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Program Evaluation Report:

AIHA

**Primary Healthcare Partnerships
In the Newly Independent States
(1998-2006)**

AIHA Primary Healthcare Partnerships in the Newly Independent States (1998-2006)



AIHA PHC Partnerships in the Newly Independent States (1998-2006)

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| 02. Bishkek, KG – Reno, NV, Tampa, FL | 12. Uzhgorod, UA – Corvallis, OR | 22. Gegharkunik, AM – Providence, RI |
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| | | 31. Guria, GE – La Crosse, WI |

Footnote: ISO 3166 country codes are used to abbreviate NIS country names

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(1998-2006)

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Abstract: The evaluation was conducted in August-December 2006. It examined 28 primary healthcare (PHC) partnerships that the American International Health Alliance implemented in 11 Newly Independent States in 1998-2006. The report summarizes evidence of program outcomes, impact, sustainability and replication; as well as best practices and lessons learned. PHC systems and practices, established by partnerships, have increased involvement of the household and the community in health-related decisions; strengthened demand for, and access to care; rationalized utilization and improved quality of services; and produced measurable health and social gain. The program has increased the capacity of NIS providers to address health concerns of an estimated four out of five PHC patients. PHC providers, strengthened in prevention and management of major chronic and acute conditions, and supported by a more educated and self-responsible consumer, can now deal with risks and diseases that account for an estimated 70 percent of the burden of disease (BoD) in their countries. Two thirds of this BoD load they can address more confidently than before the partnerships. The highlight of improved provider skills is the physicians' increased ability to use evidence as the basis for practice decisions. This is a result of the program's successful effort to introduce evidence-based practice guidelines and ensure their competent application through modernized clinical training, better technology, and steady access to information. Major program achievements have been sustained and stand a good chance to remain in use in the future. The case of Ukraine has been developed to illustrate the scope of replication of partnership results.

Keywords: NIS health; Moldova, Ukraine, Belarus, Russia, Georgia, Armenia, Azerbaijan, Kazakhstan, Kyrgyzstan, Turkmenistan, Tajikistan; Europe and Eurasia Bureau; AIHA; partnership programs; health program evaluation; primary health care; clinical training, health education; women's health; maternal health; neonatal health, children's health; non-communicable diseases; chronic disease; evidence-based practice; clinical guidelines; Learning Resource Centers.

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¹ Detailed Tables of Contents are provided in the Summary Program Evaluation Report (page vii) and Complete Program Evaluation Report (page 29).

List of Acronyms

ADS	USAID Automated Directives System
AIDS	Acquired immunodeficiency syndrome
AIHA	American International Health Alliance
BoD	Burden of disease
CAs	Cooperative Agreements
CDC	Centers for Disease Control and Prevention
CEE	Central and Eastern Europe
CEP	Continuing Evaluation Panel
CPR	Cardiopulmonary resuscitation
CQI	Continuous quality improvement
CR	Complete Report
DALY	Disability-adjusted life years
DHHS	U.S. Department of Health and Human Services
DOTS	Directly observed therapy, short course
Dx	Diagnosis; diagnostics
E&E	USAID Europe and Eurasia Bureau
EKG	Electrokardiogram
EOI	Expression of interest
FEV1	Forced Expiratory Volume in the first second
FGP	Family Group Practice
FMC	Family Medicine Center
FP	Family practice; family practitioner
FPC	Family Practice Center
GP	General practice; general practitioner
HIV	Human Immunodeficiency Virus
HRSA	Health Resources and Services Administration (of DHHS)
IDPs	Internally displaced persons
INLI	International Nursing Leadership Institute
IOM	Institute of Medicine
IRs	Intermediate Results
IUD	Intra-Uterine Device
IV	Intravenous (injection)
KMAPE	Kyiv Medical Academy for Postgraduate Education
LoS	Length of stay
LRC(s)	Learning Resource Center(s)
M&E	Monitoring and evaluation
MOU	Memorandum of Understanding

NAMCS	National Ambulatory Medical Care Survey
NCDs	Non-communicable diseases
NIS	Newly Independent States
NRC(s)	Nursing Resource Center(s)
PC	Personal computer
PEFR	Peak Expiration Flow Rate
PEV	Peak expiration volume
PHC	Primary healthcare
PMC	Primary Medical Care Center
PSR	Practice Standard Review
Px	Procedure
QA	Quality assurance
RVC	Reasons for Visit Classification
SIDA	Swedish International Development Cooperation Agency
SMPU	State Medicine and Pharmacology University, Chisinau, Moldova
SOs	Strategic Objectives
STDs	Sexually transmitted diseases
STIs	Sexually transmitted infections
TB	Tuberculosis
U	University
UNICEF	The United Nations Children's Fund
URI	Upper respiratory infections
USAID	United States Agency for International Development
VCT	Voluntary counseling and treatment
WHO	The World Health Organization
WWC(s)	Women's Wellness Center(s)

**Summary Program Evaluation Report:
AIHA Primary Healthcare Partnerships
in the Newly Independent States
(1998-2006)**

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Executive Summary

Introduction

The American International Health Alliance (AIHA) has a proven development approach of “advancing global health through professional, volunteer, peer-to-peer partnerships” (*AIHA, 2002-4*). The purpose of this report is not to assess how well the partnership model works: this question has been asked and answered affirmatively by previous evaluators. Rather, this report examines 28 primary healthcare (PHC) partnerships, implemented in the NIS region in 1998-2006, to answer the overall question: Did these partnerships create appropriate and effective changes in primary health care that made an impact on the health of families and communities? This evaluation report provides the evidence-based conclusion that significant health system change and health and social gain did occur. Partnerships were satisfying to both NIS and US partners, but they were also transformational demonstrations that supported real change in the primary healthcare sector and measurable health impact on the consumers served.

The evaluation has been designed with the intention to benefit both partnership and non-partnership programs that support PHC strengthening. The evaluation program has focused on the eighteen illustrative questions provided by USAID Europe and Eurasia (E&E) Bureau (see Annex D ‘Statement of Work’). The crosswalk from the original questions posed by USAID to the seven evaluation clusters used by the team has resulted in an evaluation program that is non-overlapping, guided by the USAID agenda, and relevant to the AIHA program. A three-tier ‘population – sample – case’ methodology, designed for this evaluation has included: (1) at the statistical population level (all partnerships covered): desk review of relevant documentation; (2) at the sample level: self-administered questionnaire-based survey, conducted with the partnership response rate of 71 percent; (3) at the case level: interviews and expert review checklists applied in five visited partnership sites.

The evaluation was conducted in August – December 2006 and is reported in two formats: Summary Report – the 26-page document following this Executive Summary, and the 90-page Complete Report (CR) in *Annex A*. A précis of findings is presented by evaluation cluster in the Executive Summary and referenced to the detailed evaluation findings and extended discussion in the Summary Report and the CR. Both reports contain additional important findings that are not included in the Executive Summary.

Main Findings

Appropriateness of Partnership Objectives (Summary Report, p.5; CR, pp. 42-54):

- PHC partnerships used a demand-driven process to set their objectives, involving multiple sources of information, broad stakeholder participation, and sufficient time preceding and following the signing of Memorandum of Understanding.
- The resulting objectives are strategically aligned with the E&E and Missions’ regional and country programs. Some of the most important partnership objectives have played a forward-looking role, as they provided an experiential ground for the E&E Bureau and Missions in updating their regional and country strategies.
- The partnership objectives and planned interventions were chosen to address all major burden of disease (BoD) factors in the region. The partnership agenda fully reflected the need for increasing

PHC scope and capacity to prevent and manage non-communicable diseases and injuries – the categories of conditions that account for 89 percent of the BoD in the 11 host countries.

Program Outcomes and Impact (Summary Report, pp. 6-11; CR, pp. 54-63; Annex B, pp.121-125): The objectives were effectively achieved by producing five health-oriented outcomes and one resulting impact in the form of health/social gain:

- *More competent self-care and active peer support:* Partnerships have raised the involvement of the household and patient peer groups in health care decisions. The locus of control remains with professional caregivers, however a certain shift from a paternalistic health care model to a model based on personal responsibility for health has been achieved.
- *Strengthened demand for care:* Partnerships have increased demand for healthy lifestyles and quality care. Patients and communities have changed their care seeking behavior towards greater demand for disease prevention knowledge and skills; voluntary enrollment in partnership-sponsored PHC clinics; increased use of PHC providers for primary health contact; increased ‘maintenance visits’ in chronic conditions, early pregnancy visits, psychiatric and behavioral counseling, and visits for social support and counseling.
- *Improved access to care:* The improved access to care has been achieved primarily through the establishment of 28 model PHC clinics and an estimated 270 replication care sites; expansion of primary care into new areas of personal and public health; and integration of PHC into the socioeconomic fabric by adjusting local care packages to community-level social, environmental, and occupational risks. The patient population with steady access to partnership-supported PHC services is estimated at 1.2-1.5 million persons in 11 NIS countries.
- *Rationalized utilization of care:* Partnerships have significantly enriched content of the provider/patient encounter by developing a more versatile approach to general medical exam, well baby exam, general psychiatric/ psychological exam, unconfirmed pregnancy, prenatal, and post-partum examinations. The numbers of PHC encounters have also grown, reflecting increased supply and quality of pregnancy care, health education activities, screening programs, chronic disease management services, and social counseling and support. By improving primary healthcare services, partnerships have reoriented clinical volume from specialty consultations and inpatient care towards primary care.
- *Improved quality of care:* As a result of the use of modern practice guidelines, strengthened diagnostic capacity, and advanced curative response, early detection rates and treatment outcomes have improved for breast cancer, cervical cancer, diabetes, hypertension-related conditions, psycho-behavioral disorders, dental caries; and specific vulnerable populations, such as women of reproductive age, adult males, and IDPs/refugees. Increased patient satisfaction with partnership-sponsored clinics has been reported in all consumer surveys.
- *Health/social gain:* While many partnerships have reported insufficient time for observable health gains, many others have provided tangible evidence of the following health/social improvements: reduced mortality and long-term disability in provider catchment areas as a whole and from specific causes such as cervical and breast cancer, hypertension, neonatal and perinatal conditions, and occupational injuries; reduced work and school absenteeism, particularly attributable to asthma and hypertension; reduced disease incidence, e.g., high blood pressure in women, STIs, dental caries,

helminthes, and nosocomial infections; lower acuity due to increased early detection of breast and cervical cancer and modernized control of major chronic conditions; elimination of excessive use of antibiotics, particularly in URI treatment; reduced abortion rate in general and teenage abortions in particular; secession of smoking and drug use.

Care Delivery Strengthening (Summary Report, pp. 11-14; CR, pp. 63-79):

- The PHC partnership program has increased the *capacity of PHC providers to address health problems and concerns* of an estimated four out of five patients who come to see a primary care doctor. Strengthened in the prevention and management of major chronic and acute diseases, and with stronger participation from a more educated and self-responsible consumer, PHC providers can now deal with risks and conditions that account for an estimated 70 percent of the burden of disease in their countries. Two thirds of this BoD load they can address more confidently than before partnerships.
- PHC provider capacity has been strengthened in conducting general and condition-specific physical examinations, differentiating symptoms, diagnosing, preventing and treating major communicable and non-communicable diseases, and counseling on the wide range of public and personal health issues. This improved provider capacity has resulted from the program's major investment in the transfer of information, education/training and equipment, supported by a secondary effort to modernize provider systems and assist with implementation.
- Strengthened provider capacity has led to improved *quality of care*. Progress has been made towards the achievement of the six quality aims distinguished by the Institute of Medicine and 11 conditions of quality that contribute to those aims.
- The highlight of the improved *physician skills* is their increased ability to use current evidence as the basis for practice decisions – an important result of the program's successful effort to introduce evidence-based practice guidelines and ensure their sustainable application through modernized clinical training, Learning Resource Centers, and PHC practice access to better equipment and health supplies.

Management Strengthening (Summary Report, p. 14; CR, pp. 79-82): The partners have assessed contributions to the managerial agendas as relevant, particularly in the following areas:

- *Management of quality in education*: Significant progress has been achieved in modernizing teaching technologies, curricula, and instructional materials.
- *Management of quality of care*: The main contributions in this area are related to the previously discussed introduction of clinical practice guidelines and standards, particularly through provider training and Learning Resource Centers.
- *Resource management*: Equipment management skills have been strengthened to match the much-improved access of the PHC practice to technology. Equipment and equipment-related training have been provided by US partners and Carelift International, the latter working under the USAID-supported Excess Medical Equipment Program.

Partnership Effects on Professionals, Organizations, and Society (Summary Report, p. 15; CR, pp. 82-87): The partnership-sponsored transition to a new, comprehensive model of primary care has triggered change at the workplace, organizational, and community levels:

- Empowered by new knowledge, better access to information, and broadened responsibility and autonomy, PHC *providers* have gained in their professional and social status.
- The health care *organization* has made modest progress towards a participatory management style and in several partnerships has shown remarkable flexibility in adjusting its staffing and finances to the new care strategy and resource needs.
- The *community* now participates in PHC priority setting and planning. While care providers and organizations are not necessarily accountable to the community, they are better informed about community needs and customer feedback.
- Increased professional power and stronger ties to the community have strengthened the civic activism of family care providers and their upward mobility towards important jobs in the government, academe, and legislative bodies.

Sustainability and Replication (Summary Report, pp. 15-18; CR, pp. 87-100):

- *Sustainability*: Major program achievements in modernizing PHC strategies, systems, and practices have been sustained to date and stand a good chance to remain in use in the future. The respondents have evaluated the role of 17 factors in supporting or resisting sustainability. Partners have concurred that all the support factors have been significantly strengthened in a pre/post-partnership time perspective. Regardless of the positive confounding factors, partnerships have been credited for their strong contributions, particularly for the transfer of professional knowledge, organizational capacity strengthening, and building public awareness. This leads to the identification of the important outcome of the partnership program: the strengthening of resources and mechanisms for fostering and sustaining innovation in the primary health care sector of 11 NIS countries.
- *Replication scope*: The case of Ukraine has been developed to illustrate the objects, scope, scale, attribution and factors of replication observed in the program. The scope of replication, triggered by six Ukraine-based partnerships (those accounting for almost one third of the program resources) and assisted by environmental supports, is characterized by the following parameters: the population served under the comprehensive model of PHC has grown from an estimated 245,200 in the partnership-sponsored model clinics to an estimated 373,200 at the first replication stage (after several satellite clinics were set up by the partner organizations); to 1.96 million at the second, local replication stage (level of rural districts, towns, and cities), to 5.12 million at the third, regional replication stage (level of the capital city and oblasts), and to 14.5 million nationwide in 2005. The partnership-to-country replication ratio may thus be estimated at 1:59. If the replication scale is to be based on the number of general (family) practitioners, the estimated replication ratio is 1:31.
- *Replication factors* at work in the partnership host countries are summarized in Subsection 3.6.2 and further discussed in Section 4.1 of the CR. Effective dissemination activities have fed the knowledge of partner results and experience into the policy and technical designs of the NIS government agencies. Riding the wave of the political interest in the development of Family Medicine as a ‘national institution’, e.g., in Moldova, Ukraine, Russia, Kazakhstan, Kyrgyzstan and Armenia, NIS partners came in demand for high-profile policy consulting. They have developed a strong upward

potential that assisted in their career growth. Former partner coordinators took high offices in the health administrations and academe. Family practitioners strengthened their status as community leaders and increased their presence in the locally elected bodies. Trained in nursing leadership skills, PHC nurses have formed several regional nursing associations. Partners have produced a sizeable output of scientific and trade publications; completed their doctoral and post-doctoral studies summarizing their practice-based evidence for further enrichment and customization of the integrated PHC model. The aggregate effect of these developments was a significantly increased advocacy potential of the NIS partners and their personal/professional vesting in the sustainable application of the partnership-sponsored innovation. Partnerships have created a supply-driven pressure from general practitioners, previously unknown in the NIS health policy milieu that had traditionally been dominated by specialty physicians.

The partnership program management has adopted a politically winning approach to the promotion of partnership strategies and achievement. Ultimately, it is the local demand-driven, participatory nature of the partnership design and work planning that empowers the NIS side, builds self-esteem in the local professionals, and allows the innovation to take root and spread.

Other Aspects of the Partnership Program (Summary Report, pp. 18-21; CR, pp. 100-110):

- *Learning Resource Centers (LRCs)*: The sustainability and functional diversity of LRCs to date have been ascertained, and sustainability supports and risks examined. LRCs have been sustained in the following functions: (i) libraries enhanced by electronic access to information; (ii) tele-/multimedia-conferencing facilities enhanced with a satellite communication system; (iii) the centerpiece of an evidence-based clinical training and skills-testing center; (iv) support for the health education agenda; (v) traditional functions: on-line access, e-mail, and data management. To be successful in serving the demand for best practice information LRCs will have to integrate with external resources of connectivity and research. Pooling funds and customer base with other organizations may be recommended as part of this strategy. Since the adaptation to changing environment will require a continuous adjustment of the LRC management strategies, organizational layout, and resource base, the LRCs may evolve into a different type of entity, for example, become part of multi-organizational medical informatics / library / research centers or networks.
- *Program management and cross-partnership initiatives and activities* have been found instrumental in advancing partnership objectives. To name but a few of their contributions, they have formed the program identity, provided comprehensive support at the pre-partnership and start-up stages, brought partnerships into organizational contact and technical exchange, played an important policy mediation role between partnerships, USAID, and NIS health agencies; served as a clearinghouse and exchange for the partnership best practices; and provided administrative backstop.

Best Practices, Lessons Learned, and Recommendations

The purpose of this evaluation was not only to chronicle performance but also to help strengthen the design and implementation of future programs. A sample from the lessons learned in this evaluation, the following bulleted list provides some useful insights for the international development community:

- Implementing new care strategies and models within existing health delivery networks reduces the need for immediate structural change thus reducing both political and professional tension while innovations are being demonstrated, accepted and expanded.

- Piloting a new model of care through several types of PHC organizational structure allows leveraging of risks associated with any specific type of organization and increases buy-in from both providers and administrators, thus making change more inclusive and, ultimately, more sustainable.
- Rural primary care reform is a universal challenge. Partnership achievements in embedding the integrated care model in rural practice and in strengthening provider/community ties are remarkable and merit further close examination for replication through other projects.
- Most partnerships nurture change at the local level and are successful at that. However, it takes more than proven local success to replicate the model. The partnership program management advanced what may be called the ‘trickle-up’ agenda of the program. They interfaced between partnership organizations and governments; brokered strategic solutions developed at the partnership level, and developed decision-maker vesting. These activities greatly facilitated replication.
- Crucial to sustainability and replication is the insightful monitoring of the ‘big picture’ of national policies in the host countries, projection of emerging areas of national interest, and identification of synergies that such developments create for replication. For example, the program management took advantage of the European integration trends to spur further interest towards partnership-sponsored innovation in NIS countries working toward EU accession.
- Many donors may have resources to support successful partnership innovations. Effective donor support requires conceptual alignment and coordinated decision making among programs. This may be challenging since organizational identity and procedural requirements of donor agencies and implementing teams do not always align with the model, standards, and quality requirements developed through partnership-supported innovation.
- USAID may want to consider developing a sustainability-monitoring tool and using it for a periodic inquiry into the sustainability status of major partnership achievements. The practice of the partnership sustainability grants could be renewed in a modified form: for NIS-wide support of a specific area of the partnership legacy. For example, in two years from now there may be a technical assistance grant to review and update all Women’s Wellness Centers on the latest clinical evidence; and conduct refresher training of the faculty and practitioners. Another ‘maintenance project’ could focus on creating a regulatory support for an ongoing modification of practice guidelines and PHC practice to evolving evidence. The sustainability agenda, presented at the end of the CR Table 21 outlines an opportunity for the groundbreaking assistance with setting up the national health service research in the NIS countries.
- The integration of model practice sites with basic and continuing provider education is among the most productive ways to sustain the innovation for the following reasons: (1) The new practice model goes directly into the early experience of the newly educated or reeducated practitioners. (2) Being a clinical site becomes an essential function of the PHC practice and brings additional resources and policy attention. (3) The teaching function connects providers to the academic elite, who, in turn, put their weight behind further successes of the model.
- Each viable partnership qualifies for a full-fledged pilot demonstration project and is at risk of being wasted, unless properly supported by good evaluation. Having sound baseline data is mission-critical for increasing the replication value of a successful partnership. This requires careful evaluation planning, robust methodology, and adequate budget.

1. Background and Objectives

1.1 Study Objectives and Context

This evaluation of the Primary Healthcare (PHC) Partnership Program has been conducted in August-December 2006. The evaluation covers 28 PHC partnerships implemented in 11 Newly Independent States (NIS) in 1998-2006. The American International Health Alliance (AIHA) carried out this program under its Basic Agreement with USAID No. EE-A-00-09-00033-00 and pursuant Cooperative Agreements between USAID regional/country Missions and AIHA regional/country offices in the West NIS, Russia, the Caucasus, and Central Asian Region (CAR).

The USAID Europe and Eurasia (E&E) Bureau tasked the evaluators with the following objectives:

- Estimate program's contribution to changes in the PHC practice and health status in the host countries;
- Assess the sustainability and replication of positive PHC results;
- Identify lessons learned and best practices; and
- Present recommendations for PHC strengthening in future program designs.

The evaluators have answered eighteen illustrative questions, provided by USAID (see Annex D 'Statement of Work'). The evaluation report is presented in two versions: Summary Report – this 25-page document, and the complete report (CR) in Annex A. A précis of findings in the Summary Report is referenced to the detailed evaluation findings and extended discussion in the CR.

Partnership activities in the NIS have been periodically evaluated during the implementation period of the PHC partnership program (*CEP, 2001; Simpson, 2001; Jaeger, 2001; Ezhuthachan, 2002, Becker, 2003*). The value added of this evaluation is summarized below:

Program-wide scope: The current study integrates, updates and expands on previous evaluations that were focused on specific sub-regions and implementation areas. It is intended to produce evidence for program-wide conclusions and recommendations. It differs in methodology and level of analysis from the only previous program-wide evaluation that the Continuing Evaluation Panel conducted in 2001 (*CEP, 2001*).

Summative content: This study is a post-program evaluation. It is timed to produce more conclusive evidence about partnership results and their potential for sustainability and replication.

Changed country and assistance strategy contexts: The view of the partnership legacy is strongly influenced by the continued evolution of the socio-economic environment in the host countries and assistance strategies. The NIS environment presents a complex mixture of economic advances and socio-political setbacks. Some countries are graduating from the USAID-funded assistance programs. The exit strategy has moved to the fore in Russia and may become topical in some other NIS countries. The durable results of a partnership program stand to appreciate as the E&E Bureau has become particularly interested in the post-presence sustainability of past achievements and has been “exploring appropriate post-presence initiatives as a way to consolidate assistance gains and carry support for democracy and markets into the future, even after a local USAID mission is closed. Post-presence initiatives consist of American or East-East regional partnerships established with USAID assistance...” (*USAID/E&E, 2004*). This strategic approach implies a direct call for revisiting the positive legacy of the PHC partnership program with a view to its post-presence potential. Another important assistance strategy, also leading to the appreciation of the program legacy, is to ‘harness private flows’ – “generate public-private partnerships to mobilize non-official resources and know-how” (*USAID/State, 2003*). Most of the recommendations that have emerged from the evaluation are intended to help USAID strengthen its post-presence initiatives and public-private partnerships in the NIS region.

Figure 1. The PHC Partnership Program at a Glance

	Primary Health Care	Women's Care	Knowledge Resources	Nursing
Goals	Improve PHC quality and health outcomes, and promote healthy lifestyles, contributing to the reorientation towards primary care in targeted countries.	Provide a client-centered approach to women's health care through services that address women's health needs throughout their life continuum.	Promote improved health care practices through increased access to, use of, and understanding of available knowledge resources.	Improve patient care through effective, quality nursing practice and strengthening the profession's contribution to systemic health care reform.
Objectives	<ul style="list-style-type: none"> ↗ capacity to deliver quality primary care services in targeted communities. • ↗ patient satisfaction with PHC services. • ↗ acceptance and availability of PHC evidence-based practices and clinical practice guidelines. • ↗ community participation in improving the health of the community 	<ul style="list-style-type: none"> ↗ capacity to deliver comprehensive, outpatient services to women of all ages. • ↗ utilization of health promotion/prevention services within Women's Wellness Centers (WWCs) • Maintenance of a high level of patient satisfaction with WWC services. • ↗ implementation of practice guidelines for women's care. • ↗ use of contraceptive methods to avoid unwanted pregnancy. • ↗ sustainability of WWCs. 	<ul style="list-style-type: none"> ↗ access to up-to-date health care knowledge resources. • ↗ promotion of evidence-based practice. • Demonstrated ability to sustain access to knowledge resources independent of AIHA funding. • ↗ development and use of information and communication technology tools and applications. 	<ul style="list-style-type: none"> ↗ capacity for professional nursing education that meets intern'l standards. ↗ status of nursing as a profession. • Improve nursing practice by introducing new models of nursing care and nursing roles. ↗ access of nurses to info-resources and networking through sustainable Nursing Resource Centers (NRCs).
Inputs	<p><i>Funding and in-kind contributions:</i> \$75.9m. Of that number: - Cash spending: \$29.4m, - In-kind: \$46.5m. • <i>U.S. Organizational and community engagement:</i> - 38 cities/communities in 22 states and D.C. - Over 200 institutions, incl. 85 health systems and 61 universities.</p> <ul style="list-style-type: none"> • <i>NIS engagement:</i> - 11 countries with the total population 255.3m (2004) - Over 140 provider facilities and networks, • medical education institutions, and health administrative agencies. 			
Processes	<ul style="list-style-type: none"> • <i>Professional travel:</i> 15,398 US to NIS days + 13,520 NIS to US days = 28,918 total days. • <i>Provider training:</i> 300 training courses per year (in 2003, when the program implementation was in full swing). • <i>Community education:</i> 2,900 education and outreach activities have involved 74,000 participants in 2003. • <i>Knowledge strengthening:</i> Two clinical or educational evidence-based practices reviewed every year. 			
Outputs	<p>28 model PHC clinics established according to the integrated model of PHC, an estimated 270 clinics replicated w/o partnership funding.</p> <ul style="list-style-type: none"> • Two million patient visits /year in partnership-sponsored PHC clinics. • 29 community health councils and 37 patient clubs (involving 4,600 members) are functioning • Over 1,300 NIS health professionals benefited from exchange • >30,000 PHC residents and practitioners trained 	<p>30 WWCs established • 500,000 patient visits /year in partnership-sponsored PHC clinics. • >250,000 diagnostic services performed, incl. pap smear, and breast Dx • >100,000 visits for STI screening and treatment • >230,000 other preventive visits • WWC-sponsored educational programs involved >130,000 participants / year.</p>	<p>LRCs established in all partnerships. • 18,500 health professionals trained to use PCs and Internet • In 2002-4, the share of NIS partners with access to pertinent professional information ↗ from 10% to 84%. • 41% of information comes from computer-based sources. • 69 of 123 surveyed partner institutions (56%) successfully demonstrate the use of evidence-based practice guidelines</p>	<p>24 Nursing Resource Centers (NRCs) were established • By 2003, almost all partnerships reported institutionalization of new roles and responsibilities for nurses, incl. institutionalized written nursing standards</p>
Outcomes	<p><i>Technical quality:</i> All model PHC clinics meet \geq 8 of 10 quality criteria related to counseling, use of clinical evidence, screening services, involvement of nurses, availability of patient education materials, group health education classes, CQI activities, implementation of occupational health and infection control, and community outreach activities. • <i>Patient satisfaction:</i> Patient surveys conducted in 2002-03 in 20 model PHC facilities have shown on-target level of customer satisfaction (\geq5.8 on a 7-point scale for 22 variables of provider performance) in 6 facilities, and just below the target in 6 more. • PHC-to-specialist referral rate has declined from 2/3 to an estimated 20 percent across model PHC clinic.</p>			

Compiled from: (AIHA, 2002-4)

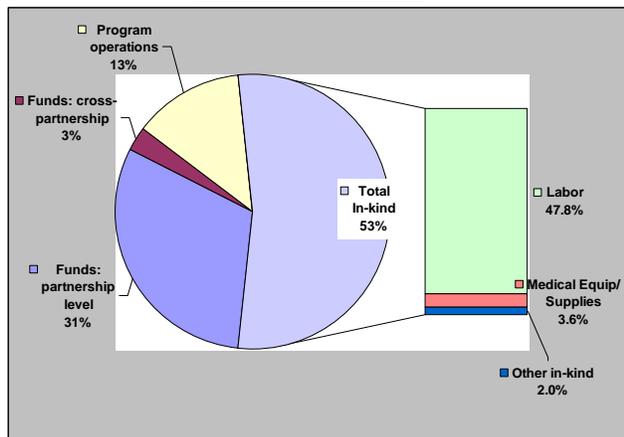
1.2 Program Summary

The PHC Partnership Program in the NIS was established in 1998. It comprises 31 partnerships in 11 countries across ten time zones (see map on title page/overleaf). The most recently graduated partnership concluded its activities in November 2006. Three partnerships, not covered by this study, continue to be active in the Caucasus. The program's snapshot summary is presented in Figure 1. It reflects four program areas that account for most financial and technical resources. Additionally, PHC partnerships had involvement in the areas of infection control and neonatal resuscitation.

PHC partnerships include a common set of activities, generalized in CR Figure 2 (pages 36-37). These common activities derive from the AIHA partnership model that had been tested and improved over the past decade. An additional element of cross-partnership alignment has been introduced by the PHC Advisory Committee, based on its 1998 definition of the PHC concept, scope, and priorities for the NIS. The analyzed program activities reflect the multiple roles of AIHA as a source of advice, facilitation, coordination, and technical assistance to the partnerships. While benefiting from AIHA experience and resources, partnerships have been endowed with wide managerial and technical autonomy, consistent with the adaptive, demand-driven, and non-prescriptive approach to partnership implementation.

The financial and in-kind inputs to the partnership program are presented in Figure 2. Volunteerism, a key feature of the partnership model and the evaluated program, has shaped the cost/budget structure in a way unique to this type of endeavor: in-kind contributions have accounted for 53 percent of the total amount of input resources. Labor (voluntary time) comprises 48 percent of the 'grand total' program resources (90 percent of the total in-kind). 'Other in-kind' (2 percent of 'grand total') includes pharmaceuticals, interpretation/translation, travel-related costs, and unspecified donations of labor, services, and materials.

Figure 2. Input Resources of the PHC Partnership Program: Funds and In-kind at US Market Valuation



Estimated from AIHA data

time has been spent on partnership travel in each partnership. Personal professional exchange is the basic feature of the AIHA model: "AIHA's partnership program rests upon the presumption that professionals in the countries abroad will be more receptive to the ideas and advice of their professional peers with whom they have developed a personal, trust relationship, than they will be to "consultants" whom they often perceive as not fully appreciating their real world constraints. ... Exchanges allow overseas participants to see for themselves the broad spectrum of US health care and begin to make decisions about what will work in their unique circumstance. For the US participants, the exchanges facilitate familiarization with the environment in the host country. ... The exchanges provide direct experience for CEE and NIS visitors to the US of the pluralism and democratic institutions that are integral to American culture" (AIHA/Model).

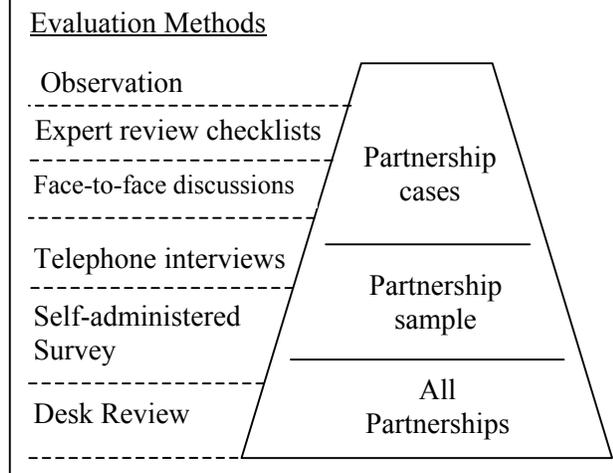
The estimated NIS share of the in-kind contribution (labor and translation) is 42 percent.

Funding accounts for 47 percent of program resources, of which 31 percentage points is direct spending at the partnership level, 3 points -- cross partnership activities, and 13 -- program operations.

Time has been the key resource in this program. US and NIS health professionals have donated an estimated 168.7 person-years of their time to their partnerships, an average 5.4 person-years per partnership, or 1.1 person-years per partnership per year (assuming the active collaborative exchange continued for 5 years). Two thirds of time has been spent in exchange visits: of that amount 47 percent by NIS visitors and 53 percent by the US visitors.

An annual average of 8.6 months of professional

Figure 3: Three Tiers of the Evaluation



2. Evaluation Methods and Organization

The evaluation methodology is aligned with USAID performance monitoring directives and procedures (*USAID/ADS, 2003: 203.3.5.1; TIPS #11-14*) to assess its programs for ‘making a difference’: promoting core values, achieving intended results, and influencing further decisions. The evaluation has been designed with the intention to benefit both partnership and non-partnership programs of PHC strengthening.

The design of this evaluative study is based on the logical model, postulating that *inputs* are engaged in *processes* to produce *outputs* that, if *sustained*, result

in *outcomes* with a system *impact* proportionate to the level of their *replication*. The 18 evaluation questions from USAID were organized into seven evaluation clusters. The twelve evaluation content areas elucidate the evaluation clusters as summarized in Table 1. The crosswalk from the original questions to the evaluation content areas and clusters has resulted in an evaluation program that is additive, non-overlapping, guided by the original USAID questions, and relevant to the AIHA program and partnership agendas.

The three-tier ‘population—sample—case’ methodology (Figure 3) included: (1) at the statistical population level (all partnerships covered): desk review of program and partnership documentation; (2) at the sample level: self-administered questionnaire-based survey, conducted with the partnership response rate of 71 percent (20 out of 28 partnerships); (3) at the case level: interviews and expert review checklists applied in five visited partnership sites. The methodology of the study is presented in detail in CR Section 2 (p. 38-42). Its strengths and weaknesses are discussed in the CR Subsection 2.3.1.

Table 1. Evaluation Program: A Cross-walk from USAID Questions to Evaluation Clusters and Content Areas

Evaluation Clusters	Evaluation Content	Evaluation Questions, Posed by USAID
<i>To what extent did the partnerships:</i>		
I. Appropriateness of partnership objectives, relative to:	1. USAID priorities 2. Country health needs	Q2, Q3 (in part). Contribute to E&E Bureau and Mission goals and objectives? Q4 (in part). Address the leading causes of death and disability; succeed in addressing the priority health issues of the communities served?
II. Outcomes and Impact	4. Self-care capacity, demand for, access to, and quality of care; health status	Q1 Achieve their partnership goals and objectives? Further answering Q2-Q4 Q5. Achieve improvements at the local and national levels? Q10 More closely align personal health and public health efforts?
III. Care delivery strengthening	5. Capacity to deliver quality PHC care; provider skills	Q6. Increase the capacity to deliver quality PHC services in targeted communities? Foster more effective and efficient delivery of PHC services? Q7. Transfer technical knowledge that bridged the gap in clinical practice standards. Evaluate the extent to which partnerships increased the acceptance and availability of PHC evidence-based practices and clinical practice guidelines? Q9. Increase the quality and availability of information for decision-making?
IV. Management strengthening	6. Management of quality of care and provider education 7. Resource management	Q8. Promote modern techniques of health care management and quality in health care practice and education?
V. Implications for	8. Consumer participation	Q11 Promote democratic values and expand civil society? Increase community

Evaluation Clusters	Evaluation Content	Evaluation Questions, Posed by USAID
organizational and societal change	and provider accountability	participation in improving the health of the community?
VI. Sustainability and replicability	9. Sustainability	Q12. Contribute to the sustainability of the PHC centers? What are the key determinants and barriers (internal and external) to their long-term success? Assess the success and sustainability of outreach and patient education activities as well as prevention-oriented programs.
	10. Replicability	Q13. Contribute to the replication of partnership models and outcomes?
VII. Other aspects of the program	11. Learning Resource Centers	Q16. Did the PHC LRCs help advance the use of evidence-based medicine? Q17. Are the PHC LRCs sustainable and replicable? Q18. Did AIHA publications, media relations, and websites contribute to the achievement of partnership objectives?
	12. Cross-partnership activities	Q14. Did region-wide conferences and workshops help achieve the individual partnerships goals and objectives? Q15. Did cross-partnership initiatives benefit the individual partnerships?

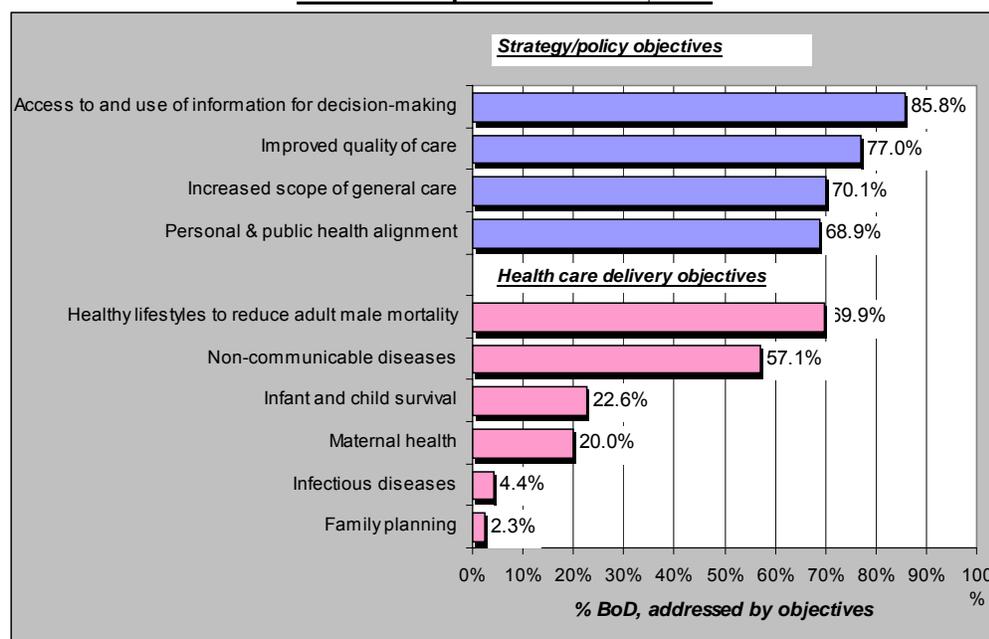
3. Summary of Findings

3.1 Appropriateness of Partnership Objectives

Partnership objectives were studied by 14 areas of PHC policy/ strategy and 12 areas of care delivery. The area list was compiled from the AIHA Program Description and USAID E&E and NIS Missions’ objectives. Extensive analysis of the objective-setting process is provided in CR Section 3.1 (pages 42-54). It supports the following conclusions:

PHC partnerships used a demand-driven process to set their objectives, involving multiple sources of information, broad stakeholder participation, and sufficient time at the pre- and post-MoU stages. This process has been guided by the USAID regional and country goals that were communicated to partners

Figure 4. BoD Coverage by Selected Partnership Objective: 11 Partnership Host Countries, 2002



through the USAID/AIHA Basic Agreement, CAs, and AIHA methodological guidance for the partnership work planning. The resulting objectives are strategically aligned with the E&E and Missions’ regional and country programs. Some of the most important partnership objectives have played a forward-looking role, as they provided an experiential ground

for the E&E Bureau and Missions in updating their regional and country strategies.

The partnership objectives and planned interventions were chosen to address all major burden of disease (BoD) factors in the region (see Figure 4 and supporting analysis in CR Subsection 3.1.4, pages 49-54). The partnership agenda fully reflected the strategic need for increasing PHC scope and capacity to prevent and manage non-communicable diseases and injuries – the categories of conditions that account for 89 percent of the BoD in the 11 host countries. At the same time, partnerships sufficiently emphasized the need for strengthening the core PHC functions of combating infectious diseases and improving maternal and children’s health, reflecting the worrisome TB and HIV/AIDS trends in the European NIS, as well as traditional infectious, respiratory, mother-child and nutritional conditions in the Central Asian countries. In summary, the objectives that partnerships selected have set the right direction for contributing to the USAID and host country health and social transition agendas. Partnerships have set their objectives at the level of individual providers, organizations, local provider networks, and communities. The overarching objective has been to assist with the replication of successful models across the healthcare system.

3.2 Outcomes and Impact

The assessment of partnership outcomes/impact is based on partners’ opinions and documented evidence. The evidence reported by partnerships is compiled in Annex B. Details and discussion are presented in CR Section 3.2, pages 54-63). The partner opinion poll has identified the following main beneficiary populations: women of childbearing age, mothers and infants, youths/students (14-18/25 years old), children (1-14 years old), adult males (25-60 years old), and the elderly. Secondary-focus groups included workers exposed to occupational risks, persons with disability, IDPs, and inmates. The US respondents have placed adult males on top of the beneficiary list (rated only fifth by the NIS respondents). The NIS partners have a very high opinion of the partnership contribution to strengthening the traditional functions of PHC: women’s wellness and maternal and children’s health.

