



**Mission Report on**  
**Study Tour to LOGIVAC Health Logistics Training Center at Regional**  
**Institute of Public Health, Benin**

**3-8 July, 2014**

**Benin**



**Photo I.** Study tour team with LOGIVAC staff members at Regional Institute of Public Health in Ouidah, Benin

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## **Acknowledgments**

The taskforce members for launching postgraduate programs in health supply chain management at School of Pharmacy, Addis Ababa University would like to acknowledge UNFPA Ethiopia for its commitment in building sustainable health supply chain management system in the country and particularly for sponsoring this study tour.

Our special regards goes to Mr Philippe Jaillard, Ms Caroline Lebrun, Ms Roberte Ylonfoun, Mr Costa and other staff of AMP/LOGIVAC Project for logistics arrangement in Benin, translation service and meeting facilitation with various stakeholders. We would also like to thank Regional Institute of Public Health, HR department of Ministry of Health and Centrale d'Achat des Médicaments Essentiels et Consommables Médicaux (CAME) in Benin for their willingness to spend their precious time to share their practices in health supply chain training and practice.

## Acronyms

AAU	Addis Ababa University
CAME	Centrale d’Achat des Médicaments Essentiels et Consommables Médicaux
FMoH	Federal Ministry of Health
HR	Human Resource
HSDPs	Health Sector Development Plans
IRSP	Regional Public Health Institute
MoH	Ministry of Health
PFSA	Pharmaceutical Fund and Supply Agency
RHBs	Regional Health Bureaus
SoP	School of Pharmacy
SCM	Supply Chain Management
TWG	Technical Working Group
UNFPA	United Nations Population Fund

## 1. Background

During the past two decades, the Ethiopian Government produced a 20 years health policy which was followed by the formulation and implementation of four consecutive phases of comprehensive Health Sector Development Plans (HSDPs). During these periods, significant achievements were gained in expanding primary health care coverage, improving maternal and child health, reducing mortality and ill-health due to HIV/AIDS, TB and malaria. Despite these major progresses, Ethiopia has been challenged by preventable communicable diseases, nutritional disorders, erratic supply as well as inappropriate use of health commodities that significantly impacted the quality of care in almost all health facilities.

Currently, Federal Ministry of Health (FMoH) is undertaking visioning exercise to prepare health policy of the country for the coming 20 years. One of the areas that gained special attention by the Ministry to improve the delivery of quality health services at all levels of the health care system is to strengthen the Pharmaceuticals supply chain management (SCM). In this regard, a technical working group (TWG) composed from Pharmaceuticals Fund and Supply Agency (PFSA), Ethiopian Pharmaceutical Association, School of Pharmacy (SoP)/AAU, and partners (involved in health SCM) was established at the FMoH to advise and facilitate development of human resource (HR) capacity in pre-service, in-service and postgraduate training of health SCM and strengthen health system performance.

SoP/AAU in collaboration with United Nations Population Fund (UNFPA) and USAID | DELIVER also had been working to launch postgraduate program in health SCM prior to the establishment of the TWG at FMoH. Then, the school integrated its plan following the invitation to participate in the TWGs at the FMoH. In order to identify gaps and interventions in pre-service, in-service and postgraduate trainings of HR involved in health SCM, both FMoH and SoP/AAU with the financial support of UNFPA held a two days workshop at Aphrodite International Hotel from April 29 to 30, 2014.

The workshop was attended by 48 participants from FMoH, 8 Schools of Pharmacy, Federal referral hospitals, health centers, regional health bureaus, PFSA (central and regional hubs), Food, Medicine and Healthcare Administration Authority (FMHACA) and partners. During this

workshop, almost all participants agreed that the pharmaceutical SCM in Ethiopia lacks adequately trained professionals. In addition, weak collaboration between universities and stakeholders; inconvenient organizational structure and poor coordination between FMOH, regional health bureaus (RHBs), health facilities and PFSA; very high attrition rate of trained and experienced health SCM professionals and little attention for health SCM activities by decision makers were major challenges identified during the workshop.

