporating comments from reviewers.

Support a midwifery curriculum development workshop at a private midwifery school (LeDeG Health Science College)

The LeDeG Midwifery College is a private institution that was established to train midwives who will be expected to serve hard-to-reach communities. In response to a request from the College, the Project provided technical support during a curriculum development workshop, and covered costs for two faculty from public universities to attend and provide their inputs and experiences. The Project encouraged the LeDeG representatives to consider the use of the modular midwifery curriculum currently used by many public universities and colleges, and advocated for early exposure to clinical practice for students.

Provide technical support to neonatal health specialist master program curriculum development

One of the priority health workers identified by FMOH are neonatal HCPs and the FMOH and partners including the HRH Project are investing to train neonatal nurses at a BSc Level. In order to further strengthen this FMOH initiative, the Department of Midwifery at University of Gondar has planned to start a new neonatal health specialist masters program. To realize this initiative, the HRH Project participated in the curriculum review meeting and providing inputs. Participants provided inputs on the roles and responsibilities of the neonatal health specialists who will be trained by this program and recommended for UOG midwifery department to clarify with FMOH, FMOE and other responsible bodies the current demand for neonatal health specialists, scope of practice, entry requirements and career pathways. Finally, UOG asked partners, including the HRH Project to continue providing technical support to finalize the curriculum and launch the program.

2.2.4 Monitor and improve quality of midwifery education

Mentor and support midwifery schools to assess and improve the quality of education using national midwifery education standards

Monitoring the teaching-learning process using standardized tools helps to identify needs and gaps in the education of midwives, and address them in a systematic manner to improve the quality of education. The Project continued to support institutions to conduct internal assessments and implement plans of actions developed to address identified gaps. Out of the 49 midwifery teaching institution assessment result has been collected from the 33 and the remaining 16 will submit in October 2017, therefore the complete IQA data of institutions along with lessons learnt will be presented in the coming quarter. In the meantime results from selected HEIs are presented as follows.

As part of FAA implementation, the following institutions in **Oromia** conducted IQA after orienting faculty this year (see table below). In **Amhara**, 1 university and 2 RHSCs conducted IQAs for their midwifery program using the national standards. Findings are summarized in the

graph below, and were used to develop a plan of action to address the gaps.

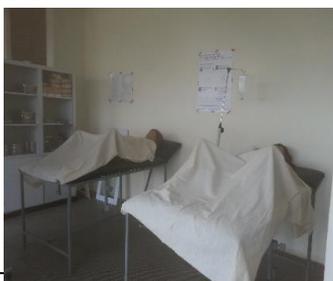
Table 15: Summary of the IQA results in Oromia region, December 2016

Institution	Achievement	Basic Standards		Quality Improvement Standards		Total (Basic & QI)	
		No.	%	No.	%	No	%
Ambo University	Fully Achieved	101	47.9	33	28.4	134	41
	Partially Achieved	87	41.2	48	41.4	135	41.3
	Not achieved	23	10.9	35	30.2	58	17.7
Madawalabu University	Fully Achieved	98	46.8	33	29.5	131	40.8
	Partially Achieved	91	43.5	64	57.1	155	48.3
	Not achieved	20	9.5	15	13.4	35	11
Wollega University	Fully Achieved	159	76.1	68	58.1	277	69.6
	Partially Achieved	39	18.6	12	10.3	51	15.6
	Not achieved	11	5.3	37	31.6	48	14.7
Mettu University	Fully Achieved	114	57.6	67	55.4	181	56.7
	Partially Achieved	61	30.8	35	28.9	96	30.1
	Not achieved	23	11.6	19	15.7	42	13.2
Haramaya University	Fully Achieved	131	61.6				
	Partially Achieved	29	13.7				
	Not achieved	52	24.7				

Additional quality improvement activities at institutional level included:

- **Wollega University:** Based on gaps identified during the coaching and mentoring visits to skills lab of the midwifery program, HRH Project supported the Department to:

Stations prepared for selected midwifery skills, Wollega University

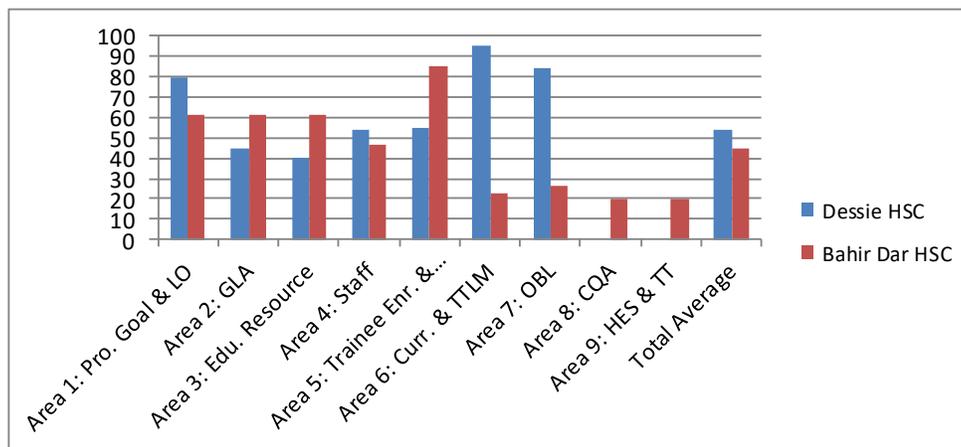


- Adapt a code of conduct for skills lab and oriented skills lab assistants on how to enforce it. A similar orientation will also be given to instructors and students.
- Rearrange the midwifery skills lab based on core competencies: antenatal care, labor and delivery, postnatal care, managing hemorrhage, episiotomy and perianal tears repair, newborn resuscitation, family planning, and infection prevention. In addition, inventory list was prepared and posted to each station to assist with tracking and planning procurement of skills lab materials. Unnecessary and damaged materials were also removed from skills lab and transferred to store.
- In addition, relevant visual aids (focused antenatal care chart, newborn resuscitation algorithm, active management of third stage of labor chart, diagram on preparation of chlorine solution and family planning poster), were printed and posted at respective stations. In addition, videos of basic emergency obstetric and newborn care, family planning, infection prevention, and hand washing are given to the department to assist teaching of essential clinical skills.

- **Arsi University** organized a 2-day review meeting on the quality of health professionals' education. The purpose of the review meeting was to monitor the progress of program level internal quality assurance initiatives. A total of 29 participants from the College, Asella Teaching and Referral Hospital leadership, department heads and the program level internal quality assurance team attended the review meeting. The midwifery department head presented the key achievements such as hiring of 2 additional instructors for the department, and challenges such as a weak system for regular evaluation and review of the curriculum.
- **Metu University:** One of the gaps identified in midwifery program of Metu University was the inadequacy of the existing skills lab to practice midwifery skills because all programs are sharing a single lab. This lab also lacks adequate space and materials to organize the skills lab for midwifery competencies. In this quarter, HRH Project supported the department in its negotiation with the University leadership, which successfully resulted in the assignment of one separate room for midwifery skills lab. Subsequently existing materials for midwifery skills were moved to the new room and arranged based on competencies. As per the promise made by the University leadership to allocate budget for procurement of skills lab materials, and based on the national quality standards, 206 additional materials (supplies, equipment and mannequins) were identified, quantified and cost estimated to initiate a procurement plan.

In Amhara, 6 HEIs were supported to conduct assessments and develop action plans to address challenges identified. See the IQA results of Dessie and Bahir Dar HSCs in the figure below:

Figure 1: Midwifery program IQA using the TVET standard, Dessie and Bahir Dar RHSC, Dec. 2016



- **Wollo University** conducted an internal assessment using program level education standards. One of the gaps identified was related to establishing a robust assessment system. The HRH Project thus supported the midwifery department to develop improved assessment tools. Using the FAA agreement, the Department also developed more than 248 quality exam items.
- **Debre Tabor University:** The Midwifery Department at Debre Tabor University was preparing to conduct external qualification exam for its second batch. Thus, the Project provided technical support to develop OSCE, structured oral exams, and written exam to be administered to midwifery students before transitioning to internship programs.
- **Woldya University:** Using the FAA funds and the Project's technical support, the Midwifery Department developed written assessment tools for comprehensive midwifery examination.
- **Bahir Dar HSC:** Through FAA and the technical support and advocacy of the Project, the College developed and introduced standard student performance assessment procedures during clinical practice.

In **Tigray**, out of a possible maximum of 100%, Mekelle University scored 61%, Axum University 65%, Adigrat University 47%, Semera University 57%, Araya Kahu RHSC 83%, and Semara RHSC 52%. To fill gaps identified through the IQA:

- Midwifery students at the **Adigrat University** reported that they had been oriented on the health student professionalism/code of conduct prior to being deployed to clinical practice sites, had been provided with logbooks and case presentations to facilitate their practice, and were guided and supported by hospital staff during their attachment. Ongoing challenges include a lack of a clinical coordinator, and shortages of medical equipment at the practice sites.
- **Dr. Tewelde HSC, Axum University, and Mekelle University** were supported to develop a midwifery clinical course syllabus

In **SNNPR**, the Project visited four universities were supported to conduct an IQA, identify performance gaps and develop action plans based on identified gaps. They also organized workshops to review progress and document successes and lessons learned. The HSEDCs at the institutions are responsible to monitor progress of the action plans. All institutions have made efforts to strengthen skills labs and utilize quality standards. Selected findings include:

- **Hosaina HSC** conducted an internal quality assessment based on the standards and developed an action plan to address gaps identified.
- At **Mizan Tepi University**, adequately labeled buckets were available to support teaching infection prevention practices, and a hand washing facility was made available in the midwifery skills lab in response to an identified gap. University also introduced rigorous faculty recruitment criteria that started to use written exams in addition to oral interviews.
- **Dilla University** was found to have a gap in availability of formal MOUs with health facilities to improve clinical practice.
- As a result of implementing the quality standards, **Wolaita Sodo University's** midwifery school was able to increase clinical practice sites, develop syllabus for clinical practice courses, strengthen skills teaching and skills lab utilization, develop exam blue prints and improve the quality of OSCE.



Midwifery student learning hands on skills (left), and assessment using OSCE in the skill lab, Woliata Sodo University (right)

In Afar and Benishangul Gumuz:

- **Semera HSC** developed a clinical course syllabus to guide instructors, preceptors and students during clinical practice, with funding from the FAA. The College also developed logbook and skill assessment checklists. The College continues to face challenges with lack of adequate skills lab equipment, and lack of instructors.
- **Pawi HSC:** Using the funding from FAA and the technical support of the Project, the Colleges developed midwifery student performance assessment guideline during clinical practice.

Provide support to conduct qualification examination of 1st batch midwifery students at Debre Tabor University

In the last four years, the HRH Project has provided technical and financial support to Debre Tabor University to develop and implement an innovative curriculum for a midwifery program. In this reporting period, the HRH Project provided technical support to develop and conduct a qualification examination for the first batch of third year midwifery students before entering into supervised professional practice. Project staff provided technical advice in the design and review of the examination, supported development of exam blueprints and training of exam developers and examiners, and participated in the exam panel. Feedback was provided to the University leadership to capitalize on the strengths and work on the deficiencies identified in the implementation of the curriculum. This helps to assure quality of education and use the feedback to address curriculum implementation challenges. In addition, external examiners from well-established universities who participated in this activity praised the quality of education at Debre Tabor University and expressed interest in implementing a similar approach at their host institutions.

Out of 50 students assessed, 48 passed and will now proceed to a 32-week professional midwifery practice (internship) and team training program before graduation. The two students who did not pass the assessment will work on addressing their gaps as per the feedback provided and will be provided with a second chance to take the exam.

Midwifery students taking exam at different OSCE stations, Debre Tabor University



2.2.5 Strengthening the capacity of the EMwA

Support EMwA to develop a capacity development plan

The USAID-funded Local Capacity Development (LCD) Project is supporting EMwA to develop a capacity development plan (CDP). The plan prioritizes current needs and details a highly actionable reform agenda for EMwA to implement, with specific LCD project and other stakeholders support. The HRH Project reviewed and provided comments on the draft CDP, and will provide technical support to the Association as needed to facilitate implementation of the plan.

Support EMwA to conduct staff capacity building training on communication skills and facilitative supervision

As part of strengthening the capacity of EMwA to play an effective role in all activities related to midwifery, and in particular, education, practice, and regulation, the HRH Project provided support to organize a one-day training on communication skills and facilitative supervision for 20 staff who will be providing supervision support. The overall goal of the training was to provide an overview on effective communication in clinical settings and the role of supervisors and supervisees in facilitative supervision practice.

Provide technical and financial support to EMwA to conduct its general assembly

The EMwA conducted its 25th general assembly on October 6, 2017 with the theme “Moving beyond the Birth: Midwives as Stewards of the Next Generation”. The conference was held in Addis Ababa for more than 800 participants including members, the eleven chapter office board members, partners, researchers, students, and government representatives. During the meeting, presentations and discussion was conducted by panelists and invited guests on the current medico-legal and relicensing directives, e-Learning using portable Mobile Line Service (MLS), continuum of care for maternal and newborn health: the role of midwives, and national blood bank services. In addition, a needs assessment survey was conducted to identify the capacity building and professional development needs of EMwA members.

Designed and published a brochure to promote EMwA’s CPD activities

In order to create awareness and promote CPD among its members, the HRH Project supported EMwA in the design and development of a promotional brochure for CPD. The brochure describes in a simple and precise manner what CPD is, why it is important, where to get it and/or how to access it, what CPD portfolio is, requirements for re-licensure and when does it happen. Four hundred brochures were published and are planned to be distributed during the Association’s 26th General Assembly.

Provide support to celebrate the International Day of Midwives



Celebrating the midwifery profession during the International Day of Midwives (IDM) is a good way to inform the public of the important role of midwives, and elevate the morale and status of midwifery professionals. With support from the Project, the EMwA organized a successful workshop in celebration of the 25th IDM with 300 midwives from all over the country. During the workshop, updates on midwifery care practices and HRH Project support to the profession were presented, and best performing midwives were recognized.

Handover HRH Project purchased vehicle to EMwA

In order to strengthen the capacity of EMwA, the HRH Project purchased a vehicle to help the Association implement the Project’s activities. The vehicle with plate number AO-42-301, chassis number AHTYZ59G-X080331248 and motor number KUN51L-NKMSYN.SFX was transferred to EMwA in May, 2017 under an assignment agreement between Jhpiego and EMwA. During the transfer ceremony EMwA staff were oriented on vehicle management. Sr. Yezabnesh Kibe, the President of EMwA expressed her sincere appreciation and explained the great importance this vehicle will have in helping the Association’s activities in promoting quality midwifery care services.

2.2.6 Support licensure exam provision for midwifery graduates

Support the FMOH to review the midwifery licensure exam blueprint

Over the last two years, the HRH Project has provided substantial support to the FMOH for the establishment of a national licensure exam system. This year, the FMOH was assisted to review exam blueprint using evidence from the task analysis study conducted by the Project and experts opinion. In the review, competency areas for this year’s licensure examination were identified, the percent emphasis for each area of competency was determined and representation of learning outcomes to assess midwives’ competencies related to reproductive, maternal, newborn and child health care was ensured.

Support the FMOH to develop and review midwifery licensure exam items

The HRH Project also provided technical assistance for the development of more than 1500 new written exam items (multiple choice questions); and 375 of the items were reviewed, feedback provided for item developers, validated and finalized. These items will be further refined after exam administration and will finally be added to FMOH's item bank if they meet the required level of item quality.

IR 2.3 Increased availability of Level III & IV HEWs

The HRH Project has been providing support to HEW training program institutions to increase the production of qualified and competent HEWs. The following activities were implemented in this reporting period:

Support the FMOH to provide ETS training for HEW faculty

The HRH Project provided technical and financial support, through FAAs, to Nekemte and Negele HSCs to conduct a 3-day ETS training for 21 newly hired HEW instructors. The objective of the training was to enable the instructors to effectively plan and facilitate teaching in the classroom and skills lab. The training enabled participants to plan, develop and deliver interactive presentations, create and facilitate group learning activities, and facilitate development of health care delivery skills.

Support the FMOH to provide ETS Training of Trainers for HEW Faculty

To strengthen the teaching and learning processes of HEW programs at RHSCs, the HRH Project supported the Federal Technical and Vocational Education and Training Agency (TVET) to provide an ETS training for 15 HEW faculty from 9 selected RHSCs. The training aimed to provide HEW faculty with knowledge and skills on effective teaching methodology and curriculum orientation. The participants will join the ETS trainers' pool at the HSEDC in their institution and will work to enhance the teaching capacity of fellow HEW faculty through coaching and by participating in educational quality improvement activities in their respective institutions.

Support the FMOH/TVET to revise the existing HEW curricula and assessment tools

In Year 4, with financial and technical support from the HRH Project, the HEW educational occupational standards were revised and updated. In this reporting period, a 12-day workshop was held to revise the HEW curriculum in line with the updated occupational standards. Experts from the FMOH, Federal and regional TVETs, RHSCs, professional associations, universities and NGOs participated in the workshop. Examples of the changes made include:

- The Level III OS and curriculum now focus on promotion and prevention while the level IV OS and curriculum focuses on management of activities.
- Some competencies were extracted from the level IV curriculum and incorporated into the level III curriculum, e.g., family planning, hygiene and environmental health, infection prevention techniques and first aid and emergency response.
- CRC was incorporated into both the level III and level IV curriculum as one of the competencies combined with workplace medical and professional ethics.
- Competencies such as managing pharmaceuticals in health posts and applying computer and mobile health technology were added to the level IV curriculum
- The Level III HEWs' curriculum now has 16 competencies whereas that of Level IV HEWs has only 11. The revisions have avoided redundancy of content and competencies seen in the previous curricula.

Support the Tigray RHB to revise the HEW training package

In response to a request from the Tigray RHB, the HRH Project provided technical support to

update the in-service HEW training package and orientation guideline using national training materials. This included addition of content on non-communicable diseases and neglected tropical diseases. A terms of reference and plan of action to guide roll-out of the training using the new package was also developed and shared with the RHB. The training is expected to be launched across all health posts in the region in the next reporting period.

Support Negele RHSC to review its HEW curriculum

The HRH Project provided technical and financial support to the Negele RHSC to revise its curricula for HEW training based on the national revised HEW level III occupational standards. 15 modules, including antenatal care and PMTCT, delivery, postnatal care, communicable and non-communicable diseases-were reviewed. Learning and assessment methods were specified for each learning outcome, and content such as food hygiene and safety, and immunization were updated.

Support the FMOH to reprint and distribute Level IV HEW training modules

To address the critical shortage of standardized text books for the HEWs training program, the HRH Project has been printing and distributing level IV HEW training modules. This year, the Project supported reprinting of 500 training modules consisting of 13 competencies (21 booklets). The Project also collaborated with the FMOH to develop a distribution plan and communicate with all (21) training institutions. So far, 12 training institutions have collected the modules from HRH Project as per the distribution plan, and the FMOH is formally notifying 9 RHSCs and respective RHBs that have not yet responded or received the modules as per the schedule.

Support the FMOH to conduct coaching and mentoring visits to RHSCs providing HEW training

A joint coaching visits were conducted by the FMOH and the Project to support the following HEW training HSCs:

In **Araya Kahsu HSC** it was identified that:

- With funding from the FAA, the College developed a clinical course syllabus to guide HEW student clinical practice;
- HEW students were provided assessment checklists and logbooks for clinical practice
- Orientation on ethics & professionalism, scope of practice, and rules and regulation of the hosting facility was provided to HEW students prior to clinical practice.
- Separate skill lab facility is established and equipped for HEW students for their practice. The College continues to face challenges with recruiting and retaining HEW instructors.

