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Healthcare System Strengthening in Armenia - Final Report

June 2013

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4550 Montgomery Avenue, Suite 800 North
Bethesda, MD 20814
301.347.5000 **I** 301.913.9061

Healthcare System Strengthening in Armenia

Final Report

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Acronyms

ACSM	Advocacy, Communication, and Social Mobilization
BBP	Basic Benefit Package
BCC	Behavior Change Communication
CME	Continuing Medical Education
CSE	Civil Society Engagement
CVD	Cardiovascular Diseases
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
EBM	Evidence-Based Medicine
EMS	Emergency Medical Services
FM	Family Medicine
FMIP	Family Medicine Independent Practice
FP	Family Planning
FY	Fiscal Year
GFATM	Global Fund to Fight AIDS, TB, and Malaria
GOA	Government of Armenia
HERC	Health Education Resource Center
HF	Healthcare Finance
HMIS	Healthcare Management Information System
HSSD	Health and Social Security Department
HSPA	Health System Performance Assessment
HS-STAR	Healthcare System Strengthening in Armenia
IC	Infection Control
LAAD	Legislative Agenda Advocacy Day
MC	Medical Center

MCH	Maternal and Child Health
MDR	Multi-Drug Resistant
MIS	Management Information Systems
MOH	Ministry of Health
MTEF	Medium-Term Expenditure Framework
NCD	Non-Communicable Diseases
NGO	Non-Governmental Organization
NHA	National Health Accounts
NIH	National Institute of Health
NTP	National Tuberculosis Program
PE	Public Education
PHC	Primary Health Care
PMP	Performance Management Plan
PPP	Public Private Partnership
QA	Quality Assurance
QCC	Quality Control Commission
QI	Quality Improvement
QIB	Quality Improvement Board
QM	Quality Management
QoC	Quality of Care
RH	Reproductive Health
RSML	Republican Scientific Medical Library
SHA	State Health Agency
SHAI	State Hygiene Anti-epidemic Inspectorate
SCNIP	Scientific Center of Nosocomial Infection Prevention
TB	Tuberculosis
TOT	Training of Trainers
USAID	United States Agency for International Development
WB	World Bank
WG	Working Group
WHO	World Health Organization
YSMU	Yerevan State Medical University

Acknowledgments

The Healthcare System Strengthening in Armenia (HS-STAR) Project would like to thank the Government of Armenia, particularly the Ministry of Health, for the close partnership over the past two years. The project would also like to acknowledge USAID and all partners for their collaboration and support in strengthening the health care system in Armenia.

Executive Summary

1. Background

Since independence, Armenia has taken measures to reform and restructure its health system and to improve the delivery of priority services to its population. With technical assistance and support from the U.S. Agency for International Development (USAID), the World Bank, the World Health Organization, and other development partners, Armenia has made progress in strengthening primary health care (PHC) and maternal, neonatal, and child health (MNCH) services, introducing new health financing systems, improving continuing medical education, and introducing modern standards of care. As a result of these efforts, health indicators have shown improvement since 2000. More expectant mothers receive early prenatal care, post-partum hemorrhage rates have decreased, and breastfeeding rates are increasing. Infant and childhood mortality has declined over the past 15 years, although childhood malnutrition remains an issue. Despite this progress, Armenia continued to operate under two inter-related constraints that impede successful implementation and institutionalization of reforms and further improvements in health outcomes. Many health policies and strategies (even when they were strong) remained on paper and were not implemented. Capacity and motivation to implement health reforms and service delivery improvements within government structures and health facilities remained limited. The USAID Healthcare System Strengthening in Armenia (HS-STAR) Project was designed to address these constraints.

2. Project Overview

The HS-STAR Project ran from January 2011 through March 2013. HS-STAR was funded by USAID and was implemented by Abt Associates. The project built on more than 10 years of successful USAID investment in the health sector in Armenia.

The goal of HS-STAR was to address key constraints in health financing, leadership and governance, human resources, and information systems that impede access to and delivery of quality health services in Armenia. The project relied on an approach that strengthened the core functions of the health system while improving the quality of care and increasing population knowledge in priority service areas, including maternal and child health (MCH), reproductive health and family planning (RH/FP), tuberculosis (TB), non-communicable diseases (NCDs), and emergency medicine. The vast majority of activities were implemented through or in close collaboration with counterparts. Whenever

possible, HS-STAR coordinated activities with other development partners, including the World Health Organization (WHO), World Bank, Global Fund to Fight AIDS, TB, and Malaria (GFATM), UNICEF, World Vision, Medicins San Frontieres, and others.

With an eye toward sustainability, HS-STAR contributed to building in-country capacity to design, implement, and monitor reform interventions. The project provided technical assistance and material support across four components:

1. Establishing transparent and accountable health financing and governance system;
2. Institutionalizing a system of continuous improvement of quality of provided services;
3. Building the capacity of the National TB Program (NTP); and
4. Enabling civil society to exercise their health rights and responsibilities.

3. Summary of Accomplishments and Results Achieved

HS-STAR succeeded in influencing 14 laws, policies, regulations, or guidelines, including three strategies/plans in tuberculosis control, and increasing the capacity of the Ministry of Health and a number of national health sector institutions. The project supported the establishment of five independent PHC practices and helped the government introduce pay-for-performance in 100% of PHC facilities throughout Armenia. The project trained 1,337 health care professionals in reproductive, maternal and child health, non-communicable diseases (e.g., hypertension), and emergency care and also trained 2,404 people in non-clinical topics, such as behavior change communication and public-private partnerships, through 177 capacity building events. HS-STAR built the capacity of health non-governmental organizations (NGOs) in advocacy, developed 17 public education materials, and reached an estimated one-third of the population with TV and radio messages on NCDs, MCH, and RH/FP topics.

The project had four over-arching project indicators. Life-of-project targets for three of the indicators were exceeded, while one target, regarding positions seconded to the MOH, was not met. Performance against indicators for each component are reported in respective sections of this report, while the full Performance Monitoring Plan, including final data for all project indicators, can be found in Annex 1. Since most project activities ended three months into Year 3 due to the project's early closure, targets are provided for Year 2.

PROGRESS AGAINST INDICATORS – OVER-ARCHING PROJECT INDICATORS

No.	Indicator	Target by End of Y2	Actual by End of Project
1	Number of improvements to laws, policies, regulations, or guidelines related to improved access to and use of health services drafted with HS-STAR support	4	14
2	Number of people who have completed HS-STAR supported non-clinical training activities	90	2,404
3	Number of seconded positions absorbed by the MoH or relevant counterpart institution	2	1
4	Number of capacity building activities and/or events conducted with HS-STAR support	25	177

HS-STAR shared information about its accomplishments through email newsletters, Facebook, YouTube, and a project website (http://www.hs-star.net/). The project Facebook page had approximately 1,000 views per week; over the course of the project, the website was visited by 6,392 people from 129 countries for a total of 11,095 visits and 30,481 page views.

4. Organization of Report

This report includes sections on the four components of the project. Each section includes sub-sections describing the component's objectives and approach, accomplishments and results achieved, and progress against indicators. The report includes a section on obstacles, challenges, and lessons learned, as well as a section on project expenditures and leveraged contributions (cost share).

Annexes to the report include the project's final Performance Monitoring Report (PMP) and 22 detailed Activity Briefs. Each brief summarizes a key HS-STAR activity, providing sections including Background, Approach, Achievements, Sustainability, Challenges and Risks, and Priorities for the Future. The briefs were designed to include succinct details regarding each activity in addition to the overall summary in the body of the final report. It is hoped that they will be helpful reference tools for Armenian counterparts as they continue to embark on healthcare reforms after the end of the project.

Project Component Summaries

Establishing Transparent and Accountable Health Financing and Governance System

1. Objectives and Approach

The primary objective of this component was to support the MOH and State Health Agency (SHA) to improve the financing and governance of the health system. The project focused its efforts on strengthening PHC provider performance, reporting, and payment systems through full introduction of enrollment-based financing, refinement and introduction of PHC performance-based incentive payment, and proposing differentiated PHC capitation rates based on real PHC service utilization data. The project provided recommendations to MOH and SHA for broader health financing changes, built MOH capacity for health sector budgeting and forecasting (within the medium-term expenditure framework), and helped to develop and propose new methods for TB financing, particularly at the PHC level. Critical to the recommended health financing improvements was continuous project support to help improve the quality and security of health information and data, improving the recording, transfer, reporting, and analysis of data to serve as a base for improving health policy and planning and making decision-making more transparent. The project also supported the establishment and development of independent PHC practices as an alternative to large, urban polyclinics for PHC service consumers.

HS-STAR supported the establishment of five FMIPs to provide PHC services to clients in urban areas.

2. Accomplishments and Results Achieved

2.1. Strengthen PHC Provider Payment Systems

The project undertook three major activities to further strengthen PHC provider payment systems: 1) advocating for use of enrolled population versus catchment area population for PHC payment calculations; 2) supporting SHA to implement and refine a PHC pay-for-performance system; and 3) recommending age-sex adjustments to the PHC capitated rate based on utilization data.

The first activity focused on advocacy efforts with MOH and SHA to use enrollment data for PHC payments, given that more than 90% of the Armenian population was enrolled with a PHC physician (in large part due to previous efforts supported by USAID projects).

"As a result of the inception of this [pay-for-performance] system, even during a single year we have documented essential improvements in overall healthcare quality in our community. This program compelled our doctors to be more consistent toward our patients, especially those who suffer from non-communicable, chronic diseases like diabetes, hypertension, and ischemic heart disease. The rate of follow-up on people who suffer from these diseases has risen significantly. We also have witnesses a dramatic increase in the number of visits to our PHC facilities."

– Alisa Parsamyan, Head of PHC facility, Aghveran community, Armavir marz

A major barrier to using enrollment data was the fear that facilities with low enrollments, such as those in Yerevan would face significant budget cuts. HS-STAR worked closely with SHA to develop a simulation model using budget data from 2011 to estimate the effects of using enrollment data on budgets and staffing of Yerevan polyclinics. The analysis revealed that 80% of the PHC doctors in Yerevan had fewer enrolled patients than the national standard and were not working optimally. Based on the findings, the MOH and SHA began to engage PHC managers in Yerevan to develop a phased approach for addressing overstaffing issues. HS-STAR supported this process by developing a tool to guide polyclinics in the preparation of plans to optimize their staffing based on analysis of workforce and workload data. The evidence generated and presented by HS-STAR helped to convince the Government to issue amendments to the Decree No. 318 in April 2013 which makes a commitment to support the full transition to enrollment-based financing for PHC providers. SHA plans to introduce the new financing system starting in January 2014, and all PHC providers have started updating their enrollment records.

Regarding PHC pay-for-performance, HS-STAR supported the introduction of a new incentive payment system through a range of activities, including the analysis of performance data, the creation of tools to calculate bonus payments, the design of online feedback reports, trainings on implementation and use of the new system, the development and introduction of new performance indicators focused mostly on prevention, and modifications to the electronic data recording and reporting system.

The launch of the national PHC pay-for-performance system in 2011, providing incentives to 335 PHC facilities on 10 indicators, was a substantial achievement after nearly eight years of development. During the first year of the system, 61% of the PHC facilities received incentive payments from SHA for meeting or exceeding performance targets in 2010. In 2012, the percentage of facilities qualifying for the performance bonuses reached 94%. Based on the successful introduction of the system, the project worked closely with MOH and SHA to define 30 new performance indicators, which were officially approved by the MOH in April 2012 and introduced in 2013. More than 800 managerial and medical staff and more than 400 data entry operators were trained on the new indicators.

HS-STAR also worked closely with SHA to calculate new per capita rates that more accurately reflect the actual costs among different categories of users of PHC services and better target resources. To do so, the project and SHA used the MIDAS health information system database to study PHC utilization from 2010 for different age and gender categories. Based on the analysis, the project proposed per capita rates for four age categories for both male and female populations. At project close, the introduction of age/sex adjustments to the PHC per capita rates were still being considered by MOH and SHA.

2.2. Test Additional Health Financing and Risk Pooling Mechanisms

HS-STAR provided expert technical assistance to recommend changes to health financing mechanisms beyond PHC payment, including hospital payment, payment for medicines, and financing of TB services (discussed further under Component 3). The MOH and SHA did not seem prepared to implement broad health financing changes despite ongoing dialogue and support from the project. In addition, MOH and SHA did not seem to be considering introduction of an insurance system as had been under discussion prior to the award of the HS-STAR project.

HS-STAR therefore helped the MOH Economic Department align the health Medium-Term Expenditure Framework (MTEF) structure with the health budget to reflect priority health programs. This restructuring enabled a correlation between planned resources for state health programs and reported outcomes in next year's MTEF. The project helped to improve the analytical section of the MTEF by including data and analysis of newly added outcome indicators targeting priority services. The project also included a risk analysis section to identify and prevent expense planning risks resulting from deviations such as changes in allocated budgets or types of services covered by the state. During this process, HS-STAR helped to build the health budgeting capacity of MOH Economic Department staff. A new MTEF document developed with project support was approved by GOA Decree No. 740-N on June 14, 2012. The MTEF's increased focus on data will help the MOH to justify budget requests during discussions with GOA decision-makers and, consequently, secure sufficient funding for priority health services.

The project also supported the development of National Health Accounts (NHA) and Health System Performance Assessment (HSPA), two widely used methodologies that provide policymakers with important data that can inform decisions about the health system and health financing. HS-STAR actively participated in the NHA working group and provided technical assistance with the development, writing, and review of the NHA 2010 report. To enable Armenia to transition from heavy reliance on donors for NHA and HSPA activities, HS-STAR helped the National Institute for Health (NIH) to assume financial and technical responsibility for developing and producing the NHA and HSPA reports.

The project also identified, contracted, and monitored two local research organizations to conduct nationwide household surveys to inform the NHA 2011 report and the HSPA 2010/2011 report. The NHA survey collected data on household health expenditures, while the HSPA survey focused on elements of health care utilization such as accessibility, equity, quality, responsiveness, and efficiency of services.

As health information systems support all health financing functions, HS-STAR continued to build the capacity of SHA to update, maintain, and use the MIDAS health information system and also increased the capacity of Comine Soft LLC, the designated, outsourced provider of IT and HIS support to SHA and its MIDAS system. HS-STAR assessed the agency's data security and privacy hardware and software requirements and procured and installed needed equipment, software, and supplies, including upgrading the servers for the system and renovating the server room. HS-STAR also helped to upgrade and configure hardware and network resources at regional branches to help improve security when transferring sensitive medical data.

The introduction of the new system and security measures allowed for secure transfer of reports from 150 hospitals and 335 PHC facilities to the central SHA database. The project also provided limited financial support and technical input to EKENG, a private sector organization tasked by the GOA to support implementation of an e-Governance system. HS-STAR provided a study tour to Georgia for MOH staff and EKENG to learn from their HIS development achievements and issues to guide and advise on e-Health strategies in Armenia. The initial contract with EKENG allowed them to begin the design and development of an e-Health platform for Armenia.

2.3. Support Independent PHC Providers

HS-STAR adopted a five-pronged approach to support independent PHC providers: identifying interested parties with the potential to set up family medicine independent practices (FMIPs); helping interested parties to navigate the registration process; helping renovate their premises and furnish their offices with necessary equipment and supplies; building their management capacity; and supporting the creation an enabling environment for the establishment of FMIPs. To support the creation of a broader enabling environment, HS-STAR conducted a study of the legal, regulatory and other barriers to establishing and operating FMIPs in urban settings of Armenia and developed a series of recommendations to address these barriers, including through amendments to relevant laws.

HS-STAR identified five parties interested in establishing FMIPs in urban areas and helped them understand the practice registration process and to complete the application documentation needed to obtain family medicine provider licenses from the MOH Licensing Agency. In parallel to the registration process, the project helped four of the FMIPs to renovate their premises. As part of this initiative, the project collaborated with an engineer to conduct assessments of the FMIP premises, develop renovation plans, and monitor the renovation work. The FMIPs contributed labor and some materials to the renovations.

In addition, to help them meet the license requirements for the provision of family medicine, HS-STAR worked with three of the FMIPs to assess their equipment and supply needs. The project procured $83,500 worth of computer and health care equipment, office furniture, and other supplies for the FMIPs.

Since the operation of an FMIP requires not only the provision of health services, but also management of the practice, HS-STAR held five-day trainings for all five FMIPs to build the capacity of the seven family doctors in general and financial management, financial accounting, and healthcare administration. The project also organized two-day seminars for four of the FMIPs on use of the MIDAS automated information system at the training center of Comine Soft. In addition, the project supported a three-month accounting course at International Accountancy Training Center (IATC) for the accountants from two of the FMIPs.

All five of the FMIPs supported by HS-STAR received licenses from the MOH Licensing Agency to provide family medicine services. Margarit Primary Health Care Center, the first urban FMIP in Armenia, opened its doors to clients on November 1, 2012 and has managed 3,220 patient visits as of April 2013. The other FMIPs started their operations shortly thereafter.

3. Progress Against Indicators

The project developed one outcome indicator and six output indicators to measure progress in achieving results under this component. By the end of the project, HS-STAR had exceeded the target for two indicators (1.4 and 1.5), achieved two milestone indicators (1.3 and 1.6), met the target for one indicator (1.7), and partially achieved one milestone indicator (1.2). National data from the National Health Accounts for the outcome indicator (1.1) was not available by the end of the project.

PROGRESS AGAINST INDICATORS COMPONENT 1

No.	Indicator	Target by End of Y2	Actual by End of Project
1.1	Out-of-pocket expenditures as percent of total health expenditures	40%	National data not available at time of report
1.2	Enrollment-based financing scheme is implemented	Achieved	Relevant government decree issued
1.3	Strategies developed with HS-STAR support to improve payment systems for priority services	Achieved	Achieved
1.4	Percent of PHC facilities receiving payment based on performance	75%	94%
1.5	Number of newly established independent PHC practices contracted by SHA to provide BBP services under state order-cumulative (individual)	3	5
1.6*	Health workforce plan for emergency care developed by MOH with HS-STAR support	Achieved	Achieved
1.7*	Number of workforce planning tools developed with support from HS-STAR	2	2

* Activities supporting these indicators are reported in Component 2.

Institutionalizing a System of Continuous Improvement of the Quality of Provided Services

1. Objectives and Approach

The main objective of this component was to increase the capacity of the Government of Armenia to establish a system of sustainable quality assurance (QA)/quality improvement (QI) processes in targeted health areas, including but not limited to: 1) promotion of evidence-based medicine (EBM); 2) establishment of a unified methodology for development and approval of national clinical standards and guidelines; 3) development and implementation of EBM-based clinical standards in clinical practices; 4) differentiating and identifying QA/QI mechanisms, including exploring health professional self-regulation for continuous assurance of their qualifications; and 5) implementing identified QA/QI mechanisms at the appropriate levels of the health care system in Armenia. HS-STAR employed a diagonal approach as a key strategy to ensure an appropriate balance between horizontal (system-level/policy/regulatory) initiatives and vertical (shorter-term, targeted) interventions at the facility/service provision level, with a focus on the project's priority health areas – MCH/RH/FP/NCD/emergency care services.

HS-STAR procured modern radio equipment for Yerevan Municipality Ambulance Service.

Horizontal (system-level) interventions included building capacity of the senior managerial staff both at national (MOH) and regional level health care authorities in development and implementation of priority reform initiatives in the field of health care quality, as well as setting up a policy and regulatory base for these initiatives. Some examples of the project's horizontal interventions included:

- Increased the capacity of the MOH Quality Management Division, Scientific Center of Nosocomial Infection Prevention (SCNIP), and marz Health and Social Security Departments (HSSDs) on quality of care (QoC) issues and concepts and on how to address barriers and improvement opportunities for institutionalization of QoC processes.
- Helped MOH to develop and introduce a National Quality Management Framework, identifying the major QA and QI areas and functions of Armenian health care, and the stakeholders' roles and responsibilities within that framework.
- Promoted EBM principles to medical leadership and helped to develop and gain Ministry approval of a national framework and process for EBM-based clinical practice guideline (CPG) development and implementation.
- Helped to develop and approve a National Strategy of Hospital QoC.
- Supported the development and introduction of Regulations of Continuous Assurance of the Professional Qualifications and Crediting Continuous Professional Development of health care providers.

The project's vertical (service provision level) interventions focused on the implementation of hospital-level QI approaches and tools in three regional pilot hospitals, as well as targeted trainings and interventions to improve NCD/MCH/RH/FP and emergency care services.

2. Accomplishments and Results Achieved

2.1. Strengthen Quality of Care Systems and Processes at National and Facility Levels

The project started its QoC activities with the study of achievements of previous USAID-funded projects in PHC level, and proceeded with the elaboration of an overall QA/QI vision for the Armenian health care system in collaboration with MOH and other stakeholders including the State Hygiene Anti-epidemic Inspectorate (SHAI), professional associations, regional health authorities, SHA, and SCNIP. As a result of this interactive work, HS-STAR initiated QI pilot interventions in three regional hospitals and developed, introduced, and agreed with key stakeholders a Hospital Quality Assurance and Quality Improvement Strategy of Armenia.