Regarding the health SCM trainings, participants noted that the pre-service training is inadequate (in terms course coverage) and lacks the required practical attachment. Similarly, they noted that the in-service training is fragmented, not need based, unsustainable and costly. As a result, gaps in health SCM leadership, knowledge and skills are frequently observed at different levels of the health care system. To tackle these chronic shortages of adequately trained health SCM professionals in the country, SoP/AAU in collaboration with partners' proposed postgraduate programs (MSc, postgraduate diploma and certificate) with both conventional and blended learning mode of deliveries and these was fully supported by the workshop attendants.

After documenting the problem in health SCM and need postgraduate programs, the next phase of the curriculum development is selecting courses and preparing first draft that equips for the required competency of health SCM activities, hence, the need for benchmarking local and international experiences. This would enable to develop well-informed programs in terms of cognitive, affective and psychomotor learning domains; flexible in timing and pacing in a range of learning environments; and provide clear evidence of cross-curricular competencies within and across subject/discipline areas. Accordingly, university of Benin that hosts a regional logistics reference and resource center (LOGIVAC Center – [www.logivac.org](http://www.logivac.org)) was selected for experiences sharing.

## **2. Rationale and Objective**

The purpose of the study tour is to learn from the experience of Regional Institute of Public Health, University of Benin, Benin. There are good reasons for the choice of Benin: (1) Regional Institute of Public Health, University of Benin and LOGIVAC project has experience in developing and implementing training program in health logistics using blended learning

methods (distance, face to face and internship). The challenges faced during the development and implementation of the program and in making this new field to be recognized by the Ministry of Health and Ministry of Public functioning is good lesson for Ethiopia. (2) The innovative Logistics System Model, which serves as a demonstration site for students and experimenting and conducting operational research to resolve constraints in health logistics, is also another reason for selecting Benin for benchmarking international experiences to have successful programs. (3) As developing countries, both Benin and Ethiopia face more or less similar challenges in health SCM and hence the rationale for bench marking of best practices.

Moreover, this initiative is in the auspices of south-south cooperation where evidences and experiences that already exist in these developing countries can be replicated. Therefore, the main objective of the visit was to share experiences on health SCM training program development and implementation from LOGIVAC center in Regional Institute of Public Health of the University of Benin in Benin.

### **3. Methodology**

In keeping with the Terms of Reference, the methodology of this Study Tour consisted of:

- meetings with LOGIVAC coordinator and staff, IRSP management, logistic advisor at IRSP, practicing graduates of health logistic program and Coordinators of demonstration site in Come district Benin
- meetings with HR head of MoH and Central Medical Store management of Benin
- visit to demonstration site in Come district and visit to Central Medical store of Benin

Structured observation, interview and document review were used to gather details data about health SCM program inception, development, implementation and running of curriculum in Benin. A checklist was used to review the demonstration site of Come and Central Medical Store of Benin. Taskforce members composed of 2 faculty members from School of Pharmacy, Addis Ababa University; and 1 UNFPA Programme Officer visited Regional Institute of Public Health, University of Benin from July 3 – July 8, 2014.

## 4. Key Findings

The taskforce members interviewed total of 14 participants which include program director of LOGIVAC project, technical advisors of LOGIVAC project, management team of IRSP, former students of health logistics program and manager of COME demonstration site, data manager of COME demonstration site, director of HR at MoH, Director General, Deputy Director General and store managers at Central Medical Store. The interview sites include Logivac project office, MoH, and Central Medical Store at Cotonou and IRSP-LOGIVAC center at Ouidah and demonstration site at COME district hospital. Accordingly, the observation is structured into program inception, program development, implementation, challenges, and lessons learnt.

### 4.1. Program inception

The inception of the health logistics program at IRSP, University of Benin took a very long process and it involved many stakeholders. First, WHO and AMP conducted a situation analysis to document the needs for professionalization of human resources for health logistics in West



Photo II. Study tour team while discussing with Director of LOGIVAC Project

Africa. According to this regional study, the countries had weaknesses in health logistics system and human resources management including lack of trained and motivated workforce; management of products by inadequately trained health and other professionals. The result also showed that the return from huge amount of money spent by governments and partners to improve the health care system in the region was not that much satisfactory.