Strengthened Quality of PHC care is the top partnership outcome, acknowledged by 47% of respondents. It is followed by *Increased Access to Care* (43%), *Rationalized Utilization of Care* (46%), *Improved Demand for Care* (27%) and *Competent Self-care* (23%). *Improved Health Status* is the ultimate outcome, alternatively termed ‘Impact’. It has been acknowledged by 23 percent of respondents across all beneficiary groups. The observed gap between the impact (health gain) and contributing outcomes may be explained by a variety of factors, e.g., (1) a time lag between improved access, utilization and quality, on the one hand, and the health gain, on the other; (2) a ‘leak’ on the way from outcomes to impact that may be attributable to the negative impact of confounders; (3) lack of measurement capacity that may be putting the health gain at a disadvantage compared to outcomes easier to measure such as utilization and quality.

3.2.1 More Competent Self-care and Active Peer Support

Partnerships have raised the involvement of the household and patient peer groups in health care decisions. The locus of control remains with professional caregivers, however a certain shift from paternalistic health care model to a model based on personal responsibility for health has been achieved. More competent self-care and peer support illustrate this trend. Specifically:

- In most partnerships, persons with chronic conditions such as hypertension, diabetes, and asthma have been educated on the risk factors, etiology, progression, and parameters of their diseases, trained in self-monitoring skills, and provided with access to reference materials, self-diagnostic devices, and medications that have allowed them to better control their condition and deal with relapses.
- An estimated 27 partnerships have actively advanced women’s education in the area of breast self-examination. The success of the program-wide campaign for breast self-examination may be the reason why 48 percent of respondents acknowledged that women of childbearing age have strengthened their self-care capacity thanks to the partnerships.

- Teenagers have developed their self-care skills and practice at the group level – through peer education about such health risks as drinking, smoking, drug use, and unsafe sex. Most partnerships have encouraged peer involvement through school-based education, teenager clubs, and other community initiatives. Approximately 25 percent of the partnerships have provided a conclusive report of strengthened peer education and support capability as a partnership outcome, while 40% of respondents agreed that students have improved their self/peer-care capacity.
- Assisted by the partnership-supported PHC centers, the elderly and families with disabled children have developed a strong sense of group self-reliance in combating their health and psychological problems.

3.2.2 Strengthened Demand for Care

The partnerships have had an unequivocal impact on health demand, this traditionally neglected area of the health sector strengthening agenda:

- The PHC practices and provider facilities that have been established or upgraded by the partnerships and successfully marketed their services as US-equipped and trained providers of modern general/family care have seen a steady increase in voluntary enrollment. During the partnership years, all NIS countries have seen the return of the patient to PHC facilities – a trend that has been significantly enhanced by the patient-centered model of family practice, implemented under the program.
- The health education of communities, families, and patients has improved the knowledge of disease risks, increased appreciation of the importance of prevention and early detection, and emphasized the benefit of continued PHC provider/patient collaboration. This has increased demand for services, particularly, from groups at risk of specific diseases (e.g., breast cancer, HIV/AIDS, other STIs, dental caries, teenage-related psychiatric and behavioral disorders), patients with chronic conditions, and pregnant women. Partnerships have developed, and patients have responded to the evidence-based risk and disease management protocols that call for an increased number of patient/provider encounters, namely for risk-specific preventative exams, care in pregnancy, patients with hypertension, diabetes, and asthma, and students in need for psychological counseling. To sustain patient-driven demand for care requires an ongoing effort: many partnerships have reported difficulties in reaching target levels of covering pregnant women with the early pregnancy (<12 weeks) visit. Attendance of health education sessions and health promotion events has been uneven and very sensitive to organizational formats and timing – a problem familiar to PHC practitioners in the United States.
- A partnership-supported change in care seeking behavior contributed to increased demand for PHC services: patients self-refer less for specialty outpatient consultation and hospital care and increasingly trust their PHC provider to be a competent source of first contact care.
- Demand has increased from community members who come to PHC facilities for non-medical reasons: to use them as a hub of social and psychological support.

3.2.3 Improved Access to Care

Improved access to quality PHC services has been acknowledged by 43 percent of the respondents; 19 partnerships have provided conclusive evidence. Almost all partnerships have contributed to the improved access by investing in the PHC provider capacity in the host countries. An estimated 28 model PHC clinics have been created anew or directly benefited from the partnership effort of renovating and furnishing space, purchasing and installing equipment, training staff, setting up practice management systems, and engaging with the community. An estimated 270 PHC clinics were replicated without AIHA funding.

The partnership-sponsored primary health care has been established in physician offices, some of them standalone (created anew or set up in the former rural physician ambulatories), others based in polyclinics, former women's consultations, and hospitals. Such providers would typically be termed Family Group Practices or Family Physician Ambulatories (particularly, if standalone), Family Practice Centers (Clinics,

Departments) or Family Medicine Centers (Clinics, Departments). Each general practitioner would serve a patient panel of 1,500-2,200 persons. A group PHC practice can be staffed by a team of increasingly interchangeable 'PHC specialists': an internist (adult PHC doctor), a pediatrician, and an ob/gyn doctor (full or part-time). Alternatively, a newly trained or retrained general (family) practitioner would be seeing adults and children, his/her office established as an independent practice, or part of a family medicine department within a polyclinic. Consistent with the program's strategy of targeting PHC capacity to major health risks and diseases, partnerships have emphasized access to specific areas of PHC by creating 30 Women's Wellness Centers (WWC), a Cardiovascular Wellness Centers, a Family Dental Clinic, Psychosocial Counseling Centers, a Detoxification Center, Health Education Schools, and Patient Clubs, organized by age or health risk group.

The patient population with steady access to partnership-supported PHC services is estimated at 1.2-1.5 million persons in 11 NIS countries.

Along with the creation of additional provider capacity, the partnerships have used the following means to enable better access to PHC: (i) the expansion of primary care into new areas of personal and public health; (ii) integration of traditional and new care domains at the PHC provider and facility levels; (iii) involvement of the communities and patients in the PHC priority setting, planning, and coordination. The following areas and types of care illustrate the new and improved access to one-stop PHC:

- Health education to (i) promote individual responsibility for health and healthy lifestyles (exercise, nutrition, safe sex, avoidance and secession of smoking, drinking, and drug use; dental hygiene), (ii) control the spread of communicable diseases (STIs, HIV/AIDS, TB), and (iii) involve patients in the self-diagnosis and management of chronic diseases (breast cancer, hypertension, diabetes, asthma).
- Integration of previously specialized areas into general care that PHC providers deliver, coordinate, or otherwise directly manage, particularly, (i) screening for, assessment and management of widespread health risks and chronic conditions such as hypertension, diabetes, and asthma; (ii) expansion of the physical examination and basic follow-up care to ophthalmology, otolaryngology, women's, maternal and neonatal health; (iii) modernization of the PHC laboratory base and user skills into bacteriology, blood chemistry, and urinalysis; (iv) addition and increased use of the diagnostic testing and imaging such as EKG and ultrasound; (v) diagnosis and selective management of psychiatric and behavioral disorders; (vi) psychological, social, and legal counseling and support of vulnerable populations; (vii) hospital-substituting and post-hospital care, at home and facility-based; (viii) case management across levels of care, particularly for patients with long-term conditions, such as TB, alcohol and substance abuse.
- Integration of PHC into the socioeconomic fabric by means of (i) flexibly adjusting local care packages to community-level social, environmental and occupational risks and hazards, for example community assessment and physical exam protocols modified to provide focused attention to the risks and health problems of the miners, seaport workers, IDPs/refugees, and persons with the history of radioactive exposure from Chernobyl catastrophe; (ii) outreach to the at-risk and patient populations through school-, employer-, and community-based health education programs, health fairs, and other health promotion events; (iii) PHC provider initiatives and/or collaborative response to strengthening cross-agency collaboration, particularly, to coordinate policies, share information, mutually assist with capacity strengthening, and establish case management systems between PHC providers, on the one hand, and welfare, employment, and law enforcement agencies, on the other (e.g., DOTS coordination for ex-inmates).

3.2.4 Rationalized Utilization of Care

In the opinion of 36 percent of respondents, partnerships have produced a positive change in the utilization of care. Substantive evidence that corroborates this conclusion has been provided by 18 partnerships. There are two dimensions to this program outcome – changed volume and rationalized structure of care utilized:

1. Partnerships have reported increased numbers of PHC provider/patient encounters per capita in their catchment areas. The following patient groups and reasons for visit have contributed to this overall increase:

- A larger percent of pregnant women is now covered with the early prenatal care visits, and the average number of visits has increased per pregnant woman.
- Facility-based health education sessions (e.g., Hypertension School, School of Diabetes, Young Fathers Club) have drawn local population to PHC facilities, thus contributing to more non-medical encounters.
- Screening programs, e.g., for diabetes, hypertension, and breast and cervical cancer, have added to the number of preventative visits.
- Patients with diabetes, hypertension, and asthma have been educated by PHC physicians on the optimal maintenance visit schedules that imply more encounters per year in the respective patient groups. Under the achieved level of patient compliance, the actual numbers of PHC visits per case of disease have increased.
- Social counseling and support agendas have created an additional important context for provider/patient encounters, particularly in such population groups as students and the elderly.
- The number of home visits has grown to accommodate more diverse outreach care agendas, particularly physician and nurse home visits for hospital-substituting and post-hospital care.

2. The main factor of increased utilization of PHC care is the substantially enriched content rather than increased number of encounters. Partnerships have developed a more versatile approach to general medical exam, well baby exam, general psychiatric/psychological exam, unconfirmed pregnancy exam, prenatal exam, and postpartum exam. Newly trained and equipped PHC providers do more and better for their patients each time they see them.

3. A significantly increased scope and quality of primary care, focused training on medically appropriate referrals, and education of patients on care seeking behavior have produced structural adjustment in the utilization of various health services. The summary of conclusively reported changes is presented below:

- Reduced self-referrals for outpatient specialty consultations, and non-emergency secondary and tertiary care: (re)trained PHC providers who work in renovated and reequipped facilities with the clout of being a U.S.-supported provider, are now regarded by their patients as a competent first point of contact and care coordinator.
- General (family) practitioners who have been (re)trained to provide comprehensive care for the entire family, have taken some clinical volume away from PHC specialists, such as internists (adult PHC doctors), pediatricians, and ob/gyn doctors. The share of GP/family practice in the primary visits has grown from 12-23 percent to 29-42 percent, as reported by several partnerships.
- Reduced share of the (unnecessary) medical visits and increased share of the psychosocial counseling and support visits is a reciprocal structural change observed by several partnerships and attributed specifically to the elderly patients and students who were provided with access to psychosocial counseling and support services within their PHC facilities.
- Reduced referrals by PHC providers for specialty consultations based on their newly acquired or strengthened knowledge and skills in provider/patient communications, health risk assessment, health education, psycho-social counseling, cardiovascular diseases, endocrinology, eye and hearing exams; reading of lab test results; and management of important chronic conditions. The share of care episodes started and completed at the PHC level has increased across the reporting partnerships from 10-27 percent to 55-60 percent.
- Reduced utilization of emergency care by chronic patients trained in self-monitoring and self-care techniques, and equipped with essential measurement devices and medications. The decline of ambulance calls by 13 percent, 48 percent and 100 percent reported by various partnerships suggests the variably paced

but consistent transition towards a more rational and cost efficient utilization of care, particularly in hypertensive and asthmatic patients, and the elderly.

- The reduction in hospital admission numbers and rates, as well as reduced length of stay represent a strong hospital-substituting outcome of the partnerships' effort to strengthen PHC providers and educate patients. Hospital care has been partially replaced with self-care, home care, and outpatient-based 'intra-day hospitals' for minor surgeries and relatively complex 'maintenance procedures' administered to chronic patients.

3.2.5 Improved Quality of Care

Forty seven percent of respondents highlighted quality as the area that strongly benefited from partnership activities; 17 partnerships have presented conclusive evidence of the improved quality. The following highlights present the range of quality gains, observed in the program:

- Increased patient satisfaction with partnership-sponsored clinics has been reported in all consumer surveys.
- Use of the enrollment process and first physical examination for the identification of individual risks has resulted in better health monitoring and targeted interventions at the individual and patient group levels.
- As a result of the use of modern practice guidelines, strengthened diagnostic capacity, and advanced curative response, early detection rates and treatment outcomes have improved for breast cancer, cervical cancer, diabetes, hypertension-related conditions, psycho-behavioral disorders, dental caries; and specific vulnerable populations, such as women of reproductive age, adult males, and IDPs/refugees.
- The error rates on lab tests have declined as a result of better laboratory equipment and improved skills of lab technicians and physicians.
- Active surveillance for, and prevention of nosocomial infections in partnership-supported maternity homes and general hospitals have reduced incidence and improved detection of hospital infections.
- Better management of pregnancy based on education of women and families, and modernized protocols of prenatal care have led to declined birth complication rates.
- A change in post-partum care, including rooming-in and early first breastfeeding has led to improved maternal-infant bonding and neonatal health.
- The incidence of clinically inappropriate care has declined, such as inappropriate use of antibiotics in cases of upper respiratory infections and inappropriate hospitalization for ulcer.
- Improved PHC providers' and residents' skills have been demonstrated in pre/post-training tests. (Re)trained PHC providers describe the management of hypertension, diabetes, asthma, otitis media, coronary artery disease, and psycho-behavioral disorders, based on the newly introduced clinical guidelines.
- Improved knowledge and skills in clinical educators and trainers, including their knowledge of modern curriculum structure and requirements, advanced methods of instruction, testing of training outcomes, and clinical care skills.

3.2.6 Health / Welfare Gain

While many partnerships have reported insufficient time for observable health gain, many others were able to capture improved health status in their beneficiary populations: 23 percent of respondents acknowledged the health/welfare gain as an impact, produced by their partnerships; 22 partnerships provided substantive evidence in support of this conclusion. The commonly observed health/welfare gains include the following:

- Reduced mortality and long-term disability in provider catchment areas and from specific causes such as cervical and breast cancer, hypertension, neonatal and perinatal conditions, occupational injuries.

- Reduced work and school absenteeism rates, particularly those attributable to asthma and hypertension.
- Reduced disease incidence, e.g., high blood pressure in women, STIs, dental caries, helminthes, and nosocomial infections.
- Lower acuity due to increased early detection of breast and cervical cancer, modernized control of major chronic conditions (e.g., coronary heart disease, hypertension, asthma, diabetes, and peptic ulcer), more effective treatment protocols of short-term diseases (e.g., STIs and pneumonia), and reduced complication rates in pregnancy, childbirth, neonatal and child development (owing in great measure to increased initiation and duration of breast-feeding).
- Elimination of excessive use of antibiotics, particularly in URI treatment.
- Reduced abortion rate in general and teenage abortions in particular, due to increased use of contraception (oral contraceptives and IUDs) and abstinence.
- Seccession of smoking and drug use.
- Improved quality of life due to increased availability of breast prosthetics for women with breast cancer, dissipation of stigma of mental illness in children and breast cancer in women, rehabilitation of children and adults with disability, reintegration of former drug addicts, psychosocial support of the elderly, reintegration of IDPs, and reduced juvenile crime rate.

The review of the program outcomes and impact, presented in this section and illustrated in Annex B, supports the conclusion that partnerships have achieved their objectives, related to improved self-care and peer support; demand for, and access, utilization, and quality of care. Additionally, they have produced a measurable positive impact by improving health and well-being of the targeted populations. Since partnership objectives were evaluated as highly relevant for USAID, host countries, and the partnership program alike (see analysis in Section 3.1), their achievement implies that the program has effectively addressed the main constituents’ needs: contributed to the USAID regional, mission, and host country health/social agendas; and achieved improvement in the public and personal health. The thus far identified locus of partnership achievement is at the local level. The trickle-up to the national level will be examined later in this report in the context of replication of partnership results.

3.3 Care Delivery Strengthening

Program results in this evaluation cluster have been triangulated from the following vantage points: capacity to deliver care; progress towards better quality of care, and provider skills. Extended data and analysis are presented in CR Section 3.3 (pages 63-79).

3.3.1 Strengthened Capacity to Deliver Care

Provider capacity has been examined in five PHC practice modules distinguished in the Reasons for Visit Classification (RVC) used by the CDC National Center for Health Statistics in the National Ambulatory Medical Care Survey (NAMCS). Since this analytical framework is based on a common US classification of outpatient physician’s services, it is believed that the US health care analysts, practitioners, and other present and prospective constituents of the program will find it convenient for mapping out the scope, intensity, and results of the partnerships’ capacity strengthening effort.

Provider capacity has benefited the most in the ‘*Diagnostic, Screening, and Preventive*’ module of PHC. The following are the items that more than 50 percent of respondents have identified as strengthened by the partnerships:

General medical examination	79%	Blood pressure screening	71%
Breast examination	79%	Gynecological examination	62%

Glucose level determination	62%	Eye examination	55%
Contraceptive medication	60%	Well-baby examination	52%
Family planning, exam, and general advice	57%	Exposure to STDs, HIV, other infections	52%
Other family planning	57%	Contraceptive device	52%.

The *treatment and counseling module* features the second strongest gain in provider capacity. The following services have gained the most from partnership contributions: asthma education and therapy, HIV/AIDS counseling; ‘other medical counseling’ that includes patient education, disease counseling, referrals and second opinion; medications; and social problem counseling, including access to medical care, marital, parent-child, other family, educational, social adjustment, legal, economic and other problems.

Hypertension leads the list of services in the *symptoms/diseases module*, where provider capacity has increased the most. It is followed by breast cancer, diabetes, HIV/AIDS, asthma, obesity, other circulatory conditions, and cancer of female genital organs.

Relatively less provider strengthening has been achieved in the *injuries, poisonings, and other adverse effects module*. Training of rural providers in emergency care; and care and counseling for violence, cardiac arrest, and suicide attempt were the most frequently cited partnership accomplishments in this module.

PHC providers in the partnership host countries have improved their capacity to manage patient risks and conditions that account for 60-70 percent of the aggregate burden of disease in their countries. They can respond more confidently to health/social problems and concerns of 70-80 percent of patients who come to physician offices.

The following are the main contributors to improved provider capacity: (i) groundbreaking improvement in access to information, particularly, modern practice guidelines and care standards; (ii) provider education in the areas of evidence-based medicine, integration of public and personal health agendas, and the expansion of PHC program to psycho-behavioral and social problems; (iii) better access to, and more competent use of basic diagnostic equipment and medications; and (iv) improved communications skills.

3.3.2 Strengthened Capacity to Assure Quality of Care

The quality-of-care analysis has focused on the ‘aims’ and ‘conditions’ of quality, defined by the Institute of Medicine framework (*IOM, 2001*). Five of six quality areas, termed ‘quality aims’ by IOM have been rated as ‘sporadically addressed’ prior to partnerships. ‘Equitable care’ is the only area that has been rated ‘4’ – ‘addressed routinely but inconsistently or ineffectively’.

Partnerships assessed partnership contributions towards all quality aims in the range of ‘moderate’-to-‘very strong’. The highest average and median rating of the partnerships’ effort has been given to the ‘*Effective Care*’, defined as ‘provision of services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit’ (*IOM, 2001*). Appropriateness of care, indeed has been the thrust of the program-wide effort, including the modernization of PHC curricula and course syllabi, introduction of evidence-based clinical guidelines, including appropriate prescribing and referrals; and patient guidance towards less intrusive strategies of health and disease management.

Additionally, pre-partnership situation and partnership contributions have been assessed by 11 conditions of quality that contribute to the previously discussed six aims of quality. All of these conditions have been rated as ‘mostly neglected’ or ‘sporadically addressed’ before the partnership. The median assessment of the partnerships’ contribution is ‘strong’ for all the conditions except the “*Payment policies are aligned with quality improvement*”, where contribution has been rated as moderate. The highest average rating for the

strength of partnership contribution has been given to the condition of quality, termed '*Cooperation among clinicians is a priority*'. The partnership program has contributed to collegiality in a number of ways:

- The program-wide effort to upgrade the role, functions, knowledge and skills of PHC nurses, accompanied by the education of PHC physicians and nurses on the team approach to clinical care, has resulted in the joint management of an estimated three quarters of episodes of primary care. Nurses routinely triage patients; consult patients on health risks, lifestyle, contraception, nutrition, children's safety and protection from domestic violence; take lab test material, perform IV, intra-muscular and subcutaneous injections, immunize children, schedule follow-up visits and coordinate referral care; manage well-baby and post-hospital home visits; conduct training sessions for resident students of general medicine on the expanded role of nursing in the community and clinical care. Partnerships have helped nurses to be recognized as a physician extension, and first steps have been taken towards professional nursing.
- An important thread of collegiality, encouraged by the partnerships, is the peer support among fellow general/family doctors in a group practice setting. This innovative experience varies from weekly case reviews to informal professional advice that PHC practitioners trade on the daily basis.
- The PHC/hospital link is another important venue for increased clinical cooperation. Strategically, the partnership program has strengthened this link by implementing referral standards as an integral component of clinical guidelines. By increasing the authority of PHC physicians over referrals and care coordination, partnerships have aroused their interest in the hospital stage of the care episode and chronic disease management cycle.
- The evaluators have collected contradictory evidence on the cooperation between PHC practitioners and providers of specialty outpatient care. Several partnerships have reported a standoffish attitude towards family care on the part of polyclinic-based specialists who, understandably, felt concerned by the reduced referrals for secondary care. On-site queries into this important issue have produced a rather relaxed response: specialists may not care that much, since they have enough self-referred patients (some of them, clearly, are long-term paying customers). The prospective capitation arrangements that have been tried out in many NIS countries for almost a decade, have not yet put PHC and specialty care providers on the collision course, because the scope of capitation either has not been broad enough to integrate secondary care, or the capitated budget has not been entrusted to the PHC practice and continues to be managed by polyclinic directors in a conflict-minimizing way.

The strengthened cooperation between clinicians is a strategic accomplishment of the PHC partnership program. It came after a decade of unsuccessful attempts to produce 'big bang' structural reforms in the NIS health care sectors by opposing general/family practice to polyclinics, and the PHC sector to the hospital sector. Rather than antagonizing the established organizational design and group interests, partnerships gave preference for a politically leveraged approach. They have brokered new care strategies and models with the traditional provider facilities, and have successfully incorporated the integrated primary care model into city polyclinics, rural central district hospitals, and rural physician ambulatories. The infusion of the new content into the established provider networks has allowed a reduction in the collateral burden of structural change and has moderated political and professional tensions. The evaluation acknowledges this experience as a culturally sensitive and effective management of a major systemic innovation in the health care sectors of 11 NIS countries. By using diverse organizational shells for the new PHC model, the program has asserted a pluralistic approach to reform management in general – a still weak element of the professional and civic culture in the NIS.

In the partners' opinions, the program has reaffirmed the validity of the polyclinic as the most appropriate organizational base for the new and traditional models of PHC; and opened the NIS partners' minds to the standalone practice as the second best organizational base for the provision of PHC services.

3.3.3 Improved Provider Skills

Neither the organizational format of this evaluation nor the evaluators' mandate was designed to include direct testing of provider clinical competencies. As an indirect measurement, partner opinions have been polled about the baseline level of PHC provider skills and the level of partnership contribution to improve them. The study of skills in PHC physicians was based on the list of skills designed for this evaluation. The list of PHC nurse skills was modified from several skills lists contained in (*WHO, 2001*) and (*DHHS/HRSA, 2002*).

The partnership contribution to develop physician skills has been assessed with the median rating of 4='Strong'. The highest average rating of 4.2 was given to 'Thorough and complete physical exam'. The juxtaposition of the pre-partnership skill levels and strength of partnership contributions to improve them, have produced 'visibility of contribution scores'. The strongest partnerships' contributions in the skill areas with the lowest pre-partnership ratings yielded the highest scores. The most visible contribution the program has provided to improve the PHC physician's skill of '*Using current evidence as the basis for practice decisions*'. The most illuminating influence of the partnerships refers to the introduction of practice guidelines that changed physician approach to general care (undifferentiated symptoms and routine conditions such as URIs), chronic diseases (hypertension, diabetes, asthma), and psychiatric and behavioral disorders. This has contributed to a transition from hierarchically imposed to evidence-based strategies of managing health and common diseases in the primary health care sector of 11 NIS countries.

Partnership efforts to improve nursing skills have been rated at the median level of 'Strong' for 16 skills and 'Moderate' for 5 skills. The 'visibility of contribution scores' have identified the following five skills that have received the most visible improvement from the partnerships: '*Assist patients, families, and communities to manage their own health*', '*Educate patients and supervise measures to protect health and safety in the home environment*', '*Implement health education programs and projects in social or community settings*', '*Engage in counseling in groups in social or community service settings*', and '*Act as a health advocate for individuals, groups, and communities*'.

The high recognition of the partnerships' role in improving community nursing skills must be credited to the program-wide effort of helping NIS health strategists rethink the concept and functional scope of PHC nursing and develop nurses into community advocates in a range of public and personal health agendas, such as teenage health education, HIV/AIDS prevention, protection against domestic violence, psycho-behavioral counseling, and social support of the elderly. While the partnerships' success in training nurses to become a physician extender in the PHC practice setting is apparent, it is even more important to acknowledge the partnerships' pioneering effort to develop nurse leadership skills that would support professionally competent activism of nurses on health-related agendas. The first but promising steps in this direction are worth priority support in any follow-up that the partnership program may have in the future.

3.4 Management Strengthening

The partners have assessed contributions to the managerial agendas as relevant. A case in point is the management of quality in education, where significant progress has been achieved in modernizing teaching technologies, curricula, and instructional materials. The main contributions in the area of quality-of-care management are related to the previously discussed introduction of clinical practice guidelines and standards, particularly through provider training and Learning Resource Centers. In the resource management area, equipment management skills have been strengthened to match the much-improved access of the PHC practice to technology. Equipment and equipment-related training have been provided by US partners and Carelift International, the latter working under the USAID-supported Excess Medical Equipment Program. The CR Section 3.4 (pages 79-82) explicates these conclusions.

3.5 Partnership Effects on Professionals, Organizations, and Society

The partnership-sponsored transition to a new, comprehensive model of primary care has triggered change at the workplace, organizational, and community levels. Empowered by new knowledge, better access to information, and broadened responsibility and autonomy, PHC providers have gained in their professional and social status. The health care organization has made modest progress towards a participatory management style and in several partnerships has shown remarkable flexibility in adjusting its staffing and finances to the new care strategy and resource needs. The community now participates in PHC priority setting and planning. While health care providers and organizations are not necessarily accountable to the community, they are better informed about community needs and customer feedback. Increased professional power and stronger ties to the community have strengthened the civic activism of family care providers and their upward mobility towards important jobs in the government, academe, and legislative bodies. The transformational impact of the partnership program is apparent, even though subtle: invariably based on the promotion of professional rather than political agendas. With their low-profile ‘technocratic’ approach, partners have won the hearts of highly educated professionals, patient families, and community groups – an important precursor of broad-based support for longer-term and more profound change. The CR Section 3.5 (pages 82-88) contains supportive evidence and discussion.

3.6 Sustainability and Replication

3.6.1 Sustaining partnership results

The *Program Sustainability Summary* is provided in the 3-page Table 21 (CR pages 89-91) and expanded in CR Subsection 3.6.1 (pages 88-94). The overall conclusion is that major program achievements in modernizing PHC strategies, systems, and practices have been sustained to date and stand a good chance to remain in use in the future. The risks to sustainability are present and should not be ignored. In the unlikely worst-case scenario of a coordinated system opposition to change, the identified sustainability risks can disable the program legacy. More likely, however, the political, regulatory, financial, and organizational impediments to the sustainable practice of evidence-based PHC will present an audible but manageable background noise that NIS partners are accustomed to address just the way any early adopters are. It may be recommended that a sustainability-monitoring tool be developed and used for a periodic inquiry into the sustainability status of major partnership achievements. The practice of the partnership-level sustainability grants could be renewed in a modified form: for NIS-wide support of a specific area of the partnership legacy. For example, in two years from now there may be a technical assistance grant to review and update all Women’s Wellness Centers on the latest clinical evidence; and conduct refresher training of the faculty and practitioners. Another ‘maintenance project’ of this kind could focus on creating a regulatory mechanism that would enable an ongoing modification of practice guidelines and PHC practice to evolving evidence. Some areas of sustainability are yet to be addressed. The sustainability agenda, presented under the last item of Table 21 (Evidence-based Clinical Guidelines) outlines a few opportunities for groundbreaking assistance, for example to help NIS countries set up their national health service research.

The survey has provided an additional insight into the sustainability agenda. The respondents have evaluated the role of 17 factors in supporting or resisting sustainability. Partners have concurred that all the support factors have been significantly strengthened in a pre/post-partnership time perspective. Regardless of the positive confounding factors, partnerships have been credited for their strong contributions, particularly for the transfer of professional knowledge, organizational capacity strengthening, and building public awareness. This leads to the identification of the important secondary outcome of the partnership program: the strengthening of resources and mechanisms for fostering and sustaining innovation in the primary health care sector of 11 NIS countries.

3.6.2 Replication of partnership results

Five dimensions of replication have been examined: objects, scope, scale, attribution, and factors (CR Subsection 3.6.2, pages 94-100).

Objects of replication. As part of their end-of-project self-evaluation, partnerships provided an outlook for replication. This information has been used to identify the following objects with potential for replication: PHC centers, practice guidelines and tools, patient education materials, and provider training curricula and materials. PHC provider facilities were found to be the most common replication objects during and immediately after the partnerships. The replication of primary care clinics leads to a comprehensive transfer of partnership experience: each new clinic adopts practice guidelines and standards, staffing and equipment schedules, common elements of interior design, standard operating procedures, patient education programs and materials, quality control tools, and selectively, practice management systems. PHC clinics thus asserted themselves as a medium for an integrated replication of partnership-sponsored care delivery systems.

Scope of replication. Survey-based evidence allows the evaluators to conclude that the partner organization and the local health care networks are the main replication arenas: at these levels partners directly contribute to replication, observe results, and confidently report them. As the ‘distance’ grows between the original partner site and the replication domain (e.g., regional and national levels), the perceived replication results become less clear to the former partners.

This opinion-based finding may suggest that the replicability of partnership-sponsored innovations drops as the attempted scope of replication increases. Further analysis has shown that this is not quite the case. NIS partner opinions seem to be biased as they tend to underestimate external demand for partnership-sponsored innovations and the scope of the demand-driven replication that may be occurring at the national and international levels without the innovators’ knowledge. To correct for this perception bias, the factual evidence about replication results has been collected and studied on the six partnerships implemented in Ukraine. These partnerships accounted for 31.9 percent of the program-wide spending on direct partnership activities, and 33.6 percent of the total in-kind spending. The information summarized in the CR Figure 20 (page 97) leads to an unambiguous conclusion that the partnership-sponsored achievements in establishing model PHC clinics with integrated office-based primary care (general, women’s, occupational, and dental), health education, and community outreach have been replicated at all system levels in Ukraine.

Attribution problem. To validate the preceding statement, it is important to remember that the higher up the replication advances, the more difficult it becomes to disentangle the role of a particular prototype from the role of the positive and negative confounding factors. In the case of Ukraine, this attribution concern is offset by the following two considerations: (1) The program impact is analyzed as the aggregate of six partnerships. This makes the estimation of partnership contribution more robust compared to the analysis of a single partnership’s role. (2) The acting Health Minister of Ukraine, in a half-hour interview has acknowledged the strong and on-going feed of the partnership legacy into the MOH health policy and clinical designs of the past five years. MOH has hosted the focus group meeting in Kyiv, arranged with the representatives of the Ukraine-based partnerships in the course of this evaluation.

Scale of replication. Continuing the analysis of the Ukraine case, population that is served under the comprehensive model of PHC has grown from an estimated 245,200 in the partnership-sponsored model clinics to an estimated 373,200 at the first replication stage (after several satellite clinics were set up by the partner organizations); to 1.96 million at the second, local replication stage (level of rural districts, towns, and cities), to 5.12 million at the third, regional replication state (level of the capital city and oblasts), and to 14.5 million nationwide in 2005. The partnership-to-country replication ratio may thus be estimated at 1:59.

If the replication scale is to be based on the number of general (family) practitioners, the estimated replication ratio is 1:31: an estimated 136 GP/FP physicians were trained under the six partnerships, while there were 4,224 GPs/FPs in Ukraine in 2005 (see CR Figure 20 on page 97).

The detailed review of the ‘Ukraine replication case’ is indicative of the replication trends reported by partnerships across the program and observed by the evaluation team in Moldova, Russia, and Kazakhstan. The most impressive instance of the nationwide uptake of the partnership-supported innovation has been observed in Moldova and discussed in detail in Subsection 4.1.2. The integration of the new PHC model with provider education, health care policy and finance has been key to successful replication in Moldova. The replication of the Demeu PHC Center experience to the Semipalatinsk Oblast of Kazakhstan has been based on the responsiveness of the new PHC model to the community demand (see Subsection 4.1.1). These and other contributors to successful replication are summarized under the next subtitle.

Factors/practices of successful replication. Successful replication is owed to a variety of factors:

- The innovative nature and relevance of the partnership agendas, as well as the clout of the US professional community have put partnerships in the spotlight of the professional and public attention. Closely watched by supporters and skeptics alike, they were slated for popularity, success or failure. On the upside, partners were favorably pre-positioned for the dissemination of their prospective achievements.
- As it became clear that partnerships were bound for success (much as its scope might vary by organization), the time was ripe to start disseminating the new systems and practices. The dramatically increased clinical and practice management competencies, as well as communication skills, allowed the NIS partners to step up to the plate and become eloquent advocates for the new model. There is a marked difference between the initial rounds of partner-level training, done overwhelmingly by the US partners and the cross-partnership training and experience-sharing events – dominated by the NIS presenters and peer discourse. As a result of the program-sponsored dissemination activities, the partnership-specific results have been collated across the region, and generalized for practice and policy implications. The Ministries of Health have invariably attended these events and were presented with professionally prepared reports. Donors also participated or were otherwise apprised of the proceedings and recommendations.
- Effective dissemination activities have created a steady flow of knowledge about partner results and experience into the policy and technical designs of the host country government agencies (regional and national), as well as the donor program design.
- Riding the wave of the political interest in the development of Family Medicine as a ‘national institution’, e.g., in Moldova, Ukraine, Russia, Kazakhstan, Kyrgyzstan and Armenia, NIS partners came in demand for high-profile policy consulting. They have developed a strong upward potential that assisted in their career growth. Former partner coordinators took high offices in the national and local health administrations, and in academe. Family practitioners strengthened their status as community leaders and increased their presence in the locally elected bodies. Trained in nursing leadership skills, PHC nurses have formed and sustained several regional nursing associations. Partners have produced a sizeable output of scientific and trade publications; completed their doctoral and post-doctoral studies summarizing their practice-based evidence for further enrichment and customization of the integrated PHC model. The aggregate effect of these developments was a significantly increased advocacy potential of the NIS partners and their personal/professional vesting in the sustainable application of the partnership-sponsored innovation. Partnerships have created a supply-driven pressure from general practitioners, previously unknown in the NIS health policy milieu that had traditionally been dominated by specialty physicians.
- The partnership program management has adopted a politically winning approach to the promotion of partnership strategies and achievement. Ultimately, it is the local demand-driven, participatory nature of the partnership design and work planning that empowers the NIS side, builds self-esteem in the local professionals, and allows the innovation to take root and spread. To ensure that the culturally sensitive style

of the program benefits the senior policy level, not just the lay level providers, the program managers served as an effective interface between partnership organizations and NIS governments to broker strategic solutions, develop decision-maker's buy-in, and facilitate replication. Insistence on the US origins of systems and practices was not the main point of such communications. Instead, many partnership-sponsored innovations have been branded as the National Model of PHC Reforms (as in Kazakhstan). The program has succeeded in the previously overlooked agenda of developing political taste for health reforms by explaining top-echelon executives how political dividends can be gained from the reforms accomplished, not avoided.

- The program management has been effective in its insightful monitoring of the 'big picture' of national policies in the partnership host countries, looking for synergies and trying to foresee the emerging needs for the adaptation of the partnership-sponsored PHC model. European integration has been identified as an important source of institutional motivation in Moldova and Ukraine. Partnerships have started and, former partners now continue to feed their experience into the health policy harmonization effort that is unfolding in Ukraine (mandated by law) and Moldova. While formal requirements for EU accession have not been set out for these countries, they are trying to be proactive in complying with the EU integration frameworks. This may present a challenge of reconciling US-based approaches with the European models of care.
- NIS partnership sites have become magnets for donor programs, for example Demeu PHC Center, Astana for UNICEF; and the SMPU Family Medical Center, Chisinau for the World Bank. Cultivating the well-understood demand for dependable local collaborators, former NIS partners have engaged with the implementing organizations and were paid to sustain and replicate their experience.
- Responding to program's priorities, all partners made significant progress toward integrating model practice sites with the pre/post-graduate residence programs and continuing medical education. Several partnerships made important steps in support of the higher nursing education in the host countries. This was particularly difficult in educational environments where pre-existing domestic initiatives have interpreted the concept somewhat superficially or deformed it. The program's emphasis on the education strengthening agenda ensures the replication of new models, systems, and practices by investing in human capital. Partnership-sponsored improvement of educational systems contributes to replication in two important ways: (1) Makes replication a sustainable process; (2) Assigns a clinical training function to partnership model clinics, thus, securing their better access to resources and political support. Sustaining partnership 'heritage' facilities will continue to be important because they are the benchmark for replication.

These outlined factors have all contributed to progress with replication and helped offset many impediments to replication such as continued lack of resources in the health care sector, limited institutional memory, high turnover in key offices, limited continuity in donor country strategies and insufficient coordination among donors; unresolved structural pressures in the health care sector, and lack of involvement from influential interest groups. Some of these impediments are formidable and are likely to keep replication an arduous endeavor.

3.7 Other Aspects of the Partnership Program

3.7.1 Learning Resource Centers

The CR Subsection 3.7.1 (pages 100-108) contains a detailed review of the LRC current status and functions, and sustainability outlook.

LRCs and evidence-based medicine. During the partnerships, LRCs have created the following important supports for accessing and managing clinical information:

- Most partnerships have donated computers and peripherals, assigned space, trained and hired information coordinators, paid ISP and electronic subscription fees.

- Prospective users have been identified and educated on the critical need for a continuous update of clinical evidence. The roles of the Internet and web-enabled databases were explained.
- Users have been trained in computer literacy and web browsing skills.
- English language training has been conducted in most partnerships.
- Clinical resources on the Internet were reviewed and Web directories compiled.
- Information coordinators and practitioners have engaged in a skills development process around the practice standard review algorithm. It was intended to help providers of care evaluate their practice strengthening needs, formulate demand for information, pose an appropriate query, identify and review available practice evidence, and select the evidence that is responsive to their clinical needs and compliant with practice environment (regulations, resources, patient preferences, etc.). By 2002, nearly half of all LRCs have been able to demonstrate their ability to demand, search, analyze and apply evidence-based methodologies (*AIHA/DC, 2002*).
- In addition to the on-line access, the LRC component of the partnership program has provided access to information through publications, materials on CD-ROM, videos, and medical teleconferencing between US and NIS partners, using satellite channels and the partnership-sponsored conferencing facilities with multimedia equipment.
- An important function of LRCs was to assist providers in the preparation of their practice manuals and presentations for cross-partnership conferences and other professional events that increased their exposure to clinical best practice.
- LRC-enabled e-mailing served as a medium for professional consultation with US partners, particularly important at the trial stage of using clinical guidelines and in cases when funding was delayed or scaled back and e-mail became a major cost-containment tool – direct substitute for travel.

The outlined practices and achievements confirm that LRCs have definitely helped advance the use of evidence-based medicine.

LRCs' sustainability and replicability. Based on field observations (see photographic pictures in CR Subsection 3.7.1, pages 101-104), LRCs have been sustained to date in the following functions:

- A library enhanced by electronic access to information;
- A tele-/multimedia-conferencing facility enhanced with a satellite communication system;
- The centerpiece of an evidence-based clinical training and skills-testing center;
- A support for the health education agenda;
- Traditional functions: on-line access, e-mail, and data management.

After the sustainability and functional diversity of LRCs have been ascertained, the evaluators took a closer look at the LRC sustainability factors. The analysis led to the following conclusions: LRCs have potential for survival. To be successful in serving the demand for best practice information they will have to integrate with external resources of connectivity and research. Pooling funds and customer base with other organizations may be part of this strategy. Since the adaptation to changing environment will require a continuous adjustment of the LRC management strategies, organizational layout, and resource base, the LRCs may evolve into a different type of entity, for example, become part of multi-organizational medical informatics / library / research centers or networks.