At **Nekemte, Negele, Metu and Aman Mizan** RHSCs the team observed the following key findings:

Key findings:

- Incorporating of COC pass as a mandatory graduation requirement,
- Formalizing agreement with cooperative training sites with MOU
- Shortage of classroom instructor and educational resource
- Non implementation of the FMOH newly developed curriculum

Challenges:

- Shortage of vehicle for clinical practice
- The disagreement between Federal TVET and FMOH on the program curriculum and training (mainly on newly developed curriculum), this created confusion on which curriculum to implement by institutions
- Lack of trained preceptors in cooperative training sites and high turnover of staff and preceptor
- Shortage of skills lab materials (mainly labor simulating manikins and consumable supplies)

Recommended solutions/support provided:

- The team communicated and discussed with the responsible person at the RHBs on how to utilize the assigned budget from FMOH/Global fund on the required matter
- Discussed on provision of educational opportunity, research grant and staff housing by sharing best experiences from similar other institution to reduce staff turnover
- Shared the possible market places address to buy such products from locally and internationally
- Two curricula (HEW III & IV) were revised based on the newly revised national occupational standards in Negele HSC.

Conduct coaching and mentoring visits to HEW training institutions

The HRH Project also provided coaching and mentoring support to Health Extension Program (HEP) at Nekemte, Harar and Negele HSCs. The support focused on strengthening IQA activities and strengthening clinical practice in skills lab and at clinical practice sites.

- **Nekemte HSC:** Has 4 skills labs dedicated for HEP, each properly arranged, checklists developed and laminated for all skills, inventory list prepared and posted at each station for easy tracking of availability of materials. During the visit, based on gaps identified on the previous visits, skills lab code of conduct was adapted and shared to the department. Key challenges remain to be lack of skills lab assistants assigned for each room and the available skills labs are still not adequate for the existing number of students of up to 50 students at a time.
- **Harar HSC:** The College trains students from Harari and neighboring regions of Dire Dawa, Oromia and Somali, in regular and extension programs. The College has three clinical practice coordinators assigned and has adequate number of clinical practicum sites for HEP- 6 HCs each having designated preceptors. Key challenges identified include sharing of skills lab with the midwifery program due to the shortage of rooms to arrange separate skills lab for HEP. There is also a need to train preceptors on how to teach and assess clinical skills.
- **Negele HSC:** Through FAA funding, the Project provided technical support to develop learning tools for the HEP and as a results 6 checklists were reviewed and improved for teaching and assessment of MNCH skills-antenatal care, labor and delivery, postnatal care, postpartum hemorrhage and integrated management of newborn and child illnesses. In addition, the College was supported to arrange its skills lab based on clinical competencies for the HEWs program.

Participate in the national consultative meeting on revitalization of urban health extension workers (UHEWs) training and service provision

The FMOH and RHBs organized a two-day consultative meeting for more than 500 participants from government officials, teaching institutions, city administrations, researchers, private organizations, community leaders, NGOs and HEWs to revitalize urban health services through a performance review of program activities and sharing of challenges, solutions and best practices. At the end of the meeting consensus was reached to continue with the good practices (example: Support given by health development army (HDA) and one to five women networking group to health extension program) and putting a joint effort on the areas of improvements (example: the Monitoring and evaluation to HEW activities by concerned stakeholders) and enhancing the training and deployment status of UHEWs. The city administrations and the RHBs took the responsibility to lead the programs, while USAID/JSI will support the town administrations and RHBs in this regard. The next forum which will take place in a year time in Harari Region.

Rural Health Extension Workers (RHEWs) Program revitalization activity

As part of reviewing and strengthening the RHEWs program, the HRH Project technically supported the FMOH in collecting data pertinent on RHEWs training and service provision using a

checklist. The purpose of data collection was to identify the reason why the services provided by this cadre have regressed over time. The findings of the data collection will be used for political decisions to revitalize the program activities – education and services. The HRH Project also presented key findings and implications of the HEW task analysis study to the Health, Population and Nutrition (HPN) donor group, which is reviewing the status of the HEW program in order to support the Government.

Provide technical support HEP revitalization workshop regarding training and service provision

This year the Medical Service Directorate at the FMOH assigned a team of experts from FMOH and partners including the HRH Project, to assess the health extension programs (HEPs) activities in rural, urban and pastoralist settings. The 24 experts who participated in the assessment gathered on a 3-day workshop to develop the assessment report. Key findings from the assessment the good practices, challenges and solutions needed to revitalize the HEP were discussed. Issues that need improvement were; student selection, training and deployment as well as graduates career development, incentives, motivation and retention strategy. A major recommendation provided was the omission of the generic Level III HEWs, due to the currently increasing demand of Level IV HEP in the community requiring services for common communicable and non-communicable diseases. The detailed report of the assessment was drafted and the final document will be submitted to the FMOH and RHBs for decision.

IR 2.4 Increased Availability of other Essential Health Workers

The FMOH has identified and recognized the need to strengthen the existing education of essential health workers and develop new cadres for emerging health system needs to meet the sustainable development goals and national health sector transformation plan. These cadres and programs include emergency medical technicians (EMT) to improve pre-hospital emergency care, biomedical technicians to address the challenge in equipment maintenance, health information and technology (HIT) to strengthen HMIS and RDQA management and documentation system. The post basic specialty nursing training programs to respond to the growing specialized health care needs of the population and the post-graduate programs in Human Resources for Health Management (HRM) and Health Economics (HE) to develop leaders and managers were also launched.

2.4.1 Strengthening the Emergency Medical Technician (EMT) Training

The FMOH has identified training of emergency medical technicians as a priority in order to improve pre-hospital emergency care. In the 2015/2016 fiscal year, the FMOH planned to train 280 EMTs. The HRH Project has continued to provide technical and financial support in implementing the activities below:

Support the FMOH/TVET to revise the existing EMT curricula

The HRH Project supported the FMOH to revise the EMT TVET level training program curriculum as part of the 12-day workshop mentioned above. Major changes include:

- Some competencies were added to the curriculum, e.g. infection prevention and patient safety, medical and legal issues, and professional ethics including CRC
- Some competencies were extracted from Level III and moved to the Level IV curriculum. The Level IV training will be initiated in the next year academic calendar (September 2017)
- Practical teaching facilities and infrastructure was identified for each module

Support the FMOH/TVET to provide basic life support training for EMT instructors

The HRH Project provided financial resources to the FMOH to conduct a five-day technical update for 15 EMT faculty from 8 newly established EMT training institutions in collaboration with the

Addis Ababa University Emergency Medicine Training Center (AAU-EMTC). The training addressed the following key areas:

- Basic management of trauma patients to prevent permanent disabilities or death which could happen from improper handling and transportation of the victim(s)
- IP measures and practices during handling emergencies

Support the FMOH/TVET to Provide ETS and Curriculum Orientation Training for Newly Hired EMT Instructors

With the support of the HRH Project, the FMOH conducted an ETS and curriculum orientation training for 20 newly hired EMT instructors from all RHSCs who began EMT training (Hawassa, Mizan Aman, Arba Minch, Nekemetete, Mettu, Negele Borena, Dr Tewelde and Harari HSC). During this 11-day training, newly hired instructors learned skills to improve their teaching capacity and were oriented to the TVET curriculum implementation.

Provide technical and financial support to emergency medical technicians (EMTs) training and service provision review meeting

The HRH Project provided technical and financial support for the FMOH to conduct a review meeting. The objective of the workshop was to discuss updates, challenges and solutions on the overall training and service provision of the EMTs. A total of 21 experts and decision makers from FMOH, RHBs, RHSCs and partner organizations attended the 2-days workshop. The two critical recommendations from this meeting were:

- The need for a guideline on motivation and retention of EMT professionals, particularly concerning their career development pathway from Level II through Level IV. As this has not been clearly determined, the FMOH expressed that it is working on it and will soon disclose to relevant parties.
- FMOH is moving towards entirely omitting Level III training; in the near future all lower and middle level trainings will be at Level IV. Thus, subsequent recruitments and trainings of EMTs should be only at Level IV.

2.4.3 Increase the availability of Biomedical Technicians

Healthcare providers cannot provide life-saving and high impact MNCH, HIV/AIDS, tuberculosis and malaria interventions without functional infrastructure. Equipment maintenance has long been a challenge to service delivery mainly due to a lack of trained personnel. In response to this need, the FMOH identified training of biomedical technicians as a priority and the HRH Project began to support biomedical technician training in Year 2. The following support was provided:

Support the FMOH to organize a workshop to develop standardized equipment-based technical update training modules for biomedical instructors

One of the bottlenecks to update and develop biomedical technicians' skills was a lack of standardized equipment based technical update training package. In this reporting period the HRH Project has been supporting the FMOH in the development of standardized in-service training (IST) package for biomedical technicians on medical equipment maintenance. In this quarter, FMOH's feedback was incorporated and the IST training package was resubmitted to the FMOH for approval. In year 6, the Project plans to conduct the first training with the approved training package.

Support development of biomedical technician curricula

The HRH Project staff provided technical support to Addis Ababa University and Gondar University to review and revise curricula for their biomedical engineering (BSc) programs. Support provided included providing comments on the content, and sharing experiences on skill based assessment of students.

Support the FMOH to develop a medical devices management strategy

The Project actively participated in an FMOH-led technical working group to develop a medical devices management strategy document. The purpose of the document is to provide health facilities and managers with guidance on how to manage medical devices. The Project ensured that the strategic document gave enough emphasis to maternal and child health, Operation Room (OR), ophthalmic, imaging and laboratory equipment. Upon finalization, this strategic document will be presented to the Minister's office for approval and will be disseminated for use. This strategy will be the guiding document to develop a viable system that facilitates the tracking, monitoring and timely repair and maintenance of medical equipment.

Provide technical support to FMOH/FMHACA in the development of Medical Devices

Market Authorization Strategy

As per the request from the FMOH/FMHACA the Project has provided technical support in organizing a 5-days' workshop to develop a Medical Devices Market Authorization Strategy. The zero draft of the strategy document was developed and sent to FMHACA leadership for review. Their reviews will be incorporated in the next implementation year and the document will be processed for FMOH approval.

Participate and contribute in Ethiopia Standard Authority (ESA) stakeholders meeting

The Ethiopia Standard Authority (ESA) organized a meeting with relevant stakeholders to discuss current practices and challenges related to medical equipment standard in the country. The HRH Project participated in this important meeting. The main discussion issues during the meeting were proper utilization of existing medical devices standards and the need to develop new standards for other prioritized medical devices.

Participate in a biomedical education stakeholder meeting

Project staff participated in a meeting held by the American International Health Alliance (AIHA) for stakeholders supporting biomedical engineering and technician training. The purpose of the meeting was to coordinate and leverage efforts made by various stakeholders such as training institutions (Addis Ababa, Jimma and Tegbareid), and partner organizations. Opportunities for collaboration were identified during the discussions.

2.4.4 Strengthen Supply Chain Management

Support the FMOH to conduct an IDS Training of Trainers course for pharmacy instructors teaching supply chain management (SCM) courses

The HRH Project conducted a 6-day IDS training for 27 participants (16 SCM course instructors from 13 pharmacy schools, and 11 SCM continuing professional development course developers from the Pharmaceuticals Fund and Supply Agency (PFSA), Ethiopian Pharmaceutical Association (EPA), and the FMOH). The training was intended to help the participants to systematically review and appraise curricula for inclusion of priority national pharmaceutical supply chain management issues, to review course materials more effectively, to standardize SCM course syllabus and to develop appropriately designed learning materials matching the SCM competencies for pharmacy technicians and pharmacists. During the training, participants were able to conduct a training needs assessment and content analysis, and then develop a course syllabus and training packages (participant manual, facilitator guide and training evaluation instrument) for selected SCM courses. An action plan was also developed to produce a zero draft of a training package for five CPD courses to be reviewed and endorsed by the FMOH. The courses are: quantification, inventory management, chronic disease management, pharmaco-vigilance, and pharmaceutical marketing.

2.4.5 Support the FMOH to establish and strengthen BSc nursing specialty programs

A post-basic specialty nursing training program was launched in June 2015 by FMOH in response

to increasing health needs for advanced care and to provide career advancement options for diploma level nurses. So far, seven post-basic nurse specialty programs are opened and at total of 2,145 students are enrolled in those programs. The HRH Project has been supporting this initiative both financially and technically, including, but not limited to, curriculum development, faculty development, and provision of skill lab materials and reference books. More recently, the FMOH decided to launch generic bachelor nursing specialty programs.

Support the FMOH to revise and finalize nursing specialty curricula for three programs (emergency nursing, neonatal nursing and OR nursing)

Institutions running the nursing specialty programs have identified challenges and gaps in implementing the curricula for these programs. In response to these concerns, the HRH Project technically and financially supported the FMOH to conduct curriculum revision workshops for neonatal nursing, OR nursing, and emergency and critical care nursing programs. The three programs are prioritized from other nurse specialty programs considering the needs for professionals trained in these disciplines in reducing maternal and neonatal mortality and morbidity.

A total of 78 experts from 22 HEIs, the FMOH, FMOE, Ethiopian Nursing Association attended two rounds of curriculum review workshops and made the following changes:

- Revision of the program mission, goal and rationale based on the ESC framework and requirement
- Revision of the core competencies and ensuring their concurrence with the module objectives. This ensured inclusion of relevant content with particular emphasis on maternal and newborn nursing care.
- Six new modules were created, sequenced and organized to address the core competencies of the curriculum.
- Incorporated and strengthened innovative teaching methods such as integrating inter-professional collaborative practice competencies in team training – the placement of health science students together to develop inter-professional and collaborative teamwork skills.

The curriculum were therefore redesigned in a way that:

- The first two years of the three BSc programs will have similar modules to cover so that all of them have similar understanding and ability on foundational and basic nursing principles and competencies. These include Social and Population Health, Foundations of Nursing I, Foundations of Nursing II, Clinical Nursing I and Clinical Nursing II.
- In the remaining two years, students will choose their specialty stream and take specialty specific modules. They will also have internship, team training program (TTP), research project, and qualification examination.

The updated curricula were finalized and submitted to the FMOH for endorsement and distribution to the 22 HEIs. New students enrolled in January 2017 will be trained using these revised curricula.

Organize a one-day consultative meeting on the three newly developed curricula with university and MOE higher officials

Considering the newness of the programs and the lessons learnt from the post basic programs in the past, the FMOH and the HRH Project jointly organized a 1-day consultative meeting with 33 teaching institutions and MOE higher officials. Fifty participants including college deans and nursing specialty department heads attended the consultative meeting. The following action points were identified from the discussion:

- Ensure that all nurse specialty and comprehensive nursing programs have uniform curricula for the first two years and then the remaining two years shall be dedicated for their specific discipline. This will ensure that all nurses have the same basic nursing care skills and facilitate efficient use of resources by all programs.
- Explore the possibility of revising the curriculum for comprehensive nursing as per the

recommendation of the higher education strategy center (HESC). This also have an additional advantage of aligning the first two years of this program with specialty steams.

- Develop a one year action plan before the three programs are started by institutions:
 - Ensure adequate and qualified human resource are available (hire enough specialty program trained instructors for the three generic nursing programs)
 - Ensure the universities have adequate infrastructure to start the programs such as classrooms and skill labs.
 - Ensure adequate books and skill lab materials are available to run the programs
 - Ensure logistic and other related issues are well addressed for clinical practice.

Support the FMOH to develop 3 new nursing specialty curricula for pediatric nursing, surgical nursing and emergency and critical care nursing

Alongside the review of the emergency nursing, neonatal nursing and OR nursing curricular (described above), the Project supported the FMOH to develop curriculum for new “generic” degree programs (*in which students will be enrolled directly after completing their high school education*). The curriculum for new “generic” degree programs was draft by 41 representatives from various nurse specialty teaching universities, the Ethiopian Nursing Association, and the FMOE. which resulted in the following:

- Development of the program mission, goal and rationale
- Development of the core competencies and ensuring their concurrence with the module objectives
- Ensuring inclusion of relevant content
- Drafting new modules, which were sequenced and organized to address the core competencies in the curriculum

The modules is planned be finalized in the coming years.

Support the FMOH to conduct a PBL training for nursing specialty instructors

The nursing specialty programs were designed to be implemented using a modular curriculum approach, and with innovative teaching approaches such as problem based learning. To enable faculty to develop cases and facilitate PBL sessions, the HRH Project previously provided technical and financial support to conduct two rounds of PBL training for instructors. In this reporting period, the Project provided another round of training for 24 participants from 24 institutions. The training provided faculty with the knowledge and skills required to effectively implement PBL in their teaching, including writing contextually relevant PBL cases, facilitating PBL tutorials and monitoring student progress.

Support the FMOH to conduct an annual program review meeting for nursing specialty teaching institutions

With support from the HRH Project, the FMOH organized a two-day annual program review meeting attended by 45 participants, including deans, department heads, and faculty members from 22 universities, FMOE, and FMOH delegates. The workshop created an opportunity for teaching institutions to share experiences and discuss with the FMOH and other stakeholders on the strengths, weaknesses, threats and opportunities of the 7 nurse specialty programs they have been running. From the discussion it was pointed out that having the programs was considered as a strength in itself because they are responding to the growing need of the population for specialized healthcare. On the other hand, shortage of faculty, skill lab and reference materials, the logistic and financial challenges of students, the tightness of the schedule, weak commitment of institutions, and absence of enough postgraduate programs in the country were stated as the challenge for the programs. The commitment of the government and availability of projects such as HRH were mentioned as opportunities.

Provide mentoring and coaching to improve the quality of nursing specialty education

As part of the FMOH and HRH Project quarterly coaching and mentoring plan for nurse specialty teaching institutions, 24 nurse specialty teaching institutions were provided with coaching and mentoring support this year. On average two days were spent per each institution to observe classroom and skill lab teaching/learning, availability of resources and clinical practice. Feedback was provided onsite to departments and deans, and joint action plans were developed to address the gaps identified. Challenges with the overall implementation of the nursing programs namely, specific implementation challenges of PBL, skill lab materials and program specific book shortages were discussed and possible actions were jointly identified.

