
TBILISI, GEORGIA – ATLANTA, GEORGIA (1992-1999)

THE PARTNERS

US Partners

Grady Memorial Hospital, a 1024-bed tertiary care facility in the heart of Atlanta, is one of the nation's largest academic training hospitals. **Emory University**, including the School of Medicine and the School of Public Health, also participated in the partnership. **Morehouse School of Medicine** is one of the nation's leading historically African-American medical institutions. **Georgia State University**, a large state university, joined the partnership in the second half of the partnership.

NIS Partners

The Ministry of Health of Georgia is the government agency with responsibility for health policy and delivery. **Tbilisi State Medical University** is historically the leading educator of physicians in Georgia. **City Hospital No. 2** is one of Tbilisi's hospitals that have been designated by the government to upgrade to a health care facility emulating western standards. **Tbilisi State University** is a large and highly respected national university in Tbilisi with plans to develop modern schools of nursing and medicine.

PARTNERSHIP OBJECTIVES

Maternal and Child Health

- Improve the practice of fetal monitoring, assessment of fetal well-being and neonatal resuscitation.
- Work in maternal and child health with Children's Hospital #3 and Maternity House #5 in Tbilisi.
- Evaluate maternal neonatal care facilities in Tbilisi, Kutaisi and other regions, including western Georgia.
- Train a core group of instructors in neonatal resuscitation who can establish a program of outreach education in neonatal resuscitation.

Health Policy Reform

- Provide technical assistance to the Ministry of Health in the review and revision of national health policy.

Nursing Reform

- Improve the clinical practice of nursing.
- Provide support for the development of a professional nursing association.
- Assist with the review of nursing curriculum and provide technical assistance for the establishment of a university-level baccalaureate nursing program for both practicing nurses and future nurses.
- Provide technical support to the Ministry of Health for nursing licensure and standards development.
- Lay the legal groundwork for nursing as a modern profession.

Health Management Reform

- Train health management leaders from throughout the country in modern practices of health care administration and financial management.
- Plan for the establishment of graduate and postgraduate courses in a school for healthcare administration and management.

Medical Curriculum Reform and Biomedical Research

- Provide assistance to Tbilisi State Medical University and the Ministry of Health in the review of medical school curricula and curriculum revision.
 - Develop programs for ongoing exchange of academic medicine, research and postgraduate training.
 - Establish a radiology residency program and board accreditation standards for radiologists within Tbilisi and the Republic of Georgia.
 - Explore the establishment of a new school of medicine in Georgia to be modeled after U.S. medical schools.
 - Work with the Ministry of Health and the Fogarty International Institute of the National Institutes of Health in Bethesda, Maryland, to assess and make plans for establishment of modern biomedical research in Georgia appropriate to the needs and resources of the country.
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Clinical Practice, Diagnostic Capabilities and Physician Training

- Conduct surveys of radiology and clinical laboratory facilities available at City Hospital #2 and throughout the city of Tbilisi.
- Work jointly with the World Bank to completely rebuild and renovate a new section of City Hospital #2.
- Establish an x-ray film library supplied by the American Board of Radiology, to be used in educating radiologists and for credentialing purposes.
- Develop the Diagnostic Imaging Center of Excellence at the Institute of Diagnostic Imaging in Tbilisi, and use this as the foundation of a radiology residency and the Center for Mammography.
- Improve the medical practice and diagnostic capabilities, particularly in the areas of Cardiology, Gastroenterology, Laboratory Services and Radiology, including mammography.
- Improve medical care in Georgia in the long run by educating physicians in house staff training programs at Emory University School of Medicine and Grady Hospital.

Health Information and Medical Literature

- Provide technical assistance to Tbilisi State Medical University to improve the practice of library science and upgrade the access to medical literature.
- Establish a National Information Learning Center to provide access to the world's biomedical literature via the Internet and an on-site collection of print and CD-ROM resources.
- Provide exposure to multimedia educational materials for medical students and professionals.
- Assist with the development of a national journal for distributing medical and pharmaceutical information.

EMS Training Center

- Improve emergency care at the pre-hospital stage by providing technical assistance to the Ministry of Health in establishing a National Emergency Medical Services Training Center that will provide training in pre-hospital life support and emergency care.
- Provide emergency care training for physicians and nurses and First Aid training for non-physicians.
- Provide educational materials (print and electronic resources) in emergency care and First Aid in the Georgian language for medical personnel and the general population.
- Research information on emergency and disaster medicine on the Internet and in other network facilities, making this information available to health care professionals and the general population.