3.7.2 Cross-partnership activities

Cross-partnership initiatives and activities have been performed by, and with key coordinative inputs from the AIHA program management at the global and regional office levels. The following is the summary of a

more detailed review, presented in the CR Subsection 3.7.2 (pages 108-110). The importance of the program management (further referred to as ‘AIHA’) has been useful in furthering partnership objectives in the following ways:

- AIHA had a formative influence on the program identity by establishing its demand- and peer-driven character – features that have defined the *modus operandi* of each partnership.
- Provided comprehensive support at the pre-partnership and start-up stages: helped partners identify each other, facilitated their initial discussions, brokered important decisions with USAID country missions and host country authorities; shared robust planning and implementation templates that have spared partners from reinventing the wheel and ensured quality management.
- Brought partnerships into organizational contact and technical exchange; helped develop a sense of community among the partners – an important integrative experience in the time of disintegration.
- Put the NIS health providers and administrators in the driver’s seat in defining program strategies and priority areas. The landmark event to this effect was the 1998 PHC Advisory Committee Meeting.
- Provided PHC partnerships with access to experience of the previous generation of hospital-based partnerships – an important resource for many US partners with limited international experience.
- Played an important policy mediation role between partnerships, USAID, and national and local health administrators throughout the implementation period; helped partners be better understood by their local constituencies.
- Provided important program-wide technical and organizational inputs through its in-house resources and external consulting, including LRC support, management training, mid-term evaluations, teaching materials; as well as technical and logistical information support.
- Served as a clearinghouse and exchange for the partnership best practices, using its *CommonHealth* magazine, Russian-language website, clinical conferences, training workshops, and annual meetings.
- Through their global and regional offices provided administrative backstop, particularly valuable in facilitating travel, coordinating events, moving commodities, and dealing with strenuous situations.
- Facilitated partnership phase-out, including extended post-partnership support at NIS partner request.

According to partners’ uniform opinion, regional conferences and other cross-partnership activities have benefited individual partnerships. The former partnership coordinator from Odessa provided, perhaps, the strongest opinion on this account by concluding that ‘inter-partnership activities were the main driver in partnership project activities’. Several partnerships have commented about the value of cross-partnership meetings for benchmarking: to gauge one’s own achievement vis-à-vis other partners’ progress. NIS partners have used region-wide events to discuss partnership operations and brainstorm on coping strategies for dealing with common problems. NIS partners used regional and program-wide events to acquire and practice new skills in conference management, technical presentations, professional networking, and public relations. Cross-partnership activities have fostered professional cohesion among same-country partnerships and those working on similar clinical and public health agendas. Cross-partnership conferences, thanks to their high profile as regional or sub-regional events, have elicited greater response from the leading US health policy and public health institutions to the AIHA’s call for participation. The resulting involvement of top experts from CDC and SAMHSA was very important: the government-driven health care systems in the NIS countries request and value inputs from the U.S. government agencies.

Cross-partnership activities have accounted for 2.8 percent of the cash and in-kind spending under the program, or 6 percent of the cash spending. There is no direct evidence as to whether this level of expenditure was sufficient and/or optimal. Participants in the questionnaire-based survey have

overwhelmingly agreed that cross-partnership activities “have proven to be effective during partnership”. They were mostly pessimistic about the prospects to sustain these activities in the future.

4. Best Practices, Lessons Learned, and Recommendations

Best practices, lessons learned, and recommendations are interspersed with the evidence and analysis presented in the Summary and Complete Reports (CR Section 4, pages 110-117). This section adds or expounds several areas of the PHC partnership program experience with high learning value for future program design and implementation.

4.1 Best Practices

4.1.1 Responsiveness to Community Demand

Responsiveness to community² demand is frequently observed in the evaluated partnerships. One of the strongest exemplars is the Astana/Pittsburgh partnership that integrates social services into the primary healthcare model, in response to community interest and need. Additional examples include the placement of family medicine practices in the organizational setting, suggested by the NIS partners rather than insisting on one organizational model. This flexible approach, observed throughout the partnerships, assured organizational and policy support for the family practice clinics regardless of their location in a polyclinic, hospital, or freestanding practice. The service mix offered was also adjusted to the needs of unique populations and constituencies such as the elderly, occupational groups, and rural areas. The adaptive and responsive approach to the traditional basic package of primary care services should be carefully evaluated and considered as a strong option to a “one-size-fits-all” basic benefits definition of primary care.

Partnership responsiveness to community demand includes:

- Flexibility within the partnership to consider new approaches and new constituents as needed.
- Open consideration of many models of PHC practice including solo practice, group practice, and multi-specialty practice.
- Motivation to address the service needs of the community, even if outside the usual basic package included in primary health care.
- The ability to change direction in response to community need, including the addition of services to PHC clinics, and incorporation of social support functions into primary health care centers if required.
- Location of some services, traditionally considered under the purview of specialty care such as mental health or substance abuse, at the first-encounter primary health care level.

4.1.2 Integration of the Family Medicine Model in Education, Finance and Policy

The need for integrating provider education, health care policy and finance, and service delivery into health care reform is well established. Throughout the partnerships there were numerous instances of such integration where partnerships took maximum advantage of supportive factors within their environment. Frequently, former partners had been promoted to high positions in the government, or had become members of the faculty of medical universities. These former partners became persuasive advocates of the family medicine model that the partnerships supported, and were the agents for change within the larger system. In Moldova, the support engendered by this approach was evident to the evaluation team. A national movement to roll-out the family medicine model is underway, supported by the State University of Medicine and Pharmacology and the Ministry of Health. The dialogue with both rural and urban primary

² The term community is used in this section to denote not only end users, but also the professional community in the NIS that was concerned with partnership activities.

health care providers is supported and expanded by such activities as the Second National Family Medicine Congress, which was held in November 2006 during the evaluation visit.

Analysis of this integration of environment and partnership shows that partnerships frequently took advantage of opportunities that addressed critical factors needed for national roll-out of their partnership model: policy support, health financing in the form of new or redirected financial flows; health workforce reform; continuing education in family medicine and primary care through national conferences and international experts; new initiatives in health informatics; and new programs in school and rural health promotion and illness prevention. Such opportunities may have occurred due to partnership activity, or they may have been prompted by other factors. The point is that the partnerships were prepared to seize these opportunities and use them to develop further.

As an example, Moldova is a relatively small country with only one medical school, thus the conditions for uptake of the partnership-fostered primary care initiatives were excellent. However, studies of the mechanisms of expansion of the model in Moldova, which is the best example of this integrated approach, form the basis for understanding model expansion in larger countries. Critical stakeholders need to be engaged, health financing including coordination of donor funds must be considered, and opportunities for supporting healthy behaviors in communities and school should also be exploited. Additionally where new skills and professional retraining is required, such as in nursing, informatics, and family medicine, the educational establishment of the country needs to be engaged. It is not an overstatement to say that a relatively modest investment in the primary healthcare partnership in Chisinau, Moldova has resulted in national impact and international support for improved health for every citizen in Moldova.

Features that support integration and expansion of the family medicine model include:

- Inclusion of medical and nursing educators and health policy-makers at national and local levels.
- Attention to health financing, including national health insurance and donor funds.
- Inclusion of health promotion and disease prevention education at the community and school level.
- Involvement of NGOs and other supportive organizations both in funding and in expert assistance.
- Early attention to continuing education in family medicine and primary care both to build support for the approach and to keep early adopters current with new trends.
- Recognition that new skills and new professional roles must be supported by new or redesigned training programs located within the educational establishment of the country.

4.1.3 Integration of Family Medicine and Community Action in Rural Primary Health Care

Many NIS partnerships not only retrained rural health practitioners, they also provided sufficient motivation to keep them practicing in these centers even after the partnership ended. The combination of improved equipment, increased professional dialogue within the partnership, and enhanced communication with the rural communities themselves seems to have provided strong motivation for rural providers to strengthen and deepen their ties to the community. Field visits to some of these rural centers in Tomsk and Kharkiv oblasts highlighted the intense involvement of the rural health care team with the community. Many rural health care nurses and physicians lived near the facility, were active members of the community, and saw community advocacy as a strong component of their rural practice. Several of the rural physicians had been elected to local political office, and many of the nurses routinely visited homes and schools in the rural area and were considered as reliable resources for health information and education. The turnover of health workers in these clinics was low, and many providers had been located in the same rural center for at least three years, many much longer.

One of the most notable activities that signal excellence in rural health practice is the advocacy of the rural providers for improved community conditions. For example, the rural physician in Tomsk oblast had successfully advocated for ablation of a nearby factory's air pollution. He described his effort as a year-long campaign against the factory manager to improve air quality and decrease emissions from the factory. His eventual success speaks to his dedication to the community and his improved communication and advocacy skills. Many of the rural providers visited spoke of advocacy activities such as improving access to clean water in the community, identifying families in need of help, and engaging community leaders to provide such help; and working to decrease community exposure to unhealthy situations such as poor sanitation, improper trash removal, and other disease vectors.

The results discussed above are an outstanding success, seldom achieved in rural and remote areas, and should be examined in detail for replication possibilities in other settings where the improvement of primary care in rural clinics is a concern.

Partnership features that deepen the involvement of PHC practitioners with rural communities include:

- Improvement of rural PHC services in diagnosis, health education, and patient communication. Such improvements increase the credibility of the rural primary care practice in the eyes of the rural citizens.
- Linkage of the rural primary health care practice to the Internet. While this result has not been sustained in all rural practices visited, the benefit of such connection during the partnership has highlighted the need. In Tomsk, for example, the health district is working to connect rural providers to the Internet as a result of the partnership experience. This linkage appears to mitigate the professional isolation of the rural providers, and serves as an incentive to keep them in the rural community.
- Improved community outreach techniques that were fostered during the partnership seem to have changed the nature of the relationship between provider and community. Providers report a strong relationship with their rural community, frequently are part of the local political structure, and act as strong advocates for health.
- Strengthened ties between rural providers and district/regional/national health officials as a result of high-profile partnership activities.

4.2 Lessons Learned and Recommendations

The following discussions highlight observed challenges within the partnership program. It should be recognized that the partnerships cannot be all things to all people. The very important work that was presented in this report stands on its own merit. The discussion that follows provides some guidance for future projects of this type and recommends some strategies that can support and sustain excellence.

4.2.1 There is Need for Project Evaluation Frameworks and Planning

A striking feature of this evaluation has been the success of partnerships as transformational demonstration projects. Demonstration projects have been suggested as a viable way to explore vital health system reform in the United States (*IOM/BHCS, 2002*). A review of the plethora of results from the AIHA partnerships suggests that many of these partnerships were successful transformational demonstration projects. However, in order to maximize learning from demonstration projects, it is essential to accurately determine the direction and extent of changes that have been made. This determination cannot be made without well-organized and categorized qualitative and quantitative baseline data that can support pre/post-project comparisons and analysis. This is a lost opportunity that could have been averted with more attention to partnership monitoring and creative monitoring and evaluation planning at the outset of the partnership experience.

The program operations budget of the partnership projects might need to increase for future endeavors of this type, in order to assure a systematic, detailed, and appropriate collection of baseline data and periodic collection of monitoring and evaluation data. The gradual evolution of partnerships from professional exchanges to formal demonstration projects may be one reason why more detailed data were not collected at the start, since the direction of change was not yet clear. In addition, the majority of US partners were clinicians themselves, and were focused on improving the professional environment, quality of care, equipment, and practice guidelines available. They were much less focused on evaluation, and indeed were not quite sure what could be accomplished at the beginning of the partnership. General guidance in the evaluation literature suggests that evaluation planning must go hand in hand with demonstration project planning. While the AIHA partnership projects were in many cases “moving targets” it is recommended that evaluation resources be carefully considered at the start of any new partnership activity likely to result in a project of significance. When it becomes clear that a demonstration project will be supported by the partnership it is not too late to identify control districts and define and collect baseline data.

Recommendations:

- A structured data collection and evaluation plan should be defined at the start of each partnership, based on the individual characteristics of the partnership and the goals and objectives defined.
- Baseline measurements pertinent to the goals and objectives should be defined and required.
- A qualified evaluation manager responsible for consistent attention to the evaluation agenda should be appointed for each partnership.
- Evaluation experts need to be available to the evaluation managers on an ongoing basis to assure technically robust evaluation models.
- Annual evaluation reports that include structured qualitative and quantitative data should be completed for the duration of the partnership project. These reports should be reviewed and corrected if information is lacking or of poor quality.
- A final summative evaluation should be completed that compares aggregate progress to baseline in critical areas of the partnership.

4.2.2 Replication Requires Focused Organizational Planning and Skills Development

As discussed in the replication section of this report, there are several levels of replication, multiple factors that contribute to replication success, and replication push from the partnerships and pull from the environment. In some cases, frustration was observed on the part of some former partners, either because replication was moving too fast or because national priorities had overtaken their ability to manage replication and were pulling in ways that they determined unsuitable to their circumstances. Not all demonstration projects should be replicated, however if replication of partnership models is determined to be a priority, then explicit decisions need to be made regarding the level of replication desired and the support required to support such replication. To the extent possible, decisions regarding replication should be made early in the partnership project. This would enable US partners to focus some attention on the technical and administrative skills that will be required for replication. It would also focus the partnership on advocacy and consensus-building activities that will certainly be needed to support the replication effort. Field observations confirmed that partnership leaders on the NIS side were frequently “stretched thin” between their administrative activities as leaders of successful clinical sites and the advocacy, consensus-building, and training roles required of a replication manager. AIHA staff frequently facilitated policy dialogue, and worked tirelessly to assure that the partnership activities were brought to the attention of the policy community, sometimes creating significant environmental demand for replication. However, NIS partners also needed explicit leadership development that could provide the skills and planning needed for successful replication of a partnership model. It should also be kept in mind that replication should be done in the context of good evaluation to avoid replicating models that could be improved before rollout.

Although most partnerships clearly are achieving excellent clinical results, the fact that systematic evaluative data on the cost of these results, the human resource requirements, and the workforce management and educational strategies necessary to sustain the results are not available is cause for concern if replication is planned or evolving. As partnership results are replicated, these requirements become more pressing, and replication may be permanently constrained if they are not met. For example, the introduction of the medical social worker into the primary care setting proved to be an extremely useful innovation, popular with the community and attractive to the government. However, the lack of an official civil service job designation, policies and salary structure, is proving to be a significant obstacle to replication of this successful model as is the lack of agreed-upon standards for training these professionals. These factors, while less significant in a demonstration project, are of great significance as the project is replicated. Planning for replication during the partnership project is highly recommended, and should be part of the technical work of the partners, or of the organization sponsoring the partnership project. Strong consideration of the replication mandate is also advised, since the skills required to support replication are not necessarily the skills needed to improve clinical expertise at the individual facility level.

Recommendations:

- Replication should not be assumed, but should be explicitly planned.
- Replication planning should begin as soon as the likelihood of partnership success is determined through annual evaluation findings.
- Critical areas of replication planning should be defined and addressed through focused capacity-building activities.
- Successful partnerships should be prepared for the requirements that replication will impose on their activities.
- Advocacy, policy support, and required changes in the legislative, regulatory, educational and health finance system should be discussed before the end of the project.
- Scanning environment for external demand for partnership innovation and aggressive engagement with interest groups that represent that demand are activities that contribute to successful replication.

4.2.3 Some Partnership Innovations Require Additional Support

Some areas of partnership innovation are threatened simply because they are too far outside the national or regional experience to be sustained. This may be true of the advanced role that partnership nurses have taken while supported by the US partners, and the informatics role assumed by LRC coordinators. For the most part these professionals are practicing far outside the usual and customary role expected in their country. They have been able to sustain these roles largely due to the support and understanding of the partnership organizations. However, professionals who are isolated from the mainstream of their profession may find it increasingly difficult to maintain their present professional role as management changes and the partnership cohort is diluted. Particularly for nurses, this departure from the caring nursing role to an administrative role is typical for advanced-practice nurses. However, their influence over the nursing profession in their country may become less as they assume new roles and responsibilities perceived as external to the profession of nursing. The end result will be that the gain for nurses that can be seen from partnership activities is transitory, significantly benefiting some individual nurses, but not the professional as a whole. In order to change the role of the nurse within a health care system, attention would need to be paid to nursing education, professional associations for nurses, and sustainable change in nursing job descriptions, salary scales, and career ladders. The gains achieved through LRCs may also degrade as support for them decreases. During the field visits the evaluation team observed significant effort to keep Internet connectivity, maintain computer hardware, and even expand the availability of such capacity in some cases. The issue of personnel to support the informatics function was much less frequently addressed.

Similar to nurses, the LRC coordinators were often either physicians or nurses working outside of their accepted job descriptions. Their present scope of work was not institutionalized within the civil service system, and depended upon the good will of the facility manager.

Recommendations:

- Partnership coordinators should be aware of the difference between focused development of human resources within the partnership and institutional human resource policy across the health system.
- Professionals who expand the parameters of their professional practice far beyond traditionally accepted boundaries need to be prepared for either significant professional challenges or role transition.

Changes in professional roles, or the introduction of new professions requires significant system change that may not be possible for a partnership to accomplish. Measures that can improve the likelihood of sustainability for these new roles include changes in the educational level, support of professional associations, and educational and policy advocacy.

Annex A

Complete Program Evaluation Report:

**AIHA Primary Healthcare Partnerships
in the Newly Independent States
(1998-2006)**

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1. Introduction and Program Summary

1.1 Study Objectives and Context

The reported evaluation of the Primary Healthcare (PHC) Partnership Program has been conducted in August-December 2006. The evaluation has covered 28 PHC partnerships implemented in 11 Newly Independent States (NIS) in the time period of 1998-2006. The American International Health Alliance (AIHA) has implemented this program under its Basic Agreement with USAID No. EE-A-00-09-00033-00 and pursuant Cooperative Agreements between USAID regional/country Missions and AIHA regional/country offices in the West NIS, Russia, the Caucasus, and Central Asian Region (CAR).

The USAID Europe and Eurasia (E&E) Bureau requested this study and tasked the evaluators with the following objectives:

- Estimate program's contribution to changes in the PHC practice and health status in the host countries;
- Assess the sustainability and replication of positive PHC results;
- Identify lessons learned and best practices; and
- Present recommendations for PHC strengthening in future program designs.

Eighteen illustrative questions were provided to, and addressed by the evaluation team. Each question is presented in this report, followed by the findings and discussion that answer it.

Partnership activities in the NIS have been previously evaluated program-wide (*CEP, 2001*); by geographically-related groups of partnerships, for example in Central Asia (*Simpson, 2001*) and Azerbaijan (*Becker, 2003*); by population health area, for example, Women's Wellness Centers (*Jaeger, 2001*); and by specific clinical initiatives, for example, neonatal resuscitation training (*Ezhuthachan, 2002*). This evaluation study adds value to the previous studies in the following ways:

Program-wide scope: The current study integrates, updates and expands on previous evaluations that were focused on specific sub-regions and implementation areas. It is intended to produce evidence for program-wide conclusions and recommendations. Given the program-wide geographic and technical scope of this evaluation, it succeeds to the Continuing Evaluation Panel study conducted in 2001 (*CEP, 2001*) but differs in methodology and level of analysis.

Summative content: This study is a post-program evaluation. It is timed to produce more conclusive evidence about partnership results and the potential for sustainability and replication.

Changed country and assistance strategy contexts: The view of the partnership outcomes and impact is strongly influenced by the continued evolution of the socio-economic environment in the host countries and assistance strategies. The NIS environment presents a complex mixture of economic advances and socio-political setbacks. Some countries are graduating from the USAID-funded assistance programs. The exit strategy has moved to the fore in Russia and may become topical in some other NIS countries. The durable results of a partnership program may stand to appreciate as the E&E Bureau has become particularly interested in the post-presence sustainability of past achievements and has been "exploring appropriate post-presence initiatives as a way to consolidate assistance gains and carry support for democracy and markets into the future, even after a local USAID mission is closed. Post-presence initiatives consist of American or East-East regional partnerships established with USAID assistance..." (*USAID/E&E, 2004*). This strategic approach implies a direct call for revisiting the positive legacy of the PHC partnership program with a view to its post-presence potential. Another important assistance strategy, also leading to the appreciation of the program legacy, is to 'harness private flows' – "generate public-private partnerships to mobilize non-official

Figure 1. The PHC Partnership Program at a Glance

	Primary Health Care	Women's Care	Knowledge Resources	Nursing
Goals	Improve PHC quality and health outcomes, and promote healthy lifestyles, contributing to the reorientation towards primary care in targeted countries.	Provide a client-centered approach to women's health care through services that address women's health needs throughout their life continuum.	Promote improved health care practices through increased access to, use of, and understanding of available knowledge resources.	Improve patient care through effective, quality nursing practice and strengthening the profession's contribution to systemic health care reform.
Objectives	<ul style="list-style-type: none"> ↗ capacity to deliver quality primary care services in targeted communities. • ↗ patient satisfaction with PHC services. • ↗ acceptance and availability of PHC evidence-based practices and clinical practice guidelines. • ↗ community participation in improving the health of the community 	<ul style="list-style-type: none"> ↗ capacity to deliver comprehensive, outpatient services to women of all ages. • ↗ utilization of health promotion/prevention services within Women's Wellness Centers (WWCs) • Maintenance of a high level of patient satisfaction with WWC services. • ↗ implementation of practice guidelines for women's care. • ↗ use of contraceptive methods to avoid unwanted pregnancy. • ↗ sustainability of WWCs. 	<ul style="list-style-type: none"> ↗ access to up-to-date health care knowledge resources. • ↗ promotion of evidence-based practice. • Demonstrated ability to sustain access to knowledge resources independent of AIHA funding. • ↗ development and use of information and communication technology tools and applications. 	<ul style="list-style-type: none"> ↗ capacity for professional nursing education that meets intern'l standards. ↗ status of nursing as a profession. Improve nursing practice by introducing new models of nursing care and nursing roles. ↗ access of nurses to info-resources and networking through sustainable Nursing Resource Centers (NRCs).
Inputs	<p><i>Funding and in-kind contributions:</i> \$75.9m. Of that number: - Cash spending: \$29.4m, - In-kind: \$46.5m. • <i>U.S. Organizational and community engagement:</i> - 38 cities/communities in 22 states and D.C. - Over 200 institutions, incl. 85 health systems and 61 universities.</p> <ul style="list-style-type: none"> • <i>NIS engagement:</i> - 11 countries with the total population 255.3m (2004) - Over 140 provider facilities and networks, • medical education institutions, and health administrative agencies. 			
Processes	<ul style="list-style-type: none"> • <i>Professional travel:</i> 15,398 US to NIS days + 13,520 NIS to US days = 28,918 total days. • <i>Provider training:</i> 300 training courses per year (in 2003, when the program implementation was in full swing). • <i>Community education:</i> 2,900 education and outreach activities have involved 74,000 participants in 2003. • <i>Knowledge strengthening:</i> Two clinical or educational evidence-based practices reviewed every year. 			
Outputs	<p>28 model PHC clinics established according to the integrated model of PHC, an estimated 270 clinics replicated w/o partnership funding.</p> <ul style="list-style-type: none"> • Two million patient visits /year in partnership-sponsored PHC clinics. • 29 community health councils and 37 patient clubs (involving 4,600 members) are functioning • Over 1,300 NIS health professionals benefited from exchange • >30,000 PHC residents and practitioners trained 	<p>30 WWCs established • 500,000 patient visits /year in partnership-sponsored PHC clinics.</p> <ul style="list-style-type: none"> • >250,000 diagnostic services performed, incl. pap smear, and breast Dx • >100,000 visits for STI screening and treatment • >230,000 other preventive visits • WWC-sponsored educational programs involved >130,000 participants / year. 	<p>LRCs established in all partnerships.</p> <ul style="list-style-type: none"> • 18,500 health professionals trained to use PCs and Internet • In 2002-4, the share of NIS partners with access to pertinent professional information ↗ from 10% to 84%. • 41% of information comes from computer-based sources. • 69 of 123 surveyed partner institutions (56%) successfully demonstrate the use of evidence-based practice guidelines 	<p>24 Nursing Resource Centers (NRCs) were established</p> <ul style="list-style-type: none"> • By 2003, almost all partnerships reported institutionalization of new roles and responsibilities for nurses, incl. institutionalized written nursing standards
Outcomes	<p><i>Technical quality:</i> All model PHC clinics meet \geq 8 of 10 quality criteria related to counseling, use of clinical evidence, screening services, involvement of nurses, availability of patient education materials, group health education classes, CQI activities, implementation of occupational health and infection control, and community outreach activities.</p> <ul style="list-style-type: none"> • <i>Patient satisfaction:</i> Patient surveys conducted in 2002-03 in 20 model PHC facilities have shown on-target level of customer satisfaction (\geq5.8 on a 7-point scale for 22 variables of provider performance) in 6 facilities, and just below the target in 6 more. • PHC-to-specialist referral rate has declined from 2/3 to an estimated 20 percent across model PHC clinic. 			

Compiled from: (AIHA 2002-4)

resources and know-how“ (USAID/State, 2003). Most of the recommendations that have emerged from the evaluation are intended to help USAID strengthen its post-presence initiatives and public-private partnerships in the NIS region.

There are other considerations that support the importance of this post-program evaluation:

Individual stakeholder learning: There is always a gap between the institutional memory of past results and level of individual knowledge among the current managers of health care systems in the NIS, development assistance in the USAID missions, and health sector constituents in the US and NIS alike. Recently appointed decision-makers deserve to be apprised on the legacy of the partnerships. A new report has more currency than those completed before.

Developing partnership support base: If USAID and/or AIHA intend to continue partnership programs, more support may need to be recruited from the US foundations and private business sector. Success stories along with critical analysis should be repeated and updated in order to attract new program sponsors and prospective partner organizations.

Informing traditional constituents: This evaluation closely examines some of the previously under-explored areas of the partnership legacy and can thus provide an additional learning resource for the program funding agency and management.

The emphasis on the legacy of the partnership program defined the evaluators’ focus on the partnerships’ outcomes, sustainability, and replicability. In order to maintain this focus, the evaluators have prioritized the phenomena, indicators, and trends that speak to outcomes and impact. When found critically missing, the outcome/impact measures were approximated (in the order of priority) by the output, process, and even input indicators.

1.2 Program Summary

The PHC Partnership Program in the NIS was established in 1998. It lists 31 partnerships in 11 countries across ten time zones (see map on title page/overleaf). This evaluation includes twenty eight completed partnerships. The most recently graduated partnership has concluded its activities in November 2006. Three partnerships, not covered by this study, continue to be active in the Caucasus. The program’s snapshot summary, based on AIHA reports, is presented in Figure 1. This summary reflects program intervention areas that account for most financial and technical resources. Additionally, PHC partnerships had secondary involvement in the areas of infectious control and neonatal resuscitation.

PHC partnerships include a common set of activities, generalized in Figure 2. These common activities derive from the AIHA partnership model that had been tested and improved over the past decade. An additional element of standardization has been introduced by the PHC Advisory Committee, based on its 1998 definition of the PHC concept, scope, and priorities for the NIS. The analyzed program activities, presented in Figure 2, reflect multiple roles of AIHA as a source of advice, facilitation, coordination, and technical assistance to the partnerships. While benefiting from AIHA experience and resources, partnerships have been endowed with wide managerial and technical autonomy, consistent with the adaptive, demand-driven, and non-prescriptive approach to partnership implementation.

The financial and in-kind inputs to the partnership program are presented in Figure 3. Volunteerism, a key feature of the partnership model and the evaluated program, has shaped the cost/budget structure in a way unique to this type of endeavor: in-kind contributions have accounted for 53 percent of the total amount of input resources. Labor (voluntary time) comprises 48 percent of the ‘grand total’ program resources (90 percent of the total in-kind). ‘Other in-kind’ (2 percent of ‘grand total’) includes pharmaceuticals, interpretation/translation, travel-related costs, and unspecified donations of labor, services, and materials.

The estimated NIS share of the in-kind contribution is 42 percent. The estimation is based on the value of time that the NIS partners spent in travel to the U.S., plus the value of the interpreting and translation services provided in the NIS to visiting US partners.

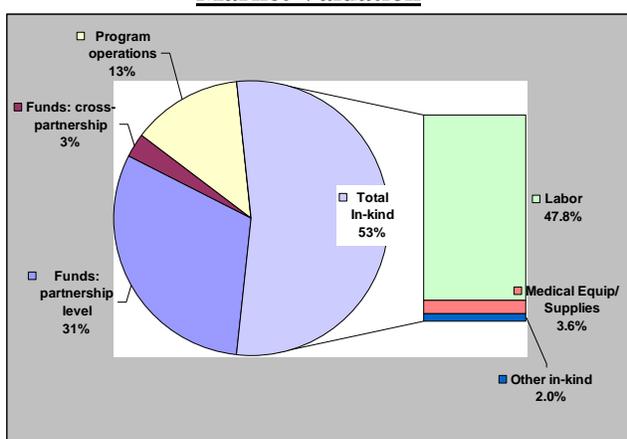
Funding accounts for 47 percent of program resources, of which 31 percentage points is direct spending at the partnership level, 3 points -- cross partnership activities, and 13 -- program operations.

Figure 2. Program and Partnership Activity Log

Program-wide and Regional Track	Partnership track
Phase I: Program start-up	
Basic Agreement	
AIHA exploratory staff work at the region and country levels	
PHC Advisory Committee Meeting	US and NIS health officials discussed program conceptual framework
Cooperative Agreements	
EOI Solicitation from U.S. partners	Prospective US partners select ancillary partners; submit EOI
US partners selected	
Phase II: Partnership Start-up	
Selected US partners are accompanied to the designated NIS country; receive matchmaking support during initial US/NIS partner meetings	Selected US partners travel to the designated NIS country; meet with potential NIS partners NIS partners selected by US partners in conjunction with AIHA staff Preliminary understanding of needs and objectives developed MOU signed Fact-finding, and need and capacity assessment through initial e-mail and personal exchange Partnership work plan developed; submitted to AIHA
Reviews and approval of partnership work plans	
Phase III: Implementation (Activities collated and generalized across partnerships)	
Assessment, planning and management	
Management training provided	Focused organizational assessment conducted Focused community assessment conducted
Annual planning and reporting cycle established	Management plan developed; responsibilities assigned
Regional work plans developed	Training plan developed Travel plan developed
Quarterly and annual reports (by region and program-wide)	Information for quarterly and annual reports provided
Capacity development	
Training templates and materials provided throughout the partnership program	Evidence-based training of providers (physicians, nurses, lab technicians) and educators, as well as managers starts and continues throughout the partnership Education program and curriculum designed Equipment list for care sites and LRCs developed Model PHC facilities renovated and/or otherwise prepared to work under the new PHC model. Additional staff recruited Clinical equipment shipped and installed Computers and peripherals shipped Model PHC clinics and other care delivery and training sites are established: FMCs, rural PHC ambulatories, WWCs; clinical training assessment and skills testing centers
Technical guidance and resources for LRCs provided	Information coordinators recruited and trained. LRCs established. English language training of users begins.
Technical guidance for NRCs provided	Nursing Resource Centers established
Guidance for practice standards review provided	Clinical evidence provided through electronic subscriptions, electronic storage media and paper; PSR training conducted; search and evaluation of clinical evidence begins

Program-wide and Regional Track	Partnership track
Community outreach and health education	
Management of small grants	Community advisory boards established
Government, media and community advocacy for the new PHC model.	Community outreach strategies developed. Community target institutions identified (schools and other).
Promoting partnership activities to the Missions, MOH and other NIS constituencies	Health education programs and materials developed with the focus on diseases and population groups. Health fairs and other health events conducted. Diabetes, hypertension, asthma, Lamaze and other disease/risk-specific group education conducted School-based and other outreach education activities established Health clubs established and functioning. Peer education and support network established.
Cross-partnership exchange	
Cross-partnership clinical conferences and training	Participation in clinical conferences and training
Cross-partnership conferences on best practices in community outreach and health education	Participation in community health conferences and training
Management of the International Nursing Leadership Institute (INLI) Program	Participation in INLI
Annual meetings	
Monitoring and Evaluation	
M&E plan designed	
Sub-regional evaluations conducted	Participate in sub-regional evaluations
Evaluations of LRCs designed and conducted	Participate in LRC survey and evaluation
NRC survey designed and conducted	Participate in NRC survey
Patient satisfaction survey designed	Patient satisfaction surveys conducted periodically
Mid-term evaluations conducted	
Self-evaluation tools designed	Self-evaluation conducted
End of project evaluation and report	
Phase IV: Sustainability and Replication	
Sustainability and replication strategy outlined	Selection of replication sites
Sustainability grants selectively awarded	Replication activities

Figure 3. Input Resources of the PHC Partnership Program: Funds and In-kind at US Market Valuation



Estimated from AIHA data

professional peers with whom they have developed a personal, trust relationship, than they will be to

Time, obviously, has been the key resource in this program. US and NIS health professionals have donated an estimated 168.7 person-years of their time to their partnership agenda. This is an average 5.4 person-years per partnership, or 1.1 person-years per partnership per year (assuming the active collaborative process continued for 5 years). Two thirds of time has been spent in exchange visits: of that amount 47 percent by NIS travelers and 53 percent by the U.S. partners. Each year, an average 8.6 months of professional time in each partnership has been spent on partnership-related travel. Personal professional exchange is the fundamental feature of the AIHA model: "AIHA's partnership program rests upon the presumption that professionals in the countries abroad will be more receptive to the ideas and advice of their

“consultants” whom they often perceive as not fully appreciating their real world constraints. ... Exchanges allow overseas participants to see for themselves the broad spectrum of US health care and begin to make decisions about what will work in their unique circumstance. For the US participants, the exchanges allow to become familiar with the environment in the host country. ... The exchanges provide direct experience for CEE and NIS visitors to the US of the pluralism and democratic institutions that are an integral part of American culture” (AIHA/Model).

2. Evaluation Methods and Organization

2.1 Compliance with USAID Directives and Procedures

The evaluation methodology is aligned with USAID performance monitoring directives and procedures (USAID/ADS, 2003: 203.3.5.1; TIPS #11-14) to assess its programs for ‘making a difference’: promoting core values, achieving intended results, and influencing further decisions. Evaluation is part of the Dynamic Model of the USAID Programming System. The model predicates program planning, management and result achievement on systematic organizational learning from assessing the results of activities; collecting and analyzing performance information to track progress toward planned results; using performance information to influence program decision making and resource allocation; and communicating results achieved, or not attained. A review of the agency’s key principles and practices of effective performance management has stipulated the following features of this evaluation strategy and design:

Result-Oriented Evaluation: The focus of this summative evaluation is on results. Consistent with the USAID approach to ‘Measuring Performance over Time’ (USAID/ADS, 2003: 203.3.2.2), the PHC Partnerships Program results are to be captured at the Strategic Level, namely, country Missions’, E&E and USAID intermediate results and strategic objectives. The emphasis on results assigns a subordinate yet important role to the evaluation of the program and partnerships inputs, activities and outputs, particularly in the absence of direct measures of outcome and impact.

Participatory Evaluation: Consistent with the ‘Seek participation’ principle of the Effective Performance Management, the Evaluation involved organizations with a stake in the program and/or its results – US- and NIS-based partners, other NIS stakeholders, AIHA, and USAID. The participatory approach has been maintained in all phases of the evaluation, including planning, data collection, analysis, and reporting.

Streamlined Evaluation: While broad in scope, the study relied on a parsimonious design, whereby the stakeholders in the evaluation have jointly defined a critical set of result-oriented questions, and the study drew on the AIHA M&E resources in order to avoid the production of duplicative data.

Transparent Evaluation: The report communicates limitations in data quality and comments on the attribution of results to confounding factors.

Quality/Efficiency Trade-Off: The compressed time-line for this evaluation compelled the team to use rapid appraisal methods to maximize evidence given a quick turn-around time and limited data support. Rapid assessment tools have been applied in a structured and well-prepared manner, thus preventing the slide into the informal evaluation, commonly limited to sporadic document review, casual discussions, and unstructured site visits.

Robust Data: The evaluation plan, criteria and indicators have been designed to ensure compliance with the USAID Data Quality Standards (USAID/ADS, 2003: 203.3.5.1) and optional guidance on Selecting Quality Performance Indicators (TIPS #12). The produced data have been checked to the extent possible for validity, integrity, precision, reliability, and timeliness. However, not all information, collected in this evaluation could be expected to meet all the criteria of quality. The weaknesses of the data are appropriately reviewed in this report.

2.2 Program and Methods

This evaluation design is based on the systems management model, postulating that *inputs* are engaged in *processes* to produce *outputs* that, if *sustained*, result in *outcomes* with a system *impact* proportionate to the level of their *replication*. The study design stems from the basic questions of: What to evaluate (Study Program), whom and how to evaluate (Study Sample and Methods)?

2.2.1 Study Program

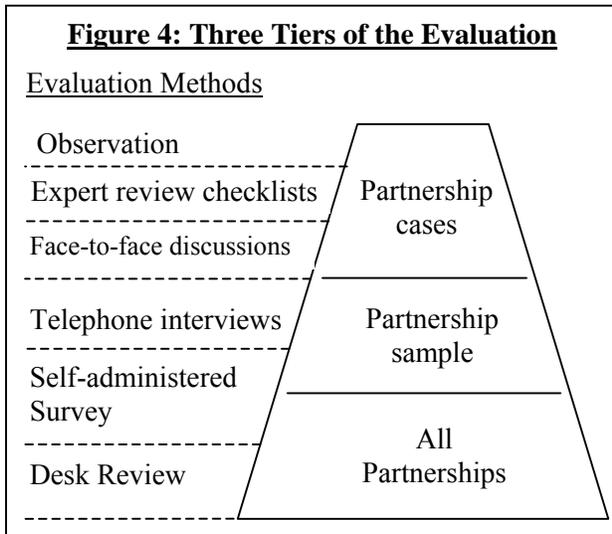
The evaluation has been designed with the intention to benefit both partnership and non-partnership programs of PHC strengthening. The 18 questions posed for the evaluation by USAID (see Annex D ‘Statement of Work’) have been confirmed by the evaluation stakeholders during the team planning meeting as relevant and ‘evaluable’ using the SIDA term (*SIDA, 2002*). These 18 questions were organized into seven discrete evaluation clusters. The twelve evaluation content areas elucidate the evaluation clusters as summarized in Table 1. The crosswalk from the original questions to the evaluation content areas and clusters results in an evaluation program that is additive, non-overlapping, guided by the original USAID questions, and relevant to the AIHA program and partnership agendas.

Table 1. Evaluation Program: A Cross-walk from USAID Questions to Evaluation Clusters and Content Areas

Evaluation Clusters	Evaluation Content	Evaluation Questions, Posed by USAID
<i>To what extent did the partnerships:</i>		
I. Appropriateness of partnership objectives, relative to:	1. USAID priorities 2. Country health needs	Q2, Q3 (in part). Contribute to E&E Bureau and Mission goals and objectives? Q4 (in part). Address the leading causes of death and disability; succeed in addressing the priority health issues of the communities served?
II. Outcomes and Impact	4. Health status, demand for, and access to quality care	Q1 Achieve their partnership goals and objectives? Further answering Q2-Q4 Q5. Achieve improvements at the local and national levels? Q10 More closely align personal health and public health efforts?
III. Care delivery strengthening	5. Capacity to deliver quality PHC care	Q6. Increase the capacity to deliver quality PHC services in targeted communities? Foster more effective and efficient delivery of PHC services? Q7. Transfer technical knowledge that bridged the gap in clinical practice standards. Evaluate the extent to which partnerships increased the acceptance and availability of PHC evidence-based practices and clinical practice guidelines? Q9. Increase the quality and availability of information for decision-making?
IV. Management strengthening	6. Management of quality 7. Resource, cost and budget management	Q8. Promote modern techniques of health care management and quality in health care practice and education?
V. Implications for organizational and societal change	8. Consumer participation and provider accountability	Q11 Promote democratic values and expand civil society? Increase community participation in improving the health of the community?
VI. Sustainability and replicability	9. Sustainability	Q12. Contribute to the sustainability of the PHC centers? What are the key determinants and barriers (internal and external) to their long-term success? Assess the success and sustainability of outreach and patient education activities as well as prevention-oriented programs.
VII. Other aspects of the program	10. Replicability	Q13. Contribute to the replication of partnership models and outcomes?
	11. Learning Resource Centers	Q16. Did the PHC LRCs help advance the use of evidence-based medicine? Q17. Are the PHC LRCs sustainable and replicable? Q18. Did AIHA publications, media relations, and websites contribute to the achievement of partnership objectives?
	12. Cross-partnership region-wide activities	Q14. Did region-wide conferences and workshops help achieve the individual partnerships goals and objectives? Q15. Did cross-partnership initiatives benefit the individual partnerships?

2.2.2 Study Sample and Methods

The three-tier ‘population — sample — case’ approach was developed to evaluate the 28 PHC partnerships, implemented in the NIS region in 1999-2006 (Figure 4). The desk review of all partnerships included the



partnership summaries posted on the AIHA website, partnership budget summary tables prepared by the AIHA HQ Office at the evaluators’ request, the program annual reports and end-of-partnership self-evaluation reports. The self-administered questionnaire-based survey was designed to address all partnerships but evolved into a sample-based exercise as 20 out of 28 partnerships have provided responses (partnership-level response rate = 71%). Telephone and face-to-face interviews were conducted to probe into survey responses and to collect additional opinions on partnership results, system impact, and legacy. On-site discussions with stakeholders and participants were held during approximately 40 meetings in five visited partnership sites, and an additional group discussion that involved participants in six partnerships from

Ukraine. Expert review checklists were pre-sent to five partnerships as a recommended toolkit for self-study prior to meetings with the evaluation team. The evaluators have used the same checklists as an observation guide during the field part of the evaluation.

2.3 Tools

2.3.1 Questionnaire-based Survey

An important part of this evaluation, the questionnaire-based survey elicited professional opinions from PHC partner representatives in the following areas:

- Partnership objectives;
- Partnership inputs and activities;
- Partnership outcomes/impact;
- Partnership sustainability and replication;

Table 2. Survey’s Geographic Scope

NIS Subregion	Total PHC partnerships	Responded to the Survey
Central Asia	4	1
West NIS	8	8
Russia	8	7
Caucasus	8	4
<i>TOTAL</i>	<i>28</i>	<i>20</i>

- Partnership implications for organizational and societal change;
- Recommendations for future design.

