Acknowledgments

This assessment would not have been possible without the consent of the Ministry of Health and Social Welfare (MOHSW). Post-conflict health care systems rehabilitation is not the easiest of tasks for any country. The Ministry made available to us the support services of its staff to help us carry out a fair and objective assessment of the health training facilities.

Our appreciation goes to the following: Tornorlah Varpilah, Deputy Minister for Planning, Research and Development; Dr Bernice Dahn, Deputy Minister of Health and Chief Medical Officer; Dr Moses Pewu, MD, MPH, Assistant Minister of Curative Services; and Dr James Duworko of USAID/Liberia for facilitating our work both at the Ministry headquarters and at the institutions we visited. We also want to thank the faculty and staff of all the institutions.

It is our hope that the report will inform planners, decision and policy makers in rebuilding a health care training program that will provide Liberia with its much-needed health care workforce.

Dr. Sambe Duale
Dr. Ronald Mataya
Assessment of Health Training Institutions in Liberia

APRIL 2007

Disclaimer
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Table of Contents

Acronyms.................................................................................................................. v
I. Executive Summary................................................................................................. 1
II. Background............................................................................................................ 3
III. Purpose................................................................................................................ 4
IV. Methodology ......................................................................................................... 4
V. Assessment findings............................................................................................... 6
   A. Policy framework ............................................................................................... 6
   B. Training programs ............................................................................................. 6
   C. Curriculum ......................................................................................................... 7
   D. Student population ........................................................................................... 7
   E. Teaching Staff (Faculty) .................................................................................... 7
   F. Infrastructure ...................................................................................................... 8
   G. Teaching and learning materials: ....................................................................... 8
   H. Funding sources ................................................................................................ 8
   I. Institutional linkages .......................................................................................... 9
VI. Priority needs ......................................................................................................... 9
VII. Recommendations ................................................................................................ 10
VIII. Conclusion .......................................................................................................... 11
Annexes: Individual Institution Assessment Findings ............................................... 12
   A. Tubman National Institute of Medical Arts (TNIMA) ..................................... 12
   B. Smythe Institute of Technology School of Nursing .......................................... 16
   C. United Methodist Ganta Hospital School of Nursing ....................................... 18
   D. Phebe Hospital and School of Nursing .............................................................. 20
   E. Cuttington University College of Nursing ......................................................... 23
   F. Cuttington University Graduate Program ........................................................... 25
   G. Liberian Board of Nursing and Midwifery ......................................................... 27
   H. Mother Patern College of Health Sciences ......................................................... 28
   I. University of Liberia A. M. Dogliotti College of Medicine and the School of Pharmacy 30
**Acronyms**

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>BPHS</td>
<td>Basic Package for Health Services</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>FBO</td>
<td>Faith-Based Organization</td>
</tr>
<tr>
<td>FTE</td>
<td>Full-time Faculty</td>
</tr>
<tr>
<td>GOL</td>
<td>Government of Liberia</td>
</tr>
<tr>
<td>IMCI</td>
<td>Integrated Management of Childhood Illnesses</td>
</tr>
<tr>
<td>LBNM</td>
<td>Liberian Board of Nursing and Midwifery</td>
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<tr>
<td>MOHSW</td>
<td>Ministry of Health and Social Welfare</td>
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<tr>
<td>NHP</td>
<td>National Health Plan</td>
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<tr>
<td>PIRE</td>
<td>Pacific Institute for Research and Evaluation</td>
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<tr>
<td>TNIMA</td>
<td>Tubman National Institute for Medical Arts</td>
</tr>
<tr>
<td>UL</td>
<td>University of Liberia</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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I. Executive Summary

Through the Africa’s Health in 2010 Project, the United States Agency for International Development (USAID) provided the technical services of Dr. Sambe Duale of Tulane University School of Public Health and Tropical Medicine and Dr. Ronald Mataya of Loma Linda University School of Public Health to assist the Ministry of Health and Social Welfare (MOHSW) of Liberia to conduct an assessment of health training institutions. The assessment was conducted from March 31 – April 10, 2007.

The purpose of the assessment was to examine the state of the infrastructure, human resources (faculty and staff) and academic standards of selected private and public training institutions to inform strategic directions of the ministry and its partners for the development and deployment of needed human resources for the implementation of the essential package of basic health services as defined in the National Health Policy.

The assessment team met with key informants from the MOHSW, the Liberian Board of Nursing and Midwifery, USAID, World Health Organization (WHO), European Union (EU) and selected teaching hospitals. The following training institutions were visited:

1. Tubman National Institute for Medical Arts (TNIMA) in Monrovia
2. Smythe Institute of Technology School of Nursing in Monrovia
3. Winfred Harley College of Health Sciences, United Methodist University in Ganta
4. Phebe Hospital and School of Nursing in Gbanga
5. Cuttington University School of Nursing in Gbanga
6. Cuttington University Graduate School in Monrovia
7. Mother Patern College of Health Sciences in Monrovia
8. University of Liberia A. M. Dogliotti College of Medicine in Monrovia
9. University of Liberia School of Pharmacy in Monrovia

The team assessed the training programs offered by the institutions. They include professional nursing, midwifery, physician assistant, laboratory technology, environmental health, pharmacy, and medicine. The curricula for the various courses of the training programs are approved by the different licensing boards, however the curricula have not been revised for several years. Specifically, they have not been revised to meet the basic package for health services (BPHS) for primary health care recommended in the new National Health Plan of Liberia.

The assessment found that only two institutions (Mother Patern and Phebe) appear to have a good and conducive learning environment. Classrooms and furniture are in extensive disrepair in the other institutions. Communication technology is not readily available or is absent altogether.

