

American International Health Alliance

Final Performance Report

Health Partnership Program  
The Caucasus Region  
1998-2008



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## Preface

The American International Health Alliance, Inc. (AIHA) is a 501(c)(3) nonprofit corporation created by the United States Agency for International Development (USAID) and leading representatives of the US healthcare sector in 1992 to serve as the primary vehicle for mobilizing the volunteer spirit of US healthcare professionals to make significant contributions to the reform of healthcare overseas through partnerships.

AIHA's mission is to advance global health through volunteer-driven partnerships that mobilize communities to better address healthcare priorities while improving productivity and quality of care. Founded in 1992 by a consortium of American associations of healthcare providers and of health professions education, AIHA is a nonprofit organization that facilitates and manages twinning partnerships between institutions in the United States and their counterparts overseas. AIHA has to date supported more than 150 partnerships linking American volunteers with communities, institutions, and colleagues in 33 countries in a concerted effort to improve healthcare services and delivery.

Operating with funding from USAID; the Health Resources and Services Administration (HRSA) of the US Department of Health and Human Services; the US Library of Congress; the Global Fund to Fight AIDS, Tuberculosis and Malaria; and other donors, AIHA's partnerships and programs represent one of the US health sector's most coordinated responses to global health concerns.

This final performance report provides a comprehensive overview of AIHA programs in the Caucasus countries of Azerbaijan and Georgia between the years 1998-2008, which were made possible with the generous support of the American people thanks to funding from USAID through Cooperative Agreement EE-A-00-98-00017-00. The report describes AIHA's unique partnership twinning model, the development and evolution of the program in the region, and the main program components funded during this period. It also includes summary results for both countries and success stories that highlight specific activities and accomplishments, as well as a discussion of key regional areas of impact and the overall legacy of the partnership program. Similar information on AIHA's partnership programs in Armenia, which concluded in 2004, can be found online at [www.aiha.com](http://www.aiha.com).

AIHA wishes to express its sincerest gratitude to the countless professionals in the Caucasus Region and the United States who gave so generously of themselves to the partnership program in Armenia, Azerbaijan, and Georgia. AIHA's programs have been so successful because these individuals demonstrated the courage and commitment to change; the patience, dedication, and hard work to gain new knowledge and skills; and a generous spirit of trust and collaboration. Together they made significant contributions to improving healthcare services and delivery for thousands of people in the region. AIHA also thanks USAID for the opportunity and privilege of working in the Caucasus Region and for its steadfast support of the partnership program.

Finally, AIHA gratefully acknowledges the contributions of dedicated staff in its Washington, DC, and regional offices in managing and implementing the program and in preparing this final performance report.

Funding from the American people for the programs described herein was provided by USAID through cooperative agreement EE-A-00-98-00017-00. The contents are the responsibility of AIHA and do not necessarily reflect the views of USAID or the United States Government.

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# Final Performance Report Health Partnership Program in the Caucasus Region 1998-2008

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## I. Executive Summary

The USAID-funded Health Partnerships Program in the Caucasus has been linking American healthcare professionals with counterparts in Armenia, Azerbaijan, and Georgia through twinning partnerships designed to improve both the quality and accessibility of health-related programs and services in these three countries since 1992.

In 1998, USAID awarded AIHA a second round of cooperative agreements to apply its unique volunteer-based twinning model to new health reform priorities in the region. From 1998 to 2008, 13 new partnerships were established in Azerbaijan and Georgia in accordance with AIHA's traditional institution-to-institution approach to building lasting health system capacity. Building on the many successes of earlier hospital-based alliances, these partnerships focused on primary healthcare, blood banking, infection control, health management education, and hospital management.

As agents of change, individuals and institutions involved in USAID's Health Partnerships Program in the Caucasus have been leading both national and regional healthcare reform efforts over the past 10 years. Notable areas of accomplishment and key achievements include:

### Primary Healthcare

- Mtskheta-Mtianeti/Milwaukee partners established the Mtskheta Family Medicine and Regional Training Center (FMTC) in 2003. It was the first model family medicine center outside Georgia's capital of Tbilisi and reported 13,423 visits from repeat patients between fiscal years 1999-2004.
- Baku/Portland partners established the Baku Primary Healthcare (PHC) Center in 2004. It was the first center in Azerbaijan to provide family medicine services. It also serves as a clinical base for a family medicine training course at the Institute of Postgraduate Medical Education and trains staff from other primary care facilities. The partnership has trained and licensed 10 doctors in family medicine.
- Primary healthcare partnerships in Azerbaijan and Georgia conducted 99 PHC training courses for a total of 1,307 people trained on PHC-related topics between fiscal years 1999- 2004.
- Guria/La Crosse partners established the Family Medicine Training and Demonstration Center in 2005 in Ozurgeti, Georgia. The center has 33 licensed physicians, 33 licensed nurses, and seven licensed family medicine trainers. Partners reported 283,376 repeat patient visits between fiscal years 2005-2007.
- Gori/Milwaukee partners established a Family Medicine Training and Demonstration Center in 2005 in Gori, Georgia. The center has 18 licensed physicians, and 18 licensed family medicine nurses, and eight licensed family medicine trainers. Partners reported 162,340 patient visits between fiscal years 2005- 2007.
- Ganja/Livermore partners established a Model Primary Healthcare Demonstration and Training Center in 2006 in Ganja, Azerbaijan. The center has nine licensed family physicians and partners have reported a total of 763,523 repeat patient visits between fiscal years 2005-2007.

### Emergency Medical Services

- Partners developed or expanded EMS training curricula for medical and non-medical professionals.
- Tbilisi EMS Training Center staff trained 3,303 healthcare practitioners, first responders, and non-medical professionals.

### Neonatal Resuscitation

- Tbilisi Neonatal Resuscitation Training Center staff trained 682 healthcare providers and 25 instructors, and recertified 114 providers between fiscal years 1999-2003.
- Baku Neonatal Resuscitation Training Center staff trained 529 healthcare providers and 14 instructors trained, as well as recertified 70 providers during the same timeframe.

## Health Professions Education

Through AIHA's programs, more than 8,000 health professionals received training in various topics, including:

- More than 1,500 people trained on a broad range of primary care topics;
- 131 physicians and nurses trained in family medicine;
- 922 professionals trained in health management education;
- 19 people trained on a wide array of blood banking topics;
- 3,303 urgent care professionals trained between fiscal years 1999 and 2003 (over 10,000 medical and non-medical personnel trained since inception);
- 274 health professionals and 45 trainers trained at the Tbilisi Infection Control Training Center;
- 1,211 providers and 39 trainers trained, and 184 providers recertified at Neonatal Resuscitation Training Centers in Tbilisi and Baku;
- 77 Women's Wellness Center staff trained on women's health topics;
- 231 professionals trained through a 90-hour healthcare management and administration course;
- 147 hospital nurses trained through a 120-hour General Nursing Course for Hospital Nurses offered by the Tbilisi/Atlanta partners; and
- More than 300 nurses trained through in-service courses offered by the Tbilisi/Atlanta partners.

## Evidence-based Medical Information and Communications Technologies

- Partners established 13 Learning Resource Centers (LRCs) at Caucasus institutions and provided ICT support to more than 10,000 healthcare professionals.
- Partners trained 2,467 physicians in the use of information and communications technologies, such as the Internet and evidence-based medical resources, to expand their knowledge and improve the quality of patient care.
- LRC staff fulfilled 4,642 individual information requests over the funding period.

## Blood Safety

- Tbilisi/San Francisco partners established a model blood bank in 2000 in accordance with the standards of the American Association of Blood Banking. Located at Jo Ann Medical Center in Tbilisi, the blood bank utilizes a volunteer donor recruitment program and serves as a national and regional model of effective, safe standard operating procedures.
- Blood bank staff were trained through the partnership, have access to modern equipment, and use a computerized donor database.
- Since it opened, the blood bank reports a total of 11,378 blood drawings conducted; 25,553 blood products prepared; and 17,044 blood products dispatched.

AIHA, its partners, and others involved in USAID's Health Partnerships Program have been agents of positive change in the Caucasus Region. They have built critically-needed human and institutional capacity by establishing and supporting skills-based training centers, creating comprehensive new models of prevention and treatment, and opening innovative, patient-focused care centers. The healthcare professionals involved in the partnership programs have benefited not only from the knowledge and technical skills their American counterparts shared, but also from the collaborative learning process that drives partnership activities.

While many healthcare challenges remain in the region, the Health Partnership Program has created a new paradigm for international collaboration and the provision of technical assistance. By working directly with healthcare professionals and policymakers in Armenia, Azerbaijan, and Georgia, partners helped lay a strong foundation for ongoing change. Political support and individual commitment have been critical to the success of the program in the Caucasus, and to bringing about sustainable reforms. Having strengthened existing institutions or created new ones, partners have ushered in programs that are more relevant and responsive to the populations they serve, leaving healthcare leaders in these countries better positioned to sustain these services and seek new opportunities to improve quality of care.





## II. Program Overview

### A. Introduction

The health partnership program in the Caucasus was built on a foundation of USAID support for healthcare reform efforts that began in the region after the collapse of the Soviet Union in 1991. Between 1992-1998, AIHA established a total of 13 USAID-supported healthcare partnerships in Georgia and Armenia that addressed a range of health sector priorities including women's health, nursing, medical education, emergency medicine, and primary care. Much like this initial Health Partnerships Program in the Caucasus, the second NIS Health Partnerships Program — which was implemented from 1998-2008 — was designed to promote sustainable US/NIS partnerships that would foster more effective and efficient delivery of health services in Eurasia. In keeping with AIHA's partnership methodology and model, which is described in the following section, the program emphasized building institutional and human resource capacity to help ensure the sustainability and replication of successful healthcare interventions introduced through the partnerships.

Under its 1992 cooperative agreement with USAID, AIHA established three hospital-based partnerships — two in Armenia and one in Georgia. These partnerships improved targeted healthcare services while at the same time strengthening the capacity of both countries for ongoing improvements in quality of care. They addressed key healthcare priorities, such as expanding access to innovative women's health services, improving emergency medical services and nursing care, and institutionalizing changes through, for example, the development of new management practices, new information systems, improved surgical techniques, and better infection control practices. Information on the specific goals and achievements of each of the original hospital partnerships can be found on the AIHA Web site at [www.aiha.com](http://www.aiha.com).

At the end of the first cooperative agreement funding period in 1998, USAID awarded the competitively-solicited NIS Health Partnerships Program to AIHA. This award comprised a "Basic Agreement" that provided the overall scope, authority, and parameters of the program, along with five "Sub-regional Agreements." Four of the sub-regional agreements focused on individual regions: Russia, Central Asia, the Caucasus, and West NIS. The fifth cooperative agreement was region-wide in scope and promoted inter-regional sharing, dissemination, and common initiatives, including neonatal resuscitation, nursing, and women's health that represented priorities for countries spanning Eurasia. The program and underlying cooperative agreements were funded for an initial five-year period with provisions for an extension of up to five additional years.

Under the 1998 cooperative agreement awarded by USAID/Caucasus, AIHA was tasked with establishing partnerships in the Caucasus in support of USAID's strategic objectives. With respect to the partnership program, USAID/Caucasus placed its greatest emphasis on primary care service delivery programs that would show meaningful results locally and that would be replicable nationally.

USAID's strategy prioritized the development of primary care services that would be delivered at model community-based sites. AIHA health partnerships supported these sites through capacity-building programs that emphasized practical multidisciplinary retraining of health professionals and that complemented other USAID and international donor efforts to educate family physicians — a central pillar of the primary care reforms in the region.

With a view toward creating a mutually supportive environment for complementary programs, USAID envisioned partnerships working closely with other USAID health and social sector programs in the region to support the development of maternal and child health networks, emergency medical services, medical training, professional associations, evidence-based medicine, and activities that addressed a range of health issues from infectious disease to alcohol abuse, with a particular focus on community involvement.

Under this cooperative agreement, AIHA's Caucasus program comprised: (a) 19 new partnerships — six in Armenia, four in Azerbaijan and nine in Georgia; and (b) cross-partnership programs. Of the 19 new partnerships, 14 focused on aspects of primary care, three targeted medical and health management education, one focused on blood banking and creating a safe blood supply, and one focused on improving hospital management. The cross-partnership activities included continued support for programs initiated under the previous cooperative agreement — specifically Internet connectivity and support for new activities related to AIHA's infection control, primary healthcare, nursing, emergency medicine, and women's health initiatives.

At the end of the five-year award period in September 2003, USAID/Caucasus granted AIHA a four-year extension (FY04-FY07) and, in 2007, added FY08 as a final extension year. Programs during this period addressed USAID's strategic objective to increase utilization of quality primary healthcare services by:

- Expanding community and individual responsibility for health;
- Improving the quality of care, including maternal and child health and programs addressing infectious diseases, such as HIV/AIDS;
- Educating, training, and retraining health professionals; and
- Improving resource use through expanded health management capabilities.

The program developed during the extension consisted of five partnerships — three of which targeted primary healthcare issues in Azerbaijani and Georgian communities that were experiencing high rates of morbidity and mortality from chronic diseases. These programs focused on capacity building and interventions for early detection, screening, and management of non-communicable diseases like hypertension. Partners successfully designed and implemented simple, inexpensive interventions that significantly reduced premature deaths and disability at clinical sites implementing the programs.

## **B. The AIHA Partnership Model**

In the Caucasus and elsewhere in Eurasia, AIHA applied its core program methodology — a unique voluntary, twinning model that partners a US community's health-related institutions with counterpart communities and institutions in developing and transitional countries. By embracing city, county, and statewide relationships and conducting peer-to-peer professional exchanges, partners work together to develop practical solutions to healthcare delivery problems, create model programs, disseminate lessons learned, and effect broad, systemic change during and after the USAID-funded partnership period.

### **Key Elements of AIHA's Partnership Model**

**Voluntarism** – Partners make significant contributions of human, material, and financial resources

**Institution-based** – Institutional partnerships foster capacity-building and systematic change

**Peer-to-peer Collaborative Relationships** – Help build trust, respect, and mutual understanding

**Professional Exchanges and Mentoring** – Facilitate effective transfer of knowledge, ideas, skills

**Mutually Beneficial Relationships** – Partners on both sides reap the rewards of their collaboration

**Replication** – Partners build on lessons learned to rapidly replicate and scale up successful projects

**Sustainability** – Partners build lasting relationships and work to institutionalize positive changes

**“Partnership of Partnerships”** – AIHA facilitates networking, sharing, and common solutions

“In international development, we spend so much of our time on a supply-driven, shake-your-finger approach that is often resented and just doesn’t enjoy the sticking power that a slower, more equality-based approach does. That’s the true value of partnerships.”

— Paul Holmes,  
Senior Regional Health Advisor,  
USAID Europe and Eurasia Bureau

Over the years, external evaluations of AIHA’s twinning model have consistently affirmed the positive and lasting contributions partnerships have made to efforts to improve healthcare and the overall health status in partner countries. These independent evaluations have also indicated that AIHA partnerships have played an important role in transitional nations by building local capacity; creating sustainable relationships, increasing international cooperation and understanding, and promoting democratic values.

As this report documents, many of the program outcomes can be attributed to the unique partnership model, in which the highly collaborative and participatory approach engendered mutual trust and a high degree of ownership of solutions by those partners who were ultimately responsible for implementing and sustaining the improvements. Furthermore, the partnership approach had a great and lasting impact on the US partners as well.

### C. Program Design and Implementation in the Caucasus Region

At the end of the Soviet era, health indicators for the countries of the Caucasus Region were generally among some of the poorest in the NIS. The three countries faced relatively higher incidences of infectious disease and higher infant and maternal mortality and morbidity. The economic difficulties accompanying the collapse of the former Soviet Union exacerbated many of these problems. Much of the government and social infrastructure that supported healthcare became increasingly incapacitated, while the overall risk to the health of the populations in Armenia, Azerbaijan, and Georgia continued to rise. One particularly alarming statistic was the decline in life expectancy across the region. In Azerbaijan, for example, life expectancy declined from 71.4 in 1990 to 65 in 2003. Much of the decline in health status could be attributed to sharp reductions in preventive care services, increased incidence of infectious disease as a result of institutional and infrastructure breakdown and current economic conditions, inadequate chronic disease management, poor lifestyle choices, increasingly adverse environmental and occupational health conditions, and an increased number of accidental injuries and deaths.

Beginning in 1992, USAID/Caucasus targeted healthcare reform through the Health Partnerships Program to promote more efficient and effective healthcare and to improve disease management, women’s reproductive health, and institutional and health system delivery capacity. The program implemented in the Caucasus from 1998 through 2004 was designed to build on the lessons learned and past accomplishments of the hospital partnerships while addressing key USAID reform priorities for the region.

With respect to the partnership program, USAID/Caucasus placed its greatest emphasis on primary healthcare programs that emphasized the retraining of current health professionals. USAID/Caucasus envisioned a program promoting evidence-based medicine, maternal and child health networks, emergency medical services, and medical training, as well as programs to address infectious disease and encourage community involvement — all of which were developed by AIHA and its partners over the past decade and continue to be self-sustaining today.

#### Partnerships

During the 10-year cooperative agreement period, AIHA partnerships were created within the framework of USAID’s overall NIS-wide focus on primary healthcare and USAID/Caucasus region-specific priorities. The sites and programmatic emphasis for each of the partnerships were identified and selected in consultation with USAID and the ministries of health and/or education in each of the three countries.

For all of these partnerships, AIHA used an open solicitation process designed to identify US partner organizations with the institutional capabilities and expertise to meet the program goals and the broad institutional and community commitment to participate under the program’s voluntary partnership model.

Solicitation announcements for a total of 13 new partnerships were widely distributed among potential institutional candidates via AIHA's Web site, numerous online mailing lists, and to a broad network of health-related associations, health professions education institutions, and healthcare centers.

After an extensive proposal review process, AIHA selected US partners and submitted the proposed partnership institutions to USAID for concurrence. Once concurrence was obtained and the new partnerships were officially announced, AIHA issued subgrants to the US partner institutions then organized and implemented separate, detailed orientations for each US partner. Among other topics, these orientations covered the partnership model, USAID and AIHA policies and procedures, expectations of the partners, best practices, and monitoring and evaluation.

As part of a four-year extension granted by USAID in 2004, AIHA established three new primary healthcare partnerships. USAID also extended funding for the Tbilisi/Atlanta partnership by three years at that time with key areas of focus being hospital management and nursing.

### AIHA Partnerships Established in the Caucasus Region (1998-2008)

Gori, Georgia/Milwaukee, Wisconsin	Primary Healthcare
Guria-Ozurgeti, Georgia/La Crosse, Wisconsin	Primary Healthcare
Kutaisi, Georgia/Atlanta, Georgia	Women's Health
Mtskheta, Georgia/Milwaukee, Wisconsin	Primary Healthcare
Tbilisi, Georgia/Minneapolis, Minnesota	Health Promotion
Tbilisi, Georgia/Scranton, Pennsylvania	Health Management Education
Tbilisi, Georgia/San Francisco, California	Blood Safety, Blood Banking
Baku, Azerbaijan/Portland, Oregon	Primary Healthcare
Baku, Azerbaijan-Richmond, Virginia	Primary Healthcare
Baku, Azerbaijan/Houston, Texas	Primary Healthcare
Ganja, Azerbaijan, with Livermore, California	Primary Healthcare
Armavir, Armenia/Galveston, Texas	Primary Healthcare
Gegargunik, Armenia/Providence, Rhode Island	Primary Healthcare
Lori, Armenia/Los Angeles, California	Primary Healthcare
Yerevan, Armenia/Birmingham, Alabama	Health Management Education
Yerevan, Armenia/Washington, DC	Breast Health, Women's Health, Primary Health-care

During this period of funding, Georgia in 2007 instituted radical new healthcare reforms aimed at privatizing much of the state-owned and managed healthcare system. USAID and AIHA responded by implementing the year-long Strengthening Healthcare Management Education in Georgia Project, which was designed to

## **The Azerbaijan and Georgia Programs in Numbers: 1998-2008**

*(Similar figures for Armenia were reported in the 2004 country closeout report available at [www.aiha.com](http://www.aiha.com))*

**Partnerships = 13**

**US Cities Involved = 12**

**US Partner Institutions Involved = 36**

**Caucasus Cities Involved = 11**

**Caucasus Institutions Involved = 26**

**Number of Person Trips to the Caucasus = 566**

**Number of Person Trips to the United States = 412**

**Total Exchange Trips = 978**

**Primary Healthcare Centers Established = 5**

**Family Medicine Training Centers Established = 5**

**Health Professionals Trained at the FMTCs = 131**

**Learning Resource Centers (LRCs) Established = 13**

**Health and Allied Professionals Trained by LRCs = 2,467**

**Total USAID Funding = \$26,957,232**

**Total Value of In-kind Contributions by US Partners = \$29,626,968**

develop cadre of knowledgeable, skilled, and forward-thinking healthcare administrators capable of leading these reform efforts. This program builds on the many successes of AIHA's USAID-supported health management education partnerships in Georgia and elsewhere in the region.

### **Cross-Partnership Program Initiatives**

In addition to the healthcare partnerships, USAID funded a rich array of collaborative inter-partnership and supportive activities designed by AIHA to supplement and enhance individual partnerships and model projects. AIHA established region-wide programs addressing specific healthcare issues of common concern in countries spanning Eastern Europe and Central Asia to provide a mechanism for greater inter-partnership sharing, collaboration, and problem solving. Continuing support for these cross-partnership programs comprised the third component of AIHA's Caucasus program under the Caucasus sub-regional cooperative agreement initiated in 1998.

These cross-partnership program initiatives were launched starting in 1994 and covered issues such as emergency and disaster medicine, healthcare management, infection control, information and communication technology, neonatal resuscitation, nursing, and women's health. Through these cross-cutting programs, AIHA engaged partners from the Caucasus Region in NIS-wide task forces designed to develop new and innovative ideas and approaches to improving care. AIHA's cross-partnership initiatives also supported the participation of Caucasus partners, experts, and policymakers in training workshops and conferences. Finally,

AIHA supported the provision of Internet connectivity and the re-supply of clinical and training centers associated with these programs.

## Monitoring, Evaluation, and Reporting

AIHA's monitoring and evaluation (M&E) system and processes evolved to meet the changing needs and requirements as the partnership program matured. Initially, the focus was largely on monitoring the performance of individual partnerships. However, as the need for a more comprehensive and systematic approach to M&E became clear from recommendations by both USAID and external evaluators, AIHA established an independent monitoring and evaluation unit and began to implement a wider range of M&E activities.

At the partnership level, AIHA worked closely with partners to assist them in developing workplans that incorporated M&E components, including measurable objectives, outputs, outcomes, and indicators. AIHA also encouraged partners to collect baseline data wherever possible. Many of the partnerships, however, faced constraints in trying to conduct baseline assessments or collect quantitative data on an ongoing basis due to a lack of human capacity, resources, and reliable systems available at partner institutions in the Caucasus.

AIHA's monitoring of the partnerships occurred at many levels and in varying forms, including:

1. ongoing review of progress in workplan implementation;
2. review of monthly financial reports;
3. tracking of partnership exchange trips through a travel database;
4. tracking of in-kind contributions (of both time and resources) through a special in-kinds database; and
5. regular site visits to Caucasus partner institutions.

Partners also reported to AIHA through quarterly progress reports. In addition to these progress reports, AIHA collected data from Caucasus partners for each of its cross-partnership programs and initiatives. Using each of these various data sources, AIHA submitted quarterly reports to USAID describing the incremental progress of both partnerships and cross-partnership programs, as well as an annual program report, which provided more detailed analysis of statistical trends and progress toward the medium- and long-term objectives of each project.

At the inter-partnership level, AIHA developed objectives for its cross-partnership programs and collected data wherever feasible and appropriate, such as service and other program statistics from the Learning Resource Centers (LRCs) and Nursing Resource Centers (NRCs).

Over the years, AIHA also supported a number of internal and external assessments and evaluations. For example, AIHA conducted assessments examining the network of NRCs and Women's Wellness Centers (WWCs) in the NIS and CEE. Among the targeted external assessments of relevance to the Caucasus were: "The Diffusion of Medical Information Technology in Central and Eastern Europe and the New Independent States" (Learning Resource Centers), University of Minnesota, October 1998; and Assessment of Women's Wellness Centers, University of Illinois at Chicago, 2001. These assessments and evaluations provided useful information about the status of these programs, some analysis of outcomes such as observable attitude changes among staff, adherence to clinical practice guidelines and evidence-based practices, as well as evaluation of the sustainability of the programs.

"AIHA programs have been among the most successful healthcare reform efforts in Georgia. Partnership sites have innovative pilot projects that introduce new and expanded services ... and they are models that can be used to test the effectiveness of particular, targeted programs, including those focusing on women's health or primary care."

— Dr. Amiran Gamkrelidze,  
former Minister of Labor, Health, and Social  
Affairs of Georgia (2001-2004)

At the program-wide level, AIHA participated in several external evaluations, including a 1997 evaluation of AIHA's overall partnership program (NIS and CEE) conducted by Butler, et.al. The findings and recommendations from that evaluation were incorporated into the new partnership programs AIHA initiated under the 1998 cooperative agreement. In addition, with the end of the first generation of partnerships that year, AIHA commissioned consultants to engage all NIS and CEE partnerships in a self-assessment process. This multi-faceted exercise resulted in a report of partnership achievements, as well as recommendations to AIHA for strengthening the partnership program in the future.

Under the 1998 cooperative agreement, provisions were made for an interim independent summative evaluation of AIHA's overall program. This mid-term evaluation, conducted by a "Continuing Evaluation Panel" (CEP) of internationally recognized healthcare experts, worked closely with AIHA over the course of 18 months as they assessed program context, conducted interviews and site visits, synthesized available program monitoring and outcome data, rendered an assessment of overall program effectiveness, and recommended strategic directions for future program enhancement, particularly in the area of monitoring and evaluation. The report by Vanselow, et.al. is available on AIHA's Website at [www.aiha.com](http://www.aiha.com).

In 2003, USAID commissioned an assessment of the partnerships in Azerbaijan by two independent evaluators. These evaluators examined the three primary healthcare partnerships operational at that time and concluded that they "had been effective in achieving significant improvements to the health of the population of Azerbaijan, particularly women and IDP/refugees."

Finally, USAID initiated an external evaluation of AIHA's primary healthcare program in 2006. Conducted by the consulting firm Terra P Group, this evaluation took place in fall 2006 with visits to AIHA program sites in Kazakhstan, Moldova, Russia, and Ukraine. Although sites in the Caucasus were not included in this evaluation, the final report issued in January 2007 analyzed the full impact and legacy of the partnership program, including evidence that AIHA's primary healthcare programs have contributed to reductions in the burden of disease.

### Program Management and Administrative Support

AIHA managed its Caucasus program out of its headquarters in Washington, DC; its regional office in Tbilisi, Georgia; and smaller country offices in Baku and Yerevan. In response to recommendations from several outside evaluators and advisory groups of partnership representatives, AIHA increased the role of its regional and country offices in program development, project management, monitoring, and reporting over the years.

The Washington and Tbilisi offices provided ongoing programmatic and logistical support, particularly by coordinating interactions between US partners and their Caucasus counterparts and facilitating the implementation of partnership workplans. AIHA provided considerable logistical support, including the travel and transportation services of an in-house travel agent. Regional offices also provided administrative and information technology support and served as AIHA's primary liaison with national ministries and health authorities, the USAID/Caucasus mission, and other international donors and programs.





### III. Partnerships

**A**IHA supported a total of nine Georgian and four Azerbaijani partnerships during the 1999-2008 funding period. These 13 partnerships included nine that focused on primary care, one on women’s health, one on creating a blood bank, one on health management education, and one hospital partnership.

Each partnership began by conducting a needs assessment using a standardized assessment tool provided by AIHA. Results of the assessment were then used to develop a partnership workplan that addressed the priority areas identified in each community. AIHA’s partnership model allows its partners the flexibility and freedom to determine not only their own objectives, but also their own path to achieving those objectives. The partners thus devised solutions and models best suited to local needs and the resources available within each Caucasus community.

In the case of the primary healthcare partnerships, AIHA encouraged partners to apply the “healthy communities” methodology whereby stakeholders from diverse organizations within each community are brought together in a planning process to assess health issues and set priorities. The result was that partnerships chose to emphasize disease prevention and health promotion, as well as to improve basic urgent and primary care services, disease management strategies, and evidence-based practices at model family-centered primary healthcare facilities.

Information for the partnership summaries below was drawn from partnership quarterly reports, as well as a self-assessment questionnaire completed by each partnership. Additional information on each partnership, including contacts, can be found on AIHA’s Web site.

#### Azerbaijan Partnership Summaries

##### 1. Baku/Houston, Texas (1999-2004)

**US Partners:** Baylor College of Medicine is a not-for-profit medical school located at Texas Medical Center in Houston, Texas. Texas Medical Center is composed of 42 institutions, including two medical schools, three schools of nursing, a school of public health, 13 hospitals, the regional library of the National Library of Medicine, and other ancillary institutions.

**NIS Partners:** Mir Kasimov Republican Clinical Hospital is a tertiary care facility that serves a large population of internally displaced persons (IDPs) and refugees from the Yasamal District where the hospital is located, as well as rural areas outside of Baku. One of Mir Kasimov’s principle roles is to serve as a referral center for high risk and emergency obstetrics cases. Nearly 80 percent of all women delivering at the hospital fall into these categories.

**Partnership Objectives:** The overall goal of the partnership was to provide humanitarian assistance to refugees and IDPs in targeted camps and communities in Azerbaijan.

In support of this objective, partners:

- Conducted a comprehensive evaluation of prenatal, obstetric, and perinatal services at Mir Kasimov Republican Clinical Hospital and implemented contemporary, cost-effective prenatal, obstetric, and perinatal care services;
- Established a Neonatal Resuscitation Training Center at Mir Kasimov to train healthcare professionals who provide care to IDPs and refugees;
- Improved public education and preventive health services on topics such as prenatal care, well-woman care, disease prevention, and chronic disease management;
- Established shared access to communication, data, and health resources among Mir Kasimov and rayon hospitals providing care to IDPs and refugees via print, media, and Internet health education materials;
- Implemented training and education to improve nursing skills and services; and
- Conducted assessments at refugee camps in Sabirabad Rayon and provided screening, treatment, and referrals for residents of the camps.

## Key Partnership Events and Achievements

### Clinical Organization and Capacity Building

- Partners provided training to staff at Mir Kasimov and Sabirabad Rayon Hospital in the areas of nursing, neonatal care, obstetrics, and community health outreach for IDPs and refugees.
- Mir Kasimov laboratory staff learned techniques for receiving and delivering blood samples to labs, sample preparation, testing, storage, and the use of manual microscopes.
- Two nurses from Mir Kasimov — both members of the local nursing association AIHA helped establish — were accepted into the American Organization of Nurse Executives (AONE).

### Maternal and Child Health

- Partners established a Neonatal Resuscitation Training Center (NRTC) at Mir Kasimov to provide advanced training courses to the hospital's ob/gyns, physicians, nurses, and midwives, as well as those working at rayon hospitals serving IDP and refugee camps. NRTC faculty were trained in Houston and at AIHA partner institutions in Georgia and Ukraine. As a result of the increased focus on neonatal care, rates of early neonatal deaths at Mir Kasimov steadily decreased from 0.8 percent in 1999 to 0.3 percent in 2002.
- Partners disseminated knowledge gained from experiences in the United States by conducting a neonatology conference in Baku. The event focused on general management approaches for the care of premature newborns, infants born from complicated pregnancies, and newborns with birth traumas.
- Partners implemented changes in ob/gyn care for IDPs and refugees, including the administration of epidural anesthesia during labor, Rh immunization, blood sugar testing for all patients at risk for gestational diabetes, and early hospital discharge after normal deliveries.
- Partners opened a Women's Wellness Center (WWC) at Mir Kasimov in September 2002. The WWC successfully introduced a patient-centered approach to women's healthcare with a range of services beyond those offered by traditional women's consultation centers in Azerbaijan. It provides a wide range of preventive and treatment services that address the healthcare needs of women of all ages. The center reported 10,700 patient visits in fiscal year 2005, up from 4,260 the previous year — an increase of some 150 percent.
- At AIHA's request in 2006, staff at the Mir Kasimov WWC provided training on women's health issues to primary care providers from Ganja Polyclinic No. 6, a member of AIHA's Ganja/Livermore partnership.

### Outreach to IDP and Refugee Communities

- Partners conducted patient education classes on breast self-exams and the importance of screening for breast and cervical cancers for women at Mir Kasimov and during outreach visits to three refugee camps.
- Partners created and distributed Azerbaijani language brochures on topics such as breastfeeding, healthy children, children's nutrition, and pain management for chronic diseases.
- Partners conducted assessments at refugee camps in Sabirabad Rayon and provided screenings, treatment, and referrals for residents of the camps. They subsequently established routine telephone communications between three IDP/refugee camps, Sabirabad Rayon Hospital, and Mir Kasimov Hospital. Partners also implemented a systematic approach to the patient referral and follow-up processes and ongoing

## Training Rural Clinicians Helps Improve Care for Baku's IDPs and Refugees

When AIHA's Baku/Houston partners launched their collaboration in 1999, the desire to bring high-quality medical services to IDPs living in Baku and adjacent areas was their driving force. In particular, special emphasis was placed on improving maternal and child health, so partners from Baylor Medical College and Mir Kasimov Republican Clinical Hospital set about creating an infrastructure capable of ensuring the effectiveness and long-term sustainability of medical care for this segment of the population.