The methodological utility of the survey may be summarized as follows:

- In most previous evaluations, the partnership program was judged by external experts. By contrast, the current survey gave the partners an opportunity to reflect and generalize on the partnership results and legacy.
- The partnership self-evaluation reports, prepared at the end of most PHC partnerships, represent the only previously documented evaluation based on insiders’ opinions. The reports have produced multi-page narratives (25-55 pages per partnership) in response to predominantly open-ended questions. The current survey has employed a more structured framework: opinions were expressed in response to 36 questions with the total of over 750 multiple-choice options. The resulting information was found suitable for tabulation. Aggregated across partnerships, it has produced important evidence on program-wide trends.

- While previous self-evaluations were focused on one ‘official’ set of opinions per partnership, the current survey has encouraged multiple individual opinions about each partnership. The lay level PHC providers and administrators, who represent the main professional beneficiaries from partnership activities, were the main categories of respondents.

Table 3. Professional Profile of Respondents

Professional Categories	Beginning of Partnership	End of Partnership
GP/Family doctor	16%	23%
PHC specialist (internist, pediatrician, ob/gyn)	20%	12%
“Narrow” specialist	6%	4%
Nurse/Feldsher	5%	7%
Provider administrator	28%	33%
Faculty/Research	10%	9%
Other:	14%	12%
<i>Provider ancillary</i>	4%	4%
<i>Government/Insurance</i>	2%	2%
<i>Community worker</i>	3%	3%
<i>International development/Consultant</i>	5%	3%
<i>Non-health</i>	0.1%	0.2%

- Compared to the previous evaluations, the survey has paid more attention to the health sector environment and the external barriers and supports (confounding factors) of the partnership impact and sustainability.

The weakness of the survey-based dataset stems mainly from non-sample biases due to non-response and random over-sampling of specific partnerships and stakeholder groups due to uneven response rate. There is also an interpretation bias whereby some respondents seem to have used the

“Don’t know” option where the lowest rating might be more appropriate to reflect a non-existent phenomenon, or low-intensity process. This apparent bias has been corrected for by adjusting downward the relevance of opinions expressed by an unusually low number of respondents.

The findings from the survey are presented in all sections of this evaluation report. They are based on the opinions of 42 respondents from 20 partnerships (see Table 2 for the geographic scope of the survey), including 5 US and 37 NIS partner representatives, of whom 12 were partnership coordinators. Two thirds of the respondents’ time during partnerships was allocated to three occupational areas (Table 3) – provider administrators, general /family practitioners, and PHC specialists (internists, pediatricians, and ob/gyn doctors). The identified profile of the respondents and their substantial exposure to the partnership experience (on average, 3 years 9 months per person) ensured competent opinions from highly motivated professionals and keen observers of the partnership experience.

2.3.2 Expert Review Checklists

The evaluation team has designed three expert review checklists as a guide for field evaluations to reflect the organizational achievements of the three main types of PHC partnerships. This subsection provides an outline of each checklist:

1. PHC Practice /Centers (for partnerships focused on the provision of personal primary health care):

- Building, physical layout;
- Furniture;
- Equipment;
- Staff availability and credentials;
- Clinical staff competence and performance;
- Drugs and supplies;
- Patient care systems;
- Practice management systems;
- Reporting; information systems;
- Government, community and media relations;
- Regulatory support;
- Outcomes.

2. Health Promotion and Education Programs (for partnerships focused on community-based aspects of PHC):

- Program need assessment, and problem and goal statement;
- Program effort to strengthen family behavior;
- Program effort to strengthen individual response;
- Health education resources and organization;
- Health education process.

3. PHC/FM Clinical Education Programs (for partnerships focused on medical and health professional education):

- Program mission and governance;
- Program human, financial, and physical resources;
- Curriculum and teaching-learning practices;
- Program effectiveness: student performance and faculty accomplishment.

The above-outlined multi-page checklists were presented to the partners as optional tools for self-study of their organization, resources and performance, and, additionally, to apprise them of the discussion and observation plan for the field evaluation stage. The limited use of these checklists during the evaluation has identified progress in strengthening patient care and selected practice management systems, as well as increased staff credentials, much of that progress attributable to the partnership effort. In many organizational and resource-related areas, the self-study and observation by the evaluation team have confirmed a significant opportunity for further improvement. Partner organizations have expressed interest in further periodic use of the proposed tools for a recurrent gap/progress self-study.

3. Evaluation Findings

3.1 Appropriateness of Partnership Objectives

This section addresses Questions 2 to 4, posed by the E&E Bureau, particularly, to what extent did the PHC partnerships:

Q2. Contribute to USAID Mission goals and objectives?

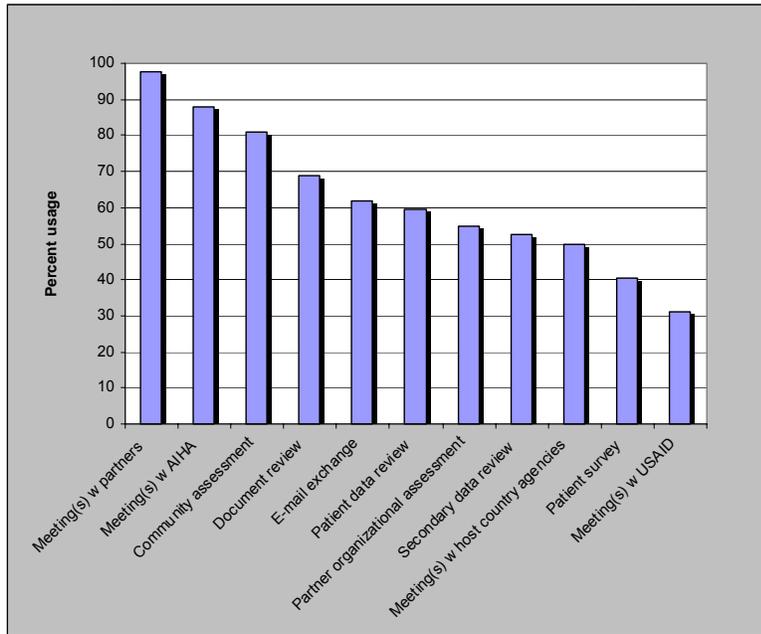
Q3. Contribute to E&E Bureau goals and objectives?

Q4. Address the leading causes of death and disability? -- Evaluate program success in addressing the priority health issues of the communities served.

The necessary condition to positively answer these questions is the appropriateness of partnership objectives. The sufficient condition is achievement of appropriately formulated objectives. The current section estimates partnerships from the standpoint of whether they chose the right objectives. Achievement of these objectives will be addressed in Section 3.2.

The evaluators have examined the following aspects of program operations: (i) The quality of the objective-setting process; (ii) List of partnership objectives recognized as important; (iii) Alignment of partnership objectives with USAID regional and country strategies; (iv) Alignment of objectives with host country health/social needs. According to the underlying logic, quality objective-setting process is necessary for the identification of relevant objectives. The latter, if achieved, provide expected contributions to the agency and host country health agendas.

Figure 5. Sources of Information Used to Determine Partnership Objectives



3.1.1 Objective-setting Process

The quality of the objective-setting process results from adequate information resources, broad stakeholder participation, and sufficient learning and feedback to ensure the selection of relevant objectives. To ascertain compliance with these conditions, the partnership objective-setting experience has been studied for: (1) sources of input information; (2) stakeholder roles; (3) timeframe for setting objectives.

Figure 5 summarizes partner opinions on the comparative importance of 12 sources of input information for objective setting, pre-identified during partnership desk review. The most used sources included meetings with partners (98%), meetings with AIHA (88%), and community assessment (81%). Common

sources of information include document review (69%), e-mail exchange (62%), and patient data review (60%). These findings attest to the participatory, demand-driven, and evidence-based approach to the partnership objective-setting process. In the PHC Partnership Program, this approach is illustrated by the AIHA/Washington-sponsored 1998 meeting of the PHC Advisory Committee. Attended by 40 NIS and US health officials, partners and AIHA staff, the meeting has resulted in a consensus-based view of the conceptual framework and technical priorities for the PHC strengthening in general and partnership work plans in particular.

Analysis of the objective-setting process by stakeholder organization led to the following findings (Table 4): The main US Partner and their NIS counterparts played the strongest role in the definition of partnership objectives. Other US and NIS organizations played a minimal role. The US and NIS respondents have largely concurred in these opinions ($R^2 = 0.90$). The ‘minimal’ role of USAID represents an opinion bias that is explained and corrected in Subsection 3.1.3 (page 47).

Table 4. Stakeholder Roles in Defining Partnership Objectives

	Median Response	% “Strong” or “Very Strong”	% “Minimal” or “None”	Average Response on a 1 to 5 Point Scale (1-None, 2-Minimal, 3-Moderate, 4-Strong, 5-Very strong)		
				All Respondents	U.S. Respondents	NIS Respondents
Main US partner	‘Strong’	90%	6%	4.2	4.4	4.2
Main NIS partner	‘Strong’	73%	22%	3.7	4.2	3.6
Other US partner	‘Moderate’	11%	47%	2.5	1.6	2.6
Other NIS partner	‘Minimal’	7%	59%	2.2	2.0	2.3
USAID	‘Minimal’	3%	73%	2.0	1.4	2.1
NIS non-partner agency	‘None’	2%	89%	1.5	1.2	1.5

The setting of partnership objectives was an iterative process with an adjustment phase (Figure 6). Officially set in the partnerships Memoranda of Understanding (MoU), objectives of most partnerships have undergone further updates and revisions that in some cases took over a year to complete. This process was

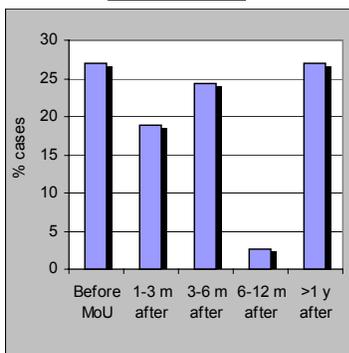
stipulated by a bi-directional learning curve: many US partners reassessed the objectives after close examination of the situation on the ground, while their NIS partners did the same based on their better understanding of the professional enrichment opportunities that the partnership had to offer.

3.1.2 Partnership Objectives

Partnership objectives were studied by 14 areas of PHC policy/ strategy and 12 areas of care delivery. The area lists was compiled from the AIHA Program Description and USAID E&E and NIS Missions' objectives. Survey respondents were asked to rate the areas by importance as partnership objectives.

The five most important policy/strategy objectives according to the shared opinion of the US and NIS respondents (Table 5) are: 'Access to, and use of information for decision-making' (90% respondents considered it important or very important); 'Improved quality of health care', 'Increased scope of primary health care', 'Workforce planning and development' and 'Personal and public health alignment'.

Figure 6. How long did it take to finalize partnership objectives?



In two cases, opinions of the US and NIS respondents have significantly diverged. Firstly, US respondents have placed the 'Improved mobilization, allocation and use of resources' in the range between 'Important' and 'Very important', thus ranking it fifth/sixth among the 14 policy/strategy-related objectives. The NIS partners have assigned this objective to a much more modest 10-11th place – between the minimally and moderately important objectives. While NIS managers and providers of primary care are quite cognizant of the constrained and inefficiently used resources in the PHC sector, they, perhaps, did not see resource aspects as much of a core component of the PHC strengthening agenda as their US counterparts. After all, PHC professionals in the NIS operate under the WHO/Alma-Ata definition of PHC scope, while the US partners' approach would be in the conceptual domain of the American Academy of Family Practitioners (AAFP). An important difference between the two is that AAFP states prudent use of resources as a core competence of family

practitioners. Secondly, the NIS partners have rated the 'Preparing NIS and US professionals for further collaboration, including in 3rd countries' as an irrelevant objective, while their US colleagues seemed to be more conducive to the idea as they rated this objective between moderate and important.

Among the health care delivery areas (Table 6), 'Maternal health' has been rated as the top objective, followed by (i) 'Healthy lifestyles to reduce adult male mortality', (ii) 'Family planning', (iii) 'Non-communicable diseases (diabetes, cardiovascular)', (iv) 'Infant and child survival', and (v) 'Infectious diseases'. Given the interrelated nature of the first / third items and second / fourth items, the 'Reproductive health' and 'Non-communicable disease prevention and management' seem to be the main personal/public health objectives of the PHC partnership program. The US partners have assigned unquestionable priority to the second broadly defined objective with the top rating given to the 'Non-communicable diseases' followed by 'Healthy lifestyles [promotion]'. The rest of the objectives have been rated in the range of moderately important to unimportant. The NIS respondents prioritized 'Maternal health' and 'Family planning', followed by 'Infant and child survival' and the aforementioned 'Healthy lifestyles' and 'Non-communicable diseases'. Further probing into the observed divergence of opinions on the relative importance of partnership objectives has revealed an important characteristic of the learning process within the partnerships: most NIS physicians and health professionals were very appreciative of the invariably flexible approach that US

Table 5. Partnership Objectives by PHC Policy/Strategy Areas*Rated by Importance on a 5-point Scale (1- 'Not at all important' ... 5- 'Very important')*

	Median Response	% "4" or "5"	% "2" or "1"	Average Response on a 1 to 5 Point Scale		
				All Respondents	U.S. Respondents	NIS Respondents
Access to, and use of information for decision-making	5	90	5	4.5	4.8	4.4
Improved quality of health care	4	87	0	4.4	4.8	4.3
Increased scope of PHC	4	87	0	4.3	4.8	4.3
Workforce planning and development	4	79	5	4.1	4.6	4.1
Personal & public health alignment	4	79	8	4.1	4.4	4.1
Empowering individuals in the matters of health	4	59	11	3.8	4.0	3.7
Focus on at-risk populations across care continuum	4	54	13	3.6	3.6	3.6
Integration of clinical, behavioral, & economic aspects of health	4	53	21	3.4	4.2	3.3
Policy & legislative reforms, supporting community-based PHC	3	45	26	3.2	4.2	3.1
Improved mobilization, allocation & use of resources	4	50	42	3.1	4.4	2.8
Supporting grassroots initiatives in health	3	27	46	2.7	2.6	2.8
Preparedness for, and response to emergencies and disasters	2	29	53	2.7	3.0	2.6
Supporting NGOs to improve community & family health	2	30	52	2.6	2.8	3.1
Preparing NIS & US professionals for further collaboration, incl. in 3 rd countries	1	11	70	1.8	3.6	1.6

Table 6. Partnership Objectives by Care Delivery Area:*Rated by Importance on a 5-point Scale (1- 'Not at all important' ... 5- 'Very important')*

	Median Response	% "4" or "5"	% "2" or "1"	Average Response on a 1 to 5 Point Scale		
				All Respondents	U.S. Respondents	NIS Respondents
Maternal health	4	76	8	4.0	2.8	4.2
Healthy lifestyles to reduce adult male mortality	4	61	16	3.8	4.4	3.7
Family planning	4	59	15	3.7	2.2	4.0
Non-communicable diseases (diabetes, cardiovascular)	4	65	14	3.7	4.8	3.5
Infant and child survival	4	57	27	3.6	2.2	3.8
Infectious diseases	4	51	31	3.3	2.6	3.4
HIV/AIDS	3	49	30	3.2	2.4	3.3
Environmental health risks	3	45	42	2.9	3.0	2.8
Tuberculosis	3	38	43	2.8	2.6	2.9
Integration of health with social assistance and safety net	2	24	58	2.5	1.2	2.7
Occupational health risks	2	26	58	2.4	3.0	2.3
Poverty reduction	1	13	82	1.7	1.0	1.8

partners have displayed to meeting their individual professional interests and learning needs. In fact, this flexibility was one of the best practices of the partnerships. Thus, many NIS respondents were successful in pursuing diverse professional objectives within more uniformly defined partnership objectives. This individualization of the partnership agenda, apparently, has (1) increased the weight of such core PHC areas as reproductive and children’s health; (2) made additional areas, e.g., HIV/AIDS and TB more visible than stated in the partnerships’ MoUs.

Table 7. The ‘Highest’ Level at which Important Partnership Objectives Were Addressed

Classified on a 5-point Scale (1- ‘Hardly at all’, 2- ‘Individuals, e.g., educators, providers, administrators’; 3 – ‘Practice/Organization’, 4 – ‘Local community / Network of organizations’, 5- ‘Region/Country’)

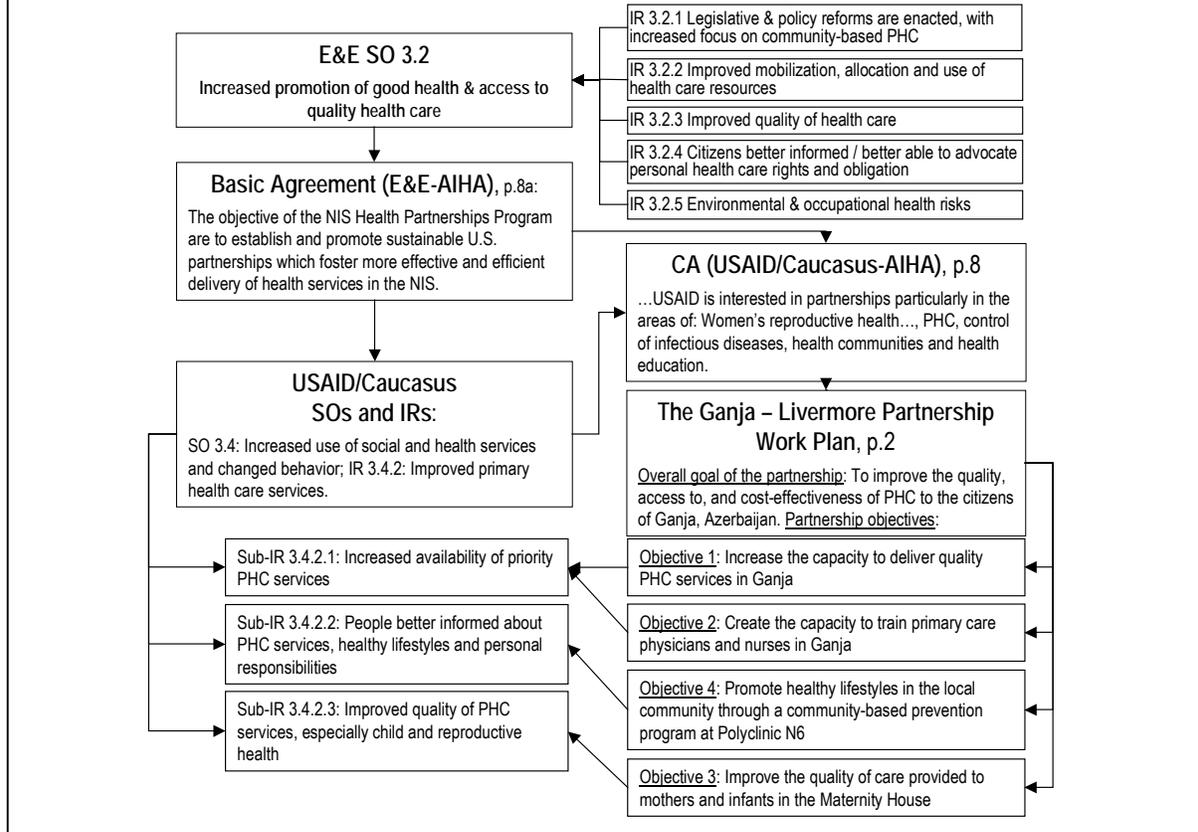
Objectives, related to PHC strategy/policy	Median Response	Most Common Response	% “3” or “4”	Objectives related to PHC service delivery	Median Response	Most Common Response	% “3” or “4”
Access to, and use of information for decision-making	4	3	74	Maternal health	3	3	79
Improved quality of health care	4	3	85	Healthy lifestyles to reduce adult male mortality	4	4	62
Increased scope of PHC	3	3	74	Family planning	3	3	78
Workforce planning and development	3	3	73	Non-communicable diseases (diabetes, cardiovascular)	3	3	71
Personal & public health alignment	3	3	78	Infant and child survival	3	4	58
Empowering individuals in the matters of health	4	4	72	Infectious diseases	3	3	75
Focus on at-risk populations across care continuum	4	4	74	HIV/AIDS	4	4	59
Integration of clinical, behavioral, & economic aspects of health	3	3	71	Environmental health risks	3	4	68
Policy & legislative reforms, supporting community-based PHC	3	3	62	Tuberculosis	3	4	52

Partnership objectives, rated as important have been further studied for the level at which they were addressed. While some respondents indicated several levels per objective, most of them referred to the ‘highest’ level, implying that lower levels were integral to the effort. Table 7 summarizes the findings.

While international development projects commonly target nationwide reforms, partners realistically saw their goal in developing and demonstrating change at the level of PHC practice/organization, local community and local network of provider organizations. The vast majority of respondents have identified these target levels for all important partnership objectives. In some areas, such as ‘Infant and child survival’ and TB, an increased share (approximately one quarter) of respondents limited partnership objectives to the level of individual health professionals, apparently acknowledging their own professional development agenda. At the same time, approximately one quarter of partners considered partner objectives in the areas of HIV/AIDS, TB, ‘Healthy lifestyles to reduce adult mortality’, and ‘Integration of health with social assistance and safety net’, as relevant for their region and/or country. Some directly observed partnerships have substantiated this claim for nationwide system impact with their emphasis on policy advocacy, knowledge dissemination, and replication.

Figure 7. An Example of USAID-Partnership Objective Coordination

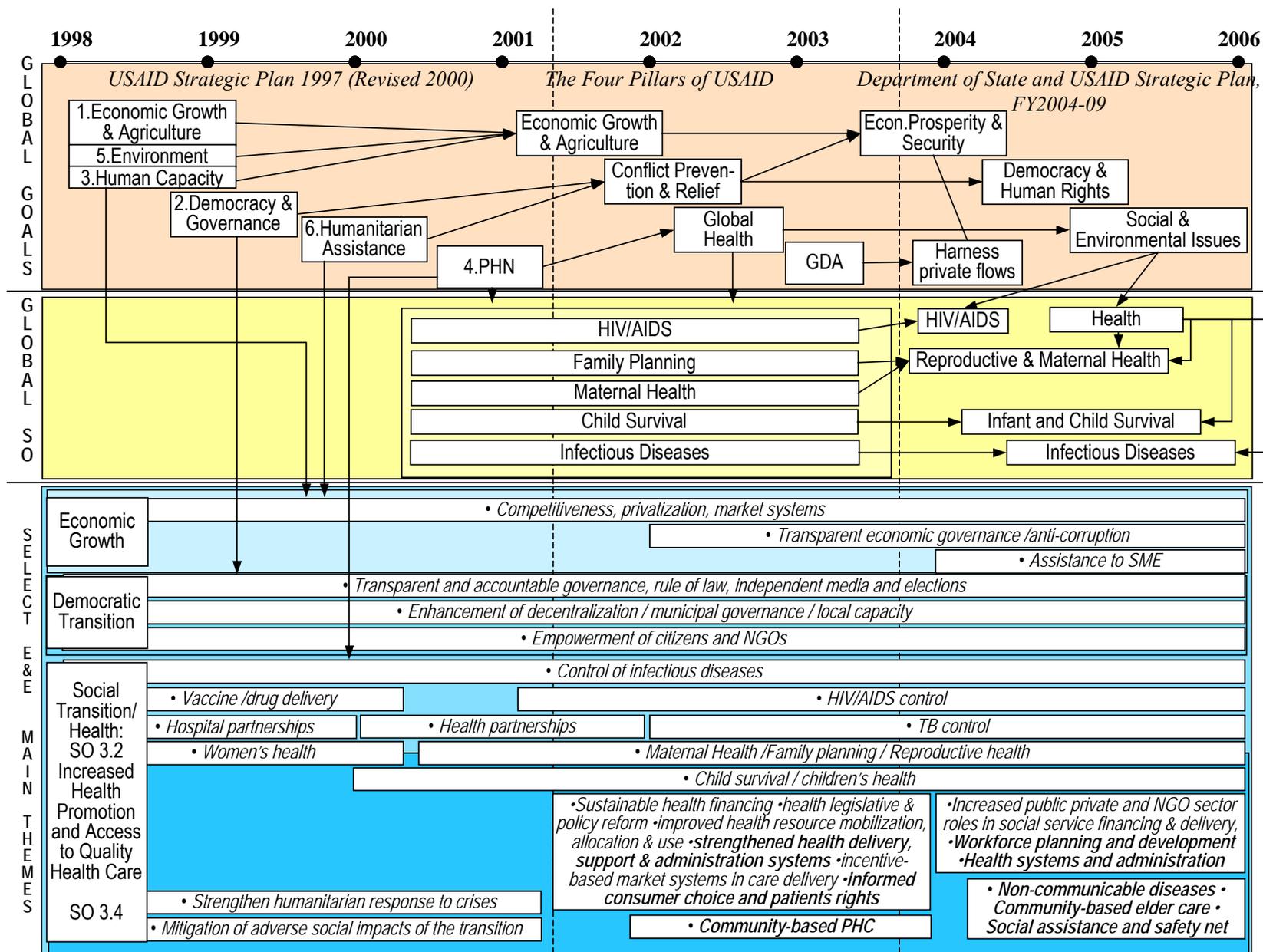
USAID E&E Bureau – the Caucasus Mission – Ganja/CA partnership in Azerbaijan



3.1.3 Relevance of Objectives for USAID E&E Bureau and Country Missions

The USAID priorities have been captured in the definition of partnerships' agendas at several levels: (1) The PHC Partnership Program Description (Attachment 2 to the USAID/AIHA Basic Agreement) has provided formative guidance for the design of the program Cooperative Agreements (CAs) for the four NIS sub-regions and region-wide activities, thus, ensuring the alignment of partnership agendas with the E&E Bureau vision of the program. (2) CAs have been approved on the premise of partnerships' strategic alignment with the Missions' country programs and, in turn, informed criteria for soliciting and awarding grants. (3) AIHA has guided partners to reference their objectives to USAID Country Strategies in developing partnership work plans and progress indicators. Figure 7 illustrates the strategic coordination of USAID regional, sub-regional, and partnership objectives. The partners' opinion of USAID as a 'minimal' contributor to the partnership objective-setting process (please, refer to Table 4), seems to underestimate the roles of the program Basic Agreement and CAs, the USAID-AIHA strategic planning process, as well as AIHA's operational guidance in communicating the USAID program vision and priorities to the partners at the partnership design and planning stages.

Figure 8. The Evolving Global and E&E Agendas of USAID: Recent Health Themes (in-bold) ‘Pre-targeted’ by PHC Partnerships



Sources: (USAID/E&E, 1998-2006); (USAID/E&E, 2000); (USAID/E&E, 2004); (USAID/Global, 1999); (USAID/Global, 2001); (USAID/CAR, 2000); (USAID/Russia, 2005). This table does not reflect the 2006 E&E Social Transition Strategy.

Given the considerable time span of the PHC partnership program, the evaluators added a longitudinal perspective to assessing alignment between partnerships' and USAID priorities and objectives. The USAID E&E and Missions' priorities have been studied over 1998-2006 by reviewing the USAID Congressional Presentation materials, particularly, the Budget Justification for each fiscal year. The resulting chart (Figure 8) summarizes the evolving USAID goals and objectives at the global and regional levels during the PHC partnership implementation period. Highlighted in bold are relatively new E&E themes that have been preempted by the partnership program agenda. The following bulleted list features activities that the E&E Bureau included as Illustrative Activities in its 2000 Social Transition Strategy (*USAID/E&E, 2000*) several years into their implementation by AIHA partnerships:

- Training, technical assistance and partnership programs in health care management and efficiency;
- Pilot programs to effectively integrate currently separate health services;
- Development of, and training and TA in evidence-based treatment protocols;
- Demonstration programs in quality assurance programs and QA systems;
- Strengthen data and information analysis ... for use in decision-making;
- Training of providers and public education programs in client-centered services;
- Implement information campaigns on community-based PHC;
- Public information ... encouraging at-risk populations to practice more responsible behavior;
- Demonstration programs in broad-based health promotion and healthy lifestyles;
- Curricula and materials development / dissemination relating to preventive/PHC practices and services;
- Training conferences / workshops to help citizens and NGOs advocate for health policies and programs.

The formative influence of the PHC Partnership Program on the USAID health agenda is also seen at the country Mission level. USAID/Russia cast its support for the non-communicable disease prevention and management agenda, convinced, at least to some degree, by the experience of eight Russia-based PHC partnerships in the respective areas:

“While the focus in the health sector during this strategy [USAID/Russia 2005-10] will continue to be HIV/AIDS, TB and Hepatitis C, there is an acknowledgement that an overwhelming proportion of the premature deaths that occur in Russia ... come from non-communicable diseases (e.g., diabetes, heart disease, lung disease, etc.), especially those related to alcoholism and smoking. ... Should additional funds become available ... the Mission may consider undertaking interventions in the area of non-communicable disease prevention and treatment” (*USAID/Russia, 2005*).

It, thus, may be concluded that the PHC Partnership Program objectives have proven relevant for the USAID health agenda in two important ways: some partnership objectives have matched the E&E and Mission priorities of the time, others have guided the USAID strategic planning process toward including new areas of PHC strengthening, following the partnerships' trailblazing experience.

3.1.4 A Match between Partnership Objectives and Host Country Health/Social Needs

Ultimately, the appropriateness of partnerships should be judged by the responsiveness of their objectives and interventions to health and social needs of the host countries. To qualify for a health/social priority in the context of primary health care, a disease or condition should match as much of the following three conditions as possible: (1) be known to incur high burden of disease (BoD) due to high and premature mortality and/or non-fatal outcomes such as disability; (b) be a negative outlier vis-à-vis a benchmark – demonstrate a more adverse BoD ratio than the average BoD ratio for all causes of death and disability; (c) can be prevented, detected and/or otherwise managed in the general practice setting to reduce BoD through interventions that are cost-effective, e.g., allow a saving of one disability-adjusted life year (DALY) at a relatively moderate cost.

**Table 8. NIS Health Priorities:
by Broadly-defined Disease/Condition Category and
Partnership Host Country, % of Total DALY, 2002**

Partnership Host Countries	Infectious & Respiratory	Maternal, Perinatal, & Nutritional	Non-communicable	Injuries & poisonings
Armenia	5.6%	6.7%	79.5%	8.2%
Azerbaijan	18.5%	8.6%	67.1%	5.7%
Belarus	4.9%	1.8%	73.5%	19.9%
Georgia	5.8%	5.7%	82.9%	5.5%
Kazakhstan	8.7%	5.4%	66.8%	19.1%
Kyrgyzstan	15.6%	11.3%	59.5%	13.5%
Republic of Moldova	6.0%	3.9%	76.7%	13.3%
Russian Federation	5.4%	2.6%	68.6%	23.4%
Tajikistan	23.5%	14.7%	52.3%	9.5%
Turkmenistan	20.5%	6.7%	60.0%	12.8%
Ukraine	6.6%	2.7%	74.3%	16.4%
11 Countries: population-weighted average	7.0%	3.4%	69.4%	20.2%
<i>Addendum for comparison: Africa</i>	<i>59.4%</i>	<i>12.5%</i>	<i>19.0%</i>	<i>9.0%</i>

Computed from: The WHO 2000 BoD Project statistical tables

Table 8 provides an insight into broadly defined health and social priorities of the 12 partnership host countries:

1) Non-communicable diseases (NCDs) account for 69.4 percent of the total burden of disease estimated in DALYs. This share varies from 52% in Tajikistan to 83% in Georgia. NCDs, therefore, are the health priority region-wide and in every constituent country. They also are a socio-economic priority: almost half of the burden of NCDs is in disability and, therefore, NCDs put high pressure on the family, community, and public resources to support the disabled. NCDs are characterized by a long time lag between exposure and manifestation, and usually require life-long observation and treatment. Both incidence and severity,

however, can be reduced in a relatively short time: improvements occur some 2-7 years after eliminating exposure to a risk factor (*WHO/Euro, 2005*). These disease patterns make NCDs an ideal target for effective and efficient primary and secondary prevention, and disease management in the PHC sector.

2) Injuries account for 19.0 percent of the region-wide total BoD. For all causes of BoD, the BoD rate (DALYs per 100,000 population) is 1.85 times higher in the NIS than in the 'Developed World' (North America and Western Europe). For injuries, this ratio is 4.2, indicative of the very high BoD rates in the NIS both in absolute and relative terms. In the NIS, unintentional and intentional injuries place a particularly high burden of disease on the adult male population of 30 to 69 years old, and also on the younger men of 15-29 years old. These conditions are associated with severe social consequences and, at the same time, are preventable through changes in prevalent norms of behavior and social cooperation – areas that can be strengthened through community-centered PHC.

3) Communicable, maternal and perinatal conditions account for the relatively low 10.4 percent of the region-wide total BoD. By no means can they be discarded from the list of public health priorities in the NIS because: (a) the laggards on the BoD distribution curve (three Central Asian countries) feature very high BoD rates in this category; (b) TB rates are alarmingly high and exceed the TB-related BoD rate in the developed world from 19 times in Armenia to 98 times in Kazakhstan and Turkmenistan; (3) BoD rate associated with HIV/AIDS is already four times higher in the NIS than in the developed world and is particularly worrisome in some populous countries such as Russia (BoD rate differential = 4.3), Ukraine (8.3) and Belarus (6.4). Prevention and management of conditions in this category pertains to the core functions of PHC and calls for further strengthening, including infectious disease control and integration of personal services with public health programs.

**Figure 9. BoD Coverage by Selected Partnership Objective:
11 Partnership Host Countries, 2002**

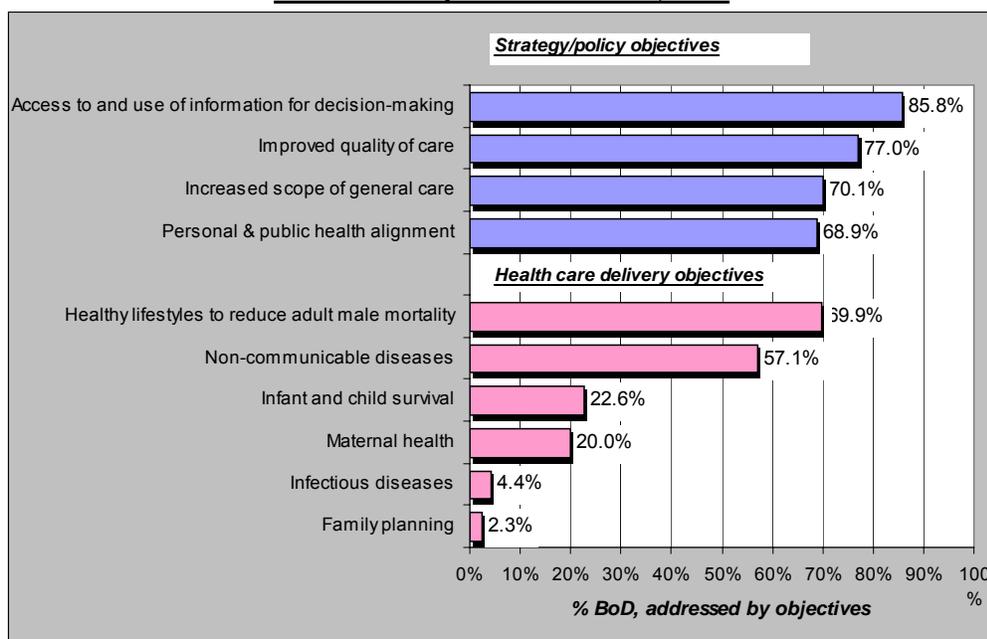


Table 9 (next two pages) presents the list of 25 top contributors to the aggregate BoD in the NIS region. Each condition is estimated for *health/social relevance* (Columns 3,4,5), *potential effectiveness of disease prevention and management* -- presence of risk factors that can be addressed in the health care sector in general and in the PHC settings in particular (Column

6), *potential efficiency of disease prevention and management* – availability of cost-efficient interventions in the PHC care setting to prevent and reduce BoD (Column 7), and *partnership objectives and interventions* (Column 8). The following are the main findings from the analysis based on the information in Table 9:

1. All 25 conditions are relevant: (i) They are top contributors to the overall BoD and create a plethora of socioeconomic problems; (ii) 15 of 25 conditions demonstrate an ‘upper outlier’ behavior: NIS-to-Developed World ratio of BoD rates is more adverse than on average for all BoD causes.
2. The prevalence and severity of these conditions are stipulated by health and social risks, many of which can be tackled in the PHC setting.
3. Managing these conditions is not necessarily cost-effective at the treatment stage but is invariably cost-effective through the primary and secondary prevention – both in the domain of modern PHC.
4. PHC partnerships have targeted all of these conditions with appropriately formulated objectives and interventions that include increased scope and improved quality of general care; alignment of personal health services with public health programs; integration of clinical, behavioral and economic aspects of health; health education of general population and at-risk groups; clinical guidelines for secondary prevention, treatment, and care coordination; and development of PHC provider knowledge and skills.
5. By focusing its objectives on the top 25 causes of BoD, the PHC Partnership Program has addressed 79 percent of the region-wide BoD in the category of Communicable, Maternal and Perinatal Diseases; 61 percent of BoD in the category of NCDs, and 92 percent of BoD in the category of Injuries and Poisonings in the 11 partnership host countries. *De facto*, the health/social need coverage is broader because many of the less important factors of BoD have also been addressed. Figure 9 summarizes a broader analysis of the alignment between selected partnership objectives and host country health/social needs associated with 100 diseases and conditions distinguished in the WHO-sponsored BoD analysis.