In June 2008, a consensus workshop on health logistics training was organized at IRSP Ouidah. From that workshop, it was figured-out that there was absence of standardized and internally recognized training in health logistic which is specialized and adapted to local needs in the region. And this led to a follow up meeting which was organized in Kinshasa (May 2010) that outlined training curriculum profile based on the definition of health logistics, role of a health

logistician, job description of a district health logistician and competencies and skills required for a health logistician at the peripheral level.

In 2011, LOGIVAC- a project of AMP and WHO was conceived with the aim to support countries in professionalizing health SCM, to promote innovative approaches that develop vaccines supply chain performance, to promote operational research and to anticipate evolutions and trends within the system. The project - three year program funded by Bill and Melinda Gates Foundation, established the first regional logistics reference center in IRSP which is co-managed by AMP and IRSP, University of Benin. AMP provides technical support (mobilize resources including finance and experts, curriculum development, partner management, support for distance phase) while IRSP is responsible for academic managements.

Subsequently AMP took the leading role to develop professional network of logistic experts that provide consulting services on health and vaccines logistics. After successive meeting in Paris, France and Ouida, Benin in 2012, strategy was defined and priorities were set. Accordingly, experts agreed to start with pre-service training first followed by in-service and postgraduate trainings. Besides, it developed innovative model logistics systems in COME districts to serve as demonstration site for students and evaluate impact of using certified logisticians on immunization program performance. LOGIVAC Consortium of partners (public organizations and private companies) was also set up to promote the reference center / tools / project results; support recognition of a common professional qualification for health supply chain manager; and generate and disseminate vaccine supply chain knowledge.

On the other hand, the Ministry of Health, Ministry of Public Function and other concerned government organization came to realize that SCM is specific and specialized profession which is hard to be managed by other professionals. On the contrary, there was no standardized and internally recognized training which is specialized and adapted to local needs. Therefore, the Ministry of Health and other government institutions were highly involved in the preparation of core competencies and other activities related to the program, which in turn lead to revise the structure of health service delivery system. As a result, the government was convinced that the existing organogram was not appreciating the role of health logistic managers and finally a new organogram was created by MoH in collaboration with Ministry of Public Functions in a way that recognizes the position and career track for health logistics.

## 4.2. Program development

To assure the quality of the training, various experts from local and abroad participated into the development process of the training. The major steps of the training development followed were:

### I. Instructional engineering

- In this step first the objectives and desired outcomes of the trainings were identified. Then, managerial and technical competency required for health logistician was identified and developed. The managerial competencies were designed with a view to involve health supply chain managers in planning, leading, directing, controlling and decision making procedures. The technical competency was not limited to movement of products only but also includes skills required in equipment (biomedical) management, facility management, blood management, lab equipment management, emergency and crisis management.
- Training strategy was identified to start with pre-service followed by in-service and post graduate programs as future plan. Regarding the short term training, it was agreed to make it standardized using inputs from various in-service trainings and assess the needs on regularly basis. Identify
- Professionals working at service level were recognized as target audience for the training.
- Distance, face to face and internship were identified as learning methods for the program. The distance learning method was designed to be through e-learning. Registered students are provided with CD-ROM and they submit their learning plan for the e- tutor through e-mails. Then the e-tutor coordinators monitor how much time is spent by each student and if the student does not give sufficient time as per the module requirement, he/she will repeat the module before the final exam). Before beginning face to face session, students seat for exams of all distance learning modules. The Fact to face session is conducted in IRSP where students get full package of scholarship during their stay in Ouidah. In addition to classroom lectures, they are also expected to have field exercises and prepare report on their field visits. Finally, written exam of all face-to-face courses is given after completing each module. After successfully completing the distance and face to face sessions, students will have 12 weeks of Internship program in selected sites in Benin. During their stay, tutor people and instructors guide interns and each intern is expected to prepare problem solving essay report and deafened his/her project.

- Case studies, interactive lecture, group discussion and field visit and practical attachment were selected as method of deliveries for the program.

## II. **Detail curriculum**

- Documents and detail of each training module (learning objectives, hours of training, types of exercises, bibliography etc.) were prepared and it was made to be reviewed by consortium and within curriculum workshops.