Additionally, in all institutions, there are a limited number of full-time (FTE) faculty which has resulted in the employment of part-time faculty. The faculty-to-student ratio is unacceptably high (1 FTE faculty for more than 30 students). There has been a major influx of applicants into the paramedical training programs since the cessation of the conflict. As a result, all the schools have very large numbers of students; in fact, too large for current rooms and facilities.
To rehabilitate and strengthen the health training institutions so that they can better contribute to health sector development in Liberia, the following priority needs must be addressed:

1. **Curriculum development.** A major overhaul needs to be done to modernize the current curriculum in all the programs; nursing, midwifery, laboratory technology etc. One of the school bulletins was issued in 1987 and has never been updated.

2. **Faculty development.** While curricula need to be revised, there is an even greater need to develop faculty and staff. The majority of the faculty did not have masters’ degrees, let alone doctoral degrees. They have not had continuing education and one can conclude that they lack modern training methodologies and current information in their fields.

3. **Rehabilitation of basic infrastructure.** Except for Phebe and Mother Patern, all the schools need extensive rehabilitation of basic infrastructure. This includes buildings, classroom furniture, and utilities such as water and sanitation.

4. **Textbooks and teaching aids.** Except for Mother Patern and Phebe, all the institutions have outdated textbooks and teaching aids. At Phebe, most of the textbooks are outdated, however, more current textbooks are kept in a locked bookshelf in the Dean’s office for the students and faculty to borrow. At Mother Patern, two students share one textbook. Teaching aids in all the schools are old and in disrepair.

5. **Information technology.** Introducing adequate information technology, i.e. the internet, at all the schools is an effective solution to the problem of textbooks as students and faculty will have access to the most recent journals and texts.

6. **Financial support for teachers and students.** Teachers are so poorly paid that many have side jobs to make ends meet. A good number of the students come from very poor families and need some financial assistance to complete their studies.

These priority needs are further discussed in this report, as well as recommendations on how to address them. The individual institution assessment findings are included as annexes to this report.
II. Background

Liberia is emerging from more than 14 years of destructive war and a ‘culture’ of violence. Impressive humanitarian efforts and resources have helped sustain selected health services delivered mainly by non-governmental organizations (NGOs) during recent years. The elections of 2005 have ushered in an era of new leadership and optimism that have already set the momentum to shift from emergency and humanitarian to developmental and capacity building strategies to create a sustainable health system.¹

The MOHSW of the Government of Liberia (GOL) aims to reform the sector to effectively deliver quality health and social welfare services to the people of Liberia. Its vision is a nation with improved health and social welfare status and equity in health. The Ministry regards health as a basic human right, and as such has devoted itself to ensuring that every Liberian has access to health and social welfare services regardless of economic status, origin, religion, gender or geographic location. The MOHSW has prepared a National Health Plan (NHP) for implementation of its national health policy. This plan articulates the MOHSW five-year health plan (2007-2011) and a more detailed two-year transition plan (2007-2008).

A key priority area of the plan is the development of human resources for health. The Ministry wants to ensure the following in its planning strategies:
1. A coordinated approach to human resources planning.
2. Enhanced health worker performance, productivity and retention.
3. Increased number of trained health care workers and their equitable distribution.
4. Gender equity in all aspects of employment.

The MOHSW recognizes that human resources are the most valuable asset of the health sector. The Ministry plans to ensure that the right health workers are in the right place at the right time with the right skills to deliver the basic package of health services. A long-term comprehensive program is envisioned to produce a gender-balanced health workforce with the skill mix needed by the health services at different levels of care.

The MOHSW conducted a health sector rapid assessment earlier in 2006 to inform the development of the NHP. The assessment revealed an extremely limited pool of middle and high level trained and competent health and social welfare personnel in the country. The situation analysis also uncovered variations in the quantity and quality of various categories of health personnel. There are notable variations in the knowledge and skills of health workers in the same category, such as community health worker and nurse aid. A number of government training institutions are barely functioning, and have little or no training equipment, teaching material or supplies.

The MOH rapid assessment identified 354 functional health facilities, including 286 clinics, 50 health centers and 18 hospitals. An additional 200 health facilities are currently non-functional. Estimates show that only 41% of Liberians have access to health services. The definitions of

“functional” and “access” are rough approximations and these will be more clearly defined as the BPHS is implemented at every level of the system.

The health workforce consists of approximately 4,000 full-time and 1,000 part-time staff. This includes 168 physicians, 273 physician assistants, 453 registered nurses and more than 1,000 nurse aids and other health professionals.\(^2\)

The MOHSW has defined what it would like the BPHS to deliver at each level of the system, including community. It has also defined the need to strengthen central level systems to implement the BPHS but recognizes that it is equally important to define strategies for the development and deployment of health personnel to deliver those services at all levels and as close to the beneficiaries as possible. There is an urgent need to provide health services especially in the least accessible and therefore least served areas of the country. It is important for the MOHSW to rehabilitate facilities and to place well-trained personnel to provide the services.

### III. Purpose

Stronger pre-service education and in-service training systems for health workers are essential to meet the need for scaling up quality basic health care services all over Liberia. In order to do this effectively, an assessment of health training institutions needed to be done to inform the MOHSW’s planners and partners, including USAID, about the state of some private and public health training institutions which are the producers of all national health care workers in the country.

The purpose of the assessment was to examine the state of the infrastructure, human resources (faculty and staff) and academic standards of selected private and public training institutions to inform strategic directions to the Ministry and its partners for the development and deployment of needed human resources for the implementation of the BPHS.

### IV. Methodology

Through the Africa’s Health in 2010 Project, USAID provided the technical services of Dr. Sambe Duale of Tulane University School of Public Health and Tropical Medicine and Dr. Ronald Mataya of Loma Linda University School of Public Health to assist the MOHSW in carrying out this assessment.