Partners began working with staff at Sabirabad Regional Hospital. Situated 180 kilometers from Baku in an area that is home to one of Azerbaijan's largest refugee populations, Sabirabad serves some 18,000 IDPs living in three large camps in Galagain, Gadajuhur, and Shakhriyar.

Tapping into institutional capacity partners had already developed at Mir Kasimov — namely the Neonatal Resuscitation Training Center (NRTC), Women's Wellness Center (WWC), and Learning Resource Center (LRC) they established — partners repeatedly traveled to Sabirabad to train colleagues from the rural areas in neonatal resuscitation techniques, maternal and child care, and women's health.

As a result, Azerbaijani medical personnel have been able to modernize approaches to care for premature infants, reduce rates of early neonatal mortality, and improve the health of infants born with congenital pathologies or complications due to diseases suffered during the prenatal period. Partners also note improvements in women's health, including prenatal and postpartum care, as well as labor and delivery room care. Blood sugar tests are now administered to all high-risk pregnant women to exclude gestational diabetes and epidural anesthesia is an available option during labor. Young mothers receive education on breastfeeding and its benefits, proper nutrition, and the "ABCs" of newborn care. And, for women who have normal, healthy births, the previously required seven-day hospital stay is now optional.

Each refugee camp has its own medical station where primary care is provided, so partners helped oversee operations and furnished the clinics with equipment — such as tonometers, otoscopes, glucometers, peak flow meters, and Doppler sonographs — necessary to perform onsite patient examinations.

Experienced general practitioners and specialists ranging from ob/gyns and cardiologists to surgeons and ophthalmologists traveled to Sabirabad to conduct workshops for local physicians and nurses. Participants learned about primary care delivery methods, chronic disease observation and treatment, how to conduct patient exams, and how to educate the population about disease prevention and healthy lifestyle choices.

Key results achieved through these efforts include marked improvements in rates of early detection of diseases. In particular, the detection rates for patients with diabetes or gynecological problems increased three-fold between 2001 and 2003. Thanks to improved delivery of primary care in the camps, the number of cases referred to local hospitals in 2003 declined by 29 percent at Sabirabad Regional Hospital and by 21 percent at Mir Kasimov when compared to previous years. Partners associate this reduction with equipping the IDP camp clinics with mobile telephones, which allow local staff to be in constant communication with specialists in Sabirabad, who provide telephone consultations on a number of cases.



Neonatal resuscitation specialists from the Mir Kasimov NRTC conduct a training at Sabirabad Regional Hospital.



Sabirabad Head Physician Alifaga Nadirov demonstrates how to use equipment in the doctor's bag to staff at Shakhriyar IDP Clinic.

communication was established between Mir Kasimov Hospital and several international organizations providing humanitarian assistance to IDPs and refugees.

- Through the partnership exchanges in both Baku and Houston, training was conducted in community needs assessment, education techniques, evaluation methods, prenatal and perinatal care, and obstetrics, including diagnoses, treatment and preventive obstetric services as well as emergency obstetrics.

## **2. Baku/Portland, Oregon (2000-2004)**

**US Partners:** Oregon Health Sciences University in Portland, Oregon, is the only educational institution in the state exclusively devoted to healthcare, health education, and related biomedical research. As the major health training facility, it educates students and residents, provides patient care and public service, and conducts biomedical research. As a leading healthcare university, it has all the medical disciplines located within one institution, vast connections with community resources, and a wide breadth of resources, skills, and expertise.

**NIS Partners:** The Narimanov District Health Administration in Baku, Azerbaijan, serves the Narimanov District, which is an urban area with a population of 177,000, including 26,000 IDPs and refugees. Primary care is provided through the adult and pediatric polyclinics reporting to the District Health Administration. The Health Administration is also responsible for the work of the Women's Health Clinic, as well as the Children's Infectious Diseases Hospital.

**Partnership Objectives:** The overall goal of the partnership was to develop a comprehensive, community-based, primary care system designed to meet basic healthcare needs and improve the status of IDPs and refugees in the Narimanov District of Baku.

In support of this overall goal, partners:

- Enhanced the ability of the Narimanov District Health Administration to collect, store, organize, and analyze basic socio-demographic, health status, and clinical information on IDP and refugee populations;
- Adapted the infrastructure of the health administration to provide primary care within the IDP and refugee communities by establishing a model primary healthcare center that functions as a base of operations for work with IDPs and refugees within the district;
- Improved the effectiveness of the visiting physician program as it pertains to IDP and refugee populations by increasing the capacity of these doctors in community-based primary care services and delivery, the use of community assessment and epidemiological surveillance tools, and public health, including patient education and the use of self-care materials;
- Improved the ability of nurses in the Narimanov District to effectively serve the IDP and refugee populations through targeted training; and
- Developed the capacity of the IDP and refugee populations themselves to participate in improving individual, family, and community health status through health education and related materials on topics such as infectious and communicable diseases, sanitation, mental health, and nutrition.

### **Key Partnership Events and Achievements**

#### **Clinical Organization and Capacity Building**

- Partners developed a training curriculum to increase the diagnostic and treatment skills of the visiting physicians who are working with IDP and refugee populations. This curriculum includes basic examination skills, as well as an overview of core competencies needed by primary care providers. A weekly training program was initiated for general physicians using the curriculum. Medical bags were donated and clinicians were trained to use the equipment included. Advanced training for ophthalmologists, neuropathologists, and other specialists involved in IDP and refugee care was conducted as well.
- Partners developed a similar curriculum for visiting nurses working with IDPs and refugees, with an

## Bringing Primary Care to IDPs and Refugees in Baku's Narimanov District

Baku's Narimov District is home to a large population of IDPs and refugees who settled in the area following the Nagorno-Karabakh conflict. The poor, overcrowded conditions make comprehensive socio-medical care more than critical.



**Dr. Saida Nasibova shows the new Primary Healthcare Center to American guests Leslie Harnish and Diane Bodman.**

AIHA's Baku/Portland partners responded to this great need by establishing a Primary Healthcare Center at Narimov District Polyclinic No. 4 in May 2004. On May 25, 2005, Center Director Saida Nasibova had the opportunity to showcase the clinic's work for a group of American visitors, including M. Diane Bodman, wife of US Secretary of Energy Samuel W. Bodman; Leslie Harnish, wife of US Ambassador to Azerbaijan Reno L. Harnish; and USAID Country Representative for Azerbaijan James Goggin.



**Guests and center staff at the conclusion of the tour.**

Nasibova started the tour in the polyclinic's old building, where primary care providers worked before the new center opened the previous year. She then proceeded to show them the new wing — which houses the Primary Healthcare Center, a Women's Wellness Center, and a Community Health Education and Resource Center all established by partners. Neatly renovated and furnished, the new facility radiates hospitality while its professional staff of five family physicians and five nurses are well prepared to provide high quality care to patients of all ages.

Explaining how the partnership has benefitted both the Polyclinic and — more importantly — the community it serves, Nasibova said they started to see the positive impact of the collaboration soon after the partnership was formed. "The first program we initiated was on the early detection and treatment of breast cancer because nearly 80 percent of all breast cancer cases in the district were diagnosed in later stages," she told the group, citing lack of awareness about self-examinations, a dearth of diagnostic equipment, and lack of appropriate skills among primary care providers as key reasons.

To address the problem, US partners donated ultrasound equipment, trained their counterparts in diagnostic and treatment protocols, and helped them develop patient education materials for distribution among IDPs, refugees, and other women living in Narimov and six other districts spanning Baku.

"During the first four years of the program, we have examined and educated roughly 40,000 women in breast self-exam techniques. We detected abnormalities in nearly 900 patients and referred them to the National Oncology Center for treatment. Now they are receiving follow up care and psychological support from our center," Nasibova explained to the visitors.

Other services offered by the center include cervical cancer screening using Pap tests, mental and behavioral health screening and support, programs for the management of asthma and other chronic ailments, a visiting physician program, and an adolescent health program initiated by partners in conjunction with the United Methodist Committee on Relief.

emphasis on gaining basic skills necessary for ensuring continuity and comprehensiveness of care for men, women, and children of all ages. Physicians were included in the early stages of the nurse training to help them better understand the expanded role nurses would play in the provision of primary care services.

- Partners trained 20 physicians and 20 nurses using the newly developed curricula. As a result of this reorientation toward primary care, partners were able to reduce the number of visits to the polyclinic and the number of required house calls. In 2002, for example, more than 6,200 patients were screened and 2,003 cases of disease were detected — 40 percent of those received consultations at the clinic and fewer than 12 percent needed to be referred to specialists.
- Partners worked to improve clinic infrastructure and performed functional analyses of patient flow and medical record-keeping. Computers were donated and installed to facilitate effective data collection, storage, analysis, and retrieval. US partners conducted related training sessions on clinic infrastructure and functional analysis, patient flow, data tracking, and medical record-keeping.
- Azerbaijani partners implemented a clinical practice guideline on bronchial asthma. An initial cohort of 61 patients started the project and 11 more were soon added. In February 2003, 44 percent of the patients (32 out of 72) achieved the desired outcome of a Peak Expiration Volume (PEV) greater than 80 percent. Patient outcomes continued to improve with 59.21 percent of all subjects achieving the desired PEV during April-June 2003, and 63.16 percent achieving the desired PEV during July-September 2003.
- Ten physicians graduated from the family medicine training course partners implemented at the Azerbaijan Institute of Postgraduate Medicine, were certified as family physicians, and joined the institute's faculty. The clinical base for the training course stems from the model Primary Healthcare Center established by partners.

#### Community/IDP Outreach

- Partners developed a collaborative relationship with the United Methodist Committee on Relief (UMCOR) to ensure the regular supply of medicines and medical supplies to clinic physicians who provide primary care services to IDPs and refugees.
- Partners collaborated with the Azerbaijani NGO "New Century" and the Ibn Sina Clinic to conduct health screenings for IDP and refugee children residing in Narimanov District.
- Partners established a model Primary Healthcare Center, which includes a Community Health Education and Resource Center and provides a base of operation for existing programs focusing on women's health, youth substance abuse and addiction, asthma, mental health, and other key health concerns. The center serves as a clinical base for the training course on family medicine at the Institute of Postgraduate Medical Education and trains staff from other primary care facilities. During fiscal years 2005-2006, the center provided a number of onsite trainings in family medicine, women's health, and the development of clinical practice guidelines for primary care providers in Ganja, Azerbaijan, through AIHA's Ganja/Livermore partnership.
- Partners established a Breast Health Center that teaches the basics of breast self-examination and disseminates informational materials on breast health to healthcare workers, as well as IDPs and refugees residing in Narimanov District. By December 2002, more than 600 medical workers had been trained on breast screening and in excess of 12,000 patients — 2.5 percent of the population — had received screenings and information. Among the patients screened, 470 abnormalities were found and two cases of breast cancer were detected.

### **3. Baku/Richmond, Virginia (2000-2004)**

**US Partners:** Virginia Commonwealth University (VCU) School of Medicine's Department of Preventive Medicine and Community Health in Richmond, Virginia, led this partnership. They drew on faculty and resources from the School of Medicine's Department of Family Practice, as well as the schools of Nursing, Dentistry, Pharmacy, and Allied Health, and a wide range of linkages with health service organizations throughout the Richmond metropolitan area.

**NIS Partner:** The Binagadi District Health Administration in Baku, Azerbaijan, serves the Binagadi District, which is one of Baku's 11 administrative districts and home to approximately 33,000 IDPs and refugees — the largest concentration in Baku. Initial partnership activities were implemented through Pediatric Polyclinic No. 20 and Adult Polyclinic No. 9, both of which provide healthcare services to the majority of IDPs and refugees living in the district. Primary healthcare services are provided through various adult and pediatric polyclinics, Joint City Hospital Clinic No. 6, and a Women's Health Clinic.

**Partnership Objectives:** The overall goal of the partnership was to provide humanitarian assistance in the form of model community-based primary care services for the IDP and refugee populations in Binagadi District.

To achieve this overall goal, partners:

- Improved the capacity of Binagadi District Health Administration to collect, enter, and analyze data on the health status of IDPs and refugees living within the District;
- Improved pediatric surveillance aimed at infectious disease and cardiovascular disease, particularly early detection of rheumatic and congenital heart diseases;
- Improved the quality of medical care area doctors and nurses provide to IDPs and refugees in Binagadi District through targeted training for physicians and nurses, along with upgrading working conditions and available equipment and supplies; and
- Improved the quality of medical information on infectious disease, personal hygiene, sanitation, and general prevention in their home environment provided to IDPs and refugees.

## Key Partnership Events and Achievements

### Clinical Organization and Capacity Building

- Partners trained more than 50 physicians and nurses from Binagadi District in new methods of providing and improving healthcare services for IDPs and refugees, including how to develop effective primary care practices, diagnosis and treatment of infectious diseases, hospital epidemiology, and an epidemiologic approach to patient care. They also developed and disseminated patient education materials and new standards of clinical practice.
- Partners placed a special focus on primary level cardiology and treatment of infectious diseases among IDP and refugee populations. In addition, nurses also focused on community assessment and patient education within target communities, particularly on infectious diseases and preventative care.
- Partners provided and installed computers to assist with data collection, storage, and analysis. The US partners conducted training sessions on clinic infrastructure and functional analysis, patient flow, data tracking and medical record-keeping.
- Partners provided 30 medical and nursing bags complete with basic equipment and supplies to medical personnel providing healthcare services to IDPs and refugees residing in Binagadi District. The US partners also trained the clinicians to use the equipment.
- In 2003, 65 percent of physicians and healthcare providers surveyed said the use of new clinical practice guidelines implemented by partners had assisted them in making treatment more efficient. The percentage of patients assessing the quality of medical care received as "good" and "very good" increased from 20 percent to 65 percent. An analysis of clinical practice showed a 30 percent decrease in the number of patients hospitalized for arterial hypertension; a 20 percent decrease in the number of patients hospitalized for aggravations of gastric and duodenal ulcers; a 15 percent drop in the number of complicated deliveries; controlled bronchial asthma status was achieved in 70 percent of patients; and a one-third decrease in the number of complications and mortality cases at the Intensive Care Unit at Joint City Hospital No. 6 was reported.

### Community/IDP Outreach

- Partners conducted public health assessments of IDP and refugee camps served by Binagadi District Health Administration to determine the status of immunization programs for diseases such as measles, mumps, polio, diphtheria, and pertussis. They used this information to guide interventions implemented

throughout the course of the partnership.

- Partners initiated a preventive dentistry program focused on promoting improved oral hygiene, brushing and flossing, and the provision of fluoride. Azerbaijani dentists were also trained in new dental techniques and procedures.
- Based on her experiences at an April 2000 AIHA Breast Health Seminar in Kiev, Ukraine, an Azerbaijani partner established an NGO dedicated to improving breast health education and care. The NGO received a grant from Resources for Environmental Activists (ISAR) for work on breast health.
- Partners helped institute regular site visits to IDP and refugee camps to provide basic medical services to residents and have increased the number of vulnerable patients who received in-patient care at the hospital.

## Epidemiology, Evidence-based Medicine Improves Productivity, IDP Care

AIHA's Baku/Richmond partners conducted a three-day workshop on clinical epidemiology and the essentials of evidence-based medicine in Baku March 30-April 1, 2004. A dozen healthcare professionals gathered to learn about clinical epidemiology and how improved clinical data collection can help them better design and implement healthcare programs that meet the needs of IDPs and refugees. Epidemiology surveillance specialists from Binagadi District, officials from the Azerbaijani Ministry of Health's Information and Statistics Department, key members of the Baku/Portland partnership, and information coordinators from AIHA's three graduating primary healthcare partnerships in Azerbaijan attended the event.

Two US specialists from Virginia Commonwealth University (VCU) introduced basic epidemiological concepts and principles, including data sources research and methods of analyzing outbreaks and their causes. The workshop also included a comprehensive discussion of evidence-based medicine. During training sessions, participants reviewed specific examples of how evidence-based medicine is put into practice in primary care settings. They also learned how to identify, evaluate, and utilize scientific evidence to improve patient care and were given an overview of international classification systems — such as ICD-10 (International Classification of Diseases 10th edition) and ICPC-2 (International Classification of Primary Care) — commonly used by healthcare institutions.

By introducing these classification systems, partners moved forward with implementation of internationally recognized standards for classifying primary care data and, switching to ICD-10 codes for diagnoses and using public domain software, like EpiInfo, which was provided by the US partners to help their Azeri counterparts to collect, analyze, and graph epidemiology data in Binagadi District.

Partners selected Polyclinic No. 39, which is affiliated with Baku City Joint Hospital No. 6, as the first site in the district to receive a computerized data analysis system. The electronic database allows healthcare providers to evaluate the health status of the local population thereby enabling practitioners and public health authorities to concentrate their efforts on addressing the specific needs of IDPs, refugees, and other segments of the local population. The end result is more rational use of scarce human and material resources, as well as improved patient care.



VCU's Robert Johnson, associate professor in the Biostatistics Department, provides an overview of research design and data analysis.

#### 4. Ganja/Livermore, California (2004-2007)

**US Partners:** ValleyCare Health System is a non-profit, locally controlled, private health system committed to providing high-quality health care services that are both convenient and readily accessible to the communities of California's Tri-Valley area. ValleyCare employs a staff of more than 250 medical professionals and offers a wide array of inpatient and outpatient services at multiple locations. The Alameda County Public Health Department (ACPHD) is a local governmental entity of the state of California. ACPHD works in partnership with its community to ensure the optimal health and well-being of all people through a dynamic and responsive process respecting the diversity of its community.

**NIS Partners:** The Ganja City Health Administration serves Ganja, the second largest city in Azerbaijan and a city with a long industrial heritage dating back to Soviet times. Some 330,000 people — including 40,000 internally displaced persons (IDPs) and refugees — reside in Ganja's two primary districts, Kapaz and Nizami. The surrounding rural area is home to an estimated population of 1.5 million.

**Partnership Objectives:** The overall goal of the Ganja/Livermore partnership was to improve access to quality, cost-effective primary healthcare services to citizens of Ganja, Azerbaijan.

In support of this goal, partners:

- Increased institutional and human resource capacity to deliver quality primary care services;
- Improved primary care clinical skills of doctors and nurses by establishing a regional professional training center;
- Improved the quality of care provided to mothers and infants at the affiliated maternity house; and
- Established a Community-based Prevention Program at Polyclinic No. 6 to promote healthy lifestyles in the local community.

#### Key Partnership Events and Achievements

- Partners established a model Primary Healthcare Demonstration and Training Center in Ganja. The center offers a combination of primary level curative and preventive services and is a training resource for ongoing government initiatives in primary healthcare.
- Nine Ganja physicians attended a three-month training course on family medicine at the State Institute of Postgraduate Medical Education in Baku and were certified as family practitioners. They now make up the core team for the model Primary Healthcare Training and Demonstration Center.
- Partners have ushered in marked improvements in health service delivery by retraining physicians and nurses at local polyclinics, introducing new disease prevention and health promotion strategies, and implementing a wide range of community health initiatives.
- Partners established the Ganja/Livermore Community Health Advisory Board in March 2005. The board, which consists of community members, physicians, nurses, the polyclinic director, local government health officials, and the Learning Resource Center information coordinator, provides community input on health issues affecting the residents served by Polyclinic No. 6. Each member has undergone 24 hours of training on the roles and responsibilities of an advisory board. Members also assisted with the development of the model Primary Healthcare Demonstration and Training Center and procured a large grant for center renovations from a local private donor.
- US partners donated \$6,000 to address additional costs associated with the renovations for the Ganja Primary Healthcare Demonstration and Training Center.
- Partners developed guidelines on roles and responsibilities for physicians working on the health initiatives implemented through the partnership.
- Ganja Polyclinics Nos. 2, 3, and 6 all implemented clinical practice guidelines on the management of high blood pressure and bronchial asthma. Partners trained the staff to use these protocols, as well as to collect baseline data to determine the extent or prevalence of both conditions. A total of 1,006 patients were screened for hypertension in fiscal year 2006, and 1,350 were screened for bronchial asthma. After the screening, 80 patients were enrolled in the blood pressure program and 31 in the bronchial asthma program.

## Nurturing Community Involvement in Azerbaijan's Primary Care Reforms

In 2004 when the first groups of specialists from California arrived in Ganja as part of a newly established primary healthcare partnership, the US healthcare professionals were eager to share their experiences working with people in the California communities they served to better identify key health concerns and develop effective, targeted interventions. After all, ValleyCare Health System, the lead US member of AIHA's Ganja/Livermore partnership, was established with assistance from local residents who banded together to raise money to supplement federal grants. This money was used to build the first Valley Memorial Hospital and, even to this day, ValleyCare still depends on private contributions to keep pace with expanding community health needs.

Initially, the idea of forming a Community Health Advisory Board was rejected by a majority of Azerbaijani partners. Finding the concept downright strange, the Ganja physicians balked at the idea of inviting patients, teachers, journalists, and other members of the community to join them — trained medical professionals — on a board whose main purpose is to solve health problems. Physicians, they reasoned, know perfectly well what kind of health problems the population faces and what should be done to solve them.

The mentality shift the US partners sought did not happen over night. During their first few exchange trips to the United States, Ganja physicians and nurses learned so much about the role communities play in US healthcare, most specifically in their partner city of Livermore. Professionals from Alameda County Public Health Department also shared their vision on things like coping with conflict, public health ethics and principles, and fundraising. It was this first-hand look at how clinicians in California effectively work with a broad range of local stakeholders to design and implement programs that helped the Ganja partners begin to embrace the idea of integrating community representatives into their own efforts to shape the health system back home in Azerbaijan. They agreed to recruit and train members of a Community Health Advisory Board that included not only doctors, but nurses, a journalist, patients, a legal specialist, an engineer, a teacher, and local residents.

Board members have been meeting regularly ever since to discuss ongoing health issues and provide recommendations on how to improve the partnership project. Any initial "strangeness" about engaging community members in the process of making improvements to Ganja's primary care system has disappeared.

The Community Advisory Board has taken on a leading role in the partnership's work, so it was no surprise that members became very concerned when local budget constraints caused a problem with remodeling Polyclinic No. 6 where a model Primary Healthcare Center was to be established. The project was in danger of failing due to lack of funds, but once again ValleyCare's history and experience served as a reference point.

Through their excellent networking skills, board members launched an intensive search for those who could help them solve this problem. The group came up with ideas on how to raise money and awareness about the new center among local residents. Livermore partners helped the renovation project with a large cash donation from physicians in the United States. Then, a local private donor was found and funds to complete the renovations were acquired. The extensive remodeling project was completed in August 2006 under the close supervision of board members. It was largely due to the dedication and support of the board that the model Primary Healthcare Demonstration and Training Center was able to open its doors in Ganja on September 12, 2006.



**Board members get a first-hand look at how individuals from the local community contribute to ValleyCare's planning processes during a partnership exchange in California.**

- Under an agreement with the Institute of Postgraduate Medical Education to utilize the Primary Healthcare Demonstration and Training Center as a clinical base for family medicine in Ganja, partners initiated short-term trainings. Ganja physicians conducted trainings in the pilot regions of Sheki, Gakh, and Ismaili as part of a PHC Strengthening Project implemented by IMC/Abt. A total of 54 physicians were trained in ulcer, asthma, and hypertension treatment.
- Partners relocated the Learning Resource Center to the Ganja City Health Administration to reach a larger audience of healthcare providers from throughout the city. The LRC is a center of continuous medical education in Ganja, with online resources and regular workshops and seminars on wide range of healthcare topics. AIHA trained the LRC staff in modern information and communication technologies, evidence-based medicine, and internet applications for medical searches and online medical resources.
- The Azerbaijani Ministry of Health appointed a working group to update, modify, and adopt clinical practice guidelines developed by AIHA in previous partnerships. Revised guidelines on bronchial asthma, acute respiratory infections, ulcers, and cervical cancer were submitted to the ministry for review and formal endorsement, as well as recommendation for use by primary care providers nationwide.

## **5. Azerbaijan Hospital Consultancy Project**

In response to a request from the Ministry of Health of Azerbaijan, AIHA provided technical assistance on a hospital development project. An initial assessment and planning consultancy related to the development of a model 200-bed, general medical/surgical hospital was conducted by two international expert consultants in Baku.

The proposed Scope of Work was approved by USAID/Baku as part of AIHA's health partnership program objective to assist with refining an integrated referral system in Azerbaijan. AIHA identified expert consultants, including a hospital planning and management specialist and a health facility planning and medical architecture specialist, who traveled to Azerbaijan to work with the Ministry of Health and other key organizations. They conducted an initial assessment and feasibility plan for the model hospital in Baku, working closely with AIHA/DC and Caucasus regional staff in preparation for the mission, as well as during the consultancy in Baku.

The consultancy visit was planned in close coordination with USAID/Baku and the Ministry of Health's Department of International Affairs. A detailed draft schedule was developed and agreed upon by all the parties. In addition to the assessment activities, the team conducted a two-day training on modern principles of hospital planning, development, and architectural design. The Azerbaijani Public Health and Reforms Center hosted the two-day workshop with participation from designated staff from the Ministry of Health, the Public Health and Reforms Center, and the Center of Innovations and Technology. A total of 14 participants attended the training.

The consultant team conducted intensive meetings and assessments with the involvement of key designated ministry personnel, international counterparts, USAID, and AIHA. They also visited current hospital sites and the proposed site for the new model hospital. As a result of the in-country assessment and follow up research, the consultants each submitted two packages of documents that included recommendations for hospital planning and the architectural design of the model hospital, including the proposed equipment list. The final report was submitted to USAID/Baku for review and approval before submission to the Ministry of Health of Azerbaijan.

## **Georgia Partnership Summaries**

### **1. Mtskheta/Mtianeti/Milwaukee, Wisconsin (1999-2004)**

**US Partners:** The Center for International Health (CIH), formerly the Milwaukee International Health Training Center, was established in 1986 by the Milwaukee County Government with USAID support. Its mission is to

contribute to global health through international training partnerships that strengthen the clinical, technical, and management competencies of healthcare personnel worldwide. In 1999, the Milwaukee International Health Training Center became an independent not-for-profit organization with core sponsors that include the Milwaukee County government, Children's Hospital of Wisconsin, and Froedtert Memorial Lutheran Hospital. Consortium members participating in this partnership are the Medical College of Wisconsin, the University of Wisconsin Medical School's Milwaukee Clinical Campus, Marquette University College of Nursing and School of Dentistry, the City of Milwaukee Health Department, the Planning Council for Health and Human Services, the Sixteenth Street Community Health Center, and the Milwaukee County Division of Health Programs.

**Georgia Partners:** The Mtskheta-Mtianeti Regional Health Administration manages and coordinates a broad array of federal and municipal health programs including 86 medical facilities, nine hospitals, seven polyclinics, 50 ambulatories and nursing stations, 275 physicians, and more than 600 nurses in the region. Urban polyclinics and primary care centers served as the lead entities of the Georgia partner.

**Partnership Objectives:** The overall goal of the partnership was to design and implement a family and community-oriented primary healthcare system in the Mtskheta-Mtianeti region of Georgia and develop a "Healthy Communities" initiative.

In keeping with these objectives, partners:

- Established a model Primary Healthcare Center in Mtskheta that consolidated community-oriented curative and preventive services for adults and children that could be replicated in other major cities in the region;
- Designed and implemented a family medicine training program for primary care physicians in Mtskheta and other major cities in the region;
- Installed primary care laboratories at Mtskheta, Dusheti, and Kazbegi Primary Healthcare Centers;
- Designed and implemented a family medicine nurse training program for primary care nurses in Mtskheta and other major cities in the region;
- Designed and implemented a nutrition program at the Mtskheta Primary Healthcare Center to promote and safeguard the health status of vulnerable groups;
- Assessed the oral health needs of school children and developed cost-effective preventive dental interventions; and
- Designed and implemented community-based high blood pressure control programs in all five districts of the region.

## Key Partnership Events and Achievements

### Clinical Organization and Capacity Building

- Partners renovated an existing children's polyclinic, opening the Mtskheta Primary Healthcare Center in 2001. In 2003, they expanded into the Mtskheta Family Medicine and Regional Health Training Center, which serves as model community-oriented primary care and family medicine center. Staff provide treatment and prevention services and support the training of physicians, nurses, and other medical personnel in the region.
- Partners updated the laboratory capacity at the Mtskheta Family Medicine Center, including the introduction of new equipment and additional supplies and training for laboratory staff in modern lab techniques.
- Partners established an onsite Learning Resource Center.
- Ten Mtskheta physicians passed the state certification exam to become licensed family medicine physicians. The exam was given following the completion of a 900-hour training course at the Georgian Family Physician Training Center in collaboration with the British Know-How Fund. Out of this group, four of the doctors were also trained as trainers who are now retraining other physicians from the region in family medicine/general practice. At the time of graduation, the Mtskheta physicians were the only licensed family medicine practitioners outside the capital city of Tbilisi.
- Six Georgian nurses completed an intensive six-week family health nurse training program at Marquette University College of Nursing based on the WHO primary healthcare curriculum and tailored to the needs of Mtskheta. These nurses then conducted a three-month training for 10 of their counterparts at the Mtskheta

## “Healthy Heart” Program Gives Mtskheta Journalist New Lease on Life

As a journalist, writer, and former editor-in-chief of a regional newspaper, 69-year-old Alexander Didebashvili had always led a hectic life. Juggling work and family was never a problem, though. He loved both his writing and his wife Nona and their two children. “It wasn’t until I turned 60 that I noticed heart palpitations, some dizziness, and shortness of breath,” Alexander says. “Sometimes, my heart would beat so fast I was afraid it would explode out of my chest.”

Around that time, Alexander also remembers that he often felt exhausted — even by some activities he used to do without even breaking a sweat. “I was worried by these changes, but they never lasted very long, so I attributed them to the fact that I was getting older and slowing down a bit,” he explains, saying he put off visiting the doctor for several years after he first noticed the telltale signs of hypertension, which is called the “silent killer” because symptoms, if they occur at all, are so easy to ignore.

“Finally, I grew tired of never feeling quite well and decided to visit my physician. The facility had been remodeled in cooperation with a group of Americans from Milwaukee and was now called the Mtskheta Family Medicine Center. The doctor told me that they had initiated many new services and programs thanks to the training they received through this partnership,” Alexander recounts. “She did some tests and told me that I had high blood pressure. She said that this condition could lead to heart attack, stroke, or even death if I didn’t get it under control immediately.”

Then his doctor told him about the Center’s new “Healthy Heart” program, which could provide him with the information he would need to change his lifestyle habits, reduce stress, and get his blood pressure under control. “I agreed to participate and met with Nino Revazishvili, the nurse who runs the program,” Alexander says. “She took my blood pressure again then talked to me at length about the steps I needed to take in order to effectively manage my hypertension. We talked about diet, exercise, and changes that could make a real difference for me and she told me that we would work together to ensure my success.”

Some of the changes — adding some daily exercise and cutting down on saturated fat, for example — fit easily into his lifestyle. “I made a pact with myself to do some sort of physical activity every morning. I even got my wife to join in, which makes things more enjoyable,” Alexander says with a smile. “My wife is also helping me eat more healthfully. We both thought that animal fat was not good for us, but before I started the ‘Healthy Heart’ program we didn’t understand its role in causing high cholesterol and hypertension. Now, she cooks with vegetable oil and we try to eat only lean meat. In addition, I’ve cut down on the amount I drink, which is not necessarily the easiest thing to do in Georgia given our culture and traditions,” he laughs.

The heart-healthy habits Alexander has learned from Nino have taken root in his whole family and are spreading to some of his friends. “I feel so much better and my mind seems much clearer as well. I feel that I have more motivation and creativity, so I’ve gotten back to writing children’s books. I’ve had six of them published in the past, but seemed to lose interest when I wasn’t taking care of myself,” he concludes, noting, “Seeing my family and close friends reap the rewards of better health thanks to my experience might be the greatest benefit of all.”



**Now that his blood pressure is under control, Alexander can turn his attention to his latest project, an anthology of children’s poems and fables.**



**Thanks to the training she received through Mtskheta’s partnership with Milwaukee, primary care nurse Nino Revazishvili now plays a key role in helping patients manage hypertension.**

Family Medicine Center.

- Partners in Mtskheta implemented new clinical practice guidelines for bronchial asthma, diabetes, and cervical cancer screening.
- Georgia's Ministry of Labor, Health and Social Assistance actively utilizes the resources of the Mtskheta Center in their National Family Medicine Retraining Program. The center also serves as a demonstration model for projects funded by the World Bank, European Union, USAID/AIHA, and OPM.
- The Mtskheta Center served as a model for AIHA's Gori/Milwaukee partnership and its trainers traveled to Gori to conduct onsite trainings for 18 physicians and 18 nurses from Gori District Polyclinic's Ambulatory Unit. They concluded their site visit by conducting a five-day post-course assessment of the nurses and a mid-term summative assessment of the physicians to prepare them for the state licensing exam. They also helped select master trainer candidates from the graduates of the training courses and assisted with a number of cross-partnership trainings conducted and hosted by the Gori/Milwaukee partnership.
- In June 2007, the Republic of Georgia awarded the President of the Meehan Family Foundation, Mr. Daniel Meehan, the Order of Honor in recognition of his notable contribution toward the establishment of the first Regional Family Health Training and Demonstration Center in Mtskheta-Mtianeti Region, as well as for "his prolific practical activities."