## III. **Instructional design & content**

- A team composed of instructional design expert (multimedia expert, training expert), professional and logistic experts, project coordinators and consortium of SCM were mobilized and they prepared the training material kits including course description, exercise, case studies, TOR for field visit.

## IV. **Review and adapt content**

- The already prepared training material kits were sent to experts from UNICEF, WHO, IRSP, Institute Bioforce, RTT, AMP, MoH, Central Medical Store of Benin, and feedback was incorporated accordingly.

## V. **Quality assurance**

- In order to ensure the quality of the health logistics program, IRSP was responsible to implement the QA system based on academic and professional referential. In addition, facilitators guide was prepared and training of trainers was given to IRSP staffs.

## VI. **Skill transfer**

- Skills are transferred via co-facilitation by instructors from IRSP and professionals experts identified for the program. On top of that comprehensive training material kits were prepared and IRSP adapted the training materials.

### **4.3. Implementation**

The program has graduated the first batch of students during the first year of training where twenty four students participated from countries in the region, including Burkina Faso, Madagascar, Niger, DRC, Cameroon, Togo, Burundi, and Benin. The one year program was

classified in to three phases, namely, distance learning, Face-to-Face and Internship. The current batch in the 2<sup>nd</sup> year of implementation constitutes 22 students.



Photo III & IV. Study tour team discussing with the management of Regional Institute of Public Health (IRSP).

The program constitutes a one year (i.e. two semester courses with total of 60 credit hours). Students are admitted based on assessment of their background. Accordingly, they are obliged to demonstrate proof of completion of four semesters (or 120 credit hours) after high school graduation in other fields of study. It is recommended that these courses are related to logistics/supply chain management or health fields.

The facilitators are from diverse background such as public health, logistics, environmental technology, civil engineering, instructional/educational engineering, etc. mobilized from relevant departments of Benin University and partly partner organizations. The fact that the modules are well prepared and presented greatly simplified the teaching process.

The teaching methodology of IRSP is based on competency and pedagogical way of evaluation consisting of continuous diagnosis to define their competency throughout the training, periodic formative evaluation with timely corrective actions and cumulative evaluation at the end of each module. The passing score being 60 % (i.e. 12/20), second chance is given to students up on instances where students fail to fulfill the minimum requirement.

The interview made with one of the first batch graduate currently serving as Zonal Vaccine Supply Chain Manager revealed that he had background of banking and financing with two years of training and served as store manager in a zonal hospital in COME district (pilot project area for LOGIVAC) before joining the logistics training. He attests his experience before the training as inventory management largely based on instinct management and now the training equipped him with rules and good practices of stock management. Moreover he acquired skills in other

supply chain domains such as Logistics Management Information System (LMIS), Vaccine and Cold Chain Management, management of blood, blood products and laboratory samples, Information Technology, equipment management, electricity and civil engineering.



#### 4.4. Sustainability

While the LOGIVAC project is supposed to end in 2014, the sustainability of the program rests upon the successful running of the LOGIVAC center which is currently being run by IRSP and progressively fading support of the project. Therefore, the following measures are being taken in order to ensure the continuity of the program;

- a. Economic model:
  - Increase catalogue of short term trainings through which income can be generated
  - Facilitating scholarship for the bachelor degree program through partners
  - Ensure the programs running cost remains low (i.e. as a virtual center having 1 employee – 1 room set up using the IRSP and other existing facilities)
- b. Ensuring AMP's continued support in providing technical assistance
- c. Advocacy works for recognition of the program by governments enabling deployment of graduates with rewarding incentives and by potential global actors at various stages (e.g. Global Health Supply Chain Summit)
- d. Increasing accessibility of the training through development of e-learning and providing free training with accreditation based on nominal fee.
- e. Ensuring the programs acceptability through delivery of need based/pragmatic trainings with well-developed community of practice (i.e. having best practice observatory with potential for scale up)

## 4.5. Challenges

The observed challenges focused on former student's feedback on the training delivery and outcome. During the training student faced huge pressure to meet requirements particularly with the distance learning phase. The LOGIVAC project coordinator also share this idea confirming that the pressure was even further intensified with those students who failed to dedicate full time and coupled the study with daily assignments at their work place.