Specific achievements of the project in fulfilling this reform initiative included:

- Completed the analysis of results of the QoC Feedback Study to assess implementation of the QA/QI processes and tools introduced with support from USAID's previous PHCR and NOVA/NOVA-2 projects. Based on that analysis, HS-STAR developed an "Overarching Framework of Health Care Quality Management in Armenia," which will serve an integrated base for further health care quality initiatives and interventions in Armenia.

- With the involvement of international STTA, MOH and Marz health care authorities, developed, introduced, and piloted hospital-level QoC approaches and tools, including clinical governance models, hospital Quality Control Commission (QCC) operating package, infection control activities, adverse events monitoring, and job descriptions.
- Based on the pilot results and in response to an MOH request, the project helped draft a Hospital QA & QI Strategy which was approved by Health Minister's Order No. 3025 A, dated December 24, 2012.
- For sustainability purposes and in order to establish reporting and feedback loops across the hospital, marz, and national levels, new template charters of the marz Quality Improvement Boards (QIBs) and central-level QIB were developed and introduced through close cooperation with the regional health care authorities and MOH.
- Strengthened capacity of the newly established SCNIP through provision of furniture and computer equipment and involvement in hospital QI initiatives.
- Conducted capacity building events for health authorities and medical staff on QoC issues including nosocomial infection control, NCDs, MCH, neonatal and pediatric intensive care, and emergency care.

Another field of project QoC activities was focused on the importance of having unified clinical standards as a base for ensuring EBM-based practices in Armenia. The project supported the MOH quality department to design and implement a unified system for development and implementation of EBM-based "best practice standards." Specific achievements towards fulfilling this reform initiative included:

- Developed the Regulation of Clinical Standardization for Armenia, which was officially approved by the Minister of Health (MOH Order No. N2630, dated December 28, 2011). The document incorporated feedback from key stakeholders, including NIH, SHA, SHAI, training institutions, marz HSSDs, and professional associations.
- Strengthened capacity of newly established EBM Center in the Republican Scientific Medical Library (RSML); sponsored a subscription to Cochrane online resources with access for 1,000 library users and procured computer equipment and Russian-language health publications and reference material for the Center.
- Supported development of the first clinical guidelines under the new framework entitled "cardio metabolic risk assessment and management guidelines." The guidelines were developed by professional associations selected through an open competition. The process of development of those protocols fulfilled all requests and passed all steps described in the Regulation document. As a result, high quality clinical protocols (separate for doctors and nurses and accompanied by relevant public education materials) were submitted by the associations to the MOH for approval and implementation.

2.2. Strengthen Health Workforce Planning and Contribute to Pre-Service and In-Service Capacity Building Efforts

As a key initiative to enhance providers' professional self-regulation for continuous assurance of their qualifications, HS-STAR provided technical assistance to help develop a number of draft regulations and introduce them to the leadership of the MOH. These regulations included: 1) Continuous Assurance of the Professional Qualifications; 2) Crediting Continuous Professional Development of Health Care Providers; and 3) List of Medical and Nursing Specialties of Armenia. The documents were formally submitted to the MOH for their further consideration and approval. The project worked on workforce planning tools for neonatal and pediatric departments as well as prepared a position list and job descriptions for emergency care providers which was also presented to and discussed with the MOH. Based on data in the MIDAS system from 2010, HS-STAR also proposed a workforce assessment and planning tool for the PHC level in Yerevan.

The project also helped to improve the information system for healthcare facility licensing. HS-STAR supported needed renovations to the archive office, provided computer hardware and furniture, and developed and installed a comprehensive software system that includes data entry interfaces, analysis capabilities, and reporting modules. The project trained staff of the Licensing Agency to use the software and hired temporary data entry operators to generate a new electronic database with license information about all available health facilities. By the end of 2012, nearly 85% of the Agency's paper-based data had been entered into the electronic database. The database currently includes full data sets with required licensing information from almost all of the 4,500 licensed health facilities in Armenia. In addition, to link workforce planning with health personnel licensing, HS-STAR prepared a number of operational documents to support the design and establishment of the Medical Worker REGISTER system, which will track key information about health providers, including their professional development.

HS-STAR also supported the conduct of continuing medical education (CME) on NCD/MCH/RH/FP and emergency care. To introduce more modern teaching methods, the project provided training of trainer (TOT) courses on adult learning and curriculum development methodologies to the faculty from five different departments of the Yerevan State medical University (YSMU).

"We are quite impressed with the trainings implementation methods and with received knowledge. The sessions were interactive, allowed us to exchange our experience, present noteworthy cases from our practice and organize relevant discussions. The adoption of methods based on the latest EBM approaches enabled us to continue our work having the latest word of knowledge in our arsenal, equipped us with additional confidence and professionalism. The trainings were very beneficial in sense of acquiring new knowledge."

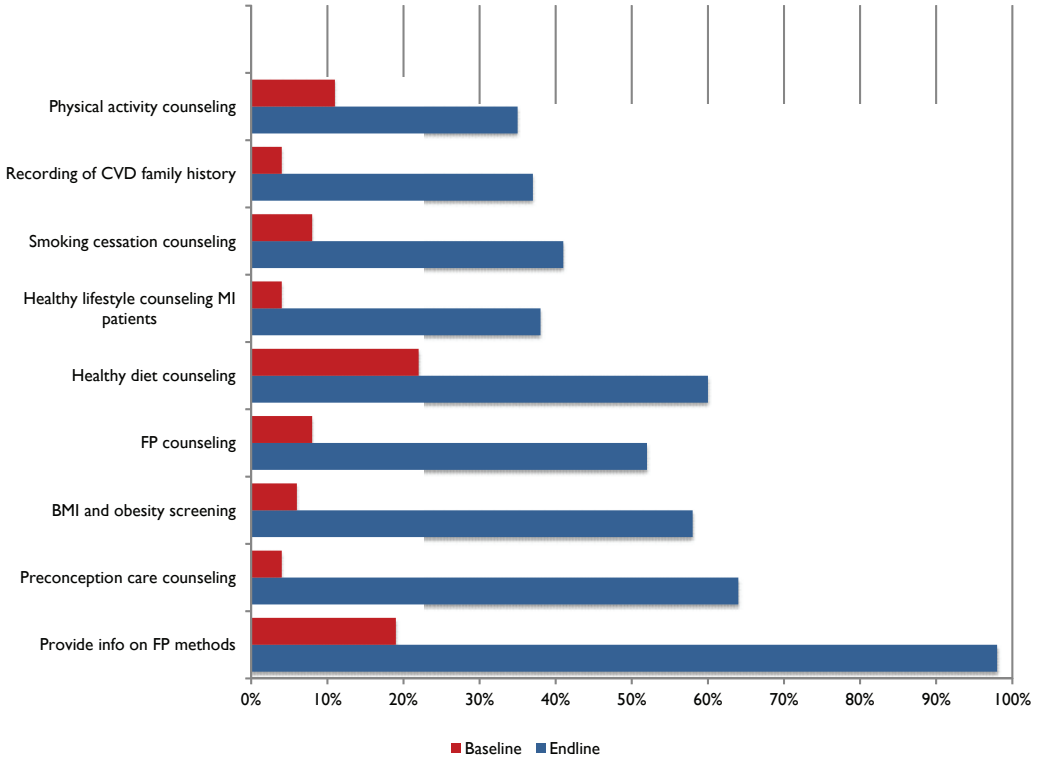
– Shushanik Grigoryan,
Head of Women's Consultation Department
of Yerevan Polyclinic No. 17

For the first time, professional associations were involved in trainings as alternative training provider institutions to the monopoly of state-run CME programs. HS-STAR provided training materials developed by previous USAID-funded projects to trainers and encouraged the university staff and associations to enrich them with new information from reliable EBM sources and reference material. The project reinforced implementation of CPGs, job aids, and new standards of care by practicing their utilization during training sessions. For the first time in Armenia, trainers performed chart reviews before and after training sessions to measure the influence of trainings on performance improvement (see Figure 1). In addition, representatives and health professionals from SHA and SHAI benefited from the trainings together with PHC providers, another first for Armenia.

2.3. Develop and Implement an Emergency Care CME Training Package

HS-STAR also invested heavily in supporting the MOH to improve emergency care in Armenia. After conducting an in-depth assessment of emergency care services in Armenia with international expert STTA, the project supported 12 trainers from seven educational institutions (including YSMU and six nursing colleges from Yerevan and marzes) to undergo a TOT on four emergency care courses in an internationally certified training center in Tbilisi, Georgia. The courses included Basic Life Support, Advanced Cardiovascular Life Support, Neonatal Resuscitation, and Pre-hospital Trauma Life Support. The trainers practiced

FIGURE 1: INCREASES IN PROVIDER PERFORMANCE FOLLOWING TRAININGS SUPPORTED BY HS-STAR



their training skills through a follow-up monitoring course in Yerevan that reached 33 emergency care practitioners. HS-STAR procured and installed over $500,000 worth of neonatal emergency care equipment for three regional hospitals, as well as sets of training equipment and reference material for the seven educational institutions. The project also supported the establishment of the Association of Armenian Ambulance Care Providers.

3. Progress Against Indicators

HS-STAR developed two outcome indicators and five output indicators to measure progress in achieving results under this component. By the end of the project, HS-STAR had exceeded the targets for four indicators (2.2, 2.3, 2.4, and 2.5), met the target for one indicator (2.7), missed one target by 0.6% (2.1), and missed another by only 5 trainees (indicator 2.6: 45 people trained in emergency care instead of the target of 50).

PROGRESS AGAINST INDICATORS COMPONENT 2

No.	Indicator	Target by End of Y2	Actual by End of Project
2.1	Percent of patients diagnosed with hypertension who had at least one ECG during the reporting period	55%	54.4%
2.2	Percent of patients diagnosed with ischemic heart disease who had at least one cholesterol test during the reporting period	40%	50.1%
2.3	Number of medical and paramedical practitioners trained in evidence-based clinical practices with HS-STAR support	350	522
2.4	Number of people trained in RH/FP with HS-STAR support	200	239
2.5	Number of people trained in maternal/newborn health with HS-STAR support	410	531
2.6	Number of health care providers trained in emergency care through continuous medical education supported by HS-STAR	50	45
2.7	Number of recommendations to improve facility licensing developed by HS-STAR and accepted by MoH or Licensing Agency	1	1

Building Capacity of the National Tuberculosis Program

1. Objectives and Approach

HS-STAR fielded a Resident TB Advisor to build the capacity of the National TB Program (NTP) to improve effective delivery of TB services nation-wide. Two international TB experts served in the Advisor role over the life of the project. The Advisors were seconded to the NTP to provide hands on, day-to-day international expertise, technical assistance, and operations support as the NTP operationalized national TB strategies and plans, implemented TB grants from GFATM, and responded to recommendations and guidance from missions led by WHO, Green Light Committee (GLC), and other international organizations.

Given the significant level of resources committed by donors and development partners to support TB control efforts in Armenia, HS-STAR's contribution was limited to providing the Resident TB Advisor. The Resident TB Advisor was viewed by USAID and the MOH as a critical strategy to bolster the role of the NTP in overseeing and coordinating effective delivery of TB programs and services, and increasing their accountability to MOH and development partners for successful implementation

Rapid diagnosis GeneXpert machines will be introduced in Armenia based on a plan developed by NTP with assistance from HS-STAR. (Source: Cepheid brochure)

of national plans and priorities. The TB Advisors worked closely with a new NTP Director that came on board in 2011 and reported directly to the Deputy Minister of Health. The management skills of the new Director, along with more proactive oversight by the Deputy Minister, ensured that HS-STAR inputs were maximized and contributed to the NTP making significant progress in a number of critical areas, including better leveraging TB coordinators in each marz.

Project activities were designed to respond to ongoing management issues in the TB sector that had been identified by USAID, WHO, GFATM, and other development partners. These issues included: gaps in TB strategies and policies paired with limited capacity for implementation, lack of consensus among TB specialists around introduction of evidence-based clinical standards and practices, poor infection prevention and control practices in TB facilities, and issues with how delivery of TB services was structured and financed, favoring costly inpatient care. In response, HS-STAR focused its efforts to build capacity of the NTP in three directions:

- Provide support to implement key program efforts that improve TB and MDR-TB prevention and treatment;
- Strengthen TB infection control practices in facilities providing TB services; and
- Refine provider payment system for TB services.

2. Accomplishments and Results Achieved

2.1. Improve TB and MDR-TB Prevention and Treatment

HS-STAR succeeded in improving TB and MDR-TB policies and plans. HS-STAR provided expert review to NTP to help improve the annual national order ("chaporoshich" in Armenian) on providing TB services, a National Response Plan on drug-resistant TB, a National Strategy on TB/HIV Co-Infection, and an Advocacy, Communication and Social Mobilization (ACSM) strategy. HS-STAR also helped NTP craft a plan for the phased introduction of rapid diagnosis GeneXpert machines in Armenia. Project contributions were discussed widely in an effort to mobilize consensus and included guidance on operational and implementation plans to help ensure that strategies would not remain on paper but be broken down into concrete action items that would allow NTP to more easily implement them.

To help improve the quality of TB services, the project introduced international, evidence-based standards of TB and MDR-TB prevention and treatment into clinical practice guidelines. The TB Advisors provided input and review to NTP and TB stakeholders regarding a number of TB treatment guidelines including on: management of sensitive TB; management of drug-resistant TB; TB in children; contact tracing and follow-up; TB/HIV co-infection and care; infection control for TB staff; and surgery for TB patients (led by Medicins Sans Frontieres-France). Implementation of the approved, evidence-based guidelines in clinical practice settings will greatly improve the quality of TB prevention, diagnosis, and treatment services in the future.

HS-STAR also increased the effectiveness and efficiency of sputum and lab specimen transportation systems by helping NTP put in place a new model. The new model was introduced in December 2012 and relies on private cars/drivers hired twice a week to transport sputum samples from regions to the NRL for culture and drug sensitivity testing. The new model is more reliable with no significant additional cost than the previous system of using vehicles that were provided to regional TB coordinators for a variety of purposes. When regional TB coordinators or their vehicles were otherwise preoccupied, the specimen transport system suffered.

"The quality of discussion that we had was simply incomparable with the type of discussions we used to have at the NTP during the last few years. It was a meaningful discussion demonstrating the competency, the empowerment and ownership of the program by the NTP staff. One could no longer see the helpless attitude that was prevailing before. On the contrary – every issue raised as a challenge was translated into suggested actions. Certainly, [the HS-STAR TB Advisor] has made his inputs and I value a lot his contribution to the NTP. I was really proud of the progress achieved at the NTP and I am confident that the TB control and care in Armenia is in good hands and will continue making steady progress."

– Head of Global Fund PIU

Direct support to NTP resulted in increased effectiveness of the NTP's training efforts, improved the quality of monitoring and evaluation and supervision systems, and brought recording and reporting forms (to NTP and National Reference Laboratory) in line with new WHO guidelines, improving the quality of data collected and analyzed. With the training unit of the NTP, HS-STAR inventoried all of the training that was being conducted by NTP, organized and archived the training materials being used, developed a flow chart of the types and categories of NTP trainees, developed a training plan for 2012 to include trainings on ACSM, high risk groups, prisons, GeneXpert, and e-TB Manager, and developed a training evaluation system using relevant indicators from the NTP monitoring system checklist. To improve monitoring and supervision, the TB Advisors collaborated with NTP's M&E unit to develop regional TB supervision committees comprised of a TB specialist, lab technician, and pharmacist, develop supervision checklists, and help train TB supervision committee members. To improve overall coordination between NTP and regions, the TB Advisor advocated for the institutionalization of regular meetings between NTP, regional TB coordinators, and regional TB supervision committees twice a year.

Participation of the project's TB Advisors on the national MDR-TB patient management committee focused the committee on critical tasks through refined terms of reference, enabled NTP and the committee to target second-line drugs to priority patients, and improved the quality of clinical care provided to MDR-TB patients, improving treatment outcomes. HS-STAR support to NTP increased their capacity to manage MDR-TB patients, empowering them to assume responsibility from Medicins Sans Frontieres-France for MDR-TB care in Yerevan and five out of seven regions.

2.2. Strengthen TB Infection Control Practices

In terms of TB infection control, HS-STAR provided expert input into national infection control guidelines developed jointly by NTP and the MOH's Scientific Center for Nosocomial Infection Prevention. The project provided on-site recommendations to improve infection control in all TB facilities visited over the life of the project. The TB Advisor participated in a two-day training course in Gyumri on nosocomial infection control supported by HS-STAR and conducted side meetings with regional epidemiologists in Shirak marz on best practices in TB infection control. The Advisor co-facilitated a WHO-supported national three-day workshop on TB infection control held on NTP premises and conducted by a visiting Russian expert. These joint efforts resulted in the development of infection control plans in 73 facilities.

2.3. Refine Provider Payment Systems for TB Services

TB financing activities were closely coordinated with broader HS-STAR health financing activities under Component 1. An international consultant helped the project produce a comprehensive report entitled "New Financing Mechanisms for TB: Incentivizing the STOP TB Strategy in Armenia" to guide the MOH and SHA in reforming the financing system for TB services. SHA established a working group to further consider the recommendations provided by the project.

The project supported the implementation of one of the report's recommendations, to incentivize PHC providers to provide TB services. In April 2012, the MOH officially approved 30 new performance indicators for the PHC pay-for-performance system, including an indicator for the referral of suspected TB cases to TB cabinets by PHC doctors, as proposed by HS-STAR. The TB indicator, along with the 29 other indicators, was introduced nationwide in January 2013. It is expected that this indicator will motivate PHC doctors to be more proactive in identifying suspected TB cases and referring these patients to TB cabinets for further examination.

HS-STAR also shared all of its TB financing recommendations with SHA for inclusion in the "Concept document on new methodologies in health financing," which was developed in 2012 and is pending GOA approval.

To help policymakers to track and manage funding for TB services more effectively, HS-STAR developed a methodological package for the preparation of a NHA TB subaccount, including guidance on the collection of data from service providers, TB patient households, and financing agents. In addition to developing this guidance, the project prepared a TB Subaccounts Implementation Action Plan and terms of reference for conducting a study of TB patients to assess household TB expenses.

3. Progress Against Indicators

HS-STAR developed one outcome indicator and six output indicators to measure progress in achieving results under this component. By the end of the project, HS-STAR had exceeded the targets for two indicators (3.2 and 3.7), met the target for one indicator (3.3), and achieved two milestone indicators (3.4 and 3.5). National data was not yet available from the National TB Program (the data source of the indicators) to measure two of the indicators (3.1 and 3.6).

PROGRESS AGAINST INDICATORS COMPONENT 3

No.	Indicator	Target by End of Y2	Actual by End of Project
3.1	Percent of facilities providing in- and out-patient TB services with improved infection control supported by HS-STAR and that comply with WHO-recommended infection control standards	Not available for Y2	National data not available at time of report
3.2	Number of people trained in DOTS with HS-STAR support	200	1,064
3.3	Number of improvements to TB policies, strategies, plans, regulations, or guidelines drafted with project support	3	3
3.4	TB services financing mechanism refined with HS-STAR support	Achieved	Achieved
3.5	NTP Monitoring and Evaluation System improved with HS-STAR support	Achieved	Achieved
3.6	Number of facilities providing in- and out-patient TB services in adherence of CPGs	20	National data not available at time of report
3.7	Number of TB facilities with infection control plans developed with HS-STAR support	20	73

Enabling Civil Society to Exercise Health Rights and Responsibilities

1. Objectives and Approach

The main objectives of this component were to continue to empower civil society to exercise its health rights and responsibilities in an informed way and to simultaneously explore ways to better institutionalize these efforts through increased government ownership and capacity and through innovative public-private partnerships (PPPs). HS-STAR's approach for this component included the following intervention areas: 1) Strengthen Government health education and promotion capacity; 2) Empower civil society organizations (CSOs) and individuals to advocate for and exercise their health rights and responsibilities; 3) Promote innovative PPPs; and 4) Conduct public awareness-raising activities. This component also included minor rehabilitation activities connected with the establishment of Health Education Resource Centers (HERC) in two marzes.

Under a grant from HS-STAR, Confidence NGO organized a flash mob with art students in Yerevan to promote breastfeeding.

2. Accomplishments and Results Achieved

2.1. Strengthen Government Health Education and Promotion Capacity

The establishment and capacity building of a Government entity responsible for health education and promotion was a key objective for the project. At the project's outset, there was no fully functional "institutional home" for the coordination and implementation of public education activities. HS-STAR helped to address this gap by working closely with the MOH to build the capacity of the newly established MOH Public Health Division to serve as the responsible body for coordination of public education programs in the health sector and the State Hygienic Anti Epidemic Inspectorate (SHAI) to implement public education activities. HS-STAR helped the MOH in developing the scope of work for the new Division.

"With all-inclusive methodological and organizational support from HS-STAR and thanks to the BCC training, SHAI can continuously apply the BCC methodology and approaches to its work."