### Community Outreach

- Partners initiated a school-based fluoride rinse and dental sealant program in response to the high numbers of caries and other dental problems among children. A dentist-nurse team were trained in Milwaukee and later screened more than 1,600 Mtskheta secondary school students and applied sealants in some 300 cases. They also helped schools implement a weekly fluoride rinse program. Marquette University donated the equipment and supplies for the oral health promotion program.
- Partners conducted hypertension education and screening programs in Dusheti and Mtskheta and hosted several conferences and workshops on hypertension control for area physicians and nurses. More than 470 hypertensive patients have benefited from the program and 70 percent were able to control their condition with lifestyle changes and available medications. Since the beginning of the program, there were no deaths from hypertension and the rates of related hospitalizations and complications have been lowered.

## **2. Kutaisi/Atlanta, Georgia (1999-2001)**

**US Partners:** Grady Health System, operating under the auspices of the Fulton and DeKalb County Hospital Authority, has a long history of providing comprehensive women's services to the greater Atlanta community. It has 10 strategically located community-based primary care centers and two medical schools that employ staff from Emory University and Morehouse School of Medicine. Grady Health System also partners with the Georgia State University Departments of Nursing and Management, Kaiser Permanente, Fulton County Health Department, and the Rollins School of Public Health.

**NIS Partners:** The primary partner institution involved was the Regional Health Care Management Department of Imereti Region, which is responsible for healthcare service delivery for the region's population and for implementation of federal and municipal healthcare programs initiated by the Ministry of Health and the regional administration. The Kutaisi Women's Wellness Center provides a comprehensive range of women's health services to the region's population.

**Partnership Objectives:** The overall goal of the partnership was to improve the health status of women in the Imereti Region of Georgia through treatment, prevention, screening, early detection of diseases, and public education on health-related issues.

In keeping with these objectives, partners:

- Opened Georgia's first Women's Wellness Center;
- Trained Kutaisi clinicians on a broad range of clinical women's health topics to improve related services;

## Advanced Training and New Protocols Help Save Newborns in Kutaisi

“When I am in the delivery room working to save an infant who is in distress, I don’t have time to think about what needs to be done next. My actions, and the actions of everyone else attending to the birth, must be automatic because every second can mean the difference between life and death ... between good health and a lifetime of disability,” says Maya Shengali, chief neonatologist of Kutaisi. For the past decade, Shengali has worked at Maternity Hospital No. 2 in this community of nearly 244,000 located in the Imereti Region, a three-hour drive from the Georgian capital of Tbilisi. She has also consulted with patients at the Kutaisi Women’s Wellness Center (WWC), established by AIHA’s Kutaisi/Atlanta partners, since it opened in March 2000.

One of four neonatologists employed by the Maternity Hospital, Shengali is present at all the births that occur when she is on duty. She is also called upon to supervise roughly 60 percent of the more complicated cases, including those in which infants are likely to experience asphyxia or some other type of distress.

“We deliver 70 to 80 infants here each month and, of those, approximately 15 percent are high-risk births. For these deliveries, a team consisting of an obstetrician, a neonatologist, an anesthesiologist, and an experienced pediatric nurse are present,” she states. And the clinicians truly do work as a team, Shengali notes, since she — along with Nino Berdzuli, an ob/gyn at the WWC who also works one day a week at the Maternity Hospital — helped develop and implement new neonatal resuscitation guidelines in the Hospital’s delivery rooms.

“Before these new protocols were instituted in 1999, the resuscitation techniques we used were very crude, very outdated, and often costly because they called for inappropriate use of medications,” Shengali notes. “The guidelines we now use are in accordance with modern standards of clinical practice and enable us to work together much more effectively because each member of the team knows exactly what he or she is supposed to do. In cases when an infant is not breathing or experiencing some other problem, there is no time to discuss what to do next; everybody must know their responsibilities by heart.”

Noting that she and her colleagues were eager to learn new ways to help newborns survive, Shengali recalls how instructors from the Tbilisi Neonatal Resuscitation Training Center came to Kutaisi to conduct training sessions soon after the new guidelines were instituted. “The training was conducted in such an interesting and practical way, using mannequins to simulate a wide range of complications that can occur during birth. They taught us simple, cost-effective ways of treating infants who are experiencing respiratory distress, asphyxia, and other life-threatening conditions,” she says, explaining that the US partners donated respirators, incubators, masks, and other resuscitation equipment necessary for the protocols to be successful.

“Five years ago, we had never even heard of some of the equipment we received through our AIHA partnership,” Shengali continues. “Now we know how to operate the machinery and save the lives of many children who never would have survived if they had been born before then.”

The statistics bear out her claim: in 2001, the Maternity Hospital lost only three infants — two who were extremely premature and one who was born with profound brain abnormalities. “I noticed a difference in survival rates almost immediately, definitely within the first six months or so. In the first year, cases of asphyxia declined by nearly 10 percent and, by the second year, the staff was adept and confident in their newly-acquired skills,” Shengali concludes, stating, “We have taken many important steps toward reducing neonatal mortality rates at the Maternity Hospital and, as the mother of two young boys, I can tell you that giving parents the gift of a healthy baby is a very precious thing. It is everything.”



**Kutaisi neonatologist Maya Shengali tends to one of her tiny patients at Maternity Hospital No. 2.**

- Initiated Pap tests to screen for cervical cancer — representing the first time the diagnostic procedure was offered in Georgia;
- Developed and implemented new infection control procedures at the WWC, conducted related in-service training workshops, and provided a translated outline of infection control procedures for all staff; and
- Strengthened public health education programs through mass media and education campaigns reaching more than a quarter of the Kutaisi population.

- **Key Partnership Events and Achievements**

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- Clinical Organization and Capacity Building

- Using local resources, partners renovated a building and opened Georgia's first Women's Wellness Center in Kutaisi in March 2000. In spring 2001, they had a new generator and heating system installed with partnership funding.
- US partners trained their Kutaisi counterparts in radiology, ultrasound techniques, breast and cervical cancer screening, diagnostic procedures, documentation and record-keeping, and nursing care.
- After training in Atlanta, a WWC staff member began to perform Pap smears. This represented the first time the critical diagnostic service was offered in Georgia.
- US partners reviewed existing infection control procedures and drastically revised the protocols used at the WWC. They conducted in-service training workshops for staff and provided a translated outline of the new infection control policies for all WWC staff.
- Partners established Hera, an NGO dedicated to improving women's health in the Imereti Region. WWC and Hera staff and volunteers actively participate in USAID's Healthy Women of Georgia Project, which is implemented by John Snow International (JSI).

#### Community Education and Outreach

- Georgia partners established a community health council responsible for planning community health intervention strategies in the Kutaisi region.
- In February 2002, WWC staff implemented a four-month project on reproductive and psychiatric assessments of teenage girls in Kutaisi secondary schools that reached more than 2,000 students.
- WWC staff regularly provides patient education classes on childbirth, prenatal health, family planning, breast self-examination, and breastfeeding.

### **3. Tbilisi/Minneapolis, Minnesota (1999-2003)**

**US Partners:** The Minnesota Department of Health is one of the nation's leading agencies for disease reporting and outbreak investigation. The University of Minnesota School of Public Health is a multidisciplinary institution active in continuing education, outreach, and service activities, with expertise in research and education programs that examine the external nature of human health risks. The Minnesota Chapter of the Association of Professionals in Infection Control and Epidemiology also participates in the partnership.

**Georgia Partners:** The National Center for Disease Control (NCDC) was established in February 1996 by order of the Minister of Health of Georgia in collaboration with the US Centers for Disease Control and Prevention (CDC) in Atlanta, Georgia. Initially, the NCDC was responsible for infectious disease control and epidemiology. Since 1998, the center's mandate has broadened to include non-communicable disease epidemiology, disease prevention, and health promotion. The NCDC established regional branch laboratories throughout Georgia to collect specimens and report on a weekly basis to contain outbreaks.

**Partnership Objectives:** The partnership's overall goal was to improve the quality and efficiency of healthcare services in Georgia by assisting the NCDC in Tbilisi to develop national infection control programs and to design and initiate a national health promotion and disease prevention strategy.

To this end, partners:

- Upgraded the basic infection control training skills of NCDC faculty;
- Established an Infection Control Training Center (ICTC) on the NCDC premises;
- Developed an effective surveillance program to support epidemiological research on nosocomial infections and other topics related to infection control;
- Developed a standardized protocol for infection control surveys based the International Hospital Infection Prevention and Quality Assessment Program;
- Promoted more rational antibiotic use by integrating the WHONET program, which facilitates collection and analysis of national antimicrobial susceptibility data.
- Strengthened the capacity of three regional reference microbiology labs by providing necessary equipment, training, and guidance on quality control.

## Key Partnership Events and Achievements

### Clinical Organization and Capacity Building

- Partners established an Infection Control Training Center (ICTC) at the Georgian National Center for Disease Control to train epidemiologists, physicians, nurses, and microbiologists on topics such as modern infection control practices for hospital surveillance, nosocomial infections, the role of microbiology labs, education of health workers, and patient care practices.
- Partners developed an infection control practice guideline, which was approved by the Georgian Ministry of Health, as well as an antimicrobial susceptibility guideline.
- Partners helped introduce the new position of infection control nurse at several Tbilisi hospitals. These nurses were trained at the NCDC and now actively assist epidemiologists who implement infection control programs.
- Partners implemented surgical site infection (SSI) surveillance procedures at three hospitals in Tbilisi. For the first time in Georgia, reliable SSI data were obtained on the basis of standardized case definitions, resulting in the inclusion of the active SSI surveillance system in the National Surveillance Program beginning in 2001.
- Partners established regional reference laboratories in Tbilisi, Kutaisi, and Batumi, updating each one with modern equipment and supplies. Georgian staff trained in Minneapolis and at the Mayo Clinic and now regularly report all outbreaks and incidences of antimicrobial resistance to the NCDC. At the same time, partners also established WHONET Centers at the Kutaisi and Tbilisi labs to ensure monitoring and reporting of resistant strains occurring in local hospitals.
- US partners evaluated infection control practices at the National Center of Surgery Hospital in Tbilisi, conducting a survey that consisted of interviews with key hospital personnel; observation of facilities, supplies, equipment, and practices; and a point prevalence survey of active nosocomial infections in patients hospitalized at the time of the assessment.
- Partners participated in a three-round pilot Antibiotic Usage Point Prevalence Survey conducted in Georgia as part of an ongoing collaborative effort of the ICTC network in Georgia, Russia, and Ukraine. NCDC teams administered the surveys in Georgia, collecting data on antibiotic use in the hospitals to determine both the usage rate in general and the rate of perioperative antibiotic prophylaxis (PAP) in

“AIHA came to Georgia at a time when the country's healthcare system was experiencing severe economic and political distress. The partnership programs not only helped us build up substantial intellectual capacity, but also streamlined our infrastructure making it more responsive to the healthcare needs of our people. AIHA's training programs provided a strong impetus to the ongoing capacity-building process and enhanced institutional changes in the country's healthcare system.”

— *Vladimir Chipashvili,*  
*former Georgian Minister of*  
*Labor, Health, and Social Affairs*  
*(2004-2007)*

## Tbilisi Blood Bank Gains Recognition for Safety Record, Serves as National Replication Model

Healthy blood donors can potentially save the lives of up to three patients with a single donation, but the old Soviet practice of replenishing blood supplies through paid donors attracted people from high-risk groups who earned their living by selling their blood — all too often transmitting life-threatening infections such as HIV/AIDS, Hepatitis B and C, and Syphilis to already severely sick patients.

In 1999, AIHA began collaborating with Global Healing, an American non-profit organization based in San Francisco, and Jo Ann Medical Center (JAMC) in Tbilisi to address the limited availability of safe, reliable blood and blood products in Georgia. Together, partners opened the first voluntary blood bank in the country in September 2000.

The JAMC Blood Bank is supplied with modern diagnostic and office equipment. In accordance with both European and American standards, it uses only disposable supplies and high-quality test systems, as well as a computerized donor database developed by Global Health and implemented later in 2000.

Over the course of the four-year partnership, JAMC Blood Bank staff received continuous training in different laboratory methods and transfusion techniques, as well as topics such as blood bank management, donor recruitment, and patient interviewing.

All donated blood is screened for HIV, Hepatitis B and C, syphilis, and ABO/Rh. By monitoring the blood supply so closely and discarding any tainted donations, the Blood Bank has achieved a zero transmission rate for these diseases — an impressive achievement given the fact that the center receives approximately 2,000 voluntary donations each year and supplies 8 percent of all donor blood used in the country.

Potential donors are targeted through mass media campaigns and through repeat donors who encourage their friends and community members to make life-saving contributions.

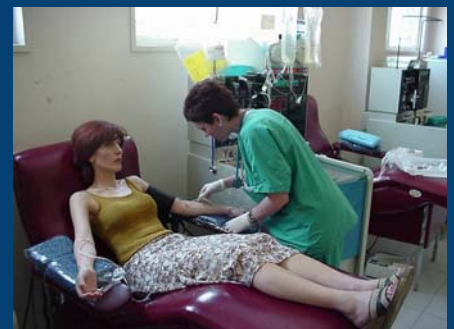
In 2004, JAMC became the recipient of the safe blood component of a two-stage open tender on "Strengthening Existing National Response for Effective HIV/AIDS Prevention and Control in Georgia in 2003-2007" through the Global Fund to Fight HIV/AIDS, Tuberculosis and Malaria.

With the help of AIHA — a subcontractor of the project — Blood Bank staff trained workers from 10 of Georgia's blood transfusion centers with the highest donor rates in modern lab methods and blood bank management practices. All participating laboratories received modern ELISA equipment and lab personnel were trained on its use. In addition, AIHA specialists adapted JAMC's donor database for use by Georgia's growing network of voluntary blood banks. The expanded database is automatically updated on a daily basis. It contains information on registered donors and blood products from all blood banks in the network, which gives all affiliated centers access to data on existing donors.

Through this national project, the JAMC Blood Bank provided a solid basis for a country-wide voluntary blood bank system roll-out that is greatly improving Georgia's capacity to ensure the safest possible blood and blood products for those in need.



**A JAMC physician checks the blood pressure of donors prior to drawing blood.**



**A clinician monitors a donor in the process of giving blood to ensure her comfort and safety.**

patients undergoing operations. Data were entered and analyzed through Epiinfo and were used to guide policy and guideline development on antibiotic use throughout the NIS.

- Partners collaborated with other AIHA partnerships in Georgia to develop a strategic plan for establishing a national non-communicable disease assessment and surveillance program. They trained the Georgian partners to conduct community assessments and helped them develop prevention interventions and patient education materials on cardiovascular disease, as well as school-based programs on smoking and STIs for adolescents. They also assisted with the continued surveillance of non-infectious diseases throughout the country.

#### Health Promotion

- NCDC and ICTC staff collaborated with other AIHA partners in Georgia on community-based educational outreach projects designed to respond to high rates of unhealthy behaviors, such as smoking. A program targeting young people was implemented in 14 schools in Tbilisi and more than 150 copies of health promotion publications were distributed.
- Partners designed reporting forms for surveillance of cardiovascular diseases, including a myocardial infarction form that was adopted at a pilot hospital in Tbilisi.
- Partners trained some 100 health workers on public health issues, including basic epidemiology and community mobilization for disease prevention.
- In coordination with the Mtskheta-Mtianeti/Milwaukee partnership, partners implemented a cardiovascular disease prevention program in Dusheti, training 20 area physicians, nurses, and healthcare officials on primary prevention of cardiovascular diseases. More than 800 students in six schools also participated in discussions and lectures on health promotion.

#### **4. Tbilisi/San Francisco, California (1999-2003)**

**US Partners:** Global Healing, based in San Francisco, is a nonprofit organization established to facilitate health system reform in areas of the world where modern healthcare is not available through training and education. This is achieved by working directly with local government officials, healthcare providers, educators, businesses, public institutions, and private citizens to put processes in place that ensure self-sufficiency. Global Healing has no paid staff; all its activities are accomplished by volunteers.

**Georgia Partners:** The Jo Ann Medical Center (JAMC) is a nonprofit organization and health facility in Tbilisi. Since its opening in September 1996 the JAMC has successfully performed over 400 pediatric cardiac surgeries. In September 2000, the JAMC blood bank opened its doors to provide safe blood and blood products to the people of Georgia. The blood bank at the JAMC is designed to serve as the pilot project for a future national-level blood bank.

**Partnership Objectives:** The overall goal of the partnership was to establish a self-sufficient, modern blood bank with the capability to meet the needs of the Georgian population.

In keeping with this objectives, partners:

- Opened a blood bank that adheres to international blood-banking standards;
- Trained Georgian staff at a comparable US blood bank;
- Created standard operating procedures for the blood bank to follow;
- Developed and implemented a computerized donor database;
- Established international contacts within the blood bank community;
- Assembled training teams for onsite training courses;
- Developed a donor recruitment plan within Tbilisi; and
- Conducted continuous training of blood bank staff.

## Key Partnership Events and Achievements

### Clinical Organization and Capacity Building

- Partners renovated an existing portion of JAMC to house the blood bank and installed all required equipment prior to opening the JAMC Blood Bank in September 2000.
- American medical teams traveled to Tbilisi to train blood bank staff and Georgian partners traveled to Sacramento Medical Foundation Blood Center where they gained practical experience in blood banking procedures and learned about blood bank management and the preparation of various blood products. Partners also learned new laboratory methods for transfusion services and received training in donor recruitment suggestions and methods.
- A US partner created a computerized database and donated it to JAMC, where it was piloted by the Georgian partners.
- Partners adapted international standard operating procedures to fit the unique situation in Tbilisi and implemented these accordingly.
- Partners acquired necessary supplies of CAP test kits for the safe blood program in Georgia, as well as test kits for Hepatitis B and C, HIV, and syphilis that were distributed to the local AIDS Center and satellite labs. The program was monitored by AIHA and the AIDS Center, with US partners analyzing the data.
- US partners conducted SOP assessments at JAMC Blood Bank, the AIDS Center, and two other major blood banks in Tbilisi in September 2001 and reported their findings to the inspected sites and other interested parties.
- JAMC Blood Bank was awarded funding in 2004 from the Global Fund to fight AIDS, Tuberculosis and Malaria to implement a national safe blood program. AIHA continues to participate in this project as a sub-contractor.

### **5. Tbilisi/Scranton, Pennsylvania (1999-2004)**

**US Partners:** The University of Scranton in Scranton, Pennsylvania, and its Panuska College of Professional Studies prepares students to enter directly into a variety of professional fields, primarily in education, human resources, health administration, nursing, physical therapy, occupational therapy, and exercise science. As lead partner, the University of Scranton tapped into a wealth of healthcare management expertise at the local, state, and regional levels to achieve partnership goals.

**Georgia Partners:** The National Health Management Center (NHMC) is a department of Georgia's Ministry of Health that was established to coordinate various healthcare goals, including research and the support of both short-term and long-term training and education programs. Through its Center of Continuing Education (CCME), the NHMC regulates postgraduate education for healthcare professionals in fields such as healthcare management and administration, public health, nursing leadership and administration, and family medicine for doctors and nurses.

**Partnership Objectives:** The partnership's overall goals were to develop health management education curricula and content, prepare trained faculty, and produce a cadre of trained health managers by designing, developing and implementing a collaborative, sustainable health management education program in Georgia.

To achieve these goals, partners:

- Developed and implemented both a short-term and long-term healthcare management and administration curricula, as well as specialized workshops and courses, at the NHMC-CCME;
- Established NHMC satellite outreach centers in Batumi, Kutaisi, and Telavi;
- Identified key health management education faculty at designated universities, institutes, and the NHMC-CCME, as well as practicing professionals, who were trained in healthcare management and administration theory and the newly developed course content. This cadre was also provided targeted training in effective teaching skills and adult learning methodologies;

## HME Partners Work to Give Disabled Children a “Place at the Table”

For a disabled person, the Soviet healthcare system provided “cradle to grave” support, says Tim Hobbs, associate professor of education at the University of Scranton. “Following the so-called ‘invalid model,’ this meant disabled people were taken care of by the system rather than provided with the services and support necessary for them to take care of themselves.” As a result, people with disabilities were marginalized, remaining under the close care and supervision of their families or placed in institutions. Either way, they were cut off from the rest of the world.

Otar Gerzmava, former director of continuing education at the National Health Management Center in Tbilisi, agrees. “The Soviet system was very good at supervising people with disabilities, but not at integrating them into society or providing special educational or vocational services that would help them live more productive lives. 80,000 children in Georgia today collect disability pensions, but only a small fraction of them are integrated into the ‘normal’ education system, let alone into ‘normal’ society,” he explains.

Limited access to special education or rehabilitation services severely hampers the ability of the disabled to function within society — a fact many specialists in Georgia have been striving to change by working with various NGOs, parents of children with disabilities, public health professionals, government leaders, teachers and other interested parties to find ways to better integrate disabled children into their communities. This movement of inclusion was recognized and supported by AIHA’s Tbilisi/Scranton partnership, who used their collaborative work in the field of health management education as a springboard for change.

“The whole project started with our AIHA partnership,” explains Daniel J. West, associate professor of health administration at the University of Scranton. “Early in our collaboration, our Georgian colleagues pointed out that clinicians and health managers in Georgia needed training in rehabilitation and behavioral health. As we began that process, we discovered an almost total lack of programs or services for disabled children.” Rather than adopting a purely medical model, partners decided to tackle the problem by focusing on the entire continuum of care.

Their efforts paid off in August 2000, when the US Department of State’s Bureau of Education and Cultural Affairs awarded the University of Scranton a grant for a project titled, “The Georgian-American partnership for Rehabilitation and Special Education,” which focused on services for disabled children in Georgia.

Lack of financial resources was not the only challenge, though, Hobbs stresses. “How Georgia’s educational and healthcare infrastructure are organized is part of the problem, as are certain cultural norms like institutionalizing disabled people. As Georgians are rethinking their system, I find that they are constantly criticizing themselves about this, but of course they shouldn’t,” he says, explaining that the same thing was true of the United States a few decades ago. “It has only been over the last generation that we have seen a revolution in the integration of disabled people into our societies.”

At the first workshop on integrating disabled children into classrooms at regular schools partners organized, only 20 people attended sessions on the opening day, says Gerzmava. “By the final day, more than 120 people showed up and many of them stayed until almost midnight, discussing the problem and possible solutions,” he notes. Encouraged by the high level of interest, partners pursued additional projects, culminating in an international conference titled, “Education and Social Inclusion of Children with Disabilities,” held in May 2002. At the event, they released several publications on special education and rehabilitation they had produced, including a Georgian-language textbook titled, “Special and Inclusive Education of Children with Disabilities,” and the premier issue of the “Journal of Education and Rehabilitation for Children with Disabilities.”

Partners also set up two model classrooms — one at the Research Institute of Pedagogy that supports training of special education teachers, and a second at Gymnasium No. 6 that serves as a model of “best practices” that have been successfully used to bring disabled children into the general education system. “We have planted the seeds already by holding discussion groups with members of parliament, teachers, and parents of both disabled and ‘normal’ children. One of the problems we face is that the subject is so new for most people . . . we have been taking the process one step at a time, first educating parents, teachers, and society as a whole and showing them what can be accomplished through this integrated classroom,” he continues.

Echoing Gerzmava’s call for change, Hobbs concludes, “If you have ever been fortunate enough to enjoy a meal at the home of a Georgian friend or colleague, you quickly come to realize that everyone has a place at the table. That is what this project is all about, making sure that — as far as education goes — disabled children in Georgia have their place at the table.”

- Provided faculty and professionals with hands-on training and exposure to new models through a wide range activities and site visits designed to expand their thinking and generate new ideas about health services management and education of health service professionals;
- Developed and implemented uniform criteria, national standards, core competencies, and the knowledge and skill sets needed to be professionally competent in health service administration, education, and management;
- Launched a new international and interdisciplinary quarterly publication titled the "Journal of Health Services Management and Public Health" to share theory, knowledge, information, ideas, and scientific progress in designated areas of health services administration, management education, scholarship, and research;
- Conducted an annual international healthcare conference in cooperation with other AIHA HME partners as a way to share health management education information, scholarship, and research among practitioners in the NIS-CEE region;
- Established the Center for Consultancy at the NHMC to develop and train a cadre of professionals who can provide expert consultation to healthcare organizations, agencies, and other service providers looking to improve healthcare delivery systems;
- Developed and expanded health management education support, collaboration, cooperation, and communication among existing NGOs, governmental agencies, AIHA partnerships in the region, international organizations, and other AIHA/USAID initiatives in Georgia;
- Secured resources necessary to expand and sustain health management education functions, services, and technical capabilities by establishing a Sister Cities International Project; and
- Provided HME training in specific areas of management for trustees, senior executives, and middle managers at the newly constructed Gudushauri National Medical Center and Iashvili Children's Central Hospital.

## Key Partnership Events and Achievements

### Clinical Organization and Capacity Building

- Partners secured Ministry of Health approval for a new specialty in Healthcare Administration within the Georgian Healthcare System. In March 2001, the Ministry issued a special order on the certification process for health management professionals and the NHMC developed and administered related exams. By the end of 2003, more than 1,800 exams had been administered and several residency and administrative training positions were approved.
- Scranton partners tapped into existing expertise in the region, building on their past HMR partnership with institutions in Slovakia. Together, partners from all three countries delivered workshops on topics such as "Marketing and Privatization of Health Care," "Management Education Training in Behavioral Healthcare, Social Care, and Rehabilitation Services and Systems," "Improving Nursing Management Performance in Health Care Settings," and "Advances and New Efforts in Health Care Management." Conducted in Tbilisi, all workshops and short courses were well attended and later disseminated to various satellite centers by NHMC faculty. By the end of 2004, 13 joint workshops were offered, 16 case studies were developed, and more than 250 participants trained.
- Partners developed a training program on "Basics of Healthcare Management for Head Doctors of Hospital Facilities," which was licensed by Georgia's Ministry of Health. Related courses were conducted in Tbilisi in 2003 and in Mtskheta in 2004.
- NHMC staff worked with Tbilisi State Medical University and Georgia's Ministry of Health to develop a graduate level program in health administration. Partners contributed to the development of 20 courses for the program.
- Some 35 Georgian partners visited a broad range of US healthcare institutions and were trained on various content and teaching methods — such as team teaching, co-teaching, case studies, and coaching — which they adapted for use at their own institutions in Georgia.
- Partners established a modern health management library at NHMC, which includes a number of teaching materials used in the health management courses and helps staff better incorporate international best practices in health management and education in their own work.

- Partners published a book on health management titled “Introduction to Health Management.”
- The NHMC became an official member of the Association of University Programs in Health Administration (AUPHA).
- Partners established the Center for Consultancy at the NHMC as a sustainability strategy. The Center generates revenue by providing consultations on economics, licensing, health management, and other related topics.
- Partners founded the “Journal of Health Sciences Management and Public Health,” which is produced on a quarterly basis and includes articles from current and former partners, AIHA staff, and a number of prominent figures in the field of healthcare management. By 2004, partners had published nine issues.
- Partners established satellite centers in Batumi, Kutaisi, and Telavi to disseminate NHMC workshops and trainings throughout Georgia. By the end of 2004, nine workshops had been held at these satellite centers and more than 170 people were trained.

## 6. Gori/Milwaukee, Wisconsin (2004-2007)

**US Partners:** The Center for International Health (CIH), formerly the Milwaukee International Health Training Center, was established in 1986 by the Milwaukee County Government with USAID support. Its mission is to contribute to global health through international training partnerships that strengthen the clinical, technical, and management competencies of healthcare personnel worldwide. In 1999, the Milwaukee International Health Training Center became an independent not-for-profit organization with core sponsors that include the Milwaukee County government, Children's Hospital of Wisconsin, and Froedtert Memorial Lutheran Hospital. Consortium members participating in this partnership are the Medical College of Wisconsin, the University of Wisconsin Medical School's Milwaukee Clinical Campus, Marquette University College of Nursing and School of Dentistry, the City of Milwaukee Health Department, the Planning Council for Health and Human Services, the Sixteenth Street Community Health Center, and the Milwaukee County Division of Health Programs.

**Georgia Partners:** The Shida Kartli Regional Healthcare Administration serves a population of approximately 360,000 people.

**Partnership Objectives:** The partnership's overall goal is to improve the health of individuals, families, and communities in the Shida Kartli Region of Georgia by facilitating access to high quality primary healthcare services available at ambulatory health centers.

To achieve this goal, partners:

- Improved the clinical competencies of primary care physicians and nurses at selected ambulatories;
- Established a Family Medicine Training and Demonstration Center at Gori Central District Polyclinic to improve capacity for targeted ambulatories;
- Strengthened healthcare delivery capacity by developing core teams of family medicine physicians and primary care nurse trainers;
- Improved hypertension care by establishing a hypertension management program that would serve as a model for multi-center roll out; and
- Improved access to primary care services by establishing village health posts.

### Key Partnership Events and Achievements

#### Clinical Organization and Capacity Building

- Partners identified a site for the new Family Medicine Training and Demonstration Center, conducted all necessary renovations and procurement of equipment and supplies, and opened the facility at Gori Central District Polyclinic in 2005.
- Partners established a Learning Resource Center at Gori District Polyclinic's Ambulatory Unit to improve information and communications technology capacity and bolster evidence-based clinical practices.

## Practitioner Training Helps Georgia Build New Family Medicine System

When AIHA launched its Gori/Milwaukee partnership in 2004, family medicine was just emerging as a specialty in Georgia. The government had just begun the process of re-orienting its hospital-based healthcare system to one more focused on prevention and primary care and physicians trained in other specialties were being re-trained as family practitioners. AIHA's USAID-supported partnerships were at the forefront these training efforts.

"Our goal was to train leaders who would become advocates for family and community health. We wanted the practitioners we trained to become catalysts for change," says US partner Seth Foldy, an associate professor of family and community medicine at the Medical College of Wisconsin. He readily admits that this was a tall order for Georgia's nascent family medicine professionals. "The specialty was relatively new in Georgia, so we targeted existing family medicine trainers and potential trainers — those physicians who were currently undergoing a 940-hour course in family medicine [developed through AIHA's graduated Mtskheta/Milwaukee partnership]," Foldy explains.

US partners from Milwaukee's Center for International Health joined with their Georgian counterparts and other subject matter experts to conduct training activities designed to bolster the knowledge and skills of a cadre of family medicine practitioners who would lead the nation's health system reforms. Healthcare professionals from AIHA partnership sites and other facilities in Gori, Guria, and Mtskheta took part in the trainings.

Partners conducted a series of training of trainer workshops that stressed key teaching techniques that have been proven effective for medical professionals and students, as well as patients and the public at large. Because these useful skills are not taught in Georgia's medical schools, workshop sessions were intentionally highly experiential, introducing participatory planning tools and behavior change techniques by engaging trainees in hands-on exercises.

Many of the participants he taught had learned these methods in theory, Foldy explains, but most had little actual experience with them. The workshops armed the family medicine specialists with this experience and they were then able to use the exercises in their own work as trainers or to engage patients and community members in health education and outreach campaigns.

Key topics included and community-oriented primary care and behavior change, as well as effective adult learning approaches that a family medicine physician can use to ensure patient education and support services are optimally effective. Specialists teaching family medicine can apply these same approaches to their students, designing training messages that will help physicians change their practices to reflect the more prevention-focused approach to care that is the hallmark of family medicine. Another emphasis was on creating local support for health initiatives.

"The concept of joining with other community sectors was not a familiar one for the Georgians, but the idea that the community itself has resources is a powerful one that everyone took to heart," says Foldy.



**Vakhtang Barbakadze, head of internal medicine at Georgia's National Institute of Therapy, discusses strategies for developing a sustainable hypertension management and prevention program during a July 2005 family medicine workshop conducted by members of the Gori/Milwaukee partnership.**



**A family medicine trainee celebrates completion of the July 2005 course with US partners Seth Foldy and Fred Tavill, and interpreter Tamar Shanidze.**

- Partners implemented a high blood pressure control program in the Gori and Kareli districts of the Shida Kartli Region in March 2005, expanding the program to Kaspi and Khashuri districts in 2007. Representatives of the National Center of Therapy regularly visited the sites to direct the program and partners provided district polyclinic staff with blood pressure monitors and training in hypertension treatment. Patients enrolled in the program were treated with diuretics and beta-blockers to control arterial hypertension. When partnership funding concluded, 296 of the 360 patients initially enrolled in the program were still actively participating. The program clearly demonstrated that total cardiovascular risks can be controlled through low-cost chronic disease management techniques. Patients who participated in the high blood pressure control program later joined the expanded Common Chronic Disease Management (CCDM) program in Gori beginning in January 2007.
- Using the partnership's work in hypertension control as a springboard to improve common chronic disease prevention and control, AIHA launched the Common Chronic Disease Management Program in the Shida Kartli Region. This program started with training selected physicians and nurses in hypertension management and the evaluation and management of hyperlipidemia and diabetes. Key topics covered in the training program included screening and diagnosis, how to implement treatment protocols, patient education on healthy lifestyles, and related follow up care for ongoing disease management. A total of 150 patients involved in the program were screened for hypertension, elevated lipids, and diabetes using specially designed protocols. Appropriate medical care was offered to adults diagnosed with one of these conditions, and a collaborative public-private partnership was initiated with the local pharmaceutical company PSP, which provided the medications used for the project free of charge or at a discounted rate.
- Eighteen physician/nurse teams were trained and certified to practice family medicine at the Gori Polyclinic's Ambulatory Unit.
- Partners selected master trainer candidates from graduates of the Family Medicine Demonstration and Training Centers. Selected candidates included five physicians and three nurses. They completed the 80-hour nationally accredited "training of trainer" course delivered by the chair of family medicine at Tbilisi State Medical University and are now eligible to provide family medicine training and continuous education in the region.