In-country logistics and meetings were arranged by the MOHSW. Deputy Ministers, Mr. Tornolah Varpielah and Dr. Bernice Dawn, and their collaborators facilitated the assessment team’s work. Dr. James Duworko of USAID/Liberia also supported the work of the team. The team also interacted daily with Dr. Frank Baer and Dr. Iain Atkins, two consultants from the BASICS Project who were also working with the MOHSW on the implementation of the BPHS.

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National Health Policy and the BPHS. The team also had discussions with three consultants provided by the EU to work with the MOHSW on the pharmaceutical sector.

The team studied the most recent copy of the National Health Plan (2007-2011), which served as a reference point for all its observations particularly as it relates to human resources planning, management and development.

The assessment team met with key informants from the MOHSW, the Liberian Board of Nursing and Midwifery, USAID, WHO, EU and selected teaching hospitals. Many of the appointments for visits to institutions were made after the team’s arrival. This resulted in the team not being able to meet with some key personnel, such as the Dean of Cuttington University School of Nursing.

Self-evaluation questionnaires were sent out to the MOHSW for each of the institutions to complete before the team arrived in country. Site visits were made during which discussions with key informants were conducted using semi-structured questions quite similar to the self-evaluation forms. There were only two institutions that completed the self-evaluation form; the rest had not received them. This was a setback in the sense that the team could have collected more information had the informants been able to complete the forms.

The focus areas for the assessment included:
1. Training programs and accreditation status
2. Faculty and staff
3. Students
4. Curriculum
5. Infrastructure
6. Funding
7. Formal linkages with national, regional and international organizations

Areas of infrastructure which that were inspected were included classrooms, administrative offices, student services and rooms, libraries, computer and clinical laboratories, teaching aids and equipment, communication technology, transport, field training sites, dormitories, utilities and other supporting services.

The following institutions were visited:
1. Tubman National Institute for Medical Arts (TNIMA), in Monrovia
2. Smythe Institute of Technology School of Nursing, in Monrovia
3. Winifred Harley College of Health Sciences, United Methodist University, in Ganta
4. Phene Hospital and School of Nursing, in Gbanga
5. Cuttington University School of Nursing, in Gbanga
6. Cuttington University Graduate School, in Monrovia
7. Mother Patern College of Health Sciences, in Monrovia
8. University of Liberia A. M. Dogliotti College of Medicine, in Monrovia
9. University of Liberia School of Pharmacy, in Monrovia
V. Assessment findings

A. Policy framework

The section on "Human Resources for Health" in the National Health and Social Welfare Plan points to an urgent task within the MOH to create a Human Resource Division with a Director. Once established and functional, the division will take the leadership in planning, producing and supporting training and development for the future health workforce.

The document also points out the need for more accurate data to establish priorities and ensure adequate numbers, and appropriate and equitable distribution of health professionals throughout the country. Answers to the following questions must be addressed to inform proper planning:

1. What is the geographic distribution and technical composition of the current workforce nationwide?
2. How many and what mix of health workers and professional staff are required by facility type to deliver the BPHS?
3. What training and competencies do current health workers already have?
4. What competencies and training standards are required to deliver the BPHS?

The Ministry plans to address the production of health workers through a decentralized training system, including training required for the implementation of the National Health Plan. It is essential for the government and the private sector to coordinate the allocation of resources so that centers of excellence are established to train healthcare workers. This should be done in parallel with the rehabilitation of health infrastructure, which is pointed out in the report.

B. Training programs:

<table>
<thead>
<tr>
<th>Training programs</th>
<th>Number of institutions offering the program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professional Nursing</td>
<td>4</td>
</tr>
<tr>
<td>Midwifery</td>
<td>2</td>
</tr>
<tr>
<td>Physician assistants</td>
<td>1</td>
</tr>
<tr>
<td>Environmental health</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental health</td>
<td>1</td>
</tr>
<tr>
<td>Nurse anesthetist</td>
<td>1</td>
</tr>
<tr>
<td>Laboratory technology</td>
<td>2</td>
</tr>
<tr>
<td>Bachelor of Science in Nursing</td>
<td>1</td>
</tr>
<tr>
<td>Pharmacy</td>
<td>1</td>
</tr>
<tr>
<td>Medicine</td>
<td>1</td>
</tr>
<tr>
<td>Graduate Public Health (new)</td>
<td>1</td>
</tr>
</tbody>
</table>

C. Curriculum

The curricula for the courses of the various training programs are approved by the different licensing boards. They have not been revised for several years and do not meet the BPHS for primary healthcare recommended in the new National Health Plan of Liberia.

D. Student population

There has been a major influx of applicants into the paramedical training programs since the cessation of the conflict. The explanation given was that the medical professions were seen as secure even during conflicts and that it was easier for an individual to open a pharmacy or clinic. As a result, the schools have very large numbers of students; in fact too large for the current facilities. There are large numbers of female students, except in the physician assistants’ and laboratory technician programs. Students range in age from 19 to 40 years. No determination of their individual geographical origin was made.

A crowded midwifery class at TNIMA

E. Teaching Staff (Faculty)

Because there is a limited number of FTE faculty, employment of part-time teachers has resulted. The faculty-to-student ratio is unacceptably high (1 FTE faculty for more than 30 students). The majority of the faculty does not have masters and/or doctoral degrees, although some are currently pursuing such programs (e.g. selected faculty at Smythe and Phebe). Gender distribution varied from institution to institution with many of the faculty being male. It was also noted that there have been poor faculty development programs or none at all, and clinical supervisors were few.
**F. Infrastructure**

The assessment found that only two institutions (Mother Patern and Phebe) appear to have a good and conducive learning environment. The classrooms and furniture are in extensive disrepair in the other institutions. Communication technology is not readily available or is totally absent in most institutions. At Cuttinton, the Internet is only available in the Dean’s office. It is not available at all at Smythe, TNIMA and the Winifred Harley College of Health Sciences.