– Dr. Paronyan, SHAI Communicable and Non-Communicable Diseases' Epidemiology Department Chief Specialist

HS-STAR provided continuous technical assistance, capacity building, and mentoring to the Public Health and Public Relations Divisions of the MOH and SHAI. The project primarily built capacity through joint design and implementation of activities, including design of public education strategies and approaches, development of public education materials, and revision and modification of existing materials and documents. HS-STAR also provided training in behavior change communication (BCC) to MOH and SHAI staff in Yerevan, and supported the roll-out of BCC trainings for all marz-based SHAI staff and health NGOs in Lori and Shirak marzes.

In response to a request from the MOH, the project also worked closely with the MOH to develop a short-term Public Communication Action Plan. The Plan was presented to the attention of the MOH's Press Secretary to serve as a framework for effective MOH communication to the public on health issues.

In order to institutionalize health education activities at the marz level, HS-STAR worked with counterparts to establish Health Education Resource Centers (HERCs) within the premises of SHAI branches in two marzes – Lori and Shirak. The project completely renovated the spaces in the SHAI branches for the HERCs and provided the necessary equipment and supplies to ensure the Centers were operable and functioning. The directors of the SHAI branches assigned appropriate staff to manage the operations of the HERCs and integrated their functions into the functions of the SHAI branches to ensure their sustainability.

Staff of the two HERCs was trained in modern health education and promotion approaches including BCC, adult learning methodology, and interactive training methods. These staff then conducted BCC trainings for local NGOs in their regions. HS-STAR also promoted collaboration between the SHAI regional offices and local NGOs by facilitating the development of a memorandum of understanding between Lori and Shirak SHAIs, Lori and Shirak info-houses (established by the Eurasia Partnership Foundation (EPF)), and the Marzpetaran health and social security departments to serve as a legal framework for continued collaboration and coordination.

2.2. Empower CSOs and Individuals to Advocate for and Exercise their Health Rights and Responsibilities

To increase the role of CSOs/NGOs in health policy/advocacy/education activities, HS-STAR partnered with Counterpart International and the MOH to support a capacity building training for 25 representatives from 15 Yerevan and marz-based health NGOs on critical operational and technical skills. The goal of the training course was to raise the institutional capacities of Armenian health, advocacy, and community NGOs that are involved in public policy, advocacy, and information provision and to promote their further active involvement in Armenian public health initiatives. Eighty percent of participants evaluated the training course as highly effective.

"A very meaningful and interesting training; in a short period, we received serious knowledge, which will be very useful for our organization's further plans, enabling us to undertake more targeted steps."

– Ani Hakobyan, Kanachastan NGO representative

To encourage trained NGOs to use their newly obtained knowledge and skills and increase the participation of experienced CSOs to improve health sector policies and legislation, HS-STAR issued a request for applications for Health Policy Advocacy Grant Program and awarded two grants to local NGOs. The first was a project submitted by Gegharkunik-based "RDRC" NGO to promote Gegharkunik marzpetaran to develop and implement mechanisms to enforce MOH Order No. 927-A "About the monitoring of obstetrical care voucher investments process" with the involvement of active civic groups. The second selected project was submitted by "Confidence" NGO to implement a campaign supporting the adoption of the draft law "Breastfeeding promotion and regulation of infant food marketing."

HS-STAR, in close collaboration with the USAID-funded Counterpart Civil Society/ Local Government Support Project, helped introduce a new approach to mobilize CSOs/NGOs in the health sector through the Legislative Agenda Advocacy Day (LAAD) initiative.

By providing civil society and the National Assembly with an opportunity to interact, LAAD enables civil society to advocate on behalf of constituents on a range of social issues directly to parliamentarians. HS-STAR helped facilitate the LAAD initiative in the health sector in 2011. More than a dozen NGOs participated in the effort, which resulted in the presentation of seven legislative proposals to the National Assembly by CSOs/NGOs and the adoption of three laws and amendments: the law on human blood donation and blood transfusion medical aid; amendments to the law on the prevention of diseases emerging from HIV; and amendments to the law on the sale, purchase, and use of tobacco.

To further institutionalize the LAAD initiative in Armenia and enable Armenian civil society to influence the legislative process in a more coordinated, ongoing, and permanent way, HS-STAR proposed to organize LAAD 2012 as a civil society-led process rather than one driven by donors or projects. An NGO representative who had participated in the LAAD 2011 health working group was selected by the participating NGOs to lead the process and successfully facilitated the LAAD 2012 health working group activities. As a result of HS-STAR's NGO institutional capacity building trainings, the proposals developed by the NGOs for LAAD 2012 were more structured and well formulated than those from the previous year. The locally led process and improved proposals were noted by the Chairman of the National Assembly Standing Committee on Healthcare, Maternity and Childhood Issues during the meeting at the National Assembly. Of the five legislative proposals presented, one was immediately included in the National Assembly's agenda, while the other four were seriously considered during relevant National Assembly working group meetings with the participation of the presenting NGOs.

2.3. Promote Innovative Public-Private Partnerships (PPP)

In addition to working with the non-governmental, non-commercial sector, HS-STAR helped to facilitate linkages and partnerships between government counterparts and the private, for-profit sector. HS-STAR facilitated regular dialogue with MOH (Public Health Division and SHAI) to identify mechanisms for informing private companies about MOH priorities that may require additional support, which might include private investment. To institutionalize and make the collaboration sustainable, HS-STAR recommended having an annual round table between the MOH and private sector businesses to promote PPPs.

As part of a PPP organized by HS-STAR, Moskvichka supermarket chain printed health messages on plastic bags that were distributed along with booklets on healthy eating developed by World Vision Armenia.

The project helped organize the first PPP promotion round table between the MOH and private sector representatives, including directors and marketing, public relations, and corporate social responsibility specialists from banking, telecommunications, mining, and retail trade sectors. The PPP round table succeeded in introducing the Armenian private sector companies to MOH strategic priorities and in facilitating discussion around potential collaboration and partnership opportunities, such as public education activities related to NCD prevention, immunization, and prevention of nosocomial infections.

HS-STAR helped broker a PPP with the Moskvichka supermarket chain to support MOH and project efforts to improve population knowledge around risk factors for NCDs. Moskvichka printed health messages and the MOH logo on 8,300 plastic shopping bags per month over eight months and disseminated 12,000 booklets printed by HS-STAR on the topic of healthy eating through its stores.

HS-STAR also brokered a PPP with Ashtarak kat dairy company to print and disseminate a booklet about osteoporosis developed by HS-STAR throughout supermarkets.

In addition, HS-STAR negotiated with five Armenian TV companies to produce and air 13 health-related programs free of charge. The total contribution of the TV companies under these PPPs, including shooting, announcing, airing, and repeating the programs totaled 9.9 million Armenian dram (approximately $26,536).

2.4. Conduct Public Awareness-Raising Activities

HS-STAR implemented a series of activities to increase public awareness on priority health issues and health reforms. As the MOH has limited resources allocated for public awareness purposes, the contributions of international organizations in this area were highly appreciated by the Government.

As described above, HS-STAR initiated partnerships with five TV stations to help raise public awareness on health reforms and priority health topics, such as MCH, RH/FP, TB, and NCDs, through 13 health-related TV programs broadcasted free-of-charge. As a facilitator, HS-STAR suggested the health topics and key speakers for the TV programs, provided evidence-based medicine materials and lists of frequently asked questions on the selected topics to the TV journalists, assisted the key speakers with the preparation of their scripts, and worked to enhance their public speaking skills.

In response to a request from the MOH, HS-STAR announced a request for proposals and selected ArmNews TV Company to implement a series of five proposed segments on the Bujak TV-health program. All topics presented during the program were agreed with the MOH and covered health topics of concern to the public, including health care reforms, key issues in MCH and RH/FP, NCD prevention and management, and TB care and treatment.

To further improve the ability of the media to report on priority health topics, HS-STAR organized two separate two-day trainings for 31 mass media representatives on MCH and RH/FP issues and NCD risk factors and NCD prevention. In addition to increasing the journalist's knowledge about these health topics, the training highlighted the role of mass media in the prevention of diseases and established links between key health experts and mass media in order to promote further collaboration between the two sectors. Several training participants put their new knowledge to use in a series of online articles and TV programs about the highlighted health topics.

The project's public awareness activities also included the development and dissemination of a radio public service announcement (PSA) on healthy timing and healthy spacing of births which aired on major radio channels eight times per day over a three-month period covering the whole population.

HS-STAR collaborated with the MOH Legal Department to develop a brochure to increase awareness about advertising health services, medical equipment, and medicines.

In addition, a variety of public education materials were developed and disseminated through different communication channels, including:

- 12,000 copies of four booklets on healthy eating and health messages printed on 66,000 plastic bags through Moskvichka supermarket chain;
- 1,300 copies of a basic benefits package (BBP) poster through Marzpetarans' health and social security departments and international, diaspora organizations, and NGO networks;
- 2,000 copies of a brochure on the legal aspects of the advertisement of health services, medical equipment, and medicines through the MOH Licensing Agency;
- 5,000 copies of an antenatal care (ANC) booklet for expectant mothers through Yerevan and marz maternities;
- A patient-oriented booklet on hypertension management uploaded to the MOH website for further dissemination and use; and
- Nine public education materials (posters and leaflets) on healthy lifestyles developed under a service contract with the Armenian Association of Cardiologists jointly with the Armenian Association of Family Physicians uploaded to the MOH website for further dissemination and use.

3. Progress Against Indicators

HS-STAR developed five output indicators to measure progress in achieving results under this component. As shown in the table below, HS-STAR had exceeded the targets for four indicators (4.1, 4.2, 4.4 and 4.5) and met the targets for one indicator (4.3) by the end of the project.

PROGRESS AGAINST INDICATORS COMPONENT 4

No.	Indicator	Target by End of Y2	Actual by End of Project
4.1	Number of NGO and civil society groups trained with HS-STAR support in raising awareness for health behaviors and health consumer protection	2	3
4.2	Number of health facilities rehabilitated with HS-STAR support	2	7
4.3	Number of people who have seen or heard a specific FP/RH message supported by HS-STAR (estimated potential viewing (TV) or listening (radio) audience)	1,000,000	1,000,000
4.4	Number of HS-STAR assisted civil society organizations that engage in advocacy and watchdog functions	1	2
4.5	Number of public education materials developed and/or published with HS-STAR support	5	17

Obstacles, Challenges, and Lessons Learned

Obstacles, Challenges, and Lessons Learned

Despite significant progress on a number of activities, USAID decided to end the HS-STAR Project 10 months earlier than planned for a number of reasons. The project faced a number of obstacles and challenges during implementation, many of them directly related to the ambitious project scope of work and limited timeframe for implementation.

1. As with many health systems strengthening projects, country counterparts were inclined to move slowly and deliberately when making decisions regarding sweeping changes to health financing systems, particularly during election cycles, proving challenging for the project to achieve progress as quickly as may have been desired during its short duration. Despite this challenge, the project continued to engage both MOH and SHA in discussions of broad health financing reform concepts and recommendations, simultaneously supporting improvements to the PHC pay-for-performance system, helping analyze health expenditures (including household expenditures), further refining health information systems that support future health financing changes, and advocating for these changes.
2. Activities to restructure the delivery of TB services, further shifting from inpatient care to primary health care and introducing new TB financing mechanisms, may have been overly ambitious given the short duration of the project. While the NTP was supportive of these efforts, broader political will, including among top TB clinicians, to make significant changes in how TB care is organized and financed in Armenia proved elusive. HS-STAR continued to advocate for changes through ongoing policy dialogue and joint development of a journal article with NTP.
3. Another challenge for the project was frequent changes in the leadership of the Quality Management Division of the MOH. HS-STAR briefed and oriented new Division managers and continued to build capacity of all other staff in the QM Division and in marz health care authorities, collaborating closely with and directly involving them in all QoC activities. However, staff were often overloaded with routine everyday tasks of solving individual patient complaints and addressing their specific health care needs (which is not typically the role of the MOH). This critically limited their involvement in the

design, implementation, and monitoring of reform initiatives. The project worked to help the Division assess what measures may be taken to find other ways to deal with patient complaints and routine work, so that they might be more available, strategic, and proactive in managing QA initiatives, including overseeing facility-level QA activities in pilot hospitals.

4. While the vast majority of the project's implementation approaches proved successful, several approaches were not effective and may be reconsidered in future health sector projects in Armenia. These approaches included seconding project staff within the MOH, supporting working groups that included government employees and policymakers as members, and providing grants to professional associations either headed by or staffed with government employees. HS-STAR hoped the project could make these mechanisms work in order to meet the expectations of country counterparts that had requested project support in these areas. The project was not able to successfully negotiate secondment of staff within the Ministry despite numerous attempts, with lack of spare office space in the MOH a recurring obstacle. HS-STAR also was not able to identify an appropriate mechanism for the project to provide financial support to working groups and professional associations that included government employees as members or staff due to USAID and Abt regulations, but the project might have better handled these situations by quickly informing counterparts that the activity could not be accomplished as envisioned and seeking alternative solutions acceptable to all parties earlier in the process.
5. The project faced a limited number of implementation delays late in Year 2. Project management worked to address issues causing the delays and to develop and communicate new timelines for their implementation to USAID. The five delayed activities were critical activities that were of high dollar value. The primary cause of the delays were the project's attempts to ensure the appropriateness and quality of goods and services to be provided in conjunction with the MOH or other counterparts, achieving maximum value for USAID's investment, or identifying mechanisms to satisfy requests of the MOH within USAID regulations and guidance. In retrospect, the project might have been more proactive in guiding Ministry counterparts in developing equipment lists, including detailed specifications, with support from international experts. The project might also have been more realistic during work planning to develop timeframes for large procurements and subcontracts that achieved a better balance between timeliness and assurance of quality and best value. The project's grant-making process proved cumbersome and could have been streamlined.
6. Temporary suspension of NIH operations due to budget shortfalls could have hindered project operations, such as clinical standardization and policy-level QA/QI initiatives. Instead, the project focused on strengthening capacity of alternative institutions (EBM Center and MOH SCNIP) through project support/technical assistance and their involvement in the institutionalization of QoC processes. The EBM Center was involved in the process of clinical standardization while SCNIP was involved in the implementation of

hospital QoC processes, with particular focus on prevention of nosocomial infections. When NIH was reconstituted, the project provided recommendations on its structure and functions.

7. Capacity building of NGOs, particularly professional medical associations, should be an institutionalized and continuous process in order to enable them to be more actively involved in health programs, including health policy advocacy, watchdog and public education activities.
8. Newly established partnerships between regional SHAIs, the HERCs in particular, as the main bodies responsible for public education in marzes, and active local health NGOs can serve as a sound basis for further effective implementation of public education activities. However, due to funding limitations, the support of and seed funding from international organizations to this process, at least during the initial steps of implementation of joint activities, may be critical to their short-term success.
9. While the interest in supporting public health programs and activities among private companies was high, a vision and capacity for implementation was limited. Most companies had not yet developed a corporate social responsibility (CSR) strategy or done any planning focused on how CSR activities might be designed and implemented. The project organized a CSR training led by an international expert to address the significant knowledge gap both among private sector business directors and public relations managers and MOH staff assigned to coordinate PPP activities but the activity was cancelled due to the early closure of the project.
10. Building partnerships with mass media representatives through trainings, press conferences, and collaborations proved effective in increasing the media's knowledge regarding priority health issues, including health reforms, MCH, RH/FP, TB, and NCDs, and utilizing their resources for further dissemination of the accurate information. The linkages established between MOH senior officials, health experts, and mass media representatives provide a strong foundation for further effective collaboration.

Summary of Project Spending and Contributions Leveraged

Due to its early closure, the project spent $5,349,142 of the original $9,581,341 ceiling of the Cooperative Agreement. Overall, the project experienced an overrun of $4,281 beyond its revised ceiling and obligation of $5,344,861, primarily due to the need to recalculate severance and vacation payouts for local staff at the end of the project based on local legal counsel's interpretation of a new labor law that went into effect January 1, 2013. The overrun was not billed to USAID. The project provided $272,959 in cost share, exceeding its 5% commitment of $267,243 (further details below).

SUMMARY OF HS-STAR EXPENDITURES BY LINE ITEM

Line Item	Budget Estimates	Expenditures Year 1 1/27/11 – 9/30/11	Expenditures Year 2 10/1/11 – 9/30/12	Expenditures Year 3 10/1/12 – 3/31/13	Total Project Expenditures
Direct Costs	$4,279,871	$798,446	$2,314,463	$1,222,949	$4,335,857
Indirect Costs	$1,064,990	$266,401	$528,173	$218,711	$1,013,285
Total Costs (Exclusive of Cost Share)	$5,344,861	$1,064,847	$2,842,636	$1,441,660	$5,349,142
Abt Cost Share	$267,243	$0	$25,115	$247,844	$272,959
Total Costs	$5,612,104	$1,064,847	$2,867,750	$1,689,503	$5,622,101

HS-STAR leveraged $272,391 in additional donated and in-kind contributions supporting project activities. Leveraged contributions are detailed in the table below.

ADDITIONAL CONTRIBUTIONS LEVERAGED BY HS-STAR

Contributor	Purpose of the Contribution	Amount
Gortechproekt firm	Renovation plan and design work for marz-level SHAI Health Education Resource Centers	$1,192
Moskvichka supermarket chain	Plastic bags printed with health messages developed by HS-STAR and MOH	$58,136
Dar 21 TV company	Production and airing of 3 TV programs on health related topics with participation of health experts	$26,536
ArmNews TV company	Production and airing of the "Bujak" TV program (5 free airings of the program donated)	$10,565
Advocacy grant NGOs (Confidence, RDRC)	Portions of salaries and operating costs in support of grant activities (cost share as part of small grants program)	$3,170
National Institute of Health	Experts and working conditions to support development of National Health Accounts reports	$74,271
Arevhat and Ani FMIP	Space, labor, and materials for renovation of FMIP premises	$67,713
Badanyan FMIP	Space, labor, and materials for renovation of FMIP premises	$25,566
Unktura FMIP	Renovation costs for FMIP	$5,810
TOTAL		$272,959

Project Significance for Health System Strengthening in Armenia

Despite an ambitious scope of work given its short duration, the HS-STAR Project made significant progress in achieving its objectives and targets. The project leaves behind a number of strengthened institutions at the national level and in marzes, including the MOH (particularly the Quality Management and Public Health Divisions), SHA, SHAI, SCNIP, NIH, EBM Center, Licensing Agency, educational institutions, provider associations, marz HSSDs, HERCs, PHC facilities, pilot hospitals, and health NGOs/CSOs. The organizations have new scopes of work or refined mandates, increased technical and implementation capacity, and in some cases, improved premises and additional equipment to better perform their institutional duties.

Policies, strategies, frameworks, and action plans have been improved and institutionalized through MOH orders and government decrees to support continuous improvements in health financing, PHC provider performance, and quality of care, particularly related to the provision of priority services including MCH, RH/FP, NCDs, TB, and emergency care. Competition has increased for both CME (through involvement of professional associations) and PHC provision (through establishment of independent practices) which can drive efficiency and quality improvements in the long-term.

Approximately a third of the population has been reached with health education and disease prevention messages related to NCDs, MCH/RH/FP and TB. The MOH has begun to engage the private sector, including local businesses, to design and implement health improvement activities. Civil society organizations, professional medical associations and health NGOs in particular, have increased capacity to train health care providers, develop new standards of care and clinical guidelines, and even advocate the National Assembly and MOH to make changes and improvements in health sector legislation, regulations, and policies.

At project end, the Armenian Government is well poised to build on these shared achievements to further strengthen the health system and improve the quality of care of services provided, in order to continuously improve the health of the Armenian population.

Annexes

Annex 1: HS-STAR Performance Monitoring Plan

Updated as of April 1, 2013

Notes:

- Consistent with the PMP approved by USAID, we included targets for Y3 and Y4 but due to early closure of the project, end of project (EOP) actuals should be compared to Y2 targets.
- Per RFA, baseline values and annual targets for approved indicators will be finalized in collaboration with USAID and after review of existing data, where applicable.
- Whenever possible, indicator data will be disaggregated and reported by sex.
- Annual PMP/result reviews will provide an opportunity to revise targets and indicators as needed.
- An * before an indicator indicates that it is a standard global indicator within the F Structure - Investing in Health.
- Values in bold italic represent USAID Performance Plan Report baseline values and targets, which include but are not limited to HS-STAR inputs

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
Project Objective: Strengthen the Armenian Health System by Ensuring More Effective Utilization of Services													
	Performance Indicators												
1	Number of visits to PHC facility per year per person	Total: 0.77 M: 0.35 F: 0.42	0.82	Total: 0.60 M: 0.29 F: 0.31	0.86	Total: 0.67 M: 0.32 F: 0.35	0.89	Not available due to early project closure	0.89	Total: 0.67 M: 0.32 F: 0.35	SHA, HMIS	Annual	Total number of PHC visits per population enrolled. Data are limited to patient visits conducted and reported by PHC providers.
2	Number of beneficiaries of USG-funded service-oriented programs to reduce non-communicable diseases	***Total: 815,000 M: 392,015 F: 422,985***	***Total: 1,000,000 M: 480,000 F: 520,000***	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	Project records	Annual	Estimation of the total number of beneficiaries reached by HS-STAR NCD activities will be made.
3	Number of visits for preventive RH and FP care	289	228	212	313	232	322	Not available due to early project closure	83	232	SHA, HMIS	Annual	Data are limited to patient visits conducted and reported by PHC providers and reflect only visits for check-up on FP method used.
4	Number of visits for preventive care for children under 5	Total: 293,293 M: 157,005 F: 136,288	230,968	Total: 281,636 M: 151,356 F: 130,280	317,196	Total: 341,177 M: 181,443 F: 159,734	326,712	Not available due to early project closure	84,128	Total: 341,177 M: 181,443 F: 159,734	SHA, HMIS	Annual	Data are limited to patient visits conducted and reported by PHC providers.
5	Number of TB-related visits	2,740	2,158	5,424	2,963	6,066	3,052	Not available due to early project closure	786	6,066	SHA, HMIS	Annual	Data are limited to patient visits conducted and reported by PHC providers.