## 7. Guria/La Crosse, Wisconsin (2004-2007)

**US Partners:** World Services of La Crosse, Inc. is a Wisconsin-based nonprofit organization that provides the administrative and management functions of the former La Crosse International Health Partnership and manages several international grants focused on health and civil society. Gundersen Lutheran and Franciscan Skemp Mayo Health System are supporting organizations of World Services of La Crosse, Inc. and have representation on its Board of Directors. Gundersen Lutheran operates a tertiary hospital in La Crosse, as well as 26 branch clinics and six hospitals in three adjacent states. Franciscan Skemp Mayo Health System is a teaching hospital and an affiliate of the Mayo Health System. World Services of La Crosse, Inc. also collaborates with Viterbo University, University of Wisconsin - La Crosse, Western Wisconsin Technical College, the Health Science Consortium, the City of La Crosse, and the County Health Department in support of its partnership with Guria.

**Georgia Partners:** The Guria Regional Healthcare Administration Department serves a population of approximately 145,000 people.

**Partnership Objectives:** The overall goal of the Guria/La Crosse partnership was to establish a replicable and sustainable family-centered primary healthcare model in the Guria Region.

To achieve this goal, partners:

- Established a model primary healthcare center to improve access to high quality treatment and prevention services in the Guria Region;
- Increased local capacity to train primary care physicians and nurses by developing a regional health education center at Ozurgeti District Polyclinic;

## Partnership Mobilizes Community, Brings Primary Care to Rural Georgia

In 2005, the broken windows of Ozurgeti District Polyclinic in Guria were reminiscent of an orphan's eyes, full of desperation and hope for a better future. They also symbolized the state of the local healthcare system, which had been suffering for many years from chronic underinvestment. Poverty weighed heavily on the rural region and the majority of Guria's citizens have lived below the poverty line for many years — a factor that has contributed to the significant deterioration of the region's health indicators and to the rise of harmful behaviors and unhealthy lifestyles over the past decade or more.

"This has been our reality for the last decade," says Levan Skamkochaishvili, head of the Guria Healthcare Administration, "but now we finally feel that help is coming and that we're making steady steps toward dramatic changes for the better." Thanks to AIHA's USAID-supported partnership linking Guria's Healthcare Administration with World Services of La Crosse, Wisconsin, he explains, the Guria region received substantial support for professional education and the development of modern healthcare programs that address the healthcare needs of its 145,000 inhabitants from 2004-2007.

At the beginning of their collaboration, partners conducted a survey at regional high schools to determine some of the negative consequences of a long-term neglect of health education programs. The study revealed that some 40 percent of all students surveyed have experimented with tobacco and 15 percent of children between the ages of 12 and 17 smoke cigarettes on a regular basis. In response, partners introduced several school-based education and outreach programs in 2005, including a series of classes on the ill effects of tobacco use provided to 475 school students by trained nursing staff. These sessions received positive feedback from both the students and the teachers and provided a basis for the expansion of the program throughout the Guria region.

Partners conducted a health fair in October 2005 to educate and empower citizens in Ozurgeti. More than 300 people from the town and adjacent villages came to take advantage of the wide range of clinical services being offered free of charge. Blood pressure screening and blood glucose monitoring were administered and specialists were on hand to share information about cervical and breast cancer, STIs, pediatric care, reproductive health, tuberculosis, and malaria. With a primary healthcare consultation costing approximately \$2 per person and the average monthly salary in Georgia around \$20, the free information and services offered at the health fair were accepted by the local population with gratitude.

To help ensure the long-term sustainability of the changes partners have made in the primary healthcare system in Guria, they opened a newly renovated and equipped training center at Ozurgeti Polyclinic, which is used for training and re-training clinicians from the region. Partners trained 33 physicians and the same number of nurses using the 940-hour course in family medicine. All participating specialists were given family physician bags, which include stethoscopes, laryngoscopes, and other equipment necessary to provide comprehensive diagnostic services. Partners selected master trainer candidates from the pool of graduates and the four physicians and three nurses selected also took part in training of trainers courses conducted by the chair of the Family Medicine Department at Tbilisi State Medical University. They are now eligible to provide family medicine training and continuing education throughout the Guria Region.

"There are 44 rural ambulatories in the Guria region, and we still have a lot of work to do," Skamkochaishvili says, noting his hope that the positive changes partners have made to Guria's healthcare delivery system will translate to many improvements in the health status of local citizens. Then, perhaps the windows of local ambulatories will no longer reflect desperation, but rather will be illuminated with the light of change.



**A local pensioner is counseled on how to better manage his high blood pressure by trained staff at an October 2005 health fair conducted at Ozurgeti District Polyclinic in Guria.**



**Polyclinic staff offered a wide range of health lectures and related materials to the more than 300 people who attended the health fair. They also conducted screenings for chronic diseases such as diabetes, hypertension, and high cholesterol.**

- Improved the quality of rural health services in Guria by developing appropriate staffing ratios for physician-nurse teams serving rural areas; and
- Promoted primary healthcare and healthy lifestyles by raising public awareness and increasing the use of related services in the Guria Region.

## Key Partnership Events and Achievements

### Clinical Organization and Capacity Building

- Partners established a Regional Training Center at Ozurgeti District Polyclinic and celebrated its opening on October 1, 2005. The center is actively used to train local physicians and nurses in family medicine and it supports both regional training activities and the community-oriented primary care programs by training and re-training physicians, nurses, and other health professionals in the region.
- Partners trained 33 physicians and 33 nurses in family medicine.
- Partners established a Learning Resource Center at Ozurgeti District Polyclinic's Ambulatory Unit.
- Partners launched smoking cessation and drug abuse prevention programs targeting school children of various ages in Ozurgeti as part of a broader community education and outreach effort focusing on healthy lifestyles and disease prevention.
- Partners selected master trainer candidates from the pool of family medicine training course graduates. The four physicians and three nurses chosen completed "training of trainer" courses delivered by the chair of Family Medicine at Tbilisi State Medical University and became eligible to provide family medicine training and continuous education in the region.
- Partners introduced the concept of district health fairs with an emphasis on providing screening, early detection, and health education services to the community.
- Partnership implemented the Common Chronic Disease Management Program in the Guria Region. They developed a proactive screening, prevention, and treatment strategy for cardiovascular diseases and diabetes paired with health education interventions targeted at most common lifestyle risk factors for these chronic conditions. The project targeted 150 patients and also focused on strengthening capacity of the primary care institutions and pharmacies. Patients were screened for hypertension, elevated lipids, and diabetes using specially designed protocols. Selected physicians and nurses received appropriate training to ensure success of the project.

## 8. Tbilisi/Atlanta, Georgia (2002-2007)

**US Partners:** Partners for International Development, an Atlanta-based NGO that evolved from AIHA's first Tbilisi/Atlanta partnership (1992-1999), drew on the expertise of dedicated professionals from Emory University, Georgia State University, Georgia Institute of Technology, Grady Health System, and Morehouse College.

**Georgia Partners:** The Georgian partners include the Ministry of Health, Labor, and Social Affairs, the Gudushauri National Medical Center, Iashvili Children's Central Hospital, and Partners for Health, a Tbilisi-based NGO.

**Partnership Objectives:** The overall goals of this partnership were to improve the quality of health and healthcare services provided by Georgian partner organizations and to create a professional nursing model at partner institutions.

To achieve these objectives, partners:

- Develop a framework for nursing care and associated strategies to help ensure appropriate training, ongoing education, and skills enhancement — all with the common goal of improving nursing care;
- Conducted "training of trainer" courses to build technical and leadership capacity among a core group of nursing educators;

- Conducted a series of “training of trainer” workshops for hospital management to improve operations and administrative services, with a particular focus on improving financial systems, management and administration, medical care and quality assurance procedures and policies, and leadership development;
- Developed administrative and leadership skills by training master trainers in healthcare management education and initiating a certificate program in Health Services Management for partner hospitals;
- Assisted partner hospitals in the development of new policies and protocols, including emergency preparedness plans; and
- Utilized existing Learning Resource Centers at partner hospitals to develop clinical practice guidelines, medical informatics databases, and distance education materials.

## Key Partnership Events and Achievements

### Clinical Organization and Capacity Building

- Partners achieved significant improvements in the delivery of nursing care, introducing new nursing services at both Gudushauri and Iashvili, as well as developing new documentation forms, clinical curricula, and the capacity of local trainers. They opened Nursing Resource Centers at both hospitals and expanded continuing education opportunities for nurses. Collectively, these efforts led to greater roles, responsibilities, and professional empowerment for the nurses.
- Partners effectively strengthened organization and management structures at Gudushauri and Iashvili. The middle management training and technical assistance provided by US partners resulted in significant improvements in the cost recovery and registration systems at both facilities, which in turn has raised patient awareness of payment rules and improved accounting for all cash due to the hospital, as well as greatly reduced “gray market” payments.
- The new, detailed registration system implemented by partners provides valuable information to management for decision making.
- Both partner hospitals have made significant changes in the physician compensation system. Physicians were moved from a salary to a “per procedure” performance-based compensation formula. Gudushauri and Iashvili are also working with a number of private insurance companies, thus increasing hospital revenues from private insurance companies.
- Partners have made noteworthy changes to the organizational structures of both hospitals. For example, each department now has its own goals and objectives, and functions as an independent unit. The number of committees operating in the hospitals has expanded to include groups focusing on quality control, rational use of drugs, and infection control. Both Gudushauri and Iashvili have experienced an increase in hospital occupancy and a decrease in hospital mortality.
- The partnership has been instrumental in opening the region’s first emergency room at Iashvili Central Children’s Hospital. The position of ER physician has been institutionalized, as has the concept of triage. The introduction of emergency medicine practices and training has resulted in significant measurable improvements in patient health in the areas of diarrhea, abdominal pain, nervous system infections, head trauma, febrile seizures, coughing, and pain management. Related training has led to noticeable decreases in the average length of stay — down from 13 days to 7 days. Also, a greater proportion of patients are now being discharged directly from the ER resulting in greater efficiency.

“Gudushauri National Medical Center is the only Level I Trauma Center in all of Georgia. It has 12 operating rooms, a critical care unit, and a 30-bed ICU, which is the largest in the country. It offers a referral system for urgent care cases supported by a dozen ambulances and has a highly experienced staff that represent a wide range of specialties — each one has been trained by the Tbilisi EMSTC and continues to update their skills through refresher courses.”

— Dr. Nino Kopadze,  
Director, Tbilisi EMSTC,  
Tbilisi, Georgia  
(Tbilisi/Atlanta partnership)

## Pediatric Emergency Center Serves as National Model of Care in Georgia

The name of the three-year old girl playing quietly in the Pediatric Emergency Center waiting room at Tbilisi's Iashvili Central Children's Hospital is written on the board in green. Her condition is stable and she can wait until the needs of the patients whose names are written in red and blue are addressed. This systematic approach of prioritizing patients based on urgency — or triage — is a normal part of urgent care in the United States, Europe, and many other parts of the world, but it is unique among emergency hospitals in the former Soviet Union, where the technique was not traditionally used.

Iashvili's Pediatric Emergency Center is most definitely unique, so it is not surprising that they have implemented a triage system for evaluating young patients. After all, the center itself is the only facility of its kind in Eastern Europe. Located on the ground floor of Iashvili Children's Central Hospital, the bright, cheerful Pediatric Emergency Center was designed along western standards. It opened its doors in 2004 thanks to the efforts of AIHA's USAID-supported Tbilisi/Atlanta partnership. In addition to USAID, AIHA, and the US and Georgian partners themselves, more than 22 commercial entities and NGOs contributed to the center's renovations and outfitting.

Open 24 hours a day, seven days a week, the center is equipped with hi-tech diagnostic and laboratory equipment. It boasts a professional staff who were trained by specialists from Emory University School of Medicine and Children's Healthcare of Atlanta at Egleston to effectively manage medical problems ranging from the mundane to the most complex. What's more, it provides all these services free of charge.

Partners worked together to ensure Iashvili staff were trained in advanced emergency medicine techniques, placing a strong focus on acquisition of clinical skills. Because of this, mortality rates at the hospital have decreased despite the fact that the most difficult cases from all regions of Georgia are referred to the facility for treatment. Partners also collaborated to improve a broad range of operational policies and procedures to reduce waste and improve quality and efficacy of care. As a result, the center was able to develop clinical practice guidelines that helped decrease the average length of a hospital stay from 13 days to seven while at the same time increasing the rate of discharges from 8 to 56 percent. These two factors alone reduced operating costs by almost \$450,000 within the first year of operation. Finally, partners paved the way for emergency medicine to become a recognized specialty for physicians in Georgia.

In addition to clinical training, US partners conducted a number of management trainings designed to significantly improve administrative functions such as cost recovery, patient registration and tracking, and basic organizational structures. Expanding the role of nurses in patient care was also a key focus and partners worked to develop continuing education and training opportunities that would empower nursing professionals and facilitate greater cooperation and teamwork with physicians. Together, these changes led to better decision making, priority setting, and self-sufficiency, as well as improvements in quality control procedures, infection control, and rational drug use.

In recognition of Iashvili Pediatric Emergency Center's leadership, the Ministry of Health now finances the facility and is looking to replicate its model throughout the country using the center as a training site for healthcare professionals from all regions of Georgia.



Parents who bring their children to the Pediatric Emergency Center can count on the expertise and efficiency of its well-trained, caring staff of healthcare professionals.



Center staff practice clinical skills during a Pediatric Advanced Life Support (PALS) training in Atlanta. Professionals trained through the partnership are now training other healthcare providers from all regions of Georgia.

## Public-Private Partnership Helps Train Skilled Healthcare Administrators



**Aversi-Pharma Director Paata Kurtanidze and Georgian University Rector Manana Sanadze sign the memorandum of understanding .**

AIHA health management education partners at the Georgian University of Social Sciences in Tbilisi signed a memorandum of understanding with local pharmaceutical company Aversi-Pharma on April 8, 2008. This public-private alliance is providing practical training for healthcare administration students at the university through fellowships and job placements, as well as joint scientific research projects.

“Georgia needs qualified, flexible professionals who can successfully help develop our system of social health and protection,” Georgia’s First Deputy Minister of Labor, Health, and Social Affairs Irakli Giorgobiani said during the signing ceremony.

Established just three years ago, the University’s School of Public Health has achieved considerable success in such a short time, Giorgobiani continued. “The Ministry can really see the results of their work ... and will definitely continue supporting new projects and ideas. Finally, hard work and adequate education will lead us to a well established social health system, which is a main priority for the Ministry,” he stressed.

Aversi staff also benefit from the partnership, which facilitates advanced training and continuing education opportunities for them utilizing the university’s academic resources.

“If we take future reforms in public health into consideration, we will soon need twice as many [healthcare administrators] than we have today, so training new professionals and advancing the qualifications of existing staff is of real importance to us,” said Aversi-Pharma Director Paata Kurtanidze.

“Georgian University of Social Sciences is preparing students and teachers in hospital management and health insurance. Some of these students will complete their studies at the end of the spring semester,” said University Rector Manana Sanadze. “Who needs our students today?” she asked. “Aversi-Pharma — which is why our cooperation on this program is absolutely natural,” she stressed.

Georgian University participates in AIHA’s USAID-supported Strengthening Healthcare Management Education in Georgia project, collaborating with the University of Scranton and Caucasus University in Tbilisi to help prepare a new generation of healthcare administrators capable of leading the country’s reform efforts.

Through the project — which has been extended through the 2009 fiscal year — partners developed graduate-level concentrations in both hospital administration and health insurance management, as well as all related faculty development and teaching materials. A total of 33 MBA students completed one of the 18-credit programs when they were first implemented at the universities in 2007-2008. They were awarded certificates on August 1, 2008, during a ceremony hosted by AIHA in Tbilisi. Eighteen Georgian faculty members trained to deliver these specialized courses through the partnership were also awarded certificates at the August event.



**Sanadze and Kurtanidze cut a ribbon, officially marking the opening of Aversi Hall, a suite of six auditoria and classrooms that Aversi outfitted with computers and audio-visual equipment.**



**Georgian MBA student Sofia Gogelashvili proudly displays her certificate following the August 1, 2008 awards ceremony.**

- Partners developed and implemented clinical practice guidelines, along with retrospective studies to determine changes in the number of complications, secondary admissions, length of stay, and treatment cost.
- Partners trained four nurse master trainers and developed a clinical nursing curriculum that has been implemented at a number of hospitals selected in collaboration with the Ministry of Health. More than 300 hospital nurses throughout Georgia participated in the trainings.
- Partners trained five master trainers in health management and developed a 90-hour course in health management and administration with an emphasis on hospital management. The curriculum includes modules on leadership and strategic planning, operations management, management information systems, financial management, human resource management, and team building. About 265 people were trained in the Health Administration courses.

## 9. Tbilisi/Scranton, Pennsylvania (2007-2008)

**US Partners:** The University of Scranton is a comprehensive, co-educational Jesuit University. Founded in 1888, the University of Scranton is the oldest Catholic institution of higher education in Northeast Pennsylvania and one of a family of 28 Jesuit universities across the United States.

**NIS Partners:** The Caucasus University and its Caucasus School of Business were founded in collaboration with Georgia State University and are currently partnering with a number of leading European and US universities. The School of Business is recognized for offering one of the best Master of Business Administration programs in Georgia. With USAID support, AIHA previously collaborated with the school to develop and implement a certificate course in hospital administration. The Georgian University of Social Sciences was established in 2002 from the original Center of American and European Studies with the aim of introducing western quality educational programs in Georgia. The University offers a Master of Business Administration program and a Master of Public Health program, as well as short courses in public health and healthcare administration. Several key advisors from the Georgian University participated in AIHA's previous USAID-supported partnership with the University of Scranton.

**Partnership Objectives:** The overall goal of the partnership is to develop an international quality health services administration specialization that builds on the existing MBA curricula at Caucasus School of Business and Georgian University.

To that end, partners:

- Developed hospital administration and health insurance management specialization curricula and integrated these into the MBA programs offered at the Georgian partner universities;
- Trained Georgian faculty to deliver courses in accordance with the curricula and using proven adult learning methodologies; and
- Developed associated learning materials, resources, and teaching guides.

### Key Partnership Events and Achievements

- Partners launched the USAID-supported Strengthening Healthcare Management Education in Georgia Project in September 2007 and selected 20 students from Georgian partner universities for the program's first intake.
- Partners selected nine faculty members from each Georgian partner university. These educators received advanced training on course curricula and materials, as well as effective adult learning methodologies, and co-taught the hospital administration and health insurance management courses with University of Scranton faculty and other international experts during the 2007-2008 academic year.
- Faculty from the University of Scranton and Trnava University in Slovakia delivered three core courses on healthcare organizational leadership, principals of managed care, and quality assurance and improvement

for the first intake of the students at the Caucasus School of Business. They also delivered courses on management of healthcare service and systems, managing human resources, and managing the modern hospital for students in the hospital administration track.

- University of Scranton faculty delivered courses on health economics and insurance, financial strategies and risk management, and marketing health insurance products and services for students in the health insurance management specialization.
- The USAID Assistant Administrator for the Europe and Eurasia Region conducted a roundtable discussion with the two participating universities at the Georgian University of Social Sciences.
- Partners selected 14 MBA students for the second intake of the program.
- US partners conducted In-service trainings for the selected Georgian faculty teams at both schools.
- Georgian faculty delivered the course modules for the second intake of students starting in March 2008.
- Partners conducted a mid-term discussion with MBA students, faculty, deans from the Georgian partner universities, chief US faculty, and USAID to evaluate the program and determine future needs.
- Partners conducted a roundtable meeting with the Georgian Insurance Association to discuss future human resource development needs of the health insurance industry in Georgia.
- As a result of the partnership, a Memorandum of Understanding was signed by the Georgian University of Social Sciences and two large local pharmaceutical companies “PSP” and “Aversi” to cooperatively prepare a cadre of well trained health administration professionals.
- Partners hosted a graduation ceremony for the first MBA graduates specializing in either hospital administration or health insurance management in Tbilisi on August 1, 2008.
- USAID/Georgia extended the program for fiscal year 2009 in the fall of 2008.





## IV. Cross-Partnership Program Initiatives

**A**IHA's cross-partnership program initiatives grew out of a desire to search for common solutions to the many common problems identified by multiple partnerships throughout the region regardless of their location. These programs constituted a key element of AIHA's "partnership of partnerships" concept, which encouraged and facilitated networking, sharing, and the creation of effective approaches that transcend national borders. These programs helped reduce duplication of efforts and maximize resources by developing common protocols, providing shared training opportunities, disseminating model programs, and influencing national policies. Many cross-partnership initiatives supported the development of considerable human and organizational capacity thereby strengthening the health sector and introducing new and improved healthcare services in the Caucasus and throughout the entire NIS/CEE region.

During 1999-2008, AIHA supported the continued involvement of Georgia and Azerbaijan in 10 of its cross-partnership programs:

1. Emergency and Disaster Medicine;
2. Infant Survival;
3. Information and Communication Technology (Learning Resource Centers);
4. Women's Health;
5. Nursing;
6. Infection Control;
7. Healthcare Management;
8. Prevention of Mother-to-Child-Transmission (PMTCT);
9. PHC/Clinical Practice Guidelines; and
10. Non-Communicable Disease Management.

AIHA's support for these programs was provided mainly in the form of ongoing opportunities for training and networking, Internet connectivity, and limited provision of selected equipment and supplies. The descriptions below provide a background and overview for each program, as well as goals and objectives, key events, and achievements.

### 1. Emergency and Disaster Medicine

#### Background

After the dissolution of the Soviet Union, death rates due to accidents and cardiac incidents in the region were nearly three times the rate in the United States. Healthcare institutions had limited capacity to respond to unexpected illnesses, accidents, and disasters due to weak emergency infrastructure and lack of trained staff. In the process of reforming health systems, the authorities in the Caucasus were concerned about improving pre-hospital and hospital emergency care.

AIHA and its partner institutions contributed to improving emergency care by establishing 16 national EMS Training Centers (EMSTCs) in 12 countries in Eurasia, including one in Tbilisi, Georgia, and another in



AIHA and its partners jointly developed a number of EMS training curricula, like this First Responder Curriculum student manual, which is available in both English and Russian languages.

Yerevan, Armenia. EMSTCs were furnished with training equipment and supplies, computers, and Internet connectivity. The curriculum developed for use at the EMSTCs is based on a synthesis of basic and advanced life support training programs in the United States and Europe that was adapted to the unique needs of individual countries and regions. Partners introduced the curriculum at all training centers and ensured that courses were continually monitored and evaluated for relevance to local conditions.

EMSTC courses provide hands-on training in emergency techniques with a strong emphasis on the acquisition of practical clinical skills. Courses target healthcare practitioners; medical and nursing students; first responders such as police officers, ambulance crews, and firefighters; military personnel; and private sector professionals including airline and oil company personnel. EMSTCs also contributed to the development of regional professional associations and the expansion of EMS educational programs throughout the region.

Capacity building efforts related to the emergency and disaster medicine program were by and large carried out by partners through professional exchanges and trainings, and by AIHA through a series of USAID-supported workshops and cross-partnership training events. For example, AIHA sponsored specialized training of EMSTC trainers in nuclear disaster preparedness and response in

cooperation with the International Atomic Energy Agency and periodically organized meetings and workshops to encourage collaboration among the training centers, discuss emerging curricula needs, and provide refresher training. AIHA often used annual conferences and other regional events to host meetings and networking opportunities for EMSTC directors and staff.

## Program Goal and Objectives

The overall goal of AIHA's Emergency and Disaster Medicine Program was to create within countries sustainable capacity to respond effectively to emergencies ranging from routine medical cases and traumas to mass-scale disasters. Specific objectives were to:

- Increase capacity for quality training and education in emergency and disaster medicine;
- Improve knowledge and skills in first aid and emergency care among first-responders, medical practitioners, and others trained at EMSTCs;
- Increase availability and quality of emergency and disaster medicine services; and
- Increase sustainability of emergency and disaster medicine programs.

## Caucasus Program Overview

AIHA and its Tbilisi/Atlanta partners established the EMSTC in Georgia in 1995 and later opened satellite centers in Akhaltsikhe, Batumi, Kutaisi, Sokhumi, Telavi, and Zugdidi. By 2002, AIHA and its partners had trained 10 trainers who were staffing the Tbilisi EMSTC. Since its inception, EMSTC staff have conducted more than 250 courses and trained in excess of 10,000 physicians, nurses, allied health professionals, and first responders. Topics covered in courses for healthcare professionals include CPR, emergency obstetrics, intubation, spinal immobilization, disaster response, and triaging practices performed at the accident site, en route to, and in the hospital setting.

In addition, the EMSTC and its satellite centers delivered more than 30 specialized training programs for audiences as varied as school children, governmental guards, military and naval personnel, car drivers, mountain guides, staff of international oil companies including BP, AMOCO, and GPC. EMSTC staff provide

## EMS Training Helps Tbilisi Pediatrician Save a Young Life

It wasn't really necessary for Liziko Peikrishvili to take an emergency medicine course at the Tbilisi EMSTC in 1997. The 38-year-old pediatric hematologist just wanted to acquire some new skills that might prove useful one day. "Of course, we're taught life-saving techniques in medical school, but the instruction there is mostly theoretical. The courses at the EMSTC supplement the latest theories and methods with a great deal of hands-on experience using both adult- and infant-sized mannequins, as well as a wide variety of simulation exercises," Peikrishvili explains, noting that she was able to repeat these practical applications until she became comfortable with her new-found knowledge.

"After the course, I felt confident that I had learned important new skills . . . and that I would be able to apply these skills effectively in crisis situations," she claims. As it turned out, she was soon put to the test when an 8-month-old boy went into cardiac arrest at the Tbilisi State Medical University Clinic where Peikrishvili works.

"Ermine was very ill when his mother, Eliso, brought him to our hospital," she says, explaining that the woman and her family were from Abkhazia and had been living about 30 minutes away from Tbilisi at an IDP settlement. "It is such an unhealthy atmosphere and the people there are so poor. The baby had a number of serious ailments ranging from severe iron-deficiency anemia to bronchial problems and a urinary tract infection — all brought on or exacerbated by poor nutrition."



In the course of diagnosing Ermine's maladies, the physicians ordered several common tests — one of which uses colored dye to determine the exact nature of the urinary tract infection, according to Peikrishvili, who notes that this test can cause an adverse reaction in the heart — sometimes immediately, sometimes within a day or two. "I was on rounds when one of the nurses called to me. She had been giving the baby a routine blood transfusion and said she did not like the color of his skin. Ermine was very pale when I entered the room and I could see that he had stopped breathing," she explains. "I checked his heart and found that it was beating, but very weakly. . . . This was the first time I was alone with a dying person and I was a bit frightened, of course, but my training helped me overcome the fear. I performed CPR for about three or four minutes — although it seemed like an eternity — and I prayed that I would be able to get his breathing started again. All the while, I could hear the young boy's mother crying and pleading with me to save her son's life."



**Eliso's son Ermine was saved by Tbilisi doctor Liziko Peikrishvili. The pediatric hematologist credits her improved life-saving skills to the course she took at the Tbilisi EMSTC.**

Peikrishvili's skills helped her remain calm amidst the turmoil and her efforts to resuscitate the child were successful. "To be honest, I really don't remember exactly what I was doing during those critical moments . . . I just reacted to the situation and tried to block out everything else in the room," she says, noting that in such times it is imperative to act almost without thinking. "Because I was able to practice life-saving techniques over and over again at the Training Center, my reactions came automatically."

Noting that the training she received at the EMS Center has helped prepare her for almost any emergency, Peikrishvili continues, "I believe these courses have given me the knowledge and confidence to handle complications both at work and in other places. For example, my own son recently swallowed something and was choking and I was able to react calmly and quickly while my mother and my husband — who is also a physician — panicked. I wasn't frightened or confused . . . I was in control of the situation." After she saved young Ermine's life, Peikrishvili's colleagues began calling her a hero. Since then, she has used her CPR skills to resuscitate two other young patients. "I don't think of myself as a hero, though," she says modestly. "I love being able to help children and I'll always be grateful to the EMS Training Center for teaching me skills that make me a better doctor."

“The reality of practicing emergency medicine in a country such as Georgia, which is characterized by mountainous areas, small cities, and rural villages is quite difficult. Thanks to our partnership, we’ve learned to use information and communications technology to provide a high level of medical support to these remote locations.”

— *Dr. Dimitri Makhatadze, former director of the Tbilisi EMSTC and National Center for Disaster and Emergency Medicine, currently director of the Tbilisi-based MedclubGeorgia (Tbilisi/Atlanta partnership)*

Russian-language courses to accommodate non-Georgian speakers and have developed a special 10-day course in Advanced First Aid for non-medical personnel from high mountain villages. In November 1999, the Ministry of Health incorporated the Tbilisi EMSTC and its regional branches, the Disaster Medicine Center, and the Kutaisi Satellite Training Center into the Center for Disaster and Emergency Medicine (CDEM) to better coordinate national disaster response and practical training. Since that time, CDEM has coordinated all EMS training activities at the Tbilisi center and regional satellites, as well as worked to improve urgent care by providing highly qualified first aid and special emergency care during disaster and emergency situations.

AIHA has also collaborated closely with MedclubGeorgia (MCG), a medical service company that offers comprehensive, flexible, international-standard medical services. Founded in April 1999 as an outgrowth of AIHA’s USAID-supported EMS initiative in Georgia, MCG includes medical facilities in Tbilisi, Poti, and Batumi, and has for the past eight years been providing medical services for different companies and organizations, including full-scale medical service support for the construction of the Baku-Tbilisi-Ceyhan pipeline implemented by British Petroleum and its consortium of partners.

In addition to its significant accomplishments in the area of EMS training and urgent care capacity building, AIHA’s emergency and disaster medicine program in Georgia also spearheaded the development of some of the region’s first emergency rooms,

including most recently the Pediatric Emergency Department at Iashvili Central Children’s Hospital in Tbilisi, which is described in greater detail on page 40-41.

By the end of 2001 — staff at the Tbilisi EMSTC had developed 16 different courses independent of AIHA, including curricula on first aid at work, advanced first aid for non-medical personnel, emergency care for medical school students, and CPR and first aid for children. Thanks to its increasing capacity and demand for its services, the Tbilisi EMSTC became fully self-sustaining during fiscal year 2003 and received no AIHA funding and support during fiscal year 2004 and subsequent years.

More recently, the Tbilisi EMSTC played an important role in training members of AIHA’s community-based primary healthcare programs in several regions of Georgia after partners saw a need to focus on primary level accident prevention and treatment, first aid, and urgent care.

Over the years, the Tbilisi EMSTC successfully expanded its range of course offerings, independently developing and implementing a variety of trainings in response to growing community needs. While data related to the outcome of trainings conducted by the EMSTCs in the Caucasus is not available, there are numerous anecdotes demonstrating impact, including the success story found on page 47 of this report. It is important to note that AIHA did not conduct regular surveys or collect statistical data from its EMSTCs after fiscal year 2003 — the last year they received USAID funding through AIHA’s Health Partnership Programs.

## Key Achievements of AIHA’s Emergency and Disaster Medicine Program in the Caucasus Region

### Training Capacity

- By the end of fiscal year 2002, the Tbilisi EMSTC was fully staffed by 10 Georgian trainers, and a variety of EMS courses were offered on a regular basis to healthcare professionals, first responders, and other groups.
- The Tbilisi EMSTC and its satellite centers developed new curricula, many designed for non-medical personnel. These included three new curricula for sailors developed by the Batumi center, and courses on

Advanced Cardiac Life Support (ACLS), basic first aid for the general public, and severe acute respiratory syndrome (SARS) developed by Tbilisi EMSTC staff.