Table 16: General gaps identified and action points on nursing specialty programs

Gaps	Action Points
Some staff members not trained on PBL	Use FAA to provide onsite PBL training
Shortage of staff in operations room and neonatal nursing programs	Look for options to provide technical updates for existing staff and hire expats
No standardized checklists for learning and assessment in the skills lab	Use FAA to develop the checklists
Skills lab is not organized based on competencies and there is no system for tracking materials	Skills lab assistants oriented to start using tracking forms, skills lab arrangement planned in July 2017
No IP station in the skills lab	The skills lab assistants and department head agreed to facilitate procurement of materials to organize a standardized IP station
No videos for teaching clinical skills in the skills lab	Latest and standardized videos on MNCH and nursing specialty skills will be provided by the FMOH and other stakeholders

Findings from selected schools were:

- Lack of adequate capacity in writing Problem-Based Learning (PBL) cases and facilitating tutorials was identified as a challenge for effective implementation of nursing specialty programs. To address this gap, the Project provided coaching and mentoring support for trained staffs and feedback was provided following a review of written cases and direct observation of PBL facilitation.
- **Wollo University:** Coaching and mentoring support was provided to support effective implementation of the curriculum. Constructed PBL cases were reviewed and structured feedback provided to faculty members. In addition, discussion was held with program coordinators and other staffs to strengthen PBL case writing.
- **Bahir Dar and Debre Markos Universities:** Lack of PBL cases was identified as a major challenge. The issue was discussed with HSEDC focal persons and department heads and it was recommended that they conduct PBL case writing workshop and update the curricula.
- **University of Gondar:** The nursing specialty program was not as effective as planned particularly in the implementation of PBL and provision of sufficient clinical exposure. Consequently, the Project organized a faculty development and case writing workshop for 26 faculty members from the nursing and midwifery departments. The training helped to build the capacity of the faculty members and developing and validating PBL cases for future use. Moreover, the HRH Project technically assisted the review of the nursing specialty curricula. A plan of action was developed to orient the faculty members that were not involved in this training, to refine existing PBL cases and develop new ones. The HSEDC office was given guidance on how to monitor the implementation of these action plans.
- **Wollega University:** A number of actions were taken based on the joint action plan developed during the previous onsite supportive supervision. Skills lab code of conduct was adapted and shared to the nursing department. The skills lab assistants were supported to

organize IP station as per the national standard and from locally available resources. The skills lab was rearranged based on competencies. Unnecessary and damaged materials were removed from the lab and more space was made available for discussion/group activities. The following new actions items were discussed with the College Dean and Department Head for new gaps identified :

- Procure additional skills lab materials: supplies, audiovisual materials, models and simulators, medical equipment. Avail lockable shelves for properly storing and tracking skills lab materials
- Adapt competency-based learning tools for the nursing specialty skills
- Install window curtains to protect the manikins from direct sunlight
- **Jimma University:** Critical shortage of faculty to run the program (only 3 instructors for two nursing specialty programs) and faculty were not well oriented on the curriculum. In addition the university hospital, which is already crowded by students, is the only existing practicum site and there is no budget allocated to deploy students out to another health facility for practicum. The School agreed to negotiate with FMOH the recruit instructors among recent graduates and discuss the expansion of clinical sites with the university leadership.
- **Harar HSC:** Based on feedbacks given on the previous supportive supervision visit, the College has fixed its gaps. Currently there is one skills lab dedicated for the nursing specialty program with one skills lab assistant assigned. The skills lab is properly organized, clean and open 24/7 for students' independent practice. The College also expanded to its clinical practice to six health facilities. Lastly the College secured 50 million ETB to construct buildings to solve the shortage of class rooms

2.4.6 Support establishment of postgraduate programs in Human Resources for Health Management (HRM) and Health Economics (HE)

Professionalizing HRM is a prerequisite to strengthen HR planning and management capacity effectively and sustainably. Likewise, developing a cadre of health economists is necessary to strengthen capacity for health planning and monitoring, evidence-based decision-making and efficient resource allocation and utilization. Thus, the HRH Project supported three public universities and one private HEI (UOG, Jimma University, Addis Ababa University and Addis Continental Institute of Public Health) to design post-graduate programs in health economics and human resources for health management. Now the programs are owned and able to run by the teaching institutions.

Portfolio and Action Research Workshop

The HRH Project conducted a workshop to build faculty confidence to undertake their own action research projects and become better equipped to support students to conduct applied research for their thesis. The workshop also aimed to encourage faculty to increase the use of portfolios to assess students and encourage students' reflective practice. Eighteen faculty from the Jimma and Gondar Universities attended the 5-day workshop, whose objectives included:

- Encourage a broader and more nuanced approach to research and evaluation;
- Develop understanding of gathering and using evidence to improve practice;
- Promote knowledge and application of a range of research methods and skills;
- Develop teaching and learning strategies to support practitioner-researchers

Dr. Abebaw Gebeyehu, the Head of Amhara RHB, (and an author of one of the modules used for the post-graduate programs), delivered a keynote presentation on using research to support evidence-based practice and policy-making. At the end of the workshop, the trainees developed action plans to apply and develop the competency gained from the workshop. In the following quarter, the trainees received follow-up on their action-plans from the HRH Project via emails. To date, half of the trainees have responded and were given advice as needed. The original idea of

forming a community of practice around action research with the trainees did not materialize due to low response from the training participants.

Collect retention and performance data from universities

Data was obtained from the institutions – the table below summarizes the latest enrollment and graduation data.

Table 17: Student enrolled and graduated in HRM and HE program at university of Gondar and Addis Continental Institute of Public Health

Institution		HRH Management			Health Economics		
		1 st cohort	2 nd cohort	3 rd cohort	1 st cohort	2 nd cohort	3 rd cohort
University of Gondar	Enrolled	15	-	-	17	10	26
	Graduated	13	-	-	17	On July	
Addis Continental Institute of Public Health	Enrolled	15	-	-	17	-	-
	Graduated	11	-	-	12	-	-
Jimma University	Enrolled	6	16		9	16	
	Graduated	August			August		
Addis Ababa University	Enrolled	-			14		
	Graduated	-			-		

Jimma University's 1st cohort of 15 students have graduated in August 2017 as all postgraduate students at Jimma have to undertake a period of Developmental Team Training Program (DTTP) which has delayed their completion of the program. At the time of enrolling the 2nd cohort, the programs have changed from being HRH Project sponsored to self-funding (i.e. students financed by their institution or themselves) for the sustainability of the program. As a private institution, Addis Continental Institute of Public Health will not be offering the programs going forward as it is unlikely to register enough students to make the program financially viable. The University of Gondar has not managed to enroll students in the HRH management program, but have continued to provide the HE program. A 3rd cohort at Gondar for the HE Program started in October 2016 with 26 students, 12 students full-time, and 14 on a blended modality. Thus, to date, 152 students have completed or are currently enrolled in the programs.

Provide technical support to Addis Ababa University to deliver a Strategic Problem Solving course

In response to FMOH's request, the HRH Project supported Addis Ababa University to deliver a course titled "Strategic Problem Solving" to students enrolled in the Masters in Hospital Administration program. This course was handed over from Yale University and is delivered jointly with the FMOH. Thirteen students are enrolled in this post-graduate program.

Conduct final documentation and close out activities related to the support from Open University to HRM and HE Program

Given the successful completion of Open University support of establishing post-graduate programs in HRM and HE, a close out report and a comprehensive program learning documentation was developed by the end of the year. The report critically evaluates successes and areas for improvement, and captures and archives learning to inform future program implementation. Recommendations were made on module authoring, teacher and learner selection, faculty engagement and development, and graduate deployment. The report will be shared when finalized.

2.4.7 Support the Project Mercy Health Science College (PMHSC)

The HRH Project has been supporting the Project Mercy Health Science College (PMHSC) to provide high quality PSE and IST for the SNNP Region health workforce. Through this Project the College has trained 17 first batch midwives who all successfully passed the COC exam, and in the second batch has enrolled 49 students into the program, who are about to graduate. The Project continued its support with the following activities in this year:

Support 2nd batch midwifery students for completion of training and COC exam

This year 49 midwifery students were enrolled and have successfully completed the required training. Previously the Level IV COC exam was the only requirement for this program. However, as a result of a policy change at the TVET, the students are now required to complete COC Level II or Level III exams before they can take the Level IV COC exam. PMHSC staff engaged the students in skill and knowledge practice and training to help the students feel confident in their abilities and get them ready for their exams. Meetings with the students and staff have occurred often to discuss their concerns and suggestions about the upcoming exams and training. As part of fulfilling the requirement for certification all 49 students took the COC exam on Level II (Health Care), Level III (Nursing Assistance), and Level IV (Accelerated Midwifery). Of the 49 students that took the Level II COC exam a total of 48 passed on the first attempt, and 1 passed on the her second attempt. Then, the 49 students took the Level III COC exam and 45 have successfully passed. Finally, of the 45 students that passed both the Level II and III COC exams, 44 took the Level IV COC exam and 43 of them have successfully passed. The one student that did not take the exam had previously passed the Level IV Clinical Nursing COC and because she had already passed the Level II and III exams, she was qualified for Nursing BSc program and is now enrolled at a university.

Established the 2nd skills lab for student practice

The HRH Project supported PMHSC to establish the second skill labs, with the aim of providing greater access to hands-on practice to the students. The set-up of this skill lab was completed this year with the focus on training skills that are covered in COC Levels II and III. The first skill lab is set-up with a focus on level IV skills. Separating the skills covered in these labs has improved the overall teaching and skill building sessions and independent practice.

Provide IST

In collaboration with the SNNP RHB the College provided the following ISTs and contributed to building capacity of RHB's HCPs (See table):

S. No.	Type of training	Number of HCPs trained
1	Immunization in Practice	31
2	Helping Babies Breath	53
3	Essential Care for Every Baby	54
4	Adolescent, maternal, infant and young child nutrition and severe acute malnutrition	48



Participants practicing skills during the training

RESULT 3: Improved Quality of Training of Health Workers

The HRH Project has been supporting the Government of Ethiopia to implement comprehensive interventions to strengthen the quality of health workers' education and training in the country. The Project has directly supported ministries of health and education, the HERQA, the TVET Agency, the FMHACA, 52 public and 40 private higher education institutions, 46 IST centers, many professional associations. In this quarter, the Project provided support in the following areas:

3.1 Improve Quality of Pre-service Education for Health Workers

The Project continued its support to PSE institutions and regulatory bodies to pave the way for institutionalization of quality assurance activities.

3.1.1. Strengthen Health Science Education Development Centers (HSEDCs):

To ensure sustainability and ownership of internal quality assurance systems in the supported universities and RHSCs, the Project continued to provide technical and financial support to strengthen the capacity of internal quality assurance structures (HSEDCs) to implement various activities related to strengthening quality of education in their respective institutions.

Conduct High Level Discussion and Advocacy to Foster Ownership & Sustainability of HSEDCS in RHSCS

The HRH Project provided technical and financial support to the FMOH to conduct an annual RHSCs forum. A total of 80 participants from the FMOH, federal and regional TVETs, RHBs, deans of the RHSCs, HSEDC focal persons, professional associations and non-government organizations participated in the forum. During the forum, best practices related to ensuring education quality were shared. Discussions held on solutions to address the common challenges faced by the HSEDCs. Delay of integrating HSEDCs into college structure, budget allocation & assigning dedicated staff for many HSEDCs were identified and discussed. During the forum, it was agreed by TVET, RHBs, FMOH and colleges to resolve challenges that limit the rapid integration of HSEDC into the college structure.

Conduct Quarterly Coaching and Mentoring Visits to Support HSEDCs Implement Their Functions

This year, the HRH Project conducted targeted remote and onsite coaching visits to support the HSEDCs to implement their functions effectively. The visits were made at **all** supported institutions. The visits provided technical support to the HSEDCs, gender offices, skill development labs, IST centers, departments and deans offices. Institutions were helped to identify strengths, gaps and weakness and supported to identify or implement interventions to address the gaps. Key results of the technical support include:

Generally:

- The HSEDCs were supported to better plan, prepare and conduct pedagogic skills related trainings and tool development/review workshops in all visited institutions.
- The implementation of program level quality audits and development of action plans improved at many institutions. The Project team reviewed assessment results and action plans. Feedback for improvement was also provided to institutional quality assurance (QA) teams.
- The Project built the financial administration capacity of the HSEDCs' leaders in all visited institutions, through supporting them to monitor the implementation of FAA, and mobilization of other local resources.
- The Project team took part in one curriculum review workshop and two clinical practice coordination meetings.
- Given staff attrition at some of the HSEDCs, The Project supported institutions to orientate

new staff.

- Supported HSEDCs in SNNPR to conduct faculty development trainings, acquire annual budget, and establish e-libraries.
- Eleven institutions strengthened their HSEDCs through developing annual plans, budgets and advocacy to get approved structures and staffing. See examples in the text box: The Project built the capacity of the HSEDCs in administering financial resources through supporting and monitoring the fixed amount award (FAA) implementation and mobilization of other local resources. HSEDCs were also guided to ensure the quality of faculty development courses. FAA activities are described in detail in section 3.1.2 & 3.1.3.
- Ten institutions (4 in Amhara, 5 in Tigray & 1 in Afar) improved student assessment through development of exam blueprints, standard multiple choice questions items, OSCE tools, establishment of exam committees and drafting of assessment policies.

Findings from selected institution include:

In Afar:

- At **Semera** University and Semera RHSC course syllabi were distributed to students and session plans were utilized consistently by most instructors.

In Amhara:

- Through negotiation with the academic council, 8 faculty were assigned on a part-time basis to support the HSEDC focal person at **Woldia** University. Similarly, one full-time faculty was assigned to the HSEDC at **Wollo** University.
- The Project facilitated a benchmarking visit of 45 college deans, HSEDC coordinators and gender focal persons from 15 health training institutions at **Debre** Tabor University with the aims of learning best practices regarding teaching-learning practices & QI processes.

In Tigray

- **Harari HSC:** Allocated 300,000 ETB (13,500 USD) for HSEDC activities mainly for faculty development.
- **Hawassa University:** allocated 44,120 birr (2,000 USD) for an institutional audit and 30,880 birr (1,400 USD) for simulation training.
- **Four RHSCs in SNNPR:** HSEDCs submitted a proposal to their institutions requesting for funding for the HSEDC and gender offices. They effectively documented activities and used their accomplishments to advocate for funding.

- At **Adigrat** University, equipment for newly established biochemistry, microbiology and parasitology labs were procured following a successful negotiation with the institution's leadership.
- At **Araya Kahsu RHSC**, the Project provided technical assistance to the HSEDC to orient students on code of ethics and professional behavior; expand clinical attachment sites; and develop checklists and log books for nursing & midwifery.
- At **Axum University**, the Project conducted structured observation of teaching practices and provided feedback for improvement. 80 faculty also were oriented on national QI standards and 250 students oriented on improving study skills.
- At **Mekelle** University course syllabi were distributed to students and session plans were utilized consistently by most instructors. Course syllabi were also distributed to students and session plans were utilized consistently by most instructors. Moreover the HSEDC has engaged students in the monitoring and QA of teaching.

In Dire Dawa, SNNP and Somali:

- The HSEDCs at **Jigjiga** RHSC and **Dire** Dawa University were provided with technical support to develop an examination blueprint for the anesthesia program, hands-on training for faculty to develop high quality Multiple Choice Question (MCQ) test items, etc.
- **Hossana HSC:** Guidelines and checklist for internal monitoring of the HSEDC functions were developed.

In Oromia:

- In **Ambo** University the leadership approved HSEDC and IST structures in the university organogram.
- At **Metu** University, the HSEDC's integration into the College organogram was approved. HSEDC focal person's allowance was also approved following successful negotiation with the institution's leadership
- At **Nekemte** HSC, a coordinator was assigned to manage the utilization of skills labs, in discussion with the college leadership. Moreover the HSEDC identified staff training needs and incorporated capacity building into the coming year's plan and budget.
- **Wollega University:** A concept paper for integrating HSEDC in the university structure was developed for approval.

Support FMOE Supervision Directorate to Strengthen Regular Follow up of HSEDCS through Review of HSEDC Checklist

To encourage institutionalization of HSEDCs at training institutions, a HSEDC supervision checklist was developed and integrated in the FMOE higher education supervision tools in year 4. Based on findings from use of the checklist and the feedback provided during capacity building of the FMOE supervision directorate staff, the checklist was revised and four thematic areas were identified to address the main functions of the HSEDCs. The HSEDC supervision checklist is now ready to be used by the FMOE for the next round of supervision.

The HRH Project conducted onsite coaching visits at 33 institutions (19 Universities and 14 RHSCs) to support HSEDCs, departments, dean offices, skills labs and others at the training institutions. Institutions visited were in Amhara (6), SNNPR (10), Oromia (4), Tigray (6), Somali (3) and 1 each in Harari, Gambella, Afar, and Addis Ababa regions. Below were key accomplishments:

- Five HSEDCs were supported to develop budget proposals that outline the resources required to sustain their functions. As a result, Wolkite University and Mizan-Aman HSC allocated an annual budget of 113,520 birr and 300,000 ETB to their respective HSEDCs. It is expected that the other institutions will use these proposals to advocate for and request for funding for their HSEDCs.
- Sixteen HSEDCs supervised and followed to implement action plans developed based on program quality assessments. (See Section 3.1.5)
- HSEDCs supported programs to conduct internal assessments using national standards (See Section 3.1.3)
- HSEDCs supported programs to develop and use learning materials and assessment tools. As an example, in four institutions in Tigray and SNNP, HSEDCs developed and distributed logbooks, checklists, standard operating procedures and course syllabi. Midwifery comprehensive exam were developed at Woldeya University, and the HSEDC at Dessie RHSC developed a blueprint for the radiology program.
- Six HSEDCs strengthened simulation based training in SNNPR and Oromia regions (See text box).
- The Project supported HSEDCs to improve documentation and to effectively implement FAAs (See Section 3.1.2 below)



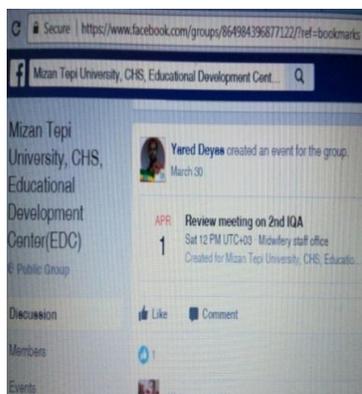
Mizan-Aman HSC expanded additional skill lab for HIT students

SIMULATION TRAINING IMPROVED AT SIX INSTITUTIONS

- **Hawassa University: 13** skill lab attendants & staff trained on simulation methods. The HSEDC negotiated with leadership to expand the skill lab and increase practice time for students.
- **Wolkite University and Mizan Aman HSC:** HSEDCs mobilized internal and external resources to establish well organized skills labs for nursing and health informatics (HIT) departments. The HSEDCs also developed rules and regulations to guide the utilization of the skill lab and the library.
- **At Wollega University, and Negele & Nekempt RHSCs:** the HSEDCs developed code of conduct at skills lab; organized the lab by stations based on competencies and made IP equipment for student practice using locally available materials

Provide technical support to HSEDCs to use social media for fostering collaboration and sharing of experiences

Networking of HSEDCs and other stakeholders interested in education quality facilitates collaboration and sharing of experiences. The HRH Project has been encouraging HSEDCs and educators to network and share lessons and best practices. The Project created a Facebook page named “Health Science Education Development Center – Ethiopia” and invited relevant stakeholders to join. Over 60 HSEDC leaders, faculty and program staff are following & participating through this page. This year, 2 relevant articles, 2 discussions, lectures and medical education videos were shared to 250 followers (HSEDC members, teachers, programmers and others). As a result of the continuous advocacy on the use of social media to improve education, Mizan-Aman HSC and Mizan-Tepi University HSEDCs also created their own Facebook pages and started sharing best practices, challenges and announcement using their page.



Mizan-Tepi University HSEDC Facebook pages on computer inviting members for quality assessment review meeting (left)



A poster showing qualities of great teachers shared on HSEDC-Ethiopia page (middle)



HRH Project’s facebook page opened from a smart phone sharing educational videos (right)

Document best practices in establishing and strengthening HSEDCs

The HRH Project has played a significant role in establishing and strengthening HSEDCs in more than 52 institutions across the country. Documenting this experience will help to improve program learning, build on the existing momentum, and expand the body of knowledge in the area. The Project developed one abstract on the experience of establishing HSEDCs, and it was accepted for presentation in the coming quarter at the Network Towards Unity for Health International Conference.

3.1.2. Provide Fixed Amount Awards (FAA) to HSEDCS

Provide Orientation on Effective Management, Reporting and Documentation of Fixed Amount Awards

To strengthen the capacity of HSEDCs, the HRH Project has provided a wide range of technical, material and direct financial assistance to training institutions. In this year, the Project has planned to continue the support through issuing fixed amount awards (FAAs). To ensure effective implementation of these awards, the Project conducted a two-day orientation workshop for 177 deans, HSEDC focal members, gender representatives and finance officers from 51 institutions. The orientation provided participants with information that will help them effectively manage, document and report accomplishments as per the requirements in the award document. During the orientation, the participants also discussed the challenges they faced implementing the previous fixed obligation grants, and suggested ways to improve the management of the FAAs.