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
6	Percent of pregnant women registered who made at least one pre-conception visit to a health care provider within one year before the pregnancy	7.2% (baseline)[1]	-	-	-	-		-	40% 15%	Not available due to early project closure	Medical chart review	Baseline Endline	(1) Review of a sample of medical charts of pregnant women from randomly selected facilities. Charts will be reviewed for any pre-conception visit (including exam or counseling) before current pregnancy. Visits because of (per-ceived) late pregnancy will be excluded. All visits including those initiated by women and by healthcare providers will be considered. (2) Given differences in methods of data collection baseline values obtained by the project and RFA might be different. (3) The target of 40% can be reconsidered after obtaining baseline values
7	Percent of pregnant women who receive prenatal care in the first trimester	***83%***	***90%*** HS-STAR: 85%	63.6%	86%	69.3%	87%	Not available due to early project closure	87%	69.3%	SHA, Facility records	Baseline Endline	(1) Facility journals will be reviewed in a sample of medical facilities providing prenatal care at baseline and endline. (2) Facilities will be contacted by telephone on a random basis to provide data on percentage of pregnant women registered during first trimester of care. (3) Given differences in methods of data collection baseline values obtained by the project and RFA might be different.

[1] NOVA 2 baseline was 16.4% and endline was 31.7%. This data was obtained via women interview in the selected NOVA 2 sites.

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
8	Percent of children under 5 with at least one annual preventive examination/ consultative visit	42% (RFA) 68.7% (baseline)	-	-	-	-	-	-	50%	Not available due to early project closure	Medical chart review	Baseline Endline	(1) Review of a sample of medical charts of children under 5. Any preventive examination or consultative visit (including related to vaccination) will be considered as preventive. (2) Given differences in methods of data collection baseline values obtained by the project and RFA might be different. (3) The target can be reconsidered after obtaining baseline values
9	Percent of women of reproductive age who had made at least one annual preventive RH/ FP visit	28% (baseline)	-	-	-	-	-	-	TBD	Not available due to early project closure	Medical chart review	Baseline Endline	Review of medical charts of women of reproductive age (18-49 years). Any preventive RH visit, including pap-test/screening for cervical cancer, HR/FP counseling or any FP visit, will be considered as preventive RH visits.
10	*Treatment success rate to treat MDR TB patients	53% (MSF intervention resulted)	N/A	20%	TBD	38%	TBD	TBD	TBD	38%	NTP	Annual	Percent of registered category IV patients that were cured and completed treatment under DOTS plus with 2nd line TB drugs.
11	Case detection rate for new smear positive TB cases	36%	72%	27%	75%	28%	79%	Not available due to early project closure	79%	28%	NTP	Annual	Starting from 2010 this indicator will not be reported by WHO.

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
Overarching project indicators													
12	*Number of improvements to laws, policies, regulations, or guidelines related to improved access to and use of health services drafted with HS-STAR support - cumulative (individual)	0	2	3	4 (2)	11 (8)	6 (2)	14 (3)	6 (0)	14	Project records	Annual	
13	Number of people who have completed HS-STAR supported non-clinical training activities - cumulative (individual)	0	30	184	90 (60)	956 (1,046)	190 (100)	2,404 (1,264)	190 (0)	2,404	Project records	Annual Quarterly	Participants in trainings in non-clinical disciplines, such as trainings for accountants, IT specialists, managers, NGO staff, and journalists will be counted.
14	Number of seconded positions absorbed by the MoH or relevant counterpart institution	0	-	-	-	-	-	1	2	1	Project records	Baseline Endline	Absorbed will refer to number of seconded HS-STAR staff who stay on with MoH or other national counterpart institution after completion of the project.
15	Number of capacity building activities and/ or events conducted with HS-STAR support - cumulative (individual)	0	7	5	25 (18)	100 (105)[2]	43 (18)	177 (72)	43 (0)	177	Project records	Annual, Quarterly	All types of capacity building activities and events will be counted by this indicator, including seminars, workshops, round tables, trainings, etc.

[2] The number of actual capacity building events and training participants exceeds the target due to underestimation of number of events to be conducted and overall interest in the training which resulted in increased number of participants per event.

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
Component 1: Establish Transparent and Accountable Health Financing and Governance System													
Intermediate Result 1. Health and Social Protection Financial Resources Used More Efficiently													
Outcome indicators													
1.1	Out-of-pocket expenditures as percent of total health expenditures	51%	-	-	-	-	-	-	40%	Not available due to early project closure	National Health Accounts	Annual	(1) NHA data are reported annually with 1-2 year delay. Baseline data are available for 2008. The data reported in 2013 might represent 2011/2012 not reflecting actual end of project activities. (2) Given co-payment mechanism for emergency and gynecological care was introduced by MoH in 2011, the change in out-of-pocket payments may increase, decrease or remain the same, depending on the portion of out-of-pocket payments made for emergency and gynecological care within overall out-of-pocket expenditures.
Output indicators													
1.2	Enrollment-based financing scheme is implemented	-	-	-	X	in process	-	-	-	Relevant government decree issued	Project records	Milestone	
1.3	Strategies developed with HS-STAR support to improve payment systems for priority services	-	-	-	X	achieved/ in process	-	-	-	Achieved	Project records	Milestone	TB financing system captured in another indicator below.

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
1.4	Percent of PHC facilities receiving payment based on performance	61.0%	67.0%	94%	72.0%	TBD	75.0%	-	75.0%	94%	SHA	Annual	Data will be compared against 10 performance indicators set for 2010. Data are reported per calendar year.
1.5	Number of newly established independent PHC practices contracted by SHA to provide BBP services under state order -cumulative (indivi-dual)	0	0	0	3	0	5 (2)	5 (5)	5 (0)	5	SHA	Annual	
1.6	Health workforce plan for emergency care developed by MoH with HS-STAR support	-	-	-	X	achieved/ in process	-	-	-	Achieved	Project records	Milestone	
1.7	Number of workforce planning tools developed with support from HS-STAR - cumulative	0	1	1	2	2	3	0	3	2	Project records	Annual	Including modifications to existing and project-developed tools
Component 2: Institutionalize a System of Continuous Improvement of the Quality of Provided Services													
Intermediate Result 2. Quality of Health and Social Protection Services Improved													
Outcome indicators													
2.1	Percent of patients diagnosed with hypertension who had at least one ECG during the reporting period	41.4%	50.0%	51.3%	55.0%	54.4%	60.0%	Not available due to early project closure	60.0%	54.4%	SHA/HMIS	Annual	(1) Data are limited to patients diagnosed with hypertension referred to ECG by PHC providers. (2) This indicator illustrates USAID indicator on percent of facilities showing improvement against selected MoH indicators.

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
2.2	Percent of patients diagnosed with ischemic heart disease who had at least one cholesterol test during the reporting period	32.7%	37.0%	44.2%	40.0%	50.1%	43.0%	Not available due to early project closure	43.0%	50.1%	SHA/HMIS	Annual	(1) Data are limited to patients diagnosed with ischemic heart disease with at least one cholesterol test conducted by PHC providers. (2) This indicator illustrates USAID indicator on percent of facilities showing improvement against selected MoH indicators.
							Output indicators						
2.3	* Number of medical and paramedical practitioners trained in evidence-based clinical practices with HS-STAR support - cumulative (individual)	***437***	***400*** HS-STAR: 0	0	350	451‡	720 (370)	522 (71)	720 (0)	522	Project records	Annual Quarterly	(1) Evidence-based clinical guidelines are based on at least one clinical standard issued by a national authority. Training refers to a new training or retraining of individuals and assumes that training is conducted according to national or international standards, when these exist. A training must have specific learning objectives, a course outline or curriculum, and expected knowledge, skills and/or competencies to be gained by participants. (2) The indicator includes trainings in evidence-based clinical practices related to NCDs, including emergency care.

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
2.4	Number of people trained in RH/FP with HS-STAR support - cumulative (individual)	***Total: 1,046 M: 63 F: 983***	***Total: 1,000 M: 60 F: 940*** HS-STAR: 0	0	200	192	400 (200)	239 (47)	400 (0)	239	Project records	Annual Quarterly	Training refers to a new training or retraining of individuals and assumes that training is conducted according to national or international standards, when these exist. A training must have specific learning objectives, a course outline or curriculum, and expected knowledge, skills and/ or competencies to be gained by participants.
2.5	Number of people trained in maternal/ newborn health with HS-STAR support - cumulative (individual)	***Total: 1,080 M: 184 F: 896***	***Total: 500 M: 85 F: 415*** HS-STAR: 50	11	410 (360)	438 (449)‡	720 (310)	531 (82)	720 (0)	531	Project records	Annual Quarterly	Training refers to a new training or retraining of individuals and assumes that training is conducted according to national or international standards, when these exist. A training must have specific learning objectives, a course outline or curriculum, and expected knowledge, skills and/ or competencies to be gained by participants.

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
2.6	Number of health care providers trained in emergency care through continuous medical education supported by HS-STAR -cumulative (individual)	0	0	0	50	0	120 (70)	45 (Oct 12 – Mar 13)	120 (0)	45	Project records	Annual, Quarterly	Training refers to a new training or retraining of individuals and assumes that training is conducted according to national or international standards, when these exist. A training must have specific learning objectives, a course outline or curriculum, and expected knowledge, skills and/ or competencies to be gained by participants.
2.7	Number of recommendations to improve facility licensing developed by HS-STAR and accepted by MoH or Licensing Agency - cumulative	0	0	0	1	1	2	0	2	1	Project records	Annual	Accepted is defined as any formal or informal commitments of MoH, the Licensing Agency or other stakeholder to accept the recommendation
2.8	Accreditation-like (certification) mechanism for hospital emergency departments developed and recommended for improvement	-	-	-	-	-	X		-	-	Project records	Milestone	

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
Component 3: Build the Capacity of the National Tuberculosis Program													
Outcome indicators													
3.1	Percent of facilities providing in- and out-patient TB services with improved IC supported by HS-STAR and that comply with WHO-recommended infection control standards	0%	-	-	-	-		-	50%	Not available due to early project closure	NTP facility monitoring visit reports	Baseline and endline	NTP to provide data as soon as possible.
Output indicators													
3.2	Number of people trained in DOTS with HS-STAR support - cumulative (individual)	***Total: 658*** ***M: 92*** ***F: 566***	***Total: 200*** ***M: 40*** ***F: 160*** HS-STAR: 0	1,064	200	1,064 (0)	400 (200)	0	400 (0)	1,064	Project records, NTP	Annual, Quarterly	Training refers to a new training or retraining of individuals and assumes that training is conducted according to national or international standards, when these exist. A training must have specific learning objectives, a course outline or curriculum, and expected knowledge, skills and/ or competencies to be gained by participants.
3.3	Number of improvements to TB po-licies, strategies, plans, regulations, or guidelines drafted with project support - cumulative (individual)	0	1	1	3 (2)	3 (2)	4 (2)	0	4 (0)	3	Project records	Annual, Quarterly	

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
3.4	TB services financing mechanism refined with HS-STAR support	-	-	-	X	in process	-	-	-	Achieved	Project records	Milestone	
3.5	NTP Monitoring and Evaluation System improved with HS-STAR support	-	-		X	achieved/ in process	-	-	-	Achieved	Project records	Milestone	
3.6	Number of facilities providing in- and out-patient TB services in adherence of CPGs - cumulative (individual)	0	0	0	20	TBD	35 (15)	0	40 (5)	Not available due to early project closure	Project records, NTP monitoring reports	Annual, Quarterly	Will refer to selected TB facilities to implement QI processes
3.7	Number of TB facilities with infection control plans developed with HS-STAR support - cumulative (individual)	0	0	0	20	73	35 (15)	73	40 (5)	73	Project records NTP	Annual, Quarterly	Will refer to selected TB facilities to implement QI processes
Component 4: Enable Civil Society to Exercise their Health Rights and Responsibilities													
Intermediate Result 3. Citizens Exercise their Health and Social Protection Rights and Responsibilities													
Output indicators													
4.1	Number of NGO and civil society groups trained with HS-STAR support in raising awareness for healthy behaviors and health consumer protection - cumulative (individual)	0	0	0	2	2	4 (2)	3 (1)	4 (0)	3	Project records	Annual, Quarterly	

No.	Indicator	Baseline	Y 1 Jan 11 - Sept 11		Y 2 Oct 11 - Sept 12		Y 3 Oct 12 - Sept 13		Y 4/EOP Oct 13 - Jan 14 Target	EOP Actual	Data source and collection method	Frequency of reporting	Comments and assumptions
			Target	Actual	Target	Actual	Target	Actual (Oct – Dec 12)					
4.2	* Number of health facilities rehabilitated with HS-STAR support- cumulative (individual)	***26***	***15*** HS-STAR: 0	0	2	5	5 (3)	7 (2)	5 (0)	7	Project records	Annual, Quarterly	Rehabilitated is defined to include cosmetic upgrades such as whitewashing walls, structural improvements (replacing broken windows, fixing leaky roofs, rebuilding damaged walls or roofs), and mending broken furniture.
4.3	Number of people who have seen or heard a specific FP/ RH message supported by HS-STAR	300,000	300,000	300,000	1,000,000	1,000,000	1,000,000	1,000,000	300,000	1,000,000	Project records	Annual	Estimated number of people who might hear a specific RH/FP message supported by the project will be considered as proxy for this indicator
4.4	Number of HS-STAR assisted civil society organizations that engage in advocacy and watchdog functions - cumulative (individual)	0	0	0	1	2	2 (1)	2 (0)	2 (0)	2	Project records	Annual	
4.5	Number of public education materials developed and/ or published with HS-STAR support - cumulative (individual)	0	1	1	5 (4)	7 (6)	9 (4)	17 (10)	9 (0)	17	Project records	Annual, Quarterly	

Annex 2: Activity Briefs

Establishing Transparent and Accountable Health Financing and Governance System

- Increasing the Utilization and Improving the Quality of PHC Services through Pay-For-Performance
- Strengthening Provider Payment Systems through Enrollment-Based Financing for Primary Health Care
- Improving Primary Health Care Financing through Differentiated Per Capita Payments
- Medium-Term Expenditure Framework and State Budgeting
- National Health Accounts (NHA), Health System Performance Assessment (HSPA), and TB Subaccount
- Health Financing Information System
- TB Financing
- Supporting the Establishment of Independent Family Medicine Practices
- Automated System for Child Growth and Nutrition Surveillance

Institutionalizing a System of Continuous Improvement of the Quality of Provided Services

- Improving the Quality of Care in Hospitals
- Clinical Standardization and Development of Cardio-Metabolic Risk Assessment and Management Clinical Protocols
- Improving Quality of Care through Continuing Medical Education
- Strengthening Neonatal and Pediatric Intensive Care in the Regions
- Improving the Quality of Health Care through Licensing
- Improving the Quality of Emergency Care
- Strengthening Health Workforce Planning

Enabling Civil Society to Exercise Their Health Rights and Responsibilities

- Strengthening the Health Education Capacity of the Ministry of Health
- Increasing Civil Society Engagement in Health through Legislative Agenda Advocacy Day
- Increasing Civil Society Engagement in Health by Building the Institutional Capacity of Health NGOs
- Promoting Public Private Partnerships (PPPs) to Improve Health Education
- Educating the Population about Health Reforms and Priority Health Issues
- Health Education Resource Centers

USAID FROM THE AMERICAN PEOPLE | HS-STAR HEALTHCARE SYSTEM STRENGTHENING IN ARMENIA

Activity Brief

Increasing the Utilization and Improving the Quality of PHC Services through Pay-for-Performance

Background

In an effort to increase the utilization and improve the quality of care for priority health services and demonstrate the impact of an increased primary health care (PHC) budget on the population and providers, the Ministry of Health (MOH) of Armenia developed and pilot tested a pay-for-performance system in the early 2000s with support from USAID. Using 10 indicators focused on priority health areas, such as non-communicable diseases (NCDs) and maternal and child health, the system was designed to reward PHC providers with bonuses for meeting targets set by the MOH. To support the improvement and expansion of the national pay-for-performance system, HS-STAR provided comprehensive technical and operational assistance to the State Health Agency (SHA), the MOH, and PHC staff.

Under the new pay-for-performance system implemented with support from HS-STAR, PHC representatives receive incentive payments for high performance.

Approach

HS-STAR supported the new pay-for-performance system through a range of activities, including the analysis of performance data, the creation of tools to calculate bonus payments, the design of online feedback reports, trainings on implementation and use of the new system, the development and introduction of new performance indicators, and modifications to the electronic data recording and reporting system.

In preparation for the first payments to high-performing providers, HS-STAR provided technical assistance to SHA with the selection and analysis of performance data from the national database in order to assess PHC provider performance in 2010.

To support smooth implementation of the new system at the PHC level, HS-STAR conducted trainings for PHC accountants on the use of an Excel tool developed by the project to enable PHC accountants to swiftly and easily calculate the bonus payments for each physician and nurse based on their achievement of performance indicators. In an effort to increase transparency and communication, HS-STAR supported the development of online feedback reports so PHC facilities could review their checked and validated performance results in a transparent way.

Based on the demonstrated success of the pay-for-performance system during the first two years, SHA and the MOH decided to build on and expand the list of performance indicators to cover more priority health areas, further improve the quality of care, and evaluate the performance of providers more comprehensively. As part of this effort, HS-STAR provided technical assistance with the development of a comprehensive guide to the new indicators for PHC facilities. To enable electronic recording and reporting of the new indicators, HS-STAR contracted the information technology company Comine Soft to modify the MIDAS health information system under the project's supervision. The project also monitored Comine's countrywide trainings for PHC providers, managers, and information system operators on the new indicators.

Achievements

The launch of the national PHC pay-for-performance system in 2011 in all PHC facilities after nearly eight years of development was a substantial achievement. During the first year of the system, 61% of the country's 335 PHC facilities received bonus payments from SHA for meeting or exceeding performance targets. The following year, the percentage of facilities qualifying for the performance bonuses reached 94%. At less than 1% of the total budget for PHC, the total bonus payments made to the facilities demonstrate the impact of strategic investments on the quality of PHC services.

The 30 new performance indicators were officially approved by the MOH order N 879-A in April 2012 and were introduced in 2013. More than 800 managerial and medical staff were trained on the new indicators. The modified version of the MIDAS system was successfully installed and over 400 information system operators from PHC facilities were trained on the new software features.

Sustainability

Across all pay-for-performance activities, the project worked closely with SHA, the MOH, and PHC staff to build local capacity and ensure institutionalization of its efforts. For example, HS-STAR's involvement in the 2010 performance data analysis enabled SHA to conduct the analysis for 2011 with less assistance from the project. The nationwide trainings on achieving and reporting the new indicators, calculating bonus payments, and using the modified MIDAS software have built the capacity of PHC providers, managers, accountants, and information system operators to implement the pay-for-performance system as designed.

Challenges and Risks

Implementation of pay-for-performance systems often requires new reporting systems that providers may find burdensome at first. HS-STAR tried to minimize the reporting burden on PHC workers as much as possible by incorporating the performance indicators into existing reporting forms and the MIDAS health information system.

Data falsification or misreporting is a potential risk in pay-for-performance systems. To mitigate this risk, the MOH and SHA closely monitor performance results through routine data checks and auditing visits.

Priorities for the Future

While the bonus payments have led to improved performance, the current size of the payments may not be substantial enough to continuously motivate providers. Increasing the size and frequency of the bonus payments may help to further incentivize performance improvements. It is also an opportune time to extend the pay-for-performance system to specialist and lab/diagnostic services at the PHC level as these areas would benefit from performance improvements. To ensure proper use of resources, close monitoring of performance data will need to remain a high priority for managers of the pay-for-performance system.

4550 Montgomery Avenue, Suite 800 North, Bethesda, MD 20814
301.347.5000 I 301.913.9061

USAID FROM THE AMERICAN PEOPLE | HS-STAR HEALTHCARE SYSTEM STRENGTHENING IN ARMENIA

Activity Brief

Strengthening Provider Payment Systems through Enrollment-Based Financing for Primary Health Care

Background

In 2007 the Government of Armenia (GOA) started to transition from a catchment-based primary health care (PHC) system, in which patients were assigned to a specific health facility based on their place of residence, to an enrollment-based system, in which patients were allowed to freely choose their PHC provider (i.e., family doctor, internist, pediatrician). As of late 2012, more than 90% of the Armenian population was enrolled with a primary care physician. In spite of this high enrollment rate and the availability of enrollment data through the MIDAS health information system, the State Health Agency (SHA) continued to use catchment area population data to calculate base budgets for PHC providers, with minor adjustments to the per capita rate for enrolled populations, because the transition did not have sufficient political support. SHA requested HS-STAR assistance with the transition to enrollment-based financing for PHC providers.