- Tbilisi EMSTC staff developed a first aid textbook for children in cooperation with Georgia's Ministry of Education. These books were published and distributed to schools throughout the country.
- Staff at the Tbilisi EMSTC developed and implemented on-line EMS training courses in Advanced First Aid and Emergency Care.
- AIHA worked with US partners to develop two new curricula, a revised pre-hospital curriculum and a new first-responder curriculum, which were translated and disseminated to all AIHA-supported EMSTCs in the region during fiscal year 2003.
- Tbilisi EMSTC staff developed an interactive CD-Rom version of the first-responder curriculum.
- The Tbilisi EMSTC also developed a new curriculum, "Medical Personnel Preparedness and Response to Chemical, Biological, and Radiological Usage in Terrorist Acts," in accordance with materials issued by the US State Department's Diplomatic Security Office/Antiterrorism Assistance Program and the International Atomic Energy Association (IAEA). The curriculum was accredited by Georgia's Ministry of Health, Labor, and Social Affairs and was first offered during the Georgian Medical Congress in May 2003 for 48 participants from Tbilisi, Batumi, and Kutaisi. This training represented the EMSTC's first distance learning education course.
- Tbilisi EMSTC staff delivered a training of trainers course on Emergency Medical Care and Methodology of the Training Process to a medical insurance company employee from Baku, Azerbaijan, who then began training colleagues in first aid.

#### Knowledge and Skills

- In fiscal year 2003, the Tbilisi EMSTC delivered 86 classes and trained 1,209 individuals. This number includes more than 50 Georgian navy personnel who received training at the Batumi satellite center in basic and medical first aid, and three school nurses who participated in a course on first aid for children. Although training data are not available by category prior to fiscal year 2002 for comparison, the graph below illustrates the significant proportion of non-medical worker trainees (45% of all trainees in FY02), suggesting an increasing demand for services of the centers from a variety of sources and indicating the expansion of course offerings to meet those needs.
- The Tbilisi EMSTC, together with the IAEA, conducted two trainings at the EMSTC in November 2002 for a total of 89 participants. The first was a regional training of trainers workshop on procedures of medical response during radiation emergencies and included an overview of medical preparedness, lessons learned from radiation accidents, radioactivity, public health response, medical emergency plans, and personal protection techniques. The second course was on radiation emergency medical preparedness and response and focused on problems and statistics of radiation accidents, basic principles and methods of radiation protection, practical radiation physics for emergency medical personnel, and acute radiation syndrome. Trainees included EMS physicians from Georgian hospitals, university faculty, representatives of Georgia's Ministry of Internal Affairs, the Scientific Research Institute of Hematology and Transfusiology, the Ministry of Protection of Environment and Natural Resources, and the Ministry of Defense, among others.

"I believe the EMS course has given me the knowledge and confidence to handle complications both at work and in other places. For example, my own son recently swallowed something and was choking and I was able to react calmly and quickly while my mother and my husband — who is also a physician — panicked. I wasn't frightened or confused . . . I was in control of the situation."

— Dr. Liziko Peikrishvili,  
Pediatric Hematologist, Tbilisi  
State Medical University Clinic,  
Tbilisi, Georgia

#### Improved Service Delivery

- Georgia's Ministry of Health consolidated the Tbilisi EMSTC and its regional branches with the Disaster Medicine Center in November 1999, creating the CDEM to better coordinate national disaster response and practical training. In 2002, the CDEM worked closely with the Georgian government, the Scientific

Research Institute of Trauma and Orthopedics, AIHA, and other key stakeholders to establish the Gudushauri National Medical Center. The CDEM is now housed at Gudushauri, where it coordinates a national urgent care referral network. It includes both an Emergency Department and an Information Dispatch Service and has three regional branches in Batumi (Adjara Region), Telavi (Kakheti Region), and Kutaisi (Imereti Region). The CDEM has 12 ambulances with high tech modern equipment and necessary medications that greatly improve the quality and scope of urgent care provided during transport from an accident site to the hospital. To date, CDEM staff have responded to 8,331 emergency dispatches, including 4,829 responses to cases involving high risk pregnancies, childbirth, and, neonatal emergencies; 3,403 responses to critical cases through the united referral program; 872 responses to critical cases involving official foreign delegations; and seven medical responses wide-scale emergency situations and disasters, including providing urgent care to some 823 patients injured during the August 2008 conflict with Russia.

### Sustainability

- Recognizing the important role the Tbilisi EMSTC plays in strengthening Georgia's capacity to respond effectively to emergency situations, the Georgian government supported the establishment of a satellite training center in Batumi; no AIHA or USAID funding was involved.
- Tbilisi EMSTC staff contributed to the development of new Ministry of Health guidelines for emergency medical care within the country's referral systems for both urgent care and maternal and child health.
- The Tbilisi EMSTC generates revenue from non-governmental sources by offering fee-based courses tailored to the specific needs of a variety of students ranging from airline personnel to oil pipeline workers. Examples of private clients include Caucasus Airlines, BP-Amoco, Petrofac, the Georgian Pipeline Company, and the OSCE. These income producing courses greatly increase its sustainability as well as its reputation as a leader in providing high quality training services.
- The center provides numerous consultations to ministries and others key stakeholders, further strengthening their role in policy development, as well as contributing to national efforts related to emergency medicine and disaster preparedness. In the case of Georgia, the EMSTC contributed to the acceptance of new guidelines for emergency cardiovascular care (ECC) and advanced cardiac life support (ACLS).
- Under contract with the Governmental Security Department, the Tbilisi EMSTC offered a five-day training in basic first aid to government bodyguards in March 2003.

## **2. Infant Survival**

### Background

AIHA partnerships initiated the Neonatal Resuscitation Program (NRP) as a cost-effective clinical approach with great life-saving potential for newborns. Essential neonatal resuscitation techniques in delivery rooms and birth houses serve not only to decrease infant mortality rates, but also to reduce the number of developmental disabilities resulting from blood and oxygen deprivation in the first minutes of life. Several partnerships formalized this program by opening Neonatal Resuscitation Training Centers (NRTCs) beginning in 1994. These first NRTCs then served as models for other centers established over the years with AIHA support. A total of 17 NRTCs have been established.

NRTCs use a standardized training course that gives healthcare professionals a set of basic skills in newborn care that are standard practice in delivery rooms in the United States and Western Europe. This training enables practitioners to assist infants when they experience difficulty breathing on their own through techniques that require minimal use of equipment, such as thermal management, infant positioning, suctioning, and stimulation. The training curriculum and materials are based on the American Heart Association/American Academy of Pediatrics (AHA/AAP) neonatal resuscitation program. AIHA and its partners translated the AHA/AAP Textbook of Neonatal Resuscitation and Instructor's Manual for Neonatal

## Advanced Training, New Equipment Help Doctors Deliver Healthier Babies

Improving maternal and child health in Azerbaijan's capital city — particularly among IDP and refugee populations — was a key objective of AIHA's Baku/Houston partnership. Partners established a Neonatal Resuscitation Training Center where ob/gyns, physicians, nurses, midwives, and other delivery room personnel at hospitals serving IDP and refugee communities received advanced training in a host of life-saving techniques.



Advanced training in low-cost, low-tech neonatal resuscitation techniques such as thermal management, infant positioning, suction, and stimulation has enabled delivery room personnel to reduce infant mortality and morbidity in Azerbaijan. Here, Mir Kasimov physician Mustafayeva Kheyran conducts an NRP training at Sabirabad Hospital.

Professionals at Mir Kasimov Republican Clinical Hospital's High Risk Pregnancy Department put their new skills to good work when a 27-year-old woman with a history of post-delivery complications arrived in labor. Her first child had died five days after birth as a result of injuries sustained during delivery and she was frightened and distraught.

The delivery room team used a fetal monitor donated by their US partners to track the parameters of fetal cardiac activity and smooth musculature. Using this data, the physicians were able to identify a significant change in the baby's cardiac rhythm during the early stages of labor and determine that the little boy was experiencing hypoxemia.

Doctors performed a Cesarean section and, using techniques learned at the Neonatal Resuscitation Training Center, neonatologists were able to stabilize the child. After three days in intensive care, he was healthy enough to be transferred to his mother's ward. A week later, both were healthy, happy, and able to return home to their family.

Resuscitation into Russian and Ukrainian. In addition, other teaching and educational materials, such as student evaluation tests and data collection forms, were created or translated for use in the NRTCs throughout Eurasia.

The NRTCs are responsible for disseminating knowledge and conducting monthly training courses in neonatal resuscitation, as well as gathering statistics from medical institutions that have had personnel trained at the center. This statistical information is used to evaluate the impact of training. The NRTCs serve as reference centers and provide training for medical professionals from other regions.

AIHA established an NIS region-wide NRP Steering Committee in 2000 to develop standards for the practice of neonatal resuscitation and to provide guidance directed at legislation of neonatal resuscitation in the NIS. Through the efforts of steering committee members, which include ministry of health representatives, academicians, and NRTC medical professionals, progress had been made in strengthening the program in each country.

In 2001, AIHA received the copyright from the American Academy of Pediatrics to translate its evidence-based, updated 2000 NRP guidelines and to distribute them in Russian and Ukrainian languages. The latest NRP guidelines are now available for dissemination in the NIS and they include changes related to the initial steps of resuscitation, management of the meconium fluid-stained infant, establishment of airway, chest compressions and volume expansion.

## Program Goal and Objectives

The overall goal of the program is to decrease infant mortality and morbidity rates in the immediate newborn period through the implementation of appropriate neonatal resuscitation skills in delivery rooms. Specific

objectives were to:

- Increase capacity to provide training in evidence-based neonatal resuscitation and care as the standard of clinical practice; and
- Improve sustainability of the neonatal resuscitation program.

## Caucasus Program Overview

AIHA established three NRTCs in the Caucasus, one in each of the countries in the region. Under the previous cooperative agreement, the Yerevan/Los Angeles partners opened the first Caucasus NRTC in 1996 at Erebuni Medical Center, while the Tbilisi/Atlanta partners opened the second at Michael Guramishvili Children's Hospital in 1998. The Baku/Houston partners established the Baku NRTC in 2000 at Mir Kasimov Republican Clinical Hospital.

Ministries of health in both Armenia and Georgia have adopted AIHA's NRP guidelines as the national standard of care for newborns, greatly contributing to the long-term sustainability of the program in both countries.

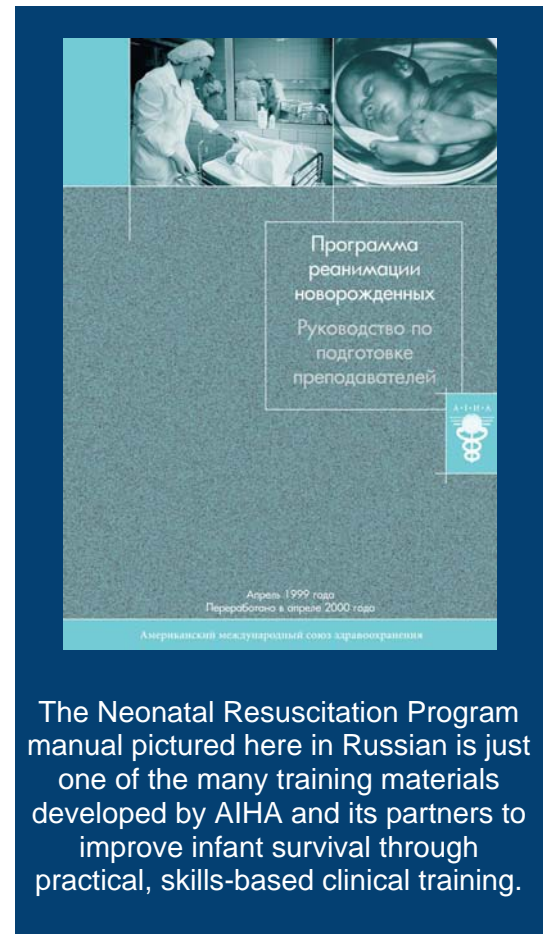
## Key Achievements of AIHA's Infant Survival Program in the Caucasus Region

### Training Capacity

- Faculty from the NRTC established by AIHA's Baku/Houston partners were trained at sister centers in Georgia and Ukraine, as well as at Baylor College of Medicine and other US partner institutions in Houston.
- Baku NRTC faculty provided neonatal resuscitation training courses to ob/gyns, nurses, midwives, and other appropriate personnel at Mir Kasimov and other rayon hospitals serving IDP and refugee camps.
- As a result of the increased focus on neonatal care, rates of early neonatal deaths at Mir Kasimov Hospital steadily decreased from .8 percent in 1999 to .3 percent in 2002. Between 2000 and 2003, the Baku NRTC trained 14 instructors and 529 providers, as well as recertified 70 providers.
- The Baku NRTC provided eight clinical training sessions on neonatal resuscitation for maternity and child health professionals from rural regions of Azerbaijan as part of an ongoing outreach program designed to improve infant survival.
- The Tbilisi NRTC trained 25 instructors and 682 healthcare providers between 1999 and 2003. They also recertified 114 providers during that same timeframe.

### Sustainability

- NRTC staff from Baku and Tbilisi attended NRP Steering Committee and NRTC directors meetings, which enabled them to network with colleagues from other countries in the region and share knowledge and experiences. The meetings covered guidelines, quality monitoring processes, ethical issues concerning newborns, communication strategies, and sustainability issues. The NRP Steering Committee also discussed key problems and barriers to improving neonatal resuscitation practices and newborn care in Eurasia, which had been identified by medical professionals, ministry of health representatives, and academic faculty.
- Even after USAID and AIHA support concluded, the Azerbaijani and Georgia NRTCs have continued to function and train healthcare providers in neonatal resuscitation skills.



The Neonatal Resuscitation Program manual pictured here in Russian is just one of the many training materials developed by AIHA and its partners to improve infant survival through practical, skills-based clinical training.

- Since 2003, training courses conducted by the Tbilisi NRTC have been supported by UNICEF and other International organizations.

### Impact

In 2001 and 2003, AIHA conducted two rounds of a study designed to measure improvements in neonatal health outcomes affected by implementation of its Neonatal Resuscitation Program in six countries, including Georgia and Azerbaijan. The “10,000 Births Study” examined whether the NRP had a positive effect on selected neonatal morbidities and mortality using a three-pronged approach to quality monitoring that included:

- A course evaluation tool;
- A peer evaluation process to determine course standards and instructor skill levels; and
- Site evaluations to ascertain applicability of course content in clinical settings.

## Training and New Equipment Helps Ganja Clinicians Save Newborn Lives

For many years, asphyxia was the main cause of infant mortality at Maternity Hospital No. 1 in Ganja, Azerbaijan. Doctors lacked both the instruments and the skills to provide critical care, so they would use any available methods and makeshift techniques to resuscitate a newborn — putting a baby who was in respiratory distress in a basin of hot water and pouring cold water over him, for example.

Newborns in distress were often given a great number of ineffective medications that subsequently caused many physical complications and hindered mental development. Hyperbilirubinemia was another condition that hospital staff could not effectively treat. More commonly known as jaundice, hyperbilirubinemia can lead to the breakdown of red blood cells in infants, particularly premature babies, so every second counts when providing care to newborns with this condition. Effective treatment requires light therapy using a quartz lamp, but the maternity hospital did not have this piece of equipment. As a result, all newborns with jaundice were sent to the capital city of Baku for treatment — a process that could take 12 hours or more.

Hospital staff tried every way possible to save their patients under these unsuitable conditions, all the while knowing that many of their efforts were ineffective. The physicians and other caregivers knew all too well that they needed both equipment and additional training to provide timely, high-quality care for newborns, but financial limitations made it impossible to access either.

Help arrived in 2004 in the form of AIHA's Ganja/Livermore partnership. Partners made infant survival and neonatal resuscitation a priority and set about upgrading the knowledge and skills of practitioners, as well as the equipment available at the maternity hospital. In 2005, the facility received a quartz lamp and a special training session was held to teach the staff how to use it. This equipment and knowledge has made it possible for the maternity hospital staff to save the lives of babies born with jaundice and provide prompt care to premature infants who also need the "rescue light."

In addition, 13 doctors from other Ganja area maternity hospitals have been trained through AIHA's neonatal resuscitation program. Now these specialists are successfully introducing high-quality infant survival services at their institutions and also spreading the knowledge and skills they learned to their colleagues using mannequins, training materials, and medical supplies donated by the US partners.



**Dr. Elmira Namazova, head of the Neonatal Department at Ganja Maternity Hospital No. 1, describes how the quartz lamp donated by the Livermore partners works to treat infants with jaundice.**

The study culminated with a targeted assessment of the program's impact on clinical outcomes for infants. The methodology included the collection of data on newborns at birth and again at seven days of life and was developed by NRP specialists from the United States and a Ukrainian counterpart.

The results of both the 2001 and 2003 studies were consistent and supported the positive effect of organized neonatal resuscitation training on infant morbidity and mortality. In the first study, the percentage of all medical staff trained was linked to improved outcomes. In the second study, the training of a key medical staff member, the neonatologist, was linked to improved outcomes. The finding indicates that the critical factor in improving outcomes for infants given the current circumstances in Eurasia is universal training of neonatologists in the NRP curriculum. For example, there is improvement in all categories of Apgar scores between 1 and 5 minutes of life, suggesting training or intervention of staff results in fewer infants with lower Apgar scores at five minutes. A full report of the study results can be found on AIHA's Web site.

### 3. Learning Resource Centers

#### Background

AIHA's Learning Resource Center (LRC) project promoted improvements in healthcare practice and policy by providing health professionals with access to research information, as well as a framework for applying this knowledge to clinical, educational, and policy settings.

AIHA established LRCs within existing healthcare institutions, providing one or more computers with Internet access and a collection of online and CD-ROM-based health and medical databases. Each LRC was managed by specially trained staff who are responsible for providing training, outreach, and information support to personnel, patients, and members of the local community. LRC staff are also responsible for working with healthcare professionals at their institutions to conduct periodic literature reviews that facilitate evidence-based evaluation of current standards of practice relating to clinical diagnosis and treatment, preventive health services, and health promotion or education.

#### Program Goals and Objectives

The overall goal of the LRC project was to promote improved healthcare practices through increased access to, use of, and understanding of available knowledge resources. Specific objectives were to:

- Increase access to up-to-date health and medical information, primarily through the Internet;
- Promote the adoption of evidence-based practice;
- Improve the ability of partner institutions to sustain access to knowledge resources; and
- Increase the development and use of information and communication technology tools and applications, including databases, local area networks, telemedicine, and Web sites.

#### Caucasus Program Overview

Through the LRC project, AIHA incorporated a combination of strategies to begin to overcome barriers to accessing information. One of the distinguishing features of AIHA's approach was that the LRCs are designed to give health professionals access at the point of care, thereby making accessing and using information more convenient. Another element of the project involves active staff

“LRCs were a very valuable tool for increasing health professionals' access to data and medical literature, and they contributed significantly to the achievement of partnership goals. Information technology and the Internet had a profound effect on the medical profession ... the LRCs introduced these tools to the partners well ahead of most of their peer institutions.”

— From an external evaluation report on AIHA's CEE programs prepared by RTI (January 2006)

## LRCs Established by AIHA in Azerbaijan and Georgia Since 1999

Year	Institution	Partnership Affiliation
1999	National Center for Disease Control	Tbilisi/Minneapolis
1999	National Health Management Center	Tbilisi/Scranton
1999	Mtskheta Family Medicine and Regional Training Center	Mtskheta-Mtianeti/Milwaukee
1999	Kutaisi Women's Wellness Center	Kutaisi/Atlanta
2000	Mir Kasimov Republican Clinical Hospital	Baku/Houston
2000	Sabirabad Rayon Hospital	Baku/Houston
2000	Narimov District Polyclinic No. 8	Baku/Portland
2000	Binagadi District Polyclinic No. 20	Baku/Richmond
2004	Gudushauri National Medical Center	Tbilisi/Atlanta
2004	Iashvili Children's Central Hospital	Tbilisi/Atlanta
2004	Ozurgeti City Polyclinic	Guria/La Crosse
2004	Gori Central Hospital Polyclinic Unit	Gori/Milwaukee
2004	Ganja City Polyclinic No. 6	Ganja/Livermore

outreach and education. To accomplish this, AIHA promoted the development of a cadre of staff at partnership institutions to serve as agents of change or opinion leaders. Each LRC is managed by an information coordinator and staffed by an evidence-based practice specialist who is responsible for broadly promoting the adoption of evidence-based practice and an information technology specialist who supports the technical aspects of the project. These key leaders are charged with the task of encouraging their colleagues to begin integrating information and communication technologies in their day-to-day practice.

In addition to staff outreach and training, core functions of the LRCs include information dissemination and health promotion. Staff are responsible for the creation and use of tools such as Web sites and databases to support these activities, as well as for information systems planning activities. Finally, because LRCs are supported by AIHA for a limited time, each is also responsible for building support and sustainability.

AIHA support for LRCs at partner institutions was generally two-three years in duration and included periodic training workshops and a series of ongoing activities. Initial training workshops introduced a range of skills and themes that help LRC staff and their colleagues develop a more sophisticated attitude toward information. These trainings covered topics such as basic and advanced Internet tools and applications, medical information searching techniques, principles of evidence-based practice and critical appraisal of information, training and outreach, strategic planning for sustainability, Web site development, basic database design, computer networking, and information systems planning.

In establishing each LRC, AIHA's approach was grounded in the belief that the NIS partners must be prepared to commit their own resources to the project. This commitment is formalized through the signing of a project agreement that outlines the responsibilities of AIHA and the overseas partner institution. AIHA equipped each LRC with computers and other equipment — such as printers, scanners, digital cameras, and LCD projectors — as determined by a needs assessment. AIHA also provided access to e-mail and the Internet, as well as various online and CD-ROM databases and educational resources. Each NIS partner was required to establish a separate, secure room for the LRC and ensure that the center was open and accessible to all staff. They were also required to designate staff who were compensated by the institution to

serve as the information coordinator, evidence-based practice specialist, and information technology specialist.

## Key Achievements of AIHA's Learning Resource Center Project in the Caucasus

### Human Resource Capacity Building, LRC Staff

- AIHA ICT staff trained information coordinators from new partnerships in Azerbaijan and Georgia on basic computer and Internet skills, as well as successfully oriented them to their role in maintaining the LRCs.
- AIHA ICT staff conducted a series of training activities to teach information coordinators about Medline and Internet information retrieval, Web-page design and development, Internet tools, database design, evidence-based practice, information-quality assessment, health information systems, and computer training methodologies. Mastery of these topics has been demonstrated through the successful design of a wide range of programs at each LRC.
- Prior to AIHA's 1999 annual conference, information coordinators from both graduated and active partnerships gathered for several workshops and networking activities. New information coordinators from

## Using Information Technology to Develop Life-saving Neonatal Guidelines

When staff at the Kutaisi Women's Wellness Center (WWC) and Maternity Hospital No. 2 observed a steady increase in rates of neonatal mortality caused by central nervous system damage resulting from asphyxia, Dr. Nino Berdzuli immediately turned to the Internet. Berdzuli, an obstetrician/gynecologist and the information coordinator of AIHA's Kutaisi/Atlanta partnership, knows the value of evidence-based protocols; she has been working on adapting them for use in Georgia since 1996 when she was introduced to the concept while training at Grady Hospital and Emory University as a member of the now-graduated Tbilisi/Atlanta partnership.

"I soon came to believe that the neonatal resuscitation protocols we had been using here were really obsolete. So were the guidelines for neonatal and perinatal services in general," she continues, explaining that physicians in Georgia are often forced to use outdated methods of treatment simply because they do not have access to more recent research that would allow them to make changes. "After doing some Internet research using MEDLINE and several other information sources, I analyzed protocols commonly used for neonatal resuscitation and determined that the ones we were using were indeed less effective and more expensive. Some of the medications we used were completely unnecessary. In fact, the protocols were especially weak in their guidance for delivery room care when proper assessment and management of newborns with any type of disorder that may cause damage to the central nervous system is crucial," Berdzuli notes.

So the young physician, along with neonatologist Maya Shengali and other colleagues, set to work adapting a series of guidelines for use in various situations — cases of hypoxia, asphyxia, and cardiac distress, for example — that require neonatal resuscitation. The physicians and nurses who work in the delivery wards all received training in the new guidelines.

"Many of the protocols that have their roots in the old Soviet system may very well be effective, but the problem is that there is no reliable evidence-based research that backs them up," Berdzuli concludes. "With the amount of medical information available today, it is crucial to understand which studies are reputable. This is especially true for clinicians practicing in the NIS countries where the funding available for healthcare is so very limited. I can only say that I am proud to play a part in bringing high-quality and cost-effective medical care to people in my own country."



**Dr. Nino Berdzuli (seated) performs a diagnostic procedure on a patient at the Kutaisi WWC.**

Georgia received additional training on Web page design as they completed initial design of Web pages for their partner institutions. They also attended a two-day course on evidence-based practice and toured the National Library of Medicine in Bethesda, Maryland. Information coordinators from graduated partnerships met with the new information coordinators to offer their advice and share their experiences.

- AIHA conducted a medical informatics study tour giving information coordinators an opportunity to visit US healthcare institutions, including Stanford University and Oregon Health Sciences University. Site visits demonstrated the growing importance of technology in healthcare and provided various models with which to compare their own institution's needs and future development.

- LRC staff from various partnerships collaborated to strengthen their centers through the Caucasus Regional LRC Dissemination Conference. Partners presented models, best practices, and lessons learned related to the success of their respective LRCs. The conference also featured site visits to local healthcare institutions that had implemented successful models for utilizing information technology to improve the quality of patient care. The dissemination conference featured presentations and discussions on successful sustainability strategies that were being employed by LRCs throughout the region.

Building on the basic knowledge and skills taught at previous workshops, AIHA organized an advanced topics training workshop for the staff of new LRCs in the Caucasus and other countries in September 2005. This workshop, held in Almaty, Kazakhstan, introduced new topics such as distance learning and grant-writing, and provided advanced training in information retrieval, evidence-based practice, information systems planning, and Web design.

- Caucasus LRCs showcased their experiences and best practices in the areas of information access, community outreach, sustainability, and evidence-based practice at a dissemination conference titled "Use of Information and Communication Technologies in Healthcare: Models of Best Practice from AIHA Partnerships in the NIS and CEE," which was held in Almaty prior to the LRC workshop. Staff from the Caucasus LRCs also participated in a special breakout session that discussed the future of the LRC Network Association, a virtual community of LRCs established throughout the former Soviet Union and Eastern Europe. This association creates an opportunity to build and maintain contacts between LRCs, providing access to the breadth of expertise and experience developed by LRCs in a variety of medical, institutional, and regional settings.

Human Resource Capacity Building, Other Health Professionals

- After receiving training at AIHA workshops, LRC staff started to provide training to physicians, nurses, and other healthcare professionals at their institutions. They organized open house events, conducted regular outreach activities, and provided training based on new skills they acquired at AIHA workshops. Since 1999, staff of the Azerbaijani and Georgian LRCs trained more than 2,500 physicians and other healthcare professionals in the use of computers and the Internet.

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### Improved Access to Information

- Information coordinators and evidence-based practice (EBP) specialists from Georgia and Azerbaijan have fulfilled more than 4,600 information requests in their respective countries since 1999. They have helped their colleagues find information related to clinical practice, healthcare policy, curricula development, health

AIHA's LRC Toolkit provides a wealth of resources, including a project guide, training materials, and computer software needed to establish a center that effectively promotes the use of information and communications technology and evidence-based medical practices. It is available online in both Russian and English at [www.eurasiahealth.org](http://www.eurasiahealth.org).

management, and a broad range of other topics.

- Data collected from annual surveys of staff at partner institutions indicate that the LRC model significantly increases access to information for health professionals at institutions where individual desktop access to computers and the Internet is not yet widely available. More importantly, LRCs provide access to information that is more regularly updated and presumably more evidence-based than the print resources that make up the remainder of health professionals' data sources.
- Three LRCs in Ozurgeti, Gori and Ganja were actively used for Family Medicine training activities, particularly to access updated medical materials dealing with evidence-based medicine and clinical practice guidelines.

### Improved Use of Evidence-Based Practice

- AIHA provided partner institutions with the Cochrane and Ovid databases through the LRC project. The Cochrane Database of Systematic Reviews is one of the most widely respected producers of evidence-based literature reviews, while Ovid includes a collection of more than 30 full-text major medical journals, as well as an easy-to-use MEDLINE interface. Together, these resources provide partners with an easy, expeditious way to find evidence-based information. Prior to the LRC project, the number of partners with access to these resources was negligible.
- As part of efforts to promote evidence-based practice, AIHA began requiring each LRC to produce Practice Standard Reviews in 2001. Staff from each LRC worked with other health professionals at the partnership institution to review two specific clinical or educational practices per year. Upon receiving these written reviews, AIHA staff worked with partners to help them evaluate the search strategy and provided a critical appraisal of the existing research. Through this process, partners gain a fuller understanding of the principles of evidence-based practice and how to apply its principles in practice. More than 83 percent of partnership institutions with functioning LRCs have successfully demonstrated the use of evidence-based methodologies in reviewing standards of clinical and educational practice at their institutions by conducting practice standard reviews twice a year.
- Some 30 percent of partner institutions have established regular and ongoing processes for widely and routinely evaluating standards using the latest available evidence.
- Once equipped with knowledge and skills of evidence-based medicine, LRC staff at partner institutions in the Caucasus have provided training to local healthcare professionals on the principles of evidence-based practice, critical appraisal, and information retrieval.
- LRC staff at Iashvili Children's Hospital in Tbilisi developed Georgian-language materials on evidence-based practice for their training sessions. They are also actively engaged in the development of clinical practice guidelines at the institution by providing evidence-based literature reviews and participating in the guideline adaptation and implementation processes.
- AIHA trained eight LRC staff members from Azerbaijan and Georgia on the five steps of evidence-based practice methodology and information retrieval at an LRC workshop.
- LRC staff from Caucasus partner institutions made a number of presentations at the 2006 Caucasus Regional Dissemination Conference and Azerbaijan Dissemination Conference on the development and implementation of evidence-based protocols in primary healthcare settings; implementation of evidence-based approaches in the development of clinical practice guidelines; and the management of health information systems for continuous quality improvement.

“Information technology is now such a part of our lives and daily routine that little can be done without it. The local area network we have enlarged under the AIHA program includes 30 computers and gives Internet access to all NCDC personnel.”

— Dr. Paata Imnadze, Director,  
Georgian National Center for  
Disease Control, Tbilisi, Georgia  
(Tbilisi/Minneapolis partnership)

### Information and Communications Technology Tools and Applications

- LRCs often plant a variety of “seeds” within partner institutions, helping to foster the growth of information technology (IT) infrastructure, improved management information systems, and telemedicine capabilities. As

## Practice Standard Reviews Lead to Improved Care, Better Use of Resources

Using the Practice Standard Review methodology advocated through AIHA's Learning Resource Center project, staff at Joint City Hospital No. 6 in Baku, Azerbaijan, compared their existing practices to the latest available evidence-based protocols and guidelines available.

Reviews in areas of general practice, pediatrics, surgery, and obstetrics/gynecology led to some significant changes in practice standards and yielded impressive results. For example, the new protocols resulted in a:

- 30 percent decrease in the hospitalization rate for arterial hypertension;
- 20 percent decrease in hospitalizations for gastric and duodenal ulcers;
- 15 percent drop in the number of complicated deliveries;
- 33 percent decrease in the number of complications and mortality cases in the intensive care unit;
- 70 percent of all bronchial asthma patients able to control their condition; and
- 45 percent increase in levels of patient satisfaction with the quality of medical care they received.

an advanced activity, the development of IT tools and applications usually takes place during the second and third years of the LRC project, after sufficient skills base and technological infrastructure have been put in place.

- In 2003, the number of partner institutions that had developed databases rose from 33 to 53 percent; those that had installed local area networks rose from 80 to 87 percent; another 87 percent of all partner institutions had developed their own Web sites; and 67 percent actively engaged in Internet-based teleconsultations to enhance patient care.
- By the end of fiscal year 2005, 60 percent of the five Caucasus LRCs associated with active partnerships had developed local area networks that connect LRC equipment to institutional computer networks, expanding the capability to share data and resources among many users. To improve data analysis and record keeping, 40 percent of these LRCs had developed patient record databases, as well as financial and accounting databases and/or database-driven reporting systems. Additionally, 60 percent had created Web sites for their institutions.
- The Gudushauri and Iashvili LRCs regularly facilitated Internet-based teleconsultations with colleagues abroad to help diagnose and treat difficult cases. For example, using AIHA's EurasiaHealth Teleconsultation mailing list, Gudushauri LRC staff obtained information about a variety of treatment options for a 19-year old patient with acute sepsis following a miscarriage. After hospital surgeons performed a hysterectomy, the patient's condition remained severe, so treating physicians sought advice from a variety of specialists, including general and thoracic surgeons, intensive care specialists, and lung ventilator technicians. The LRC staff was almost immediately able to obtain treatment recommendations from former partners and other colleagues in Georgia, Russia, Slovakia, and the United States. Thanks to these recommendations, the patient was treated successfully and discharged from the hospital.

### Sustainability

- AIHA ICT staff conducted training in grant-proposal writing for all partnership information coordinators in the Caucasus Region.
- Recognizing the important role chief administrators play in the future of LRCs at partner institutions, AIHA invited these policymakers to the LRC dissemination conference in September 2005. These leaders actively participated in discussions about the role of the LRCs at their institutions, application of evidence-based practice, and approaches to sustainability. This supportive engagement in the early stages of the project helped ensure that the LRCs are actively serving the needs of their institutions and communities thus contributing to their long-term sustainability.
- The LRC opened by Ganja/Livermore partners in 2004 at Ganja Polyclinic No. 6 moved to a newly renovated facility at the City Health Administration offices in June 2007 at the request of the Health Administration director. The purpose of this transfer was to expand the LRC activities to reach a larger

audience of healthcare providers in Ganja city.