There are no functioning computers at TNIMA. The dormitories in most institutions are in such disrepair that they would be condemned anywhere else. The majority of students live off-campus. Only Cuttinton has a center for students’ activities on campus.

*Outside view of the School of Nursing*

**G. Teaching and learning materials:**

The students do not have individual textbooks and the textbooks that are shared are mostly outdated. All of the institutions had libraries stocked with old and outdated textbooks. There were no professional journals to speak of. Recent WHO technical guidelines on key program areas such as malaria case management, integrated management of childhood illnesses (IMCI), integrated disease surveillance and response, maternal and newborn care were not available. Phebe had a functioning computer laboratory that is threatened by lack of air conditioning or proper ventilation. The demonstration models and teaching laboratories at Mother Patern and Phebe were well kept and organized. The affiliated teaching hospitals and clinical training sites are overwhelmed by the number of students. Combined with the shortage of clinical faculty, the quality of education available to the students is of a low caliber.

**H. Funding sources**

All the schools rely mainly on tuition fees for operating costs. There are, however, some government subsidies and scholarships for selected institutions such as TNIMA and Phebe. Phebe and Mother Patern have also received some international aid and in-kind donations in the form of refurbished equipment and medical supplies. A.M. Dogliotti and Smythe receive some local private donations.
I. Institutional linkages

Phebe, Mother Patern, Winifred Harley College, Cuttington have developed some linkages with Faith-Based Organizations (FBOs) in the United States and Europe. Only Phebe and Mother Patern have received grants from international FBOs to support the rehabilitation efforts.

VI. Priority needs

From the in-depth interviews with key informants, the site visits and the review of relevant documents, the assessment team identified a number of priority needs to be considered in order to rehabilitate the health training institutions and increase their contribution to health sector development in Liberia. The priority needs include:

1. **Curriculum development**: A major overhaul needs to be done to modernize the current curriculum in all the programs; nursing, midwifery, lab tech, medicine etc. One of the school curricula that we observed was developed in 1987 and has never been revised.

2. **Faculty development**: While curricula need revision, there is even greater need to develop faculty and staff. The majority of the faculty does not have masters’ degrees let alone doctoral degrees. They have not had opportunities for continuing education, and one can conclude that they do not have experience with modern training methodologies and lack current information in their fields.

3. **Rehabilitation of basic infrastructure**: With the exception of Phebe and Mother Patern, all the schools need extensive rehabilitation of basic infrastructure, including buildings, classroom furniture, and utilities, such as water and sanitation.

4. **Textbooks and teaching aids**: All the schools except Mother Patern and Phebe have very old outdated textbooks and teaching aids. As stated earlier, recent WHO technical guidelines on key program areas were not available at most training institutions. Even at Phebe, most of the textbooks are outdated. Recent textbooks are kept in a locked bookshelf in the Dean’s office for the students and faculty to borrow. At Mother Patern, two students share one textbook. The teaching aids in all the schools are very old and in disrepair.

5. **Information technology**: Introducing adequate information technology would be a quick way to fix the problem of textbooks, as students and faculty would be able to access the most recent journals and texts.

6. **Financial support for teachers and students**: Teachers are so poorly paid that most have side jobs to make ends meet. A large number of students come from very poor families and need financial assistance to complete their studies. Accessing subsidies from the government and its partners or developing grant proposals to leverage additional resources from public and private donors might help reduce the over-dependency the training institutions have on tuition fees.
7. **MOHSW and HR.** Although the assessment did not include the MOH in its scope of work, it will be a glaring omission if it is not pointed out that it is essential for the Ministry to establish an HR division with a clear focal point to address health training institutions.

**VII. Recommendations**

In light of the priority needs identified above, the assessment team makes the following recommendations:

1. The curriculum needs to be aligned with the BPHS. This will enable the new trainees to be adequately prepared to provide primary healthcare regardless of the facility where they are posted. It is critical that curricula be competency-based, so that it reflects the BPHS at each level of service delivery and cadre of providers.

2. In its recent accreditation visit, the Liberia Board of Nursing and Midwifery did not accredit any of the schools we visited except Mother Patern. This demonstrates a desire to maintain acceptable standards of professional training. The board authority should be enhanced and supported by the MOHSW so that as training improves the licensing of professionals will be uniform.

3. Basic infrastructure needs to be completely rehabilitated in order to create environments conducive to learning and teaching. The rehabilitation should be extended to residence halls. The TNIMA should receive special attention from the government and its partners because of its status as a national training center.

4. All staff should be trained and retrained in teaching methodologies and new curricula. National standards should be set to qualify teachers to teach at the degree level, diploma level or professional level. It is recommended that a core group of trainers be trained to deliver new curricula (in training institutions and to county-level teams and implementing partners) and be provided with in-service mentoring to enhance training techniques. No professional development training or updates was provided to any faculty in all the schools that the team visited. This probably applies to the rest of the country.

5. Scholarships should be provided to students who want to work in underserved areas and to students from counties without schools. Apparently, this was the reason why TNIMA was built -- to provide healthcare providers to the poorest and most difficult-to-reach communities.

6. Teaching staff are so poorly paid that many moonlight to make ends meet. A structured system of remuneration in both the private and public sectors must be developed so that employees are paid a reasonable living wage in a timely manner.