Table 9. How Partnership Objectives and Interventions Addressed the Health/Social Needs of 11 Partnership Host Countries

BoD Rank	Conditions	% of Total BoD	Ratio of NIS / 'Dev. World' ⁽¹⁾ BoD Rates ⁽²⁾	Upper outlier	Manageable BoD Risk Factors ^(3) 4)	Cost-effectiveness	Partnership Objectives and Interventions
1	2	3	4	5	6	7	8
All conditions		100%	1.85				
Incl. 25 leading causes of BoD		68.9%					
1	Ischaemic heart disease	13.9 %	3.7	+	High cholesterol; high blood pressure; overweight and obesity; inadequate diet; tobacco; physical inactivity	Very high at the prevention stage	Clinical guidelines for hypertension. Health education of the general population and risk groups (male 45-69); smoking cessation campaigns; dietary and fitness counseling. Hypertension screening and management. Cholesterol testing and management.
2	Cerebrovascular disease	8.7%	3.7	+			
3	Unipolar depressive disorders	4.5%	0.9		Alcohol; work-related, domestic, and socio-economic pressures	High for early diagnosis and treatment, since disability progresses steeply from mild (0.14) to moderate (0.35) and severe depressive episode (0.76). ⁵⁾	Guidelines for Integrated Psychiatric and Behavioral Health Management. Healthy lifestyles promotion; psychosocial counseling of the general population and risk groups, e.g., students
4	Other unintentional injuries	4.4%	4.5	+	Alcohol, drugs, child neglect	Very high for prevention, given the savings on costly treatment & disability benefits, as well as reduced suicide	Anti-alcohol campaigns; social rehabilitation of drug-addicts and alcoholics; hotline crisis management counseling; child safety counseling during PHC visits
5	Self-inflicted injuries	2.9%	3.2	+			
6	Violence	2.9%	6.7	+			
7	Poisonings	2.8%	11.0	+	Drinking and substance use	High at the prevention stage	All of the above. Hotline support; detoxification centers.
8	Road traffic accidents	2.6%	1.8		Alcohol use	High at the prevention stage	Alcohol screening; anti-alcohol campaigns; road safety education of school children; CPR training of PHC providers; referral guidelines and other care coordination between PHC providers and emergency care hospitals
9	Alcohol use disorders	2.6%	1.0		Alcohol use	High at the prevention stage	
10	Lower respiratory infections	2.4%	4.5	+	Highest BoD toll is on male population in age groups 45-59,30-44, and 15-29 years. Smoking is the main risk factor, exacerbated by occupational hazards and malnutrition.	High for health education.	Smoking cessation campaigns. Thorough diagnostics at the PHC level. Occupational health programs, e.g., miners health.
11	Hearing loss, adult onset	2.0%	1.2		In the NIS, BoD falls under the 'high outlier' pattern in the following population groups: males 15-29 and 70-79; both sexes 80+; occupational exposure; undiagnosed and poorly managed otitis media.	Effective for timely diagnosis and treatment of otitis media; catching the hearing loss early.	Clinical guidelines for pediatrics; Training and equipping PHC providers to perform a hearing test as a standard part of child and adult physical examination. Parents' health education to recognize hearing loss in children. Health education of at-risk groups
12	Cirrhosis of the liver	1.9%	2.5	+	Alcohol, substance abuse; occupational exposure to toxins	High at the prevention stage	Alcohol screening and anti-drinking campaigns. Detoxification centers.
13	Tuberculosis	1.9%	57.4	+	Socio-economic deprivation; institutionalization; inadequate infection control.	Very high, considering health gain from interrupted transmission.	PHC provider training in cost-efficient disease diagnosis and management strategies (sputum microscopy and DOTs). Health education. PHC DOTs follow-up for

BoD Rank	Conditions	% of Total BoD	Ratio of NIS / 'Dev. World' ⁽¹⁾ / BoD Rates ⁽²⁾	Upper outlier	Manageable BoD Risk Factors ^(3) 4)	Cost-effectiveness	Partnership Objectives and Interventions
1	2	3	4	5	6	7	8
							released prisoners. Showcasing best practice for its replication under specialized TB programs in the NIS.
14	Perinatal conditions	1.8%	2.6	+	Lack of prenatal care; inadequate maternal nutrition; no birth spacing; adolescent pregnancy; maternal smoking, alcohol and drug use, inadequately trained birth attendants	Very high considering lifelong health gains from normal infant development	Women's wellness centers; prenatal care guidelines; community education (nutrition, safe motherhood, birth-spacing); lay midwife and community health worker training
15	Chronic obstructive pulmonary disease	1.7%	0.9		Smoking; occupational exposures	Very high at preventive stage	Smoke cessation campaigns and education; workplace safety.
16	Osteoarthritis	1.6%	1.5		Occupational overuse of muscles and joints; lack of exercise; obesity; lack of focus on predisposing genetic conditions	High at preventive stage and at early management stage	Guidelines for adult physical examination; nutritional and exercise counseling; community health education.
17	Falls	1.4%	2.7	+	Unsafe conditions in home, workplace, & public areas; poor vision, particularly in the elderly.	High at preventive stage	Vision screening guidelines and practice; community education; occupational safety programs.
18	HIV/AIDS	1.4%	4.0	+	Unprotected sex; multiple sexual partners; alcohol and substance abuse.	High at preventive stage and at early diagnosis.	Community education; VCT programs particularly for students; safe sex education; substance abuse programs. Showcasing best practice for its replication under specialized HIV/AIDS programs in the NIS.
19	Nutritional deficiencies	1.4%	3.3	+	Socio-economic factors; lack of knowledge; cultural dietary practices; lack of food fortification.	Very high particularly for women of childbearing age and for children.	Community education; safe motherhood education; School health programs. Policy advocacy at the government, private business, and community levels.
20	Trachea, bronchus, lung cancers	1.3%	0.8		Smoking; occupational exposures.	Very high in the preventive stage	Smoking cessation programs, workplace safety and occupational health programs.
21	Inflammatory heart diseases	1.1%	3.2	+	Group A Beta-hemolytic Strep infections of the upper respiratory tract; Family members with a history of Group A infections or rheumatic fever. ⁷⁾	Very high in preventive stage	Treatment guidelines for Group A Beta-hemolytic strep infections; Prophylaxis treatment guidelines. School and community health education programs concerning early treatment of URI.
22	Vision disorders, age-related	1.1%	2.4	+	Exposure to certain drugs, ocular trauma, chronic anterior uveitis predispose to cataracts; uncontrolled adult on-set diabetes. ⁷⁾	High in secondary prevention stage to prevent further deterioration and blindness.	Vision screening; ophthalmic referral guidelines; community education and senior outreach; diabetes education and management.
23	Drownings	1.0%	9.8	+	Poor water safety; alcohol and substance abuse; lack of adequate emergency response.	Very high in preventive stage	Community education on water safety. Emergency response guidelines. Community 1st-aid & CPR training.
24	Diabetes mellitus	0.9%	0.7		Obesity; lack of exercise; poor nutrition; lack of attention to predisposing genetic factors; late detection; inadequate management.	Very high in preventive and early management stage.	Community education in nutrition, obesity management, and diabetes detection and management; school health and screening programs; diabetic self-help groups.
25	Breast cancer	0.7%	0.8		Inadequate screening for predisposing factors: genetic, early menarche and/or late menopause; excessive use of hormones (high-dose oral contraceptives or hormone replacement therapy). Late detection.	Very high in early detection phase.	Women's wellness centers; early detection and referral guidelines; community education regarding breast self-exam and breast health practices.

¹⁾ The 'Developed World' is the statistical aggregate of the WHO subregions America A (USA, Canada, Cuba) and Europe A (26 developed nations, predominantly of Western Europe); ²⁾ BoD rates are estimated in DALYs per 100,000 population. ³⁾ (WHO/Euro 2005); ⁴⁾ (Murray et al., 2003); ⁵⁾ (Ayuso-Mateso, 2006); ⁶⁾ (WHO/Euro 2005 (2)); ⁷⁾ (Uphold, Graham, 1998)

The analysis presented in this section leads to the following conclusions: PHC partnerships used a demand-driven process to set their objectives, involving multiple sources of information, broad stakeholder participation, and sufficient time at the pre- and post-MoU stages. This process has been guided by the USAID regional and country goals that were communicated to partners through the USAID/AIHA Basic Agreement, CAs, and AIHA methodological guidance for the partnership work planning. The resulting objectives are strategically aligned with the E&E and Missions’ SOs and IRs. Some of the most important partnership objectives have played a forward-looking role, as they provided an experiential ground for the E&E Bureau and Missions in updating their regional and country strategies. The partnership objectives and planned interventions were chosen to address all major BoD factors in the region. The partnership agenda fully reflected the strategic need for increasing PHC scope and capacity to prevent and manage non-communicable diseases and injuries – the categories of conditions that account for 89 percent of the BoD in the 11 host countries. At the same time, partnerships sufficiently emphasized the need for strengthening the core PHC functions of combating infectious diseases and improving maternal and children’s health, reflecting the worrisome TB and HIV/AIDS trends in the European NIS, as well as traditional infectious, respiratory, mother-child and nutritional conditions in the Central Asian countries. In summary, the objectives that partnerships selected have set the right direction for contributing to the USAID and host country health and social transition agendas. Partnerships have set their objectives at a manageable level – that of individual providers, organizations, local provider networks, and communities. The overarching objective was to assist with the replication of successful models across the healthcare system.

3.2 Impact on Health, Demand, Access, and Quality of Care

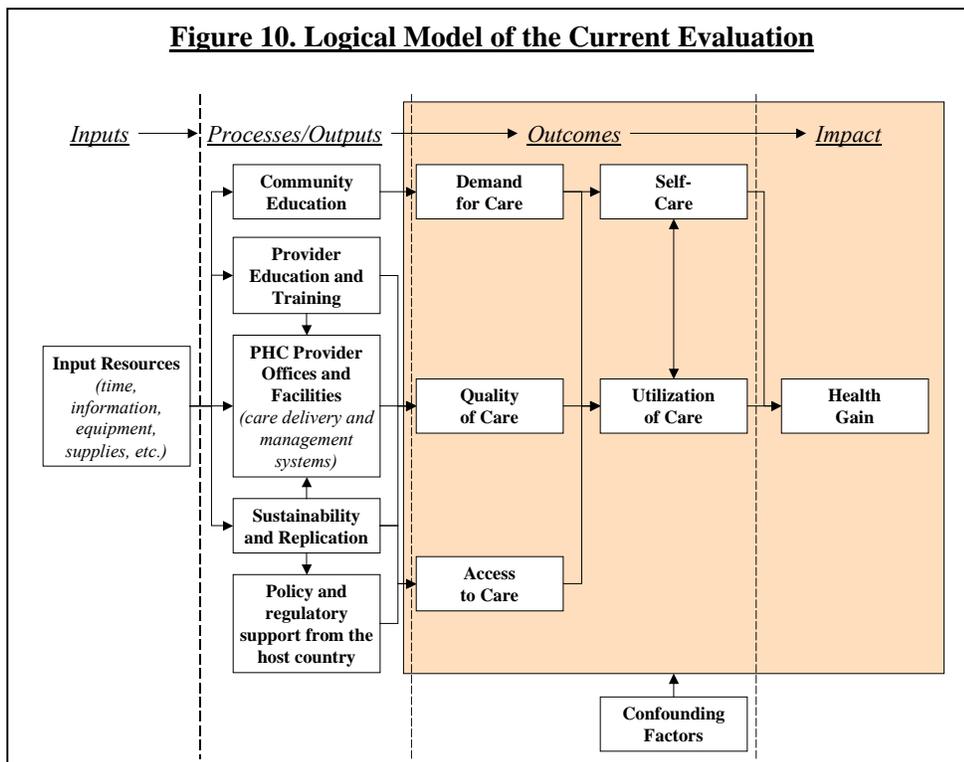
This section examines a cluster of questions, posed by the E&E Bureau, particularly, to what extent did the PHC partnerships:

Q1 Achieve their partnership goals and objectives?

Q2-Q4. Contribute to the USAID regional, Mission, and host country health/social agendas?

Q5. Achieve improvements at the local and national level?

Q10. More closely align personal health and public health efforts?



While the previous section evaluated the validity of partnership objectives, the current section examines whether the appropriately chosen partnership objectives were achieved. Objectives valid and achieved would fulfill the dual condition of partnership contribution to the

USAID and host country health and social agendas.

The shaded area on Figure 10 specifies the scope of analysis in this section compared to the general scope defined by the systems management model that underlies this evaluation and has been presented in the textual form in the first paragraph of Section 2.2.

The evaluation provided the dual insight into the partnership outcomes/impact through (1) a snapshot view based on partners' opinions; (2) summarizing evidence from documented sources.

Partners, first, were asked to identify the main beneficiary patient populations and to rate their overall gain from partnership activities. The responses to these questions created a contextual guide for the set of detailed questions about outcome-related benefits for specific beneficiary groups.

Table 10. Population Groups Rated by Beneficial Impact from PHC Partnerships

Rated on a 5-point scale: 1- 'None', 2- 'Minimal', 3- 'Average', 4- 'High', 5- 'Very high'

	Median Response	% "4" or "5"	% "2" or "1"	Average Response on a 1 to 5 Point Scale		
				All Respondents	U.S. Respondents	NIS Respondents
Women of childbearing age	4	79	0	4.0	3.8	4.1
Mothers and infants	4	69	9	3.8	3.6	4.0
Youth/students, 14-18/25y. old	4	71	11	3.7	3.4	3.8
Children, 1-14 years of age	4	64	21	3.7	3.2	3.5
Adult males, 25-60 years old	4	56	21	3.6	4.2	3.3
Elderly	3	46	29	3.3	3.2	3.2
Occupational groups	2	29	53	3.2	1.6	2.8
Disabled	3	25	47	2.9	1.6	2.7
Internally displaced persons	1	6	83	2.8	1.0	1.6
Inmates	1	0	100	2.5	1.0	1.2

The partner opinion poll on the partnership impact by population groups has produced the following results (please, refer to Table 10):

- The main beneficiary populations are women of childbearing age, mothers and infants, youths/students (14-18/25 years old), children (1-14 years old), adult males (25-60 years old), and the elderly. Low-focus groups included workers at occupational risks, persons with disability, IDPs, and inmates.
- The US and NIS respondents have largely shared their opinions on the high/low focus population groups with two exceptions: (i) The US respondents have placed adult males on top of the beneficiary list (rated only fifth by the NIS respondents). This divergence of opinions is consistent with the numbers in Table 6 and related analysis in Subsection 3.1.2. The NIS partners have a very high opinion of the partnership contribution to strengthening the traditional functions of PHC in the NIS such as women's wellness and maternal and children's health. American respondents tend to distinguish the adult male health as the key priority and achievement of the partnership program. They have assigned the top rating to 'Healthy lifestyles to reduce adult mortality' as the key partnership objective (Table 6) and, accordingly, have rated 'Adult males' as the main beneficiary population, thus, indicating the achievement of that objective. The divergence of opinions is in some measure due to over-sampling of partnerships with the prominent mother/child health agenda and low response rate on the US side. (ii) The non-response bias is obvious in the case of IDPs and inmates: these populations have benefited from few partnerships (IDPs in Azerbaijan and inmates in Tomsk), none of which was represented by US partners in the analyzed opinion poll. The resulting rating of 1.0 for IDPs and inmates (Table 10) reflects the missing opinions of the respective US partners.

For each relevant population group, partners were asked to provide ‘Yes’ or ‘No’ response as to whether specific health outcome/impact-related benefits were achieved (refer to the shaded area of Figure 10).

Table 11. Outcome/Impact Results by Beneficiary Population Group

Percent ‘Yes’-responses to the question whether the benefit (improvement) was believed / known to have been achieved

Partnership Beneficiary Groups	Competent Self-care	Improved Demand for Care	Increased Access to Care	Rationalized Utilization of Care	Strengthened Quality of Care	Health / Welfare Gain
Women of childbearing age	48%	40%	64%	50%	74%	52%
Mothers and infants	21%	33%	55%	48%	67%	36%
Youth/students, 14-18/25 years old	40%	48%	67%	52%	64%	31%
Children, 1-14 years of age	12%	31%	43%	38%	48%	14%
Adult males, 25-60 years old	24%	24%	40%	40%	50%	24%
Elderly	26%	24%	45%	33%	52%	24%
Occupational groups	24%	14%	21%	19%	17%	10%
Disabled	21%	24%	38%	36%	33%	17%
Internally displaced persons	5%	7%	10%	7%	7%	0%
Inmates	0%	0%	0%	0%	0%	0%
<i>All groups</i>	<i>23%</i>	<i>27%</i>	<i>43%</i>	<i>36%</i>	<i>47%</i>	<i>23%</i>

Strengthened Quality of PHC care is the top partnership outcome, acknowledged by 47% of respondents. It is followed by *Increased Access to Care* (43%) and *Rationalized Utilization of Care* (46%), *Improved Demand for Care* (27%) and *Competent Self-care* (23%). The most prominent group-specific outcomes are as follows: (i) improved quality of care for Women of childbearing age (74% of responses), Mothers and infants (67%), Youths/students (64%), and the Elderly (52%); (ii) Improved access to care for Youths/students (67%), Women of childbearing age (64%), and Mothers and infants (55%); (iii) Improved utilization of care by Youths/students (52%) and Women of childbearing age (50%); (iv) Strengthened demand for care from Youths/students (48%) and Women of childbearing age (40%), and (vi) More competent self-care by Women of childbearing age (48%) and Youths/students (40%).

Improved Health Status is the ultimate outcome, alternatively termed ‘impact’. It has been acknowledged by 23 percent of respondents across all beneficiary groups. The beneficiary group most commonly associated with the health gain is Women of childbearing age (52%), followed by Mothers and infants (36%) and Youths/students (31%). The perceived health gain (23% ‘yes’ rate) trails notably behind the gains in the important contributing factors such as care quality (47%), access (43%), and utilization (36%). This gap between the impact (health gain) and contributing outcomes may be explained by a variety of factors, e.g., (1) a time lag between improved access, utilization and quality, on the one hand, and the health gain, on the other; (2) a ‘leak’ on the way from outcomes to impact that may be attributable to the negative impact of confounders; (3) lack of measurement capacity that may be putting the health gain at a comparative disadvantage compared to outcomes easier to measure such as utilization and quality.

The program-wide patterns discussed above reflect a noteworthy body of *program-wide* evidence on outcome-related achievements. Assessing program results at the partnership level, where objectives were set and activities were planned and implemented is equally important. Annex B presents an inventory of outcome/impact-related results reported and/or observed in all of the 28 PHC partnerships. This list is based on the same population/outcome framework as was used in the program-wide assessment. The framework establishes a restrictive approach to partnership achievements: inputs, processes, and a good half of results, reported by partnerships as outcomes are left out as lacking specificity or not matching the outcome

dimensions presented in Figure 10. For example, the education of faculty, physicians and nurses has been acknowledged as a quality-of-care outcome only if test-based improvement in the educator and provider skills was reported. Below is an annotated summary of PHC partnerships outcomes and health/welfare impact.

3.2.1 Outcome I: More Competent Self-care and Active Peer Support

The partnerships have raised the involvement of the household and patient peer groups in health care decisions. The locus of control remains with professional caregivers, however a certain shift from paternalistic health care model to a model based on personal responsibility for health has been achieved. More competent self-care and peer support illustrate this trend. Specifically:

- In most partnerships, persons with chronic conditions such as hypertension, diabetes, and asthma have been educated on the risk factors, etiology, progression, and parameters of their diseases, trained in self-monitoring skills, and provided with access to reference materials, self-diagnostic devices, and medications that have allowed them to better control their condition and deal with relapses. Relatively few partners have reported a pre/post-measured improvement in the patients' skills and ability to self-manage in chronic disease. However, improvement is likely to have a broader scale given that many more partnerships have reported the reduction in utilization of provider-based care of high intensity for patients with the aforementioned chronic conditions. At least some of this reduction must be attributed to strengthened self-care. The 24-percent 'yes' rate (Table 11) that acknowledges approved self-care in adult males of 25-60 years old seems like a credible outcome measure for strengthened self-care capacity in chronic patients.
- An estimated 27 partnerships have actively advanced women's education in the area of breast self-examination. Only one partnership has provided a clear-cut conclusion that this effort has strengthened women's ability to self-diagnose for breast cancer. Most others have inferred this outcome by reporting an increased number and rate of women-initiated diagnostic visits. The successful program-wide campaign for breast self-examination explains why 48 percent of respondents acknowledged that women of childbearing age have strengthened their self-care capacity thanks to the partnerships – higher than for any other beneficiary group.
- Teenagers have developed their self-care skills and practice at the group level – through peer education about such health risks as drinking, smoking, drug use, and unsafe sex. Most partnerships have encouraged peer involvement through school-based education, teenager clubs, and other community initiatives. Approximately 25 percent of the partnerships have provided a conclusive report of strengthened peer education and support capability as a partnership outcome, while 40% of respondents agreed that students have improved their self/peer-care capacity. The agenda of peer support has been uniquely enhanced in Kazakhstan where the Astana-based partnership has set up and supported an anonymous drug user club to facilitate peer guidance of current drug users by the former ones.
- Assisted by the partnership-supported PHC centers, the elderly and families with disabled children have developed a strong sense of group self-reliance in combating their health and psychological problems. The partnership and their replication site in Kazakhstan conclusively reported this outcome. Empowered by the new health knowledge and self-organization skills that they have acquired through the partner Family Medicine Center in Astana, the retired members of the community were able to overcome loneliness, reduce anxiety, provide care and support for bed-ridden patients, and even help rehabilitate a neighbor who suffered a debilitating stroke. Mutual support among families with disabled children has been reported as an important community asset in Semipalatinsk, initiated and coordinated by the partnership replicators – local family group practices and NGOs.

3.2.2 Outcome II: Strengthened Demand for Care

This traditionally neglected outcome of the health system strengthening has been acknowledged by 27 percent of respondents and conclusively reported by 14 partnerships. The phenomena and trends that attest to the increased demand for improved PHC include the following:

- Voluntary enrollment has increased in the PHC practices and provider facilities that were established or upgraded by the partnerships and successfully marketed their services as US-equipped and trained providers of modern general/family care. Some of the partnerships have collected measurable evidence of what most partnerships have observed: during the partnership years, all NIS countries have seen the return of the patient to PHC facilities – a trend that has been significantly enhanced by the patient-centered model of family practice, implemented under the program.
- The health education of communities, families, and patients has improved the knowledge of disease risks, increased appreciation of the importance of prevention and early detection, and emphasized the benefit of continued PHC provider/patient collaboration. This has increased demand for services, particularly, from groups at risk of specific diseases (e.g., breast cancer, HIV/AIDS, and other STIs, dental caries, teenage-related psychiatric and behavioral disorders), patients with chronic conditions, and pregnant women. Partnerships have developed, and patients have responded to the evidence-based risk and disease management protocols that call for an increased number of patient/provider encounters, namely for risk-specific preventative exams, care in pregnancy, patients with hypertension, diabetes, and asthma, and students in need of psychological counseling. Encouraged by the user-friendly environment, competent providers, and modern equipment in the partnership facilities, patients have shown a high degree of compliance with new care protocols: the share of patient-initiated visits in the total number of clinically appropriate visits has increased. To sustain patient-driven demand for care requires an ongoing effort: many partnerships have reported difficulties in reaching target levels of covering pregnant women with the early pregnancy (≤ 12 weeks) visit. Attendance of health education sessions and health promotion events has been uneven and very sensitive to organizational formats and timing – a problem familiar to PHC practitioners in the United States.
- A partnership-supported change in care seeking behavior contributed to increased demand for PHC services: patients self-refer less for specialty outpatient consultation and hospital care and increasingly trust their PHC provider to be a competent source of first contact care.
- Demand has increased from community members who come to PHC facilities for non-medical reasons but rather to use them as a hub of social and psychological support. This does not necessarily contribute to the efficiency and productivity of PHC providers but tends to be accepted as a rational provider response to the obvious lack of alternative venues for community activity that providers recognized as relevant for health and welfare agendas.

3.2.3 Outcome III: Improved Access to Care

Improved access to quality PHC services is the most commonly stated outcome of PHC partnerships. Forty three percent of the respondents have acknowledged improved access as the tangible outcome of the partnership program. Nineteen partnerships have provided conclusive evidence on the achievement of this outcome. Virtually all partnerships have contributed to the improved access by investing in the PHC provider capacity in the host countries. An estimated 28 model PHC clinics have been created anew or directly benefited from the partnership effort of renovating and furnishing space, purchasing and installing equipment, training staff, setting up practice management systems, engaging with the community, and helping health administrators and regulators to promote the new PHC model and a significantly increased range and quality of services that it enabled. Thirty Women's Wellness Centers (WWC) were opened. An estimated 270 PHC clinics were replicated with partnership support but without their financial involvement.

The partnership-sponsored primary health care has been established in physician offices, some of them standalone (created anew or set up in the former rural physician ambulatories), others based in polyclinics, former women's consultations, and hospitals. Such providers would typically be termed Family Group Practices (particularly, if standalone), Family Practice Centers (Clinics, Departments) or Family Medicine Centers (Clinics, Departments). Each general practitioner would serve a patient panel of 1,500-2,200 persons. A group PHC practice can be staffed by a team of increasingly interchangeable 'PHC specialists': an internist (adult PHC doctor), a pediatrician, and an ob/gyn doctor (full or part-time). Alternatively, a newly trained or retrained general (family) practitioner would be seeing adults and children, his/her office established as an independent practice, or part of a family medicine department within a polyclinic. Such a department would provide primary care through several GP offices or a mix of newly trained GPs and PHC specialists of the traditional mold. Independent practices (solo or, more commonly, group) continue to report to the nearest urban district polyclinic or, if located in the rural area, would remain part of the provider network, subordinate to the Central District Hospital. Consistent with the program's strategy of targeting PHC capacity to major health risks and diseases, partnerships have emphasized access to specific areas of PHC by creating Women's Wellness Centers (WWC), Cardiovascular Wellness Centers, a Family Dental Clinic, Psychosocial Counseling Centers, a Detoxification Center, Health Education Schools, and Patient Clubs, organized by age or health risk group. These specialized programs were established in separate facilities (e.g., WWC in former Women's Consultations) or in designated areas of the general PHC facilities.

Partnership-sponsored PHC practices and facilities have been made accessible for patients through residence-based and open enrollment. The majority of the patient roster is formed by place of residence. Open enrollment has played a supplementary but increasingly important role, indicative of a broadened consumer choice and nascent competition in the PHC health care sector. The estimated patient population that has been offered steady access to partnership-supported PHC is 1.2-1.5 million persons in 11 NIS countries.

Along with the creation of additional provider capacity, the partnerships have used the following means to enable better access to PHC: (i) the expansion of primary care into new areas of personal and public health; (ii) integration of traditional and new care domains at the PHC provider and facility levels; (iii) involvement of the communities and patients in the PHC priority setting, planning, and coordination. The following areas and types of care illustrate the new and improved access to one-stop PHC:

- Health education to (i) promote individual responsibility for health and healthy lifestyles (exercise, nutrition, safe sex, avoidance and cessation of smoking, drinking, and drug use; dental hygiene), (ii) control the spread of communicable diseases (HIV/AIDS and other STIs, TB), and (iii) involve patients in the self-diagnosis and management of chronic diseases (breast cancer, hypertension, diabetes, asthma).
- Integration of previously specialized areas into general care that PHC providers deliver, coordinate, or otherwise directly manage, particularly, (i) screening for, assessment and management of widespread health risks and chronic conditions such as hypertension, diabetes, and asthma; (ii) expansion of the physical examination and basic follow-up care to ophthalmology, otolaryngology, women's, maternal and neonatal health; (iii) modernization of the PHC laboratory base and user skills into bacteriology, blood chemistry, and urinalysis; (iv) addition and increased use of the diagnostic testing and imaging such as EKG and ultrasound; (v) diagnosis and selective management of psychiatric and behavioral disorders; (vi) psychological, social, and legal counseling and support of vulnerable populations; (vii) hospital-substituting and post-hospital care: at home and facility-based; (viii) case management across levels of care, particularly for patients with long-term conditions, such as TB, alcohol and substance abuse.
- Integration of PHC into the socioeconomic fabric by means of (i) flexibly adjusting local care packages to community-level social, environmental and occupational risks and hazards, for example community

assessment and physical exam protocols modified to provide focused attention to the risks and health problems of the miners, seaport workers, IDPs/refugees, and persons with the history of radioactive exposure from Chernobyl catastrophe; (ii) outreach to the at-risk and patient populations through school-, employer-, and community-based health education programs, health fairs, and other health promotion events; (iii) PHC provider initiatives and/or collaborative response to strengthening cross-agency collaboration, particularly, to coordinate policies, share information, mutually assist with capacity strengthening, and establish case management systems between PHC providers, on the one hand, and welfare, employment, and law enforcement agencies, on the other (e.g., DOTS coordination for ex-inmates).

3.2.4 Outcome IV: Rationalized Utilization of Care

In the opinion of 36 percent of respondents, partnerships have produced a positive change in the utilization of care. Substantive evidence that corroborates this conclusion has been provided by 18 partnerships. There are two dimensions to this program outcome – changed volume and rationalized structure of care utilized:

1. The previously reviewed outcomes of strengthened demand for, and improved access to PHC services have necessarily led up to an increased utilization of care in the facilities and communities supported by the partnerships. Partnerships have reported an increase in the per capita number of PHC provider/patient encounters for the entire population in their catchment areas. The following patient groups and reasons for visit have contributed to this overall increase:

- A larger percent of pregnant women is covered with the early prenatal care visits (≤ 12 weeks), and the average number of visits has increased per pregnant woman.
- Facility-based health education sessions (e.g., Hypertension School, School of Diabetes, Young Fathers Club) have drawn local population to PHC facilities, thus contributing to an increased number of non-medical encounters.
- Screening programs, e.g., for diabetes, hypertension, and breast and cervical cancer, have added to the number of preventative visits.
- Diabetic, hypertensive, and asthmatic patients have been educated by PHC physicians on the optimal maintenance visit schedules that imply more encounters per year in the respective patient groups. Under the achieved level of patient compliance, the actual numbers of PHC visits per case of disease have increased.
- Social counseling and support agendas have created an additional important context for provider/patient encounters, particularly in such population groups as students and the elderly.
- The number of home visits has grown to accommodate more diverse outreach care agendas. These include physician/nurse home visits for hospital-substituting and post-hospital care; nurse/social worker visits for ‘daily living assessment’ as part of the community assessment and social/medical history and follow-up.

2. The main factor of increased utilization of PHC care is the substantially enriched content rather than increased number of encounters. Partnerships have developed a more versatile approach to general medical exam, well-baby exam, general psychiatric/psychological exam, unconfirmed pregnancy exam, prenatal exam, and postpartum exam. Newly trained and equipped PHC providers do more and better for their patients each time they see them.

3. A significantly increased scope and quality of primary care, focused training of PHC providers on medically appropriate referral criteria, and education of patients on care seeking behavior and disease

management techniques have produced a wave of structural adjustment in the utilization of various health services. The summary of conclusively reported changes is presented below:

- *Reduced self-referrals for specialty PHC consultations, and non-emergency secondary and tertiary care:* (re)trained PHC providers who work in renovated and reequipped facilities with the clout of being a U.S.-supported provider, are now regarded by their patients as a competent first point of contact and care coordinator.
- *General (family) practitioners who have been (re)trained to provide comprehensive care for the entire family, have taken some clinical volume away from PHC specialists,* such as internists (adult PHC doctors), pediatricians, and ob/gyn doctors. The GP/family practice share in the total number of PHC visits has grown up from 12-33 percent to 29-42 percent, as reported by several partnerships. Parents do not hesitate to bring their children to a former internist retrained into a family doctor. This major psychological change has been more successful when facilitated by two arrangements: (i) patients' right to avoid or opt out of the family care enrollment and take their children back to a pediatrician; (ii) patients' confidence that their family doctor has and uses the benefit of collegial support from fellow family practitioners, particularly, former or current pediatricians.
- *Reduced share of the (unnecessary) medical visits and increased share of the psychosocial counseling and support visits* is a reciprocal structural change observed by several partnerships and attributed specifically to the elderly patients and students who were provided with access to psychosocial counseling and support services within their PHC facilities.
- *Reduced referrals by PHC providers for specialty consultations* based on their newly acquired or strengthened knowledge and skills in provider/patient communications, health risk assessment, health education, psychosocial counseling, cardiovascular diseases, endocrinology, eye and hearing exams; reading of lab test results; and management of important chronic conditions. The share of care episodes started and completed at the PHC level has increased across the reporting partnerships from 10-27 percent to 55-60 percent.
- *Reduced utilization of emergency care by chronic patients* trained in self-monitoring and self-care techniques, and equipped with essential measurement devices and medications. The decline of ambulance calls by 13 percent, 48 percent and 100 percent reported by various partnerships suggests the variably paced but consistent transition towards a more rational and cost efficient utilization of care, particularly in hypertensive and asthmatic patients, and the elderly.
- *The reduction in hospital admission numbers and rates, as well as reduced length of stay (LoS)* represent a strong hospital-substituting outcome of the partnerships' effort to strengthen PHC providers and educate patients. Hospital care has been partially replaced with self-care, home care, and outpatient-based 'intra-day hospitals' for minor surgeries and relatively complex 'maintenance procedures' administered to chronic patients. The reduction in the number of hospital admissions by 46 percent is particularly impressive when reported for the catchment area of a rural Family Care Clinic, upgraded by the Toms/MN partnership from a rural physician ambulatory, the type of facility so consistently ignored by the NIS population in the 1990's that everybody thought it was marked for extinction. Disease-specific measurements of the admission trends corroborate the aggregate trend and may be illustrated by reduced hospitalization for acute bronchitis, acute cystitis, and diabetics type 2 with impaired peripheral circulation in the lower limbs, ketoacidosis and kidney complications. The reduced LoS also represents the hospital-substituting impetus of modernized PHC. While pre-admission diagnostics continue to be managed by the hospital, partnerships reported a selective reduction in the post-acute days: some patients are discharged earlier under the PHC follow-up. According to one partnership, the post-hospital follow-up has become an important venue for the newly trained nurse practitioners to put their skills to work.

3.2.5 Outcome V: Improved Quality of Care

Improved quality of care is the most commonly pursued goal and reported program outcome. Forty seven percent of respondents highlighted quality as the area that strongly benefited from partnership activities. Seventeen partnerships have presented conclusive evidence of the improved quality. The quality of PHC services will also be addressed later in this report. In the current subsection, it is reviewed in the most restrictive format: by focusing on confirmed gains in the technical and perceived quality of PHC services and leaving out processes and outputs that usually lead up to, but not necessarily result in quality-of-care improvements. An exception to this approach is the acknowledgement of the improved trainee skills as an outcome that is closely associated with quality-of-care improvement. The following highlights present the range of quality gains, observed in the program:

- All patient surveys have identified increased patient satisfaction with PHC, provided by partnership-supported facilities.
- The use of the enrollment process and first physical examination for the identification of individual risks has resulted in better health monitoring by risk pool and targeted interventions at the individual and patient group levels.
- As a result of the use of modern practice guidelines, strengthened diagnostic capacity, and advanced curative response, early detection rates and treatment outcomes have improved for breast cancer, cervical cancer, diabetes, hypertension-related conditions, psycho-behavioral disorders, dental caries; and specific vulnerable populations, such as women of reproductive age, adult males, and IDPs/refugees.
- The error rates on lab tests have declined as a result of better laboratory equipment and improved skills of lab technicians and physicians.
- Active surveillance for, and prevention of nosocomial infections in partnership-supported maternity homes and general hospitals, have resulted in reduced incidence and improved detection of hospital infections.
- Better management of pregnancy based on education of women and families, and modernized protocols of prenatal care have led to declined birth complication rates.
- A change in post-partum care, including rooming-in and early first breastfeeding has led to improved maternal-infant bonding and neonatal health.
- The incidence of clinically inappropriate care has declined, such as inappropriate use of antibiotics in cases of upper respiratory infections and inappropriate hospitalization for ulcer.
- Improved PHC providers' and residents' skills have been demonstrated in pre/post-training tests, successful national certification (for an upper qualification category), and distinction of one partner with the National Best Family Physician Award. More specifically, (re)trained PHC providers were able to describe the management of hypertension, diabetes, asthma, otitis media, coronary artery disease, and psycho-behavioral disorders, based on the newly introduced clinical guidelines.
- Improved knowledge and skills in clinical educators and trainers, including their knowledge of modern curriculum structure and requirements, advanced methods of instruction, testing of training outcomes, and clinical care skills in the area of physical examination, use of ophthalmoscope, otoscope, peak flow meter, urinary bladder catheterization; and patient-provider communications.

3.2.6 Outcome VI -- Impact: Health / Welfare Gain

While many partnerships have reported insufficient time for observable health gain, many others were able to capture improved health status in their beneficiary populations: 23 percent of respondents acknowledged the health/welfare gain as an impact, produced by their partnerships; 22 partnerships provided substantive evidence in support of this conclusion. The commonly observed health/welfare gains include the following:

- Reduced mortality and long-term disability in provider-specific catchment areas and from specific causes such as cervical and breast cancer, hypertension, neonatal and perinatal conditions, and occupational injuries.
- Reduced work and school absenteeism rates, particularly those attributable to asthma and hypertension.
- Reduced disease incidence, e.g., high blood pressure in women, STIs, dental caries, helminthes, and nosocomial infections.
- Lower acuity due to increased early detection of breast and cervical cancer, modernized control of major chronic conditions (e.g., coronary heart disease, hypertension, asthma, diabetes, and peptic ulcer), more effective treatment protocols of short-term diseases (e.g., STIs and pneumonia), and reduced complication rates in pregnancy, childbirth, neonatal and child development (owing in great measure to increased initiation and duration of breast-feeding).
- Elimination of excessive use of antibiotics, particularly in URI treatment.
- Reduced abortion rate in general and teenage abortions in particular, due to increased use of contraception (oral contraceptives and IUDs) and abstinence.
- Cessation of smoking and drug use.
- Improved quality of life due to increased availability of breast prosthetics for women with breast cancer, dissipation of stigma of mental illness in children and breast cancer in women, rehabilitation of children and adults with disability, reintegration of former drug addicts, psychosocial support of the elderly, reintegration of IDPs, and reduced juvenile crime rate.

The review of the program outcomes and impact, presented in this section, supports the conclusion that partnerships have achieved their objectives related to improved access, utilization, and quality of care. Additionally, they have produced a measurable positive impact by improving health and welfare of the targeted populations. Since partnership objectives were evaluated as highly relevant for USAID, host countries, and the partnership program alike (see analysis in Section 3.1), their achievement implies that the program has effectively addressed the main constituents' needs: contributed to the USAID regional, Mission, and host country health/social agendas; and achieved improvement in the public and personal health. The thus far identified locus of partnership achievement is at the local level. The trickle-up to the national level will be examined later in this report in the context of sustainability and replication of partnership results.

3.3 Care Delivery Strengthening

This section addresses the following overarching question:

Q6. To what extent did the partnerships increase the capacity to deliver quality PHC services in targeted communities? Foster more effective and efficient delivery of PHC services?

It also provides analysis in the areas targeted by the following questions:

Q7. ... Transfer technical knowledge that bridged the gap in clinical practice standards. Evaluate the extent to which partnerships increased the acceptance and availability of PHC evidence-based practices and clinical practice guidelines?

Q9. Increase the quality and availability of information for decision-making?

3.3.1 Strengthened Capacity to Deliver Care

A comprehensive review of partnership experience has led to the identification of five input areas that have contributed to strengthened provider capacity. A detailed definition of each area was provided to respondents along with the ‘calibration tool’ that contained qualitative and quantitative criteria for intensity ratings. Respondents have been asked to use these tools and their knowledge of the partnership experience to rate the intensity of partnership effort by input area in each of the four clinical modules of PHC (Table 12). Clinical modules were drawn from the Reasons for Visit Classification (RVC) used by the CDC National Center for Health Statistics in the National Ambulatory Medical Care Survey (NAMCS). Further, respondents were asked to checkmark specific services from the modified RVC list where, they believe, providers were strengthened as a result of the partnership effort. The findings are presented in Figure 11. Since this analytical framework is based on a common US classification of outpatient physician’s services, it is hoped that the US health care analysts, practitioners, and other present and prospective constituents of the program will find it convenient for mapping out the scope, intensity, and results of the partnerships’ capacity strengthening effort.

Table 12. Ratings of Partnerships’ Effort to Strengthen Provider Capacity, by Key Input and PHC Clinical Module

Rated on a 5-point scale: 1- ‘None or negligible’, 2- ‘Low’, 3- ‘Medium’, 4- ‘High’, 5- ‘Very high’

Inputs ↓ PHC Modules ↘	Average intensity rating				Percent of ‘High’ and ‘Very High’ ratings			
	Diagnostic, Screening & Preventive ¹⁾	Treatment & Counseling	Symptoms / Diseases	Injuries & Poisonings	Diagnostic, Screening & Preventive	Treatment & Counseling	Symptoms / Diseases	Injuries & Poisonings
Information	4.5	4.2	4.3	3.0	89%	81%	78%	39%
Systems/tools	3.9	3.7	3.7	2.5	71%	60%	54%	23%
Education/training	4.4	4.3	4.0	2.7	86%	84%	68%	29%
Equipment/commodities	4.3	4.1	3.8	2.5	83%	76%	65%	26%
Implementation	3.9	3.7	3.4	2.3	69%	57%	46%	23%

¹⁾ Includes the Test Results Module, shown separately on Figure 8.

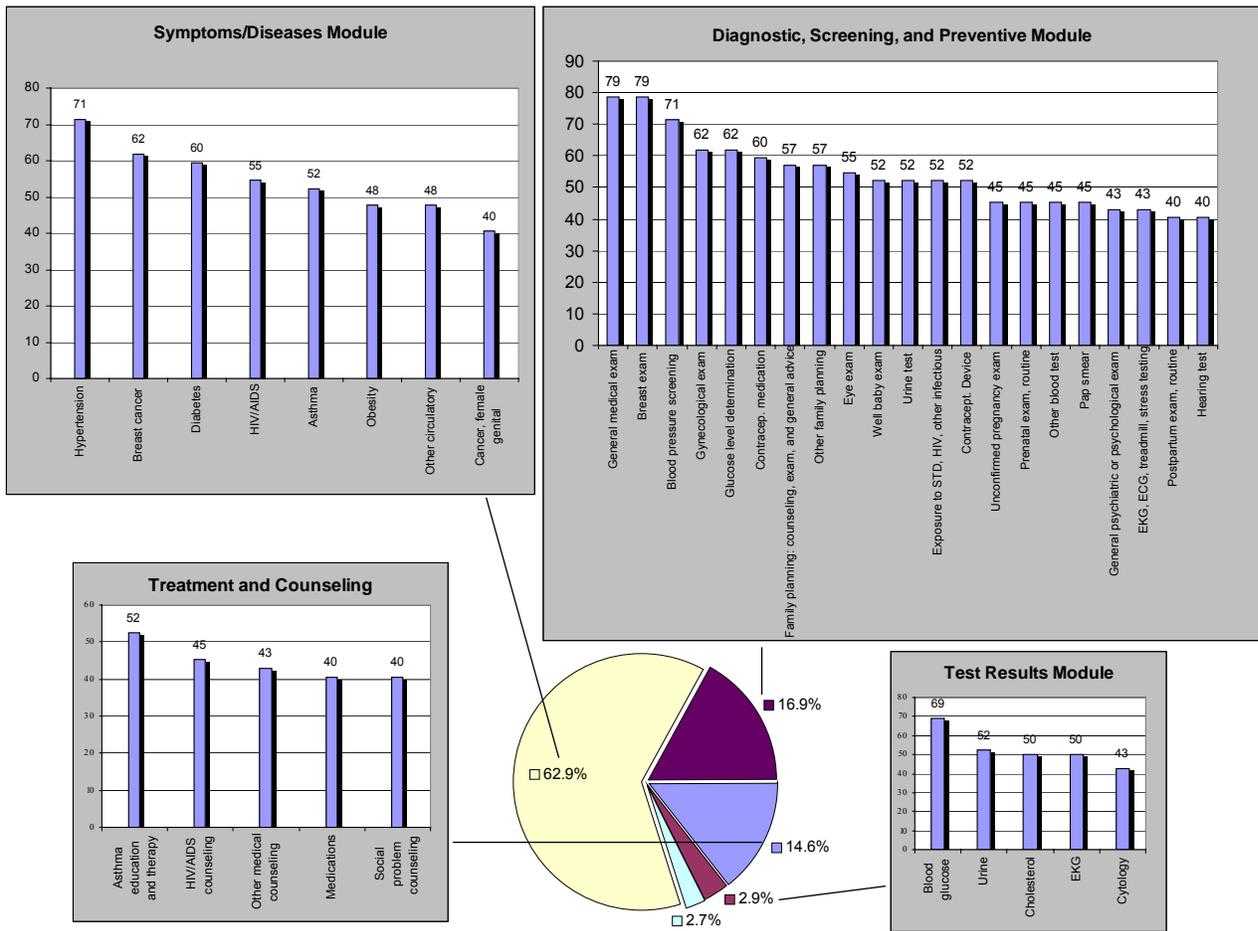
Judging by the statistics presented in Table 12, the PHC partnership program has provided significant and diverse contributions to developing NIS providers into versatile clinicians. Comparing partner opinions by PHC module, the *diagnostic, screening, and preventive capacity* has benefited the most from the partnerships effort. The upper right quadrant of Figure 11 identifies patients’ reasons for visit, pertinent to this module that can be addressed much better now thanks to the increased PHC provider capacity. The following bulleted list highlights the items that more than 50 percent of respondents have identified as strengthened by the partnerships:

- General medical examination 79%
- Breast examination 79%
- Blood pressure screening 71%
- Gynecological examination 62%
- Glucose level determination 62%
- Contraceptive medication 60%
- Family planning, exam, and general advice 57%
- Other family planning 57%
- Eye examination 55%
- Well-baby examination 52%
- Exposure to STDs, HIV, other infections 52%
- Contraceptive device 52%

A satisfactory finding is that the general medical examination – the cornerstone of primary health care (in the U.S. it accounts for 38 percent of the total number of diagnostic, screening and preventive visits), has benefited the most from the modernized knowledge, skills, and technology. It is followed by specialized examinations, diagnosing for STIs, family planning and contraception. Partnership contributions by type of input are all rated in the range of medium to very high for this module, the information, education/training, and equipment/commodities having been assessed as the main contributors to improved provider capacity.