Prosthetics

- Provide a technical review of national resources for the provision of prosthetic devices, and upgrade the technical abilities for providing these devices.

Micronutrient Malnutrition

- Provide technical assistance to the Ministry of Health in assessing the extent and magnitude of iodine deficiency in the Republic of Georgia and in designing programs to decrease iodine deficiency in the population.

KEY EVENTS

1992

- On August 19, the partners celebrated the signing of the **Memorandum of Understanding** between Grady Health System, Georgia State University, and Emory University School of Medicine on the US side, and City Hospital No. 2, the Ministry of Health, and Tbilisi State Medical University in Georgia.

1993

- The American Journal of Radiology published a **report** outlining the findings of a survey conducted by the chairman of radiology at the Emory University School of Medicine on the facilities available at City Hospital No. 2. (Vol. 161, pages 23-25)

1995

- An **endoscopic laboratory** donated by the Atlanta partners was installed at City Hospital No. 2 for modern diagnosis and treatment of gastrointestinal disease. A gastroenterologist was trained in current practice of endoscopy during a month visit to Emory University School of Medicine prior to the installation of the laboratory.
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- The **National Emergency Medical Services Training Center** was opened on October 23 and continues to train personnel from throughout Georgia in pre-hospital emergency care and life support.

1996

- The US partners donated and installed **electronic fetal monitoring equipment** and completed training in the use of fetal monitoring in obstetrics at hospitals in Tbilisi and Kutaisi.
- A series of **training seminars** were conducted in Borjomi by AIHA and the Association of University Programs in Health Administration for 55 health care managers from throughout Georgia.
- The **Georgian Nursing Association** was established with the aid and encouragement of the Atlanta-Tbilisi partnership.
- A national conference on **nursing leadership** was held. Nurse educators, who had been trained through the partnership program, conducted continuing education sessions with their American colleagues. Nurses from partnership and regional hospitals attended the conference.
- The Partnership co-sponsored five **National Health Policy Workshops** in Georgia focusing on health care reform, health care policy and human resources.
- A professor from Emory School of Medicine delivered a report entitled, *The New Tuberculosis: Clinical and Molecular Epidemiology*, on August 8, at a conference on public health surveillance information systems which was sponsored by the Ministry of Health Republic of Georgia, USAID, and the US Centers for Disease Control and Prevention (CDC).
- In collaboration with the Woodruff Health Sciences Center Library at Emory University, the Tbilisi partners opened the **National Information Learning Center** (NILC) in December. The NILC provides Internet access to the world's major biomedical databases and selected full-text resources, as well as on-site materials, reference services, document delivery and training in the use of MEDLINE and Internet resources for students, faculty, practitioners and government officials.

1997

- The partners established the **National Mammography Project** as a vital intervention for early detection of breast cancer. In September, the Crawford W. Long Hospital of Emory University donated a **mammography unit** to the Institute of Diagnostic Imaging, establishing the first modern mammography unit in the Caucasus.
- The Emergency Medical Services Training Center developed and launched its own **web page**.
- A second **national nursing conference** was held, training nurses in physical assessment and skills development. A team of three US and four Georgian nurses conducted the three-day conference. Thirty-eight nurses attended and successfully completed the conference.
- In September, a complete set of **radiological teaching files** consisting of approximately 1,500 separate cases and films were transferred to the Institute of Diagnostic Imaging, in Tbilisi, Georgia. These files will serve as the core-teaching curriculum at the Institute of Diagnostic Imaging and as the basis for the oral portion of subsequent radiological board exams.
- A **prosthetics lab** from Fitzsimmons Army Hospital was donated to the Traumatology Hospital in Tbilisi.
- The Atlanta-Tbilisi Partnership, including representatives from the US Centers for Disease Control (CDC) and Emory University, organized and facilitated two breakout sessions **on micronutrient deficiencies**, during the AIHA's Fifth Annual Partnership Conference for NIS held in October in Atlanta.