- Based on the high sustainability rates of LRCs previously established in the Caucasus Region, AIHA anticipates that all or most of the partnership LRCs established from 1998-2008 will sustain Internet connectivity and other functions after USAID and AIHA funding concludes. Nine of the 13 LRCs previously established continue to maintain Internet connectivity on their own and one LRC in Georgia closed when its institution — the National Institute of Health, formerly known as the National Health Management Center — closed.

#### 4. Women's Health

##### Background

AIHA launched its Women's Health Initiative in 1995 with the help of a US-Eurasian task force comprised of women's health clinicians and educators. The goal was to develop a model for the delivery of comprehensive, integrated healthcare services tailored to the needs of women from adolescence to post-menopause. The resulting Women's Wellness Center (WWC) model built on the work of AIHA's initial hospital-based partnerships and used existing programs, administrative structures, and professional relationships in family planning, health education, clinical training in obstetrics, and neonatal resuscitation.

WWCs were designed to provide primary and selected specialized clinical services using a client-centered approach that emphasized wellness, preventative care, and ongoing patient education. Although WWCs often tailored their services to the specific healthcare concerns of the communities they serve, core services available at these centers include:

- Family planning and reproductive healthcare, including fertility and contraception counseling;
- Prevention, diagnosis, and treatment of STIs;
- Cancer education and screening, including cervical cancer screening and clinical breast exams;
- Perinatal care, including pregnancy, breastfeeding, and childbirth classes;
- Education and clinical intervention for peri- and post-menopausal women;
- Counseling and education on HIV/AIDS, domestic violence, trafficking, and other topics related to women's wellness;
- Education, screening, and treatment for chronic diseases, along with referral to specialists as needed; and
- Community outreach on women's health issues, including breast health.

Under the cooperative agreement covered in this report, AIHA provided support to the WWCs from 1998 to 2004 through a broad range of cross-partnership workshops and conferences, as well as through procurement of Internet connectivity and limited supplies.

##### Program Goals and Objectives

The overall goal of AIHA's Women's Health initiative was to establish a client-centered approach to providing women of all ages with comprehensive services that address their healthcare needs. Specific objectives were to:

- Increase local capacity to deliver comprehensive, integrated health and wellness services to women of all ages;
- Foster implementation of modern, evidence-based clinical practice guidelines to improve women's health services and make the best use of limited resources;
- Increase use of contraceptives among women of reproductive age who wished to avoid pregnancy; and
- Help ensure sustainability of the WWCs beyond project funding periods.

## Training and Client-centered Care Yield Positive Outcome for Kutaisi Woman

In the spring of 2002, a 32 year-old woman who had suffered a late-term miscarriage the previous year arrived at the Kutaisi WWC. She had consulted with specialists in Tbilisi who determined that her miscarriage had been caused by emotional distress.

In the year since the miscarriage, her husband had lost his job and begun drinking. She worked in a market and depended on her mother for support. She reported that her periods had stopped and she expressed concern that she would never be able to successfully carry a pregnancy to term.

Trained staff at the WWC recognized that she had a type of endometriosis that caused nasal bleeding during her periods. They also determined that the woman had levels of prolactin nine times higher than normal values, suggesting the possibility of a pituitary gland tumor.

Due to financial constraints, the patient refused further tests and treatment, but staff was able to put her on medications to restore her periods and control her endometriosis. Four months later, she returned to the WWC suspecting another pregnancy and staff there confirmed her suspicion. Physicians and other staff at the center monitored her case closely throughout the duration of her pregnancy and she gave birth to a healthy baby boy in June 2003.

### Caucasus Program Overview

- AIHA and its partners opened one WWC in Kutaisi, Georgia, and another in Baku, Azerbaijan. Members of the Kutaisi/Atlanta partnership officially opened the Kutaisi WWC in May 2000. Members of the Baku/Houston partnership opened the Baku WWC at Mir Kasimov Republican Hospital in September 2002. These two pioneering centers are part of a network of more than 30 AIHA WWCs established throughout the region since 1995.
- The Kutaisi WWC continues to be fully operational and self-sustaining, providing a wide range of preventive and treatment services for women in Georgia's Imereti Region. In addition to establishing the WWC, partners also implemented a healthy communities program that has improved the health status of women throughout the region through targeted prevention, screening, early detection, and public education programs designed to make women true partners in the healthcare process.
- AIHA linked the Kutaisi WWC with Carelift International, who provided and installed mammography equipment in 2005 and trained staff in its use and maintenance. The center began providing mammography services to the local population that year, making it one of the first regional public institutions to offer mammograms in the country.
- The quality of services provided by staff at the Kutaisi WWC is demonstrated by consistently high scores on patient satisfaction surveys. When AIHA last conducted these surveys in 2003, the center received a score of 6.6 out of a possible 7.
- In Azerbaijan, the Baku WWC at Mir Kasimov successfully introduced a patient-centered approach to women's healthcare that includes a broad range of services that go well beyond those offered by traditional women's consultation centers in the country. The center remains fully operational and self-sustaining. It provides both preventive and curative services and practices the client-centered approach that is the hallmark of all AIHA-supported WWCs.
- In response to community needs, the Baku/Houston Partners made breast health a key priority at the WWC. They established an educational Breast Health Center that teaches the basics of monthly breast self-examinations and disseminates a wide range of patient education materials on breast cancer, healthy lifestyles, and the importance of early screening and detection to IDPs and refugees residing in the Narimanov District of Baku.

- Baku WWC staff also provided training on women's health topics to primary care providers from Ganja Polyclinic No. 6, the Azerbaijani partner institution in AIHA's Ganja/Livermore community-based primary healthcare partnership.

## Key Achievements of AIHA's Women's Health Initiative in the Caucasus Region

### Service Capacity and Delivery

- A radiologist from Kutaisi WWC traveled to Atlanta to observe ultrasound and other diagnostic procedures. As a result of what she learned, the WWC began to use PAP tests to screen for cervical cancer, marking the first time this important diagnostic service was available in Georgia.
- An oncologist, also the LRC information coordinator, at the Kutaisi WWC collaborated with a US partner on joint presentations made at the 2000 World Congress of Oncologists meeting held in Tbilisi, Georgia.
- Selected staff from the Baku and Kutaisi WWCs participated in a three-day breast health community outreach workshop conducted by AIHA in Kyiv, Ukraine in April 2000. At the event, three US trainers reviewed the components of breast health and early detection and assisted in identifying resources and strategies to promote breast health. As a result, the Caucasus participants developed action plans for implementation in their own communities.
- AIHA sponsored a WWC Quality Improvement and Dissemination Conference to further promote the implementation of new, evidence-based women's health clinical practice guidelines. A representative from the Kutaisi WWC attended this event, which was held in Kyiv, Ukraine in December 2001.
- In May 2002 AIHA sponsored a Consultation Training and HIV/AIDS Pre- and Post-Counseling Workshop, which was attended by ob/gyns from the Baku and Kutaisi WWCs. An STD case management workshop included an epidemiological update on STDs and HIV in the former Soviet Union, a session on the transmission and control of STDs and HIV, and sessions on diagnosis and treatment.
- A psychologist from the Kutaisi WWC participated in AIHA's Adolescents-at-Risk Study Tour in Washington, DC, and Philadelphia to learn about risk reduction and health programs for adolescents in the United States and identify models and approaches that could be adapted to conditions in Georgia. A subsequent Adolescents-at-Risk Workshop held in Ukraine disseminated information about the study tour and was attended by participants from Azerbaijan and Georgia. The event introduced the concept of adolescent healthcare, as well as discussed topics such reproductive health, mental health, substance abuse, and social problems facing young adults. Participants discussed community mobilization and the need to develop adolescent healthcare services guidelines. They also developed action plans.
- During a domestic violence workshop held in Tbilisi in May 2001, multidisciplinary teams comprised of teachers, police, prosecutors, psychologists, doctors, and nurses addressed domestic violence in the Caucasus region. Three US trainers presented background data on domestic abuse in Azerbaijan and Georgia. The faculty later split the group by profession to develop specific intervention strategies and helped participants create strategic plans for their own communities.
- US partners provided a wide range of clinical training for their NIS counterparts on topics including radiology, ultrasound techniques, cervical cancer screening, diagnostic procedures, documentation and record-keeping, and nursing care for women's health services.
- The Baku WWC implemented changes in ob/gyn care for IDPs and refugees, including the administration of epidural anesthesia during labor, Rh immunization, blood sugar testing for all patients at risk for gestational diabetes, and early hospital discharge after normal deliveries.
- The Baku WWC reported 10,700 patient visits in fiscal year 2005, representing a nearly 150 percent increase from the previous year's 4,260 patient visits. Staff credit the increase to the wide range of client-centered preventive and treatment services and increased public outreach.
- The Breast Health Center established by Baku/Portland partners at the Baku WWC trained more than 600 medical workers on breast screening techniques and provided clinical breast exams and patient education services to more than 12,000 patients (2.5 percent of the population) by the end of 2002. These screenings revealed 470 abnormalities, including two cases of breast cancer.

### Clinical Practice Guidelines

- In fiscal year 2003, Baku WWC staff conducted educational meetings on Pap smear analysis and cervical

## Training and Collaboration Help Expand Breast Health Outreach in Kutaisi

The key to breast cancer survival is early detection, so primary level diagnostic care and proactive patient education both play critical roles in the battle against the disease. Staff at AIHA's network of WWCs in the NIS have long made breast health resources readily available to patients and clinicians alike by offering a wide variety of health promotion, disease prevention, and educational programs to the communities they serve.

In 2002, a dedicated physician from the Kutaisi WWC took the center's breast health patient education and outreach program to the next level by securing a \$48,000 grant from the Susan G. Komen Breast Cancer Foundation (now called Komen for the Cure). The funding supported a comprehensive community education and outreach campaign designed to raise public awareness about breast cancer and the importance of early screening and diagnosis through television advertisements, brochures, posters, and flyers. The grant also allowed the WWC to purchase breast models, develop a breast health teaching video, and train and provide a small stipend to nurses, program and hotline service consultants, and data entry personnel.



**As a clinician and the information coordinator of the Kutaisi WWC's Learning Resource Center, Dr. Nino Berdzuli was able to research grant opportunities and secure funding to expand the center's breast health education and outreach program, providing potentially life-saving information to more than 120,000 women in Georgia's Imereti Region.**

"Promoting breast health among women from various districts of the Imereti Region was the first program implemented through the grant," says Nino Berdzuli, formerly an ob/gyn and oncology specialist at the Kutaisi WWC and the one who wrote the grant proposal. "I prepared training manuals, educational booklets, and newsletters using various resources including the Internet and Ovid Database," she continues, noting that some 15 nurse educators were trained in various aspects of breast health and tasked with training both clinicians and more than 120,000 women living in different districts of Kutaisi and the greater Imereti Region.

Berdzuli, who was also the partnership's information coordinator, recognized that breast cancer was a major health concern in the region and wanted to ensure the sustainability of the WWC's education programs. In 2002, she researched potential donors and prepared the Komen proposal, working closely with US partner Selma Morris, director of the Office of Sponsored Programs at Grady Health System in Atlanta, Georgia.

"Selma was very helpful. She's very smart and has initiated many breast health programs in the United States and Africa," Berdzuli explains, noting that the AIHA-sponsored grant-writing workshops she attended taught her how to identify governmental and private funding sources, as well as how to develop well-organized ideas, communicate effectively, and engage in efficient research. She also credits the technical training she received at a number of AIHA-sponsored LRC workshops with giving her the knowledge to perform searches and access information critical to the grant-writing process. "Because I value Selma's input, I presented her with a draft of my proposal for review. After communicating via email for a couple of weeks to discuss details about the project and to perfect the proposal, I prepared and submitted a final copy to the Komen Foundation," Berdzuli concludes, saying she received notice of the award in May 2002.

The project was successfully implemented and both Berdzuli and Morris presented the outcomes of Kutaisi's expanded breast health education and outreach program at the Komen Foundation's annual conference in 2003. Based on what was achieved during the initial year of the project, the WWC received an additional \$98,000 to continue the education and outreach campaign for a second year.

cancer screening as a cancer prevention technique in 26 departments of Mir Kasimov Hospital, expanding the knowledge of 485 medical professionals.

- The Baku WWC information coordinator developed a clinical practice review titled “Herpes while Pregnant” in collaboration with Republican Clinical Hospital maternity department physicians.
- A Baku WWC physician collaborated with the information coordinator to compile a practice standard review on “Effectiveness and Side Effects of the Levonorgestrel Intrauterine Contraceptive System.”
- Two practice standard reviews conducted by the Baku/Houston partners — “Efficacy of Cryotherapy in Treatment of Precancerous Cervical Lesions” and “Iron-deficient Anemia during Pregnancy and the Efficacy of Different Plans of Prevention and Treatment” — were posted on AIHA’s EurasiaHealth Web site.
- AIHA facilitated the development of a “Women’s Health Clinical Practice Guidelines Reference Manual.” This manual was compiled, translated into Russian, and distributed to each WWC upon its opening. The reference manual includes resource material related to clinical practice guidelines in 10 areas.
- Guidelines on the medical care of HIV-infected women developed by AIHA and its partners were distributed at the Women’s Health CPG Workshop.

### Health Promotion

- The WWCs in Baku and Kutaisi continue to emphasize health promotion and disease prevention in their activities. Both centers provide classes on childbirth, prenatal health, family planning, breast self-examination, breastfeeding, breast cancer detection, and the importance of cervical cancer screening on a regular basis.
- In response to the steadily increasing demand for its services, the Kutaisi WWC opened offices staffed by nurses in various districts in Imereti Region — including three in Kutaisi and 11 in other parts of the region — to promote and expand delivery of the health education activities offered by the WWC.
- Kutaisi WWC staff conducted a four-month assessment on the reproductive and psychiatric health of teenage girls in local secondary schools. More than 2,000 teens participated in the study.
- With the help of their Atlanta partners, Kutaisi WWC staff applied for and received a \$48,000 grant from the Susan G. Komen Breast Cancer Foundation in 2002 to support an education and outreach project titled “Promoting Breast Health among Women in Kutaisi,” along with a continuation grant in the amount of \$98,000 in 2003.
- Kutaisi WWC staff conducted a four-month round of educational and training activities for 1,000 women from all 10 municipalities of Kutaisi. The educational classes focused on topics such as breast cancer, prevention of STIs, family planning, domestic violence, and women’s rights.

### Family Planning

- Family planning is another key service provided by the Baku and Kutaisi WWCs. Reporting of family planning visits was captured among the total visits reported by each center. AIHA measured the use of contraceptive methods among women who wish to avoid pregnancy as one of its indicators and, based on rounds I and II of the WWC patient satisfaction surveys conducted in fiscal year 2003, 56 percent of women visiting the Kutaisi WWC reported using contraceptives while 58 percent of those visiting the Baku WWC reported the same.

## **Early Screening and Detection Help Baku Woman Overcome Cervical Cancer**

When a 49 year-old woman came to the Baku WWC complaining of problems related to menopause, staff there performed a routine Pap test as part of her initial examination. Unfortunately, the test and a subsequent colposcopy led to a diagnosis of cervical cancer.

Thanks to advanced training received through AIHA’s Baku/Portland partnership, WWC staff treated her and, six months after the initial diagnosis, her cancer had been successfully controlled thanks to the early detection and treatment of her potentially life-threatening disease.

## Sustainability

- The Kutaisi WWC was awarded back-to-back grants from the Susan G. Komen Breast Cancer Foundation to implement breast cancer prevention and education activities in Georgia's Imereti Region. Their Atlanta partners continued to assist WWC staff with training and capacity building through the Komen award.
- The Kutaisi/Atlanta partners helped found a local NGO named Hera that is dedicated to improving women's health in the Imereti Region. WWC staff and members of Hera actively participated in the Healthy Women of Georgia (HWG) project implemented by John Snow International (JSI) through a cooperative agreement with USAID. The WWC and Hera led the HWG project's efforts in conducting the first breast cancer awareness walk in the country on September 24, 2005. The walk is now conducted annually.
- Both the Baku and Kutaisi WWCs are now locally funded and continue to provide a full range of women's health services.

## 5. Nursing

### Background

Beginning with the first round of AIHA partnerships in 1992, nursing quickly emerged as a key priority area for countries in Eurasia. Partners identified barriers to improving nursing care and practice in their countries, including the lack of both professional standards for nurses and an independent nursing care structure. AIHA took the lead in organizing a region-wide nursing task force. The group held annual international nursing conferences where common problems and new approaches were shared, as well as topical workshops where new skills were taught.

Over the years, AIHA's nursing program grew to encompass a wide array of activities that supplemented and enhanced the work of partnerships in areas related to nursing education and practice. These activities included development of nursing curricula, clinical practice guidelines, and practice standards. AIHA's Nursing Initiative also contributed to the development and professionalization of the nursing profession in the region by:

- Establishing Nursing Resource Centers (NRCs) to support continuing education for nurses;
- Helping to establish and strengthen national nursing associations;
- Promoting leadership development through the International Nursing Leadership Institute (INLI); and
- Implementing a pilot program in nursing quality improvement based on the Nursing Magnet Program.

Through these activities, AIHA and its partners have built institutional and human resource capacity, improved quality of care, and provided sustained leadership and vision for the nursing profession in the region.

AIHA's INLI program provided an integrated year-long curriculum designed to develop a core group of skilled nurse leaders in Eurasia. Taught by US nurse faculty, participants received intensive training on a range of leadership and management skills, including project development, management ethics, supervision, and quality management. During 2002-2003, INLI graduates were invited to submit proposals for small grants to implement projects developed during the INLI courses.

During much of the period covered in this report, AIHA's focus was directed toward efforts to strengthen the ability of nurses in the region to provide quality community-based primary care services. In keeping with the

“The first AIHA nursing conference I attended was the beginning of the change in my attitudes toward my own profession. I will never forget the tears of joy I saw in the eyes of many of my colleagues as they began to realize what they could accomplish. We who have worked in the AIHA partnerships and continue to do so are pioneers in the field of nursing in our countries. We will become the teachers of the future.”

— *Lia Mamaladze, former Chief Nurse,  
Georgian Ministry of Health,  
Tbilisi, Georgia  
(Tbilisi/Atlanta partnership)*

health system reform priorities of USAID and national governments throughout the NIS, AIHA worked to harness the capacity developed through previous partnerships and activities to strengthen institutions involved in its new primary healthcare partnerships. To accomplish this, AIHA employed a variety of program strategies, including the development and implementation of skills-based primary care training curricula and the continuation of efforts to strengthen nursing as a profession through INLI, the NRCs, ongoing association building, and an active network of nurse leaders from partnerships and other nursing organizations worldwide. Activities in the area of primary care were directed by a steering committee made up of US and NIS nurses active in the partnerships.

## Program Goal and Objectives

The overall goal of AIHA's Nursing Initiative was to improve patient care by strengthening nursing practice and nurses' contributions to systemic healthcare reform in Eurasia. Specific objectives were to:

- Enhance nursing education in accordance with international standards;
- Elevate the status of nursing as a profession;
- Improve nursing practice through skills-based training;
- Introduce new models of nursing care that expanded the roles and responsibilities of nurses; and
- Increase nurses' access to information resources and networking opportunities through sustainable NRCs.

## Caucasus Program Overview

During 1999-2007, Azerbaijani and Georgian nurses participated in AIHA's NIS region-wide Nursing Initiative, which encompassed ongoing support for the NRCs and nursing leadership development, as well as robust programs to build primary care skills and improve the quality of nursing care in a hospital setting.

## Key Achievements of AIHA's Nursing Initiative in the Caucasus

### Nursing Resource Centers

- AIHA's Tbilisi/Atlanta partners established the first NRC in Georgia in 1998 at the National Institute of Health (NIH) in Tbilisi. This center joined a greater network of some 24 AIHA NRCs opened at partner institutions spanning Eurasia. The NRCs were designed to provide nursing faculty, students, and practitioners with a facility to support alternative forms of learning and easy access to information resources, as well as opportunities for networking and professional collaboration and development.
- During fiscal years 2000-2001, Caucasus NRC staff were trained through two AIHA-funded workshops designed to build skills building in areas such as fundraising, grant-writing, community outreach, technology and health education for nursing, health promotion, and program monitoring and evaluation.
- The NIH NRC in Tbilisi conducted 51 skills-building workshops between fiscal years 1999 and 2003, reporting a total of 964 nurses trained.
- During fiscal years 2003-2004, AIHA provided limited support to its NRCs in the form of Internet connectivity, yet these centers remained operational and offered a broad range of clinical training courses for nurses. They also organized various meetings, provided access to the library and other services, and implemented monitoring and evaluation activities.
- The NIH NRC closed in 2004 due to the liquidation of the National Institute of Health, where it was located.
- In 2006, AIHA established two NRCs at Iashvili Children's Central Hospital and Gudushauri National Medical Center through the Tbilisi/Atlanta partnership. These centers were equipped with new state-of-the-art teaching equipment, learning aids, and other materials. Since the partnership graduated in 2007, both NRCs remain fully functional and play an important role in increasing the nurse training capacity, with in-service nurse trainings actively utilizing NRC resources.

## Partnership Nurse Brings Primary Care to Baku's IDP Community

Walking through the halls of the Baku building where she lives, it doesn't take long to realize how important primary care nurse Rasmiya Zeynalova is to the other IDPs who reside there. They eagerly call out praise for this kind, gentle woman who takes care of them when they are sick, gives advice when they have questions, and offers comfort in a place where the very notion of security is alien.

"The thing that pleases me most about my job is when I get to see first-hand that someone feels better because of the care I provide," Zeynalova says. That is one of the best parts of any nurse's job, she admits, "But, here in the IDP settlement, it is even more rewarding."

Some 26,000 IDPs live in Baku's Narimanov District, a densely-populated section of the city. Most of them, Zeynalova included, fled their homes in the early 1990s to escape the border conflict with Armenia. "Many people from my village settled in the complex where I live now," Zeynalova explains. "I was a pediatric nurse back home and began working in the same capacity at Baku Polyclinic No. 14 in 1998."

Responsible for overseeing the care of 900 children — one-third of them IDPs — Zeynalova spends three hours each day in her office and another three conducting home visits. "Because of economic conditions here, most infants are born at home. A physician/nurse team makes a home visit to newborns within the first week. Their parents are supposed to bring them to the Polyclinic for polio and TB vaccinations when they are five or six days old," she says. If the child hasn't been inoculated within the first two months, the vaccinations are administered during a home visit.

"I visit newborns every week for the first month or so, to make sure the baby is thriving, that the umbilical cord is not infected, and to answer any questions the new parents might have," Zeynalova continues. Responsible for keeping accurate records about the development of her young patients and ensuring they receive a physical exam at least once a year, she makes notations on how well they sleep and any illnesses or abnormalities she observes. "If there is a problem, I either address it myself or, if it is serious, ask one of the doctors to examine the child."

When the Polyclinic, through the Narimanov District Health Administration, became involved in AIHA's Baku/Portland partnership, Zeynalova participated in a series of trainings developed to give nurses who work with IDPs the special skills necessary to address their healthcare needs. The workshops helped Zeynalova broaden the scope of her work, enabling her to provide care for adults as well as children. She also received a nurse's bag complete with medical equipment including a stethoscope, blood pressure cuffs, digital thermometer, otoscope, and many other useful supplies.

"I'd seen many of the instruments before and was familiar with most, but for some, like the otoscope, I had to attend a seminar to learn how to use," she says, noting that her new knowledge and equipment make her job much easier. But, the real change is in her attitude. "I've been a nurse for a long time, but the training I received has really changed the way I look at myself and my profession. I have much more confidence in my ability to give my patients the care that they need," Zeynalova maintains.

Patients like 9-year-old Rufina agree. "Rufina's mother knocked on my door late one night, sobbing that her daughter was dying. I grabbed my bag and ran over there," she recounts, explaining that the child's temperature was dangerously high. "I gave her an injection that brought the fever down and followed her recovery closely," Zeynalova concludes, laughing as she says, "Now Rufina says she doesn't need to visit the doctor — she has me to take care of her."



Thanks to training and supplies she received through her work with AIHA's Baku/Portland partnership, nurse Rasmiya Zeynalova is better able to care for her patients, one-third of whom are IDPs like Rufina Samdova, pictured below.



### International Nursing Leadership Institute and Other Professional Development Activities

- Five nurses from Azerbaijan and six from Georgia participated in AIHA's INLI program, which was initiated in 1999.
- AIHA awarded small grants to seven INLI graduates Azerbaijan and Georgia, so they could complete proposed projects in clinical practice, leadership, curriculum development, and the role of nurses in the community. Each of these projects led to considerable changes within the healthcare environments in which the nurses work. A full report of survey results can be found on AIHA's Web site.
- In a self-assessment completed by INLI graduates in 2003, all participating nurses reported that the program helped them gain respect from their physician colleagues. Nearly 90 percent said they applied quality improvement skills in the course of their daily duties and almost all of the graduates reported disseminating information or skills to other nurses through seminars, articles, presentations, and the development of educational materials.
- An INLI graduate from Georgia was offered the position of chief nurse at Gudushauri National Medical Center.
- The Azerbaijani Nursing Association, which was established by a nurse involved with AIHA's Baku/Houston partnership, was awarded a sub-grant from International Medical Corps to implement a humanitarian project in Azerbaijan, improving healthcare services available in settlements along the Baku-Tbilisi-Ceyhan pipeline. The project involved training on nursing, women's health, and health education in six rural areas in Western Azerbaijan and was funded by British Petroleum.
- An Azerbaijani nurse was invited to join the international nursing honor society, Sigma Theta Tau, and two others joined the American Organization of Nurse Executives.

### Nursing Practice

- All Caucasus partnerships active in 2003 when AIHA conducted a qualitative survey of activities and accomplishments reported that they had institutionalized new roles and responsibilities for nurses, including independent patient assessment and care planning, infection control, and patient education and counseling. Some partnerships also reported they had institutionalized written standards for nurses.
- Tbilisi/Atlanta partners restructured nursing services at Iashvili Children's Central Hospital and Gudushauri National Medical Center, establishing a total of four new nursing services at Iashvili (emergency care, surgical, pediatrics, and out-patient care) and seven at Gudushauri (perinatal care; trauma orthopedics; internal medicine; general, neuro, and angio surgical care; operational theater; emergency services; and radiology and lab diagnostics). At both hospitals, these new nursing structures are unique and differ greatly from other similar institutions in Georgia where the structures are not so well delineated.
- AIHA conducted extensive primary care nurse training in Azerbaijan and Georgia during fiscal year 2002. Workshops focused on topics such as time management, mental and behavioral health, adolescent health, asthma, gerontology, and dental health and 15 Azerbaijani nurses and 12 Georgian nurses participated.
- Partnership self-assessments conducted in 2003 indicated that all community-based primary healthcare partnerships had institutionalized written standards for nurses and adopted new professional roles for them, including independent patient assessment and care planning, infection control, and patient education and counseling.

### Primary Healthcare Nursing

- AIHA and its partners established a NIS region-wide steering committee to identify the training needs of

"In the United States, we saw that nurses are fundamental in promoting disease prevention, providing expert care at the bedside, and fulfilling managerial tasks. We also came to understand that teaching is not only lecturing as it is in Georgia. Students do a lot of reading prior to classes and come prepared for a discussion. In terms of actual practice, students work in well-equipped labs where they learn how to do clinical manipulations on hi-tech mannequins. This is a very important part of nursing education that is missing in Georgia."

— Natela Partskhaladze, Nursing Coordinator at Partners in Health, a Tbilisi-based NGO established by AIHA's first Tbilisi/Atlanta partnership

primary care nurses. The committee formulated a basic agenda for skills-building workshops for nurses, which were held in each individual region.

- All the Caucasus partnerships worked to improve the quality of training for nurses in primary care and in hospital settings. The Mtskheta/Milwaukee, Gori/Milwaukee, Guria/La Crosse, and Ganja/Livermore partnerships have all trained nurses in family medicine to enhance their role as community caregivers.

### Hospital Nursing Quality Improvement

- Members of the Tbilisi/Atlanta partnership have fundamentally changed the role of nurses by empowering them to provide direct care to patients. Nurses at the two partnership hospitals are now responsible for intravenous (IV) and catheter insertions, patient monitoring, wound management, and patient education.
- In an effort to improve the delivery of nursing care services, eight Georgian master trainers trained in fiscal year 2005 by US partners at Emory University provided continued ongoing in-service specialty trainings at both Iashvili and Gudushauri hospitals.
- Tbilisi/Atlanta partners also implemented a 120-hour “General Nursing Course for Hospital Nurses,” which included modules on general nursing and clinical skills.
- During fiscal year 2007, the Georgian master trainers trained 147 nurses from different hospitals throughout Georgia were trained. Overall results of pre- and post-tests of those trained indicated vast improvements in knowledge and skills; scores leapt from a pre-course average of 52 percent to a post-training average of 90 percent.
- Additional nurse training capacity was developed as a result of four Georgian nurse trainers taking part in Pediatric Advanced Life Support (PALS) courses organized in Atlanta by the American Heart Association and the American Academy of Pediatrics. The Georgians completed the exams and became PALS-certified.
- The Tbilisi/Atlanta partners conducted a quantitative study at both Iashvili Children’s Central Hospital and Gudushauri National Medical Center to evaluate application of skills gained by hospital nurses through trainings conducted by partners. The study design was based on partnership training records, notes, and pre-test and post-test analysis of skills. Six separate surveys were designed and were tailored to specific skills. Nurses from both hospitals were evaluated almost equally (33 from Gudushauri and 35 from Iashvili). The results showed that 54 percent of the nurses trained were applying the skills they gained.

## **6. Infection Control**

### **Background**

Infection control has become a major theme in the healthcare arena in Eurasia over the past two decades. It is both a focus of hospital care reform and a vehicle to achieve goals of improving quality of care and restructuring national healthcare systems. Basic infection control methods practiced at the primary care level, such as proper hand washing and safe waste removal, help prevent the transmission of communicable and infectious diseases between patients and healthcare workers. Within hospitals, surveys conducted in low and middle-income countries demonstrate that hospital acquired — or nosocomial infections — are among the most common adverse outcomes of hospitalization. Nosocomial infections have become increasingly important because they affect the quality, efficiency, and effectiveness of healthcare services. Infection control programs play a critical role in reducing patient mortality and morbidity while decreasing hospital costs through more efficient delivery of medical care.

Responding to the rising concern over the quality and cost of healthcare services in the NIS, many AIHA partnerships have placed a strong focus on infection prevention and control and have developed and translated guidelines and a training curricula in an effort to disperse modern practices in limited-resource settings.

As part of its region-wide Infection Control Initiative, AIHA cooperated with ministries of health in Georgia, Kazakhstan, Russia, and Ukraine to assist in the development of national infection control programs, as well as open model training centers that could help medical professionals undergo continuing education in modern infection control practices.

Through the initiative, AIHA trained more than 50 instructors throughout all four countries to conduct monthly trainings for physicians, chief nurses, epidemiologists, and microbiologists. The Hospital Infection Prevention and Quality Assessment Program (INQUAL), The Society for Health Care Epidemiology of America (SHEA), the Association of Professionals of Infection Control and Prevention (APIC), the Centers for Disease Control and Prevention (CDCP), the World Health Organization (WHO), and other USAID-sponsored organizations such as the Program for Appropriate Technology in Health (PATH), joined AIHA as strategic partners in these efforts.

## Program Goal and Objectives

The overall goal of AIHA's Infection Control Initiative was to improve the quality of healthcare services in Eurasia through regional and institutional infection control programs aimed at reducing hospital-acquired infection rates and controlling antibiotic resistance in microorganisms caused by overuse or improper use of medications. Specific objectives were to:

- Strengthen training capacity in infection control, clinical epidemiology, and evidence-based practice of medicine;
- Improve surveillance and assessment capacity for nosocomial infections and antibiotic resistant

## Infection Control Training Centers: Strengthening Policies and Practices



ОСНОВЫ  
ИНФЕКЦИОННОГО КОНТРОЛЯ  
Практическое Руководство  
Второе Издание

2nd Edition  
Basic Infection Control  
Manual

American International Health Alliance  
www.aiha.com



While hospital infection control in the former Soviet Union has a strong hygienic tradition — most hospitals in the region are kept sufficiently clean — nosocomial infections are more likely to be spread through person-to-person contact. Additional emphasis must therefore be placed on patient care practices.

Building on the successful training center model used for its Emergency and Disaster Medicine and Neonatal Resuscitation programs, AIHA created a comprehensive plan for establishing Infection Control Training Centers (ICTCs) that address issues such as developing targeted curricula, educating faculty in evidence-based infection control standards and adult-learning techniques, and compiling

appropriate reference and teaching materials. Four training centers have been established — one each in Georgia, Kazakhstan, Russia, and Ukraine.