Approach

Working closely with SHA, HS-STAR helped to encourage the transition to enrollment-based financing by analyzing the expected impacts of the new system. The project developed a simulation model using budget data from 2011 to estimate the effects of this financing approach on the budgets and staffing of Yerevan polyclinics. The analysis revealed that facilities with less than 88% enrollment, nearly half of Yerevan's polyclinics, would face budget cuts under an enrollment-based financing system based on 2011 budget and payment rates. Meanwhile, polyclinics with more than 88% enrollment would experience static or increased budgets.

The analysis also revealed that more than 80% of Yerevan PHC doctors have fewer enrolled patients than the national standard and, therefore, are not working at optimal efficiency. This finding became a significant factor in the decision to fully transition to enrollment-based financing.

In response to the findings of the simulation, the MOH and SHA began to engage PHC managers in Yerevan to develop a phased approach for addressing the overstaffing issue in polyclinics.

HS-STAR supported this process through the development of a tool to guide polyclinics in the preparation of plans for optimizing their staffing based on analyses of their workforce and workload data.

Achievements

The evidence generated and presented by HS-STAR helped to convince the GOA to issue amendments to decree N 318 in April 2013, which makes a commitment to supporting the full transition to enrollment-based financing for PHC providers. Building on the project's efforts to help Yerevan polyclinics prepare for this transition, SHA plans to introduce the new financing system starting in January 2014.

Sustainability

The recent GOA decree serves as a critical legal basis for the transition to enrollment-based PHC financing. The project's close collaboration with SHA helped to build the agency's capacity to analyze the effects of financing changes on the budgets of PHC providers. The project also helped to prepare PHC managers for a smooth transition to the new system.

Challenges and Risks

Staff changes among key stakeholder agencies delayed progress with this initiative. Concerns among PHC managers about staff reductions within their polyclinics also delayed progress.

Priorities for the Future

To ensure that the enrollment-based budget estimates are accurate, stakeholders will need to clean and update the enrolled population data, most of which was recorded and entered into the electronic database in 2007-2008. It will also be important to expedite the processing of new enrollments or changes in enrollments, preferably using the online data entry and checking system, so that this data is captured as quickly as possible.

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Activity Brief

Improving Primary Health Care Financing through Differentiated Per Capita Payments

Background

Per capita financing for primary health care (PHC) services is most equitable and cost-effective when payment rates reflect the actual costs of providing the services. The most common method for approximating these costs is the development of different per capita rates for different population groups based on their health care needs. Until recently, Armenia used a per capita PHC payment system differentiated by only two population groups: individuals older than 18 years old and those 18 and younger. Since there is a substantial amount of variability of PHC service utilization within these two groups, the State Health Agency (SHA) set out to develop additional per capita rates that better approximate the actual costs of primary care for different categories of individuals. As part of its objective to strengthen the capacity of the Government of Armenia (GOA) to properly manage available resources, HS-STAR helped SHA to improve the design of the country's differentiated per capita payment system for PHC services.

Approach

HS-STAR worked closely with SHA to calculate new per capita rates that more accurately reflect the actual costs among different categories of users of PHC services. To do so, the project and SHA used the MIDAS health information system database to study PHC utilization data from 2010 for different age and gender categories.

Achievements

Based on the analysis, the project proposed per capita rates for the following age categories differentiated for both male and female populations: 0-7, 7-18, 18-45, and 45 and older. Differentiated per capita rates based on these population categories will enable the MOH to target resources for those groups that need and consume more health care. The new rates may also motivate providers to be more efficient and to provide more preventative services because PHC facilities will be able to keep any savings that are generated when actual costs fall below the per capita rates.

Sustainability

By working closely with SHA, HS-STAR equipped agency staff with the skills needed to regularly conduct service utilization analyses in the future. As a result, the MOH will be able to regularly adjust the rates for greater accuracy as the quality and quantity of health service utilization data grow. The close data monitoring inherent in a differentiated per capita payment system may also increase the accuracy of enrollment and utilization data in the future.

Challenges and Risks

Since per capita rates depend on service utilization data, high quality encounter data is essential for the calculation of appropriate rates. It is expected that data accuracy will become less of a challenge as the quality of encounter data improves with better monitoring and feedback to providers.

Priorities for the Future

When combined with enrollment-based financing, a differentiated per capita payment system can create incentives for quality since providers will compete for more patients in order to receive more funding. Therefore, stakeholders should consider introducing the differentiated per capita payment system either with or immediately after the country's transition to enrollment-based financing. To ensure that the differentiated per capita payment system benefits patients, providers, and GOA, SHA and the MOH will need to periodically conduct timely analyses of utilization data and quickly make adjustments to the per capita rates as needed. This kind of responsiveness will require the commitment of additional human resources within SHA. It will also be important to ensure that clinical protocols appropriately reflect the services that are anticipated for the various population groups.

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Activity Brief

Medium-Term Expenditure Framework and State Budgeting

Background

The Medium-Term Expenditure Framework (MTEF) is a strategic tool that sets forth a sector's available resources and expenditures based on policy priorities for a three-year period. The MTEF serves as a basis for developing the state budget and improves the transparency of program budgeting. Due to the economic crisis in 2009, the MTEF development process in Armenia was cancelled until 2011. As part of its objective to develop and sustain the capacity of the Government of Armenia (GOA) to properly manage available resources for health, HS-STAR helped the Ministry of Health (MOH) to improve the structure and content of the health MTEF in 2012.

HS-STAR helped MOH Economic Department staff to restructure the health MTEF in order to improve state budgeting for health.

Approach

Applying its extensive knowledge of Ministry of Finance processes, HS-STAR worked closely with staff from the MOH Economic Department to align the health MTEF structure with the health budget, which reflects priority health programs. This restructuring will enable a correlation between planned resources for state health programs and reported outcomes in next year's MTEF. The project helped to improve the analytical section of the MTEF by including data and analysis of newly added outcome indicators targeting priority services. The project also included a risk analysis section to identify and prevent expense planning risks resulting from deviations such as changes in allocated budgets or types of services covered by the state.

Achievements

The new MTEF document developed with support from HS-STAR was approved by the GOA decree No. 740-N on June 14, 2012. The project also helped to build the health budgeting capacity of MOH Economic Department staff.

Sustainability

The MOH is committed to continuing the MTEF development process with the new approaches and structure. The MTEF's increased focus on data will help the MOH to justify its budget requests during discussions with GOA decision-makers and, consequently, secure sufficient funding for priority health services.

Challenges and Risks

The calculation of the health budget remains a challenging exercise given the shortage of government funding compared to the large scope and volume of state guaranteed services. As a result of recent slow economic growth, the health budget has not seen an increase in several years; this fiscal reality curtails the country's ability to include investments in innovative health system strengthening approaches in the MTEF.

Priorities for the Future

The MOH Economic Department is currently one of the only departments involved in the MTEF development process. The MTEF would greatly benefit from the participation of other agencies and departments that play a role in the planning, management, and provision of health care services as these institutions can help to provide a more accurate and comprehensive assessment of needs, risks, and indicators included in the MTEF. This collaborative approach will also increase accountability for the priorities identified in the MTEF.

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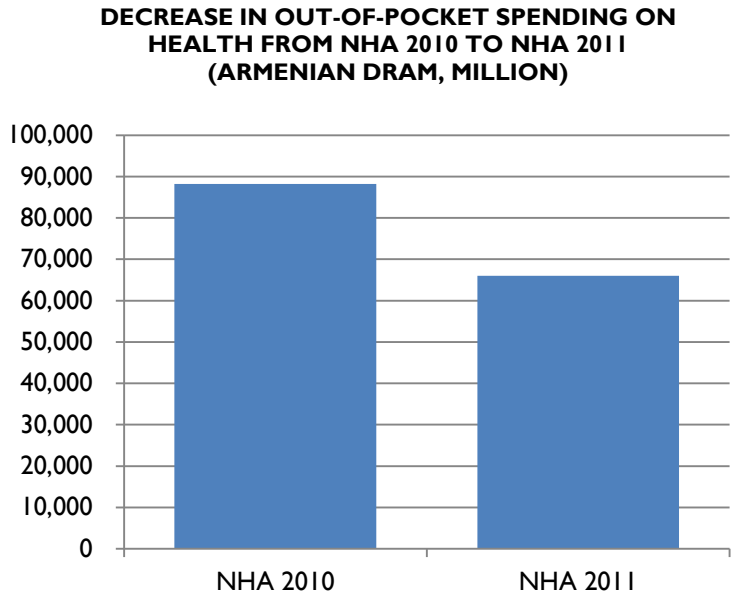
Activity Brief

National Health Accounts (NHA), Health System Performance Assessment (HSPA), and TB Subaccount

Background

National Health Accounts (NHA) and Health System Performance Assessments (HSPA) are two widely used methodologies that provide policymakers with important data that can inform decisions about the health system. NHA tracks the flow of financial resources for health, and HSPA provides a quantifiable and comprehensive assessment of health system performance. While the NHA and HSPA reports provide policymakers with extremely valuable information, the operationalization of these tools requires unique expertise and funding that may not be readily available in some countries. Armenia has been conducting NHA and HSPA activities since 2005 and 2007 respectively with financial support from the World Bank and technical assistance from the World Health Organization and USAID. Due to funding constraints, the Ministry of Health (MOH) and the World Bank requested HS-STAR assistance with the development of the NHA 2010 and 2011 reports and the HSPA 2010/2011 report.



The NHA 2010 and 2011 reports, which were developed with support from HS-STAR, showed a significant decrease in household spending on health.

Approach

HS-STAR supported the development of the NHA and HSPA reports in three crucial ways. First, the project actively participated in the NHA working group and provided technical assistance with the development, writing, and review of the NHA 2010 report. To enable Armenia to transition from heavy reliance on donors for NHA and HSPA activities, HS-STAR helped a local agency, the National Institute for Health (NIH), to assume financial and technical responsibility for developing and producing the NHA and HSPA reports. Finally, the project identified, contracted, and monitored two research organizations, APR Group NGO and 3R Strategy LLC, to conduct nationwide household surveys to inform the NHA 2011 report and the HSPA 2010/2011 report, respectively. The NHA survey collected data on household health expenditures while the HSPA survey focused on elements of health care utilization such as availability, accessibility, quality, responsiveness, equity, and efficiency of services.

To help policymakers to track and manage funding for tuberculosis (TB) services more effectively, HS-STAR developed a methodological package for the preparation of a TB subaccount, including guidance on the collection of data from service providers, TB patient households, and financing agents.

Achievements

With extensive technical support from HS-STAR, the NHA working group completed and submitted the final draft of the NHA report 2010 to MOH for review and approval.

Institutionalization of the NHA and HSPA development processes was successfully accomplished through Government of Armenia Decree No. 817-N, which officially charges the NIH with institutional responsibility for developing and producing the NHA and HSPA reports and supporting other policy working groups.

The organizations hired by HS-STAR completed the NHA 2011 and HSPA 2010/2011 household surveys and transferred the verified data to the working group members, who will incorporate the findings into the reports. Preliminary results from the NHA survey suggest that out-of-pocket payments decreased by about 9% from 2010 to 2011, a positive trend that will be explored in more detail in the NHA 2011 report.

In addition to developing guidance for the development of a TB subaccount, the project prepared a TB Subaccounts Implementation Action Plan and terms of reference for conducting a study of TB patients to assess household TB expenses.

Sustainability

Assumption of the NHA and HSPA development processes by the NIH was a significant achievement as institutionalization of these critical health system functions had been attempted by donors in the past but had not succeeded since 2005. Starting from 2013, the locally supported NHA and HSPA working groups, rather than donors, will initiate development of the 2012 reports. Meanwhile, the TB subaccount guidance provides TB stakeholders with the technical direction needed to prepare a TB subaccount in the near future.

Challenges and Risks

Although most elements of the NHA and HSPA development processes have been absorbed by the NIH, funding support for the 2013 household studies has not yet been secured.

Priorities for the Future

To ensure that the NHA and HSPA household studies can continue without donor support, the MOH may consider either delegating the planning and budgeting for these studies to one of the health sector institutions, such as the NIH, or working with the National Statistical Service to incorporate the NHA and HSPA questionnaires into their annual household studies.

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Activity Brief

Health Financing Information System

Background

In addition to functioning as the health financing agency in Armenia, the State Health Agency (SHA) has taken on greater responsibility for the operation and maintenance of MIDAS, the country's health information system, which informs all state financing decisions and operations and accumulates data on health status and provider performance. With the goal of institutionalizing health financing information responsibilities, HS-STAR helped to strengthen SHA's capacity to securely receive, store, and manage data from provider facilities and use the health information more effectively.

Approach

To build SHA's capacity to maintain the central database of the health information system, HS-STAR upgraded the agency's servers and renovated the server room. As part of this process, HS-STAR assessed the agency's data security and privacy hardware and software requirements and procured and installed needed equipment, software, and supplies.

HS-STAR upgraded SHA's servers and renovated the server room as part of efforts to build the agency's capacity to maintain MIDAS.

In light of the confidential nature of patient health data, HS-STAR worked with SHA to improve the safe transfer of data between levels of health system. To do so, HS-STAR upgraded, configured, and prepared hardware and network resources at the central and marz-level SHA for implementation of a Secure Virtual Private Network (VPN) and encrypted web-based tool for the secure transfer of inpatient and primary health care (PHC) patient encounter data. All users were trained in proper use of the data security features.

HS-STAR provided financial and technical support to the local information technology company Comine Soft to make a number of important modifications to the MIDAS software. The project then trained SHA staff to use the new analytic features of the system. The project also provided ongoing MIDAS operation and maintenance support to SHA.

Achievements

The upgrades and renovations to the SHA server room have established the conditions necessary for the uninterrupted operation of the central database servers. The introduction of the VPN and encrypted web-based tool allows for the electronic transfer of reports from 150 hospitals and 335 PHC facilities to the central SHA database in a secure manner.

Sustainability

HS-STAR's efforts to build SHA's information system capacity impact the entire health system, which depends on the continuous availability of accurate and timely data. As a result of the project's support, SHA will be able to build the data use and analytic capacity of staff from other user institutions.

Challenges and Risks

Unreliable internet access is a challenge faced by some users of the system.

Priorities for the Future

Improvements to the country's internet capacity are critical for the success of the electronic health information system. The Government should also plan for routine upgrades and budget for hardware that required in the future. To prevent unauthorized access to the health database, SHA will need to routinely monitor access, follow-up on management of the password policy, and periodically change user passwords.

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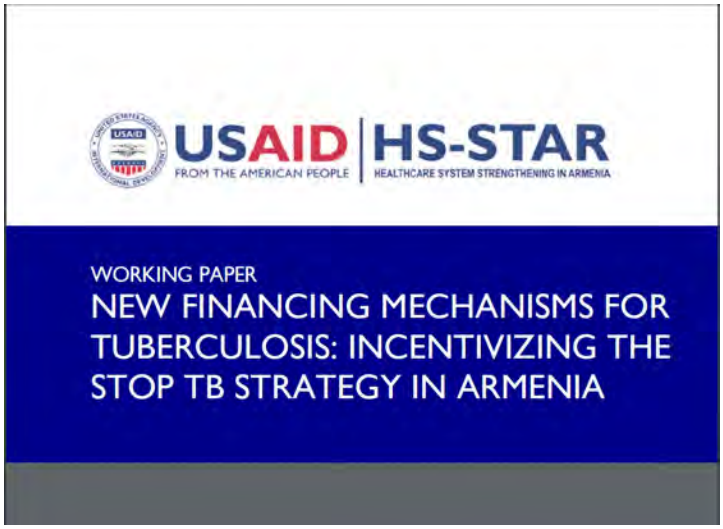
Activity Brief

TB Financing

Background

Appropriate financing mechanisms are a critical component of initiatives to improve the prevention, early detection, diagnosis and treatment of tuberculosis (TB). Armenia began to explore changes to its financing systems for TB services in 2009 through discussions initiated by WHO with input from State Health Agency (SHA), the Ministry of Health (MOH), and the Global Fund to Fight AIDS, TB and Malaria but the working group's recommendations were not implemented. As a complement to its efforts to build local capacity in the prevention, diagnosis, and treatment of TB in Armenia, HS-STAR provided technical assistance to refine the working group's recommendations and design and propose new TB financing mechanisms.



HS-STAR proposed new financing mechanisms to improve TB services.

Approach

In light of the unique nature of TB service delivery in former Soviet countries, HS-STAR invited an international health financing consultant with experience in TB financing reform in Central Asia to propose options to improve TB financing in Armenia. The consultant's report, "Working Paper: New Financing Mechanisms for Tuberculosis:

Incentivizing the Stop TB Strategy in Armenia," summarizes Armenia's service delivery structure and financing for TB and recommends potential new provider payment mechanisms to improve outpatient and inpatient TB services.

Based on the recommendations of the consultant and discussions with TB stakeholders in Armenia, HS-STAR proposed the following new financing mechanisms for outpatient TB services:

- Incentivize early detection of TB cases by PHC doctors with a bonus payment based on the percent of patients referred to a TB doctor by a PHC doctor whose diagnosis of TB is confirmed.
- Incentivize adherence to DOTS by adding a performance-based payment component to the current per capita funding for TB cabinets. A bonus can be paid to cabinets that attain more than 80% of the maximum number of visits per each TB case requiring DOTS treatment.
- Incentivize treatment adherence by paying a bonus to TB cabinets for treatment outcomes.
- Incentivize proper diagnosis of pulmonary TB by providing a bonus payment to TB cabinets for bacteriological examination of suspected pulmonary TB cases.

In addition to providing recommendations related to the financing of outpatient TB services, HS-STAR proposed options for reducing the costs of inpatient TB services in hospitals. For example, the project recommended using fixed budgets for inpatient TB services instead of the current budgets based on the number of bed days, which encourage excessive hospital stays.

Achievements

In April 2012, the MOH officially approved 30 new performance indicators for the PHC pay-for-performance system, including an indicator for the referral of suspected TB cases to TB cabinets by PHC doctors, as proposed by HS-STAR. The TB indicator, along with the 29 other indicators, was introduced nationwide in January 2013. It is expected that this indicator will motivate PHC doctors to be more proactive in identifying suspected TB cases and referring these patients to TB cabinets for further examination.

HS-STAR shared all of its TB financing recommendations with SHA for inclusion in the "Concept document on new methodologies in health financing," which is pending approval by the Government of Armenia.

Sustainability

Rather than creating a parallel system dependent on donors, HS-STAR advocated for the inclusion of the TB-related indicator in the PHC performance-based payment system that is already being implemented by the government. The other incentive mechanisms can similarly be incorporated into the existing financing systems for TB services to ensure their sustainability.

Challenges and Risks

The proposal to reduce hospitalization for TB patients was met with some resistance by stakeholders concerned about the associated loss of funding. This issue was not resolved by the end of the project. Another challenge is the current per capita payment based on the catchment population, which is not sufficient to meet all the needs of TB patients shifted to the PHC service.

Priorities for the Future

It is strongly recommended that the modifications to the payment systems for outpatient and inpatient TB services be introduced at the same time to ensure that the PHC level has sufficient resources to cover the increase in patient load resulting from reduced hospitalizations.

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Activity Brief

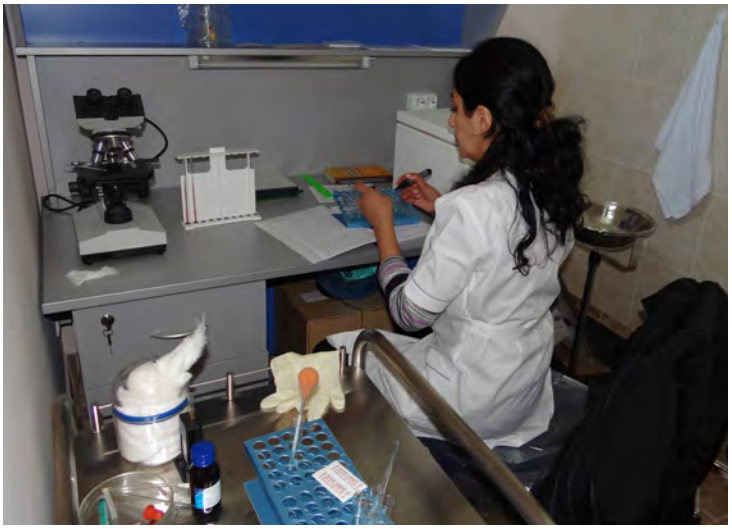
Supporting the Establishment of Independent Family Medicine Practices

Background

The Government of Armenia has officially supported the introduction of family medicine independent practices (FMIPs) in urban settings since 2006 as an alternative and more effective way of organizing and delivering primary health care (PHC) family medicine services. However, initial attempts to establish such practices were unsuccessful due to the absence of an enabling environment, limited management capacity among interested providers, and inadequate physical spaces for such facilities. HS-STAR implemented a package of activities to address these barriers and to support the establishment of FMIPs in urban areas of Armenia.