After graduation, while trying to put the knowledge and skill acquired during the training, the graduate is faced with huge workload leading while trying to implement the new logistics system, attending to frequent distribution activities (i.e. spending much time on the field) and unable to attend to some of the job requirements such as generation of reports. It is the team's observation that this could potentially lead/contribute to unsatisfactory job satisfaction.

The LOGIVAC project being on its final year of implementation the following observations are worth mentioning;

- a. The project was too ambitious with what is envisaged to be accomplished in the project's life time (i.e. 3 years) in the face of low capacity of stakeholders to cope with the pace.
- b. Development of distance education being costly
- c. Inadequate application of the modules and pedagogic materials during training

## 4.6. Lessons learnt

The following lessons were learnt during the experience sharing visit;

- a. The need for generating evidence in terms of HR need in Health SCM which includes roles and responsibilities in Health SCM system, required competencies and skills with the aim of identifying the gap (i.e. generate evidence).
- b. It requires comprehensive strategies in order to address HR need in Health SCM (i.e. not only limited to training but also creating conducive environment for HSC professionals).
- c. Distance learning phase requires costly material preparation and follow up on delivery
- d. Curriculum development should consider preparation of full training kit consisting of course description, exercises, term of reference for field visits, case studies, etc... and entailing activities for the full time allocated to each session.

- e. Training should be supported by well-organized demonstration sites
- f. Training curriculum should focus on equipping trainees with skill rather than entirely focusing on theoretical sessions
- g. There should be clearly defined criteria for recruitment of students

#### **4.7. Recommendations**

The experience of Benin in launching and running health logistic is paramount for the envisaged supply chain management program at the School of Pharmacy, Addis Ababa University. The following recommendations are therefore forwarded by the team in order to support the effort towards closing gap in terms of HR for Health SCM and particularly launching training programs in the field;

- a. Conduct need assessment using existing tools (e.g. PtD HR assessment tool) adapted to the local context while ensuring the consideration of often neglected areas such as Equipment Management, Facility Management (i.e. Engineering, system and power) and Emergency and Crisis management.
- b. Establish/strengthen CONSORTIUM FOR HEALTH SCM
- c. Create strong and vibrant partnership in the field of Health SCM with local and international institutions
- d. Consider diversify training strategies (pre-service, in-service and postgraduate)
- e. Build pool of experts for curriculum development and delivery of courses in Health SCM

### **5. Way forward**

Following the experience sharing visit, the team proposes the following action points;

- Desk review of HR need assessments conducted on health supply chain management in Ethiopia (in order to build sufficient evidence for the case)
- Conduct need assessment using adapted tool (if more evidence is required)
- Establish formal CONSORTIUM on health SCM
- Diversify partnership in Health SCM (In-country, International - refer to Annex IV for pool of existing and potential partners identified in the field)
- Identify core competencies and develop courses and decision on the training strategies

## Annex I. Schedule for the study tour

<b>Dates</b>	<b>Activity</b>	<b>Objective</b>	<b>Interviewee / Observation Site</b>
July 3-4, 2014	<ul style="list-style-type: none"> <li>• Meeting</li> <li>• Interview</li> <li>• Document review</li> </ul>	<ul style="list-style-type: none"> <li>• To explore the health SCM program development and implementation in Regional Institute of Public Health, University of Benin.</li> <li>• To identify challenges faced in launching and implementing health logistics the program</li> </ul>	Program coordinators and IRSP management;  LOGIVAC coordinator and staff
July 4, 2014	Document review Interview	<ul style="list-style-type: none"> <li>• To examine graduate profile and employment opportunities;</li> <li>• To identify challenges faced by former students and teachers</li> </ul>	Interview with students and faculty members
July 4, 2014	Visit Document review	<ul style="list-style-type: none"> <li>• Document experiences on preparing demonstration sites for Health SCM training.</li> </ul>	COME demonstration sites
July 5-6, 2014	Half Day Additional Discussion with LOGIVAC Coordinator and Compilation of Report		
July 7, 2014	Visit	<ul style="list-style-type: none"> <li>• To explore the health SCM system of Benin</li> </ul>	Central Medical Store of Benin
July 7, 2014	Interview	<ul style="list-style-type: none"> <li>• To assess government recognition for the health SCM program and health logistics professionals in the health care system of Benin</li> </ul>	HR department visit to MoH