Support HSEDCs to orient staff on quality assurance mechanisms and national program level standards

With funding from the FAAs, HSEDCs conducted a two-day onsite orientation training on the quality assurance mechanism and national educational standards for a total of 711 instructors, clinical preceptors and administrative staff from 28 Universities and RHSCs. The trainings enabled participants to review the national education standards and prepared them to use the standards for conducting internal quality audits, gap identification, cause analysis, and develop action plans.

Through FAA, Support HSEDCs to Supervise Departments in Health Training Institutions

Through Fixed Amount Awards, HSEDC at 7 training institutions in Tigray (5) and Afar (2) regions conducted supportive supervision at various departments within their respective institutions. These helped HSEDCs and Colleges to identify strengths & gaps; and ensure departments develop action plans for improvement at the respective institutions. Below are the major accomplishments done by HSEDCs during supervisions:

- Assessed availability of simulation centers for different departments
- Provided onsite orientation on national standards for instructors
- Worked to avail log book at for practice sites and more clinical training Skills course to preceptors
- Supported sharing of standardized course syllabus to their students ahead of the course
- Ensured libraries have guidelines, textbooks and reference materials and presence of mini library for female students
- Ensured Program performance & staff evaluation system exists using Balance score card (BSC), student satisfaction assessment on key parameters
- Followed up for modularization curriculum implementation and capacity building pedagogic trainings to instructors
- Ensured tutorial class is given to support the low performing students, encouraged peer assisted learning

Provide FAA to HSEDCs and gender offices to improve education quality

- The HRH Project funding through FAAs has enabled HSEDCs and gender offices to cascade

need-based pedagogic and technical update training courses, conduct quality assurance related tasks, review curricula, develop learning and assessment tools, and support gender related activities.

- At the beginning of Year Five all 52 institutions successfully implemented their 3rd and 4th milestones and completed the FAA agreements they received in Year Four. In this quarter, the FAA agreements were amended, with new activities and funds, and signed with 50 institutions out of the 52 institutions (except Hawassa and Shashemene HSCs). The new agreements include additional need-based milestones which were not addressed in the preceding FAA agreement. So far institutions are on track in implementing milestones for HSEDC and gender activities, and have utilized 40% of their FAA funding as of June 30, 2017. This quarter's accomplishment of HSEDCs and gender offices is described in detail in section 3.1.3 – 3.1.10.

3.1.3. Faculty Development

Need based and continuous faculty development is essential to ensure that instructors have up-to-date knowledge and skills to improve the quality of education. Through the year the HRH Project has provided various pedagogic and technical update trainings for faculty and preceptors at target institutions. The Project continued its support to build the capacity of institutions to plan and conduct faculty development activities by mobilizing local resources or via establishing partnership with developmental partners.

Support institutions to plan and conduct faculty development training

During quarterly coaching and mentoring visits in the first quarter, the Project worked closely with HSEDCs to conduct training needs assessments, identify resources, and plan and implement training courses at 16 institutions.

- A total of **565** instructors and clinical preceptors from 16 health training institutions received pedagogic trainings (327) and technical updates (238).

“Providing the ETS course for newly hired faculty members has become a culture in our college after HRH Project support. Despite resource constraints, we will never stop providing ETS training for our staff because of its vital role in building their capacity to effectively teach and assess students”. Abel, HSEDC Coordinator at Mizan Aman HSC

- The pedagogic trainings were conducted at eleven institutions on student performance assessment, PBL, ETS, simulation, CTS, Kaizen quality improvement, IDS and peer-assisted learning using locally mobilized resources.
- In addition, five institutions conducted the technical update trainings on the HIV testing algorithm, malaria diagnosis and others at their in-service training centers.
- During some of trainings, the trained staff were also able to develop exam blue prints, review test items, develop assessment tools, and develop PBL cases.

From the second through fourth quarter, additional need-based faculty development activities were conducted by the HSEDCs using both the FAA funding and their own resources. A total of **1786** instructors, preceptors, and skills lab assistants were trained in pedagogic skills, technical training courses and generic skills updates in 42 institutions (See Annex 1). Many academic programs benefitted as these faculties who were trained. The HRH Project technically supported the HSEDCs through coaching trainers, availing necessary training materials and ensuring course quality.

3.1.4. Curriculum Development and Implementation

Ensuring the development and implementation of competency based curricula for health science programs supports improvement of training quality and relevance of education to national health sector needs. The HRH Project has been providing technical and financial support to institutions, and the FMOH to develop, review, standardize and monitor the implementation of competency based curricula.

Support to revise and monitor implementation of competency based curricula

Academic program coordinators, college deans and HSEDCs are responsible for monitoring the implementation of curricula. As the result of the Project's support, the capacity to routinely do so is gradually improving. In the first half of the year, the following institutions were supported:

- At **Mekelle University**, 8 courses were reviewed and course syllabi standardized for use by the school of medicine. In addition, midwifery, anesthesia, nursing, pharmacy and medical laboratory curricula were revised to ensure sufficient RMNCH, HIV, TB and malaria content and allocated time
- Clinical course syllabi were developed for many programs using FAA funding in **Mekelle, Axum and Adigrat Universities, and Semera and Araya Kahsu RHSCs**
- At **University of Gondar**, the anesthesia curriculum was revised to add essential teaching methods including case based discussions, direct observation of clinical performance and competency oriented teaching and assessment
- At **Debre Tabor University**, four curricula were revised, and the anesthesia, nursing and medical laboratory programs were then redesigned into innovative hybrid curricula
- At **Dessie and Debre Birhan RHSCs**, all staff were oriented on the revised curricula. Dessie RHSC also organized a curriculum revision workshop to update HIV/AIDS content for all programs
- At **Debre Tabor University**, the HSEDC worked with faculty & departments to address challenges with implementing the hybrid innovative curricula, including autonomous professional practice for final year midwifery students. The HSEDC also facilitated review of PBL cases in medical and midwifery programs
- At **Wolkite University**, the medicine, public health, nursing, midwifery and medical laboratory programs revised their curricula to address challenges identified during implementation.
- At **Jimma University**, ten course syllabi were standardized for biomedical, nursing, midwifery, medicine and public health programs under the guidance of the HSEDC
- In addition, during an onsite workshop at **Haromaya University**, 8 blueprints for the nursing, midwifery, pharmacy and medical laboratory programs were developed. Participants also developed 70 standardized exam items.

Provide support to institutions to standardize course syllabi and curricula

The HRH Project has been advocating for continuous monitoring and periodic review of curricula and standard course syllabi for various academic program courses. These reviews improved the alignment of the learning outcomes with content, teaching methods and assessment strategies.

In Quarter 3, the Project supported **Debre Markos University** to revise four curricula (medical laboratory, pediatric nursing, medicine, and maternity and reproductive health). In addition, through the FAA, the Project supported **Woldeya University** to strengthen four course syllabi for the nursing program (medical surgical nursing, medical surgical nursing practicum, pediatrics nursing, and obstetrics and gynecology nursing). These reviews improved the content and duration of in the courses for the priority technical areas like HIV/AIDS, TB, malaria, and others. In Quarter 4, the Project supported Ambo University to review and strengthen syllabi for 5 courses-medical surgical, microbiology, parasitology, neonatology, therapeutics, and obstetrics courses using resources from the FAA.

Provide technical support to FMOH to develop a curriculum for the advancement of Integrated Emergency Surgical Officers (IESOs)

In response to a request from the FMOH, the HRH Project provided support in identifying educational pathways for advancement of practicing Integrated Emergency Surgical Officers (IESOs) in collaboration with the national core technical working group in Year IV. The Project provided technical assistance to develop a gap filling curriculum as a prerequisite for residency

training in obstetrics and gynecology or surgery. Modules were designed to be covered in three years' curriculum.

Provide technical support to the FMOH to develop a Health Informatics curriculum

The FMOH needs to produce competent health informatics professionals in order to improve the overall effectiveness of evidence based decision making by ensuring that the data generated is of a high quality and is relevant. In response to a request from the FMOH, the HRH Project provided support for the conduct of a workshop where experts were guided to develop a curriculum for the health informatics program. Technical support was provided on how to develop a competency based modularized curriculum in line with MOE curriculum development guideline. The training with the new curriculum is expected to start in the 2010 academic year in the selected training institutions.

Support Qualification Exam for Medical Students at Debre Tabor University

Previously, the Project provided technical and financial support to Debre Tabor University to develop innovative curriculum for medicine. One of the unique features of the curriculum is conducting a qualification exam for pre-clerkship students before they progress to clerkship. Therefore the Project supported the University to conduct a qualification examination for pre-clerkship II students. The support included technical advice in the design of the examination, training of examiners, sitting in the exam panel as experts and monitoring the exam process.

Support Addis Ababa University Institute of Technology to initiate review of curricula for three Railway Engineering Programs

The reputation of the technical assistance provided by the HRH Project to health professionals' education is creating interest from sectors outside health. An example of that is the request for technical assistance from Addis Ababa University, Institute of Technology. The Institute developed three master's programs in railway engineering in 2012 to respond to the national need for skilled human power. The programs have since been running but graduates from the programs were criticized for lacking practical skills required by the railway corporation. Moreover, the Institute has won a World Bank grant and aspires to establish a regional center of excellence in railway engineering. Because of these needs, the Institute embarked upon revising its curricula and approached the HRH Project for technical assistance. The Project provided a half-day on-site training for 20 participants involved in the development, implementation and review of postgraduate railway engineering education programs. The Project staff shared their experiences in competency-based curriculum design, faculty development, establishment of an internal quality assurance system, and strengthening of accreditation and regulation processes. Trained participants are expected to use the experience from health professional's education to re-design and improve their education programs.

Support Yekatit 12 Hospital Medical College to develop medical and nursing specialty curricula

The FMOH has planned to scale up medical and nursing specialty training, and has recently launched a national residence matching program. Institutions are being supported to open new postgraduate programs and enroll as many students as possible for the 2017/18 academic year. As part of these national efforts, Yekatit 12 Hospital Medical College has planned to open four medical and two nursing specialty training programs. The HRH Project provided technical support to conduct a three-day curriculum development workshop for 18 department heads and instructors from the College. Six draft curricula were developed during the workshop.

Attend and present at the FMOE's annual evaluation performance and planning meeting

As a key stakeholder in the quality of education for HCPs, the HRH Project contributed to report

writing, evaluation and planning process of the Higher Education Academic and Research Directorate at the FMOE. The HRH Project's collaborative accomplishments and challenges were also presented and reviewed.

3.1.5. Strengthen internal quality assurance systems at health training institutions

Support institutions to conduct annual program level assessments using national standards

With Project support, training institutions have conducted program level quality assessments using the national accreditation and quality improvement standards mainly for academic programs which included nursing, medicine, pharmacy, midwifery, medical laboratory and health officer training. Institutions have also been conducting institutional level review meetings to monitor the implementation of program level standards and impact of quality assurance activities. The HRH Project strengthens their ongoing efforts during routine quarterly coaching and mentoring visits. The following shows sample accomplishments made to address identified gaps at selected institutions:

- **Wolkite University** HSDECs in collaboration with nursing department mobilized internal and external resources and established a separate skills lab for nursing department.
- **Wolaita Sodo** University assigned a clinical practice coordinator at the college level to improve the overall clinical practice related activities.
- Five institutions conducted faculty capacity development trainings based on the gaps identified during the assessments.
- **Two** HSEDCs in SNNPR established affiliation with different hospitals by signing MOU to enhance quality of practical teaching.
- **One** HSEDC established a mini e-library with internet access for college instructors to strengthen teaching learning process.

The Project also advocated for and provided technical support to institutions to conduct audits for programs not previously assessed, and to conduct monitoring audits for the previously assessed programs. Highlights include:

- **Eight** institutions (5 in Amhara, 1 in Beninshangul-Gumuz, 1 in Gambella and 1 in Oromia) conducted a total of 12 annual internal assessments, and developed action plans.
- Orientation on national education standards was provided to 94 instructors in **Adigrat, Arsi and Negelle** universities and colleges.
- At most of the institutions in SNNPR, the HSEDCs implemented their actions plans and conducted the activities below:
 - Competency assessment checklists for HEW, nursing and medical laboratory programs were developed in **Mizan-Aman HSC, and Mizan-Tepi and Wolkite** Universities.
 - At **Mizan-Aman** HSC, a detailed inventory of skill lab materials and educational resources (books) was completed. This helped to identify gaps, and as a result, the leadership approved the procurement of additional materials and books.
- **Gambella** HSC signed MOUs with 7 clinical practice sites to strengthen clinical teaching.
- Negele HSC implemented the following interventions as per their action plan developed in the previous quarter:
 - A program coordinator was assigned for the HEW program.
 - A maintenance schedule for skills lab and classrooms was developed and the first round of maintenance completed.
 - Eight new instructors were recruited to improve the trainers to trainee ratio.
- At **Wollo and Debre Birhan** universities, program assessments identified the lack of a student assessment policy as a gap. Both universities developed a student assessment policy and shared it with all relevant faculty members for review.
- At **Woldeya University**, gaps related to resources for practical training were identified. The University developed clinical teaching/learning tools including a log book for maternal care

services and checklists for internship attachments for the Neonatology, Pediatrics and Surgical Nursing courses

Similarly in the fourth quarter, the HRH Project supported **eight** institutions to conduct monitoring assessments for 18 academic programs using national standards. Many programs showed improvement as compared to the baseline data. Below is a table showing what type of programs were assessed by institutions.

Table 18: Programs reviewed at 1st internal monitoring assessments by institutions, July – September, 2017

Institution	Medicine	Medical Laboratory	Pharmacy	Nursing	Health Officer	Dentistry
Debre Tabor University	√	√				
Mekele University				√	√	
Jimma University	√	√	√	√		√
Axum University		√	√	√		
Semera University				√		
Dessie RHSC		√	√	√		
Bahr Dar RHSC			√			
Araya Khasu RHSC				√		

Support institutions to implement education quality related action plans

The HRH Project supported HSEDCs, programs, dean offices and others to implement interventions outlined in the action plans. Below were some of the implemented interventions and results obtained.

- **In Harar HSC:** Skills labs were reorganized into stations based on competencies. Text books and reference materials were procured. Peer supervision using checklist is started during classroom and practical teaching and feedback is used. OSCE for assessing performance of students was initiated.
- **In Negele HSC:** A cleaning schedule for the skills labs was developed and implemented, and cleaners assigned at the skills labs. Wireless internet connectivity was secured and internet access improved.
- **In Mizan-Tepi University,** partnership and collaboration with different stakeholders- IPAS, Village health partnership and EMA was established and MOUs signed. Resources to provide technical update trainings was committed from stakeholders.
- **In Hossana HSC:** Field practice management was improved through a workshop for faculty to improve clinical practice. A standard checklist and clinical course syllabi were also given to students before they started practice.

Support HSEDCs at health teaching institutions to provide orientation on QA and conduct review meeting on education quality agenda

With the support of the HRH Project, HSEDCs located in Afar, Tigray and Somali regions provided orientation workshops on the national standards and process to 97 instructors, to help academic staff be aware of and implement national standards effectively. In addition, review meetings to assess the status of QA, identify challenges and best practices were conducted in 4 institutions in which instructors, student representatives and college leadership took part. Action plans to solve challenges were developed and shared at the end of the review meetings.

Support Ethiopian Society of Internal Medicine (ESIM) to assess quality of internal medicine residency programs in Ethiopia

The Ethiopian Society of Internal Medicine in collaboration with the FMOH, HERQA and the HRH Project conducted a rapid assessment to look into the quality of internal medicine residency programs at seven universities. The assessment identified gaps and recommended interventions regarding faculty, education materials, processes, clinical facilities, assessment practices, and quality assurance to improve quality the program. An assessment report was generated, shared and presented at the annual ESIM conference in the presence of members, universities and the FMOH.

3.1.6. Strengthen Gender-responsive Education

The Project has supported 52 HEIs to establish and strengthen gender offices, and built the capacity of gender focal persons on assertiveness, stress management, problem solving and negotiation skills. Direct funding was also provided to institutions to address gender disparities, with the aim of improving the educational outcomes of women. The HRH Project continued this support by implementing the activities below:

Conduct counseling skills trainings for gender focal persons

Based on needs identified by the gender focal persons, the HRH Project in collaboration with the Federal Ministry of Women and Children Affairs (FMOWYA) organized a four-day competency based counseling skills training for 59 gender focal persons and 18 guidance officers from 22 universities and 18 RHSCs. The participants were prepared to support female and male students with appropriate counseling services including stress management and referrals.

Support gender offices to conduct gender responsive pedagogy (GRP) training to faculty

Gender responsive pedagogy (GRP) calls for faculty to embrace a gender sensitive approach during planning, teaching, classroom management, and performance evaluation. This includes aspects such as being aware that language used in the classroom can reinforce negative gender attitudes, and reviewing teaching materials to eliminate gender stereotypes. This year, gender offices in **26** training institutions conducted a two-day GRP courses for a total of **586** teaching staff using FAA resources.

Organize annual review meeting to discuss activities at gender offices/clubs, including sharing of best practices, challenges, and validation of gender performance indicators

The HRH Project supported the FMOE to organize a two-day semi-annual gender activities review meeting. A total of 92 participants attended the meeting including 33 gender directors and gender focal persons from universities, and 20 gender focal persons from RHSCs. During the forum the following key issues were accomplished:

- Semi-annual gender activity accomplishments, challenges & strategies used to overcome the challenges at each institution were discussed.
- Best practices and experiences shared among participants.
- Validated performance evaluation checklist, best practice documentation and M&E tool on occurrence of sexual harassment
- Identified future gender related priorities

Support gender offices to conduct life skills training for newly enrolled students

Life skills training increases student awareness of gender-based violence and its underlying behavioral and social factors, and familiarizes them with the legal framework for preventing and managing violence. It also enables students to cope with the university/college environment which is new to them, and provides guidance on study skills and time management. In the first quarter, gender offices at 23 health training institutions to provide life skills training to **1404** newly enrolled female students. In the second quarter, nine institutions from Gambella, Amhara and Oromia

regions conducted life skills trainings for 449 newly enrolled female students. In addition, gender offices in six institutions in Tigray provided orientation on reproductive and sexual health to **294** newly enrolled female students using the anti-harassment policy prepared for HEIs. The aim of the orientation was to safeguard their health and thereby improve academic performance.

Support orientation workshop on formation and strengthening of the 1 to 5 networking for female students

The HRH Project has been providing financial support through FAA to help gender offices strengthen the existing 1 to 5 networks introduced by the government for peer assisted learning. At different times of the year, gender offices at nine institutions in Addis Ababa, Afar, Amhara, Oromia and Tigray regions organized workshops to strengthen the 1 to 5 networking for female students to maximize their academic performance. In total **622** students including female and male leaders participated. The workshops helped to orient female students on the networking and to identify challenges and solutions to improve use of the existing 1-to-5 networking for team-based mentorship and learning.

Advocate for integration of gender focal position in the organogram at universities and colleges

Integrating gender focal positions in the organogram of the institutions helps to strengthen the gender office and ensures its sustainability. To this end, the HRH Project has been advocating with HEIs to integrate gender focal positions into the college structure and ensure their representation at academic commission meetings for the last four years. The Project continued this activity and achieved the following activities:

- Gender offices were integrated into the organogram at five universities in Amhara region, and full time positions were assigned to lead gender related activities.
- Seven institutions in Amhara furnished offices to facilitate gender office functions. However, the remaining six focal persons shared offices with other faculty or unit coordinators.
- Gender coordinators at five institutions in Amhara and Benishangul-Gumuz have participated in academic commission meetings.
- Orientation provided to six newly assigned gender focal persons in two universities and four colleges in Amhara.