7. The success of the decentralization process envisioned by the MOHSW is dependent on the leadership and management capacity of county health teams. When reviewing the curricula for various training programs, attention should be paid to health interventions as well as developing management skills.
VIII. Conclusion

The MOHSW has embarked on an ambitious but achievable health plan for a country that was devastated by a protracted civil war. There are challenges and obstacles on every front as outlined in the report.

It was clear from the beginning of the consultancy that the ministry is serious about implementing the NHP. There is goodwill from international donors and the central government supports the initiative.

There are short-term and long-term plans to implement the BPHS. The development of staffing competencies is paramount. In addition to the priority needs identified in this report for strengthening pre-service training, the team agrees with the recommendations made by the BASICS consultant regarding support for capacity development and in-service training to enable current health workers to implement BPHS.

Since TNIMA is a national institution training the largest number of health personnel, it is recommended that the government and donors consider it a priority for immediate repair and restoration. The proposed TNIMA rehabilitation program should aim to:

1. Improve the capacity of teaching staff to provide quality health education and training.
2. Support the updating of training curricula for improved delivery of BPHS.
3. Improve the learning environment and availability of key health learning resources at the TNIMA.
4. Re-introduce a program of student scholarships and placements after graduation.
5. Establish collaborative linkages with national, regional and international organizations.
Annexes: Individual Institution Assessment Findings

A. **Tubman National Institute of Medical Arts (TNIMA)**

**Key Informants:**
1. Mr. Wuo L. S. Gartei, Assistant Director
2. Mr. James K. Sorsor Sr., Director of the Nursing and Midwifery program
3. Director of the Environmental Health Program
4. Director of the Physician Assistant Program

**Training programs offered:**
TNIMA was founded in 1945 to train paramedical health personnel. It was started by a public health team from mainly USA to train people who would work in the underserved rural areas.

The following were the original diploma courses offered and are still being offered:
1. Nursing – 3 years
2. Midwifery – 2 years
3. Physician Assistants (PA) – 3 years
4. Environmental Officers – 2 years

Since then, x-ray, operating room and clinical laboratory technology courses were added only to be discontinued because of shortage of faculty and staff.

**Students:**
The entry requirements to all the courses are the same: a West African High School Diploma. Most of the graduates enter into the civil service and a large number work for NGOs. There has been a major influx of applicants since the end of the war; for instance, this year there were 1,600 applicants for 200 positions in the school. The school currently has about 450-500 students.

**Gender distribution:**
Nursing: 98% women, 2% men
Physician Assistants: 60% men, 40% women
Midwifery: 100% women
Environmental Officers: 90% men, 10% women

**Graduates per year:**
1. Nurses – 70
2. PA – 40
3. Midwives – 60
4. Environmental officers – 25

All students are required to take the national licensing board examinations, except the environmental health officers. If the students fail three subjects on the board, they have to retake the entire examination whereas if they fail two they retake just the two.
Curriculum:
The curricula for all the courses are approved by the different licensing boards although it has not been revised for several years. It certainly has not been revised to meet the basic package for health services for primary health care that is now recommended for the new Liberia.

Infrastructure:
All the lecture rooms are too small for the number of students they have in each class while others do not have any furniture at all. The amphitheater is partially flooded with water and all the chairs were destroyed beyond repair. The library contains very outdated textbooks, referral books and old journals; students do not have individual textbooks. There is no telephone system or internet connection. The teaching demonstration lab has almost adequate teaching models but the space is too small. TNIMA relies on an archaic mimeographic machine for printing all copies of lectures and handouts, as well as old typewriters. Although students live in some of the dormitory rooms, the rooms are in extreme disrepair.
A crowded midwifery class at TNIMA

**Funding:**
The school depends on government subvention although students now pay tuition to cover some faculty and staff salaries. Other students are sponsored by NGOs, which will employ them upon completion of their training.

**Linkages with other programs:**
The school has no linkages with other organizations except occasional workshops sponsored by NGOs, such as the recent Life Saving Skills. TNIMA has had a brief partnership with the NGO Merlin about three years ago.

**Overall Impressions:**
The faculty was quite enthusiastic given the circumstances and environment in which they work. The students we met were also very positive in their attitudes.
Recommendations:

1. Since this is a national institution training the largest number of health personnel, it behooves the government and donors to make it a priority for immediate repair and restoration.

2. TNIMA should be used as an entry point to embark on a process to update all standards and criteria for paramedical education in the country. To accomplish this, the following will need to be done:
   a. Faculty training and upgrading
   b. Curriculum revision so that it includes the BPHS
   c. Repairing and refurbishing of building
   d. Updating the library
   e. Installing information technology; i.e. telephone, internet
   f. Scholarships for students
   g. Incentive scheme for faculty, especially if they have community outreach programs

3. Administrative staff training for running an efficient financial and support system in the school.

4. Linkages with international institutions to expose them to regional paramedical educational programs such as those in Ghana, South Africa or Kenya.
B. Smythe Institute of Technology School of Nursing

Key Informants:
1. Kulee Narnah, Dean of the School of Nursing
2. Philips Davis, Clinical Coordinator

Faculty and Staff:
8 FTEs (3 female, 5 male) most have their Bachelors degrees and one (the Dean) is working on his Masters in Nursing Administration. Some of the part-time teachers are physicians or professors of nursing at other schools. There are 10 non-teaching Nigerians and Ghanaians on staff.

Students:
A West African high school diploma and an entrance exam are the required of students to get into gain entrance to the college. The institute has about 450 students in nursing alone. Students pay Liberian $600 (US$10) per unit. They need 118 units to graduate with an associate degree in nursing, which takes three years to complete.

Curriculum:
A BPHS-related curriculum covers:
1. maternal and newborn health
2. child health
3. adolescent sexual and reproductive health
4. communicable diseases control
5. social and mental health

They have also added research methodology and anatomy and physiology II to strengthen their program. These courses do not appear in the curriculum that they are currently using.