Figure 11. PHC Clinical Modules, Strengthened by Partnerships

Grouped by PHC Module. For reference: The pie chart shows each module's share in the total number of visits to physician offices in the United States (NAMCS 2004).



Source of NAMSC 2004 data: (Esther, et al., 2006)

The *test results module* has been rated in Table 12 as part of the Diagnostic, Screening and Preventive Module. However, on Figure 8 it is distinguished as a separate capacity strengthening area, particularly, for the improved capacity to prescribe, perform, and/or read blood glucose, urine, cholesterol, EKG and cytologic specimens (refer to the lower right quadrant of Figure 11). New provider strength in this area has been achieved by installing new equipment, and improving skills of lab technicians and PHC doctors.

The *treatment and counseling module* features the second strongest gain in provider capacity by PHC module, as indicated by the broad majority of respondents (Table 12). The main contributing inputs in this

area are: (i) groundbreaking improvement in access to information, particularly, modern practice guidelines and care standards; (ii) provider education in the areas of evidence-based medicine, integration of public and personal health agendas, and the expansion of PHC program to psycho-behavioral and social problems; (iii) better access to, and more competent use of basic diagnostic devices and medications; and (iv) improved communications skills. The combined benefit from these improvements (see lower left quadrant of Figure 11) is in the increased confidence with which PHC providers manage asthma education and therapy, HIV/AIDS counseling, ‘other medical counseling’ that includes patient education, disease counseling, referrals and second opinion; medications; and social problem counseling, including access to medical care, marital, parent-child, other family, educational, social adjustment, legal, economic and other problems.

The *symptoms/diseases module* is the largest category of PHC care. In the United States, it accounts for almost two thirds of the total number of patients’ visits to physician’s offices, most of those to GPs. This module represents another important area of the strengthened provider capacity. Similar to the other modules, information, education/training, and equipment/commodities are listed by the respondents as the main partnership inputs. The list of clinical services, where providers have gained ground in this module (see the upper left quadrant of Figure 11), is topped by hypertension – one of, if not the most prominent area of the clinical strengthening effort under the program. It is followed by breast cancer, diabetes, HIV/AIDS, asthma, obesity, other circulatory conditions, and cancer of female genital organs.

The *injuries, poisonings, and other adverse effects module* is the area where the provider strengthening effort has been assessed as low. The leaders in this category are care and counseling for violence, cardiac arrest, and suicide attempt. These services have been check-marked by, respectively, 36 percent, 33 percent and 26 percent of respondents. Since the cutoff response rate in this analysis is 40 percent, the injuries and poisonings module is not represented in Figure 11. Aside from the opinion poll, the evaluators have identified a significant program-wide effort to train rural PHC providers in emergency care.

Matching the above reviewed areas of improved provider capacity with the BoD analysis in Subsection 3.1.4 and NAMCS patients’ reasons for visit, it may be concluded that the PHC providers in the partnership host countries have improved their capacity of dealing with risks and conditions that account for 60-70 percent of the aggregate burden of disease in their countries and capable of responding more confidently to health/social problems and concerns of 70-80 percent of patients who come to physician offices, assuming the reasons for visit are structured similarly to the U.S. The latter estimate, clearly, will have to be refined as the NIS countries establish their reporting of PHC workload by patients’ reason for visit. In strengthening their capacity, NIS partners have benefited from the focused inputs of information, training, technology, and a secondary support from systems, tools, and implementation assistance that they have received from the partnership program.

3.3.2 Strengthened Capacity to Assure Quality of Care

The indicators of improved care quality, documented during the program and reported by partnerships in their self-evaluations have been summarized in Subsection 3.2.5 as an important program outcome. This and next subsections add detail to the analysis of quality improvements by tracing quality gains to (i) six ‘aims of quality’, (ii) eleven conditions of quality that support those aims, and (iii) two lists of provider competencies that are seen as an important pathway to quality services. The quality gain in all the three tiers of the study has been captured indirectly: by juxtaposing pre-partnership situation and the level of partnership contribution. A more straightforward approach, such as a pre/post-partnership opinion polling is tempting but not used, given the possibility that respondents may feel ‘obliged’ to acknowledge quality-of-care improvement in their partnership domain. For the similar purpose of avoiding biased opinions, respondents were not asked about the pre-partnership level of quality but rather about the way the quality agenda had been dealt with in the local healthcare systems. The following paragraphs summarize findings from the survey and expand on them with on-site observations and evidence from documented sources.

The quality-of-care analysis, focused at the level of ‘aims’ and ‘conditions’, uses the Institute of Medicine framework (*IOM, 2001*). The six quality areas, termed ‘quality aims’ by IOM have been defined in the questionnaire in order to minimize the interpretation bias.

The pre-partnership median rating ‘3’ (Table 13), implies that ‘quality aims’ were sporadically addressed prior to partnerships. ‘Equitable care’ is the only area that has been rated ‘4’ – addressed routinely but inconsistently or ineffectively. This opinion seems to be accurate: most NIS countries have transferred the ‘free-for-all’ principle into their post-Soviet constitutions, amid the uncontrollable proliferation of user charges. Whether the latter have contributed to the inequity in the health care sector is hard to say. It is known that in the Soviet system, informal payments were inversely proportionate to patient income – an extremely inequitable pattern. In the post-Soviet environment, user charges have hit everybody – logically, a step towards equitable care. High-end consumers have paid with consideration to quality of services, as they had more information and mobility for provider choice. Low-end consumers were deprived of the information and control over providers: often willing to pay, they were unable to ensure value for the money. It seems that equity has eroded because of uneven user access to information and to a greater extent because of rampant out of pocket payments. Regardless of the evolving nature of the inequity, the populist approach through a ‘constitutional prescription of equity’, does not provide a serious solution to the problem.

Table 13. Pre-partnership Situation in the PHC Areas, Defined as ‘Quality Aims’

Rated on a 5-point scale: 1- ‘Completely neglected’, 2- ‘Mostly neglected’, 3- ‘Addressed sporadically’, 4- ‘Addressed routinely but inconsistently/ineffectively’, 5- ‘Addressed consistently/effectively’

	Median Response	% “4” or “5”	% “2” or “1”	Average Response on a 1 to 5 Point Scale		
				All Respondents	U.S. Respondents	NIS Respondents
Patient safety	3	42	26	3.3	2.2	3.4
Effective care	3	45	18	3.3	2.0	3.5
Patient-centered care	3	30	24	3.0	2.2	3.2
Timely care	3	41	32	3.1	2.2	3.2
Efficient care	3	31	36	2.9	2.0	3.0
Equitable care	4	59	11	3.7	3.0	3.8

While all the respondents have provided a rather sobering opinion of the pre-partnership status of the quality-of-care agenda, the US partners are consistently more critical of the ways quality had been managed in the pre-partnership host countries.

Partnerships have provided a ‘moderate’-to-‘very strong’ push towards all quality aims. The highest average and median rating of the partnerships’ effort has been given to the ‘*Effective Care*’ (Table 14), defined as ‘provision of services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit’ (*IOM, 2001*). Appropriateness of care, indeed has been the thrust of the program-wide effort, including the modernization of PHC curricula and course syllabi, introduction of evidence-based clinical guidelines, including appropriate prescribing and referrals; and patient guidance towards less intrusive strategies of health and disease management. The previously summarized micro-data on increased early detection of cancer, reduced numbers and rates of hospital admissions for hypertension, diabetes and asthma; and less use of unnecessary antibiotics for routine cold, attest to the success of the partnerships efforts towards more effective care.

Table 14. Partnership Contribution to the Achievement of ‘Quality Aims’*Rated on a 5-point scale: 1- ‘None’, 2- ‘Minimal’, 3- ‘Moderate’, 4- ‘Strong’, 5- ‘Very strong’*

	Median Response	% “4” or “5”	% “2” or “1”	Average Response on a 1 to 5 Point Scale		
				All Respondents	U.S. Respondents	NIS Respondents
Patient safety	4	78	11	4.0	3.2	4.1
Effective care	5	97	0	4.6	5.0	4.5
Patient-centered care	4	94	0	4.4	4.8	4.3
Timely care	4	89	6	4.2	4.4	4.2
Efficient care	4	77	11	4.0	4.4	3.9
Equitable care	5	83	3	4.3	4.0	4.3

Judging by the average rating, ‘Patient-centered care’ is the second rated area of the partnerships’ effort towards better quality of PHC services. It is closely followed by the ‘Equitable care’ that has a slightly lower average rating but a higher median rating. *Patient-centered care* is defined as the ‘provision of care that is respectful of, and responsive to individual patient preferences, needs, and values, and ensures that patient values guide all clinical decisions’. The patient empowerment is a hallmark of the PHC partnership program. This key priority has been addressed from two strategic angles: (i) by educating the patient to be responsible for one’s health; make prudent choice of care in terms of its source and timing; demand and expect customer-sensitive service; (ii) by developing provider communications skills and a culturally-sensitive approach to formulating public health messages and delivering personal services. Increased population and patient trust in the new PHC model has been demonstrated in a number of impressive ways. Marginalized and other at-risk populations, known to be resistant to any form of social integration and health education, have engaged with the community health initiatives sponsored by the partnerships. A former drug addict has carried out voluntary support of up to 20 current drug users for two years, building a trust-based relationship and using it to guide them towards secession. Commercial sex workers agreed to participate in a community action for safe sex practices. Commonly throughout the program, teenagers have attended school-based healthy lifestyles promotion sessions, then used their knowledge to become peer counselors on age-related health and behavioral risks. Patient/provider trust, built through culturally sensitive communications has been successfully used to de-stigmatize cancer prevention in women of reproductive age, particularly in the rural areas, and care for psycho-behavioral disorders in students. Population has been effectively alerted to the persistently ignored health risks and social consequences of HIV/AIDS, breast cancer, hypertension, and domestic violence. Parents entrust care of their children to the newly trained family doctors.

At first sight, the very high rating of the partnerships’ contribution to ‘*equitable care*’ may look somewhat exuberant. However, some of the program’s subtle accomplishments have directly contributed to this aim: (i) Community participation in the local health affairs, widely practiced through the partnership-instituted Health Boards, is a remarkable phenomenon as it heralds the revival of the grassroots movement in the post-Soviet societies. An active and increasingly competent community voice certainly contributes to a consumer-centered approach to the formulation and implementation of health policy and programs. (ii) Increased patient participation, e.g., through open enrollment, self-management in chronic conditions, and consumer health information secures better returns on user fees. The latter thus play a twofold role: first, serve as a means of consumer arbitration in favor of higher-quality care; second, provide the much needed and sometimes the only incentive for providers to develop professionally and practice their new knowledge. In summary, by having created a more participatory, consumer-driven environment in the local primary health care, partnerships have prepared a long-overdue reversal of the excessive socialization of health – part of the paternalistic legacy that had been coined in the Soviet-time motto “Health belongs to the nation!” New health knowledge and steadier access to information improve the bargaining power of the consumer and increase the value for out-of-pocket health care spending.

'*Patient safety*' is a relatively low-rated area. The effort to improve this dimension of quality included training on biomedical waste management; introduction of stricter cleanliness requirements, liquid soap dispensers and better hand-washing techniques, as well as a shift from punitive to collegial approach in combating nosocomial infections. Much of the safety problem has remained outside the partnership purview as it stems from the obsolete Construction Rules and Norms and low quality of construction. More generous architectural design, such as introduction of elevators in 3-5-story polyclinic buildings, will certainly provide for a safer access for the disabled and customers with children. But so will adequately maintained walkways leading to the entrance, additional external and internal lighting, elimination of unnecessary steps, and a host of other relatively inexpensive improvements that the evaluators have referenced in their expert checklists and left in the visited facilities for reference by future partnerships and local administrators.

'*Efficient care*' has been rated as the quality aim addressed the least prior to the partnership and of relatively limited importance during the partnerships. Efficient care is defined in the context of this study as the 'avoidance of waste, including waste of equipment, supplies, ideas, and energy' (IOM, 2001). This is a broader, more demanding, and ultimately more to-the-point definition than the traditional equation of efficiency to cost-efficiency. Resource-poor healthcare systems are bound to be cost-efficient, since whatever care they provide, they do at modest cost. The purchasing power of the NIS currencies vis-à-vis the U.S. dollar remains perhaps the highest in the healthcare sector, compared to any other sector of the economy. An attempt to guide these systems towards a cost-efficient structural change on consideration of cost containment does not meet much response from the local health sector constituents because (i) the cost-saving potential of such changes is always limited in a system with low baseline costs; (ii) neither providers nor administrators stand to benefit from such changes, given the lack of personal or organizational incentives for efficiency accentuated by opposition of the losing interest groups to structural change. Partnerships have shown enough understanding of the limited viability of the cost-efficiency agenda and have promoted effective care along the lines that make efficiency a secondary outcome in the long term. The hospital-substituting effect of modernized management of major chronic diseases, as well as coordinated effort by patients and providers to promote health and strengthen primary and secondary prevention are important pro-efficiency contributions of the PHC partnership program.

By significantly adding to the value of human and physical capital in the educational and provider facilities (with the training, information, and technology inputs), the partnerships have increased the potential cost of the inefficient resource use in the host-country PHC systems. The typical GP/patient population ratio of 1,500-1,800, observed in partnership provider sites, suggests relatively moderate labor productivity. Capacity utilization rate of the newly acquired equipment is of secondary concern for provider administrators, understandably, since technology replacement is not usually financed from internally generated funds, practice/facility budget does not depend on the cost-based pricing, and depreciation is not a financed cost anyway. The evaluators went further in their inquiry to determine the meaning of efficiency in the partnership context. The program has set up a network of model educational programs and care delivery sites that serve two important functions:

1. Represent centers of excellence, well equipped and staffed to pioneer further innovation and serve as magnet venues for ongoing experience sharing and stakeholder discussion. These sites have become a center of professional cohesion around technical assistance plans, national reforms, and public/NGO/private collaborative agendas. They showcase a participatory model of primary health care that has inspired the general public to believe in the revival of the community life in the part of the world where it had been depressed for several generations.
2. Partnership PHC clinics have developed into clinical training sites and coordination centers for health education at the regional and national levels. Students in the basic medical training, pre-graduate residence, and post-graduate education programs rotate through these clinics on a tightly designed schedule. Many of the partners combine their PHC provider and administrator jobs with academic functions, thus transforming

the new clinical and managerial skills into restructured curricula, innovative instructional and knowledge testing tools, and health systems research.

Given the importance and diversity of these leadership functions, the partner sites have to operate outside the traditional cost-efficiency criteria. A sizeable part of their physical facility is taken out of the public and personal health services to accommodate high-profile meetings, lectures, interactive training, clinical skills assessment, online access for staff and students, and on one occasion, to serve as a nationwide distribution center for health education materials. The time of clinical and management staff is diverted to national executive briefings, donor consultations, organizational experience-sharing that varies from guided tours of their facilities to hands-on help with the model replication in other parts of the country. While the impact of these activities on factor productivity is negative, the efficiency in terms of ‘not wasting ideas and energy’ has undoubtedly benefited: the partnership model sites have become and remain the leaders of the innovation in the PHC sector of their countries. Investment of resources in the promotion of partnership experience to clinicians, academics, students, policy makers, and the general public implies a waiver on part of the routine clinical workload. This ‘grace period’ will eventually come to an end after the new experience is internalized into the mainstream practice or ways are found to recover the cost of leadership functions.

The next review of the pre-partnership situation and partnership contribution is focused on 11 quality conditions that contribute to the previously discussed six aims of quality (Table 15). All of these conditions have been rated as ‘mostly neglected’ or ‘sporadically addressed’ before the partnership.

Table 15. Pre-partnership Situation and Partnership Contribution by 11 Contributing Conditions of Quality PHC

Conditions, Contributing to ‘Quality Aims’	Pre-partnership Situation ¹⁾		Partnership contribution ²⁾	
	Median Response	Average Response	Median Response	Average Response
1. Care is based on continuous healing relationships	3	2.7	4	3.9
2. Care is customized according to patient needs and values	3	2.4	4	4.1
3. The patient is the source of control	2	2.4	4	3.9
4. Knowledge is shared and information flows freely	2	2.4	4	4.0
5. Decision making is evidence-based	2	2.5	4	4.1
6. Safety is a system property	3	2.8	4	4.0
7. Transparency is a system feature	2	2.4	4	3.7
8. Patient needs are anticipated	3	2.7	4	4.1
9. Waste is continuously decreased, particularly patient time	2	2.6	4	3.9
10. Cooperation among clinicians is a priority	3	2.9	4	4.2
11. Payment policies are aligned with quality improvement	2	2.0	3	2.7

¹⁾ Rated on a 5-point scale: 1-‘Completely neglected’, 2-‘Mostly neglected’, 3-‘Addressed sporadically’, 4-‘Addressed routinely but inconsistently/ineffectively’, 5-‘Addressed consistently/effectively’. ²⁾ Rated on a 5-point scale: 1-‘None’, 2-‘Minimal’, 3-‘Moderate’, 4-‘Strong’, 5-‘Very strong’.

The median assessment of the partnerships’ contribution is ‘strong’ for all the conditions except the “*Payment policies are aligned with quality improvement*”. Here respondents have gravitated towards the ‘moderate’ rating. The change in health financing has remained outside the partnership purview. Even where PHC financing has become somewhat more rewarding for the quality of services, the positive change should be credited to supportive health financing reforms. For example, the introduction of mandatory health insurance in Moldova in 2004 has produced additional funding for PHC, some of which is allocated through prospective capitation. Since the open enrollment is allowed as supplementary to the enrollment by place of residence, providers may engage in quality-based competition ‘on the fringes’ of the prospectively capitated market -- to attract a few extra patients (however, they are not allowed to exceed the capped

patient/provider ratio) and not to lose some of the clientele from their own catchment area. In Russia, the federal government has more than tripled salaries of PHC physicians in 2006 to stimulate additional clinical volume as annual physical examination of most of the public sector workers is being reintroduced. This dramatic increase in financing has left providers largely indifferent to the quality-related issues – much to the distress of PHC administrators, interviewed during the evaluators’ site visits in Russia.

The highest average rating for the strength of partnership contribution has been given to the condition of quality, termed ‘*Cooperation among clinicians is a priority*’. The partnership program has contributed to collegiality in a number of important ways:

- The program-wide effort to upgrade the role, functions, knowledge and skills of PHC nurses, as well as the concomitant education of PHC physicians and nurses on the team approach to clinical care have resulted in the joint management of an estimated three quarters of episodes of primary care, whereby nurses routinely triage patients (this was termed ‘pre-physician exam’ at the NIS partner sites); consult patients on health risks, lifestyle, contraception, nutrition, children’s safety and protection from domestic violence; take lab test material, perform IV, intra-muscular and subcutaneous injections, immunize children, schedule follow-up visits and coordinate referral care; manage well-baby and post-hospital home visits; conduct training sessions for resident students of general medicine on the expanded role of nursing in the community and clinical care. Partnerships have helped nurses to be recognized as a physician extension, and very first steps have been taken towards independent nursing practice.
- An important thread of collegiality, encouraged by the partnerships, is the peer support among fellow general/family doctors in a group practice setting. This innovative experience varies from weekly case reviews to informal professional advice that PHC practitioners trade on the daily basis. A remarkable instance of peer collaboration has been observed in the Darnitsa FMC in Kyiv: family doctors from the cohort, trained under the partnership, have agreed on the unimpeded right of families and individual patients to move between PHC providers within the enrollment period. Despite obvious managerial hurdles, this approach was adopted to ensure that customers feel comfortable with their current selection of primary care provider and satisfied with the accommodating environment in the FMC as a whole, while providers continue their transition to the family practice model. Free flow of patients between members of the group practice snowballs physicians’ experience sharing, turning an FMC-based association of practitioners into a joint practice. This, in turn, has strengthened professional cohesion to the extent that prompted participating physicians to think about opting out of the district polyclinic, changing ownership status, and starting a group practice of their own.
- The PHC/hospital link is another important venue for increased clinical cooperation. Strategically, the partnership program has strengthened this link by implementing referral standards as an integral component of clinical guidelines. By increasing the authority of PHC physicians over referrals and care coordination, partnerships have aroused their interest in the hospital stage of the care episode and chronic disease management cycle. Consistent with this growing interest, a polyclinic/hospital collaboration has been established in Samara, resulting in reduced LoS for hypertensive patients and more competent post-discharge care.

The evaluators have collected contradictory evidence on the cooperation between PHC practitioners and providers of specialty outpatient care. Several partnerships have reported a standoffish attitude towards family care on the part of polyclinic-based specialists who, understandably, felt concerned by the reduced referrals for secondary care. On-site queries into this important issue have produced a rather relaxed response: specialists may not care that much, since they have enough self-referred patients (some of them, clearly, are long-term paying customers). The prospective capitation arrangements that have been tried out in many NIS countries for almost a decade, have not yet put PHC and specialty care providers on the collision course, because the scope of capitation either has not been broad enough to integrate secondary

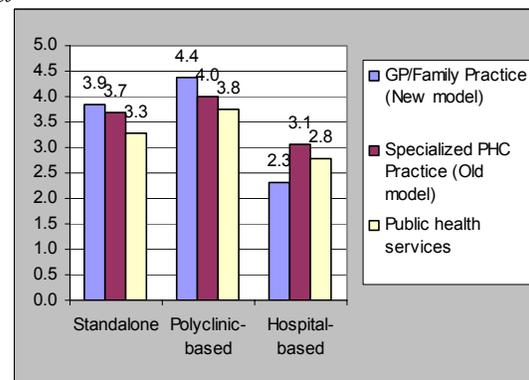
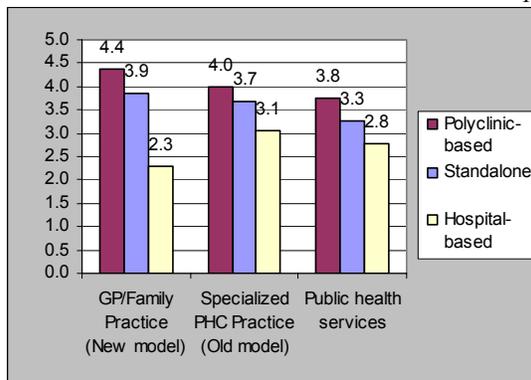
care, or the capitated budget has not been entrusted to the PHC practice and has continued to be managed by polyclinic directors in a conflict-minimizing way.

The strengthened cooperation between clinicians, reviewed on the previous page, is a strategic accomplishment of the PHC partnership program. It came after a decade of unsuccessful attempts to produce ‘big bang’ structural reforms in the NIS health care sectors by opposing general/family practice to polyclinics, and PHC sector to the hospital sector. Rather than antagonizing the established organizational design and group interests, partnerships gave preference for a politically leveraged approach. They have brokered new care strategies and models with the traditional provider facilities, and have successfully incorporated the integrated primary care model into city polyclinics, rural central district hospitals, and rural

Figure 12a. Partnership ‘Endorsement’ of Various Organizational Models of PHC

Figure 12b. Partnership ‘Endorsement’ of Various Venues of PHC

Average ratings on a 5-point scale: 1-‘Disproved’, 2-‘Questioned’, 3-‘Neutral’, 4-‘Somewhat affirmed’, 5-‘Completely affirmed’



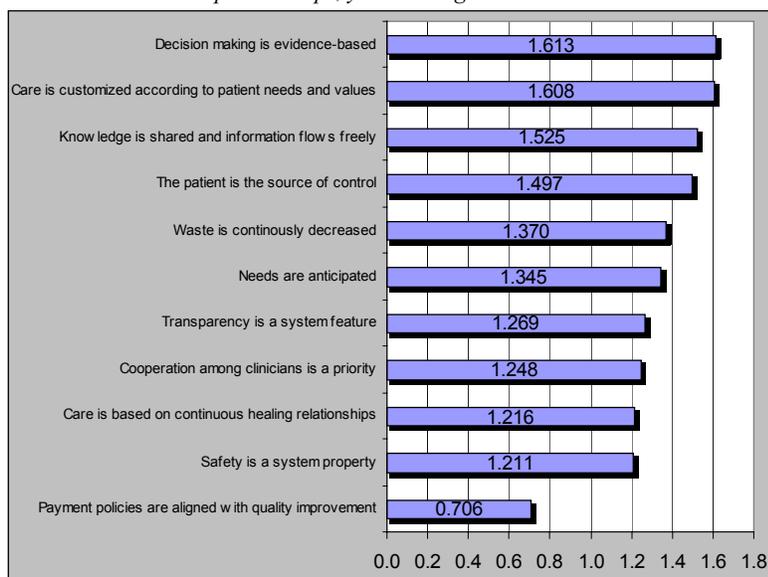
physician ambulatories. The infusion of the new content into the established provider networks has allowed a reduction in the collateral burden of structural change and has moderated political and professional tensions. The evaluation acknowledges this experience as a culturally-sensitive and effective management of a major systemic innovation in the health care sectors of 11 NIS countries. By using diverse organizational shells for the new PHC model, the program has asserted a pluralistic approach to reform management in general – an important contribution to the professional and civic culture in the NIS.

In the partners’ opinions, summarized in Figure 12b, the program has reaffirmed the validity of the polyclinic as the most appropriate venue for the new and traditional models of PHC; and opened the NIS partners’ minds to the standalone practice as the second best venue for the provision of PHC services. According to Figure 12a, the partnership program was the most supportive of general (family) practice, as the best organizational model of PHC; less so of the traditional model, whereby PHC services are provided by specialized PHC physicians (internists, pediatricians, and ob/gyn), and even less supportive of the implementation of public health agenda through vertical programs. However, the respondents’ opinions are fairly inclusive of all the organizational models of, and bases for the PHC services with tangible reservations against using the hospital as the host of the PHC practice.

In conclusion of this subsection, 11 conditions of quality have been rated by ‘visibility of partnership contribution’ (Figure 13). The top scorers on this graph are the conditions that have been neglected prior to the partnership program and on which a significant progress has been achieved under the partnerships. ‘Decision making is evidence-based’ is the precursor of quality that tops the list, reflective of the successful program-wide effort to introduce modern practice guidelines and teach PHC providers to use them. The second top-scorer is the ‘Care is customized according to patient needs and values’. This condition contributes to the ‘Patient-centered Care’, one of the six aims of quality discussed previously in this subsection.

**Figure 13. ‘Visibility of Contribution’ Scores
by Quality-of-Care Condition**

The strongest partnerships’ contributions in the areas least attended prior to partnerships, yield the highest score



‘Knowledge is shared and information flows freely’ is the third condition of quality that was significantly advanced by the partnerships from its ‘mostly neglected’ pre-partnership state. The partnerships’ contributions can be detailed to the technological, organizational, and psychological aspects of access to, and use of knowledge and information. In the area of technology, all the partnerships have procured or donated computers and peripherals to the host country PHC and/or educational sites and helped install them in the designated rooms, appropriately renovated. Called Learning Resource Centers (LRCs), the resulting facilities have become the gateway for the PHC providers and administrators to learn the computer, acquire basic user skills, browse the

Internet for professional information, and interact with colleagues by e-mail. A significant organizational effort has been expended to ensure effective use of the new technology: At least one IT Coordinator per partnership has been included in the staffing schedule of a host organization to maintain the equipment, conduct user training, facilitate Web browsing, and manage electronic files and paper documents, resulting from the Internet search and other user activities. The ISP monthly fees, subscription for select electronic databases, and other recurrent expenditures associated with LRCs have been initially covered from partnership budgets and subsequently internalized by the host facilities (usually, with the exception of subscription fees for paid access to electronic libraries). Regular international travel has enhanced access to information with visual and hands-on learning experience. Massive training opportunities at the partnership and cross-partnership levels have further increased the resources of knowledge available for NIS providers and administrators. The psychological issues of the dramatically increased access to information had to do with the challenge that it created for the hierarchical approach to management. The reluctance to share information has been registered in several partnerships. Direct access to the Internet has often been reduced to the IT coordinator, impeded for others by their limited language skills and by keeping computers in a central location, removed from rural FMCs. Practicing new knowledge is not always easy for lack of free professional discussion. For example, in one partnership, several evaluation questionnaires assigned to lay level PHC providers, were filled out with identical answers by their senior. Another partnership had to yield to new bureaucratic restrictions imposed on international exchange and was unable to share their opinions with the evaluation team. Yet, the decentralized access to information has become an irreversible practice that has forever transformed the professional mentality and workplace environment in the teaching and learning of medicine and nursing, as well as in managing and providing PHC services in the partner sites.

3.3.3 Improved Provider Skills

This subsection covers the third tier of the quality-of-care review, outlined in Subsection 3.3.1. Improved skills of PHC physicians and nurses are seen as very important descriptors of the improved quality. Neither the organizational format of this evaluation nor the evaluators mandate was designed to include direct testing of provider clinical competencies. An indirect measurement has been used instead: partner opinions have been polled about the baseline level of PHC provider skills and the level of partnership contribution to improve them. The study of skills in PHC physicians is based on the list of skills designed for this

evaluation. The list of PHC nurse skills has been modified from multiple skills lists contained in (*WHO, 2001*) and (*DHHS/HRSA, 2002*).

Table 16. Ratings of Pre-partnership Level and Partnership Contribution to the Improvement of Clinical Skills of the General/Family Practitioner

Clinical Skills	Pre-partnership Status ¹⁾				Partnership contribution ²⁾			
	Median	Average			Median	Average		
	All	All	US	NIS	All	All	US	NIS
Population-based need assessment	2	2.3	2.0	2.4	4	3.9	4.2	3.9
Understanding disease patterns & trends for effective prevention	3	2.7	2.2	2.8	4	4.2	4.4	4.1
Use of current evidence as the basis for practice decisions	2	2.0	1.6	2.0	4	4.1	4.6	4.0
Thorough and complete patient history	3	3.0	2.0	3.2	4	3.9	4.4	3.8
Thorough and complete physical exam	4	3.3	2.6	3.4	4	4.2	4.4	4.2
Appropriate use of diagnostic tests	3	2.8	2.0	3.0	4	4.1	4.6	4.0
Appropriate use of pharmaceuticals	3	3.0	2.0	3.2	4	3.9	4.2	3.9
Appropriate referrals and care coordination	3	3.0	2.0	3.2	4	3.9	4.4	3.8
Good patient documentation and follow-up	3	3.2	2.5	3.3	4	4.0	4.6	3.8

¹⁾ Rated on a 5-point scale: 1-‘No skills’, 2-‘Limited skills’, 3-‘Average skills’, 4-‘Beyond average skills’, 5-‘Advanced skills’.

²⁾ Rated on a 5-point scale: 1-‘None’, 2-‘Minimal’, 3-‘Moderate’, 4-‘Strong’, 5-‘Very strong’.

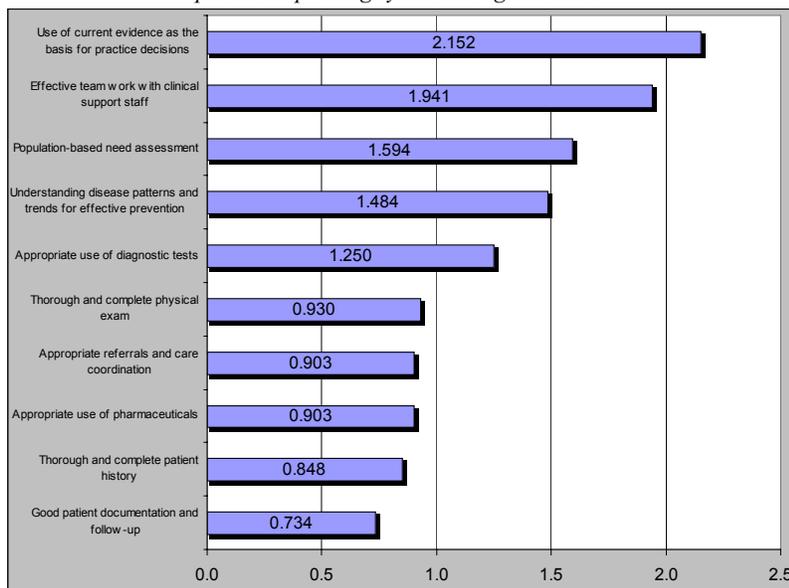
Table 16 summarizes the findings for **physician skills**. Most *pre-partnership skills* have received median rating of 3=‘average skills’. The exceptions are: ‘Population-based Need Assessment’ and ‘Use of Current Evidence as the Basis for Practice Decisions’ (both rated 2=‘limited skills’), and ‘Thorough and Complete Physical Examination’ (rated 4=‘beyond average skill’). US partners have invariably been more critical about the pre-partnership levels of physician skills than NIS partners: they have assessed all skills at the levels below ‘average’ (<3), while the ‘Use of Current Evidence as the Basis for Practice Decisions’ was rated even lower: below the ‘limited skill’ level (<2). The *partnership contribution* has been assessed with the median rating of 4=‘strong’. All respondents gave the highest average rating of 4.2 to ‘Thorough and complete physical exam’. In all skills areas, US respondents have assessed partnership contribution higher than their NIS counterparts. The juxtaposition of the pre-partnership levels and strengths of partnership contributions have produced ‘visibility of contribution scores’ shown in Figure 14. The most conspicuous contribution the program has provided to boost the following skills: ‘Use of current evidence as the basis for practice decisions’, followed by ‘Effective team work with clinical support staff’, ‘Population-based need assessment’, ‘Understanding disease patterns and trends for effective prevention’, and ‘Appropriate use of diagnostic tests’. These ratings are strongly supported by the already reviewed evidence drawn from partnership self-evaluations and field interviews. The following outline adds to the understanding of program contribution to the physician skill of using current evidence as the basis for practice decisions.

The most illuminating influence of the partnerships clearly refers to the introduction of approximately a dozen practice guidelines that changed physician approach to general care (undifferentiated symptoms and routine conditions such as URIs), chronic diseases (hypertension, diabetes, asthma), and psycho-behavioral disorders. The following comprehensive set of activities was conducted by most partnerships and contributed to the much-improved physician skill of using the guidelines:

- The program-wide partnership meeting and partnership-level need assessments have resulted in the identification of clinical areas where significant improvement was needed. As the analysis in Subsection 3.1.4 attests, clinical priorities have targeted all the areas of high burden of disease in the partnership host countries.
- US partners have carefully selected prototype guidelines that reflected the state-of-the-art in the US general practice.
- The guidelines have been taken through a multi-stage validation process: some have been aligned with WHO-recommended care standards as in the case of the psycho-behavioral health guidelines developed by the Kyiv/Philadelphia, PA partnership; most have been adapted to the local practice and resource settings; all have been translated into a language of the NIS partners' choice with proper reference to the locally established conceptual frameworks and clinical terminology.
- The thus adapted clinical guidelines have been introduced to the leaders of medical education, health administrators, and clinical community through a series of high-profile meetings and publications.
- Continuing education and in-service training programs and materials have been designed to incorporate evidence-based guidelines into physician knowledge and skills. Medical school faculty and trainers have been prepared to initiate a cascade training process. Partner physicians have been taken through training in their countries by attending sub-regional events, and during travel to the United States.
- Medical school curricula have been modified in several NIS countries to incorporate evidence-based approach to general practice in the clinical areas prioritized by the partnership program. Pre-graduate and post-graduate GP residence programs have been set up. Partner PHC facilities became designated clinical teaching sites, and resident rotation schedules were established. In Moldova, the four-year cycle of post-graduate training brings all rural family doctors to the Botanica District PHC Clinic, set up by an AIHA-sponsored partnership, for training in evidence-based general practice. Students at the SMPU (National Medical University of Moldova) rotate through the affiliated Clinical Training and Skills Testing Center,

Figure 14. 'Visibility of Contribution' Scores by PHC Physician Skills

The strongest partnerships' contributions in the skill areas with the lowest pre-partnership ratings yield the highest score



established by the Chisinau/Norfolk, VA partnership. In Kharkiv, Ukraine, the Kharkiv/La Crosse, MN partnership has sponsored The City Student Polyclinic that has become a clinical training site for the Family Medicine Program of the Post-graduate Medical Academy. The Siberian Medical University brings its medical students to FMCs, established by the Tomsk/Bemidji, MN partnership in the Tomsk Health District. The Bishkek/NV-FL partnership has made a strategic move towards the incorporation of evidence-based medicine into the curricula of four national schools of medicine through methodological guidance provided for the Rectors Council of Medical Universities of Central Asia. This review supports the conclusion that an evidence-

based approach has been integrated into the workforce pipeline -- an important condition for sustaining the improved GP skill of using evidence in clinical practice.

- Once introduced to clinical guidelines, PHC practitioners have continued to develop their knowledge of evidence-based medicine by accessing Web-based information resources through LRCs and through home-based Internet access that partnership experience has prompted many of them to establish.
- Partnerships have aligned their contributions of equipment and supplies to meet new practice resource requirements that evidence-based guidelines have introduced.

The above-listed activities summarize the main improvement under the PHC partnership program in physician skills and, ultimately, in the quality of care – a transition from hierarchically imposed to evidence-based strategies of managing health and common diseases in the primary health care sector of 11 NIS countries. As a sobering piece of evidence, the regulatory restrictions continue to impede the use of the clinical guidelines for psychiatric, behavioral, cardiovascular, and perinatal conditions as PHC doctors in the NIS are still not allowed to diagnose and treat certain conditions and prescribe certain medications.

The analysis of pre-partnership community and clinical **nursing skills**, as well as the program effort to develop them are summarized in Table 17. Twelve of 21 evaluated skills have received the pre-partnership median rating of 2='limited skills', while the other nine were assessed at 3='average skills'. The US respondents were considerably more skeptical in their assessment of pre-partnership nurse skills: seven of their ratings are below 'limited skills' (<2), 10 are in the range between 2 and 3 ('limited skills'), and only the skill of 'complying with regulatory requirements in the health sector' was rated at the 'average skills' level. This is the skill, put on top of the list by all the respondents, followed by 'Know and practice ethical behavior in a health care context', 'Provide first aid' and 'Provide basic life support' (average ratings = 3.0-3.1). On the opposite end of the list (the lowest pre-partnership ratings of 1.3-1.5) are such skills as: 'Engage in counseling in groups in social or community service settings', 'Team work in a health care context', 'Assess or facilitate analysis of community concerns, issues, needs and resources', 'Implement health education programs and projects in social or community settings' and 'Establish care and protection for people in situations of abuse or self endangerment'. Notably, the community nursing skills have been depressed as compared to clinical nursing skills.

Partnership efforts to improve nursing skills have been rated at the median level of 4='Strong' for 16 skills and 3='Moderate' for 5 skills (see Table 17). On 12 skills, US respondents assessed partnership contributions higher than their NIS counterparts, while on 7 skills NIS respondents were more appreciative of the partnership contributions. The latter may indicate some 'unintended' learning effect in NIS partners that AIHA program coordinators have always sensed. Approximately half of the partnerships have acknowledged 'unexpected results' in their self-evaluation reports, including, in five cases, in the nurse training and leadership agendas.

The side-by-side analysis of pre-partnership skill levels and partnership efforts to improve them has produced the 'visibility of contribution' scores, displayed on Figure 15. The five top scorers in this analysis are community empowerment and other community-oriented nursing skills: 'Assist patients, families, and communities to manage their own health', 'Educate patients and supervise measures to protect health and safety in the home environment', 'Implement health education programs and projects in social or community settings', 'Engage in counseling in groups in social or community service settings', and 'Act as a health advocate for individuals, groups, and communities'.