Advocate for the implementation of sexual harassment policies

Sexual harassment is one of the common elements of gender based violence that occurs among university students and can affect their educational performance. In order to prevent sexual harassment at HEIs and also take corrective measures whenever incidents happen, the FMOE has developed and disseminated a sexual harassment policy to universities. The HRH Project encouraged gender offices to effectively implement the policy since its program years III and IV. This year too, the Project continued to advocate at the leadership level to obtain their buy-in for operationalizing the policy at institutions as a result using FAA resources, awareness creation of the anti-sexual harassment policy, adolescent and youth sexual health were conducted by gender offices at 17 institutions. A total of 616 students and 71 academic staff were oriented. The Amhara RHB too was briefed on the importance of the policy. The RHB's representatives committed to work with the gender coordinator to develop and avail the policy at the RHSCs level.

Support gender offices to provide need based assistance to female students

As part of coaching visits, the HRH Project provided technical support to four gender offices in SNNPR to help female students improve their performance and be retained in their programs. The following key activities were implemented.

- **Tutorial classes** were arranged for 81 female students at Mizan-Aman HSC
- **Life skills orientation** was conducted for 37 female students at Mizan-Tepi University.

- The gender offices in many institutions posted counselling schedules and have been **providing counselling services**. Example: 15 students were provided counseling services in this quarter at Mizan-Aman HSC and 10 at Hosanna HSC.
- A **zero risk plan** room was opened where female students can have open and free discussions with the gender focal person and among themselves at Wolaita Sodo University.
- **FP counseling** for female students was provided at Hosanna HSC.



Female students having discussions in the Zero Risk plan room at Wolaita Sodo University



Recognition of best performing female students at Dilla University

Award high performing female students from each department

Rewarding high performing students creates healthy competition among students and motivates them to successfully complete their academic requirements. With funding from the FAA, gender offices at eight institutions awarded certificates, financial incentives, textbooks and stationery for 64 high performing students.

Provide financial assistance to female students facing severe financial challenges

The HRH Project supports gender offices to provide modest financial assistance to the most economically challenged female students. These female students use the money to buy stationeries, sanitary materials and other essential items. The Project provided financial support to 117 female students in eight institutions.

Support gender offices to strengthen systems for preventing gender based violence (GBV)

Gender offices have been conducting activities which help to strengthen systems for preventing gender based violence (GBV), including conducting annual celebration days, providing life skills training, and orientating newly enrolled female students. The Gender Directorate at Arbaminch University conducted an annual celebration day with the motto of “STOP VIOLENCE AGAINST WOMEN”. During the event, a panel discussion, presentation and other related events which increase awareness to preventing/stopping gender based violence took place.

➤ In addition to the FAA resources, the gender office at **Metu University** spent a total of 208,800 ETB this year to support students with special needs and critical financial challenges through advocacy by the Project and planning by the gender office.

Metu University also utilized 25,750 ETB from internal sources to award best performing students. The University has also requested a total budget of 335,000 ETB for the next academic calendar for similar purposes.

➤ Similarly, **Mizan-Aman HSC** gender office established a charity club, mobilized resources from the college staff and students and deposited more than 23,000 birr and started supporting students with severe financial constraints.

Support institutions to generate evidence on the retention of female students

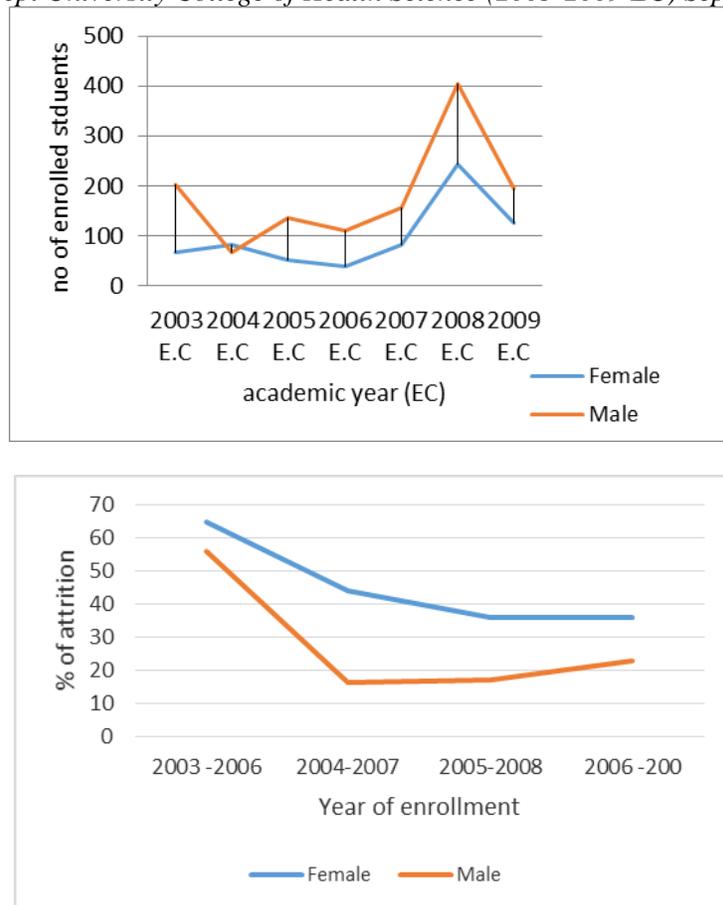
The HRH Project has been working with institutions to generate evidence related to academic performance of female students.

- Using the Projects’ grant awarded to gender offices through FAA, Dessie HSC’s Gender Office developed a research proposal entitled ‘*Factors affecting academic performance of female*

students in Dessie HSC' to generate evidence related to their academic status and related factors. Currently, the office is in the process of seeking ethical clearance to conduct the research.

- The Gender Office at Mizan-Tepi University retrospectively analyzed secondary data collected from the registrar from 2003-2009 EC. The data showed that female students' enrollment and success rate/graduation is low and the attrition rate is high when compared with males (See figure below). The evidence generated by the gender office will service as a baseline for further studies. The gender office planned to present the finding to the University community for action. In addition, other gender offices agreed and planned to generate evidence in the coming quarters using FAAs.

Figure 2: Trend of enrolment (upper) and attritions rate (lower) of male and female student in Mizan-Tepi University College of Health Science (2003-2009 EC) September 2017



Support gender offices to improve documentation of gender related accomplishments

With the support of the HRH Project, gender offices at the 52 supported institutions have accomplished a number of tasks that have supported female students to successfully advance in their training. The Project has also been supporting gender offices to improve reporting and documentation of their activities to sustain performance, smooth transitioning and improve availability of data for decision making. In Quarter 3, the Project supported documentation of gender functions at 10 institutions in Amhara, Tigray and SNNPR which included event reports, pictures, reports of tutorial sessions and others.

Presentation on the HRH Project’s effort to address gender disparity among health students of Ethiopia: a Satellite Reception for UN Commission on the Status of Women

Representatives from the HRH Project and the FMOE (Director of the Gender Directorate), attended a satellite event conducted at the UNICEF headquarters office in USA on March 2017, and participated in a panel that focused on the intersections between gender inequalities, healthcare provision, PSE, and women’s economic empowerment. The HRH Project inputs in addressing gender disparities among health students, and the Project’s national level collaboration with the FMOE and the Federal Ministry of Women and Children Affairs were presented during the panel discussion. As a result of the discussions, participants from other African countries such as Tanzania requested for opportunities to share experiences and lessons learned with Ethiopia, given the need for similar interventions in their country. It is hoped that these discussions will lead to potential further opportunities for south-to-south collaborations and learning opportunities.

3.1.7. Improve students' clinical training

Public and private institutions were using limited numbers of clinical practice facilities which resulted in overcrowding of students at health facilities and ultimately posed a threat both to the service delivery and education quality. The HRH Project has been working very closely with institutions to expand clinical sites, sign MOUs with health facilities, train preceptors and advocate for institutions to assign program level clinical education coordinators. The following activities were conducted this year:

Support institutions to expand their clinical practice sites and sign formal agreements

To ensure that health science students are competent upon graduation, they require adequate exposure to practice on real patients during clinical attachments. However, many students do not have sufficient opportunity to do so because of overcrowding at the clinical sites. The HRH Project has been supporting institutions to identify sites and enter formal agreements with them through signing of MOUs previously. This year, **six** institutions expanded clinical practicum sites. (See table below)

Table 19: HEIs and their expansion of clinical practice sites for clinical practice sites

Institution	Clinical Practice Sites
Araya Khasu RHSC	Expanded its clinical sites to six hospitals, 17 HCs and 40 health posts.
Dr. Tewolde RHSC	Agreed with 35 health facilities for practical training.
Mettu University	Signed MOU with three hospitals and three HCs to make the total number of practicum sites eight.
Negele HSC	Identified two additional sites to increase the total number of clinical practice sites from 18 to 20.
Semera RHSC	Agreed with ten health facilities for practical training.
Semera University	Agreed with seven health facilities for practical training.

Organize workshops to improve collaboration and coordination of clinical practice among teaching institutions and practice sites

The HRH Project provided technical and financial support to institutions to organize two regional workshops in Amhara and Tigray. A total of 121 representatives from RHBs, civil service bureaus, the COC agencies, deans, health facility leaders and professionals associations participated in the workshops. During the workshops:

- Current challenges of clinical practice were discussed and possible solutions identified.
- Training institutions and affiliated practice sites agreed to sign new or renew existing MOUs, engage hospital staff in clinical teaching, and orient students on hospital rules, regulations and professionalism before their clinical attachment.

- The national clinical practice guideline was discussed.

After the workshops, some institutions and health facilities started to work collaboratively as below:

- Hospitals in Tigray received medical equipment such as incubators, patient beds, physiotherapy materials and equipment maintenance assistance from universities.
- Axum University provided a technical update training for hospital staff.
- Araya Kahu RHSC developed a standard operating procedure for nurses and shared it with Axum Hospital.

Conduct advocacy at training institutions to select motivated preceptors and develop their skills with CTS training

Preceptorship is essential for students in the clinical practice to gain hands on experience in the health care setting. Students receiving inadequate guidance at the clinical practice sites may not acquire the required competencies. Selecting and assigning motivated preceptors in the clinical practice sites is critical, but many institutions do not have adequate numbers of trained preceptors. The HRH Project advocated with all HEIs during routine coaching and mentoring support and emphasized the importance of selecting and training motivated preceptors in the clinical sites. As a result:



Fourth year anesthesia students performing induction of anesthesia for a woman undergoing CS at University of Gondar

- Araya Kahu RHSC to train 41 preceptors on CTS who have agreements with the college to support students' during clinical attachment.
- Dr. Tewelde conducted trainings on CTS, occupational standards, and teaching and learning materials for 132 preceptors from practice sites.
- Debre Markos University trained 16 preceptors
- Pawe RHSC trained 30 preceptors on CTS.
- Five institutions in Oromia selected motivated and experienced health providers from clinical practice sites as preceptors and have planned to train them on CTS in the coming quarters.

Support health training institutions to assign one motivated clinical practice coordinator at program level

The HRH Project continuously advocated with institutions to assign one motivated clinical practice coordinator at the program level. As a result, 11 institutions were able to assign program level clinical coordinators. At the University of Gondar, the clinical coordinators ensured that faculty, in anesthesia and medicine departments are closely supporting and coaching their students during clinical practice.

Consult with universities and clinical practice sites to explore feasible mechanisms to strengthen the quality of health officer clinical training

The 2015 national licensure exam results revealed a strikingly low pass rate among most of the graduates especially health officers in Debre Markos University. Inadequate practice opportunity for health officer students was one of the main contributing factors for student's low performance. In order to improve the dire condition, the HRH Project worked with the public health officer department at Debre Markos University and Debre Markos Referral Hospital to discuss feasible mechanisms to improve health officers' clinical training. The following suggestions were outlined as feasible mechanisms:

- Avoid information overload through reviewing curricula.

- Give equal attention and adequate clinical practice opportunity for health officers training as medical students.
- Assign motivated preceptors to manage the clinical practice.
- Make the internship program more effective with close student follow up.

Distribute and support utilization of treatment protocols and service guidelines

As part of standardizing education through promoting evidence-based practices in clinical education sites, The HRH Project previously distributed national guidelines to all institutions, HSEDCs and their clinical practice sites. This year, the Project distributed the following national and international guidelines to institutions in Tigray, Afar and SNNP regions.

1. National Guideline for Family Planning Services in Ethiopia, FMOH, Oct, 2011	6. National Strategy for Newborn and Child Survival in Ethiopia
2. National Malaria Guidelines, 3rd edition, FMOH, Addis Abeba, Jan 2012	7. Ethiopia Demographic and Health Survey
3. Tuberculosis, Leprosy and TB/HIV prevention and control program, FMOH	8. New WHO recommendation on ANC
4. Infection prevention and patient safety training resource package, participant’s manual, April, 2012, AA, Ethiopia (For Samara RHSC)	9. FMOH final CRC documents
5. Health Sector Gender Training Manual, FMOH, Dec 2013	10. Ethiopian National Health Care Quality Strategy
	11. Syndromic case management of STI
	12. PMTCT option B+ guideline
	13. Comprehensive HIV prevention, care and treatment guidelines

Additionally the Project distributed soft copies of 12 national service delivery guidelines on Malaria, STIs, TB/HIV, Nutrition and infant feeding, Family planning, and medicines formulary to Negele HSC and Medawalabu University. In order to ensure access and utilization of guidelines by instructors and students, HSEDCs availed soft copies of the guidelines in e-libraries, and posted the list of guidelines on a notice board.

Through FAA, support HSEDCs to standardize clinical practice by developing explicit course syllabi for each clinical attachment

Clinical learning is not well designed and articulated in the curricula of health training programs in many institutions. Developing clinical practice course syllabi can help to address this challenge. With funding from the FAA:

- **Six** institutions (Dire Dawa, Mekele, Adigrat and Axum universities; and Dr. Tewelde and Semera HSCs) developed clinical course syllabi for 6 academic programs (Medicine, Nursing, Neonatal Nursing, Health Officer, Medical Lab, and Pharmacy). As a result, a total of 18 standardized clinical practice course syllabi were developed.
- **Woldeya University** was also supported on the revision and updating of course syllabi, and student clinical attachment evaluation formats for 9 clinical courses. In addition, the Project supported the University to organize a two-day workshop for 23 staff to disseminate and start implementation of the national clinical practice guidelines to improve clinical coordination, supervision, and performance assessment.

Table 20: Clinical course syllabus developed by HSEDCs, Jan – Apr 2017

Institution	Program	Clinical course syllabus
Axum University	Health Officer	Community based training practice
	Laboratory	Medical Laboratory Clinical practice I
	Neonatal Nursing	Introduction to Neonatal Nursing Clinical practice I
	Nursing	Fundamentals of nursing practice

		Psychiatry nursing practice I
		Foundation of surgical nursing care
	Pharmacy	Pharmacy practice II
	Medicine	Emergency surgical and lifesaving skills
		Gynecology and obstetrics year four practice
		Internal medicine clerkship I
Adigrat University	Medicine	Pediatric and Child health clinical year I
	Nursing	Medical surgical practicum
		Fundamentals of nursing practicum
		Obstetrics and gynecology Practicum
		Psychiatry Nursing practicum I
		Medical nursing practicum
Dr Tewelde RHSC	Nursing	Clinical nursing practicum for level III students
Semera RHSC	Nursing	Clinical nursing practicum for level II students

Through FAA, provide financial and technical support to HSEDCs to conduct review meetings with respective practicum sites

With funding from the FAA, HSEDCs in 10 institutions organized a one-day review meeting with their respective clinical practice sites, RHBs and other stakeholders to establish a collaborative working relationship and create a positive environment for student clinical practice. During the review meeting, key challenges related to practicum training such as challenges of implementing guideline and roles, responsibilities and required resources from parties were discussed and action points identified. In addition, the existing MOU with the clinical sites were reviewed and signed to continue existing or establish new partnerships. (See table) In addition, orientation was given to 14 faculty members on implementation of the national clinical practice guideline.

Table 21: HEIs and health care facilities who established formal partnership, 2017

Training institutions	Health Facility
Arsi University	Ambo Hospital
Dilla University	Bona, Kebado, Ammanuel, Sodo (Wolaita) Christian, Worabe and Hawassa University hospitals
Gambella HSC	Gambella and Pinyudo hospitals and Gambella Town, Aboll, Itang, Lare and Abobo HCs
Nekemte HSC	Dambidolo, Kake and Medi hospitals, and Iffa, Gute, Guder and Jimma Arjo HCs.
Wolita Sodo University	Halaba, Worabe and Bombe hospitals
Wollega University	Nekemte, Nedjo and Shambu hospitals

Support institutions to improve clinical practice through orientation and engagement of students

This year Araya Kahsu RHSC conducted an orientation on ethics and professionalism for students and instructors before their deployment to clinical attachment sites including procedures to follow at the facilities.

Support institutions to conduct quality audit of their clinical practice sites

Dr. Tewelde RHSC conducted an assessment using a standardized checklist to assess the quality of clinical teaching in health facilities. The College achieved 70% of the standards related to quality of clinical education. The identified gaps in clinical attachment will be addressed during the upcoming quarter.

As part of FAA, support HSEDCs to develop and implement a student assessment policy

During coaching visits in Quarter 4, the HRH Project provided technical support to HSEDCs at **two** universities in SNNPR with the aim of developing student assessment policy including during clinical practice. The HSEDCs used FAA resources to organize a workshop for faculty from all programs. As the result, student assessment polices were developed and shared with the Colleges' academic commission for endorsement.

Document best practices in improving clinical practice

In the last quarter, the best practices regarding clinical practice 13 HEIs in Amhara region were documented, which shows:

- Institutions signed MOUs with a large number of clinical sites with seven out of them having more than 15 clinical practice sites.
- Institutions provided infrastructure, material and clinical instructors to clinical sites.
- Preceptors are trained by HSEDCs to facilitate the clinical education.
- Interviewed students verified that opportunities to have hands on practice on real patients through direct observation of preceptors is improving.
- A range of student assessment procedures are being used at clinical sites including 3600 degree evaluation.
- Institutions have adopted and disseminated the national clinical practice guideline.
- Faculty are regularly assigned to oversee the students' assignment at clinical sites

3.1.8. Strengthen the use of clinical simulation based learning

Support HSEDCs to strengthen skills assessment in a simulated environment using OSCE

The HRH Project has provided technical support to HSEDCs, faculty members and lab assistants in the year to strengthen clinical skills assessment in a simulated environment using OSCE. As continuation of the efforts, the Project provided technical support to nursing, anesthesia, midwifery and psychiatry programs in Wolkite and Dilla universities to strengthen clinical skills assessment using OSCE. Checklists for skills assessment were also developed.

Through FAA, support HSEDCs to train faculty on clinical simulation-based learning

The Project supported **13** training institutions to conduct faculty development on simulation based teaching. As the result, a total of **235** faculty members from nursing, midwifery, laboratory, pharmacy, and other programs were trained on simulation based learning. (Details in section 3.1.3. faculty development)

Support institutions to organize their skills laboratories for better student learning

The Project provided technical support to four institutions to improve the arrangement, storage, management, and utilization of models and equipment in skills laboratories. Four skills lab in Gambella RHSC, Arbaminch RHSC, Dilla University and Wachamo University improved the layout of their skills lab and arranged the learning stations based on competencies. The institutions were also provided with a skills lab management guideline.



Second year midwifery students practicing positioning and attachment techniques for a breastfeeding woman using role play in the simulation center, Debre Tabor University

Provide technical support to teaching institutions to create opportunities for students to practice independently in simulation centers, with structured feedback

Through the regular mentoring and coaching visits, HRH staff observed the skill lab at HEIs, and discussed with skill lab assistants, department heads, HSEDC focal persons and deans on the need to improve students' opportunity to practice independently in the skills lab. This includes allowing students to use the skills lab in the absence of a teacher or lab assistant, re-organization of the skill lab by stations to teach different competencies, and availing learning guides for different skills. As a result of these ongoing discussions, Pawe HSC is using the 1-to-5 student network for the skills lab practice and the leader of the 1-to-5 network keeps a key for the skills development lab so that students can access the skills lab for independent practice at any time including the weekend.