Infrastructure:
The lecture rooms are in such bad shape that it will require a lot of work to rehabilitate and get them up to scale. The rooms are dirty and poorly lighted. The ceiling tiles have fallen off or are about to fall off. The environment is not conducive for to quality learning.

The demonstration teaching lab is very crowded and too small for the amount of equipment and students. The school has a computer lab, although most of the computers are not functioning. There were no students who were working on any of the computers. The power supply is erratic. All the printing is done outside of the school. The library has one librarian and is stocked with outdated textbooks and journals.

Funding:
The school is fully dependent on tuition with no plans to apply for any other sources of funding.

Collaboration:
Since Smythe Institute does not have its own hospital, the nursing students are sent to 5 different hospitals scattered throughout the country for their clinical training.
Overall Impressions:
The learning environment at Smythe is very poor and will require significant inputs to meet acceptable minimum standards. The clinical coordinator indicated that during a visit earlier this year, the accrediting body had recommended that the Institute relocate to better facilities.

Recommendations:
1. Review curriculum and evaluate quality of teaching
2. Relocate to facilities with a better learning environment
3. Review teachers’ qualifications
4. Recommend to Liberian Board of Nursing and Midwives to revisit the institution
C. United Methodist Ganta Hospital School of Nursing

Key Informants:
Joseph F. Gbozee, Acting Dean and Instructor
Sue Porter, Assistant Dean and Instructor
Victor Doolakeh Tavyor, Hospital Administrator

Faculty:
There are 3 FTEs: the Dean, the Associate Dean and the Clinical Coordinator. This means that there are no positions dedicated solely to teaching.

Students:
The school currently has a student population of 66 females and 33 males. The teaching facilities and accommodations are for 80 students. There are 20 more students than the current system can accommodate effectively.

Curriculum:
The school uses the standard associate degree in nursing curriculum which has not been revised since 1987. They have added a research methodology class and anatomy and physiology II. The school trains community midwives and traditional birth attendants. 118 credit hours are required to graduate.

Infrastructure:
The classrooms and dormitories are in good shape. The lighting is poor. The clinical laboratory and the demonstration lab are both poorly equipped for adequate teaching. There are limited teaching aids, no phone lines, no internet connectivity and no computer lab. The library was just rehabilitated but it is still poorly stocked.

Funding:
The school is tuition dependent at US$10 per credit hour.
Linkages with other programs:
An American missionary who is currently teaching in the nursing school is working on building linkages between the University of Tennessee and the United Methodist University School of Nursing.

Overall Impressions:
The school is doing all it can to offer an education in an environment that is less than ideal. They have started building a new campus with plans to relocate once that is finished.

Recommendations:
1. Faculty and staff
2. Further training
3. Infrastructure improvement
4. Textbooks and teaching aids
D. Phebe Hospital and School of Nursing

Key Informants:
Dr Garfee Williams, Medical Director and Bong County Health Officer
Humphrey E. Loweal, Professional Nursing Principal Instructor
Morris G. David, Assistant Director and Clinical Laboratory Principal Instructor
David Doborson, Laboratory and X-Ray Instructor

Phebe Hospital
Located about 100 miles northeast of Monrovia, in Bong County in the central region of the country, Phebe Hospital was founded in 1915 at Harrisburg (started admitting patients in 1921) in partnership with the Evangelical Lutheran Church of America. It moved to its present location in 1965.

It serves a constituency of 700,000 people, of whom 500,000 are residents and the remaining are internally displaced people. Over 50,000 out-patients are seen each year. Phebe remained open for most of the conflict except for a short period in 2003 when they moved to a 35-bed field hospital at Salala. Several of its staff where killed during the civil war and the hospital was severely vandalized and looted. There is an agreement between Phebe and the Ministry of Health and Social Welfare that the hospital functions as the main County Hospital.

The hospital has 200 beds and the wards are divided into: medical/surgical, pediatrics, and obstetrics and gynecology. They also have a large nutritional rehabilitation ward where 80 percent of the patients are referred.

The current Minister of Health, Dr. Walter Gwenigale, was the Medical Director at Phebe for many years and continues to perform surgeries there on a regular basis.

Training programs offered:
The school offers the following training programs:
1. Anesthesia
2. Medical laboratory
3. Registered nurse
4. Midwifery

All these are offered at diploma level and are fully accredited. Phebe Hospital also serves as the clinical teaching institution for Cuttington University School of Nursing. Two new courses have been added to the curriculum; (a) computer literacy and (b) Christian Ethics.

Teaching staff:
There are 7 full-time teaching staff (4 men and 3 women). Most of them cross-teach in the different training programs. There are 6 six part-time teachers. Each training program has a principal instructor. Two of the teaching staff have masters’ degrees; the rest have bachelors’ degrees.
Students:  
There are currently 127 students in all the training programs. This number may increase as they repair the dormitories and add new teaching facilities. The students come from all over the country.

Infrastructure:  
The infrastructure at Phebe is in remarkably good shape. This is due to the resourcefulness of the administration in forming partnerships with donors and the church community. Right after the unrest of 2003, the Danish government (DANIDA) through the Danish Evangelical Mission and the Danish Mission Council Development Department funded the complete rehabilitation of the school of nursing.

They have four classrooms in the main building and one in the hospital for the anesthesia and laboratory programs. They have internet services which will be improved for the school once they refurbish the computer laboratory.

*Outside view of the School of Nursing*

*The teaching demonstration laboratory at Phebe Hospital*
Funding:
There are three main sources of funding for operating the hospital and the school of nursing: the MOHSW (since the hospital functions as a county referral facility), churches and donors, and tuition. The institution currently works in partnership with Africare and Save the Children/UK on community projects and primary health care in the clinics they support. The school is currently in negotiation with the French Cooperation Agency and an NGO called Medecins du Monde on plans to support the midwifery training program.