Table 17. Ratings of Pre-partnership Level and Partnership Contribution to the Improvement of Community and Clinical Skills of the PHC Nurse

Nurse Skills	Pre-partnership Status ¹⁾				Partnership contribution ²⁾			
	Median	Average			Median	Average		
	All	All	US	NIS	All	All	US	NIS
Act as a health advocate for individuals, groups and communities	2	2.2	2.0	2.2	4	3.6	4.2	3.5
Act in a culturally sensitive way; Communicate with people of other cultures and life experience	2	2.5	1.8	2.6	4	3.5	3.4	3.6
Know and practice ethical behavior in a health care context	3	3.1	2.7	3.1	4	4.0	3.4	4.1
Use skills of team work in a health care context	3	2.6	1.4	2.8	4	3.9	4.4	3.8
Comply with regulatory requirements in the health sector	3	3.1	3.0	3.1	4	3.6	3.2	3.7
Maintain safety of patient and self in a health care context	3	2.9	2.0	3.0	4	3.9	3.6	3.9
Educate patients and supervise measures to protect health and safety in the home environment	2	2.4	2.4	2.4	4	3.9	3.8	4.0
Assist patients, families, and communities to manage their own health	2	2.2	2.0	2.2	4	4.0	4.0	4.0
Provide first aid	3	3.0	2.4	3.1	4	3.9	3.4	4.0
Provide basic life support	3	3.0	2.0	3.2	4	3.6	3.0	3.7
Support the individual who is dying	3	2.6	2.0	2.6	4	3.6	3.8	3.5
Interact with family members in a supportive way	2	2.4	2.3	2.4	4	3.6	3.6	3.6
Describe general characteristics of the community population	3	2.5	2.5	2.5	4	3.5	4.2	3.4
Apply knowledge of environmental conditions to the promotion of wellness	3	2.4	2.0	2.5	4	3.4	3.8	3.3
Implement health education programs and projects in social or community settings	2	2.5	1.5	2.6	4	4.0	4.4	3.9
Assess or facilitate analysis of community concerns, issues, needs and resources	2	2.2	1.5	2.3	3	3.2	3.6	3.2
Manage volunteer community workers	2	2.0	1.7	2.0	3	3.2	2.6	3.3
Engage in counseling in groups in social or community service settings	2	2.0	1.3	2.1	4	3.5	3.8	3.4
Establish care and protection for people in situations of abuse or self endangerment	2	1.8	1.5	1.9	3	3.0	3.0	3.0
Facilitate empowerment of people who have experienced oppression and abuse	2	1.9	2.0	1.9	3	3.1	3.0	3.1
Identify, record and report suspected abuse of individuals	2	2.0	2.0	2.0	3	3.1	3.0	3.1

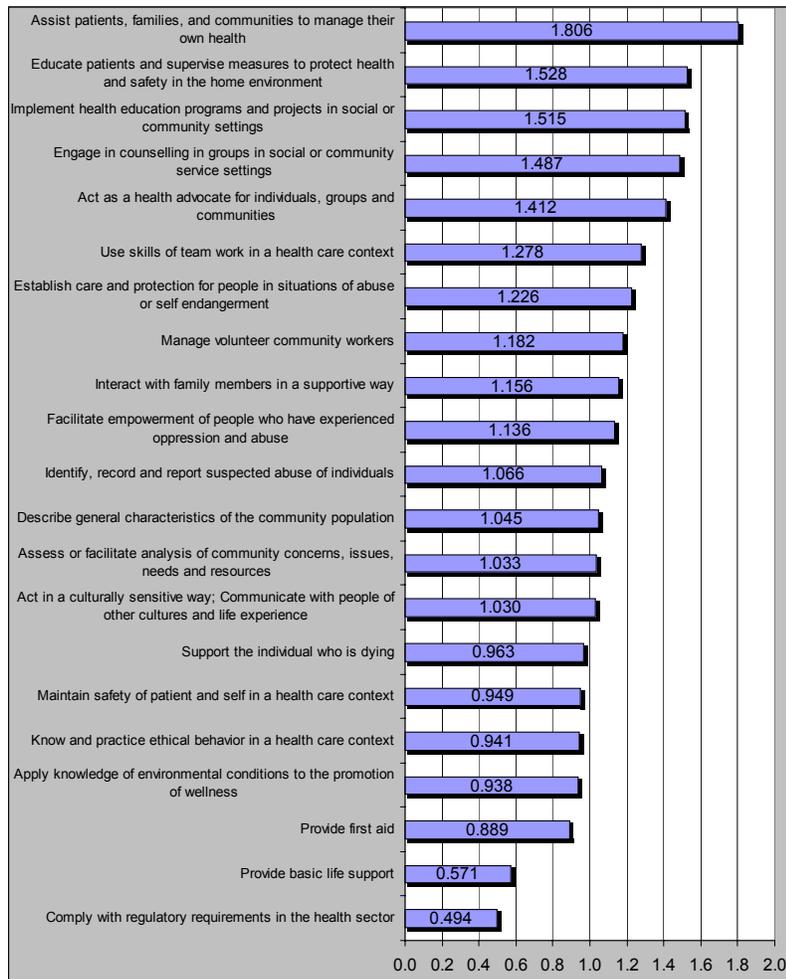
¹⁾ Rated on a 5-point scale: 1-‘No skills’, 2-‘Limited skills’, 3-‘Average skills’, 4-‘Beyond average skills’, 5-‘Advanced skills’.

²⁾ Rated on a 5-point scale: 1-‘None’, 2-‘Minimal’, 3-‘Moderate’, 4-‘Strong’, 5-‘Very strong’

The highlighted recognition of the partnerships’ role in improving community nursing skills must be credited to the program-wide effort of helping NIS health strategists rethink the concept and functional scope of PHC nursing and develop nurses into community advocates in a range of public and personal health agendas, such as teenage health education, HIV/AIDS prevention, protection against domestic violence, psycho-behavioral counseling, and social support of the elderly. While the partnerships’ success in training nurses to become a physician extender in the PHC practice setting is apparent, it is even more important to acknowledge the partnerships’ groundbreaking effort to develop nurse leadership skills that would support professionally competent activism of nurses on health-related agendas. The very first but

**Figure 15. ‘Visibility of Contribution’ Scores
for PHC Nurse Skills**

The strongest partnerships’ contributions in the skill areas with the lowest pre-partnership ratings yield the highest score



promising steps in this direction are worth priority support in any follow-up that the partnership program may have in the future.

To conclude this section, the PHC partnership program has increased the capacity of PHC providers to address health problems and concerns of an estimated four out five patients who come to see a primary care doctor. Strengthened in the prevention and management of major chronic and acute diseases, and with stronger participation from a more educated and self-responsible consumer, PHC providers can now deal with risks and conditions that account for an estimated 70 percent of the burden of disease in their countries. Two thirds of this BoD load they can address more confidently than before partnerships. PHC provider capacity has been strengthened in four out of five PHC modules, particularly, in conducting general and condition-specific physical examinations, differentiating symptoms, diagnosing, preventing and treating major communicable and non-communicable diseases, and counseling on the wide range of public and personal health issues.

This improved provider capacity has

resulted from the program’s major investment in the transfer of information, education/training and equipment/commodities, supported by a secondary effort to modernize provider systems and assist with implementation. Strengthened provider capacity has led to improved quality of care. Progress has been made towards the achievement of the six quality aims distinguished by IOM and 11 conditions of quality that contribute to those aims. PHC care in the partnership-sponsored provider sites has become more effective (i.e., based on scientific knowledge and therefore more medically appropriate), patient-centered, and equitable. The latter achievement is attributable to the stronger community participation in shaping local health priorities and provider decisions. PHC physician and nursing competencies have improved as a result of the multi-faceted skill development effort under the partnership program. The highlight of the improved physician skills is their increased ability to ‘use current evidence as the basis for practice decisions’ – an important result of the program’s successful effort to introduce evidence-based practice guidelines and ensure their sustainable application through modernized clinical training and PHC practice access to better equipment and health supplies. The most important result in developing nurse skills is the diversification of those skills into community nursing, including advocacy for public health agendas and patients’ interests.

3.4 Management Strengthening

This section responds to the following question:

Q8. To what extent did the partnerships promote modern techniques of health care management and quality in health care practice and education?

The relevant evidence is grouped and analyzed to highlight two management agendas, identified in the partnership activities: (i) management of quality in education and PHC practice; and (ii) management of resources, costs and budget. Partner opinions about the program effort to strengthen these areas are summarized in Table 18 and, in more detail, in Figure 13.

Table 18. Ratings of Partnerships' Effort to Strengthen Management of Quality and Resources in PHC Education and Practice

Rated on a 5-point scale: 1- 'None or negligible', 2- 'Low', 3- 'Medium', 4- 'High', 5- 'Very high'

Inputs ↓ Management Agendas ↘	Average intensity rating			Percent of 'High' and 'Very High' ratings		
	Management of Quality in Education	Management of Quality in PHC Practice	Management of PHC Practice Resources	Management of Quality in Education	Management of Quality in PHC Practice	Management of PHC Practice Resources
Information	4.1	3.8	2.7	75%	58%	38%
Systems/tools	3.9	3.5	2.7	62%	52%	41%
Education/training	3.9	3.6	2.6	71%	65%	36%
Equipment/commodities	3.5	3.2	2.5	56%	39%	34%
Implementation	3.4	3.4	2.5	47%	48%	31%

The partnership effort to strengthen 'Quality of Education Management' has been rated as 'strong' on the information inputs and 'medium+' on all other inputs. The effort to strengthen 'Management of Quality in PHC Practice' has been rated as 'medium+' for all inputs. The effort to strengthen 'Management of PHC Practice Resources' has been rated as 'low+'. In all management strengthening agendas, the most conspicuous partnership resource was information, followed by education/training. The same two inputs have been rated as the most intensive contributions to the strengthening of PHC delivery in all clinical modules. 'Systems/tools' have been rated as the third most intensive input in the management strengthening areas, while in the clinical strengthening areas 'equipment/commodities' ranked third.

Each broadly defined management strengthening area consists of specific management tools that partnerships addressed, developed and improved. In the '**Management of Quality in Education**', the most appreciated contribution has been made to the development of teaching materials and modernization of teaching methods (Figure 16). When asked about *teaching materials*, 69 percent of respondents acknowledged that partnerships have raised the quality of their teaching materials. The following bulleted list illustrates this area of partnership contribution:

- A diverse set of electronic presentations and related handouts has been produced for various areas of training, particularly, to present evidence-based clinical guidelines and patient education strategies. All of these materials have been transferred to the NIS institutions, most of them translated in the local language, and repeatedly used by the NIS partners in their training, creatively updated and modified for specific audiences and subjects.

- NIS partners have been introduced to, and learned to use modern teaching aids such as CPR mannequins, smoking simulators, and anatomic models.

- Instructional video materials and slides: initially supplied by the partnership, at present, increasingly produced by the host country partners.

- Printed materials: Textbooks, clinical cases, student workbooks, brochures and leaflets for patient education.

‘Teaching methods’ is another top-rated item (69-percent rating) in the ‘Management of Quality in Education’ area. Some of the partnership-sponsored innovation has been assessed as the groundbreaking contribution to the modernization of medical education in the host countries, particularly:

- Clinical scenarios and standardized patient have increased the consistency and quality of clinical education by providing realistic training exercises that can be rapidly evaluated by experienced faculty and discussed in clinical student groups.

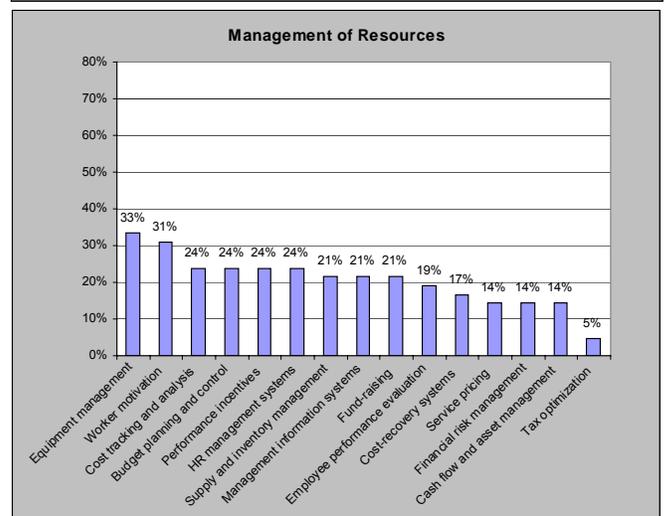
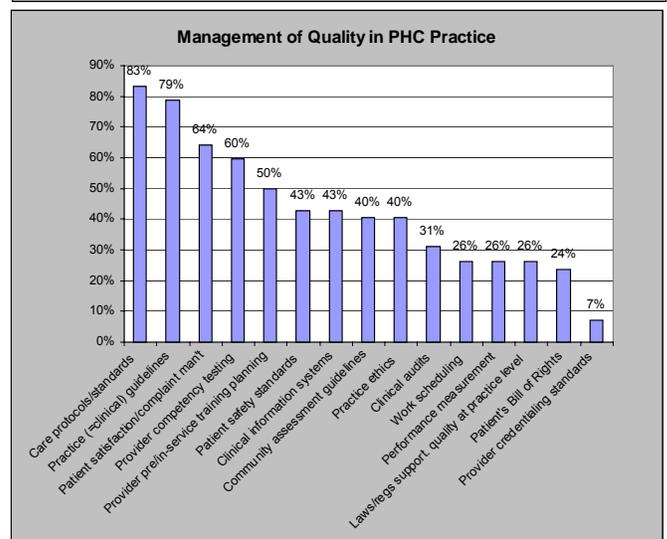
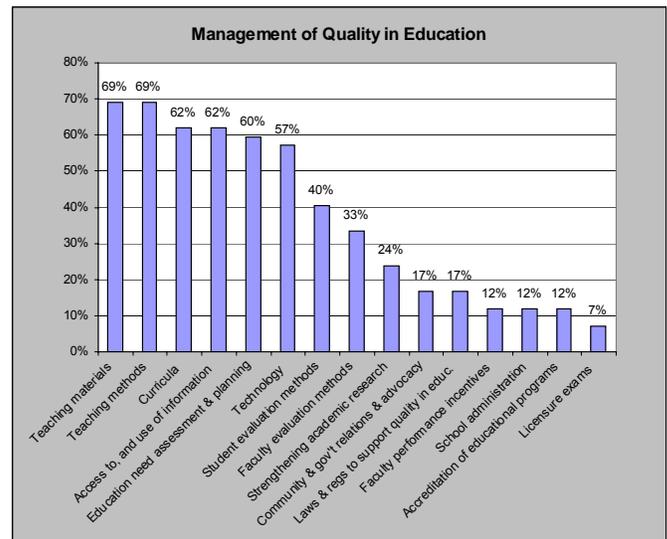
- Direct observation of a clinical encounter by means of closed circuit television has enhanced resident training by facilitating faculty and peer review, particularly to develop provider assessment and communications skills.

- US/NIS case conferences with partners on both sides attending in real time, based on the use of satellite communications technology and multi-media training facilities.

‘Curricula’ (62-percent rating) is the third most widely recognized area of the partnerships’ effort to strengthen the quality of education. Primary contributions have included assistance in the development or modernization of curricula for basic education and residence training (pre- and post-graduate), as well as training modules for continuing education in the areas of family medicine and higher nursing education. The Bishkek/NV-FL partnership has given a special focus on this agenda by promoting the standardization of PHC curricula across Central Asia in order to create an integrated educational space and raise the mobility of health workforce in the long term. The same agenda

Figure 16. Management Strengthening Tools That Benefited from Partnerships Contributions

Ranked by percent of respondents who acknowledged that specific tools were strengthened by their partnership



resonated with the Chisinau/VA partnership with their involvement in the ‘Bologna Process’ of standardizing university education programs and credit systems in Europe.

In the ‘**Management of Quality in PHC Practice**’ area, the highest recognition of the partnerships’ contributions has been registered in the areas of ‘*Care protocols/standards*’ (83 percent) and ‘*Clinical practice guidelines*’ (79 percent). Both areas are proximal and reflect the partnerships’ successful effort to introduce evidence-based medicine in the clinical education and delivery of PHC services. This effort has been discussed in detail in the previous section. Other quality-of-care management systems, promoted program-wide, included clinical chart review, standard practice review, quality studies (e.g., the sources and patterns of nosocomial infection in a partner hospital), and patient satisfaction surveys.

Partnership contributions to the development and implementation of specific tools in the area of ‘**Resource Management**’ have been acknowledged by a minority of respondents (<=33 percent). The top-rated item in this area is ‘*Equipment Management*’. All partnerships have trained PHC providers in the use of exam table and halogen exam lamp, mounted blood pressure cuffs, ophthalmoscope/otoscope, wall spirometer, Doppler device for use in obstetrics, tympanometer/audiometer, pulse oximeter, peak flow meter, glucometer, and other general and gynecological examination room equipment, as well as EKG machine, minor office surgery equipment, and less common equipment provided under some partnerships such as a colposcopy unit. When relatively sophisticated equipment was involved, Carelift International or other donor/procurement coordinators have provided specialized training in the use and maintenance of such equipment. Other areas of resource, cost, and budget management have met focused attention under some partnerships, such as Kyiv/Philadelphia, PA, or Samara/IA.

Table 19. Ratings of Pre-partnership Level and Partnership Contribution to the Improvement of Practice Management Skills

Management Skills	Pre-partnership Status ¹⁾				Partnership contribution ²⁾			
	Median	Average			Median	Average		
	All	All	US	NIS	All	All	US	NIS
Supervise non-clinical staff	3	2.6	1.8	2.8	4	3.6	4.4	3.4
Plan and manage workflow	3	2.8	1.8	2.9	4	3.5	4.8	3.3
Manage patient, work, and financial records	4	3.3	2.3	3.4	4	3.6	4.2	3.5
Understand recruitment and recruit staff and temporary workers	3	3.0	2.0	3.1	4	3.1	2.5	3.2
Manage equitable distribution of revenue	2	2.4	2.0	2.4	3	2.9	1.7	3.0
Define, measure, allocate and control costs	3	2.6	1.5	2.7	4	3.4	3.5	3.4
Understand and apply pricing strategies & price services	2	2.5	1.5	2.6	3	3.0	2.7	3.0
Understand and apply cost recovery strategies (e.g., user fees, commercial contracts)	3	2.6	1.0	2.8	4	3.0	2.3	3.1
Develop financial plans and financial controls	3	2.8	1.7	2.9	4	3.1	3.0	3.2
Analyse and interpret financial statements	3	2.8	1.7	3.0	4	3.2	2.7	3.2
Assess and manage financial risks	2	2.4	1.3	2.5	3	3.1	2.0	3.2
Raise capital and manage investment and credit	2	2.5	2.0	2.5	3	2.9	2.7	2.9
Understand procurement strategies and conduct competitive procurement	3	2.8	2.0	2.9	3	3.0	2.7	3.1
Manage equipment maintenance	3	3.2	3.0	3.2	4	3.3	4.3	3.2

¹⁾ Rated on a 5-point scale: 1-‘No skills’, 2-‘Limited skills’, 3-‘Average skills’, 4-‘Beyond average skills’, 5-‘Advanced skills’.

²⁾ Rated on a 5-point scale: 1-‘None’, 2-‘Minimal’, 3-‘Moderate’, 4-‘Strong’, 5-‘Very strong’

While practice management training was not a primary purpose of the PHC partnership program, NIS managers have learned from working side by side with their US colleagues, observing health administrative

systems during study tours to the U.S., requesting and receiving information from partners, and downloading it from the Web. Some partnerships have invested in management and monitoring software: from a locally designed general accounting application to a GIS for the environmental and health monitoring across small geographic areas. The rethinking of care delivery strategies has also triggered managerial learning. For example, US respondents have highlighted a significant contribution of the partnerships to the development of two practice management skills (Table 19): ‘*Supervise non-clinical staff*’ and ‘*Plan and manage workflow*’. Both contributions must have occurred as a managerial response to the enlarged functional and clinical scope of PHC practice, as well as transition from a physician-dominated to a multidisciplinary approach that increased presence of community nurses, social workers, and lab technicians. Relatively limited involvement of partnerships in the development of practice management skills may have had to do with insufficient demand on the NIS side in the absence of clear prospects for provider management autonomy in the public health sector of most partnership host countries.

To conclude the analysis, the effort of the partnership program in strengthening management tools and skills was secondary to the strengthening of clinical education and PHC delivery systems. Nevertheless, the partners have assessed contributions to the managerial agendas as relevant. A case in point is the management of quality in education, where significant progress has been achieved in modernizing teaching technologies, curricula, and instructional materials. The main contributions in the area of quality-of-care management are related to the previously discussed introduction of clinical practice guidelines and standards. In the resource management area, equipment management skills have been strengthened to match the much improved access of the PHC practice to technology.

3.5 Partnership Effects on Professionals, Organizations, and Society

The analysis, summarized in this section responds to the following evaluation question:

Q11. To what extent did the partnerships promote democratic values and expand civil society? Increase community participation in improving the health of the community?

The commonly postulated link between decentralization and democratization (*USAID/Global, 2003*) has had limited validity in many NIS countries. Even in the 1990’s, when local governments have been elected by popular vote and gained in political and fiscal autonomy, they were not always promoters of democracy. In the past 5-7 years the situation has changed for the better in some countries and in rather problematic ways in others. Closer to the context of this evaluation, it is true that many partner organizations feel alienated from the federal authorities and managed to sustain the partnership legacy because of their connections to the local government. However, those connections had often been built with bureaucratic rather than democratic means. It is also true that the most impressive success in translating partnership experience into the national health policy has been achieved in Moldova, a compact country with centralized pragmatic government that leads local administrations towards a more vibrant approach to public policy.

Given the complex relationship between democracy and decentralization in the NIS, the latter has not been recognized as a reliable conceptual anchor for examining the transformational impact of the partnership program on the society and public governance. Instead, the workplace-, organization-, and community-level practices have been assessed for their roles in promoting or inhibiting democratization. A set of 14 survey questions has focused on the examination of job satisfaction, worker participation, group cohesion, and local activism – important dimensions of a social-technical system that seeks to combine organizational efficiency with democratic values (*Greenberg, 1986*). An additional three questions have targeted a socio-political

dimension, particularly, the decentralization and pluralism of ownership forms in the health care sector. This selective probing into the motivational, organizational and societal impact of the partnership program has been conducted with the clear understanding of the important, plausibly, dominant role of the confounding factors. Bringing them into the survey has resulted in a four-step examination on each ‘marker’ question: ‘before-partnership status’ – ‘role of partnership’ – ‘role of confounders’ – after-partnership status’. The summary of opinions and brief discussion follow.

3.5.1 Provider Perspective

Professional autonomy. Opinions are neutral (neither ‘agree’ nor ‘disagree’) on the availability of professional autonomy for PHC clinicians prior to partnerships. Partnership experience contributed to the provider autonomy, and external environment was also conducive to it. The pre/post-partnership change has been towards more professional autonomy. Other sources support and challenge these opinions in the following ways: (i) The job descriptions of PHC providers have not been expanded into practice management functions (with the exception of relatively few standalone FGPs in Kazakhstan) and remained, largely, focused on their care delivery functions. Professional autonomy should, therefore, be analyzed within the care delivery domain. PHC providers have dramatically increased the scope of clinical decision-making in line with the new disease management knowledge and skills that they acquired under their partnerships. This conclusion is supported by the reported reduction of the referral rate to higher-level care from 50-70 percent to 10-12 percent across the program. (ii) The role of the environment varies across partnership sites: several partnerships have reported persistent regulatory restrictions on PHC practice -- increasingly at odds with the strengthened clinical competencies of PHC practitioners. (iii) That the situation has improved is a plausible conclusion. Partnerships deserve credit for this improvement, particularly those who worked to integrate increased practice scope into the national laws and regulations of the host country.

Physician incentives and access to knowledge for job enrichment. The judgment is neutral on whether such incentives and resources were adequate prior to partnerships. There is a positive view of both partnership and environmental supports for doctors’ professional development. Logically, the post-partnership status is assessed as more conducive to job enrichment. Information from other sources corroborates the conclusion on the positive contribution of the partnership program – a major contributor of new information, electronic connectivity to access more information; in-class and experiential learning, and access to more effective technology. The motivational impact of partnerships is unambiguously positive too: as partnership activity increases the quality of care and client expectation, the physician has to stay the course of professional development to keep up with the raised standard of care. Partnerships have introduced NIS physicians to the opportunities for international collaboration and access of grant funds -- another motivational support for continued professional development. Even when one partner has complained about the lack of financial motivation in her physician staff to continue with the community health agenda, established under the partnership, there was not a word of reproach about the knowledge and skills acquired, but rather about a non-supportive environment. Lack of provider incentives should not be underestimated as a serious threat for sustaining the partnership-initiated momentum for professional improvement. The supply of electronic and printed information has improved in the NIS, providing important learning resources for clinicians and pharmacists. The lack of adequate language training at medical schools continues to limit the use of professional knowledge media.

Nurse incentives and access to knowledge for job enrichment. The pre-partnership situation has been assessed as non-supportive to nurse development. The roles of partnerships and local environment are seen as contributing to the improved opportunities for nurses to grow professionally and enrich their work. The partnership program has played a groundbreaking role in modernizing the concept of nursing and its functions in the PHC practice setting, as well as helping NIS partners change the nurse education system to match the new model. The 10-year experience of higher nursing education in Russia provided a pre-existing medium (over 40 four-year programs) that partnerships could use to promote the change. In other countries, the inroads had to be made into the world of medical education to create a beachhead for modern nurse

education. This process is still at an early stage in Moldova and Ukraine, yet sustained and slowly developing from the end-of-partnership levels. The financial incentives to learn and practice community and clinical nursing skills are weak: new knowledge incurs additional unpaid workload. The PHC technical nursing scope in partnership-sponsored FMCs has been increased to include triage, selective home care, and office-based care for selected chronic patients. In some partnerships, professional accountability of nurses has increased with the introduction of the nursing care chart - a separate line of patient reporting. The concomitant limited gain in professional responsibility, autonomy, and use of technology might have provided an incentive for nurses to hold on to their jobs and learn more. Physician attitude is the critical factor of the nurse sovereignty – more so than increased knowledge and revised job description. The partnerships have made a stride towards establishing a team approach to PHC care and educating doctors to treat nurses with respect. Respondents to the questionnaire have acknowledged this effort and concluded that the statement ‘*Physicians exhibit collegial attitude toward health professionals*’ is more defensible after the partnerships than before.

As the reviewed changes take root, nurses will be finding their work environment more fulfilling. In the meantime, the strongest incentive for the nurse professional development was identified in Moldova: the current opportunity to provide home care to paying customers in Europe or Russia, and, prospectively, migration to EU countries to work in their clinics. Despite the absence of clear incentives for nurses to develop and thrive in their countries, partnerships have nevertheless succeeded in creating benchmarks of leadership in nursing, represented by several personally bright and talented nurses who defy current limitations of their health care systems as they rise to local prominence as community leaders, diversify into practice management functions, conduct research, build nurse associations, and reach out to the international nursing community for professional exchange and grant funds. These agents for change are critically important for supporting nascent nursing reforms in the NIS.

Providers get equitable share of practice/organization revenue. Opinion on the pre-partnership situation was that of disagreement with this statement. The contribution of partnerships and environment has received neutral rating (neither positive nor negative impact on the status quo). The post-partnership situation is assessed with a neutral rating (neither agreement nor disagreement with the above statement). Three motives may have kept the respondents pessimistically aloof on this issue: (i) Continued salary discrimination. In Russia, for example, average salaries in the health care sector were 69 percent of the economy-wide average in mid-2006 – down from 92 percent in the late 1980’s. (ii) Provider personal and organizational financial agendas have diverged: the official paycheck remains very low, however, providers earn directly from patients and do not share their earnings with the provider facility, except with those who allow their quasi-private practice. (iii) Organization is not to blame for low salaries: they usually are decided by the national Ministry of Finance. All these issues have been outside the focus of the partnership program agendas.

Providers want and have capacity to opt out of the public sector employment. This statement has met a rather anemic response: disagreement in the pre-partnership context, and neutral on the partnership and environmental effects, and post-partnership status. Staying in general practice and being outside the public health care sector is practically impossible: legal restrictions, lack of access to capital, and shortage of management expertise discourage physicians from the thought. All these issues have viable solutions but must be addressed in a focused and coordinated way by a future program of institutional and/or health sector reforms in the NIS countries.

3.5.2 Health Care Organization Perspective

Health organizations demonstrate participatory management. The ratings of this statement vary from the ‘neutral’ in the pre-partnership context to the agreement that partnerships and environment have both acted to validate this statement. This led to the agreement that in the post-partnership setting the situation has improved. Two observations support these opinions: (i) PHC facilities have opened up to the priority-setting and planning inputs from Community Health Boards, established under many partnerships. (ii) Polyclinics

agreed to deal with organizational pressures that the coexistence of the new and the old PHC models brought about. Health administrators learned how to mediate tensions between GPs and specialists that have emerged with the change in referral patterns. More collegiality has been accepted in professional discussions, for example at weekly clinical review meetings, introduced by some partners. The newly formed FMCs feature strong bonds between the host facility manager and practitioners. GPs integrated in pre-existing polyclinics sometimes feel antagonized by the traditional layout in the outpatient care delivery. The culture of hierarchical management is not abandoned. Its transformation into participatory management continues to critically depend on the professional personality and personal character traits of the administrator.

The organization is willing to redesign itself to accommodate strong performers. In partners' opinions, this was not true before the program, however has become true in the post-program setting, with the assistance from partnerships and external environment alike. Organizational flexibility has certainly been shown in FMC 'Demeu' (Astana/Pittsburgh, PA partnership) and its replication sites in Semipalatinsk in order to integrate social workers into the staffing schedule, still driven by the traditional medical model of PHC. In the absence of MOH endorsement, the new arrangement has been brokered with the local authorities; job descriptions written anew, training conducted by the Counterpart Consortium, co-opted into the partnership as need arose. Furthermore, FMC 'Demeu' staff used momentum developed under the partnership to obtain UNICEF certification as a 'Youth-friendly Clinic'. This brought additional donor support and helped leverage the cost of other non-conventional staffing decisions: the FMC director managed to recruit a former drug addict and two persons with disability and pay them for counseling in the clinic's programs of health education and social support of at-risk groups. The Darnitsa FMC Center (Kyiv/Philadelphia, PA partnership) is examining very limited legal opportunities that may exist in Ukraine for opting out of the public ownership – a prospectively risky step to preserve the integrated model of PHC and increase the level of provider satisfaction for the tightly knit panel of GPs, trained under the partnership. On the opposite end of the partnership legacy curve are stories of the failure of health care organizations to accommodate providers, who had been strengthened by the partnerships, then moved to more rewarding care sites.

3.5.3 Community Perspective

Providers and health organizations are accountable to patients and communities. Partners expressed disagreement with these statements in the pre-partnership context, acknowledged the significant effort of the partnerships to strengthen accountability, and a neutral view of the post-partnership situation. The program should be credited for the creation of Health Community Boards – an important initiative to strengthen the voice of the community in the planning and provision of PHC services. The plethora of community-based activities that partnerships have pioneered (see program-wide summary in Table 20) have increased face-to-face time between providers and community groups and made providers and PHC centers more informed about community needs, preferences for, and feedback on the services provided. Accountability means action in response to feedback information. Whether health care organizations felt compelled to respond to the consumer voice with operational changes, is not clear. Perhaps, this concluding step towards accountability is yet to be taken.

The closely related statement '*Providers feel cohesion with their patients and/or communities*' has been rated neutrally for the pre-partnership context and found valid in the post-partnership context, thanks to the strongly acknowledged effort of partnerships and external environment to improve the situation. The evaluators have seen PHC providers involved with and respected by their communities. Patient trust has grown in line with the increased quality of services. Family practice has increased the number of provider/patient encounters per family; the comprehensive PHC model has motivated provider to improve knowledge of the family history. The increased scope of PHC and family-oriented approach to its provision have strengthened the consumer/provider bond. Absent equitable payment systems that reward productivity and efficiency, informal user payments provide a mechanism of price/quality arbitration that continuously validates and, ultimately, consolidates this relationship.

Table 20. Program Summary of Community-based Health Activities

Partnerships	Health Fairs	Media Events	General Publications	Patient Clubs/ Support Groups	'Patient Schools' (Disease-specific)	School-based health education	Community Health Boards/ Councils	Community-based Prevention Program	Health Education Resource Centers	Collab. with National NGOs	International collaboration
CAR											
Astana/PA	X	X	X	X	X	X	X	X		X	X
Bishkek/NV-FL			X				X			X	
Dushanbe/CO		X			X					X	
Ashgabat/ND	X	X	X	X		X			X		X
West NIS											
Minsk/NJ	X		X		X			X			
Chisinau/VA			X		X		X	X			X
Kramatorsk/PA	X	X	X	X	X	X				X	
Kharkiv/WI		X		X	X	X		X			
Kiev/PA											
L'viv/OH	X	X	X		X	X	X	X	X	X	
Odessa/CO		X				X	X	X	X	X	
Uzhgorod/OR				X		X	X	X	X		
Russia											
Khabarovsk/KY				X	X	X		X			
Kurgan/WI		X	X	X	X	X	X				
Sakhalin/TX	X	X	X		X	X	X		X	X	
Samara/IA	X	X		X	X			X	X	X	X
Sarov/NM	X	X	X	X	X	X				X	
Snezhinsk/CA											
Tomsk/MN	X	X	X		X	X		X	X		X
Volgograd/AR		X	X		X		X				
Caucasus (selected partnerships)											
Armavir/TX	X	X	X			X		X	X	X	
Gegarkunik/RI	X	X	X			X			X	X	X
Lori/CA	X	X	X			X		X	X	X	X
Yerevan/DC	X		X	X	X	X		X		X	X
Baku/VA											
Baku/OR			X	X	X		X			X	X

Compiled from: Partnership End-of-project Self-evaluation Reports; Partnership Summary descriptions on the AIHA Website. AIHA Program Annual Reports.

Providers, particularly nurses, are effective advocates of gender fairness in the health sector. According to the summary opinion, gender parity has been strongly supported by the partnerships. The pre/post-partnership valuation of the above statement has changed from neutral to agreement. The partnership program has strengthened the gender balance in the following important ways: (i) Improved women's and maternal services. Provision of care under the comprehensive model of women's wellness has reduced women's risks and improved outcomes of STIs, non-communicable diseases, pregnancy and post-partum. (ii) The expansion of PHC practice into behavioral problems, particularly, active prevention and management of domestic violence, has positively affected women's well-being. (iii) Partnerships have dramatically improved the scope and quality of primary health care for adult men by integrating health promotion with personal care, and strengthening response to alcohol and substance addiction, occupational risks, and psychiatric and behavioral disorders. Previously alienated from PHC (seen as predominantly

women's and children's care as well as the source of sick leaves), the adult male population has rediscovered PHC in its new incarnation and returned to GP offices to learn how to preserve their health.

3.5.4 Societal Perspective

Providers want and have capacity to engage with civic agendas. This was confirmed both for pre- and post-partnership environment. Neither partnerships nor external factors have been credited as particularly important promoters of the provider activism. Indeed, the empowering role of the program was subtle, compared to some other donor programs, lately seen by political hardliners in the NIS as the breeding sites of political dissent. Providers of care, trained under partnerships, now assess community needs and address them as an inherent part of their job-related functions. Trusted by their communities and patients, they increasingly arbitrate in family discords, broker on behalf of their patient population with local police to put a traffic light where the elderly cross the street, deal with the local utility organization to restore water supply after a pipeline failure, work to ablate a nearby source of air pollution. Strengthened professionally, family practitioners stand out as the source of sound judgment and civic integrity. This has resulted in the election of many partner providers into the local legislatures; and has advanced the professional careers of a few others into executive offices including that of health minister's and a deputy health minister's. Former partners have also gained prominence in the academe. Their combined professional and political capacity to further reforms in their countries is significant and attests to the important transformational result of the partnership program.

The related statement '*Communities are effective advocates on health and public matters*' has evoked neither agreement nor disagreement in the pre- and post-partnership contexts. Upward community advocacy is not part of the NIS practice. The most viable advocacy that partnerships helped establish are through the local FMCs and competent family doctors and community nurses.

Finally, opinions were elicited about *decentralization and privatization* in the primary health care sector. In both areas, the situation was assessed as adverse prior to the program, and improved to neutral for privatization and supportive for decentralization. The partnership effort was acknowledged as strong in both areas, while the environment was found inert.

In conclusion, the partnership-sponsored transition to a new, comprehensive model of primary care has triggered change at the workplace, organizational, and community levels. Empowered by new knowledge, better access to information, and broadened responsibility and autonomy, PHC providers have gained in their professional and social status. The health care organization has made modest progress towards a participatory management style and in several partnerships has shown remarkable flexibility in adjusting its staffing and finances to the new care strategy and resource needs. The community now participates in PHC priority setting and planning. While health care providers and organizations are not necessarily accountable to the community, they are better informed about community needs and customer feedback. Increased professional power and stronger ties to the community have strengthened the civic activism of family care providers and their upward mobility towards important jobs in the government, academe, and legislative bodies. The transformational impact of the partnership program is apparent, even though subtle: invariably based on the promotion of professional rather than political agendas. With their low-profile 'technocratic' approach, partners have won the hearts of highly educated professionals, patient families, and community groups – an important precursor of broad-based support for longer-term and more profound change.

3.6 Sustainability and Replication

This section examines the scope, factors and mechanisms of sustaining and replicating partnership results. It addresses two evaluation questions:

To what extent,

Q12. ...Did the partnerships contribute to the sustainability of the PHC centers? What are the key determinants and barriers (internal and external) to their long-term success? Assess the success and sustainability of outreach and patient education activities as well as prevention-oriented programs.

Q13. ...Contribute to the replication of partnership models and outcomes?

3.6.1 Sustaining partnership results

Results in this context are defined as health care systems and practices that represent the new model of comprehensive, patient-centered PHC. Thus, process- and output-related results are analyzed in this section, rather than outcome/impact-related results. To sustain program outcomes/impact (previously defined as demand for, access to, and utilization of primary care, as well as health/welfare gains) may require future refocusing of health strategies and organizational systems. To address the sustainability agenda in practical terms, it is important to place it in a defined time perspective: To what extent have PHC provider capacity, outreach and patient education activities been sustained *thus far*? What factors of support and resistance to sustainability have been identified as relevant and are likely to play a role in the future? What can be done to sustain partnership legacy until the evolving political, demographic and epidemiological situation in the host country requires further transformational change?

In Table 21, essential program outputs are assessed from the standpoint of their sustainability. Supports and barriers/risks to sustainability are briefly analyzed within each output. The comments and analysis are based on program documented evidence and observations/conclusions made during this evaluation.

The overall conclusion is that major program achievements in modernizing PHC strategies, systems, and practices have been sustained to date and stand a good chance to remain in use in the future. The risks to sustainability are present and should not be ignored. In the unlikely worst-case scenario of a coordinated system opposition to change, the identified sustainability risks can disable the program legacy. More likely, however, the political, regulatory, financial, and organizational impediments to the sustainable practice of evidence-based PHC will present an audible but manageable background noise that NIS partners are accustomed to address just the way any innovators are, by virtue of being at the cutting edge of professional and institutional development. It may be recommended that a sustainability-monitoring tool be developed and used for a periodic inquiry into the sustainability status of major partnership achievements. The practice of the partnership-level sustainability grants could be renewed in a modified form: for NIS-wide support of a specific area of the partnership legacy. For example, in two years from now there may be a technical assistance grant to review and update all Women's Wellness Centers on the latest clinical evidence; and conduct refresher training of the faculty and practitioners. Another 'maintenance project' of this kind could focus on creating a regulatory mechanism that would enable an ongoing modification of practice guidelines and PHC practice to evolving evidence. Some areas of sustainability are yet to be addressed. The sustainability agenda, presented under the last item of Table 21 (Evidence-based Clinical Guidelines) outlines a few opportunities for groundbreaking assistance, for example to help NIS countries set up their national health service research.