3.1.9 Improve Technology Supported Learning

Through staff seconded at the FMOH, the HRH Project has been providing technical support to 13 new innovative medical education initiative (NIMEI) universities to improve utilization of information communication technology (ICT) for medical education. The also Project continued to support institutions this year as follows:

Provide technical support to FMOH to strengthen management of E-Learning for medical education

The HRH Project provided technical support to the FMOH to facilitate an experience sharing workshop for 13 NIMEI schools (two IT staff from each school attended). The performance of e-learning was evaluated, and best practices and challenges were discussed. In addition, the Project supported the FMOH to conduct training on Smart Board installation, e-Library system configuration, and system management to 26 IT staff from the universities. The Project also supported the following activities:

- Set-up a videoconference system for Arba-Minch university to teach basic science courses using experts from St. Paul Millennium University
- Distribute and support installation of smart board hardware at the 13 universities.
- Collect and insert more than 200 e-books in the e-library system
- Identify and fix 33 defective tablets from eight universities

Provide technical support to FMOH and hospitals to strengthen quality of health care through strengthening telemedicine

The HRH Project has been providing technical support to the FMOH for the establishment and strengthening of a telemedicine system with the aim of improving referral system and quality of health care. Technical support was providing for the following activities:

- Consultative national workshop to create ownership of the system where 60 selected hospitals (spoke), 9 Specialized hospital (hub) and 11RHB representatives participated
- Preparation of bid documents for the implementation of telemedicine
- Discussion with Ethio telecom for provision of network connectivity between the hospitals
- Designed a nationwide radiology/medical data connectivity/referral system to facilitate teleradiology consultations.
- Coordinated the inspection of computers at 60 sites purchased for teleradiology use, and configured and installed teleradiology consultation software at each site.
- Conducted a consultative meeting focusing on the reimbursement mechanism for teleradiology services. The meeting was attended by representatives from St. Paul, Addis Ababa RHB, Yekatit, Minilik, ABET, and Worabe hospitals.
- Supported the FMOH to distribute computers and UPS to the 60 spoke sites for teleradiology.
- Supported Black Lion, Gondar, Felege-Hiwot, Jimma, Hawassa, Ayder and HiwotFana hospitals to purchase, inspect and configure servers to support telemedicine. Support included distribution and set-up of the servers, and onsite training for staff at the hospitals.

- Provided technical support to configure computer/Digital Radiology equipment at 4 spoke sites with VPN
- Conducted user and technical training on tele-radiology system for a total of 73 radiologists, radiographers and IT experts
- Supported the 60 hospitals to secure VPN/Web-IP
- Established team to support basic implementation of data access and security, and implementing a tele-radiology system

Provide Technical Support to FMOH strengthen evidence-based decision making at health facilities through M-Health and Interactive Voice Record (IVR)

The HRH Project has provided technical support to the FMOH in strengthening evidence based decision making at health facilities using mHealth, IVR and a dashboard system. This will enhance data exchange, supply chain management and consultation at health post level in five languages (English, Amharic, Tigrigna, Oromifa and Somali). In the first quarter, the Project generated personal identification numbers (PINs) for health posts, configured one server and 100 computers, and conducted training for users. In the second quarter, the Project provided technical support for the following activities:

- Conduct experience sharing workshop for 11 RHB IT staff to evaluate the status of implementation.
- Distribute 100 computers to 7 regions: Tigray (10), Afar (20), Amhara (17), Oromia (21), SNNP (12), Gambella (8), Beninshangul (12).
- Provide for IVR training for Somali region
- Dashboard user training for 276 users from six regions
- Training on IVR and dashboard for 17 experts from various directorates and agencies of the FMOH
- Conducted training and post training follow-up on IVR and the dashboard system for IT staff from Beninshangul-Gumuz, Gambella, Oromia and SNNP Regions.
- Addressed technical issues related to the server and dashboard application

The Project continued supporting this system in Quarter 3 with the following activities:

- Checked and solved functionality problems on the free call number (8756)
- Reported the number of cases sent by HEWs to RHBs
- Technically addressed maintenance issues related to the server and dashboard application
- Provided technical support to ensure that the system can be interoperable with electronic community health information system and district health information system.
- Start surveying stakeholders on the challenges, experiences or achievements of the IVR system

Support FMOH to establish ICT infrastructure for medical education

The HRH Project has been providing technical support to the FMOH to establish video conference, smartboard, and e-library systems in medical schools. In Quarter 3, the HRH Project technically supported configuration of the WoredaNet to facilitate video conferencing at 3 medical schools (Axum, Medawalabu and Yirgalem). It also assisted with installation and configuration of smartboard at nine medical schools. With regard to improving the e-library system, technical assistance was provided for the following activities:

- Provision of 2nd round onsite training to faculty and students at 7 universities (Aksum, Walkite, Medawalabu, Wachamo, Adigrat, Salale and Hawassa), and configuration of the e-library system.
- Distribution of additional 2,232 tablets for 1st year medical students.
- Monitoring and maintenance of tablets at 28 universities.
- Survey on the use of the tablets and e-library with 8 deans, 16 IT staff and 160 students from 8 selected universities to improve the functionality.

In Quarter 4, the HRH Project technically supported re-configuration of the videoconference system in Wolita, Dilla and Medawalabo universities. Follow-up and technical assistance was also provided to 18 universities on enhancing the use of e-library system. The Project also supported the FMOH to inspect and distribute 2,900 tablets to 25 universities.

Support FMOH to introduce a primary physician examination system

The primary physician examination system is a technology assisted platform integrating performance of electrocardiogram, and heart rate, temperature, blood pressure, oxygen saturation, blood glucose, and routine urine test measurements. It facilitates health checks, evaluation, consultation, remote medical treatment and online education. The FMOH plans to introduce this system to the tertiary hospitals as one way of improving the quality of medical care. In the third quarter, the Project supported the FMOH to finalize the primary physician examination system concept paper.

3.1.10. Improve Student Selection and Admission Systems for Health Training Programs

Support FMOH to Register and Admitting the 6th Round New Innovative Medical Education (NIMEI) Program Entrants

The NIMEI education admission criteria, registration and recommendation forms were updated in the previous program year. In this reporting period, the HRH Project provided technical support to the FMOH, FMOE and training institutions to effectively carryout the registration processes. Follow-up was conducted to check whether applicants were registered according to the set admission criteria. The following additional support was also provided:

- Supported the conduct of a written entrance exam in collaboration with the Addis Ababa University, the National Examination Agency and the Institute of Education and Research. The exam was administered in 13 institutions for a total of 1312 applicants (1162 male and 150 female). A notable improvement in this process was the inclusion of 20 aptitude questions in the exam.
- The entrance exam results were analyzed and provided to the applicants. A total of 721 (55%) applicants (643 male and 78 female) passed the entrance exam.
- Previously, the admission policy was based solely on an assessment of applicant's entrance exam scores, and did not consider aptitude and student's motivation and personal attributes. Starting from this year, the FMOE and FMOH will include behavioral interviews as part of the process, and the HRH Project supported development of structured interview questions to assess compassion, empathy, honesty, integrity, perseverance and commitment, communication and interpersonal skills, and reasoning and decision-making skills. The interview is scheduled to take place in the next quarter.

Support FMOH to organize a NIMEI schools consultative workshop

In March 2017, the Project supported the FMOH to organize a two-day consultative meeting with all 13 NIMEI schools' deans. Discussion focused on challenges with the teaching, academic policies, and lack of clinical practice sites. Potential solutions were also discussed.

Support FMOH to develop guideline and exam items for residency matching

The National Residency Matching Program (NRMP), is a new program recently introduced by the FMOH and is designed to recruit, select and place medical doctors at local Universities for various specialty postgraduate programs. The program will be coordinated nationally at the FMOH to facilitate student recruitment, examination and matching. The HRH Project helped with developing a concept note, and provided technical support in developing a national guideline and admission exam items for residency matching. Over 40 medical specialists and subspecialists participated and supported the development of exam blueprints and multiple choice questions for their respective specialties. The exam items will be used to screen applicants for residency programs nationally.

3.1.11. Support the HERQA to Strengthen Accreditation and Quality Audits for Health Professionals Education

The HRH Project has been supporting HERQA to improving accreditation and regulation of health professionals' education.

Support HERQA to increase its pool of qualified audit assessors for health programs

In Quarter 3, the Project financially supported HERQA to conduct the ninth round of quality auditors' training for 34 participants, to help expand the national pool of peer assessors for educational quality audits. The majority of the trainees are from public universities and have qualifications equivalent to a Master's Degree or above in Medicine and Public Health. During this training, essential concepts of quality, quality assurance, implementation of HERQA's program level standards, and quality audit manuals were reviewed.

Support HERQA to train accreditation assessors

The HRH Project also provided financial supported to HERQA to conduct the fifth round of accreditation assessors training for 47 participants, to expand the pool of national accreditors for health training programs and others. During the four-day training, essential concepts of quality, accreditation, program accreditation standards, implementation guidelines, procedures and laws were discussed. In addition, the training developed the competency of accreditors for practical application of accreditation of private health sciences and other academic programs.

Support HERQA to review national accreditation directives

The HRH Project Provided technical and financial support to HERQA in previous quarters to improve accreditation, quality audit and professional inspection which would enable the agency to effectively regulate health training institutions. As part of these efforts, during the last quarter, the Project provided financial support to HERQA to conduct a workshop to review the existing national accreditation directives. Twenty accreditation experts from HERQA, Universities, private colleges and professional associations participated in the workshop and developed a draft document which will be finalized in the coming quarter.

Attended and present HRH Project contribution at national and global conference

As part of showcasing what the HRH Project is contributing to HCPs' education in Ethiopia, the Project developed abstracts, success stories and manuscripts and shared at relevant conference and other outlets. As part of this effort, the Project developed and presented two abstracts (See Result Result 4) at the 2017 Association of Medical educators in Europe (AMEE) 2017 conference. In addition, the conference gave opportunity for the Project to learn, network and exchange ideas with various people and companies working on Medical Education and Assessment across the world.

3.1.12. Support the Federal Technical and Vocational Education Training (TVET) Agency and its regional counterparts to strengthen health worker training

Provide technical and financial support to FMOH/TVET to develop, revise and update the existing health professional occupational standards

Occupational Standards (OS) are composed of units of competence that define a particular scope of work resulting in a product, service or decision. It serves as the platform to determine the level of qualification, curriculum development, competence assessment and certification, overall improvement of quality of PSE and other aspect of HR management and development. Considering the current and future market demand, technology and economic changes, the current recognized occupations and international best practices, OS should be closely monitored over time and must be kept up-to-date once they are developed and published. The HRH Project provided technical and financial support to FMOH/TVET to revise and update the existing occupational standards of **11** health cadres which included health extension workers, nurses, emergency medical technicians,

medical laboratory personnel, pharmacy professionals, radiographers, health information technologists, midwifery, massage professionals, prosthetic and dental. During the review, occupational standards were analyzed for their comprehensiveness and rigor to match with the demands of jobs, market & current socio-economic and technological shift. Unit of competencies were strengthened in each occupational standards and finally aligned with the national qualification framework.

Provide technical and financial support to FMOH/TVET to develop model curriculum as per the revised occupational standard

The HRH Project provided technical and financial support to FMOH/TVET to design and develop 11 model curricula for the cadres mentioned in the above activity based on the revised occupational standards. The support will enable training institutions to better prepare health professionals who shall provide quality patient care and effectively meet the challenges of national health care systems.

Support the TVET to conduct program level quality audits at 12 training institutions

Program level quality audits help to monitor the quality of education, and identify gaps that need to be addressed. In Year 4, the HRH Project supported the TVET Agency to develop standards that can be used to systematically conduct audits. This year, technical and financial support was provided to conduct audits at 12 institutions in 6 regions. Results of the audits are being analyzed. Upon completion, audit reports with feedback will be sent to institutions and other stakeholders.

Finalize and distribute QI standards for all mid-level HCPs' training institutes

The HRH Project has been supporting training institutions to create a quality improvement culture through developing tools, training of staff, establishment of HSEDCs, coaching teams and reviewing of QA efforts. As part these continued efforts, the Project supported the Federal TVET agency to finalize and endorse the national TVET program level QI and accreditation standards for nursing, midwifery, pharmacy, medical laboratory and anesthesia programs in this quarter. In addition, the Project supported the TVET to print 125 hard copies of standards which were distributed to institutions, RHBs and regional TVETs.

3.1.13 Support the FMOH to Implement the National Licensing Exam for Health Professionals

This year the HRH Project continued to support the FMOH in strengthening the national licensing examination for health professionals as follows:

Support FMOH to restructure and upgrade the national licensing exam team to directorate level

The HRH Project supported the FMOH to develop and review the organizational structure of the proposed National Licensing Examination Directorate, which was finalized and approved by FMOH leadership. In the new structure, the national licensing examination directorate will have three case teams (registrar team, item development team, exam administration and management team). Each case team will have four tiers of positions, and the Project supported the development of 16 JDs for these positions using the point rating method to facilitate recruitment of relevant experts. In the third quarter, the HRH Project provided technical assistance to the national licensing examination unit at the FMOH to develop a proposal to upgrade it to a directorate-level. The Ministry of Public Service and Human Resource Development (formerly Civil Service Agency) approved for the unit to be upgraded to the Licensure Examination Directorate that will be reporting to the State Minister. The structure, teams (The registrar, exam development and administration), staff and resource requirement for the directorate were identified. The FMOH

committed to fulfill the needs of the Directorate so as to implement licensing examination effectively and efficiently.

Conduct advocacy workshop to prepare institutions for practical exam and computer based testing

The HRH Project supported the FMOH to conduct an advocacy workshop with deans of medical schools aimed at discussing the infrastructure requirements for implementation of OSCE and computer-based testing (CBT) with emphasis on identification and establishment of exam centers at training facilities. A consensus was reached that HSEDC focal persons at training facilities shall act as a liaison between the FMOH and the training institutions. These focal persons will conduct a readiness assessment of potential exam centers at schools to handle OSCE and the computer-based testing CBT for the various cadres of students. The assessment shall be used to identify capable exam centers and identify specific gaps to strengthen those exam centers.

Support FMOH to develop exam center readiness assessment tool

The HRH Project supported the FMOH to develop the Exam Readiness Assessment Tool (ERAT), which will be used to identify/establish exam centers for computer-based testing as well as OSCE at training institutions. This tool shall serve as a minimum standard to establish exam centers capable of hosting the exam program.

Conduct OSCE Readiness Assessment

With support from HRH Project, the FMOH and the Royal College of Surgeons of England jointly conducted a workshop to present and revise a readiness assessment for establishing the practical component of a licensing examination (OSCE) for universities selected to establish examination centers. The goal of the workshop was to create awareness on the complex process of setting up and managing an OSCE in a resource limited environment, to revise the assessment tools, and conduct a base-line assessment. The tool was revised and agreement for baseline self-assessment at each institution establishing exam centers reached through engagement of the HSEDC focal persons, college deans and academic leaders

Support FMOH to solicit budget for licensure examination

The HRH Project provided technical support to the FMOH to develop a grant proposal for National Licensure Exam support submitted to the European Union. The FMOH has already won a project worth **1.98 Million Euros** to implement computer-based testing and launch OSCE in 2018 as part of the licensure exam for specific cadres. The budget includes resources to support capacity building efforts.

Support FMOH to develop legal framework for licensure examination

The HRH Project supported the FMOH to conduct a workshop to draft a legal framework for licensure examination. Stakeholders (partners, professional associations, legal department at the FMOH and national board exam team members) participated in the workshop which resulted in the development of the first draft of a proclamation which will be refined and presented to a wider audience from all stakeholders and regions. The draft implementation guideline for licensure exam also reviewed and updated at the workshop.

Develop the capacity of the FMOH to score licensure examinations and analyze exam items

In the first quarter of the year, the HRH Project supported capacity development of the national board exam unit at the FMOH to effectively conduct scoring and item analysis through on the job training. The results of previously 10,000 tested candidates were used for this training.

Provide technical support to the FMOH in develop a test blueprint for national licensure

examination

One of the means for ensuring validity of the national licensure examination is test blueprinting. Test blueprinting is the means of identification of “what” has to be assessed, in terms of relevant knowledge areas, essential skills and desirable attitudes in relation to educational outcomes. In Quarter 3, the Project provided technical support to the FMOH to develop blueprint for pharmacy and laboratory technology professionals which include selecting appropriate frameworks, identifying key knowledge, skill and attitude domain areas, estimating the test weight and developing a learning outcome for each graduates.

Support the FMOH to develop licensing examination items

The HRH Project supported the Licensing Examination Directorate of FMOH to organize a workshop for 100 subject matter experts trained as national exam developers to write test items. So far, under guidance and technical support, the item writers developed 6,000 multiple choice questions test items for medicine, midwifery, nursing and health officers programs and expanded the national item bank. To improve the quality of items developed, the experts had one-to-one coaching from the technical team and conducted peer-reviews amongst themselves.

Support the FMOH to assemble exam items and administer licensing examination

The Project also supported the FMOH to assemble 200-items for this year’s medical licensing examination. Additional support was provided to the FMOH to administer the licensing examination for **1138** medical graduates from different medical schools.

Support the FMOH to disseminate results of the licensure exam to institutions and graduates

The results of the licensure exam and the feedback report were disseminated to training institutions. The report included the scores for all graduates, the pass rate, and performance by domain for each cadre. It is expected that this information will help institutions to address areas of weakness in their curricula based on the results.

Document and disseminate the national licensing examination experiences

In the third quarter, the Project supported the FMOH to develop and present a poster abstract entitled “*Using the National Licensing Exam as a Catalyst for Increasing Social Accountability of Health Professionals Education in Ethiopia*” at the World Summit for Social Accountability/Annual Meeting of the Network Towards Unity For Health (TUFH), held in Tunisia. During the summit, the FMOH expert showcased the countries achievement on licensing, held valuable discussions with global leaders in the field of medical education and assessment and gained important lessons from medical licensing exam experiences in other countries. The FMOH is also drafting a fact sheet on the high level achievements on licensing and the contributions made by its partners.