Approach

HS-STAR adopted a five-pronged approach to support independent PHC providers: identifying interested parties with the potential to set up FMIPs; helping interested parties to navigate the registration process; helping interested parties to renovate their premises and furnish their offices with necessary equipment and supplies; building the management capacity of interested parties; and supporting the creation an enabling environment for the establishment of FMIPs.



HS-STAR equipped five FMIPs with the technical and physical capacity to provide PHC services to clients in urban areas.

HS-STAR identified five parties interested in establishing FMIPs in urban areas: Margarit Primary Health Care Centre Ltd and Kardiomed Family Medicine Center LLC in Abovyan, Kotayk; Yunctura Family Doctor's Independent Practice Ltd in Djrvezh, Yerevan; Doctor Badanyan Ltd in Kharberd, Yerevan; and Arevhat & Ani Ltd in

Noyemberyan, Tavush. The project helped these parties to understand the registration process and to complete the application documentation needed to obtain family medicine provider licenses from the MOH Licensing Agency.

In parallel to the registration process, the project helped four of the FMIPs to renovate their premises. As part of this initiative, the project collaborated with an engineer to conduct assessments of the FMIP premises, develop renovation plans, and monitor the renovation work. The FMIPs contributed approximately $99,000 worth of labor and materials to the renovations.

To set up private health practices that meet the license requirements for the provision of family medicine, HS-STAR worked with three of the FMIPs to assess their equipment and supply needs. The project then procured $83,500 worth of computer and health care equipment, office furniture, and other supplies for the FMIPs.

Since the operation of an FMIP requires not only the provision of health services, but also management of the practice, HS-STAR held five-day trainings for all five FMIPs to build the capacity of the seven family doctors in general and financial management, financial accounting, and healthcare administration. The project also organized two-day seminars for four of the FMIPs on use of the MIDAS automated information system at the training center of Comine Soft, a local information technology company. In addition, the project supported a three-month accounting course at International Accountancy Training Center (IATC) for the accountants from two of the FMIPs.

To facilitate the transition of the FMIPs from polyclinics to independent practices, the project involved the management of their former medical centers and regional health authorities in the FMIP establishment process.

As part of efforts to support the creation of an enabling environment for FMIPs, HS-STAR conducted a study of the legal, regulatory and other barriers to establishing and operating FMIPs in urban settings of Armenia and developed recommendations to address some of these barriers, including amendments to relevant laws.

Achievements

All five of the FMIPs supported by HS-STAR received licenses from the MOH Licensing Agency to provide family medicine services. Margarit Primary Health Care Center, the first urban FMIP in Armenia providing state covered basic benefit package services to the enrolled population, opened its doors to clients on November 1, 2012 and has managed 3,220 patient visits as of April 2013. The other FMIPs started their operations in May 2013.

Sustainability

In addition to equipping five FMIPs with the technical and physical capacity to sustain their own operations, HS-STAR proposed amendments to by-laws that regulate FMIP establishment activities in order to support the establishment of more FMIPs in Armenia. As a complement to this effort, the five FMIPs are in the process of establishing the Family Medicine Support Center (FMSC) Fund, which will collaborate with the MOH, Armenian Association of Family Physicians (AAFP), Academic Union of Family Medicine (AUFM) and other stakeholder organizations to promote institutionalization of FMIPs.

Challenges and Risks

Concerned about losing funding as a result of patients moving to the FMIPs, some polyclinic managers did not make it easy for the FMIPs to transfer their patients. A challenge for future FMIPs will be the high costs of renovating, leasing, equipping, and furnishing offices. Individual and even groups of family doctors will not be able to cover these costs without external support.

Priorities for the Future

Continued efforts to create an enabling environment for the establishment of FMIPs are essential in the near future. In particular, amendments to government decrees #497-N (2007), #420-N (2006), and #1936-N (2002) will help to eliminate discrepancies and gaps in the legal environment regulating the establishment and activities of FMIPs. Another priority is the development of a program to guide the establishment of FMIPs within the premises of urban polyclinics. Finally, the introduction of a loan program will enable more interested parties to purchase the medical equipment, supplies, and other items required for FMIP licensing.

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Activity Brief

Automated System for Child Growth and Nutrition Surveillance

Background

The 2010 Armenia Demographic and Health Survey revealed that 19% of children under the age of five in Armenia are stunted or short for their age. Since stunting is an indicator of chronic malnutrition, this concerning finding led UNICEF to initiate the development of a highly responsive surveillance system to enable the Ministry of Health (MOH) to better track the growth and nutrition of children under the age of two at the primary health care (PHC) level. In light of HS-STAR's experience with health information systems, UNICEF, the MOH, State Health Agency (SHA), and USAID enlisted the project to help develop and integrate the child growth and nutrition surveillance system into the MIDAS health information system.

Approach

To collect the data required by the surveillance system, HS-STAR worked with SHA to add new data fields to the PHC encounter forms, such as child weight and height at birth and diagnoses of diarrhea, edema, or anemia at the time of visit.

The project then contracted a local information technology company, Comine Soft, to develop the surveillance module and train PHC information system operators on data entry for the new system. HS-STAR supervised the design and testing of the module, helped to ensure that the modified MIDAS software did not disrupt the existing database during the integration process, and monitored the trainings of the PHC data entry staff.

Achievements

Following a pilot installation at 46 sites, the modified MIDAS software with the child growth and nutrition module was installed at all 346 PHC facilities. With support from HS-STAR, Comine Soft trained 346 PHC facility computer operators on the use of the surveillance module and other new features of the system.

Sustainability

Integration of the new surveillance system into the existing health information system instead of the creation of a parallel system has enabled the child growth and nutrition surveillance initiative to be institutionalized.

Challenges and Risks

As with any information system, the effectiveness of the child growth and nutrition surveillance system depends on the quality of the data collected. Thus, training of PHC doctors, especially pediatricians, on accurate data recording in the encounter form will be critical to ensuring the effectiveness of the surveillance system.

Priorities for the Future

The child growth and nutrition surveillance system requires close monitoring by the MOH Maternal and Child Health Department, which can provide guidance to PHC doctors on the provision of appropriate care for at-risk children identified by the system. Training agencies involved in nutrition surveillance system analysis to use the WHO Anthro software with extracted data from the SHA database remains essential.

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Activity Brief

Improving the Quality of Care in Hospitals

Background

Armenia began to address the quality of care in hospitals in 2005, when the Ministry of Health (MOH) issued an order calling for the establishment of facility-level Quality Control Commissions (QCC) to monitor the quality of hospital services. While this order helped to provide some structure for quality assurance (QA) in hospitals, QCC members and hospital staff did not receive any training, guidance, or tools to implement QA and quality improvement (QI) initiatives in hospital settings. Furthermore, the country lacked a national strategy for hospital QA and QI. As part of efforts to institutionalize a system of continuous QI in the health sector, HS-STAR developed and implemented a package of activities aimed at strengthening the quality of care in hospitals.

Approach

HS-STAR conducted three inter-related sets of activities in its efforts to improve the quality of care in hospitals: 1) building the capacity of stakeholders in QA and QI; 2) piloting a hospital-level QA and QI approach and tools; and 3) developing a national hospital QA and QI strategy. To incorporate international best practices in Armenia's QA and QI initiatives, the project hired an international quality of care expert to provide short-term technical assistance with all three of the project's focus activities. The project also enlisted the newly established Scientific Centre for Nosocomial Infection Prevention (SCNIP) as a key partner in some of its hospital-level QA and QI activities since hospital-acquired (nosocomial) infections are an indicator of health care quality.

To strengthen stakeholder understanding of quality of care issues and concepts, the HS-STAR conducted a workshop for relevant MOH staff, regional healthcare leadership, and facility representatives on the theories and application of QA and QI principles within their work environments. The project then trained the senior management of the pilot hospitals on hospital-level QA and QI approaches. The project also provided technical assistance to SCNIP with the development of nosocomial infection prevention norms and training packages and the delivery of workshops for the medical staff of the pilot hospitals and the regional healthcare leadership of Lori, Syunik, and Shirak marzes. The workshops covered specific nosocomial infection prevention topics, such as proper hygiene and waste management, and introduced the participants to the role of SCNIP in supporting and monitoring the quality of care at the hospitals.

Working closely with the MOH, HS-STAR developed and piloted a quality management system in three regional hospitals: Vanadzor Medical Center, Gyumri Mother and Child Austrian Hospital, and Kapan Medical Center. These hospitals were selected due to the MOH's interest in strengthening the quality of pediatric and neonatal intensive care services in the regions. As part of the pilot, the project developed and introduced a clinical governance infrastructure and tools for each of the pilot hospitals, including a charter and operational tools for the hospital QCCs, a checklist for patient satisfaction feedback, and templates of job descriptions for key managerial, medical, and nursing positions. In collaboration with SCNIP, the project included patient and provider infection prevention systems, a code of ethics and uniform rules for nurses, monitoring of adverse events, and antibiotic usage policies in the package of interventions at the three pilot hospitals. To ensure successful implementation of the pilot, the project conducted monitoring visits to the regional hospitals to provide supportive supervision to the staff and to review the facilities' progress in introducing the QI interventions.

In addition to working at the facility level during the pilot, the project strengthened reporting and feedback loops between the hospital, regional, and national levels by helping regional healthcare authorities and the MOH to revise the charters of the marz- and central-level Quality Improvement Boards (QIBs) to include hospital quality assurance in their responsibilities.

Using lessons learned from the pilot, the project drafted the Hospital Quality Assurance and Improvement Strategy of Armenia with input from a number of key stakeholders, such as the MOH, State Health Agency (SHA), National Institute of Health (NIH), State Hygiene and Anti-Epidemic Inspectorate (SHAI), SCNIP, Marz and Yerevan Health and Social Security Departments (HSSDs), hospitals, professional associations, Yerevan State Medical University, and Medical Colleges. The Strategy outlines approaches for implementing, assessing, and sustaining hospital quality assurance and improvement processes and identifies implementation methods and mechanisms.

Achievements

HS-STAR's first workshop on QA and QI concepts and issues was attended by 38 high-level representatives from a number of institutions, including the MOH, Marz HSSDs, SHA, and SHAI regional offices in Lori, Syunik, and Shirak marzes.

The workshops on hospital-level QA and QI approaches included 72 senior managers from the pilot hospitals. Sixty-two staff from the pilot hospitals and regional healthcare leaders participated in the workshops on infection control.

The new charters and revised membership of the marz QIBs were approved by the governors of Syunik, Lori, and Shirak marzes.

The quality management system regulations and tools piloted at the hospitals were well received by facility, regional, and national leadership, as evidenced by the MOH Order #3025 on December 24, 2012 approving the Hospital Quality Assurance and Improvement Strategy of Armenia. According to the Strategy, the MOH will support implementation of the new quality management system in hospitals throughout the country.

Sustainability

To encourage sustainability of its hospital-level QA and QI interventions, HS-STAR involved regional healthcare representatives as much as possible in its activities. This approach not only built regional capacity in QA and QI, but also helped facility and regional stakeholders to understand the need for multi-level engagement in the maintenance of quality management systems. The project's collaboration with SCNIP helped to institutionalize its infection control activities. Based on the success of the piloted infection control interventions, SCNIP hopes to replicate the program in other hospitals. The MOH-approved Hospital Quality Assurance and Improvement Strategy will both sustain and expand HS-STAR's efforts to improve the quality of care in the hospital sector.

Challenges and Risks

Since previous QA and QI efforts had focused on the primary health care level, capacity at the hospital level in this area was relatively low. Furthermore, capacity at each pilot hospital varied, which necessitated the introduction of interventions tailored to the hospitals' conditions and readiness.

Priorities for the Future

Since QA and QI require ongoing maintenance, such as continuous training, the MOH will need to secure additional funding to effectively implement the Hospital Quality Assurance and Improvement Strategy. Advocacy for this type of funding will require substantial efforts because the operationalization of QA and QI is often poorly understood.

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Activity Brief

Clinical Standardization and Development of Cardio-Metabolic Risk Assessment and Management Clinical Protocols

Background

As part of efforts over the last few years to bring the quality of care in Armenia in line with international standards, the Armenian Ministry of Health (MOH), donors, and other organizations developed and introduced a number of clinical standards anchored in evidence-based medicine (EBM). While these standards helped to improve the quality of some health services, the sustainability of these standards was threatened by the absence of an established system for clinical standardization. As part of its objective to institutionalize a system of continuous improvement of the quality of health services, HS-STAR worked with the MOH on the establishment of a clinical standardization system.

HS-STAR helped to build the capacity of the newly established Republican Scientific Medical Library (RSML) Evidence-based Medicine Center through the provision of computers and medical publications.

Approach

To strengthen local capacity in the development of clinical standards, HS-STAR invited an international EBM expert to conduct a clinical standardization workshop for about 40 national health authorities, including representatives from the National Institute of Health (NIH), State Health Agency (SHA), the MOH Quality Management (QM) Division, State Hygiene and Anti-Epidemic Inspectorate (SHAI), Republican Scientific Medical Library, Drug and Medical Technology Center, Marz Health and Social Security Departments (HSSDs), professional associations, and training institutions. The project then worked closely with the QM Division to finalize the official regulation on the development and implementation of clinical standards.

To support operationalization of the clinical standards regulation, HS-STAR helped to build the capacity of a newly established institution that will play a key role in the development of clinical standards: the Republican Scientific Medical Library (RSML) Evidence-based Medicine Center. The project provided computers and access to medical literature to help the Center to establish itself as a methodological and technical resource for clinical standard working groups.

In addition to supporting the development and institutionalization of a clinical standardization system, HS-STAR collaborated with the MOH to prepare clinical standards in line with the new system. First, the project helped the MOH to identify a health topic based on burden of disease and the recommendations of various MOH departments. Since cardiovascular diseases and diabetes are the main causes of mortality and morbidity in Armenia, the MOH decided to develop clinical protocols focused on the assessment and management of cardio-metabolic risk factors at the primary health care (PHC) level.

In an effort to include civil society in the development of clinical standards, HS-STAR and the MOH selected two professional associations to develop the cardio-metabolic risk assessment and management clinical protocols: Armenian Cardiologists Association and Armenian Association of Family Physicians. With support from the project, the associations followed all the necessary clinical standardization steps, such as collaborating with the RSML EBM Center, conducting a peer review of the draft clinical protocols, and submitting the draft protocols for external review. Since the clinical standardization regulation calls for the inclusion of cost-effectiveness estimates in clinical standards, the associations involved an economist in the development of the cardio-metabolic risk assessment and management protocols.

Achievements

The clinical standard regulation was officially approved by the Minister of Health (order #N2630) on December 28, 2011. The regulation describes the methodology for clinical standard development and implementation in Armenia, including the roles and functions of involved organizations, quality assurance mechanisms, and processes for implementation and monitoring of clinical standards.

In addition to the clinical standard working groups, 6,000 medical professionals, students, researchers, and other users of the Medical Library have accessed the online medical literature hosted by the EBM Center for research and professional development.

The associations submitted a final draft of the cardio-metabolic risk assessment and management clinical protocols to the MOH for approval. The protocols included separate guidance for PHC doctors and nurses and, for the first time, cost-effectiveness estimates. HS-STAR also helped to develop educational materials for patients about cardio-metabolic risk assessment and management.

Sustainability

The EBM Center is already playing an active role in supporting implementation of the clinical standardization system. The Center conducted a training course on clinical standard development for nine clinical standard working groups and will continue to provide technical assistance to these groups with their EBM research. Meanwhile, HS-STAR's initiative to involve professional associations in the clinical standard development process has helped to establish a foundation for collaboration between the MOH and civil society on clinical standardization.

Challenges and Risks

Clinical standardization efforts were briefly delayed due to a temporary suspension of operations at the NIH, the institution that was originally slated to lead the establishment of the clinical standardization system. The project addressed this challenge by shifting its focus to the RSML EBM Center – a change that proved to be very fruitful.

Priorities for the Future

Once clinical protocols have been approved by the MOH, they must be widely disseminated, promoted, and monitored to ensure adherence by physicians and nurses. The protocols should be updated every three to five years based on feedback from providers. Professional associations can draw on their members' technical expertise and networks to assist the MOH with all of these steps.

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Activity Brief

Improving Quality of Care through Continuing Medical Education

Background

As part of recent restructuring within the Ministry of Health (MOH), responsibility for the provision of continuing medical education (CME) courses was moved from the National Institute of Health (NIH) to Yerevan State Medical University (YSMU). Although YSMU's extensive experience as an academic institution made it a natural fit for this role, the University needed to tailor its education approaches to providers, who require a different type of training than medical students. Meanwhile, other organizations with relevant expertise, such as professional organizations, were not being utilized to conduct CME courses. To increase the quantity and quality of professional development options for providers in Armenia, HS-STAR built the capacity of YSMU and professional associations to organize and deliver CME courses covering the MOH's priority health areas: maternal and child health, reproductive health, family planning, and non-communicable diseases (NCDs).

With support from HS-STAR, YSMU faculty members conducted emergency obstetric care trainings for obstetrician-gynecologists, anesthesiologists, neonatologists and midwives from Yerevan-based maternity hospitals.

Approach

With YSMU better suited to conduct trainings in Yerevan, HS-STAR collaborated with the Fund for Armenian Relief (FAR), which is experienced in organizing CME courses for regional medical providers, to identify professional associations to organize and deliver courses in the marzes. In light of the course topics, FAR selected Armenian Cardiologist Association (ArCA) and Armenian Medical Association (ArMA) for this activity.

In preparation for the CME courses, HS-STAR conducted training of trainers (TOT) courses for YSMU and the professional associations on adult learning and interactive teaching methodologies in order to strengthen the delivery of the trainings. The project also helped the trainers to update the content of the courses and to incorporate evidence-based medicine in the training materials to enable the providers to apply best practices in their work.

During the CME courses, HS-STAR provided the training organizations with both technical and organizational assistance. For example, the project helped the training organizations to secure multi-level buy-in regarding the course content by encouraging the participation of senior management from the PHC facilities and representatives from the State Health Agency (SHA) and State Hygiene Anti-Epidemic Inspectorate (SHAI) in the trainings. To measure the effectiveness of the courses, the project supported the use of pre- and post-tests and clinical checklists during the trainings and performance assessments through medical chart reviews before and after the trainings.

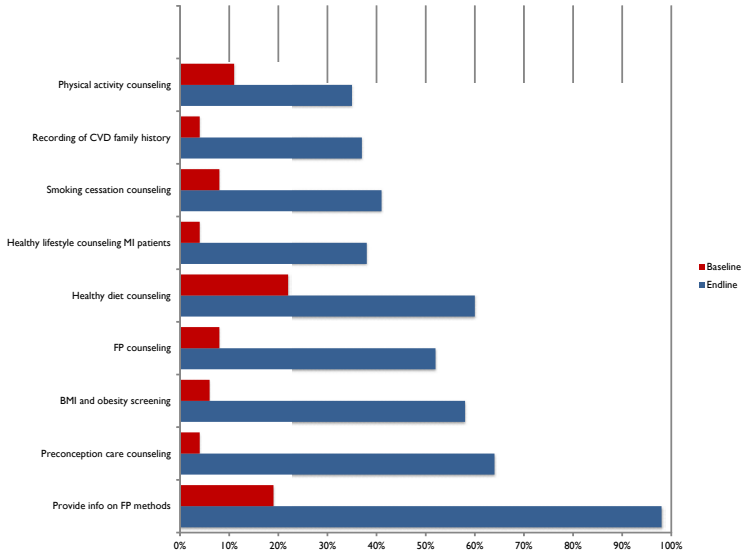
Achievements

As part of the TOT, HS-STAR strengthened the capacity of 17 faculty members from seven YSMU departments to provide CME courses to health providers.

With support from HS-STAR and FAR, YSMU and the professional associations conducted courses on preconception care, family planning (FP) and reproductive health counseling, emergency obstetric care, and management of the most common cardiovascular diseases (CVDs) for PHC providers. A total of 1,234 cardiologists, family physicians, and obstetrician-gynecologists representing 15 facilities in Yerevan and 11 facilities in the marzes participated in the trainings.

As seen in the figure 1, the medical chart reviews showed notable increases in provider performance of a number of skills covered by the trainings.

FIGURE 1: INCREASES IN PROVIDER PERFORMANCE FOLLOWING TRAININGS SUPPORTED BY HS-STAR



Sustainability

By involving ArCA and ArMA in the provision of the CME trainings, HS-STAR increased the capacity of professional associations to play a critical role in communicating the latest evidence to providers and supporting continuous performance improvement. To facilitate future use of the medical chart review methodology for performance assessments following trainings, the project provided the YSMU CME Department with the relevant tools and instructions. The forms can be easily modified for any type of skills covered in trainings.

Challenges and Risks

Although YSMU, ArCA, and ArMA have the technical capacity to conduct CME courses, funding for large-scale trainings will be a challenge unless the training organizations can secure financial support. The MOH and training organizations may consider introducing a cost-share mechanism in which facilities and providers both contribute to the cost of courses.