1998

- In March, the partnership conducted the third **national nursing conference**. A joint team of US and Georgian instructors conducted the three-day Skills Development Continuing Education Seminar. Thirty-four nurses from several republican hospitals successfully completed the training program.
 - In May, the partners opened the **Nursing Learning Resource Center (NRC)**, located in the World Bank Continuing Education Center. The NRC serves as a center for continuous education and training for Georgian nurses.
 - The US/NIH—Georgian **Joint Symposium: Research Opportunities in HIV/AIDS, Emerging Infectious Diseases and Immunodeficiencies** was held in Tbilisi, May 11-16. US partners were invited to make presentations during a special session on Tuberculosis and to moderate a session which included presentations on tuberculosis given by Georgian physicians and scientists.
 - The Georgian Ministry of Health and the Program Against Micronutrient Malnutrition at the Emory University School of Public Health held the Multi-Sectoral Management Course Workshop for Program Managers, Implementors, and Stakeholders for the **Elimination of Iodine Deficiency** in June. This workshop
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trained officials from several NIS countries in the public health approach to eliminate and monitor iodine deficiency disorders.

- The partners conducted an initial study of thyroid-stimulating hormone levels in neonate cord blood samples in three areas of Georgia to determine the extent of **iodine deficiency** in the population. The study indicated that iodine deficiency is indeed a serious health issue.
- A two-week visit to Atlanta in August by the Director of the **Georgian National Tuberculosis Program** was supported by a CRDF grant. The visit provided an opportunity to meet with Emory University staff and to go over the progress of the CRDF grant. In addition, the Director met with the leaders of the Division of TB Elimination at CDC, the directors of the US Georgia TB Control program and local county health departments. The Director had an opportunity to see how programs have been implemented and how surveillance systems are set up in the US.

ACHIEVEMENTS

Maternal and Child Health

- The US partners donated and installed **electronic fetal monitoring equipment** and completed training in the use of fetal monitoring in obstetrics at hospitals in Tbilisi and Kutaisi.
- US partners trained their Georgian counterparts to be trainers in **neonatal care and resuscitation**. The Georgians then translated the training manual into Georgian and established their own outreach training group, called *Neonatus*.

Nursing Reform

- The partnership developed a series of **continuing education courses for nurses**, including those addressing practical clinical skills, leadership and managerial skills. Courses were developed by a team of US and Georgian nurses and were conducted both in Atlanta and Tbilisi to build the capacity of the Georgian nurses to train their colleagues. Nursing delegations completed intense train-the-trainer exchanges at Grady Health System. During 1997, 54 nurses completed the Nursing Leadership course and 30 nurses completed the partnership-designed nursing skills courses.
- The Minister of Health created the position of **Chief of Nursing** in the Ministry and selected a partnership nurse to serve in this position.
- In order to formalize nursing education, Tbilisi State University (TSU) worked with educators from Georgia State University and Grady Hospital to create a **university-level nursing school**. The School of Nursing will be the first university-level nursing program in Georgia. TSU has identified space for the program and potential faculty.

Health Management Reform

- The Atlanta-Tbilisi partnership has worked with and supported the School of Business Administration of Georgia State University as it has moved to establish the **Caucasus School of Business Administration**. This school will be a consortium set up by Georgian Technical University, Tbilisi State University and the International School of Economics. A substantial grant has been obtained from the Eurasia Foundation in support of this effort.

Health Policy Reform

- The partners helped incorporate a **national health promotion plan** into the Georgian Health Project of the World Bank.

Medical Curriculum Reform and Biomedical Research

- The partnership arranged a series of exchanges for faculty, deans and administrators from Tbilisi State Medical University (TSMU). During each exchange the Georgian faculty and administrators observed teaching methodologies for pathology and anatomy and completed a review of medical school curricula. As a result, the Georgian faculty and administrators worked with faculty from the Georgia State University to begin **revisions to the TSMU curriculum**.
 - The partners are working with the Ministry of Health and one of the premier diagnostic centers in Tbilisi to establish a **postgraduate residency training program in radiology**.
 - A **program of medical student exchanges** was established between Emory University School of Medicine and Tbilisi State Medical University (TSMU). Twenty-one medical students from TSMU have spent four to six months on clinical clerkships at Emory. Seventeen Emory students have spent one month each in
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Tbilisi, each with a specific health care project. Examples of topics covered include assessment of iodine deficiency in newborns, prevalence of HIV in patients with tuberculosis, and technical support for the legal basis of medicine.