IR 3.2. Standardize and Institutionalize In-service Training (IST) of Health Workers

A well-organized and effective IST system is the mainstay of maintaining competencies of health providers. Need based IST improves health service quality, including RMNCH, TB, HIV and malaria services. The HRH Project has supported the FMOH to establish and strengthen 50 IST centers. With the aim of sustaining and creating effective ownership for the initiated IST activities, the following activities were conducted in this quarter:

3.2.1. Develop the capacity of national IST System

Review and adapt the Jhpiego CTS and ID skills training manual to the Ethiopian context

Previously, many training course developers and curricula reviewers in Ethiopia have completed the Jhpiego-led CTS and ID skills course. This course prepared them to develop IST courses on national priority health problems, and appraise curricula for PSE. The course were developed for a

global audience and within the context of reproductive health services and does not appropriately address the current national IST strategy and guides which were developed recently. The FMOH has planned to adapt these training packages to ensure that they can easily be used for many health agendas, and is in line with the national IST guides and strategies. Therefore the FMOH requested the HRH Project to review, update and contextualize the course package for its use. This year the Project provided technical and financial support to the FMOH to develop the first draft of national CTS and ID skills course packages. The CTS training packages is under review for approval by FMOH, whereas the FMOH piloted the ID skills training package in Quarter 4. With technical support from the HRH Project the FMOH conducted an ID training using the new package to 32 staff from IST centers, professional associations, and private institutions. As part of the training, the participants developed seven draft training courses which are under review. (Also see in 3.2.3)

Support the FMOH to assess and standardize newly developed training manuals

In the previous years of implementation, the HRH Project has been supporting the FMOH, professional associations and other stakeholders to develop 40 standardized IST courses on national priority health issues. The Project has also supported the approval, dissemination and utilization of the standardized training packages at various directorates within the FMOH, RHBs and partners. As part of ongoing support, the Project provided technical support to the FMOH to review and standardize the following training packages this year:

1. Critical Incidents and Basic Life Support
2. Adolescent and Youth
3. Basic X-ray Equipment
4. Basic Lab Equipment MET.LAB 103
5. Nursing Care Standards
6. Operation Room Medical Equipment Maintenance
7. Pharmaceutical Distribution Management
8. Pharmaceutical Supply Chain Management Monitoring and Evaluation
9. Pharmaceutical Warehouse Operation Management
10. Integrated Pharmaceutical Logistic System
11. National Comprehensive HIV Care Training for Pharmacy Professionals
12. Malaria Case Management Training Manual for Health Professionals in Ethiopia
13. National Comprehensive HIV Testing and Counseling Training Module.
14. Problematic Alcohol Use And Its Management
15. Prevention and Risk Factors for Non-Communicable Diseases
16. Refresher Training on Syndromic Management of Sexually Transmittable Infections
17. Psychosocial social support
18. Oxygen Therapy in Children and Adults
19. Basic Life support
20. FP and HIV service integration

Training packages that fulfilled the standards were approved whereas those that did not fulfill the criteria were sent back to course developers for revisions with feedback to improve for standardization and with provisional approval.

Support the FMOH to develop and standardize a training manual

As part of standardizing IST packages, the HRH Project collaborated with other partners in supporting the FMOH for the finalization of the national CRC training package. In the first half of the year, the Project supported the FMOH to train 60 CRC facilitators from all regions in a national training of trainers course organized by St. Peter Hospital's IST center and the FMOH. Out of the trainees seven were IST center staff previously trained on CTS. These IST centers staff will support the national efforts to scale up CRC. In Quarter 3, a final review of the training package was

conducted using feedback from pilot CRC training courses and comments from the training participants, technical experts and trainers. The national CRC training package was then finalized and made ready for printing and distribution to all IST centers.

Additionally the Project also supported the FMOH to adapt a Grant Development and Management training package aimed at training IST centers coordinators as grant writing is a critical skill for IST centers to ensure financial sustainability.

Provide technical support in standardizing e-learning material

To date, all IST centers have been using face-to-face training modalities to train health care providers. Group-based face-to-face training has been the main stay of IST for health workers in Ethiopia. However face-to-face training is expensive, takes people away from their facilities, and may not be necessary. Therefore, the FMOH is promoting the use of technology for IST delivery to maximize efficiency and reach a greater number of health workers. The HRH Project has supported the FMOH with standardizing e-learning materials for these purposes. To facilitate this process, the Project participated in a national technical working group that supported the FMOH to develop an e-learning course development guideline.

Moreover in the third quarter, the Project supported the review and adapt 12 e-learning courses from the British Medical Journal (BMJ) and in the review of one MCH blended training course developed by the Maternity Foundation. Feedback was provided to the course developers to revise their course according to the standard.

3.2.2. Strengthen RHBs IST coordination capacity

Provide IST program management training for RHBs

In an effort to build the capacity required to institutionalize and standardize IST training the HRH Project supported the FMOH in training:

- 41 regional IST focal persons, IST center coordinators and training data managers on how to effectively manage trainings, including planning, resource mobilization, and monitoring and evaluation.
- 24 trainers from IST centers on CTS to strengthen the capacity of the centers in providing IST courses. Selected IST centers staff were trained with ID by FMOH during the piloting of the training package.
- 39 IST focal persons with database management training. This training was organized after identifying a knowledge and skills gap at IST centers during a coaching visit and will help IST to improve their routine tracking and documentation of trained health care providers data.
- 20 RHB IST focal persons and coordinators on IST program management training. The training developed the competency of IST leaders in planning, staffing, funding and monitoring IST services in their regions and centers. The capacity of RHBs in supporting and strengthening IST centers was improved which is expected to eventually lead to standardization and institutionalization of IST in the country.

Improve the capacity of IST centers

As a result of the capacity building training provided the IST center coordinators solicited funds from stakeholders with close support from the HRH project. Eighteen developed and submitted grant proposals relevant to CRC initiatives to the FMOH.

Provide mentoring and coaching to IST sites and RHBs

IST centers and IST coordinators in RHBs should be regularly supported to build their capacity in organizing and facilitating IST courses. The HRH Project provided mentorship and coaching support to IST coordinators and IST centers to improve planning, organizing and documenting of

training events. As a result of the continual technical support and follow-up from the Project, 16 IST centers in Amhara, Benishangul Gumuz, Gambella, SNNPR and Tigray conducted various trainings for a total of **3,733** health care providers on PMTCT, ART, CRC, gender, RMNCH, ICCM and malaria clinical blood use, youth friendly care, TB/HIV, mental health, family planning, nutrition & psychosocial support. Three IST centers in Amhara conducted post training follow up of trained HCPs at hospitals and HCs. The IST center in Gambella HSC assigned a dedicated coordinator, increased the pool of trainers to 26 and started training data management using TrainSMART. In addition, the Project advocated with RHBs, colleges' leadership and others for proper utilization and budget allocation for the IST centers in Tigray and Afar regions. As a result, the IST center in Gambella obtained a grant of Birr 885,780 from the FMOH to support CRC training and the one in Adigrat University was able to get a 10 million Birr revolving fund for improving its IST functions. In addition, two IST centers in SNNPR opened cafeterias to facilitate training.

3.2.5 Support FMOH, FMHACA, FMOE, RHBs, Associations and Providers to Develop a Needs- based Framework for CPD

Support the National CPD Accreditation Committee and Customers' Services Directorate at FMHACA to Develop/Review CPD Program Guideline and Standard Operating Procedures

In the last four years, preparations were made to establish a national CPD scheme for health workers. However, the actual CPD program was delayed due to unresolved concerns from FMOH and RHBs. Following repeated discussions, CPD was launched in the first quarter this year at the 2016 annual health sector review meeting. Furthermore, direction has been given to the CPD Accreditation Committee to incorporate comments gathered from stakeholders at the review meeting and update the guideline and directive.

Support FMOH to provide pre-deployment orientation newly graduated medical doctors

FMOH conducts pre-deployment orientation and training annually to new graduates from academic programs in health. This helps to equip the HCPs entering into the world of job with key national policy and program priorities which include national health policy, hospital reform, and compassionate respectful and caring, and others. As the continued effort the Project supported pre-deployment orientation of 268 newly graduated medical doctors.

Support the national CPD Accreditation Committee during its transition to the FMOH

The CPD program unit is being relocated from FMHACA to the FMOH as a part of restructuring the health care regulation component. The HRH Project has worked to establish a strong relationship with the CPD case team newly established at the FMOH. In collaboration with the CPD case team, a CPD program implementation plan is being revisited and essential preparatory activities are being planned

RESULT 4: Program Learning and Research Conducted

HRH policies and programs need to be evidence-based to be more effective and efficient. The HRH Project supports the FMOH, RHBs and professional associations to conduct operational research and document program learning on critical HRH issues mainly through capacity building in monitoring, evaluation and research. In this reporting period, the following support was provided.

IR 4.1 Research and Evaluation Evidence on Critical Human Resource for Health Issues Generated

Finalize end-line evaluation report on competence of midwifery and anesthesia graduating students

The HRH Project drafted a report summarizing findings from a study evaluating the effects of various interventions implemented by the FMOH, the Project, and other stakeholders on the competence of midwifery and anesthesia graduating students. Key findings include:

- The competence of graduating midwifery students increased by 4.8 percentage points (from 51.8% in June/July 2013 to 56.6% in June/July 2016).
- The competence of graduating anesthesia students increased by 4.2 percentage points (from 61.5% to 65.7%).

The report will be finalized and submitted to USAID and the FMOH next year.

Received ethical approval for secondment study

In consultation with USAID, the HRH Project plans to conduct a study on the effectiveness of secondment in the public health sector to generate evidence on the extent and effectiveness of the existing secondment practices. In the last quarter of the year, the Project received ethical clearance from the Johns Hopkins University (JHU) institutional review board (IRB) to conduct the study. The Project will also get a permission letter from the FMOH to conduct the study. Preparations for data collection including selection of a local research firm were also initiated. Data collection, analysis and report writing is scheduled to be finalized at the beginning of next year.

Finalized rapid assessment on the contributions of the HRH Project towards priority health services

The HRH Project has been conducting periodic assessments of its contributions to improving priority healthcare services. Towards the end of the year, the Project finalized data collection for a rapid assessment of the Project's contribution towards HIV/AIDS, TB, malaria, and RMNCH services. Data were collected from all regions and the detailed findings are included in the final report (See Annex 13). Overall, findings from the assessment suggest that between October 2016 – March 2017, the various cadres who graduated from 53 HRH supported teaching institutions provided:

- 8,571,856 people with voluntary HIV counseling and testing services. Of whom 4,198,416 were pregnant or lactating mothers.
- 155,763 HIV exposed infants with ARV prophylaxis
- 1,633,083 new FP users with FP services
- 1,495,024 people with malaria treatment
- 9,316,802 households with malaria residual spray
- 2,052,645 mothers with delivery services
- 384,399 people with TB treatment

Dissemination of Program Learning

To facilitate the sharing of lessons learned from local and global HRH experiences the following oral, poster and panel presentations were made at local and international conferences, and manuscripts from the Project studies were published in reputable peer reviewed journals.

Oral presentations:

- *“Using Evidence Generated from Task Analysis Study to Strengthen Medical Practice, Regulation and Education”* was presented at the International Society for Quality in Health Care (ISQUA) conference held on October 2016 in Japan
- *“Are midwives in Tigray, Ethiopia, providing quality care during childbirth and the postpartum period? An Assessment of Competency”* was presented at the International Federation of Gynecology and Obstetrics (FIGO) Africa Regional Meeting held on November 2016 in Ouagadougou, Burkina Faso,.

- Findings of the Task Analysis study of Health Officers was presented at the Annual Conference of the Public Health Officers Association, March 2017, Addis Ababa.
- Findings from the competence assessment of midwives working in public health facilities in Tigray region were presented at the “*Integrating with Clinical Practice Coordination and Collaboration*’ workshop held at Wukro town, Tigray on March, 2017
- “*Managing Successful Medical device Warranty Period Maintenance*” was presented at WHO’s Global Forum on Medical Devices held in May, 2017, in Switzerland
- “*Situational analysis of continuing professional development practices and capacity in Ethiopia: a national cross-sectional study*” presented at the 2017 AMEE International Conference on Medical Education held in August, 2017, in Finland
- “*The licensure exam: a new avenue for improving quality of medical education in Ethiopia*” presented at the 2017 AMEE International Conference on Medical Education held in August, 2017, in Finland

In addition, five abstracts (evaluation of quality of midwifery education, evaluation of quality of anesthesia education, health workers regulation, nurse job satisfaction, and physicians intention to leave) were accepted for poster presentation at the Fourth Global HRH Forum to be held from 13-17 November 2017, in Dublin, Ireland. Ethiopia is also represented in a multi-country panel on intersectoral collaboration, a roundtable discussion on accreditation, and side session on use of task analysis to strengthen the health workforce.

Posters presentations:

- “*Satisfaction and motivation of physicians and non-physician clinicians in Ethiopia’s public sector: a national cross-sectional study*” was presented at the World Summit for Social Accountability organized by the Network Towards Unity for Health held in April 2017 in Tunisia
- “*Using the national licensing Exam as a catalyst for increasing social accountability of health professionals education in Ethiopia*” was presented at the World Summit for Social Accountability organized by the Network Towards Unity for Health held in April 2017, in Tunisia
- “*Reinvigorating Education Development Centers for Health Workers’ Training Quality in Ethiopia: HRH Project’s experience*” was presented at the World Summit for Social Accountability organized by the Network Towards Unity for Health held in April 2017, in Tunisia
- “*Strengthening Utility and Maintenance of medical Devices*” was presented during WHO’s Global Forum on Medical Devices held in May, 2017, in Switzerland

Panel presentation and discussions:

- “*Master’s Training in Family Medicine: Good for Strengthening Primary Health Care and Appropriate Career Advancement Pathway for Health Officers*” at the **6th annual conference of the Ethiopia Public Health officers Association (PHOA)**, The panel discussion was informed by the HRH Project’s task analysis and retention study findings
- “*Does the current public health training help us address existing, emerging and re-emerging public health challenges in Ethiopia*” on the **28th Ethiopian Public Health Association (EPHA) annual conference**.
- “*Challenges and opportunities on development evaluation in Ethiopia with firms providing evaluation related services, national planning commission and non-governmental organizations*” on the **8th Ethiopian Evaluation Association annual conference**.

Publication of manuscripts in peer-reviewed journals:

- Submit manuscript on competence of midwives in Tigray Region to PLoS One journal supported the RHB and the EMwA to finalize and submit a manuscript (PLoS One).

- Trainers' perception of the learning environment and student competency: A qualitative investigation of midwifery and anesthesia training programs in Ethiopia, Nurse Education Journal, May 2017 Nurse Educ Today. 2017 August;55:5-10. doi: 10.1016/j.nedt.2017.04.021. Epub 2017 May 1. <https://www.ncbi.nlm.nih.gov/pubmed/28505523>
- Education, practice and competency gaps of anesthetists in Ethiopia: Task analysis, Journal of Perianesthesia nursing, May 2017- in press and available for public <http://dx.doi.org/10.1016/j.jopan.2017.02.001>, American Society of PeriAnesthesia Nurses Journal)
- The following manuscripts were also finalized and submitted:
- Understanding job satisfaction and motivation among nurses in public health facilities of Ethiopia: a multilevel analysis, submitted to BMC nursing, June 2017
- Factors predicting turnover intentions of anesthetists in Ethiopia, submitted to World Journal of Surgery, June 2017
- Satisfaction, motivation and turnover intention of physicians and associate clinicians in Ethiopia's public health sector: a national cross-sectional study, submitted to HRH Journal, June 2017
- In Year 4, the HRH Project supported the Amhara RHB to conduct a study to assess the competence of midwives in provision of care during labor, childbirth and the immediate postpartum period. This year, the Project in collaboration with the Amhara RHB published a manuscript summarizing the study findings in the BMC Pregnancy Child Birth journal. The full article can be accessed at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5558781/> (doi: [10.1186/s12884-017-1441-2](https://doi.org/10.1186/s12884-017-1441-2)).

Program learning reports:

- The HRH Project also documented the successes of supported institutions' gender activities in a publication entitled "NOW I CAN STAY FOCUSED ON MY DREAMS": Empowering Female Health Science Students in Ethiopia: A Case Study http://static.jhpiego.org/files/Ethiopia_Report_JUNE%202017_SMALL_single-pages.pdf?_ga=2.223002203.115707029.1498033862-180495070.1498033862

Fostered the sharing of HRH related evidence locally:

- **Dissemination of HRH research technical reports to stakeholders:** The HRH Project initiated the distribution of over 600 copies of reports documenting findings from various research studies conducted by the Project to its stakeholders.

Moreover The Project provided financial and technical support for:

- The **6th PHOA annual conference** conducted in March 24-25, in Addis Ababa. Support included printing of accepted posters and abstracts,
- The **28th annual conference of EPHA**, which was held in February 2017, in Harar. This included support for a one-day pre-conference capacity building workshop for paper presenters, on writing research findings in general and manuscript writing in particular.
- To the **Ethiopian Evaluation Association during its 8th annual assembly** and conference.
- Support the **Ethiopian Medical Student Association (EMSA) 5th annual meeting** in January 2017, with the theme of supporting the national efforts for creating a compassionate, respectful, and caring workforce.

Development of program learning reports

The HRH Project drafted program learning documents that summarize the key lessons learned, best practices, and priorities for future programming in the areas supported by the Project over the last 5 years, including improving human resource for health management, increasing health workers availability, improving quality of education and conducting implementation research to generate

evidence on HRH. The documents will be finalized and shared with USAID, the FMOH, and other stakeholders in the coming year.

IR 4.2 Build Local Capacity in M&E and Research Focusing on HRH

In an effort to build local capacity for the conduct of high level quality research on relevant HRH related issues, the HRH Project continued supporting the FMOH, RHBs, health professional training institutions, as well as selected professional associations, in research activities as needed.

Conduct study report writing workshop

In the first quarter of the year, the HRH Project conducted a three-day workshop with two key objectives:

- Draft a technical report summarizing findings from the end-line anesthesia and midwifery student competence study.
- Build the capacity of the FMOH and other stakeholders to write research reports.

A total of 12 participants drawn from the FMOH, midwifery and anesthesia departments at 2 universities and 2 RHSCs, and HRH Project staff participated in the workshop. Participants were very pleased with the workshop - a participant from the FMOH stated that *“initially I was somewhat confused and not motivated to participate, as I expected it would be just attending the presentation of the finding that you are going to present. But now I am very happy and I have a clear picture of the findings as I have involved more in the write up. Personally I have learned about writing research results for my personal research work. So I would like to thank you. This workshop helped me to think differently about the midwifery training program.”*

Support HERQA to draft study plan focusing on educational quality assurance

HERQA is planning to conduct a study on educational quality assurance in all training institutions. The HRH Project provided a half day orientation to HERQA staff on protocol development techniques and requirements for submitting the study plan to an ethical review committee. The study team members have started preparatory activities to finalize the study protocol in the next quarter.

Support Oromia RHB to receive ethical approval for a study to assess the competencies of HEWs in the region

The HRH Project supported Oromia RHB to receive ethical approval from the Johns Hopkins University IRB this year. The Project will also get a permission letter from the Oromia RHB to conduct the study. The aim of the study is to assess selected RMNCH competencies of Level IV HEWs in Oromia Region. In the coming quarter, the Project will support the RHB to conduct data collection, analysis and drafting of the study report. The Project will engage Oromia RHB staff and encourage them to proactively participate in the data collection, analysis and reporting process with the aim of building local capacity for research. The findings of the study will provide the Oromia RHB with data to strengthen education, training and performance of HEWs.

Support Tigray Regional Health Bureau to draft study protocol

In response to a request from the Tigray RHB, the HRH Project provided technical support to develop a study protocol focusing on exploring health workforce density, trends, and attrition in the region. The proposed study, which will be funded by the RHB, will identify the successes and challenges of human resource for health distribution in the region, and document the workforce density in relation to the WHO standard.

Support Amhara RHB to develop or review manuscripts

The HRH Project has been supporting the Amhara RHB to develop a manuscript documenting findings from a study assessing the competence of practicing midwives in providing labor, delivery and immediate postpartum care. The Project finalized and submitted a manuscript titled, “Quality of intrapartum care by midwives in Amhara Regional State, Ethiopia: mixed methods study” to the BMC Pregnancy and Childbirth Journal.

Supported professional associations to develop or review manuscripts

The Ethiopian Journal of Health Development, the scholarly arm of the School of Public Health at Addis Ababa University and the Ethiopian Public Health Association, is one of the oldest and most reputable journals in Ethiopia, but has struggled to ensure fast peer review and continuity of publication in recent years. Addis Ababa University, School of Public Health, and the Ethiopian Public Health Association organized a manuscript review workshop to clear the backlog of submitted manuscripts and reaffirm commitment of peer reviewers. An HRH Project staff participated in the workshop and reviewed 6 submissions to the Journal.