Priorities for the Future

To ensure the consistency of information across related audiences, YSMU and other medical academic institutions may consider adapting the CME curricula for pre-service courses for medical students and residents. Linking CME with licensing is another quality assurance priority for the future. The establishment of a CME and other professional development credentialing process, like the Medical Personnel REGISTER proposed by HS-STAR, can enable the MOH to collect and monitor the professional qualifications of health providers throughout the country and regulate licensing accordingly.

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Activity Brief

Strengthening Neonatal and Pediatric Intensive Care in the Regions

Background

Like the capitals of most countries, Yerevan has a greater concentration of medical expertise and state-of-the-art equipment than other parts of Armenia. As a result, infants and children living in the regions typically must travel to Yerevan to receive specialized medical care, a journey that may not always be feasible in emergencies. To address this geographic imbalance, the Ministry of Health (MOH) has made the regionalization of neonatal and pediatric intensive care a priority. As part of its objective to improve the quality of priority service areas, HS-STAR collaborated with the MOH and other stakeholders to strengthen neonatal and pediatric intensive care in three regional hospitals.

Approach

HS-STAR leveraged local expertise and promoted the sustainability of its initiatives by partnering with the Association of Neonatologists of Armenia to improve the quality of neonatal and pediatric intensive care in Vanadzor Medical Center, Gyumri Mother and Child Austrian Hospital, and Kapan Medical Center. As a first step, the project, the Association, and the MOH assessed the equipment and supply needs of the hospitals. The project then procured a comprehensive package of critical neonatal and pediatric intensive care equipment and supplies for the three sites.

HS-STAR worked to build the capacity of the neonatal and pediatric intensive care department at Kapan Medical Center through trainings for medical staff.

To help providers in the regional hospitals effectively use the new equipment and provide neonatal and pediatric intensive care in accordance with current

standards, HS-STAR supported two types of capacity building for the facility staff. First, the project collaborated with the Continuing Medical Education (CME) Department of Yerevan State Medical University (YSMU) and hospitals in Yerevan to conduct a three-week intensive training for nurses from the neonatal and pediatric intensive care departments of the regional hospitals. The training was led by seasoned practicing nurses and supervised by expert neonatologists from the country's top hospitals.

The project carried out a second capacity building initiative through a grant awarded to the Association of Neonatologists to provide on-site trainings at the regional hospitals for all medical staff involved in neonatal and pediatric care. With technical and financial assistance from HS-STAR, the Association developed training materials and clinical protocols based on neonatal care guidelines supported by UNICEF and approved by the MOH. The two-week trainings covered clinical topics, use of equipment, and managerial aspects of the new treatment approaches. In addition to practicing their new skills on manikins, the participants received on-the-job mentoring from the trainers, who accompanied the hospital staff on their night shifts. Following the trainings, the Association conducted monitoring visits to the regional hospitals with support from HS-STAR to systematically assess the trainees' application of their new skills and to provide supportive supervision as needed.

These capacity building efforts complemented the quality management system piloted by HS-STAR at the three hospitals, as detailed in "HS-STAR Activity Brief: Improving the Quality of Care in Hospitals."

Achievements

HS-STAR procured more than $500,000 worth of neonatal and pediatric intensive care supplies and equipment, such as neonatal warming and preservation units, artificial ventilation devices, and airway management tools, for the neonatal and pediatric intensive care departments in Vanadzor, Gyumri, and Kapan.

The project helped to substantially build the capacity of eight neonatology/pediatric nurses (two each from Vanadzor and Gyumri and four from Kapan) through the intensive, three-week training in Yerevan. The training provided the regional nurses with a unique opportunity to receive hands-on training at the country's top hospitals for newborn care.

As part of its training grant from HS-STAR, the Association of Neonatologists developed 14 short clinical protocols for doctors, 11 protocols for nurses, and several monitoring tools to evaluate the performance of the trainees. A total of 16 doctors and 42 nurses from the three hospitals completed the neonatal and pediatric resuscitation trainings.

Within weeks of the trainings, the regional hospital providers used their new skills to save the lives of at least three children needing emergency care.

Sustainability

The nurses' training in Yerevan established closer collaboration between the regional hospitals, YSMU, and Yerevan hospitals. For example, following the trainings, the nurses from the regional hospitals continued to communicate with their trainers from Yerevan regarding clinical matters. Meanwhile, the Association of Neonatologists will play a leading role in continuing the project's efforts to strengthen neonatal and pediatric care in the regions. In addition to carrying out similar trainings for other hospitals in Armenia, the Association may help to promote the inclusion of evidence-based neonatal care approaches in YSMU's CME courses.

Challenges and Risks

A challenge identified during the trainings was a lack of doctors in neonatology and pediatric care departments. To address this issue, one regional hospital advocated the MOH and YSMU for a permanent on-site neonatologist, while another regional hospital is considering moving pediatricians from the pediatric inpatient and maternity departments to the neonatal care department part time. Permanent solutions to this human resource issue will need to be identified to ensure that the regional hospitals are able to provide appropriate neonatal and pediatric intensive care.

Priorities for the Future

Drawing from the experience at the three regional hospitals, the MOH, the Association of Neonatologists, and YSMU may consider conducting similar capacity building initiatives at other regional hospitals. Meanwhile, the staff from Vanadzor, Gyumri, and Kapan hospitals would benefit from refresher trainings and continued communication with their trainers from the Association, YSMU, and Yerevan hospitals, which can serve as mentoring centers for regional services.

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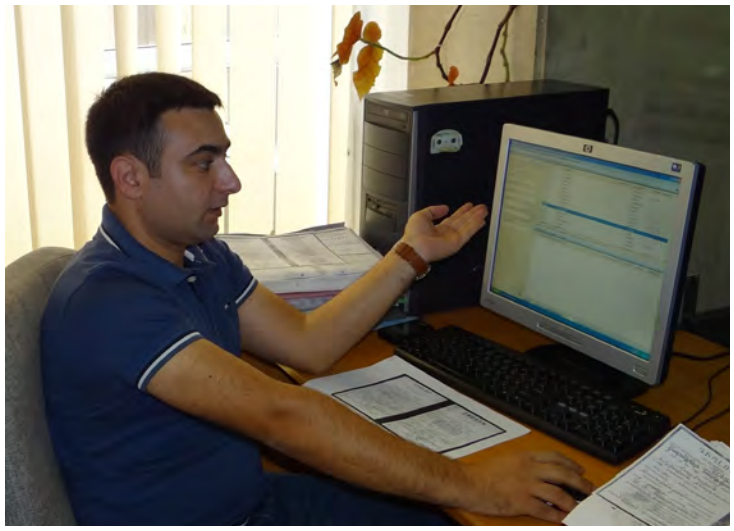
Activity Brief

Improving the Quality of Health Care through Licensing

Background

When designed and implemented well, licensing is an effective quality assurance mechanism in the healthcare field. In Armenia, the compulsory licensing of both health facilities and providers was established in 1996. Several years later, a new law eliminated the licensing of providers, leaving a gap in the health system's ability to assure the professional qualifications of health workers. Meanwhile, the licensing of facilities continued but the paper-based licensing data was difficult to update, analyze, and use. In an effort to strengthen the ability of the Ministry of Health (MOH) to monitor and regulate the qualifications of health providers and the safety and quality of services delivered by healthcare facilities, HS-STAR worked to re-introduce a qualification monitoring mechanism for providers and to improve the information system for facility licensing.



The new electronic licensing information system developed with assistance from HS-STAR provides the MOH Licensing Agency with better access to data for decision-making.

Approach

Following extensive discussions with stakeholders from the MOH Licensing Agency, National Institute of Health (NIH), and other MOH departments, HS-STAR developed draft regulations for continuous assurance of professional qualifications and professional development crediting and a list of medical and nursing specialties in Armenia.

To modernize the Licensing Agency's information system, HS-STAR supported needed renovations to the archive office, provided computer hardware and furniture, and developed and installed a comprehensive software system that includes data entry interfaces, analysis capabilities, and reporting modules. The project also trained the agency staff to use the software and hired temporary data entry operators to generate a new electronic database with facility license information about all available health facilities.

In response to a request from the MOH, HS-STAR also provided and installed a telephone network for the Licensing Agency and MOH departments involved in the licensing process to enable them to directly respond to applicants' queries and issues.

Achievements

By the end of 2012, almost 85% of the Licensing Agency's paper-based data had been entered into the new electronic licensing information system. The database currently includes full data sets with required licensing information from almost all of the 4,500 licensed health facilities in Armenia. The system allows users to easily analyze data and quickly generate informative reports, which can be used for monitoring and decision-making purposes. The system also increases the transparency of licensing, making it an important anti-corruption tool for the MOH.

Sustainability

Thanks to the user-friendly design of the software and the training provided by HS-STAR, the MOH Licensing Agency staff is able to utilize the new licensing information system without additional support. In addition to building institutional capacity, the project helped to strengthen organizational capacity by reviewing terms of reference and functions for the Agency.

Challenges and Risks

As a result of changes in government priorities, the draft regulations on continuous assurance of provider professional qualifications and professional development crediting did not advance through the formal review process as quickly as anticipated. It is hoped that these regulations will be revisited as part of the development of the national human resources for health strategy.

Priorities for the Future

Following official approval by the MOH, the regulations for continuous assurance of professional qualifications and professional development crediting will need to be operationalized and monitored by the Licensing Agency and other stakeholders. As part of this process, it will be necessary to identify and prepare the institutions that will be responsible for medical professional development and crediting. In addition to using the licensing information system to monitor licensed facilities, the Agency can analyze the database to identify ways to improve licensing processes.

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Activity Brief

Improving the Quality of Emergency Care

Background

Emergency care has been a priority for the Armenian Ministry of Health (MOH) for several years. To bring this service in Armenia up to international standards, the MOH has taken a number of important steps to improve the country's emergency care system, including establishing a high-level emergency care committee, developing an initial national strategy to modernize emergency care, increasing the compensation for ambulance personnel, providing refresher training for ambulance personnel, securing an international donation of ambulances, and renovating a new central dispatch center in Yerevan. As a complement to the Ministry's achievements to date in this area, the HS-STAR Project pursued a multi-pronged approach to strengthen key elements of the emergency care system.

HS-STAR helped dispatch staff in Yerevan to improve their computer literacy in preparation for the new automated dispatch system.

Approach

HS-STAR began with a comprehensive assessment of the country's emergency care system with the support of a renowned international emergency medicine expert to identify system gaps and priority areas for improvement. The report provides short- and long-term recommendations, such as enhancing central dispatch equipment, staff, and processes and improving the overall system of pre-hospital care. Based on the findings of the assessment, the project initiated activities targeting the quality of the emergency dispatch system and the capacity of emergency care providers.

To improve the emergency dispatch system, HS-STAR procured modern radio equipment for Yerevan Municipality Ambulance Service and worked with CHS Verisel Service, a local information technology

company, to increase the computer literacy of dispatch staff in Yerevan in preparation for the launch of a new automated dispatch system. The project also developed job descriptions with qualification requirements for ambulance and dispatch staff to guide future efforts to strengthen these cadres. In parallel to these efforts, the project helped to inform the design of an emergency dispatch information system by analyzing the dispatch and ambulance service work processes, assessing the existing software resources, and developing terms of reference for the development of the system.

To build the capacity of emergency care providers, the project provided emergency care instructors in Yerevan and several regions with the skills, knowledge, and equipment necessary to train other doctors and nurses to provide emergency care services according to international standards. The project also supported the establishment of a professional association for emergency care specialists in order to empower emergency care staff to improve the quality of the services they provide.

Achievements

HS-STAR upgraded the communication capability of Yerevan ambulances by procuring $145,000 worth of digital radio equipment based on local technical requirements. The project also provided two servers and a generator for the establishment of the emergency dispatch information system. Through a series of trainings, the project strengthened the computer literacy skills of 108 dispatch staff. As a result of these efforts, the Yerevan dispatch service will be able to respond to emergency calls more quickly and accurately.

With technical and financial support from HS-STAR, six physician instructors and six nurse instructors from training institutions in Yerevan and four regions completed a comprehensive emergency care training of trainers (TOT) at the Georgia College of Emergency Physicians (GCEP) in Tbilisi. The instructors that successfully demonstrated their skills during a monitoring visit by GCEP were then certified as internationally recognized master trainers and can continue to teach other physicians and nurses in Armenia to provide modern emergency care service. The project also procured $43,000 of essential training equipment, including special manikins, and reference and training manuals for seven training sites to help trainees learn and practice new skills.

Through the provision of legal and administrative assistance, HS-STAR supported the establishment of the first professional association for emergency care specialists in Armenia: the Armenian Ambulance Association. The association, which currently has about 40 members, enables emergency care specialists to communicate with each other and the government in a more coordinated manner, access international resources more easily, and lead the development of clinical standards and protocols for emergency physicians, ambulance workers, and dispatchers.

Sustainability

HS-STAR designed and implemented all of its emergency care activities with an eye on sustainability. By providing both short- and long-term recommendations, the situation assessment and recommendations report can serve as a road map for emergency care reform moving forward. The local training organization used by the project is now familiar with the dispatch center training needs and can serve as a training resource for dispatch centers in the marzes in the future. The formation of a cadre of master trainers will enable Armenia to train emergency care providers according to international standards locally. The emergency training equipment and training manuals provided by the project will also support the provision of high quality emergency care trainings in Armenia for many years to come. The professional association is fully managed by its own members and was established without financial assistance from HS-STAR. USAID has provided direct funding to the Ministry of Health to further improve emergency care, building Ministry capacity to plan, implement, and monitor targeted activities.

Challenges and Risks

Varying interpretations of international emergency care master trainer certification requirements, such as language of instruction, proved to be a challenge during the final stages of the master trainer certification process. Looking towards the future, funding for large-scale emergency care trainings will be a challenge unless the training sites can secure additional financial support.

Priorities for the Future

By collecting data on emergency calls and ambulance services, the emergency dispatch information system will enable the MOH to monitor the quality of these services and the State Health Agency to calculate appropriate provider payments for these services. Therefore, it is highly recommended that the MOH proceed with the development of the system as soon as possible. Now that Armenia has a cadre of internationally certified emergency care trainers, the MOH and Ministry of Education should support the roll-out of emergency care provider trainings in Yerevan and the marzes to improve the quality of emergency care throughout the country. The Armenian Ambulance Association can promote the provision of high quality emergency care services by bringing local emergency care clinical standards and dispatch guidelines in line with international best practices. It will also be important to align the emergency care curriculum for medical students with the updated standards to ensure that future generations of emergency care workers enter the workforce with the right knowledge and skills.

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Activity Brief

Strengthening Health Workforce Planning

Background

Health workforce planning is a high priority for the Ministry of Health (MOH) of Armenia for two primary reasons. First, the country has an excessive number of physicians: in 2011, Armenia had 41.7 physicians per 10,000 population compared to an average of 31 physicians per 10,000 population in Organization for Economic Cooperation and Development (OECD) countries, and the rate at which new medical graduates entered the health system in Armenia in 2010 was nearly double the average rate among OECD members. Secondly, physicians are heavily concentrated in the capital: Yerevan had more than four times the number of physicians per 10,000 residents than other parts of the country. This geographical imbalance leaves the population in the regions with less access to quality care and reduces the efficiency of physicians in Yerevan. As part of efforts to improve the quality of care throughout the country, HS-STAR helped the MOH to begin to address the country's health workforce issues.

Approach

In response to requests from the MOH, HS-STAR prepared a number of policy papers to help stakeholders better understand the country's health workforce issues and to inform the development of the National Human Resources for Health (HRH) Strategy. To prepare these reports, the project analyzed data from MIDAS and other national statistics and researched international best practices. The project also developed staffing tools for specific service areas, including primary health care (PHC), emergency care, and neonatal and pediatric intensive care units (NICUs and PICUs).

Achievements

To provide policymakers with a detailed picture of workforce planning issues and approaches, HS-STAR conducted a comprehensive analysis of the workforce situation at the PHC level, especially in Yerevan. In addition to analyzing the workload of Yerevan PHC doctors and quantifying the benefits of optimal PHC doctor-patient ratios, the report presents realistic options for achieving this improved level of efficiency.

With the aim of supporting the development of new models of PHC care in urban areas, HS-STAR conducted a study of barriers to establishing family medicine in Armenia. The report proposes a holistic set of recommendations for improving family medicine in the country, such as reducing the scope and volume of specialized care at the PHC level, restructuring polyclinics that serve less than a minimum number of registered patients, and equipping family doctors with necessary facilities and supplies.

To strengthen workforce planning for neonatal and pediatric intensive care, HS-STAR helped the MOH Maternal and Child Health Department to determine new bed and staffing norms for NICUs and PICUs and to estimate the country's future need for neonatologists and neonatal nurses.

As part of efforts to improve emergency care, the project used existing emergency care performance data to develop a list of necessary emergency medical positions and affiliated job descriptions.

To link workforce planning with licensing, HS-STAR prepared a number of operational documents, including a draft regulatory by-law to support the design and establishment of the Medical Worker REGISTER system, which will track key information about health providers, including their professional development. The project also helped the MOH Licensing Agency to draft an order on residency and continuous professional development for medical workers.

In preparation for the establishment of a workforce planning department at the National Institute for Health (NIH), HS-STAR helped to develop the department's organizational plans.

Sustainability

A number of HS-STAR's policy papers laid the groundwork for future workforce planning efforts. For example, the project's report on PHC workforce issues in Yerevan, along with other HS-STAR analyses, helped to encourage the MOH and the State Health Agency to introduce enrollment-based PHC financing starting in early 2014. It is expected that the NICU/PICU bed and medical staff norms proposed by the project will soon be adopted by the MOH as official norms. A new USAID-funded project will build on the emergency care workforce planning documents prepared by HS-STAR. Finally, thanks to the project's efforts, the introduction of the Medical Worker REGISTER system is included in the HRH Strategy and the NIH 2013 work plan.

Challenges and Risks

The absence of a dedicated workforce planning department at the MOH until late 2012 made some workforce planning activities quite challenging. Limited health economics capacity within the MOH also hindered the potential of workforce planning efforts. Another challenge is the availability of data at the facility level. Hospitals and clinics in Armenia are not currently collecting enough data to be able to use WHO's automated tool for facility-level workforce planning.

Priorities for the Future

To take full ownership of health workforce planning, the MOH will require additional capacity building in health economics. Operationalization of the Medical Worker REGISTER system is also a high priority for the near future as it will enable the MOH to implement workforce planning and credentialing activities that reflect the country's needs.

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Activity Brief

Strengthening the Health Education Capacity of the Ministry of Health

Background

A substantial barrier to the sustainability and institutionalization of public health education programs in Armenia was the absence of a dedicated government entity to coordinate and implement health promotion and communication interventions. To help the Ministry of Health (MOH) to address this institutional gap, HS-STAR provided technical assistance to build the capacity of the State Hygiene Anti-epidemic Inspectorate (SHAI) and the newly established Public Health (PH) Division.

Approach

With the goal of clarifying the PH Division's specific functions in coordinating health education initiatives, HS-STAR worked with the MOH to develop the Division's charter. As a next step, the project helped the Division to recognize and involve civil society organizations (CSOs) as valuable resources for implementation of health education activities. HS-STAR then supported the Division with an analysis of the CSO sector and the development of a database of experienced and capable CSOs with the potential for collaboration. Finally, the project facilitated partnerships between the Division and CSOs to develop education materials for the public.

SHAI central office chief specialists conducted a BCC training for SHAI staff in the marzes with HS-STAR support to improve regional health education capacity

In addition to helping to establish an institutional home for health education, HS-STAR strengthened the capacity of PH Division staff and others responsible for health education through "learning by doing" and formal trainings.

The project also provided the MOH and other government agencies with guidance on conducting campaigns and developing strategies related to health education.

Achievements

To guide future health education efforts, HS-STAR drafted a short-term Public Communication Action Plan that includes concrete recommendations for health education activities that can be coordinated and implemented by various government agencies, such as a health portal managed by the National Institute of Health. To support TB-related public education activities, the project worked with the National Tuberculosis Program to develop an Advocacy, Communication, and Social Mobilization (ACSM) Strategy.

As part of efforts to build capacity through experience, HS-STAR helped the PH Division, SHAI, and the Academic Society of Family Medicine NGO to collaborate on the design and development of nine education materials promoting healthy lifestyles, such as posters with guidance on healthy eating, smoking cessation, and physical activity. The project also worked closely with MOH staff to develop a radio public service announcement encouraging healthy birth timing and spacing, as well as 18 TV programs educating viewers about priority health topics, such as smoking, breastfeeding, diabetes, healthy eating, healthy pregnancy, physical activity, reproductive cancers, sexually transmitted infections, and healthcare reform.

To build the capacity of the MOH in the effective design and implementation of health education activities, the project conducted a training on behavior change communication (BCC) for 17 staff from the PH and PR Divisions and SHAI. During the training, the participants learned about BCC approaches and tools to manage the implementation of effective health education strategies and activities. With support from HS-STAR, several SHAI staff from the central office then replicated this training for more than 30 colleagues in Yerevan and the regions. SHAI staff from Shirak and Lori marzes then conducted this training for more than 50 representatives from 35 health CSOs in their regions.