Health Information and Medical Literature

- In collaboration with the Woodruff Health Sciences Center Library at Emory University, the Tbilisi partners opened the **National Information Learning Center (NILC)** in December 1996. The NILC supplies the information needed for every activity in the health reform process, as well as the practice of medicine and medical education. It will ultimately supply any educational institution in Georgia with available information as requested. Internet searching is the most heavily used service, followed by MEDLINE/full-text and email. As of September 1998, the **NILC** had 200 regular users and 180 irregular users, totaling 2,200 user visits since the opening. The NILC gives classes to healthcare workers and the general public in **techniques for email and Internet** searching of medical and other electronic databases. Computer classes are given using seven computers.
- The NILC has established several **remote sites**. Twelve remote users have dial access to the NILC, including TSMU, City Hospital #2, the National Management Center of the Ministry of Health, Georgian State Medical Insurance Company, Tuberculosis Institute of Georgia, Georgian Technical University, AIDS Center of Georgia, Press Center of the Ministry of Health, Tbilisi Department of Health Care, Tbilisi Institute of Postgraduate Medical Training and Qualification, and others.
- The NILC issues a biweekly bilingual bulletin, the **Internet Medical Digest**, which has a circulation of 300. The bulletin contains eight pages that cover topics in public health, health promotion, cardiology, oncology, AIDS/HIV, infectious diseases, epidemiology, disease prevention and control, clinical pharmacology, ob-gyn, tuberculosis prevention and control and micronutrient deficiency.
- Tbilisi State Medical University (TSMU) and Morehouse School of Medicine Multimedia Center trained their Georgian partners in improved practices of library science and upgrading access to medical literature. **Cataloging standards** used in the US and Western Europe were introduced and staff at TSMU were trained in these procedures. Emory University library regularly **digitizes articles** and transmits them to the National Information Learning Center (NILC) in Tbilisi. An average of 5-10 articles is sent per week.
- Five issues of the **Georgian Medical Journal** were published and distributed to medical personnel throughout Georgia to disseminate medical and pharmaceutical information. The continuation of the journal is pending alternative funding and revenues. The journal provided the foundation for the development of an **on-line medical and pharmaceutical information bulletin** which is disseminated through the NILC.

EMS Training Center

- Since the opening of the center through September 1998, 60 **training courses** have been held, 56 in the training center and four at remote sites in the Zugdidi-Samegrelo region, the Gali-Abkhazia region, the Gudauri region and the Supsa region. The center has trained 1,492 people, including physicians, nurses, and a range of lay persons. It has conducted 22 **training programs for non-physicians and children** and coordinated **special programs** for governmental guards, car drivers, mountain guides and four-day courses in First Aid for pipeline companies.
- The center created a database to record information on all trainees and training programs. The **distribution of trainees** by region and by age are tracked.
- The Center has carried out numerous **special projects** such as: *Healthy Generation*, providing first aid training for school pupils; introduction to first aid and self service training; *Medical Information Bank*, a Database for Emergency Service and Disaster Medicine; First aid training for refugees from Abkhazia; and Trauma Prevention Project.
- The EMS staff in Tbilisi produced three different **manuals in First Aid and emergency care**, one for medical personnel, one for non-physicians, and one for students. The EMS Center also produced the **first color illustrated textbook**, *First Aid*, in Georgian and Russian languages.
- The EMS Training Center negotiated a contract with the **Western Road Pipeline project** to provide training for its personnel. The contract will assist the center in covering operational costs, an important element of center sustainability.

Prosthetics

- The combined production of all prostheses facilities in Georgia (ICRC, Atlanta-Tbilisi donated factory, and Otto Bock from Germany) is less than 500 per year, which is far below the need. A plan has been designed to use CAD-CAM technology to produce up to twenty prostheses a day. The Ministry of Health has obligated \$50,000 and the Atlanta-Tbilisi partnership has come up with the remaining \$50,000.
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Micronutrient Malnutrition

- The Atlanta-Tbilisi partners shared their concerns about the nature and extent of iodine deficiency in the population with the Ministry of Health. At the request of the Minister of Health, the partners provided the Ministry with a detailed briefing document containing information on the public health and economic burden of iodine deficiency as well as possible solutions. The recommended solution for elimination of the iodine deficiency was the implementation of public health programs to encourage universal consumption of iodized salt. The Minister briefed the Cabinet on iodine deficiency in Georgia, which led to a **Decree from the Head of State mandating the universal iodination of salt.**
- A team of consultants from the Program Against Micronutrient Malnutrition of the Emory University School of Public Health and the US Centers for Disease Control and Prevention traveled to Georgia to work with officials from the Ministry of Health and Parliament. An action plan to eliminate iodine deficiency in Georgia was designed and incorporated into the health program of the Georgian Parliament and Ministry of Health. The program was funded initially by the Georgian Government. At the request of the Parliament, the Atlanta partners assisted the government to identify other sources of funding. The partners facilitated negotiations with Kiwanis International and UNICEF which led to cooperative efforts and a donation of \$103,000 towards the **iodization project.**
- The Georgian Ministry of Health brought the issue of **micronutrient malnutrition** to the attention of the CIS Council of Health Ministers. He emphasized the need for an intra-CIS agreement on the trade of iodized salt for the elimination of iodine deficiency. The Atlanta-Tbilisi Health Partnership helped to produce this document which officials expect to be signed at the next meeting of the CIS Council of Health Ministers. In addition, the CDC and Emory University representatives contributed to AIHA's *CommonHealth* magazine an article on iodine and iron deficiencies in order to build NIS-wide awareness of the impact of micronutrient malnutrition and cooperation for elimination programs.