The cornerstone of each ICTC is a one-week Basic Infection Control course that was developed for hospital epidemiologists, assistant epidemiologists, and other physicians and nurses who are responsible for infection control practices in their hospitals. The first edition of AIHA's Basic Infection Control manual for nations in the region was co-authored by US and Russian infection control experts. It was published in 1997 and distributed to all partnership hospitals, major teaching institutions, and national and regional health authorities. The manual was updated in 2003 and the second edition was published and distributed widely throughout the region.

Infection control professionals are currently using it as a teaching tool and resource in their day-to-day practice. In addition, a special "Training of Trainers" program was designed to ensure ICTC faculty remain current on evidence-based infection control practices and continuing education methodology. This program allowed for the gradual involvement of faculty from the region in teaching the Basic Infection Control course and other specialized classes, first jointly with their US partners and then on their own.

microorganisms;

- Implement infection control practices rooted in evidence-based clinical and practice management protocols; and
- Enhance sustainability of Infection Control programs.

### Caucasus Program Overview

AIHA established an infection control partnership in Georgia in 1999, linking the Georgian National Center for Disease Control in Tbilisi with the Minnesota Department of Health in Minneapolis. AIHA and these partners worked in close collaboration with the Georgian government to establish a model training center that would provide continuing education in modern infection control practices to healthcare professionals throughout Georgia. Another key objective was to support the dissemination of new knowledge and practices related to infection prevention and control to healthcare practitioners.

Partners also established two WHONET laboratories — one in Tbilisi and the other in Kutaisi — to upgrade microbiology laboratories, improve the level of microbiology and antibiotic resistance monitoring, and gather data on resistance to antimicrobial agents.

### Key Achievements of AIHA's Infection Control Initiative in the Caucasus

#### Training Capacity

- AIHA and its Tbilisi/Minneapolis partners established an Infection Control Training Center (ICTC) at the Georgian National Center for Disease Control (NCDC). The ICTC trains epidemiologists, physicians, nurses, and microbiologists through continuing education workshops that focus on topics such as modern infection control practices for hospital surveillance, nosocomial infections, the role of the microbiology laboratory, education of health workers, and patient care practices.
- Partners conducted a series of workshops designed to improve practices at microbiology laboratories in Tbilisi, Kutaisi, and Batumi for a total of 53 trainees.
- Partners conducted a workshop on epidemiology and surveillance strategies for health promotion for 30 participants, including representatives from several government agencies in Georgia. The workshop included training on public health interventions and community participation, with particular emphasis on tobacco use and cessation of smoking by adolescents.
- ICTC staff and partners developed educational materials on the advantages of vaccines that are not commonly administered and conducted a training course on the vaccines for 71 physicians.
- Tbilisi partners at the NCDC trained nearly 400 healthcare practitioners during fiscal year 2003 – a four-fold increase from the previous year. This marked increase demonstrates both the center's strengthened capacity to meet the rising demand for its courses, as well as its increased prominence among the medical community in the Caucasus Region.
- Partners developed an infection control practice guideline, which was adapted and approved by the Georgian Ministry of Health. They also developed and implemented an antimicrobial susceptibility guideline.
- A new position - infection control nurse - was introduced in several Tbilisi hospitals. The ICTC trained the nurses selected for these positions to provide active assistance to epidemiologists implementing infection control programs.
- Partners implemented surgical site infection (SSI) surveillance procedures at three hospitals in Tbilisi. For the first time in Georgia, reliable SSI data have been obtained on the basis of standardized case definitions. The active SSI surveillance system was included in the National Surveillance Program from 2001-2002.
- A three-round pilot Antibiotic Usage Point Prevalence Survey was conducted in Georgia as part of an

It was challenging to learn a new system of infection control ... to understand so much new information. But it was fascinating, too, particularly learning from our US partners, who had not only knowledge, but a systematic approach that we lacked at the time.

— Dr. Paata Imnadze, Director,  
Georgina National Center for Disease  
Control, Tbilisi, Georgia  
(Tbilisi/Minneapolis partnership)

ongoing collaborative effort of AIHA's ICTCs in Georgia, Russia, and Ukraine. The Georgian surveys were conducted by teams that included representatives from the NCDC and ICTC. They collected data on antibiotic use in hospitals to determine both the rate of antibiotic usage in general and the rate of perioperative antibiotic prophylaxis (PAP) in patients undergoing surgery. Data was entered and analyzed through Epiinfo and now guides policy and guideline development on antibiotic use throughout the NIS.

- US partners evaluated infection control practices at the National Center of Surgery Hospital in Tbilisi. The survey consisted of interviews of key hospital personnel; observations of facilities, supplies, equipment, and practices; and a point prevalence survey of active nosocomial infections in patients hospitalized at the time of the survey.

#### Surveillance and Assessment Capacity

- Partners established regional reference laboratories at three sites in Tbilisi, Kutaisi, and Batumi, updating them with modern supplies and providing training in Minneapolis and at the Mayo Clinic. All three labs regularly report outbreaks and incidences of antimicrobial resistance to the NCDC. Partners also established WHONET Centers at the labs in Kutaisi and Tbilisi to ensure monitoring and reporting of resistant strains occurring in local hospitals to WHO.

- As part of its surveillance activities, the ICTC conducted surveillance of surgical site infections at two hospitals in Tbilisi. The findings of these surveys were submitted and accepted for a poster presentation at the annual meeting of the Society of Healthcare Epidemiology of America (SHEA) in 2001.

- Teams from the ICTC and the Ministry of Health's Department of Public Health conducted pilot Antibiotic Usage Point Prevalence surveys in Tbilisi and Kutaisi. The assessment surveyed 485 patients and produced data on the rates of daily antibiotic doses. Results demonstrated that the use of antibiotics is widespread and involves a variety of antimicrobial agents. This baseline data provided a point of comparison for future studies on antimicrobial resistance in Georgia and throughout the NIS.

- Data collection for an AIHA-funded international study of antibiotic resistance of *E. coli* and urinary tract infections officially stopped during the second quarter of fiscal year 2003. Although more than 900 specimens were collected from five study sites, including about 90 from Kutaisi WWCs, it was difficult to ascertain the number of specimens testing positive for *E. coli* infection. The study was limited by difficulties acquiring and shipping supplies, as well as unreliable quality control mechanisms at study sites.

- AIHA conducted a two-part telephone survey of WHONET laboratories in the NIS to determine whether they are performing the necessary functions of collecting and processing data on antimicrobial resistance for which they were established. Out of the 18 labs established by AIHA since 1997, 13 — including four in Caucasus — were identified as currently functioning and using the WHONET database for data collection, storage, and analysis. The WHONET labs reported routinely conducting surveillance of antibiotic resistance at their home institutions and for the outside groups, and maintaining current WHONET databases. Half of the labs produce recommendations on antibiotic use based on the results of surveillance, and a smaller number of labs are able to influence the policy.

#### Evidence-based Practice

- The NCDC's capacity for serving as a center of excellence on evidence-based infection control practice was strengthened through its relationship with the US Centers for Disease Control and Prevention. The collaboration allowed the NCDC to expand its responsibilities from infectious disease control and epidemiology to include non-communicable disease epidemiology, disease prevention, and health promotion activities.

- Through the Tbilisi/Minneapolis partnership, the NCDC was paired with the Minneapolis Department of Health and the Minnesota Chapter of the Association of Professionals in Infection Control and Epidemiology (APIC) to further develop and strengthen infection control resources and capacity in Georgia.

- AIHA and the Tbilisi ICTC conducted a workshop on infection control and occupational health in primary care settings for its partners in the Caucasus to contribute to improved evidence-based practices in infection control among AIHA's primary healthcare partnerships.

- During fiscal year 2003, AIHA and its partners published and disseminated the 2nd edition of the Infection Control Manual. Produced in both English and Russian, the manual contains chapters and relevant articles on topics such as organization of infection control programs, surveillance, common microorganisms, and

antibiotic resistance. Approximately 500 copies of the Russian edition were distributed to participants at the Third International Russian Applied Research Conference, which has held in St. Petersburg, Russia.

### Health Promotion

- ICTC staff conducted educational and outreach programs in different communities to increase public awareness about healthy lifestyles. In response to high rates of smoking among students and adults in Georgia, for example, partners carried out regular preventive anti-smoking activities, including discussions for students in 14 Tbilisi area schools and dissemination of more than 150 copies of health promotion publications. Partners designed reporting forms for surveillance of cardiovascular diseases. The myocardial infarction form was adopted in a pilot hospital in Tbilisi.
- Partners trained some 100 health workers on public health, basic epidemiology, and community mobilization for disease prevention.
- In coordination with the Mtskheta/Milwaukee partnership, the ICTC implemented a cardiovascular disease prevention program in Dusheti, training 20 physicians, nurses, and healthcare officials from Dusheti on primary level prevention of cardiovascular diseases. They also conducted discussions and lectures on health promotion that were attended by more than 800 students in six schools.

### Sustainability

- Tbilisi ICTC staff have been working to expand the center's role by actively collaborating with NGOs and other organizations to provide training for their clinical staff. In addition, the ICTC developed a relationship with a private distributor of disinfectants in Georgia, which has agreed to sponsor future infection control workshops at the center. Both types of collaboration greatly contribute to the sustainability of the infection control program in Georgia.
- In fiscal year 2003, the Tbilisi/Minneapolis partnership funded three of the 15 workshops conducted by the NCDC. These trainings focused on infection control, evidence-based medicine, and clinical epidemiology. The rest of the events, workshops, and trainings conducted by the ICTC were supported and funded by WHO, UNICEF, and Georgia's Ministry of Labor, Health, and Social Affairs.
- The ICTC remained fully functional and self-sustaining after the partnership graduated and still continues its active training and public outreach agenda.

## 7. Primary Healthcare Clinical Practice Guidelines (CPGs)

### Background

An ongoing emphasis of AIHA's primary healthcare partnerships has been to improve clinical practice, ensuring appropriate and effective care by utilizing evidence-based interventions that optimize the management of limited resources. Many partnerships collaborated to develop and implement clinical practice guidelines for the most common diseases affecting their communities. AIHA helped facilitate this process by developing an NIS region-wide and a Caucasus Regional Clinical Practice Guideline Steering Committee.

AIHA and expert partners trained physicians, nurses, and LRC information coordinators from its Caucasus partnerships in CPG and quality improvement processes, arming them to serve as agents of change at their home institutions. In turn, these leaders created a country-level working group of physicians, university faculty, representatives from the local Ministry of Health, and health administrators, who jointly devised innovative ideas and methods for guideline development and adaptation not only among the medical professionals in their respective institutions, but also among the partnerships region-wide. A fundamental component of this approach involved the use of teams of master trainers at each partner institution. After an initial series of training workshops, these



master trainers became responsible for promoting the use of guidelines in their respective institutions and training providers in the various clinical areas.

## Program Goal and Objectives

The overall goal of AIHA's Primary Healthcare and Clinical Practice Guideline Initiative in the Caucasus was to contribute to national and regional health system reform objectives to reorient service toward primary level care and prevention by building the underlying institutional and human resource capacity needed to improve the quality of primary care services and health outcomes. Specific objectives were to:

- Establish national and regional working groups to adapt and implement new clinical practice guidelines for use at NIS partner institutions, thereby improving the quality and efficiency of care;
- Increase capacity to deliver high quality primary care services in targeted communities;
- Increase patient satisfaction with primary care services;
- Increase acceptance and availability of evidence-based practices and clinical practice guidelines in the field of primary healthcare; and
- Increase public participation in efforts to improve the health of individuals and the community as a whole.

## Caucasus Program Overview

Starting in 2000, AIHA conducted a series of workshops and meetings to promote the CPG development process within NIS institutions involved in its primary healthcare partnerships. Key elements of these trainings included instruction on evidence-based practice and continuous quality improvement, and how to create a unified process for guideline development, review, and implementation. A Caucasus CPG Steering Committee was established to develop and implement primary healthcare guidelines in the region, coordinating its activities with the NIS region-wide Advisory Committee. The group initiated development of three additional guidelines that were completed in fiscal year 2002. In Georgia, these included guidelines on preventive health examinations and cervical screening. In Azerbaijan, these included bronchial asthma and acute respiratory illness.

## Key Achievements of AIHA's Primary Healthcare and Clinical Practice Guideline Initiative in the Caucasus

- CPG Steering Committee members met in July 2000 in Budapest, Hungary, after AIHA's primary healthcare partnership conference there to define a group strategy.
- AIHA conducted the first Caucasus Regional Clinical Practice Guidelines and Quality improvement Workshop and Training of Trainers in October 2000 in Tbilisi, Georgia.
- In April 2001, 30 NIS-wide CPG Steering Committee members met prior to AIHA's annual conference in Washington, DC, to review the progress of CPG activities in each region, discuss collaborative activities for the next quarter, and provide guidance for CPG development programs in progress at partner institutions.
- AIHA conducted two Caucasus Region workshops in Tbilisi in June 2001 – one on rational use of pharmaceuticals and another on management skills.
- In June 2001, AIHA hosted an evidence-based practice and CPG development workshop in Almaty, Kazakhstan.
- Guideline workgroups from each Caucasus country developed drafts of CPGs on asthma, diabetes management, and cervical cancer screening in 2001. These guidelines were approved by the US partners and recommended for distribution.
- AIHA conducted a strategic planning meeting in August 2001 in Washington, DC. Members of the CPG Steering Committee actively participated in the event.
- In July 2001, US and NIS members of the CPG Steering Committee and the national working groups trained CPG master trainers in the selected clinical areas of bronchial asthma, cervical cancer, and diabetes in Tbilisi.
- CPG Steering Committee members from the Caucasus attended a July 2001 workshop titled "Substance Abuse and Prevention and Treatment for Healthcare Providers and others Involved in Fighting Drugs" in

## Ongoing Training Helps Partners Implement Clinical Practice Guidelines

Nurse-physician teams of master trainers from each of AIHA's 16 Caucasus partnerships gathered in Tbilisi, Georgia, July 17-21, 2001, to discuss the use of clinical practice guidelines as a way to effectively screen for cervical cancer and manage bronchial asthma and diabetes. This meeting was a follow up to an earlier training of trainers workshop designed to enhance the clinical knowledge of medical personnel and prepare them to conduct similar meetings at their respective institutions.



**Dr. Kamal Hajiyev of the Baku Curative and Rehabilitation Center for Children discusses efforts to develop and implement bronchial asthma clinical practice guidelines designed to reduce numbers of emergency care visits, hospitalizations, and other complications commonly affecting patients with asthma.**

The July workshop incorporated an overview of guideline development and implementation processes, a presentation on the Council of Europe's clinical practice guideline development process and framework, and talks about future plans to select measurement indicators and publish guidelines. The workshop also provided an opportunity for participants to discuss final steps for adapting guidelines to local healthcare practices and developing indicators for measuring and evaluating clinical practice guideline processes and outcomes.

In addition to pre- and post-tests given to evaluate participants' baseline knowledge and the success of the event, attendees engaged in a full day of clinical practice guideline training, with each country presenting on one of the selected clinical topics. Having conducted a series of training sessions at their home institutions for physicians and nurses earlier in the month using the selected guidelines as a resource to ensure effective implementation, CPG master trainer teams presented the results of these

activities at the meeting. Participants also talked about future region-wide CPG activities for the Caucasus region.

This workshop, and other similar training and networking opportunities sponsored by AIHA, gave partners in the region the knowledge and skills they need to evaluate existing medical practices and implement newer, more effective protocols to improve patient outcomes and quality of care, while at the same time making the best possible use of their limited resources.

Moscow, Russia.

- Later that year, partners conducted a related conference on substance abuse in Gudauri, Georgia.
- Members of the Caucasus Regional Steering Committee participated in the Region-wide Clinical Practice Guidelines Advisory Committee Meeting held in December 2001 in Moscow, Russia.
- Also in December 2001, AIHA conducted a one-day study tour to Dubna, Russia, for members of the region-wide Advisory Committee to observe the quality improvement process in action and discuss best practices with local physicians, nurses, and administrators.
- The CPG working group in Baku conducted a series of training courses on asthma, cervical cancer screening, and diabetes in 2002.
- A CPG working group member from the Mtskheta Primary Healthcare Center conducted a number of training courses and presentations on cervical cancer procedures and asthma guidelines in 2002.
- The Georgia CPG working group drafted a guideline on healthy patient examination, which was reviewed and approved for publication by the CPG region-wide advisory committee in 2002.
- The Azerbaijan working group drafted a guideline on acute respiratory diseases in 2002.
- In April 2002, AIHA conducted a region-wide Clinical Practice Guidelines Collaborative Workshop in Kyiv,

Ukraine, to launch three regional inter-partnership CPG projects on bronchial asthma, diabetes, and arterial hypertension and to establish effective communication among AIHA partners from Caucasus, Russia, Ukraine and Moldova who were working on similar CPG projects.

- In September 2002, US and NIS members of the Caucasus CPG Steering Committee and the national working groups conducted a workshop in Tbilisi to teach the CPG master trainers the use of guidelines in selected clinical areas. Newly developed guidelines on preventive health examinations, acute respiratory infections, and chest pain were presented to the master trainers by the guideline authors. Participants identified barriers to implementation of quality improvement projects, including political and economic obstacles, and identified ways to overcome these barriers. In addition, participants gained skills in selection of quality indicators, data analysis and data presentation.
- AIHA conducted a region-wide CPG Advisory Committee meeting during the annual partnership conference in Washington, DC, in August 2002.
- The Georgian districts of Dusheti and Mtskheta continued to implement a high blood pressure program under the guidance of the Mtskheta-Mtianeti/Milwaukee partnership. Two specialists from the Institute of Therapy in Tbilisi travel regularly to both districts to provide technical assistance on program implementation and to collect patient monitoring forms.
- AIHA developed and disseminated “Clinical Practice Guidelines for General Practitioners: A Process Manual” in 2002. Members of the region-wide CPG Steering Committee reviewed and approved the booklet prior to publication.
- AIHA helped develop a Women’s Health Clinical Practice Guidelines Reference Manual to improve standards of care at partnership Women’s Wellness Centers throughout the region. This manual was translated into Russian and distributed to each center. It included information, clinical protocols, and resources on 10 key women’s health topics. In conjunction with the manual, AIHA also hosted a conference on CPGs and quality improvement that was attended by a number of Caucasus partners.
- In 2003, AIHA conducted two rounds of patient satisfaction surveys in the Caucasus to determine how effective the new guidelines were from a patient perspective and inform future planning and decision-making.
- Members of the Baku/Portland partnership successfully implemented the clinical practice guideline for bronchial asthma, adding 11 new patients to the original cohort of 61 in January 2003. By February that year, 32 out of 72 — 44.44 percent — had achieved the desired outcome of a Peak Expiration Volume (PEV) greater than 80 percent. Patient outcomes continued to improve through a six-month period, increasing by 18.72 percent. From April to June, 59.21 percent of all patients achieved the desired PEV and from July through September, 63.16 percent achieved the desired PEV. By 2004, the percentage of patients achieving the desired PEV increased to 70.33 percent
- The Baku/Richmond partners implemented a CPG project on bronchial asthma in 2003. That year, 21 out of 32 patients achieved a PEV greater than 80 percent by June and 22 patients, representing 68.75 percent, achieved the same desired results in August. By 2004, 23 patients achieved the desired results.
- In 2003, 10 physicians from the Baku/Richmond partnership institution, Polyclinic No. 25, conducted 100 medical examinations using the AIHA health examination clinical practice guideline. Partners reported related outcomes, namely 49 patients were educated on healthy lifestyle topics and decided to smoke less or quit smoking altogether, lose weight, follow a healthier diet, and/or begin an exercise program.
- As a result of AIHA’s CPG activities in Azerbaijan, 416 physicians and nurses attended 17 seminars and workshops during fiscal year 2003 and were trained in evidence-based medicine and the use of clinical guidelines for a broad range of conditions, including cervical cancer screening, healthy patient examinations, differential diagnosis of chest pain, bronchial asthma, and acute respiratory infections.
- In 2003, AIHA’s Mtskheta-Mtianeti/Milwaukee partners continued to offer community development programs focusing on blood pressure control, nutrition, cardiovascular disease prevention, and oral health. The oral hygiene program provided weekly fluoride rinses for more than 500 school children to help reduce incidences of dental caries and tooth decay.
- In collaboration with the Georgian National Center for Disease Control’s Health Promotion Department, the Mtskheta partners trained 12 school teachers from Dusheti how to effectively present information on healthy lifestyles and high-risk behaviors to school children.
- In 2004, the Mtskheta/Milwaukee partners launched a collaboration with local authorities in Dusheti District to replicate the Mtskheta model primary healthcare center there. Renovations were made to the

Dusheti Polyclinic and partners trained the staff.

- The Mtskheta/Milwaukee partners expanded their high blood pressure control program in 2004, incorporating patients with elevated blood pressure from all five areas of the Mtskheta-Mtianeti region. A total of 460 patients were receiving medication and regular counseling at that time and partners reported that approximately 55 percent of those enrolled reached their targets and were maintaining them at that time.
- Partners at Baku's Binagadi District Polyclinic and other healthcare providers trained through the program conducted a healthy lifestyles education and outreach program in their communities. In fiscal year 2004, the conducted 108 health education sessions for a total of 2,011 people, including 368 IDPs or refugees.
- The mental health specialist at the model primary care center in Baku provided health education information to 760 patients, including 474 IDPs and refugees during fiscal year 2004. The Baku primary healthcare center also produced educational materials on breast health, distributing them during the 7,061 patient visits to the center in 2004. These patient education activities were in keeping with guidelines produced by partners.
- In 2005, the Tbilisi/Atlanta partners conducted a one-day quality improvement workshop attended by 24 physicians and nurses from the two partner hospitals. Topics discussed by the participants included database searches for evidence-based materials, critical appraisal of literature sources, assessment methodologies for guidelines, and practical recommendations for creating and implementing clinical practice guidelines.
- Partners have implemented many of the new guidelines addressing the most common diseases, such as diarrhea, abdominal pain, nervous system infections, head trauma, febrile seizures, coughing, and triage. One problem that has emerged, however, is that some of these evidence-based protocols require care and treatment that goes beyond current national standards of care and is therefore not reimbursable by the government.
- Partners for Health, an NGO established by AIHA's first Tbilisi/Atlanta partnership, was subcontracted to develop 18 clinical practice guidelines in 2005, which were published in Georgian, Russian, and English. Retrospective studies to determine their impact have been planned.

## 8. Healthcare Management

### Background

Although substantial changes in healthcare systems have been realized in the countries of the former Soviet Union, sustaining those reforms depends on skilled administrators who can manage the ongoing transformation. This requires new methods of health professions education and health policy analysis.

Since 1994, AIHA has provided basic health management training to all its partners through courses developed jointly with the Association of University Programs in Health Administration (AUPHA). These specialized, practical training workshops on management techniques and leadership skills were offered to partner institutions with a view to complementing individual partnership objectives. Workshops emphasized a strong training of trainers component whereby participants were given a solid foundation in selected topics, as well as in adult learning principles, to better enable them to disseminate their knowledge to others.

The success of these workshops resulted in a request from USAID for AIHA to establish a partnership program for expanding health management capacity in several countries in the region, primarily in Central and Eastern Europe. AIHA introduced these health management education (HME) partnerships in 1995 in an effort to



AIHA's Tbilisi/Scranton partners spearheaded the development of a number of healthcare management journals, publications, and other resource materials.

enhance the education of current and prospective administrators, policymakers, and clinicians at the undergraduate, graduate, and executive management levels. The focus is on faculty and curriculum development, as well as health policy analysis, health services research and publishing, and healthcare financing. The first HME partnerships in Central and Eastern Europe achieved significant results and served as a model for subsequent HME partnerships in four countries of the former Soviet Union: Armenia, Georgia, Kazakhstan, and Kyrgyzstan. In Georgia, the National Health Management Center in Tbilisi partnered with the University of Scranton in 1999 to strengthen post-graduate and certificate programs in health services administration and nursing.

Over the years, AIHA supported cross-partnership activities aimed at supplementing the objectives of individual HME partnerships, providing joint training opportunities, and creating strong networks for sharing and collaboration among the partner institutions.

### Program Goal and Objectives

The overall goal of AIHA's Healthcare Management Initiative and health management education partnerships was to improve healthcare management education and practices and strengthen healthcare policy development in Eurasia. Specific objectives were to:

- Increase capacity for education and research in health management and policy development;
  - Improve knowledge, skills, and competencies in healthcare management among healthcare professionals, administrators, and policymakers; and
- Increase recognition of and international collaboration among healthcare management professionals.

### Caucasus Program Overview

The HME partnership in Georgia was established in 1999. As a prelude to the start-up of the partnership, AIHA organized a study tour for representatives from the four new HME partnerships — including partners from the National Health Management Center in Tbilisi — to visit graduated HME partnership institutions in the Czech Republic, Romania, and Slovakia. The study tour not only greatly expanded the new partners' vision of what they could achieve and helped them to develop partnership workplans, it also provided an opportunity for networking with counterparts from other countries in the region.

Between 1999 and 2002 AIHA supported the participation of partnerships in Georgia in a range of activities aimed at strengthening healthcare management, both within the primary healthcare partnerships, as well as within the HME partnership itself. Cross-partnership activities included meetings and workshops that introduced practical skills and promoted the development of a network of healthcare management professionals.

### Key Achievements of AIHA's Healthcare Management Initiative in the Caucasus

#### Capacity and Competencies

- AIHA conducted a training of trainers workshop on management and leadership to help build regional capacity for health management training by providing participants with the skills and knowledge to serve as faculty for management training in their institutions and regions. Participants learned management and leadership concepts in AIHA's Health Administration Module Series, as well as skills for organizing and facilitating workshops, including presenting, applying adult learning theories, using participatory training techniques and group processes, and leading a faculty team.
- AIHA organized a case method workshop for faculty of its health management education partnerships to allow participants to refine cases started during previous exchanges and to interact with peers and faculty from other countries.
- The Caucasus Region management workshop conducted by AIHA introduced participants to management and leadership concepts and skills. They also learned to define the basic functions of management, apply the management framework to their daily roles as managers, understand a systems view

of health services management, and use leadership, interpersonal, problem-solving, and communication skills.

- In 2003, AIHA conducted an assessment of the outcomes and level of success of the basic healthcare management courses developed and offered to partners over the previous four years. Fifty-four former health management trainees completed the self-assessment survey that was designed to encourage workshop participants to reflect and report on the skills they gained through these workshops and how those skills are being applied. The assessment showed that the trainings enabled participants to gain new skills and apply these skills through projects at their institutions. On average, participants from the Caucasus indicated that they use 69 percent of the competencies. In addition, 60 percent of the respondents were found to possess and use 70 percent of these core competencies.

### Professional Collaboration

Georgian representatives attended annual conferences of AUPHA and the Association for Health Services Research. These events provided an opportunity to gain knowledge of current trends in health management, examine case studies from around the world, and network with counterparts.

## 9. Prevention of Mother-to-Child Transmission of HIV

### Background

As low HIV prevalence countries, nations in the Caucasus Region do not currently have high percentages of pregnant women who are living with the virus. As with other countries in the former Soviet Union, though, the number of women at risk for HIV is increasing at an alarming rate. To address this mounting threat, AIHA replicated the prevention of mother-to-child transmission (PMTCT) program that it successfully piloted in Odessa, Ukraine, at selected sites in Azerbaijan and Georgia.

### Program Goal and Objectives

The overall goal of AIHA's PMTCT Program in the Caucasus was to reorganize the healthcare delivery system – particularly maternal and primary care services — to effectively decrease vertical transmission of HIV in Azerbaijan and Georgia. Specific objectives were to:

- Increase institutional and human resource capacity to deliver comprehensive preventive and curative services to pregnant women and newborns;
- Increase HIV and PMTCT awareness among women — especially women living with or at risk of contracting HIV, HIV-positive mothers, and HIV-positive pregnant women;
- Adapt and effectively implement PMTCT clinical practice guidelines; and
- Improve policies related to referrals for pregnant women living with HIV, as well as training for healthcare professionals.

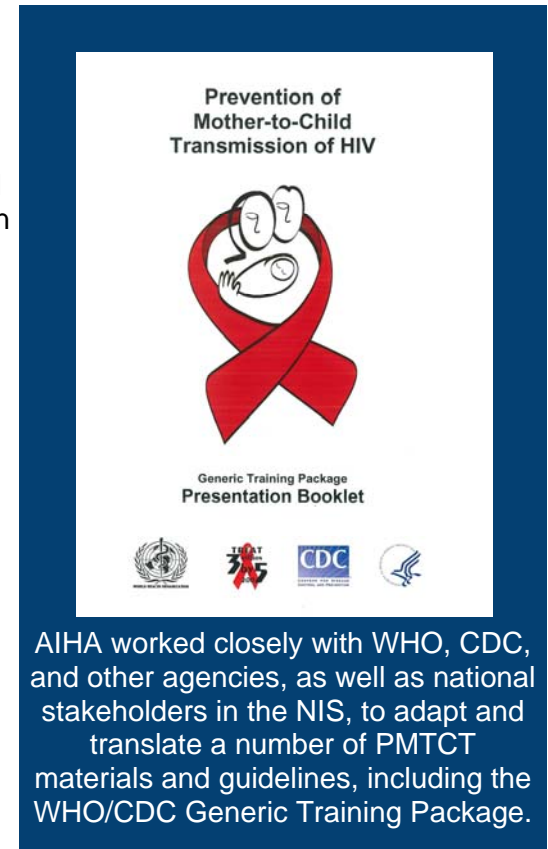
### Caucasus Program Overview

AIHA launched its PMTCT program in the Caucasus in April 2004, working closely with the Georgian Ministry of Labor, Health, and Social Affairs; UNICEF; and other key stakeholders to develop a National PMTCT Strategic Plan for Georgia. In June of that year, AIHA conducted a working meeting in Baku, sharing PMTCT strategies recommended by WHO and UNAIDS, and sharing best practices learned through its highly successful Odessa PMTCT Model Program. Capacity building activities commenced soon after.



## Key Achievements of AIHA's PMTCT Program in the Caucasus

- With USAID and UNICEF support, AIHA conducted a working meeting on the development of a National PMTCT Strategic Plan for Georgia in Tbilisi in close collaboration with the Ministry of Labor, Health and Social Affairs of Georgia and the National AIDS Center. The April 2004 meeting was attended by lead ministry specialists on maternal and child health (MCH), MCH and public health department coordinators, AIDS Center representatives, and the NGO community, as well as AIHA/Tbilisi staff and AIHA's expert resource on PMTCT. AIHA shared its experiences with implementation of an effective PMTCT strategy in Odessa, Ukraine, along with recommendations.
- In June 2004, AIHA initiated a working meeting in Baku to discuss WHO and UNAIDS recommendations on PMTCT and share strategies based on its Odessa PMTCT Model. The meeting resulted in targeted recommendations for the development of a national strategy to address vertical transmission in Azerbaijan, which were presented to the Minister of Health in September 2004.
- In August 2004, AIHA conducted a PMTCT Study Tour and related workshop for health policymakers from Azerbaijan and Georgia. Delegates visited the Southern Ukraine AIDS Education Center in Odessa to learn about the pilot PMTCT project. They also attended PMTCT strategy development sessions and met with staff from the Odessa Oblast Health Administration, maternity house, and representatives of local NGOs and international organizations to gain a better understanding of implementation strategies and potential challenges.
- In 2005, AIHA and key stakeholders selected the Georgian ob/gyn association as the implementing agency for the PMTCT project in Georgia, and the National Reproductive Health Office in Baku as the implementing agency in Azerbaijan.
- Representatives of the Azerbaijani and Georgian implementing agencies attended AIHA's pilot PMTCT training held in March 2005 in St. Petersburg, Russia. The event was conducted by international faculty representing WHO, CDC/FXD, and master trainers from the AIHA PMTCT implementation sites in Ukraine, Russia, and Kazakhstan. The five-day training presented the PMTCT generic training package adapted to the needs of the participating countries.
- In April 2006, 10 Azerbaijani healthcare professionals attended a targeted intensive 10-day PMTCT training course at the Southern Ukrainian AIDS Education Center in Odessa. All participants received master trainer certificates, enabling them to continue dissemination training in PMTCT for healthcare providers in Azerbaijan. The training was funded by the Azerbaijani principle recipient of awards from the Global Fund for AIDS, TB and Malaria.
- In October 2006, an Azerbaijani representative attended the NIS PMTCT Meeting in St. Petersburg, Russia to discuss PMTCT replication and the development of national PMTCT strategies. The newly released WHO/CDC PMTCT Generic Training Package was presented and replication site representatives discussed the adaptation process for the NIS.
- Azerbaijani master trainers conducted three PMTCT workshops at the National Institute of Obstetrics and Gynecology in Baku, where they used the adapted version of the PMTCT Generic Training Package, a curriculum developed by the WHO and the US Centers for Disease Control and Prevention (CDC) in collaboration with AIHA.
- Throughout fiscal year 2007, AIHA continued to work on the development and adaptation of new educational course materials, including the revision and updating of previously developed curricula and the finalization of national adaptations and certification of the PMTCT Generic Training Package.
- In February 2008, a representative of Georgia's National Center of Infectious Diseases AIDS and Immunology Research Department in Tbilisi attended the NIS Editorial Committee Meeting in Kyiv, Ukraine.