Sustainability

Institutionalization has been a key feature of the HS-STAR's efforts to strengthen the health education and promotion capacity of the MOH. The PH Division is well-positioned to develop and coordinate health education initiatives throughout the country. The Division is also able to reach out to CSOs that can help to carry out health education activities prioritized by the government. Meanwhile, SHAI has demonstrated capacity to train government and civil society counterparts to plan and implement effective health education strategies and activities.

The Public Communication Action Plan included a recommendation to create an official electronic health portal to provide a reliable, user-friendly environment for both health professionals and the general population to access health information. The portal, if implemented and updated regularly, would institutionalize health education and promotion information and materials available to anyone throughout the country with internet access.

Challenges and Risks

Although CSOs may serve as excellent partners for the MOH, the potential of some CSOs may be curtailed by limited funding. Similarly, the PH Division and SHAI will not be able to carry out large scale health education activities without sufficient budget support from the MOH or the private sector.

Priorities for the Future

Close collaboration with CSOs, which possess expertise in health topics and have close links with the population, will be essential to future health education efforts managed by the MOH. To increase the effectiveness of health education campaigns, stakeholders should apply BCC tools and approaches as much as possible.

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Activity Brief

Increasing Civil Society Engagement in Health through Legislative Agenda Advocacy Day

Background

With over 100 health-related civil society organizations (CSOs), Armenia has a strong civil society presence in the health sector. However, until recently, the CSOs working to address health issues through legislative changes have struggled with the absence of an established channel for dialogue with the government. In partnership with the USAID-funded Civil Society/ Local Government Support (CSLGS) Program led by Counterpart International, HS-STAR collaborated with a number of health CSOs on a new initiative in Armenia that enables civil society to influence the national legislative agenda by presenting priority health issues to senior parliamentarians at the beginning of the annual legislative cycle: Legislative Agenda Advocacy Day (LAAD).

With assistance from HS-STAR, health CSOs presented their legislative proposals to the National Assembly Standing Committee on Healthcare, Maternity, and Childhood Issues during LAAD 2011.

Approach

To help the health CSO community take full advantage of the unique opportunity to communicate directly with the National Assembly regarding health care priorities, HS-STAR organized and facilitated a health CSO working group to prepare for LAAD 2011. During the working group meetings, the project guided the CSOs to improve their advocacy skills and to prioritize, clarify, and strengthen their legislative proposals. Concurrently, the project worked to sensitize senior parliamentarians to the importance and benefits of starting a dialogue with civil society.

In preparation for LAAD 2012, HS-STAR conducted a series of trainings to build CSO capacity in advocacy, health legislation analysis, and policy development. The project also provided technical assistance to the working group once again but transitioned the facilitation responsibilities to one of the working group members. To increase the voice of the regions in LAAD, the project and the working group helped health CSOs and local authorities from nine marzes to identify health priorities within their communities and propose solutions for inclusion in a position paper presented to the National Assembly.

Achievements

The active participation of health CSOs in LAAD has resulted in a number changes to health legislation that will lead to improvements to the health system. During LAAD 2011, health CSOs presented seven legislative proposals to the National Assembly Standing Committee on Healthcare, Maternity, and Childhood Issues. The National Assembly included five of these proposals on its agenda of subsequent hearings and then adopted three of the laws: the law on human blood donation and blood transfusion medical aid (adopted on November 15, 2011); amendments to the law on the prevention of diseases emerging from HIV (adopted on September 11, 2012); and amendments to the law on the sale, purchase, and use of tobacco (adopted on November 30, 2011). Prior to the LAAD 2012 meeting, the National Assembly included amendments to the law on social protection of people with disabilities on its upcoming agenda as a result of earlier advocacy efforts by the CSOs and HS-STAR. Of the five legislative proposals presented by the CSOs during LAAD 2012, the National Assembly added the law on psychiatric care to its agenda and promised to give the remaining four proposals serious consideration.

Sustainability

To transition legislative advocacy from a donor-driven process to one led by civil society, HS-STAR helped a CSO representative to lead the LAAD 2012 working group activities. This effort to institutionalize the legislative advocacy process, coupled with the great success of LAAD 2011 and LAAD 2012, make it highly likely that the National Assembly and civil society will continue to hold LAAD meetings on an annual basis to strengthen health legislation in Armenia.

Challenges and Risks

The future success of LAAD relies on the active participation of CSOs and continued interest among parliamentarians in working with civil society on legislation. The risk of competing priorities among the CSOs may require the continued involvement of an independent facilitator to ensure successful cooperation.

Priorities for the Future

As CSOs develop a better understanding of legislative processes and parliamentarians become more familiar with CSO capabilities, it is hoped that the National Assembly will increasingly rely on the technical expertise of CSOs to shape legislation that improves the health of the Armenian population. Although LAAD can continue to serve as the formal forum for CSOs to present legislative proposals to parliamentarians, these stakeholders would benefit from more regular meetings to collaborate on legislative issues. The MOH, the National Assembly, donors, and CSOs with LAAD experience should also work to expand the pool of CSOs that participate in LAAD in order to strengthen a greater number of health-related laws.

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Activity Brief

Increasing Civil Society Engagement in Health by Building the Institutional Capacity of Health NGOs

Background

Like a number of non-government organizations (NGOs) throughout the world, some NGOs in Armenia struggle to reach their full potential due to limited institutional capacity. As part of efforts to enable civil society to exercise their health rights and responsibilities, HS-STAR conducted an informal assessment of health NGOs in order to identify their specific capacity gaps. The project then worked to build the capacity of health NGOs involved in public policy, advocacy, and health education through formal trainings and technical assistance.

Approach

Based on the findings of the NGO capacity assessment, HS-STAR collaborated with the Ministry of Health (MOH) and Counterpart International to conduct a seven-day training course for health NGOs on networking, social partnerships, advocacy, policy monitoring, survey implementation, health legislation, and law enforcement mechanisms. The project also offered an introductory course on behavior change communication (BCC) to health NGOs in order to strengthen their health education activities. Both trainings used adult learning principles and methods to impart the skills and knowledge as effectively as possible.

HS-STAR conducted a BCC training for NGO representatives from Shirak marz.

To support the efforts of NGOs in monitoring the implementation of health policy and advocating for health legislative reforms, HS-STAR developed a Health Policy Advocacy Grant Program. Following a competitive application process, the project awarded grants of more than $7,300 to two NGOs to implement watchdog and advocacy activities. An NGO based in Gegharkunik marz, Regional Development and Research Center (RDRC), won a grant to work with the Gegharkunik local government to develop and implement mechanisms to monitor the Obstetric Care State Certificate (OCSC) Program introduced by the MOH in 2008 to provide free, good quality delivery services to all women in Armenia. Confidence NGO won a grant to advocate for the adoption of the law on breastfeeding promotion and regulation of infant food marketing.

Achievements

The NGO institutional capacity building training conducted by HS-STAR in partnership with the MOH and Counterpart International reached 25 representatives from 15 health NGOs based in Yerevan and the marzes. Upon completion of the training, the participants demonstrated a substantial increase in their knowledge about advocacy, networking, social partnerships, survey implementation, and health legislation and law enforcement mechanisms. Twelve Yerevan-based NGOs participated in the introductory BCC course.

Through the Health Policy Advocacy Grant Program, RDRC NGO helped the Gegharkunik local government to increase the transparency of the OCSC Program within medical institutions, raise the population's awareness of their right to participate in the program, and establish conditions that may reduce the likelihood of corruption related to the program.

As part of its grant, Confidence NGO increased the awareness of decision makers and the public on the importance of breastfeeding promotion and legislative regulation of infant food marketing practices. Due, in part, to the NGO's efforts, the National Assembly Standing Committee on Healthcare, Maternity, and Childhood Issues has been actively advocating for the adoption of the law on breastfeeding promotion and regulation of infant food marketing.

Sustainability

HS-STAR's NGO capacity building activities were carried out with the purpose of making the efforts of the NGOs both more effective and more sustainable. During the trainings, the project encouraged the participants to transfer their new knowledge to the other members of their organizations. Meanwhile, the grants program enabled the recipients to work closely with government stakeholders, an experience that may facilitate future collaboration between the two sectors.

Challenges and Risks

While the NGOs that participated in HS-STAR's capacity building initiatives are now in a better position to apply for grants for future activities, changes in the donor landscape in Armenia may reduce the amount of funding available for civil society initiatives. During the pre-bid sessions held for organizations interested in all of HS-STAR's grants programs, the project noted that the weak management capacity of some professional associations may hinder their potential as representatives of civil society.

Priorities for the Future

Online trainings could be an effective mechanism to build the capacity of the many health NGOs in Armenia. As demonstrated by the Health Policy Advocacy Grant Program, the Armenian health sector would benefit from greater involvement of NGOs through grants targeting the country's health priorities.

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Activity Brief

Promoting Public Private Partnerships (PPPs) to Improve Health Education

Background

Public private partnerships (PPPs) can be an effective mechanism for providing health services and products. Health education efforts, in particular, can greatly benefit from private companies' strong communications expertise and unique access to customers. Although the Ministry of Health (MOH) has been interested in working with the private sector on priority health issues, PPPs for health are a nascent concept in Armenia due to limited knowledge about PPPs and lack of awareness of PPP opportunities. To promote PPPs for health, HS-STAR aimed to educate government and private company stakeholders on the benefits of PPPs and to identify opportunities for collaboration between the public and private sectors on health initiatives.

Approach

As a first step, HS-STAR identified private companies interested in potentially partnering with the government on health programs. Aiming to establish a regular process for collaboration, the project then organized a roundtable for representatives from both sectors to come together to learn about each other's interests and priorities in the field of health. In

As part of a PPP facilitated by HS-STAR, Moskvichka supermarket staff distributed plastic bags and booklets with health messages to customers.

addition to bringing the public and private sectors together to discuss general mutual interests, HS-STAR helped to develop and launch innovative PPPs to educate the public about priority health issues.

Achievements

The MOH-private sector PPP roundtable organized by HS-STAR was the first of its kind in Armenia. More than 30 representatives from the banking, telecommunications, mining, and retail industries took advantage of this opportunity to learn about MOH priorities that could benefit from private sector involvement, such as health education, programs for immunization, screening, maternal and child health, and adolescent health, e-health, and the construction and renovation of healthcare facilities. Meanwhile, the MOH developed a better understanding of the corporate interests of private companies as related to health initiatives.

Following extensive negotiations, HS-STAR fostered a unique partnership between the MOH and Moskvichka supermarket chain to support the MOH's efforts to reduce the risk of non-communicable diseases like diabetes and cardiovascular disease. As part of this PPP, Moskvichka printed health messages and the MOH logo on the plastic bags distributed to customers for their purchases. The simple messages encouraged customers to adopt easy behaviors that can improve their health, such as limiting salt consumption, eating fruits and vegetables every day, and walking at least 30 minutes per day. Moskvichka also offered customers free booklets printed by HS-STAR that included healthy and easy recipes and nutritional information for vegetables that could be purchased at the supermarkets. Through this initiative, Moskvichka distributed over 66,000 plastic bags and 12,000 booklets for a total contribution exceeding $50,000. By partnering with Moskvichka, the MOH was able to reach thousands of individuals with important health messages with minimal public funding.

HS-STAR also facilitated a PPP with "Ashtarak kat" dairy company to print and distribute public education materials developed by HS-STAR about osteoporosis at supermarkets.

Sustainability

To promote continued collaboration between the MOH and the private sector, HS-STAR encouraged the participants to make the PPP roundtable an annual event. The project also advised the MOH to take responsibility for future coordination of the PPP process. Accepting this role, the MOH identified the Public Health Division as the institutional home for the development and management of health-related PPPs.

Challenges and Risks

The PPP roundtable discussion revealed that some of the private companies in attendance lack corporate social responsibility (CSR) strategies. The absence of this kind of strategy may make it difficult for these companies to effectively operationalize their interests in partnering with the government on health programs.

Priorities for the Future

HS-STAR worked with the MOH to develop a number of ideas for future PPPs, such as partnering with a cell phone company to send SMS reminders to parents on their children's immunization days and collaborating with an IT company to support a regional medical center's telemedicine efforts. The momentum built at the PPP roundtable makes the near future a good time to move forward with these ideas. Another priority will be building the capacity of designated MOH staff to solicit and review proposals from private companies and to monitor and evaluate PPP activities. Meanwhile, both private companies and MOH staff could benefit from a training course in the development and management of CSR strategies. Finally, the MOH could advocate for a more enabling legal environment for philanthropic ventures in order to encourage more private companies to participate in PPPs.

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Activity Brief

Educating the Population About Health Reforms and Priority Health Issues

Background

Like many of its regional neighbors, Armenia has a high prevalence of unhealthy behaviors. For example, nearly 60% of men use tobacco daily and approximately 20% of the population is physically inactive. Although the Ministry of Health (MOH) recognizes the importance of public education in improving the health of Armenians, the government's budget for public education activities is limited. To enable the MOH to carry out this important component of its mission in spite of these funding constraints, HS-STAR provided technical, financial, and coordination support with the development and implementation of a number of health education activities.

Approach

Given the extensive reach of mass media channels, HS-STAR and the MOH focused most of their health education efforts on television, radio, and newspapers. The project arranged partnerships with TV companies to broadcast health-related TV programs at no cost to the government. As part of this initiative, the project recommended health topics for the programs, provided the TV reporters with briefing materials on each topic, identified experts to speak on the programs, and worked closely with the experts to prepare their scripts and strengthen their public speaking skills. On behalf of the MOH, the project also contracted a TV company to create and broadcast a series of TV programs on priority health topics.

HS-STAR's NCD Advisor educated viewers about the dangers of smoking on DAR 21 TV.

To reach radio listeners with information about healthy birth timing and spacing, the project collaborated with the

MOH Public Health (PH) Division and Maternal and Child Health Department on a radio public service announcement (PSA) message focused on family planning. The team drafted the PSA message and then tested the content through focus group discussions with various target audiences.

In addition to sharing health messages through TV and radio, HS-STAR collaborated with the MOH, NGOs, and private companies to develop a number of print materials educating the public about health priorities.

To increase the quality and quantity of reporting on priority health topics, HS-STAR organized trainings for mass media representatives on reproductive health issues and non-communicable disease (NCD) risk factors and preventive measures. Leading experts from the MOH, academic and medical institutions, research centers, professional associations, and HS-STAR provided overviews of the highlighted health topics. The training also helped the participants to understand the role of mass media in improving the health of the population.

Achievements

HS-STAR partnered with Kentron TV, DAR 21 TV, Erkir Media TV, ATV, and ArmNews to broadcast 13 TV programs that covered priority health topics, such as smoking, breastfeeding, diabetes, healthy eating, healthy pregnancy, physical activity, reproductive cancers, sexually transmitted infections, and healthcare reform. As part of the collaboration with the MOH and Arm News TV Company, HS-STAR helped to develop a series of five TV programs focused on health that were broadcasted 15 times over a three-month period. The TV programs provided viewers around the country with important information about healthcare reforms, tuberculosis, maternal and child health (MCH), reproductive health, and family planning, and NCDs.

The family planning PSA developed by the project and the MOH aired on six major radio stations (National Radio, Auto Radio, 102.0 Yerevan FM, Radio Van, Russkoye Radio, and Radio Hay) eight times per day over a three-month period, reaching over 300,000 listeners.

With support from HS-STAR, the PH Division, State Hygiene Antiepidemic Inspectorate (SHAI), and the Academic Society of Family Medicine NGO developed nine public education materials promoting healthy behaviors, including: posters with guidance on health eating, smoking cessation, and physical activity; leaflets with information about cholesterol, salt, smoking cessation, risk assessment of cardiovascular diseases among women, and prevention of cardiovascular diseases and diabetes through diet and physical activity; and a patient booklet on hypertension. The public will be able to access these materials on the MOH website. The project also helped to design and print a poster educating the public about the country's basic benefits package; 1,300 copies of the poster were distributed to health and social security departments in the marzes, international organizations, and NGOs. Working with the MOH Licensing Agency, the project developed and printed 2,000 copies of a brochure with information about the legal aspects of advertising health services, medical equipment, and medicines. The project also revised and printed 5,000 copies of an antenatal care booklet for pregnant women that were disseminated to NGOs and maternity centers in Yerevan and the regions.

As part of an innovative public private partnership arranged by HS-STAR, Moskvichka supermarket chain provided customers with 12,000 copies of four booklets with information about healthy diets and continues to distribute 66,000 plastic bags with health messages promoting healthy lifestyles.

HS-STAR increased the health knowledge of 31 journalists during two two-day trainings for mass media representatives. Following the trainings, the participants published eight online articles and produced a series of TV programs on the highlighted health topics.

Sustainability

With an eye on building local capacity to conduct health education initiatives, HS-STAR involved relevant MOH stakeholders in all of its public education activities. The project also sought to leverage resources whenever possible in light of the limited pool of MOH funding and the expensive nature of large communication campaigns. The project's mass media trainings not only built journalist capacity in the short-term, but also helped to establish a foundation for future collaboration between the media and the health sector.

Challenges and Risks

The dissemination of incorrect health guidance to the public is a potential risk if articles and broadcasts about health issues are not consistently cross-checked with the latest evidence. Minimal government funding for public education will continue to be a challenge for the MOH.

Priorities for the Future

PPPs and collaboration with the media will enable the MOH to continue to educate the public about priority health issues in spite of government budget limitations. In addition to continuing its partnerships with TV and radio stations and Moskvichka supermarket, the MOH could explore opportunities for collaboration with internet and mobile phone companies. To ensure the best use of resources, stakeholders should conduct evaluations of health education initiatives in order to identify the messages and channels that are most effective in improving the health of Armenians.

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Activity Brief

Health Education Resource Centers

Background

Although some health education activities, such as radio public service announcements and television programs, can be coordinated at the national level, many health education initiatives are more effective when they are conducted at the community level. Recognizing the importance of community-based health education, the Ministry of Health (MOH) tasked State Hygiene Antiepidemic Inspectorate (SHAI) regional offices with the coordination of health education activities within their regions. While these offices were eager to take on this responsibility, many lacked the necessary institutional/technical capacity and appropriate physical spaces to organize and conduct health education activities. To promote health education efforts at the regional level, HS-STAR led an initiative to establish health education resource centers (HERCs) within the premises of SHAI regional offices.

Approach

In establishing the regional health education resource centers, HS-STAR focused on three objectives: creating appropriate physical spaces for the centers, building the capacity of the SHAI staff responsible for managing and conducting health education activities in the regions, and connecting the SHAI regional offices with the community. To ensure suitable physical conditions for the HERCs, the project worked closely with regional SHAI staff, a consultant, and a construction company to renovate the designated rooms within the SHAI offices and to procure office equipment and furniture. To equip regional SHAI staff with the skills and knowledge needed to carry out their health education responsibilities, the project collaborated with central SHAI staff to conduct trainings for regional SHAI staff on modern health education approaches, such as behavior change communication (BCC). In light of the important role of local non-government organizations (NGOs) in health education, the project established linkages between the SHAI regional offices and local NGOs, which already implement a number of health education activities in the regions.

Achievements

In close collaboration with the regional SHAI staff, HS-STAR helped to establish two HERCs in rehabilitated rooms at the SHAI offices in Vanadzor, Lori, and Gyumri, Shirak. In addition to serving as spaces to organize and conduct health education activities in the regions, the HERCs are equipped to enable regional SHAI staff and other local stakeholders to access the latest health education publications. As a result of capacity building provided by HS-STAR, the regional SHAI staff is already serving as a health education resource for NGOs in these marzes: SHAI staff from Lori and Shirak conducted BCC trainings in their respective regional capitals for more than 50 representatives from local NGOs. The trainings focused on the prevention of non-communicable diseases (NCDs), which account for approximately 90% of all deaths in Armenia.

Sustainability

To ensure the sustainability of the HERCs, HS-STAR encouraged the heads of the SHAI regional offices to identify staff members to serve as HERC coordinators who will be responsible for managing the centers. These coordinators have started to develop action plans to guide future HERC activities. To promote continued collaboration with NGOs, the project helped to partner the SHAI regional offices with the Eurasia Partnership Foundation's regional Info Houses, which have strong ties with the local NGO community. With an eye on the future support that will be needed to sustain the HERCs, HS-STAR encouraged the central SHAI office to establish a HERC in the Yerevan SHAI that can provide methodological support to the regional HERCs.

Challenges and Risks

As entities housed within existing government facilities, the HERCs are low-cost institutional homes for health education activities within the regions. However, the health education activities that the HERCs help to coordinate will require additional funding from sources that have yet to be determined. Furthermore, the HERC staff will need to further develop their technical capacity if they are to be seen as valued resources for health education within their communities.

Priorities for the Future

Using Lori and Shirak marzes as a model, the SHAI central office should consider rolling out the HERCs to all regions in Armenia. To ensure optimal utilization of the HERCs, the SHAI regional offices will need to market the capabilities of the centers and network with local NGOs. By leveraging their resources, the SHAI and NGO community can implement joint programs to more effectively reach the populations within their regions with health education messages.

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