## Annex II. Checklist for the study tour

### Checklist for curriculum development benchmarking in LOGIVAC Training Center, University of Benin, Benin

Interviewee / Observation Site	Discussion Points
Program coordinators	<ul style="list-style-type: none"> <li>• Overview of training program</li> <li>• Teaching, learning, method of evaluation: Blended learning communication with students</li> <li>• Faculty &amp; staff profile,</li> <li>• Student progression and achievement</li> <li>• Resources and support: University, Government and Private sectors, Partners</li> <li>• Research, scholarly activities</li> <li>• Program governance and management in the above mentioned institutions</li> <li>• Challenges during in launching the program</li> <li>• Document sharing (curriculum, modules)</li> </ul>
Students and Faculty members	<ul style="list-style-type: none"> <li>• Graduate profile and employment opportunities</li> <li>• Profession and competency required at various level of the health system</li> <li>• Challenges faced by students and teachers</li> <li>• Faculty members recommendation on course inclusion</li> </ul>
Demonstration sites	<ul style="list-style-type: none"> <li>• Physical resources</li> <li>• How skill transfer is conducted?</li> </ul>
MoH	<ul style="list-style-type: none"> <li>• Status of the SCM of the country: Availability, affordability, stock out, expiry, lead time, distribution, contribution of the graduates</li> <li>• Demand for the training, Technical capacity and efficiency of the graduates</li> <li>• LOGIVAC vs. MOH linkage: MoH roles in the program, LOGIVAC roles in the country's SCM</li> </ul>

### Annex III. List of interviewee

S.No	Name of Participant	Responsibility	Institution
1.	Professor Michelle-	Chief of department of environmental health, Director of IRSP, coordinator of PhD in Public Health	IRSP, University of Benin
2.	Dr Jacques Saizonou-	Deputy chief of department, health system politics	IRSP , University of Benin
3.	Prof Michel Makoutode	IRSP director, coordinator of PhD in Public Health	IRSP, University of Benin
4.	Prof Edgarit Marius OUENSO	Chief of department of health system politics, director of logistics department	IRSP, University of Benin
5.	Prof Laurent O'uedrogo-	Physician epidemiology, deputy director, IRSP, chief of biostatics and epidemiology	IRSP, University of Benin
6.	Maglore Achidi	Health logistics technical advisor (based in IRSP)	IRSP, University of Benin
7.	Phillipe Jailard	Immunization Logistics Program Leader	Benin Country Representative of AMP
8.	Caroline Lebrun	Logistics technical advisor	AMP, Benin
9.	Dr Dansou Alfred	Director General	Central Medical Store
10.	Dr Tossou Emmanuel	Deputy Director General	Central Medical Store
11.	Otchon Chabi	Health logistician, former student, chief of stock management and distribution	Central Medical Store
12.	Allien	former student and coordinator of Come demonstration site and vaccine	Come District, Ouidah
13.		Data manager	Come District, Ouidah

### Annex IV. Pool of Partners

<ul style="list-style-type: none"> <li>• Agency De Madecine Preventive (AMP)</li> <li>• Bioforce Institute</li> <li>• GlaxoSmithKline plc (GSK)</li> <li>• Imperial Health Sciences (IHS)</li> <li>• KUEHNE + NAGEL</li> <li>• Management Sciences for Health (MSH)</li> <li>• Partnership for Supply Chain Management (PfSCM)</li> </ul>	<ul style="list-style-type: none"> <li>• People that Deliver (PtD)</li> <li>• Pharmaceutical Systems Africa</li> <li>• Regional Public Health Institute (IRSP – Benin)</li> <li>• United Nations Population Fund (UNFPA)</li> <li>• United Nations Children’s Fund (UNICEF)</li> <li>• USAID   DELIVER Project</li> <li>• World Health Organization (WHO)</li> </ul>
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