Strengthen monitoring, evaluation and research (MER) systems by participating in the Jhpiego Global MER meeting

The HRH project supported four project staff to attend the Jhpiego MER and Information and Communication Technology for Development (ICT4D) global meeting held in Bangkok, Thailand from February, 2017. The meeting objectives included:

- Share best practices in supporting strong data systems and ensuring technical excellence in routine monitoring.
- Build skills on how to communicate and use results effectively
- Learn techniques and exchange information on strengthening implementation research and promoting a culture of research-to-action
- Share best practices for harnessing digital solutions and platforms to strengthen the performance of health workers and health systems and promote better data collection, management, quality and use

With the lessons learned from the meeting, the HRH Project has begun to utilize appropriate data storage and visualization software, and will extend other MER lessons learned to benefit routine supportive supervision and data collection activities at the Project target sites.

4.2.2 Conduct routine monitoring and supportive supervision

Support RHBs to conduct quarterly joint and integrated supportive supervision visits

The HRH Project in collaboration with the **Oromia** RHB and Oromia TVET agency conducted JSS at 5 RHSCs and 3 IST centers from February 28 to March 18, 2017. The supervision was focused on students’ and instructors’ data management, classroom teaching process, skill lab organization and management, cooperative training/clinical practice, quality assurance and gender activities. A structured checklist was used for each thematic area using interview, observation and document review. The team explored key achievements, challenges and actions taken with recommendations given during the past supportive supervision. Feedback was provided and joint action plan was developed on the identified gaps to improve teaching and learning activities.

The HRH Project provided technical and financial support to **Amhara** RHB to conduct integrated supportive supervision in selected *woredas* and health facilities in East Gojam Zone in December, 2016. An HRH Project staff participated in the integrated supportive supervision team, which inspected households for implementation of health extension packages, organized meetings with health development armies (HDAs) and community representatives, and observed the activities of the health posts, HCs and WorHOs using a checklist. In June 2017, Project assigned a technical

staff member and a vehicle to support the integrated supportive supervision conducted by the bureau in two *woredas*, four HCs, four health posts 10 randomly selected households in North Shewa Zone to assess the household-level implementation of health extension packages. In the second quarter, the RHB was supported to conduct an integrated supportive supervision visit at training institutions using a structured tool. Effectiveness of the teaching-learning process, structure and functions of the HSEDCs and gender offices, simulation and clinical teaching process and challenges, status and performance of IST centers, and other related issues were addressed during the visit. A total of 9 training institutions (5 universities and 4 HSCs) and 6 IST centers in the region were visited and discussions held with the leadership including deans or vice deans, department heads, EDC coordinators, gender coordinators, clinical coordinators and others.

Similarly, the HRH Project supported the **Tigray and Afar** RHBs to conduct a joint supportive supervision visits at Semera University and Semera RHSC, and Axum University, Dr Tewelde and Araya Kahsu RHSCs in June, 2017. The supportive supervision provided technical support on HSEDCs achievement and challenges in improving quality of education.

Conduct monitoring visits at training institutions at universities, RHSCs, IST centers

Based on the data quality assessment conducted in Year 1 through 3 of the HRH Project, the absence of structured databases in RHSCs and universities to track student enrollment, attrition, etc., was identified as a major cause for data quality problems. Thus, the HRH Project met with ICT directorates of the MOE and MOH to discuss their plan in this regard and learnt that the MOE is in the process of developing a comprehensive education management system for first and second-generation government universities that will be completed in three years.

The system that the MOE is building now includes the HRH Project a limited number of universities. On the other hand, MOH is interested in setting up a system that captures key student enrollment and graduation information. agreed to accommodate this request from MOH in the registrar database planned to be developed.

The year, he HRH Project leadership team attended graduation ceremony of the first batch midwifery students at the Debre Tabor University. It is to be recalled that the HRH Project supported Debre Tabor University to develop innovative curricula. The HRH team used the opportunity to monitor the status of technical assistance at Amhara RHB, Debre Tabor Bahir Dar, and Gondar universities, and Debre Tabor, Bahir Dar and Teda HSCs. The team visited skills laboratories and HSEDC offices and subsequently held discussions with college deans, vice-deans, HSEDC and gender coordinators. Members of the Project leadership team were impressed with the results achieved and encouraging progress in institutionalization of key initiatives.

Conduct annual HRH performance data collection from training institutions, RHBs, ZHDs, and WorHOs

Each year, the HRH Project collects annual data to track the Projects' performance at RHBs, ZHDs, WorHOs and health facilities and training institutions. In this quarter, HRH staff conducted data collection from August to September, 2017, in 11 RHBs, 19 ZHDs, 43 WorHOs, 11 health facilities, 51 PSE institutions (28 universities, 22 RHSCs), and one private institution (Addis Continental Institute of Public Health). Due to political unrest, a site visit was not possible in Jigjiga University, Meda Walabu University, Metu University and Metu RHSC but graduation data was collected through phone and email from these institutions. Similarly due to security reasons data were not collected from Gode and Jigjiga HSCs. (See full report in Annex 3). Major findings at:

- **RHBs, ZHDs, WorHOs and health facilities are:**
 - All RHBs have HRM policies and procedures with appropriate staff requirement plans. They

have up-to-date employee job descriptions for all HRM positions and all HRM leaders/managers meet the minimum requirements for the post.

- A total of 1,836 HR positions are available in 11 regions at RHBs, ZHDs and WoHOs and from these 1,182 (64.4%) positions are filled with personnel that have relevant health or management training.
- A non-salary operational budget (i.e. budget allocated for HR related activities but not for salary) has been allocated by most of the RHBs except Gambella, Dire Dawa and Somali.
- All RHBs have allocated budget for IST for HR staff except Afar, Gambella and Somali RHBs.
- All RHBs have an IST plan for HCPs with allocated budget that is implemented except Benishangul Gumuz, Gambella and Somali RHBs.
- Health workforce availability, attrition and needs were assessed in all regions –See table below

Table 22: Number of HCPs in the public health sector currently working, resigned and needed (2009 EC)

Cadre	HCPs Currently Working in 2009 E.C.	HCPs Resigned in 2009 E.C.	Additional HCPs Needed for 2010 E.C.
Midwives	13,638	174	1,738
Anesthetists	654	19	206
HEWs	39,653	239	6,667
EMT	433	10	217
Biomedical Technicians	261	1	156
Other	155,100	2,178	12,679
Total	209,739	2,621	21,663

- **At Pre-service training institutions:** The data collection focused on the type and number of students enrolled in each year, number of graduates in the academic year, drop outs, number of students passing the COC exam, availability of skill labs and preceptors as well as functionality of HSEDCs and gender offices in the institutions, and IST centers. In this academic year (2009 E.C./ FY17), a total of **7,561** students graduated from 49 HRH Project supported institutions in Midwifery, Anesthesia, HEW level III and IV, Emergency Medical Technician, Biomedical Technician and Nursing Specialties and postgraduate (HRM & HE) programs (See table below).

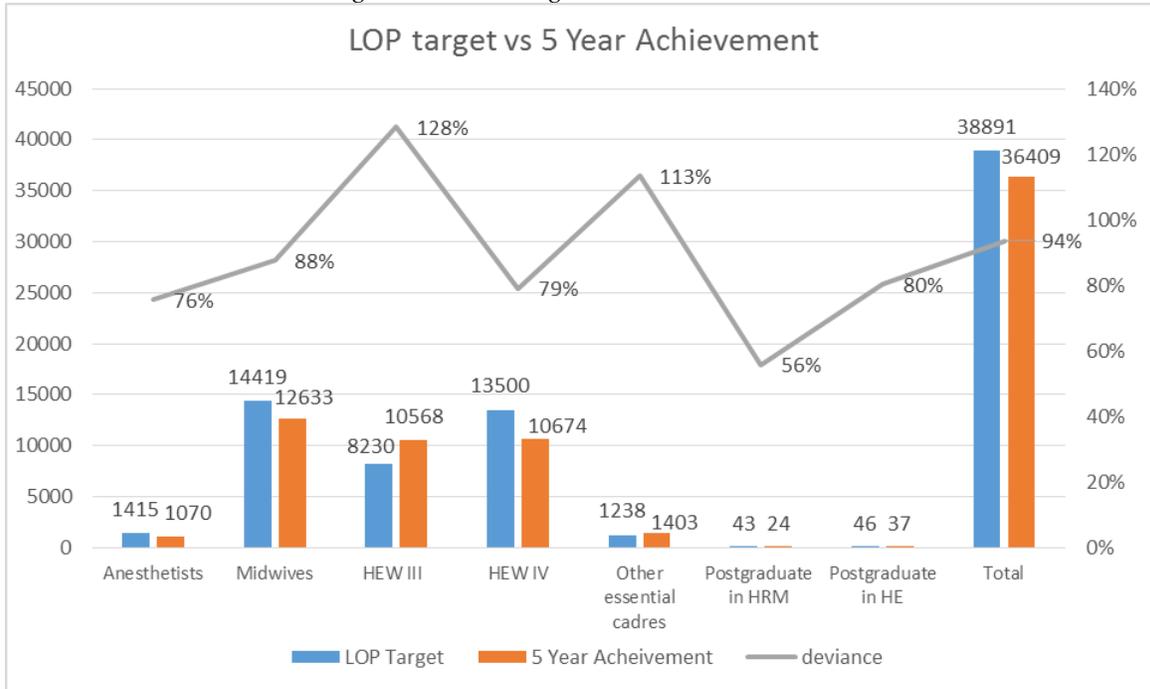
Table 23: Number of Graduates in 2009 E.C. FY17 by Cadre

Cadre	University	RHSC	Total
Midwifery	1,581	479	2060
Anesthesia	204	11	215
HEW Level III*	-	2,651	2,651
HEW level IV *	-	1932	1932
EMT	-	150	150
Biomedical Technicians	-	218	218
Nursing Specialty	215	59	274
Post graduate in HRM	24	0	24
Post graduate in HE	37	0	37
Total	2,061	5,500	7,561

** Does not include number of graduates from Jijiga and Gode -RHSCs*

Overall, the HRH Project has supported the graduation of 36,409 priority health cadres (which includes Anesthesia, Midwifery, HEW Level III and IV, EMT, Biomedical Technicians, Nursing Specialty, and postgraduate in HRM & HE) in the past five years. As depicted in figure below, this is an achievement of 93.61% of the Project's LOP target of 38,891.

Figure 3: LOP target vs Five Year Achievement



Develop M&E Data Management System

The HRH Project developed a web based data storage and visualization system to store, visualize and easily track its result using District Health Information System (DHIS2) platform. The new system is hosted online at <http://jeis.jhpiego.org>. Sample dashboards using data from previous years were also prepared. The development of the system will contribute in documenting and sharing results and knowledge management of the HRH Project.

Develop Year 6 HRH project work plan

The HRH Project conducted a workshop in July 2017 with all Project staff to plan Y6 activities. The annual planning process provided the team with an opportunity to take stock of progress made, identify unfinished work and align them with government priorities, and focus on documentation, consolidation and sustainability of Project inputs. The HRH Project submitted the final work plan to USAID in September 2017 and received feedback and provisional approval for the plan.

7. Challenges and Constraints and plans to overcome them during the reporting period

Quarterly challenges and Constraints for each program area

- Getting complete and reliable data at RHBs, ZHDs and WorHOs remains a challenge due to poor HRIS in all organizations.
- The restructuring of health care regulation from FMHACA to FMOH has delayed planned activities of the HRH Project
- The security issues in Somali and Oromia region, posed a major challenge on routine coaching and mentoring visits and annual data collection. Graduate data could not be obtained in few institutions, in others however, data was collected through phone and email.
- Some PSE institutions have no web-based registrar databases and this is a challenge for the institution to manage the student enrollment and other data.

Plans to overcome challenges and constraints in each of your program areas

- Conducted onsite mentorship on HRIS to improve data completeness. The Project also recommended RHB leadership on using health information technicians to update the data
- In addition to supporting the restructuring process the Project is conducting ongoing negotiation between the Authority and FMOH to ensure continuation of the Project's activities
- Data was collected through phone and email, and some follow up and coaching activities was postponed to the coming quarter
- Recommended supported PSE institutions for the availability of registrar data base

8. Data Quality issues during the reporting period

Specific concerns you have with the quality of the data for program areas reported in this report

- It was observed that RHBs and health facilities were missing HR information that enables to track the availability of health works retrospectively.
- Due to political unrest, data of some institutions were collected through phone, which may affect the quality of data.

What you are doing on a routine basis to ensure that your data is high quality for each program area

- The Project continues to support RHBs and health facilities to improve documentation of personnel file and data management and through its HRM officers.
- Data collected using phone and email will be checked and reconfirmed in person in the first quarter of next year.

How you planned to address those concerns / improve the quality of your data for each program area

- Continue supporting regional, zonal and WorHOs to improve documentation in HR and work with partners on strengthening HRIS management.
- The Project plans to triangulate graduate data from all five years in the coming year.

9. Major Activities planned in the next reporting period

Result 1

- Provide ongoing technical support to the FMOH, RHBs, ZHDs, and WorHOs to fill 200 newly created or vacant HR positions
- Provide technical support to RHBs for recruitment, selection and orientation of 3000 new staff (mainly health care providers)
- Provided technical support to implement HRIS training, install HRIS software and operationalize the systems in the regions
- Provide ongoing technical support to RHBs to organize and maintain 5000 personnel files (guided by the employee file updating checklist)
- Conduct Roll out HRM training for 120 HR staff and managers at national and regional levels including replacement trainings
- Provide LMG capacity building workshops for senior leaders and managers within FMOH Directorates and RHBs

Result 2

- Support FMOH in curriculum development of two new nurse specialty programs
- Provide support to conduct International Day of Midwives
- Provide technical support to HSEDCs to continue implementation of FAA activities
- Finalize the midwifery internal quality assessment report
- Conduct midwifery competencies assessment OSCE stations development workshop
- Technically support the FMOH/TVET to provide orientation training on the newly revised EOS and curricula of the TVET HCPs and also finalize the BSC Family nursing Curriculum
- Facilitate a 2-day annual review meeting
- Develop HEP implementation document related to the training and deployment as well as the availability of the HEWs
- Conduct technical update training for biomedical technician training instructors, finalize and follow up the approval of the training package
- Provide technical support to the FMOH to develop a medical equipment management system

Result 3

- Conduct regional level consultative workshops to facilitate integration of the HSEDCs into RHSCs' structures
- Conduct advocacy sessions and work with the RHBs and Public Service Bureaus to ensure approval of HSEDCs position and integration into the RHSCs' organogram
- Document and disseminate the achievement and lessons of FAA implementation
- Advocate for formal integration of the gender focal position in the organogram at universities and colleges and advocate allocation of adequate budget for gender activities

Result 4

- Conduct secondment study data collection and finalize technical report from a study on secondment practices in the health sector
- Finalize and disseminate program learning documents focusing on improving human resource for health management, increasing health workers availability, improving quality of education and generating implementation researches
- Conduct a study on competency of rural HEWs on reproductive, maternal child and newborn health services in Oromia Region
- Continue the development of HRH impact model

10. Environmental compliance

None

11. Financial accomplishment

Life of Project budget (a)	Obligated to date (b)	Expenditure (Accrual and actual disbursement) to date (c)	Remaining balance (d) = (b) – (c)	Remarks
55,000,000.00	46,112,251.00	41,929,856.46	4,182,394.54	(... in USD)

12. Issues requiring the attention of USAID Management

Identify and state issues that USAID needs to look at and address for each program area

None

13. Data Sharing with Host Government:

Have you shared this report with the host government?

Yes

No

If yes, to which governmental office/s?

The quarterly report will be shared with the FMOH – Human Resources Directorate

If No, why not?

Have you made data reconciliation with respective regional sectoral office/s?

Yes

No

If yes, to which regional sectoral office/s? Were there any issues that came out from the reconciliation? How these issues were handled/ will be handled?

NA

If no reconciliation was made, what are the reasons for it?

NA

14. Appendices

Government of Ethiopia documents

1. Amhara National Regional State Health Bureau – Regional HRH Biannual Profile/ Report
2. Beninshangul-gumuz Regional Health Bureau - Recruitment and Selection newsletter –

Conference presentation

Power point presentation

3. Managing Successful Medical device Warranty Period Maintenance, Demeru Y., May 2017
4. Situational analysis of continuing professional development practices and capacity in Ethiopia: a national cross-sectional study, Tegbar Y., August 2017
5. The Licensure exam: a new avenue for improving quality of medical education in Ethiopia, Alemseged W., August 2017

Poster

6. Satisfaction and motivation of physicians and non-physician clinicians in Ethiopia's public sector: a national cross-sectional study, Tegbar Y, April 2017
7. Using the national licensing exam as a catalyst for increasing social accountability of health professionals education in Ethiopia, Alemseged W., April 2017
8. Reinvigorating Education Development Centers for Health Workers' Training Quality in Ethiopia: HRH Project's experience, Daniel D., April 2017
9. Strengthening Utility and Maintenance of medical Devices, DemeruY, May 2017

Journals manuscript

10. Trainers' perception of the learning environment and student competency: A qualitative investigation of midwifery and anesthesia training programs in Ethiopia, Nurse Education Journal, May 2017, Nurse Educ Today. 2017
11. Education, practice and competency gaps of anesthetists in Ethiopia: Task analysis, Journal of Perianesthesia nursing, May 2017

Publication

12. "NOW I CAN STAY FOCUSED ON MY DREAMS" Empowering Female Health Science Students in Ethiopia: A Case Study

Report

13. Summary Report Annual Performance Data Collection, 2009 E.C. (October 2016-September 2017), October, 2017

Success story

14. Strengthening Pre-service Education through Educational Development Center in Araya Kahu HSC, Abebe Kebede, September 2017

Others

15. Health workers deployed in the public sector, October 2016-September 2017
16. ACIPH student thesis titles

Annex 1: Faculty development trainings conducted by HSEDCs, January- September, 2017

S. No	Institution	Pedagogic Training							Technical Update	Other		Total
		ETS	CTS	ID	PBL	Simulation	SPA	Multi Media for Learning		Grant Mngt	Research Methods	
University												
1	Adama		8									8
2	Adigrat	24										24
3	Ambo	18					17					35
4	Arbaminch	36				16	22					74
5	Arsi					33						33
6	Axum	11										11
7	Bahir Dar	25										25
8	Debre Birhan	17	18		15							50
9	Debre Tabor	15										15
10	Debre Markos	29	16		20							65
11	Dire Dawa		10						10 (FP)			20
12	Dilla	19										19
13	Jigjiga					15						15
14	Jimma	15										15
15	Haromaya		25									25
16	Hawassa	30	24			13						67
17	Mizan-tepi	33	13									46
18	Mekelle	44										44
19	Mettu					11						11
20	Semera	19							21 TB			40
21	Wachemo	20	20									40
22	Wolaita Sodo					14			14 TB/HIV, FP & MNCH			28
23	Woldia	25				15						40
24	Wolkite	12	13						10 PMTCT			35
25	Wollega		25									25
26	Wollo	15										15
	Total	407	172	0	35	117	39	0	55	0	0	825
RHSC												
1	Araya Kahsu	15	41						11 HIV/ ART			67
2	Arbaminch		21			36		27	73 (ART & PMTCT), 15 BEmONC	22		194
3	Bahir Dar	17	41			20	15		21 HIV/AIDS			114
4	Dessie	68				15			36 HIV/AIDS			119
5	Gambella		9									9
6	Gode	18	14			10			17 TB/HIV			59
7	Harar	22										22
8	Hossana	24				18						42
8	Jigjiga	11	10						10 PMTCT			31
9	Menelik II										35	35
10	Metu					19						19
11	Mizan-aman	45	30	30					26 HIV/AIDS			131
12	Negele	8							21 PMTCT			29
13	Nekemt	13										13
14	Pawe	15	30									45
15	Semera	10										10
16	Tseda		22									22
	Total	266	218	30	0	118	15	27	230	22	35	961
	Grand Total											1786