Linkages:
Phebe Hospital continues to maintain good relations with the Evangelical Lutheran Church of America. Volunteer nurses and physicians visit from time to time and in-kind donations are received as well.

Overall Impressions:
In spite of what the difficulties this facility went through during the war, it has bounced back very quickly to restore the hospital and school infrastructure into an acceptable condition. This may be partially explained by the amount of support it received from its local and international partners.

Recommendations:
1. Staff development and training
2. Upgrading the rest of the students dormitories
3. Adding a few more classrooms
4. Textbooks and teaching aids
E.  *Cuttington University College of Nursing*

**Key informant:**
Ms. Pinky Kenkpen: Instructor and Alumnus

**General Information:**
Cuttington University is affiliated with the Episcopal Church of Liberia and it is the only institution currently offering an accredited bachelor's degree program in nursing. The University has initiated a master's degree in public health at the Monrovia campus, which is also the only one in the country. They are affiliated with the Phebe Hospital for clinical training.

**Teaching staff:**
The nursing program currently uses the services of 4 full-time and 6 part-time clinical instructors, most of whom are instructors at the Phebe Hospital. There are 3 three full-time nursing lecturers and 3 part-time lecturers. All the instructors have BSN degrees and 3 have MSN degrees, including the Dean. At the moment, there are no doctoral degree holders among the faculty.

**Students:**
The nursing school currently has 500 students altogether with about 50 nurses graduating per year. Most of the graduates work in Monrovia and the majority of students are female.

**Curriculum:**
The school curriculum is accredited by the Liberian Board of Nursing and Midwifery and 128 units are required to graduate with a BSN. The curriculum has not been revised to meet the BPHS as required by the MOHSW.

**Infrastructure:**
The buildings are currently undergoing renovations. Even though the classrooms are spacious, they are very poorly furnished. The library is poorly stocked and students do not have the luxury of owning individual textbooks. Only the Dean's office has internet access.
Funding:
The school is heavily dependent on tuition for funding. Tuition at Cuttington is the most expensive in the country, costing about $6800 to complete a 4-year degree. The University does receive some subsidies from the church for operating expenses.

Linkages:
Cuttington uses the Phebe Hospital for all its clinical training and some of the Phebe faculty also teach at Cuttington. They do not have any community outreach projects that are funded by grants.

Overall Impressions:
For a degree-level facility, Cuttington was rather disappointing. The infrastructure is in bad shape, although they are doing some renovations. The ratio of faculty to students is really too high, and one wonders and raises questions about the quality of education being offered.

Recommendations:
- Faculty development and training
- Textbooks for students and updating the library
- Overhead projector
- Internet access for students and faculty
- Rehabilitating students' facilities

A classroom at Cuttington College, (notice the broken windows)
F. Cuttington University Graduate Program

Key Informant:
Prof. Cecilia Morris

The assessment team met with Ms. Cecilia Morris to discuss the Cuttington University Graduate Public Health Program. The program was launched in 2004. Ms. Morris had the inspiration for starting the program while attending Emory University School of Public Health in 2000 as part of the U.S. government-funded Humphrey Fellows Program.

Although Cuttington University’s official location is in Suakoko, Bong County, Monrovia was considered as a more ideal location because Monrovia serves as a hub for working people with the requisite qualifications in education, nursing, business and theology who will more likely take advantage of obtaining graduate degrees in public health. The building that houses the graduate programs appears to be in good shape and is well-situated on Tubman Boulevard.

Ms. Morris is the coordinator of the program and the only full-time faculty. The rest of the faculty is made up of part-time lecturers. The program started with 6 students in 2004, now there are 35 students in the programs. The program is heavily tuition driven. As with the other health training institutions, the library is stocked with old and outdated books.

The public health curriculum below is covered over an 18-month period:

X. Semester I

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<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>PH 603</td>
<td>Principles of Public Health Practices</td>
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<tr>
<td>PH 621</td>
<td>Principles of Epidemiology</td>
<td>3</td>
</tr>
<tr>
<td>PH 604</td>
<td>Basic Biostatistics</td>
<td>3</td>
</tr>
<tr>
<td>PH 626</td>
<td>Behavioral Sciences &amp; Health Education</td>
<td>3</td>
</tr>
<tr>
<td>PH 607</td>
<td>Introduction to Health Data Management</td>
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13

A. Semester II

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<tr>
<td>PH 630</td>
<td>Population-based Health &amp; Demography</td>
<td>2</td>
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<td>PH 623</td>
<td>Survey Design</td>
<td>3</td>
</tr>
<tr>
<td>PH 602</td>
<td>International Health Elective</td>
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B. Semester III

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<td>PH 605</td>
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<td>Edu 553</td>
<td>Thesis Seminar</td>
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<tr>
<td>PH 634</td>
<td>Principles of Primary Health Care</td>
<td>3</td>
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<tr>
<td>Elective</td>
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11

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The official accreditation of the public health program is pending with the Liberian Commission on Higher Education.
G. Liberian Board of Nursing and Midwifery

Ms. Cecilia Morris is the current chair of the Liberian Board of Nursing and Midwifery (LBNM). The assessment team took the opportunity to interview her on the history and the current work of the Board.

LBNM is mandated to organize nursing and midwifery board exams and to issue licenses for practicing nursing and midwifery in Liberia. The Board is currently made up of all directors of nursing of teaching hospitals and nursing schools. The Board also has representatives from the MOHSW and communities as well as patients. Ms. Morris indicated that the 1985 Act that created LBNM needs to be revisited and updated.