Clinical Practice, Diagnostic Capabilities, and Physician Training

- A Georgian microbiologist from the National Tuberculosis Institute Laboratory was trained at Grady Memorial Hospital, the US State of Georgia Public Health Laboratory and CDC in **modern techniques of AFB (TB) cultures.** He trained other microbiologists and, as a result, the Georgian TB Institute laboratory's ability to perform **TB cultures and susceptibility testing** has been upgraded. Drug susceptibility information will be of great use to TB control programs and in implementing effective control programs.
- The Tbilisi partners organized four in-country **lectures on HIV/AIDS** for physicians at the Ministry of Health, the Infectious Diseases hospital in Tbilisi, the Dusheti District Hospital and the Pasanauri District Hospital. In addition, two lectures were given on HIV/AIDS to medical students in Georgia.
- The partnership conducted a survey of **knowledge, attitudes and behavior** among high school students in Tbilisi in April. The results of this study were presented at the XII International Conference on AIDS.
- The Tbilisi partners received a **\$50,000 grant** from the World AIDS Foundation to support a counseling and testing center in Tbilisi.
- The partners completed an **evaluation of radiological infrastructure** present within Tbilisi.

Other

- An Associate Professor of Medicine from the Emory University School of Medicine was invited by USAID and CDC to provide technical consultation regarding ongoing **Tuberculosis** activities in the Republic of Georgia. In addition he was asked to identify areas of possible collaboration and cooperation. The partnership facilitated the August 1996 visit, however the exchange was paid for out of non-partnership funds. A report was provided to USAID and CDC upon completion of exchange, which outlined findings and recommendations.

PARTNERSHIP DATA (through September 1998)
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Date of MOU Signing:

August 19, 1992

Exchanges:

NIS Partner Exchanges

98

NIS Partner Exchange Days

3,407

US Partner Exchanges	166
US Partner Exchange Days	2,204
Total Exchanges	264
Total Exchange Days	5,611

In-Kind Contributions:	Medical Equipment and Supplies, Educational Materials	235,949
	Food and Lodging	
	Human Resources	3,591,433
Total		\$ 3,827,382

SUSTAINABILITY GRANT AWARD (1999)

The Tblisi-Atlanta partnership received a limited grant award from AIHA in January 1999 to strengthen the sustainability of partnership achievements and relationships by building upon their previous accomplishments in targeted areas. The activities planned to be carried out in 1999 are as follows:

Georgian Nursing Association

Continuing to enhance the role of the GNA, the partners propose to:

- Develop nursing leadership, professionalism and education guidelines to further the Georgian Nursing Association's leadership and advocacy capacities;
- Complete curriculum for a GNA sponsored Continuous Education Center to improve in-service training of existing nurses.

National Information Learning Center

- Expand the services provided by adding subscriptions;
- Upgrade technology to better meet demands and promote fee-for-service operation.

NGO development to sustain training capacity into the future

Following up on activities started in 1996, the partners propose to:

- Convert the Atlanta-Tbilisi partnership into an established NGO/Foundation in Tbilisi and a sister non-profit, private voluntary organization in Atlanta;
- Certify all training products of the EMS Training Center, the NILC, and the Nursing Continuous Education Center with all government agencies allowing for tuition payments and improved fee-for-service.

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National Information Learning Center: <http://www.nilc.org.ge>

Emergency Medical Services Training Center: <http://www.nilc.org.ge/ems/index.html>

Atlanta-Tbilisi Health Partnership: <http://www.nilc.org.ge/atp/index.html>

Tbilisi State Medical University: <http://www.nilc.org.ge/medun/index.htm>