## 10. Non-communicable Disease Management

### Background

Non-communicable diseases represent the major causes of morbidity and mortality in Georgia and Azerbaijan, as they do in many other countries worldwide. The World Health Organization Office for Europe reports that cardiovascular diseases account for 35.8 percent of disability adjusted life years (DALYs) and 74 percent of total deaths in Georgia. High blood pressure and elevated blood cholesterol are the major risk factors contributing respectively 48.8 percent and 22.9 percent to mortality rates and 23.5 percent and 11.9 percent to DALYs. Diabetes is estimated to be the fourth most common risk factor contributing to total deaths and DALYs, according to WHO's European Health Report 2005. In Azerbaijan chronic diseases accounted for 79 percent of all deaths in 2002, 51 percent of those were caused by cardiovascular disease. Both countries face similar escalating rates of premature heart disease, stroke, type 2 diabetes, and cancer.

### Program Goal and Objectives

The overall goal of AIHA's Non-communicable Disease Management Program is to strengthen public health approaches to controlling common chronic diseases, placing a particular emphasis on primary level prevention and control. The program supported USAID and national primary healthcare development strategies and, in Georgia, the implementation of national guidelines and evidence-based decision making in medical practice. Specific objectives were to:

- Promote lifestyle changes, such as diet, physical activity, and smoking cessation, among high risk groups to foster chronic disease control and increase public and professional consciousness and knowledge about the close correlation between risk factors and chronic diseases manifestation;
- Implement skills and tools for common chronic diseases management at the primary healthcare level according to newly issued national guidelines, as well as international standards for evidence-based management of chronic conditions, such as those developed by WHO, JNC-VII, NCEP ATP-III, and the ADA;
- Support primary healthcare facilities in the implementation of clinical guidelines for the management of hypertension, diabetes, and hypercholesterolemia according to current evidence-based standards of care;
- Increase screening and identification of high risk individuals and provide appropriate referrals for high quality, primary level disease management services; and
- Effectively monitor and manage risk factors as a routine primary healthcare practice.

### Caucasus Program Overview

AIHA piloted targeted primary healthcare programs in Azerbaijan and Georgia where high rates of morbidity and mortality from chronic diseases continue to be a problem. These programs focused on building capacity and developing interventions for early detection, screening, and management of chronic diseases. The success of the programs suggests that cost-effective, evidence-based solutions and capacity strengthening activities for local healthcare providers can quickly and dramatically effect morbidity and mortality related to non-communicable diseases. Detection and control of high blood pressure, for example, is a simple and inexpensive intervention. Clinical evidence shows that hypertension treatment significantly reduces premature deaths and disability.

Recognizing that blood pressure control programs are considered the most cost-effective strategy for reducing the risk of cardiovascular disease, AIHA developed a community-based program aimed at increasing detection and control of high blood pressure in 2001. The program was implemented within the framework of the Mtskheta-Mtianeti Milwaukee partnership during 2001-2003 and was successfully replicated in Shida Kartli Region in 2005 by the Gori/Milwaukee partners. In Azerbaijan, AIHA's primary healthcare partnerships have implemented numerous similar community-based disease prevention and health promotion programs. In addition, AIHA designed the Community Chronic Disease Management Project, which was piloted in the Guria and Shida Kartli regions of Georgia in 2007.

## Public-Private Partnership Targets Chronic Diseases at the Community Level

Non-communicable diseases represent major causes of morbidity and mortality in Georgia. WHO-Europe reports that cardiovascular diseases account for 74 percent of all deaths in Georgia and more than one-third of all disability adjusted life years (DALYs).



**A clinician monitors the blood pressure of a hypertension patient in Gori, a city in Georgia's Shida Kartli Region.**

AIHA's Community Chronic Disease Management Program, which was piloted in Georgia's Guria and Shida Kartli regions in 2007, represents a cost-effective model intervention targeting cardiovascular diseases and diabetes.

Some 300 patients took part in the project, which adopted a proactive screening, prevention, and treatment strategy. It also strengthened institutional and human resource capacity at primary care facilities and pharmacies in both regions and stressed patient education on common lifestyle risk factors.

AIHA partnered with a local healthcare company, PSP Group, and its associated pharmaceutical manufacturer, which donated 30 percent of the medicines for the project.



**Also in Gori, a technician draws blood from a patient enrolled in the chronic disease management program.**

Results were impressive: 88 percent of patients achieved normal blood pressure levels; hyperglycemia was reduced by 36 percent; and total cholesterol levels decreased 7 percent. Lifestyle factors improved as well, with drops in tobacco use, poor eating habits, and sedentary behavior.

The project helped build health system capacity in the target regions by training nine physician-nurse teams; implementing evidence-based clinical practice guidelines for hypertension and diabetes; and creating a structured communication chain among primary care providers, specialists, and retail pharmacies. In addition, a prescription medication system, which is not the current norm in Georgia's ambulatory clinics, was introduced.

According to Dr. Zaza Bokhua, advisor to Georgia's Minister of Labor, Health, and Social Affairs, "Primary care and prevention is a top priority for our health reform efforts. These model chronic disease programs match our objectives very well."



**A patient in Guria waits for lab results after having a consultation and screening tests.**

The lessons learned from the Community Chronic Disease Management Program indicate that short-term targeted interventions can produce significant results. Indeed, marked improvements in clinical outcomes were achieved and the project clearly demonstrated that the pharmaceutical sector can be an important partner in public health interventions.

PSP Group successfully replicated this methodology at their primary care clinics in Tbilisi. Plans to replicate the model in other communities are under way.

## Key Achievements of AIHA's Chronic Disease Management Program in the Caucasus

- The Mtskheta-Mtianeti/Milwaukee partners launched a High Blood Pressure Control Program in 2001, enrolling a total of 562 patients. The program quickly expanded to a total of eight districts in the region. Within one year, 68 percent of those enrolled in the pilot district achieved their desired blood pressure levels, while across all eight districts the average was 53 percent achieving the desired results. Patients averaged a 12 percent decrease in systolic pressure and a 10 percent drop in diastolic compared to baseline data.
- The Mtskheta High Blood Pressure Control Program demonstrated significant improvements in blood pressure control among patients and was implemented through a combination of healthcare worker training, patient education, and an inexpensive treatment protocol using diuretics and beta-blockers.
- In 2005, AIHA's Gori/Milwaukee partners replicated the High Blood Pressure Control Program in Kareli and Gori, two cities in Georgia's Shida Kartli Region. The program was then expanded to include two new districts, Khashuri and Kaspi. By the end of the program, 296 patients out of the 360 initially enrolled remained active participants.
- AIHA's primary healthcare partnerships in Mtskheta and Gori hosted several conferences and workshops on hypertension control for area physicians and nurses.
- In total, more than 562 hypertensive patients benefited from the program — 70 percent of whom were able to control their condition with lifestyle changes and available medications. Since the beginning of the program, there have been no deaths from hypertension and the rate of hospitalization and complications have been lowered.
- The High Blood Pressure Control Programs proved that it is possible to improve hypertension control quickly, easily, and with limited resources at the community level by introducing active antihypertensive treatment at existing primary healthcare centers. These programs also proved that treatment based on standardized methods, continuous training of healthcare workers, provision of medications, and permanent patient observation appeared to be effective in every community and patient group regardless of age, sex, initial blood pressure level, and concurrent disease.
- In 2006, USAID commissioned a Europe and Eurasia-wide assessment of best practices in chronic disease management. This report — which surveyed more than 100 projects and was prepared by Johns Hopkins University Bloomberg School of Public Health — highlighted AIHA's High Blood Pressure Control Program in Georgia as one of four successful interventions that proved sustainable once funding ended. Key criteria for successful programs were low cost per person and low cost per disability adjusted life year.
- In 2006, AIHA launched the Common Chronic Disease Management Program, conducting a series of trainings to equip primary care providers with appropriate knowledge, skills, and specific responsibilities for screening and follow-up for hypertension and other chronic diseases.
- AIHA and its partners supervised and supported screening, intervention, follow-up, and referral activities, as well as monitoring and quality control procedures.
- Partners implemented the same treatment protocol for hypertensive patients that was successfully employed by the Mtskheta-Mtianeti/Milwaukee and Gori/Milwaukee partners. A thiazide diuretic and beta-blocker were provided free of charge to program participants.
- Some 300 adult patients at polyclinics in Gori and Ozurgeti were selected to participate in the program and screened for hypertension, elevated lipids, and diabetes using specially designed protocols. Appropriate medical care was offered to adults diagnosed with one or more of these three chronic diseases.
- The program called for endocrinology consults along with standard evaluation of health behaviors and major risk factors, including blood pressure, body mass index, and glucose and LDL cholesterol analysis.
- Through the program, 88 percent of all patients enrolled achieved normal blood pressure. Other key outcomes include a 36 percent reduction of hyperglycemia; 7 percent reduction of total cholesterol; 40 percent reduction of tobacco use (6 out of 15 patients quit); 11.3 percent reduction of unhealthy dietary habits; and a 6.5 percent improvement in regular physical exercise.
- AIHA collaborated with the Georgian health sector company PSP Group and its associated pharmaceutical manufacturer, GMP, to implement the Community Chronic Disease Management Program. PSP donated 30 percent of the pharmaceutical supplies for the activity and the results of the joint program were reported at a special conference in Tbilisi sponsored by PSP group and attended by 50 cardiologists, endocrinologists, primary care providers, and representatives of professional associations.

- The Community Chronic Disease Management Program contributed to the development of health system capacity in the target regions by training nine physician-nurse teams that serve a catchment area of 13,000 people; implementing evidence-based clinical practice guidelines for management of hypertension and diabetes at target institutions; establishing a structured communication chain among primary care providers, specialists such as cardiologists and endocrinologists, and retail pharmacies; and introducing a prescription medication system, which is not the current norm at ambulatory settings in Georgia.
- PSP Group replicated the Community Chronic Disease Management Project at their primary care clinics in Tbilisi, initially targeting more than 200 patients.
- AIHA and its partners developed various training patient education materials and brochures, as well as written protocols for primary healthcare teams on case management, patient enrollment, treatment, and follow-up care, as well as forms for lifestyle and risk factor evaluation, follow up, and recommendations.
- AIHA's non-communicable disease activities in Azerbaijan were implemented through its primary healthcare partners and focused primarily on bronchial asthma, diabetes, hypertension, and high cholesterol.
- AIHA's Baku/Portland partners implemented a program on bronchial asthma, enrolling a total of 123 patients from Binagadi and Narimanov districts — 70 percent of whom achieved optimal control of their conditions. They also developed programs that resulted in a 30 percent decrease in the number of patients hospitalized for arterial hypertension.
- Members of the Ganja/Livermore partnership identified asthma, diabetes, and hypertension as key target areas and replicated successful programs addressing each condition based on models piloted by the Baku/Portland partners, as well as other AIHA models of care. The community-based asthma and hypertension prevention programs they implemented at Ganja polyclinics resulted in 1,428 patients being screened for hypertension and 1,543 people were screened for bronchial asthma since 2006. Subsequently, 243 patients were enrolled in the blood pressure management program and 193 in the bronchial asthma program.





## V. AIHA Conferences

A signature component of AIHA's partnership program is regularly held regional and all partnership conferences that provide a forum for networking and sharing ideas, best practices, and lessons learned among partners. The Caucasus partners actively participated in these conferences, which provided them with opportunities to practice professional presentation skills, meet colleagues from other countries and regions, and gain information and knowledge on topics of common interest.

Conferences for partnerships in the Caucasus promoted cooperation among countries in a region that has experienced territorial tensions by building bridges between healthcare providers and communities. Between 1999 and 2008, dozens of Georgian and Azerbaijani partners benefited from their participation in the four annual partnership conferences, three Caucasus regional partnership conferences, and a final Azerbaijani conference convened by AIHA. These events are briefly described below in reverse chronological order.

### **Caucasus Regional Dissemination Conference, Tbilisi, Georgia, May 2-3, 2007**

The Caucasus Regional Dissemination Conference highlighted 15 successful years of healthcare partnerships and cross-partnership programs in the Caucasus Region. More than 70 AIHA partners from Georgia and Azerbaijan, government officials, and representatives of USAID and other donor agencies, as well as local and international NGOs, participated in the event. The conference provided an opportunity for international donors, national ministries of health, and local governments and NGOs to share best practices and lessons learned, as well as to discuss ideas for future cooperation. Specific topics included integrated healthcare service delivery models, prevention and control of non-communicable diseases, human resource development, continuous quality improvement, evidence-based practice, effective models of primary and hospital care, infectious diseases, and women's health, and maternal and child health. During the conference opening ceremony US, Azerbaijani, and Georgian partnership institutions were awarded appreciation plaques presented by the Minister of Health of Georgia, the USAID Deputy Mission Director, the Head of the Health and Social Committee of the Parliament of Georgia, and an Azerbaijani Ministry of Health representative. The conference was aired on several local TV stations.

### **Azerbaijan Dissemination Conference, Baku, Azerbaijan, May 7, 2007**

The Azerbaijani Ministry of Health hosted a Dissemination Conference to highlight the accomplishments of AIHA's partnership programs in the country since 1999. US and Azerbaijani representatives of current and graduated partnerships were joined by government officials, and representatives of USAID and other donors. The conference brought together many organizations that have helped strengthen the Azerbaijani national healthcare system through participation in AIHA programs. The Deputy Minister of Health of Azerbaijan and the USAID Country Coordinator in Azerbaijan made opening remarks at the conference. The event emphasized the impact of AIHA programs made over the past years in enhancing and developing innovative educational and training programs for health professionals, as well as the accomplishments of individual partnerships. Presentations by current and graduated partners highlighted best practices and led to discussions about the common challenges partners faced in addressing healthcare needs as part of ongoing national health reforms. The conference also provided an opportunity to examine ideas and trends for the future development of partner institutions, such as the further development of primary healthcare in Azerbaijan, women's and adolescent health in primary care settings, and human resource development.

### **Caucasus Regional Conference on “Preventing Chronic Disease - International and National Perspectives,”** Tbilisi, Georgia, November 29-30, 2007

AIHA, in collaboration with the WHO Regional Office for Europe, conducted the first Caucasus Regional Conference on “Preventing Chronic Disease - International and National Perspectives.” The purpose of the two-day meeting was to address the burden of chronic disease in the region and discuss and identify national and regional strategies for overcoming related health challenges. Representatives of ministries of health, medical universities, professional associations, AIHA primary healthcare partnerships, WHO, and USAID and other donor and international organizations attended the event. All three Caucasus countries — Armenia, Azerbaijan, and Georgia — were represented at the conference. Opening remarks were provided by the USAID/Tbilisi Mission Director, Deputy Ministers of Health of Georgia and Azerbaijan, and the Deputy Director of the Armenian National Institute of Health. The First Lady of Georgia attended the final session and made closing remarks.

### **Caucasus Regional Partnership Conference,** Tbilisi, Georgia, Oct. 18-19, 2005

The conference brought together health professionals from throughout the region, officials from health ministries, partners from the United States, representatives of donor agencies, and collaborating NGOs. Participants discussed major health challenges in the region and the many accomplishments of AIHA partnerships in addressing these challenges. The growing threat of infectious diseases such as HIV/AIDS and multi-drug resistant TB and the possibilities for integrating prevention and treatment services into primary care were also discussed. The conference was attended by graduated AIHA partners and representatives from the ministries of health of Georgia, Azerbaijan, and Armenia. Participation of the Armenian delegation was made possible by funding from the Eurasia Foundation.

### **Regional LRC Dissemination Conference,** September 2005, Almaty, Kazakhstan

As part of AIHA’s LRC project, the “Regional LRC Dissemination Conference on the Use of Information and Communication Technologies in Health Care: Models of Best Practice from AIHA Partnerships in the NIS and CEE and Advanced Topics” training workshop was held in Almaty, Kazakhstan, for the representatives of LRCs in the Caucasus, Central Asia, Central and Eastern Europe, and Russia. Each Caucasus LRC sent chief administrators of partnership institutions, information coordinators, and specialists in evidence-based practice and information technology to the event. Caucasus LRCs showcased their experiences and best practices in the areas of information access, community outreach, sustainability, and evidence-based practice at the conference. New topics such as distance learning and grant-writing were presented by AIHA’s ICT staff and other experts, and advanced training in information retrieval, evidence-based practice, information systems planning, and Web design was provided.

“The success of AIHA’s partnership program is a result of the extraordinary commitment and expertise of the participating US and host country volunteers and institutions. They have laid a strong foundation for all programmatic endeavors.”

— *Scott Taylor, USAID Mission Director, Baku, Azerbaijan*

### **Caucasus Regional Partnership Conference,** Tbilisi, Georgia, July 9-10, 2003

AIHA’s Caucasus Regional Partnership Conference brought together representatives of current and former partnerships in Armenia, Azerbaijan, and Georgia, along with government officials from all three countries and representatives of USAID. Particular areas that were covered included improved service delivery, healthcare management and financing, infectious disease control, quality improvement, and training. The meeting also provided an opportunity for the partners to work in country-level groups with USAID staff to better support regional strategies and coordinate with other donor organizations.

### **Caucasus LRC Dissemination Conference,** April 22-25, 2002, Tbilisi, Georgia

The Caucasus LRC Dissemination Conference and site visits were held in Tbilisi, Georgia. This four-day event involved current and graduated partnership LRC staff, as well as partnership coordinators. The event included two days of site visits to the LRCs in Tbilisi, where effective use of information technology applications was demonstrated. Immediately following the visits, AIHA sponsored a dissemination conference

where partners shared best practices and lessons learned with an emphasis on sustainability.

### **2002 AIHA Annual Partnership Conference, Washington, DC, July 31-August 2, 2002**

In addition to celebrating the organization's 10-year anniversary, the 2002 conference focused on disseminating partnership successes and discussing the emerging health challenges created by HIV/AIDS. More than 500 health professionals representing current and graduated partnerships, as well as numerous VIPs and other guests, participated. Graduating partnerships were recognized during a ceremony on the conference's first day. All active and some graduated partnerships in the Caucasus Region participated and several Caucasus partners made presentations during the plenary and breakout sessions.



### **2001 AIHA Annual Partnership Conference, Washington, DC, April 9-11, 2001**

The conference theme of "Primary and Community-based Healthcare Solutions: Building on Models of Change," was in keeping with AIHA's programmatic emphasis on developing community-based approaches to improving the quality of primary healthcare in Eurasia. Conference participants included key healthcare leaders from 18 countries, including the ministers of health of Kazakhstan and Tajikistan, and more than 500 health professionals from Eurasia and the United States. AIHA partners participated on panels throughout the conference to present their successful healthcare models and ways they have met the challenges of providing primary healthcare services and training family physicians. Additional topics included health promotion and education, effective methods of conducting needs assessments, the development of clinical practice guidelines, methods to encourage community involvement, infection control and multi-drug resistant strains of infections, integrated approaches to women's health services, and mother-to-child transmission of HIV.

### **Caucasus Regional Partnership Conference, Tbilisi, Georgia, February 28-March 2, 2001**

Representatives from all Caucasus partnerships met in Tbilisi to participate in the Caucasus Regional Meeting. The US and NIS representatives from each partnership continued discussions begun in Budapest on cross-partnership collaboration in the region, and shared challenges and successes for future partnership growth and development.

### **Conference on Substance Abuse Prevention, 2001, Gudauri, Georgia**

In collaboration with the Substance Abuse and Mental Health Services Administration (SAMHSA) and the US Department of Education, AIHA hosted a conference on substance abuse prevention at the community and primary care provider levels. AIHA partners, WWC staff, and representatives of the region's ministries of health attended the three-day meeting in Gudauri, Georgia. English and Russian curricula and resources were distributed to workshop participants and local community agencies working in the area of substance abuse and mental health. NIS faculty who underwent a previous training of trainers program in substance abuse prevention served as co-facilitators.

"In addition to their excellent content, AIHA conferences and workshops provide opportunities for essential networking of partners and attract government officials who have the capacity to change national healthcare policy."

— From the 2001 mid-term evaluation report on AIHA partnership programs in the NIS/CEE conducted by the Continuing Evaluation Panel on behalf of USAID (June 2001)

### **2000 AIHA Partnership Conference, Budapest, Hungary, July 17-19, 2000**

Some 250 healthcare professionals from Eurasia and the United States participated in the 2000 conference, which was titled, "Developing Common Strategies for Improving Primary Care and Community Health." The conference offered plenary presentations and breakout sessions focusing on community mobilization, health promotion strategies, and practical skills-building for primary care providers. Partnerships also met in sub-regional sessions to share best practices and facilitate coordination on issues related to workplan implementation, primary healthcare clinical practice guidelines, and performance indicators and outcomes. Throughout

“The relationships that were built and the goodwill that was generated by the partnerships themselves was clearly evident when people gathered at conferences, trainings, and working group meetings. Many partners became like family to one another.”

— *Forest Duncan, Senior Health Sector Advisor, USAID Europe and Eurasia Bureau*

the event, partners had opportunities to meet and work on their respective workplans, and US partners attended meetings specially designed for partnership coordinators on administrative and financial issues and AIHA’s evaluation activities.

**Neonatal Dissemination Conference, April 11-14, 2000, L’viv, Ukraine**

The conference addressed a wide range of topics affecting neonatal care, including strategies for prevention and management of healthcare problems following the resuscitation of high-risk newborns, neuro-developmental follow-up, ethical and moral issues encountered in the care of newborns, and strategies for program dissemination and sustainability. The latter included peer review, quality assurance, project evaluation, and governmental support to help improve newborn and infant healthcare. The creation of an international steering committee on newborn care was considered during the conference. Three medical professionals from Azerbaijan and four from Georgia attended the event.

**International Nursing Conference on Primary Healthcare: Methods, Models and Practice**

April 9-14, 2000, Tbilisi, Georgia

Approximately 75 nurses representing new AIHA partnerships in other countries and 50 Georgian nurses attended the conference. The conference focused on the emerging role of primary healthcare nurses in the NIS. Faculty included graduates of AIHA’s International Nursing Leadership Institute. On the final day of the conference, nurses from West NIS, the Caucasus, Central Asia, and Russia discussed issues pertinent to their particular regions and planned future activities in primary care nursing.

**1999 AIHA Annual Partnership Conference, Arlington, Virginia, November 14-16, 1999**

Representatives of all current partnerships attended AIHA’s 1999 Annual Partnership Conference, titled “Partnering for Healthier Communities.” Approximately 700 partners from Eurasia and the United States joined distinguished guests for the event, which focused on past successes of partnerships, as well as future directions in primary healthcare and community health for new partnerships. Selected partners also participated in pre- and post-conference meetings addressing health management education, infection control, women’s health, and emergency medical services.





## VI. Conclusions, Challenges, and Lessons Learned

**A**IHA's 19 partnerships and numerous cross-partnership programs in the Caucasus Region made significant contributions to improving healthcare services in the country. During 1999-2007, together with its NIS and US partners, AIHA implemented a successful program that leaves behind a legacy of new institutions and services such as model primary care clinics and training centers, Women's Wellness Centers, an Infection Control Training Center, a model blood bank, Nursing Resource Centers, modern diagnostic and screening exams, and innovative community education and outreach programs. More recently, partners developed the first Master of Business Administration Programs in Hospital Administration and Health Insurance Management and produced a new generation of health administrators capable of playing a leading role in their country's reform efforts.

In addition to the many facilities and services that provide tangible evidence of success, partnerships effected change on a more fundamental level. They enabled participants to develop new conceptual frameworks, gain new knowledge and skills, and bring about a profound shift in thinking about health and healthcare. Partners did more than reform services, develop protocols, and train healthcare professionals. The real success of the Caucasus Health Partnership Program is that it created local capacity that not only serves as a foundation for continued reform, but also as a model that can be utilized and adapted to address new and ongoing challenges.

### Integration and Improvement of Services

AIHA partnerships and cross-partnership activities have focused on improving the quality and scope of healthcare services in Armenia, Azerbaijan, and Georgia by adopting an approach that is comprehensive, integrated, and more responsive to the needs of the population. Partners have emphasized community-based programs that encourage a multidisciplinary team method that not only includes physicians, nurses, and other care providers, but patients as well — all with a view toward improving and expanding primary care and health promotion services. Because practitioners have gained a more expansive view of their patients' health, they have significantly increased their emphasis on preventive care, health screenings, and outreach activities. Targeted populations are receiving more comprehensive care through the Primary Healthcare Centers and Women's Wellness Centers. And, most importantly, these individuals overwhelmingly report that the quality of the care they are receiving has improved greatly.

Nurses, in particular, have played a key role in improved services as they have taken on increased roles and responsibilities in addition to working more collaboratively with physicians. Local trainers were selected and trained in an effort to build capacity and sustainability for training and continuing education of nurses. They are more active in the provision of patient care, are leading community health activities, and strengthening education and training for a future cadre of nurses. For example in Georgia, new nursing services were established at AIHA's partner hospitals, Gudushauri National Medical Center and Iashvili Children's Central Hospital, new documentation forms were developed, clinical curricula were developed, the Nursing Resource Centers were opened, and the role of nurses has changed through the empowerment of nurses to provide actual care to patients.

## Learners, Leaders, and Change Agents

The healthcare professionals in the Caucasus who were involved in AIHA partnerships and programs have benefited not only from the technical skills their counterparts shared, but also from the collaborative learning process that drives partnership activities. Thousands of doctors, nurses, and other healthcare professionals and managers have received training through AIHA and its partnership activities between 1998 and 2008. Equally important, these professionals have used their new skills and knowledge to create in-service training programs for their colleagues, as well as more formal educational programs for future doctors, nurses, and managers. The Caucasus partners have developed a new view of their role, coming to see themselves not just as providers or managers of healthcare, but as educators and agents of change as well. This is especially the case with the nurses, many of whom now have a new-found professionalism and pride in their profession, and demonstrate critical leadership, educational, and clinical skills.

## Sustainability of Programs

AIHA's partnership program leaves behind affordable models of care, sustainable institutions, and the human capacity for ongoing education and change. Some of the most significant results of AIHA's program in the Caucasus are low-cost interventions, such as the many community education and outreach services – including the High Blood Pressure Control Program and the Common Chronic Disease Management Program -- that have continued long after the formal end of the partnerships. These programs yield significant results in early diagnosis and treatment, promotion of healthy lifestyles, and disease prevention, and ultimately lead to lowered morbidity and mortality.

The partnership program contributed to sustainability by mobilizing and enabling communities to take increasing responsibility for their own health matters. These communities are now more likely to be able to identify future problems affecting their community's health and design workable solutions. Partnerships also played a role in accelerating health policy reforms at the national level by creating new institutional capacities and developing model programs that could be scaled up.

In addition, all of the new centers established by AIHA partnerships have been able to continue full activities after funding ended. The model primary care centers created under the Mtskheta, Gori, Guria, and Ganja partnerships continue providing exemplary patient care. The family medicine trainers who were trained through the partnerships continue to train rural providers. The Baku Primary Healthcare Center serves as a clinical base for the training course on family medicine at the Institute of Postgraduate Medical Education and trains staff from other primary care facilities. The Kutaisi WWC continues to operate as a sustainable center and partners established the NGO "Hera," which is dedicated to improving women's health in the Imereti Region. The Tbilisi ICTC established at the National Center for Disease Control continues to provide trainings throughout Georgia with funding from WHO, UNICEF, and the Ministry of Labor, Health, and Social Affairs. The Jo Ann Medical Center Blood Bank continues to operate as a sustainable and successful center. Since 2004 the blood bank has led efforts in strengthening the national safe blood program funded by the Global Fund to fight AIDS, Tuberculosis and Malaria (GFATM). The Baku WWC successfully introduced a patient-centered approach to women's healthcare with a range of services beyond those offered by traditional women's consultation centers in the country, providing a wide range of preventive and treatment services through a client-centered approach to its customers and addressing the health needs of women of all ages. Clinical practice guidelines are also implemented at the center.

Nine out of 13 previously established LRCs are continuing to maintain Internet connectivity on their own, although one LRC in Georgia has closed due to the liquidation of the National Institute of Health (the former National Health Management Center).

Other centers established by AIHA partnerships in the previous funding cycle, such as Nursing Resource Centers, an EMSTC, and an NRTC have also been able to sustain their activities without continued AIHA funding.

## Building Relationships

An important legacy of the partnership program is the relationships formed between US and NIS partners, among NIS and other Eurasian partners, and among the Georgian, Armenian, and Azerbaijani partners themselves. If past experience is a guide, these relationships can be expected to last long past the end of the formal partnership arrangements. In fact, some US and NIS partners have sought new funding to continue their joint efforts. Chances are also very good that the Georgian and Azerbaijani partners will continue to communicate with and learn from AIHA's broader family of partnerships for many years to come.

For the local Georgian and Azerbaijani partners, participation in the AIHA program has brought them together through shared experiences and shared successes. Among the Americans who participated, there is an appreciation of the resource-poor conditions under which the Georgian and Azerbaijani partners work. The goodwill exhibited by individuals at all levels of the partnership program has resulted in a lasting and valuable contribution to international understanding and respect.

AIHA has also developed successful public-private partnerships in Georgia and established a highly successful partnership with PSP Group and its GMP pharmaceutical manufacturer to develop and implement a model Community Chronic Disease Management Program in the Guria and Shida Kartli regions of Georgia. The project targeted 300 patients in the two communities and also focused on strengthening the capacity of the primary care institutions and pharmacies. Thirty percent of the pharmaceutical supplies of the project were contributed by PSP pharmaceuticals in the form of donated and discounted drugs.

Through its Strengthening Healthcare Management Education in Georgia Program, AIHA is helping to prepare a new generation of health administrators capable of playing a leading role in the country's reform efforts. Responding to the growing demand for professional health services and insurance managers because of the rapid privatization of the health sector in Georgia, the Health Management Education Partnership has gained recognition from the private healthcare sector. AIHA helped to develop promising public-private partnerships between its Georgian partner universities and the private healthcare industry, including large local pharmaceutical companies and hospital networks such as "Aversi" and "PSP." Some 45 percent of the students in the program are financed by their employers, which include insurance companies, pharmaceutical companies, and the hospital sector.

## Remaining Challenges

While AIHA and its partners have made many important contributions to the efforts of USAID and the ministries of health in Georgia and Azerbaijan to improve healthcare for the citizens of both countries, their respective health sectors continue to face serious challenges. The most significant obstacles AIHA and its partners faced were related to changing government policies and priorities. In Georgia, for example, the primary healthcare partnerships faced difficulties in renovating facilities that would house their model primary healthcare training centers and demonstration sites. The construction and renovation of the new primary healthcare facility in Gori was not completed by the time the partnership graduated due to uncertainty regarding the final location of the polyclinic and the ongoing health sector privatization initiatives. The construction and renovation of a similar facility in Ozurgeti was also not completed by the time the partnership graduated although the decision to participate and co-fund the renovation of the model center there was made by the local municipality and the Ministry of Labor, Health, and Social Affairs. The family medicine trainers and other partners in the Mtskheta, Gori, and Guria regions all established local NGOs in 2008 to continue and sustain family medicine training, community health activities, and other partnership initiatives.

Additional challenges with implementation of some clinical practice guidelines have arisen because some of the protocols require treatment that go beyond the state standards of care, and are thus not reimbursable by the government.

Government reform and restructuring efforts in some cases resulted in closing down certain partner institutions, such as the National Institute of Health in Georgia and its regional sites. However the majority of the health management education resources and capacity were sustained in faculty and educational

programs that are now located at other educational institutions.

Despite these challenges, AIHA's programs have shifted the paradigm of how stakeholders perceive and interact with — and within — the healthcare system in both countries. Having built institutions and programs that are both more relevant and more responsive to the populations they serve, healthcare leaders in Georgia and Azerbaijan are well poised to sustain these services and seek out new opportunities to improve care in the coming years.

### Political Reforms and Changing Priorities

As noted above, AIHA and its partners witnessed changing government health policy reforms and priorities over the past 10 years. The partners have always been at the forefront of the policy reform agenda, responding to many immediate needs and priorities. There are numerous examples of these contributions starting from the development of the national safe blood program, primary care and family medicine, neonatal resuscitation curricula, EMS and disaster response, infection control, women's health, and more recently, developing a model hospital master plan in Azerbaijan and healthcare services administration in Georgia. Over the course of these years, AIHA was successful in developing trustworthy, strong, and sustainable relationships with the ministries of health in Georgia and Azerbaijan and often led efforts in health policy discussions and coordination of international assistance.

### Certification and Ministry Endorsement

AIHA has always worked to ensure that new educational policies and clinical initiatives are well coordinated and endorsed by the national government bodies. These include training programs and curricula, faculty and provider certification, and approval of clinical practice guidelines and other recommendations. The most noteworthy examples include: developing standard operating procedures (SOPs) for the model JAMC blood bank in Georgia that are now approved and replicated at all blood banking institutions throughout the country; developing hospital infection control guidelines at the Georgian National Center for Disease Control that were also approved by government decree; and developing and receiving national approval of neonatal resuscitation training curricula in both Georgia and Azerbaijan, as well as primary healthcare clinical practice guidelines, health management education, nursing, and many other educational programs. The approval in many cases was a long-term and complicated process, but equally important to ensure sustainability of highly successful partnership results.



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