LBNM also serves as an accreditation body for nursing and midwifery training institutions. In its 2006 accreditation exercise, LBNM only accredited Mother Patern College of Health Sciences. LBNM plans to revisit all the schools this year.

LBNM is not able to effectively carry out its mandate because of lack of resources. The Board needs a secretariat and a dynamic Executive Secretary.

LBNM is a potential strategic partner of the MOHSW in the implementation of the National Health Policy. The board authority should be enhanced and supported by the MOHSW and donor partners so that, as training improves, the licensing of professionals will be uniform.
H.  *Mother Patern College of Health Sciences*

**Key informant:**
Sr. Barbara Brilliant

**Training Programs:**
The Mother Patern College of Health Sciences is one of the colleges of the Stella Maris Polytechnics. The College of Health Sciences is named after Mother Patern who was a nurse from Scotland and one of the first Franciscan Missionaries of Mary assigned to Liberia in 1936.

The Mother Patern College of Health Sciences (Mother Patern) consists of training as well as programs in health education, primary health care, research in women's issues, trauma counseling and HIV/AIDS awareness, counseling and testing. Mother Patern offers a three-year Associate Degree in Medical Laboratory Techniques and in Nursing. It also offers an three-year Associate Degree in Social Work and a four-year Bachelor's Science Degree in Biology.

**Faculty and Staff:**
Mother Patern relies on the services of a core full-time faculty and a number of part-time lecturers. The college strives to keep a manageable faculty-student ratio.

**Students:**
Entrance to Mother Patern is highly competitive. In addition to having a high school diploma and successfully passing the WAEC National Exam, candidates have to submit two letters of recommendation (one from a Church Leader or Pastor and the other from the last school attended). Candidates must also pass an entrance exam and conduct an interview.

The current total student population in all the degree programs is about 212 students. There more female students in nursing and mainly male students in medical laboratory techniques.

**Infrastructure:**
Despite past looting and destruction of the school infrastructure during the war, Mother Patern has managed to rehabilitate school infrastructure to an environment conducive to good learning. The demonstration lab, the clinical laboratory (with double-headed microscopes!), and the library were the best of the all the training institutions that the team visited. The school has reliable electricity and water supply.
Funding:
The tuition fees for diploma and degree programs are set at US$17 per credit hour. The tuition fees are used to cover most of the operating costs. The leadership of the school has been successful in developing and submitting grant proposals to funding agencies. The German-based FBO, MISEREOR, has been one of the major grant providers to the college.

Overall Impressions:
The overall impression of Mother Patern is that it is a well-organized and managed institution providing quality training and education to supply qualified health workers for Liberia. The proximity of training programs with other health, social and development services offered by the college provides for a practical learning experience for the students.
I. University of Liberia A. M. Dogliotti College of Medicine and the School of Pharmacy

Key Informants:
Dr. Tabeh L. Freeman, Dean of the A.M. Dogliotti College of Medicine
Prof. Osbert K. Newlands, Acting Dean of the School of Pharmacy
Rev. Tijli Tarty Tyee, Sr, Chief Pharmacy of the MOHSW

Faculty and Staff:
The College of Medicine and the School of Pharmacy are housed on the same campus and share faculty. There are about 36 faculty members including 10 full-time. The two schools lack lecturers in basic sciences (e.g. anatomy, physiology, biochemistry, etc.) and in many specialties (e.g. pharmacology, pediatrics, pathology, etc.).

Students:
There are currently 83 medical and 64 pharmacy students sharing the college facilities.

Curriculum:
The assessment team was not able to check the curriculum and the accreditation status of the two schools.

Infrastructure:
The classrooms are in very bad shape. The lighting is poor. The clinical laboratory and the demonstration lab are not equipped for adequate teaching. There are limited teaching aides, no phone lines and no internet connectivity for faculty and students. The dormitories were recently rehabilitated with support from a commercial bank.

One wing on the first level of the College of Medicine was rehabilitated to house the University of Liberia (UL) and the Pacific Institute for Research and Evaluation (PIRE) Africa Center. The UL-PIRE Africa Center is an HIV/STD prevention research center established with funding from the U.S. National Institutes of Health to conduct prevention and clinical field-based projects on infectious diseases. The rehabilitated wing has electricity, air conditioning, computer lab with connectivity to the internet.

Funding:
The two schools get their funding allocation from the University of Liberia. The system is so centralized that it does not provide the flexibility to cater to the priority needs of the schools.

Collaboration:
The two schools currently do not have strong linkages with regional and international academic, research and funding institutions.
**Overall Impressions:**
The two deans, especially Dr. Freeman, are full of energy and optimistic despite their circumstances and environment.

The structure of the buildings still looks strong. The buildings can be repaired and refurbished to meet minimum acceptable standards of a teaching environment. The rehabilitated wing housing the UL-PIRE Africa Center looks impressive.

The A.M. Dogliotti College of Medicine and the School of Pharmacy are currently operating without the basics that are required for institutions of higher learning. The team did not have a chance to visit the JFK Medical Complex, which is the official University Teaching Hospital. We understand JFK Medical Center is in dire need of rehabilitation. It is important for the government and its partners to seriously discuss approaches for training qualified Liberian medical doctors and pharmacists to staff the health systems of Liberia.

In order to continue the in-country training of Liberian physicians and pharmacists, urgent investments are needed to revitalize the A.M. Dogliotti College of Medicine and the School of Pharmacy. The recommended priority areas for investment include:

a. Repairing and refurbishing the building, including electrical and water supplies, and a secured perimeter fence for the campus
b. Updating the library, clinical laboratory
c. Installing information technology; i.e., telephone, internet
d. Faculty training and upgrading
e. Curriculum revision so that it includes the BPHS
f. Improved management systems