Table 21. Program Sustainability Summary

Essential Program Outputs	Sustainability		Institutional and Financial Supports and Barriers/Risks
	To date	Outlook	
Increased PHC capacity (new facilities)			
General (family) practice offices, departments, ambulatories, centers, clinics	+	+	<u>Supports</u> : The national PHC doctrine in all the host countries has adopted the concept of general (family) practice. National classifications of providers include General/Family Practices (GP/FP) as part of the district polyclinics in cities and central district hospitals in towns and rural areas. This means, budget resources are routinely obligated for these providers. Medical education programs have been revised to accommodate PHC as an area of clinical specialization. Patients accepted and increasingly trust the new model. National and regional PHC strengthening programs are developed with the firm orientation on the 'family medicine model'. One of the main systemic supports is the conversion of most partnership model clinics into clinical training sites under the regional and national pre/post-graduate residence programs. Additional cost of capital and minor equipment has been internalized at the current level of fixed investment in PHC. Federal subsidies and national health insurance helped defray additional cost. Rural FMCs are willingly supported by the local municipalities (village councils), e.g. provide housing and utility subsidies for their doctors. <u>Risks</u> : There are always random risks of the kind that shut down the Odessa PHC Clinic for a period of time: the clinic had to look for, and move to a new location after city authorities decided to take their building away and discontinued the lease agreement.
Women's wellness centers	+	+/-	<u>Supports</u> : Securely within the 'nomenclature' of health provider facilities (even if under the traditional title of Women's Consultations), therefore are not at risk of being left out of the on-budget financing. The resistance to the transformation of Women's Consultations has been long overcome. Most WWCs have been set up as part of general practice, strengthened, if needed by a part/full-time ob/gyn physician. Therefore, all the supports outlined for GP/Family practice work for WWCs. Importantly, partnerships have shown the evolutionary pathway for Women's Consultations (a provider facility that stood to loose from the integration of women's care into GP/FP) by guiding their transformation into WWC referral center for secondary outpatient care. <u>Risks</u> : The WWCs have evolved in some partnerships to provider training and patient education roles rather than a direct care role. This limits the choice of women who might prefer care at a WWC rather than a primary health care center.
Student PHC Clinics	+	+	<u>Supports</u> : A very successful case of institutional leveraging: in Kharkiv, each university has provided space to set up a new PHC Clinic for their students, the Oblast Health Administration has purchased equipment, while the Central Student Polyclinic has established practice management and care delivery systems by way of replicating the partnership-sponsored model clinic on a 1:11 ratio.
Cardiovascular wellness center	+	+/-	<u>Support</u> : If set up as part of the general practice, will be supported by the aforementioned factors. <u>Risks</u> : If established as a specialized facility, will be exposed to the risk of re-subordination to the Cardiology Service with an 'upgrade' to a high-tech diagnostic-consultative center. The wellness-based approach with the focus on prevention may erode to specialty cardiology. The main financial risk is continued exclusion of depreciation from operating costs and budget. This may jeopardize timely replacement of a relatively expensive equipment present in this center.
Increased PHC practice scope (new care management strategies and services)			
Care for patients with asthma, hypertension, and diabetes	+	+/-	<u>Supports</u> : MOH, national R&D clinical institutes (a de facto equivalent of specialty boards in the U.S. when it comes to the endorsement of new care strategies), academics, and other leaders of the clinical community have bought in the concept of evidence-based medicine. Chronic patients accomplished a quantum leap in changing their care seeking behavior. They enjoy self-reliance that the new care management strategies gave them in controlling their and their children's conditions. <u>Risks</u> : (i) National governments sometimes introduce sweeping change under their programs that creates a 'bull in the china shop' impact on the previous innovation. For example, the National Priority Project in Russia has mandated a major additional workload on PHC providers of seeing most of the adult population for annual physical examination. Given limited staffing and resources, this may result in a setback to a 'revolving door' management of patient/provider encounter. The patient-centered chronic care model that emphasizes patient education and regular 'maintenance visits' may erode. (ii) The institutionalization of clinical guidelines – the backbone of new approach to care – has not yet happened in most NIS countries. While evidence-based medicine is supported by clinical elites as a concept, specific practice guidelines are yet to be endorsed by them. Based on the evaluators' experience in other countries, a long and laborious discussion will have to be established in each clinical specialty to ensure professional support and, ultimately, regulatory support. (iii) Self-monitoring devices and drugs are critical for managing these conditions. Their supply has improved dramatically, yet may not be taken for granted in the NIS. In Russia, over the past year

Essential Program Outputs	Sustainability		Institutional and Financial Supports and Barriers/Risks
	To date	Outlook	
			the supply of many imported drugs and health supplies has deteriorated.
Breast cancer screening	+	+	<u>Supports:</u> There is national consensus in all the countries on the importance and efficiency of this effort. <u>Risk:</u> The partnership-sponsored model has established a parsimonious strategy: breast self-exam and annual clinical exam are the bases for selective referral for mammography. In the NIS clinical community there are voices in support of annual universal mammography for women of childbearing age. Until the divergence of opinions over practice standards is resolved, institutional support will be lacking for partnership-sponsored guidelines.
Breastfeeding counseling	+	+	<u>Supports:</u> There is total and complete support of this area of PHC innovation from providers, patients and health sector leaders alike. <u>Risk:</u> The risk that the workplace and other public environments may not be accommodating for breastfeeding women does exist, yet is minimized by the liberal maternity leave. Aggressive marketing by domestic producers of infant formula may displace breastfeeding in the newly emerging middle class.
Care for newborns and infants	+	+/-	<u>Supports:</u> The <i>children's immunization program</i> had pre-existed partnerships. The system support for this major public health effort has been restored after it collapsed in the 1990's: supply of vaccines has been re-centralized; the cold chain has improved; newer antigens have been integrated in the national immunization schedules of most NIS countries. The <i>growth and development monitoring and counseling</i> is the area that has been significantly strengthened by the partnership program. PHC providers fully bought in this practice agenda and so did mothers and families. The number of annual visits for infant growth and development has increased in the partnership care sites. Corrective action in the cases of retardation is much better understood now and can be effectively taken, based on the current availability of vitamins and basic diet supplements. <u>Risks:</u> (i) The partnership-sponsored infant care agenda is challenged by malnutrition, some of which is rooted in poverty and lack of public health action at higher policy-making and organizational levels (e.g., water fluoridation and flour fortification). (ii) While PHC providers were taught to use less contraindications for immunizations, the regulatory framework has not changed and exposes providers to punitive administrative measures for 'medically inappropriate' immunizations. These risks may impede health gains, but will not discourage the provision of newborn and infant care according to the new guidelines.
Mental Health	+	+/-	<u>Supports:</u> New activities that partnerships have introduced in this practice area include mental health section in the self-administered triage survey (Uzhgorod/OR), a protocol for focused examination for psychiatric/behavioral problems (Kyiv/PA), referral for specialty care, PHC follow-up; mental health education (L'viv/OH), counseling (Kharkiv/WI), and hotline-based crisis support (Astana/PA). All the mentioned partnerships have been visited or interviewed. They have successfully sustained their mental health programs. <u>Risks:</u> (i) The regulatory environment in the health care sector is not conducive to the integration of mental health in PHC. (ii) The new model requires modified staffing and resource schedules in PHC clinics. Partnership-sponsored clinics had problems adding social workers to their staff and were unable to support some of their volunteers from socially vulnerable groups. Financing these services may prove to be difficult in the long run.
Occupational health	+	+/-	<u>Supports:</u> Russia's return to annual physical examination of the at-risk public sector workers provides institutional support for the limited partnership effort in occupational health. The labor laws have been strengthened to increase employer liability. <u>Risk:</u> Many occupational hazards and workplace risks lie outside the public sector, exacerbated by a large-scale employment in the 'gray' labor market, where workplace conditions are adverse and employer accountability for occupational safety is unenforceable. Many of such workers would not be covered by either workman's compensation or health insurance programs, and may therefore lack access to health services. Again, this is a risk for sustaining health outcomes. It does not jeopardize the new ways of providing occupational health services established under the partnerships, (e.g., for miners under Donetsk-Kramatorsk/PA partnership and seaport workers under Odessa//CO partnership).
Lab testing, ultrasound diagnostic, and EKG capacity	+	+	<u>Supports:</u> The improved clinical lab capacity, including upgraded equipment, lab technician skills, and training of PHC practitioner skills in reading test results have been sustained in all observed partnerships. In Russia and Kharkiv, Ukraine a system-wide upgrade of lab equipment is in progress, funded, from the federal and regional budgets. This raises the expectation that partnership care sites will have funding to replace the donated equipment as it becomes obsolete. Laboratory technicians have been integrated into the PHC clinic staffing schedules. To achieve this in the rural areas, FMC ambulatories were allowed to train their nurses to become part-time lab technicians. The number of patient visits for undifferentiated symptoms and complaints has increased, providing a steady workflow for labs. PHC practitioners expressed satisfaction with increased self-reliance in clinical lab ultrasound diagnostics. The availability of ultrasound serves as an incentive for families to come for prenatal care. The EKG technology is crucial to the sustainable application of new clinical guidelines for PHC management of cardiovascular diseases. Thus, the sustainability of the increased diagnostic capacity of PHC clinics seems to be resolved both on the supply and demand sides. <u>Risk:</u> In the healthcare system where depreciation is not a budgeted cost, there is always a risk of insufficient funding for the replacement of relatively costly equipment.

Essential Program Outputs	Sustainability		Institutional and Financial Supports and Barriers/Risks
	To date	Outlook	
Community outreach and health education			
Health promotion through general and risk/population-specific health education	+/-	+/-	<p>Supports: Providers have fully understood the importance of community and patient education and have learned relevant organizational and communications skills to carry it out. Health education agenda has been introduced in target schools and, selectively, embedded in the regional school education standards and curricula. Community buy-in has been largely sustained and increased to include church (Tomsk), leaders of the higher education system (Kharkiv), and additional NGOs (e.g., the one, supporting families with disabled children in Astana). Patients and population have stayed conducive to targeted health education campaigns. Popular demand played a particularly important role in sustaining some community initiatives (e.g., the retirees club in Astana). Trained by many partnerships in fund-raising techniques, NIS health organizations succeeded in leveraging their funding for community health programs through international development banks, donor agencies and NGOs. Barriers and Risks: Some activities in the initially established community health agenda seem to have eroded over time. One model FMC clinic discontinued the WWII veteran's club meetings for the lack of providers' time while keeping the furnished space still assigned for those meetings and health education materials, developed under the partnership, properly filed. Another partnership stopped active support of the anonymous drug user counseling, even though in touch with the voluntary group coordinator who provides ad-hoc organizational help. Health fairs are less common now. Several former partners reported lack of funding for printing health education materials. There is a persistent problem of creating the pipeline of professional social workers. Since their job descriptions have not been revised at the system level, the instructional objectives in the education of social workers are still focused on their traditional menial function of running errands for the frail and disabled. Until the social work is established as a professional career track, the partnership-sponsored proactive model of community health will miss one of the key characters in the implementers' cast. Another systemic barrier is the lack of funding mechanisms: most of the community health activities are not funded by the national health insurance programs on the scale, established under the partnerships. Budget funding in some public health areas (STIs, HIV/AIDS, TB) is allocated to centralized vertical programs, including the health education component of those programs. PHC providers receive externally printed materials for their patients and are bound by program standards, activity plans, and reporting requirements. They control neither the content of the public health messages nor the interventions under these programs. Inability to customize vertical program approaches to the local community needs is seen as a step back from the locally aligned public and personal health care that the partnership program successfully established in its PHC care sites.</p>
Quality-of-Care Mechanisms			
Evidence-based clinical guidelines	+	+/-	<p>Supports: Clinical guidelines have become the backbone of the reformed quality-of-care system as they have significantly changed the basic approach to health, risks, disease, patient care, and provider/patient communications. Based on the partnership self-evaluation reports and information produced in the course of this evaluation, the general (family) practice in the NIS partner care sites continues to adhere to practice guidelines and standards. Further sustainability will critically depend on three factors: (i) On-going modernization of the guidelines to reflect the evolving evidence; (ii) Institutionalization of the evidence-based practice through its integration with the nationally defined care strategies; (iii) Integration of evidence-based PHC into the medical and nursing education, basic and post-graduate.</p> <p>Regular update of clinical guidelines requires the fulfillment of the following conditions: (a) a properly established review of PHC literature to continuously identify and evaluate global best practices; (b) the initiation of country-specific health service research, including randomized outcome studies that would provide primary evidence on the effectiveness of specific approaches to disease management and PHC care organization; (c) dissemination of modified guidelines through conferences, scientific and trade publications, and, most importantly, Internet.</p> <p>The institutionalization of evidence-based guidelines is the matter of: (a) doctrinal consensus among the leaders of the clinical community; (b) the push (advocacy) from PHC practitioners combined with the pull from the MOH to inscribe the guidelines into practice regulations; (c) alignment of PHC resource schedules and budgeting norms with evidence-based practice needs.</p> <p>Integration of evidence-based PHC into the medical and nursing education requires as follows: (a) appropriate change in educational program goals, instructional objectives, curricula, and training materials; (b) involving academics and students in biomedical and statistical research that contributes to the on-going validation of evidence; (iii) their full participation in the international and domestic professional discussion and exchange on relevant subjects.</p> <p>Risk: The risk to future sustainability is inverse to progress along the above-outlined agenda. The agenda itself could be, and certainly is worth being considered for the next round of health partnerships in the NIS.</p>

An additional insight into the sustainability agenda has been drawn from the survey. The respondents have evaluated the role of 17 factors in supporting or resisting sustainability. Opinions on each factor were elicited for three contexts: pre-partnership status – partnership effort to make this factor work for the sustainability – end/post-partnership status. Given that outputs were diverse in most partnerships and the supports and impediments to sustainability could be different for different outputs, the respondents were asked to set their minds on just one important output, when estimating the role of specific factors. They were asked to identify such an output, called the “Most Valuable Innovation” (MVI) in the survey. Further discussion of sustainability is thus derived from partner experiences with four types of innovation shown in Figure 17.

Figure 17. Partnership’s ‘Most Valuable Innovation’ in Partners’ Own Words

PHC Practices / Facilities	PHC Strategies and Programs	PHC Tools	Provider Education Programs and Facilities
<ul style="list-style-type: none"> Family Medicine Center for nationwide replication in support of national health sector reforms 	<ul style="list-style-type: none"> Family Medicine Model and Practice 	<ul style="list-style-type: none"> Computer-based cardiac assessment protocol 	<ul style="list-style-type: none"> PHC Clinical Training and Skills Assessment Center
<ul style="list-style-type: none"> Model PHC Clinic for nationwide replication 	<ul style="list-style-type: none"> Model of integration of social care into PHC 	<ul style="list-style-type: none"> A methodology of comprehensive assessment of maternal health risks 	<ul style="list-style-type: none"> BSN education program
<ul style="list-style-type: none"> Family Medicine Center with the focus on women’s and occupational health 	<ul style="list-style-type: none"> Student health education and counseling program 	<ul style="list-style-type: none"> Practice Guidelines: Integration of Behavioral Health into Primary Care 	<ul style="list-style-type: none"> Postgraduate GP medical education program
<ul style="list-style-type: none"> Freestanding GP Centers, serving students, under the City Student Polyclinic 	<ul style="list-style-type: none"> Breast feeding education and counseling 	<ul style="list-style-type: none"> Comprehensive Community Assessment Guide 	<ul style="list-style-type: none"> PHC nurse leadership development
<ul style="list-style-type: none"> PHC physician group practice with strengthened patient education component 	<ul style="list-style-type: none"> Teamwork approach to PHC 	<ul style="list-style-type: none"> Clinical guidelines for general practice 	<ul style="list-style-type: none"> Neonatal resuscitation training
<ul style="list-style-type: none"> Restructuring of PHC provider network 	<ul style="list-style-type: none"> Evidence-based PHC, based on practice guidelines 	<ul style="list-style-type: none"> A toolkit to identify priorities in public and personal health 	<ul style="list-style-type: none"> Clinical nurse training for general practice
<ul style="list-style-type: none"> PHC Centers with family medicine practices 	<ul style="list-style-type: none"> Public and professional discourse on public health education 	<ul style="list-style-type: none"> Strategy and planning toolkit to prepare pregnant women for childbirth and breastfeeding 	
<ul style="list-style-type: none"> Women’s Wellness Center 			
<ul style="list-style-type: none"> Multi-specialty PHC center in polyclinic 			

The assessed factors present the three tiers of support for sustainable innovation – individual, organizational, and societal. In Table 22, these factors are sorted by the rightmost column – according to their current strength. The following paragraph contains the review of the top five and bottom five items on the list.

There are only two *individual* factors in this analysis; both are knowledge-related; and both are at the top of the chart. Thus, individual professional knowledge represents the strongest support for sustainable innovation in the post-partnership PHC environment. The strongest support at the *organizational* level comes from ‘Organizational capacity to address the problem / manage innovation’. The strongest support at the *societal* level is provided by the ‘Urgency of the underlying health need / problem’, followed by the ‘Public awareness of the problem and demand to address it’. The five lowest-rated factors are mostly of the mixed organizational/ societal nature and all have to do with financing: ‘Supply of international funds for addressing the problem’, ‘Supply of external domestic funds for addressing the problem’, ‘Incentives / expected economic returns for the innovators’, ‘Fund-raising capacity to obtain additional funds’, and ‘Cost-recovery: increasing revenue from user fees and commercial care contracts’. Apparently, respondents are the least optimistic about the economic supports for sustainable innovation.

Table 22. Factors of Support of the Partnership-sponsored Innovation

Factors were rated on a five point scale: 1 – ‘None’; 2 – ‘Limited’; 3 – ‘Average/Somewhat limited’; 4 – ‘High/Strong/Sufficient’, 5 – ‘Very high / Very strong / Plentiful’.

Factors are categorized as: Ind – ‘Individual, Org – ‘Organizational’, Soc – ‘Societal’.

Factor Category	Factors	Pre-partnership		Partnership contribution		End/post-partnership	
		Median	Avg	Median	Avg	Median	Avg
Ind	1. Level of professional knowledge of the need/problem	Somewhat limited	2.7	Strong	4.3	Strong	4.4
Soc	2. Urgency of the underlying health need/problem	High	3.6	N/A	N/A	High	4.3
Ind	3. Knowledge of best-practice strategies & prototype solutions	Limited	2.2	Strong	4.3	Strong	4.2
Org	4. Organizational capacity to address the problem / manage innovation	Limited	2.1	Strong	4.0	Strong	4.0
Soc	5. Public awareness of the problem and demand to address it	Limited	2.2	Strong	4.0	High	3.8
Org	6. The organization's own funds for addressing the problem	Limited	1.9	Strong	3.8	Sufficient	3.6
Org	7. A match between the innovation and the innovator's mission/operational scope	Limited	2.1	Strong	3.5	Sufficient	3.6
Org	8. Organizational capacity to make the best use of available resources	Limited	2.3	Strong	3.8	Strong	3.6
Soc	9. Policy support for addressing the problem	Limited	2.2	Strong	3.5	High	3.5
Org	10. Ability to adjust mission/operational scope in order to address the problem	Limited	2.1	Strong	3.5	Strong	3.5
Soc	11. Legal/regulatory support for addressing the problem/supporting innovation	Limited	2.0	Somewhat limited	3.0	Strong	3.4
Org	12. Advocacy capacity to recruit policy, regulatory, & funding support	Limited	1.9	Strong	3.4	Somewhat limited	3.3
Org/ Soc	13. Cost-recovery: increasing revenue through user fees, commercial contracts	Limited	2.4	Somewhat limited	3.2	Somewhat limited	3.2
Org	14. Fund-raising capacity to obtain additional resources	Limited	1.9	Somewhat limited	3.3	Somewhat limited	3.2
Org/ Soc	15. Incentives /expected economic returns for the innovators	Limited	1.9	Somewhat limited	3.2	Somewhat limited	3.2
Org/ Soc	16. Supply of external domestic funds for addressing the problem	Limited	1.7	Somewhat limited	3.0	Somewhat limited	3.2
Org/ Soc	17. Supply of international funds for addressing the problem	Limited	1.6	Somewhat limited	3.1	Somewhat limited	2.7

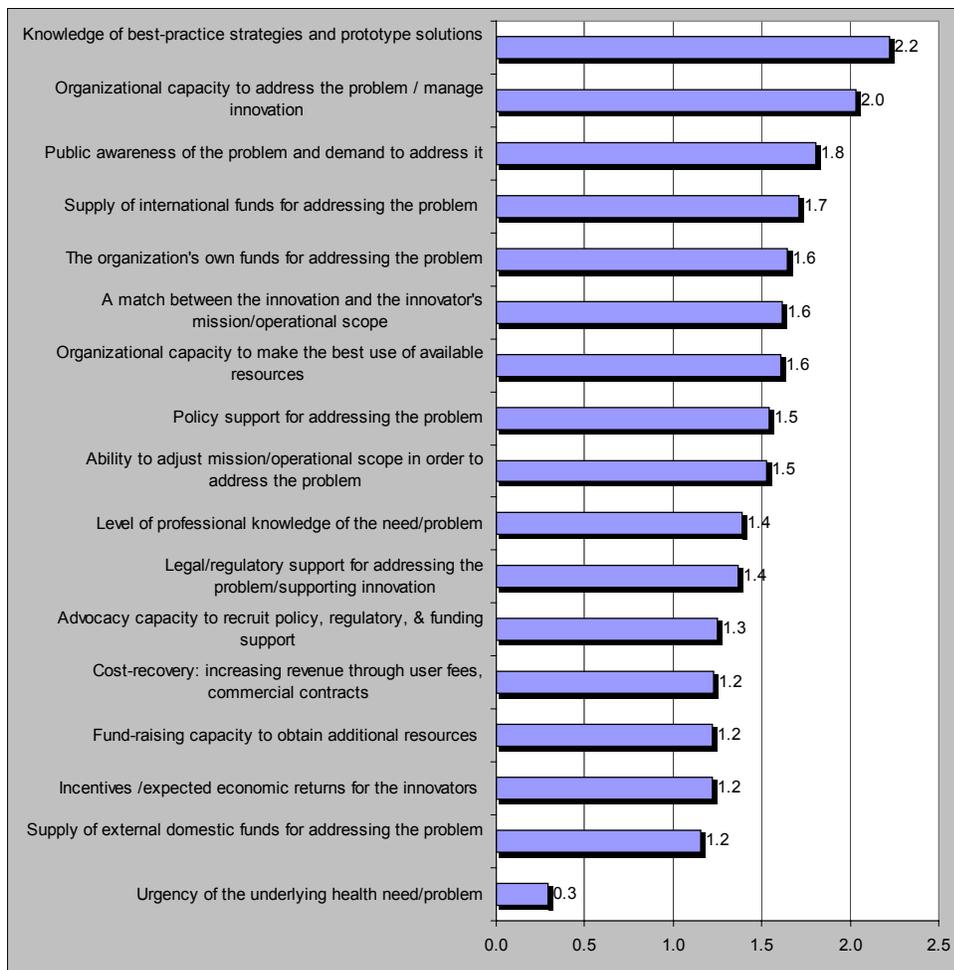
Partners have concurred in the opinion that all the factors have been significantly strengthened in a pre/post-partnership time perspective. Regardless of the various external supports, partnerships have been credited for their strong contributions, the most strongly recognized ones being: the transfer of professional knowledge (factors 1 and 3, see Table 22), organizational capacity strengthening (factors 4, 6 and 7), and building public awareness (factor 5). This leads to the identification of the important secondary outcome of the partnership program: the strengthening of resources and mechanisms for fostering and sustaining innovation in the broadly defined area of primary health care.

An important underlying objective of this analysis was to find out why the most valuable innovation could not be developed and implemented before the partnership. It is now clear that the individual, organizational and societal capacities and supports were weak (Table 22). The only significant push for change could come from the urgency of the underlying health/social problem. However, the public had limited ability to understand the problem, while health care organizations had limited ability to address the problem. The hope that the partnership-sponsored innovation will be sustained, relies on the much increased strength of most of the support factors. The increase (factor strength increment score) is presented for each factor on

Figure 18. The context for interpreting these scores may be presented with the following question: If NIS health care professionals and organizations could not figure it out on their own, why do you think they will be able to sustain what the partnerships have done for them -- use, further develop, and continuously adapt the innovation? – The answer comes out clearly: (1) The knowledge of best-practice strategies has been internalized by NIS partners. Partnerships’ achievements in the knowledge-building area are not based on what was done *for* the NIS partners, but what was done *by* them. (2) Organizational capacity to address the problem and manage innovation has been significantly strengthened. (3) Educated by the partnerships, the communities are now much more aware of the health and social problems addressed by the partnerships and generate steady demand for their sustainable solution. Supply of international funds for addressing the problem has significantly increased, as partners have developed into savvy marketers of their achievement and competitive grant applicants. The other factors of support have been strengthened significantly

Figure 18. Factors of Sustainable Innovation: Factor Strength Increment Scores

Estimated as the post/pre-partnership difference in partner ratings on a 5-point scale



compared to pre-partnership levels, except the urgency of the problem, as it could hardly become any more urgent.

3.6.2 Replication of partnership results

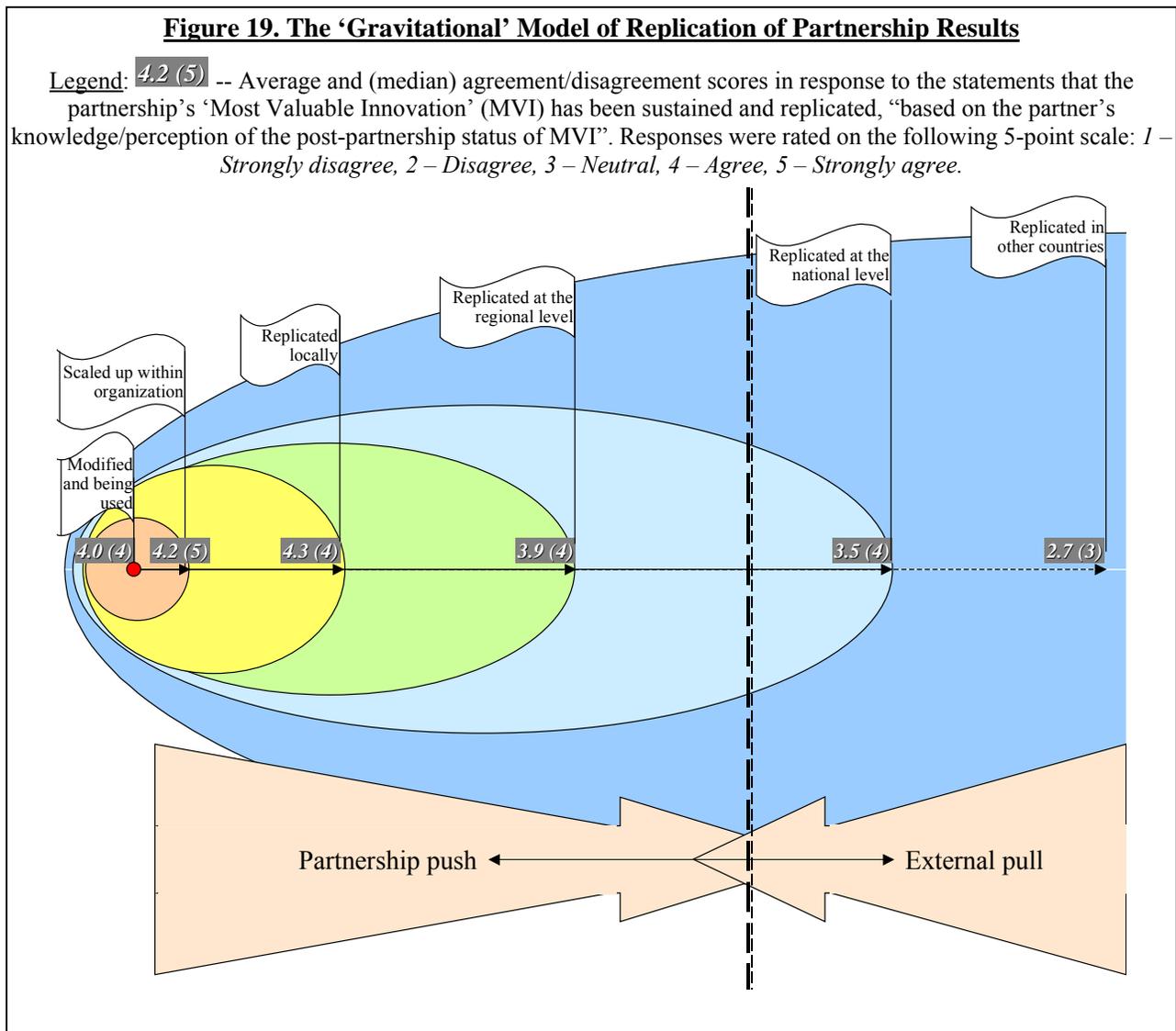
Replication may be defined as an activity and a result. As an *activity* it entails experience sharing, including knowledge dissemination; policy advice; regulatory, financial, and managerial design for a country, region, insurance plan, and provider network; and focused consulting for a specific replication site or community. As a *result*, replication is characterized by a variety of replicated care sites, programs, methods, and tools. Understandably, not all replication activities result in

replication. A partnership that has invested heavily in replication in a non-conductive environment would be properly credited on its activity, but not if the analysis is focused on results. The opposite scenario is possible: replication has produced a tangible result but was achieved with little effort from the partnership. The latter would be credited on the result but not on the activity, unless the activity is misattributed to the partnership. To avoid possible confusion, the analysis of replication, presented in this section has focused on the cases of effective replication (observable by its result) regardless of partnership involvement.

Five dimensions of replication are examined: objects, scope, scale, attribution, and factors.

The *objects* of replication are identified among the output-related partnership results, similar to the sustainability analysis in the previous subsection. The *scope* has been studied in five levels: a scale up within the organization; replication in other local sites; replication region-wide, nationwide, and to other countries. The *scale* of replication is estimated by patient population, served under the new model of comprehensive, patient-centered primary health care; and by the number of general (family) practitioners involved in the provision of care under the new model. *Attribution* is an attempted analysis to distinguish the source(s) of replicated experience or, at least reflect on what those may be. *Factors* are discussed, partially in the context of attribution analysis but also from the standpoint of what helps replication regardless of the prototype source.

Objects of replication



As part of their end-of-project self-evaluation, partnerships provided an outlook for replication. This information has been used to identify the following objects with potential for replication: PHC centers, practice guidelines and tools, patient education materials, and provider training curricula and materials. PHC provider facilities were found to be the most common replication objects during and immediately after the partnerships. The replication of primary care clinics results in a comprehensive transfer of partnership experience: each new clinic adopts practice guidelines and standards, staffing and equipment schedules, common elements of interior design, standard operating procedures, patient education programs and materials, quality control tools, and, selectively practice management systems. PHC clinics asserted themselves as a medium for an integrated replication of partnership-sponsored care delivery systems.

Scope of replication

The questionnaire-based survey has revealed a replication pattern, presented in Figure 19. There is a consensus among the respondents that the ‘Most Valuable Innovations’ of their partnerships (MVIs) have continued to be used in their organizations, predominantly in the modified form. There is strong agreement that the use of MVIs has been scaled up in the partner organizations (for example, more satellite FMCs were opened under the former partner city polyclinic as in Kharkiv, Ukraine or district hospital as in Tomsk, Russia). There is an equally strong agreement that MVIs were replicated locally: in a city, town, or rural district. Partners also concur that there was an uptake of their partnerships’ innovative results at the regional level (capital cities and oblasts). The query about the national level of replication also produced the median response of 4 – ‘Agree’, yet the average level declined to 3.5 – between ‘Agree’ and ‘Neutral’. Finally, respondents, on average, were not sure about the replication outside their countries: the median response was ‘Neutral’ but the number of those able to respond at all has dropped precipitously.

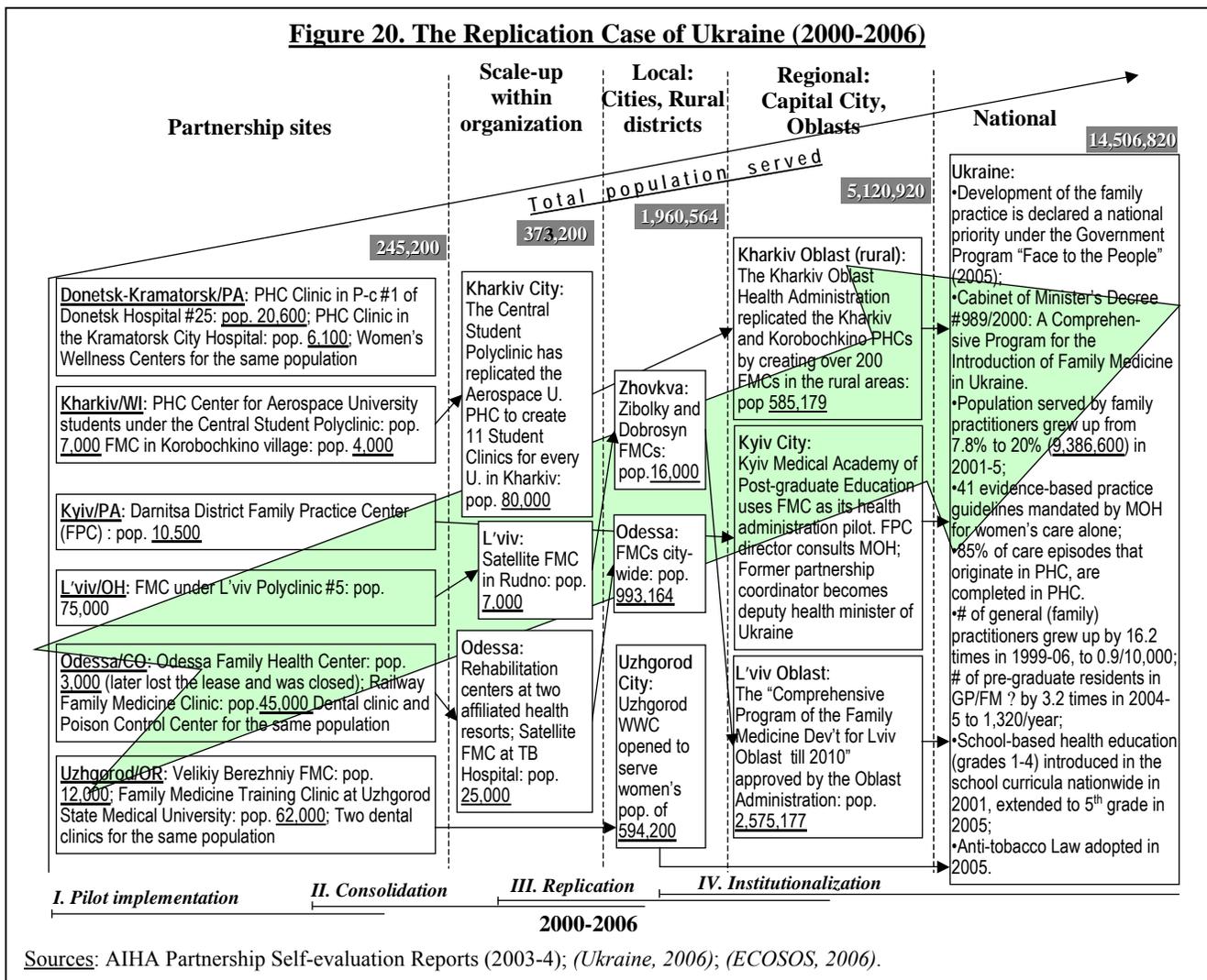
The reviewed survey-based evidence leads to the conclusion that the partner organization and the local health care networks are the main replication arenas: at these levels partners directly contribute to replication, observe results, and confidently report them. As the ‘distance’ grows between the original partner site and the replication domain (e.g., regional and national levels), the perceived replication results become less clear to the former partners. The inverse relationship between the strength of a phenomenon and the distance that separates it from the source is described in terms of the ‘gravitational’ model.

Empirical evidence may suggest that the replicability of the partnership-sponsored innovations drops as the attempted scope of replication increases. In order to prove or disprove this preliminary opinion-based conclusion, the reviewers have examined the opinions presented above for possible biases. The following biases are apparent:

- NIS respondents are predominantly lay-level PHC practitioners and practice managers. Their sources of information in the post-partnership setting are limited to direct professional involvement and visual observations. Both are confined to the local level, since professional exchange through conferences and high-profile policy meetings is mainly for the health executives, while the range and volume of trade publications is too limited to keep the provider community abreast of the replication trends.
- US respondents are no longer active in the NIS health agendas and stated their lack of information about the post-partnership progress of the once achieved results.
- NIS partners tend to think that the replication can progress only as the result of their effort. The former partners from Kramatorsk, Ukraine have reported no replication activity for lack of funding. Perceptive of the ‘partner push’ factor, they do not seem to consider the ‘external pull’ factor. In the Kramatorsk/Pittsburgh partnership case, any site-specific achievement accrues to the NIS-wide and global experience of Magee Womenscare International (MWI). This experience is disseminated through their 26 women’s health education centers in Eastern Europe and is now extended to Central America. Wherever the women’s

wellness model, promoted by MWI, is implemented in its entirety or select features, Kramatorsk practitioners should see and be credited for their contributions. A similarly understated contribution to the replication agenda was heard from the Darnitsa FMC staff (Kyiv/Philadelphia, PA partnership). They believe their experience of integrating family services with mental health has not been replicated and the clinic was not engaged in the replication activities. *Inter alia*, the evaluators have heard that the Clinic's director serves on the MOH Methodological Council, tasked with the on-going PHC policy design and evaluation. As part of their site visit, the evaluators have met with the senior faculty of the national Post-graduate Medical Academy. The meeting took place in the FMC where academics come regularly since Darnitsa FMC was chosen as the clinical and health management training site.

The reviewed observations suggest that NIS partners tend to underestimate external demand for partnership-sponsored innovations and the scope of the demand-driven replication that may be occurring at the national and international levels without the innovators' knowledge. To correct for this perception bias, the factual evidence about replication results has been collected and studied on the six partnerships implemented in Ukraine. These partnerships accounted for 31.9 percent of the program-wide spending on direct partnership activities, and 33.6 percent of the total in-kind spending. The information summarized in Figure 20 leads to an unambiguous conclusion that the partnership-sponsored achievements in establishing model PHC clinics



with integrated office-based primary care (general, women's, occupational, and dental), health education, and community outreach have been replicated at all system levels in Ukraine.

Attribution problem

To validate the preceding statement, it is important to remember that the higher up the replication advances, the more difficult it becomes to disentangle the role of a particular prototype from the role of the positive and negative confounding factors. In the case of Ukraine, this attribution concern is offset by the following two considerations: (1) The program impact is analyzed as the aggregate of six partnerships. This makes the estimation of partnership contribution more robust compared to the analysis of a single partnership's role. (2) The acting Health Minister of Ukraine, in a half-hour interview has acknowledged the strong and on-going feed of the partnership legacy into the MOH health policy and clinical designs of the past five years. MOH has hosted the focus group meeting in Kyiv, arranged with the representatives of the Ukraine-based partnerships in the course of this evaluation.

Scale of replication

Continuing the analysis of the Ukraine case, population that is served under the comprehensive model of PHC has grown from an estimated 245,200 in the partnership-sponsored model clinics to an estimated 373,200 at the first replication stage (after several satellite clinics were set up by the partner organizations); to 1.96 million at the second, local replication stage (level of rural districts, towns, and cities), to 5.12 million at the third, regional replication state (level of the capital city and oblasts), and to 14.5 million nationwide in 2005. The partnership-to-country replication ratio may thus be estimated at 1:59.

If replication scale is to be based on the number of general (family) practitioners, the estimated replication ratio is 1:31. An estimated 136 GP/FP physicians were trained under the six partnerships. Their innovative knowledge and practice experience have been factored in the job descriptions, practice guidelines, and training of the 4,224 GPs/FPs practicing PHC in Ukraine in 2005.

The detailed review of the 'Ukraine replication case' is indicative of the replication trends reported by partnerships across the program and observed by the evaluation team in Moldova, Russia, and Kazakhstan. The most impressive instance of the nationwide uptake of the partnership-supported innovation has been observed in Moldova and discussed in detail in Subsection 4.1.2. The integration of the new PHC model with provider education, health care policy and finance has been key to successful replication in Moldova. The replication of the Demeu PHC Center experience to the Semipalatinsk Oblast of Kazakhstan has been based on the responsiveness of the new PHC model to the community demand (see Subsection 4.1.1). These and other contributors to successful replication are summarized under the next subtitle.

Factors/practices of successful replication

Successful replication is owed to a variety of factors, outlined below:

- The innovative nature and relevance of the partnership agendas, as well as the clout of the US professional community have put partnerships in the spotlight of the professional and public attention. Closely watched by supporters and skeptics alike, they were slated for popularity, success or failure. On the upside, partners were favorably pre-positioned for the dissemination of their prospective achievements.
- As it became clear that partnerships were bound for success (much as its scope might vary by organization), the time was ripe to start disseminating the new systems and practices. The dramatically increased clinical and practice management competencies, as well as communication skills, allowed the NIS partners to step up to the plate and become eloquent advocates for the new model. There is a marked

difference between the initial rounds of partner-level training, done overwhelmingly by the US partners and the cross-partnership training and experience-sharing events – dominated by the NIS presenters and peer discourse. As a result of the program-sponsored dissemination activities, the partnership-specific results have been collated across the region, and generalized for practice and policy implications. The Ministries of Health have invariably attended these events and were presented with professionally translated reports. Donors also participated or were otherwise apprised of the proceedings and recommendations.

- Effective dissemination activities have created a steady flow of knowledge about partner results and experience into the policy and technical designs of the host country government agencies (regional and national), as well as the donor program design.
- Riding the wave of the political interest in the development of Family Medicine as a ‘national institution’, e.g., in Moldova, Ukraine, Russia, Kazakhstan, Kyrgyzstan and Armenia, NIS partners came in demand for high-profile policy consulting. They have developed a strong upward potential that assisted in their career growth. Former partner coordinators took high offices in the national and local health administrations, and in academe. Family practitioners strengthened their status as community leaders and increased their presence in the locally elected bodies. Trained in nursing leadership skills, PHC nurses have formed several regional nursing associations. Partners have produced an impressive output of scientific and trade publications; completed their doctoral and post-doctoral studies summarizing their practice-based evidence for further enrichment and customization of the integrated PHC model. The aggregate effect of these developments was a significantly increased advocacy potential of the NIS partners and their personal/professional vesting in the sustainable application of the partnership-sponsored innovation. Partnerships have created a supply-side pressure from general practitioners, previously unknown in the NIS health policy milieu, traditionally dominated by specialty physicians.
- The partnership program management has adopted a politically winning approach to the promotion of partnership strategies and achievement. Ultimately, it is the local demand-driven, participatory nature of the partnership design and work planning that empowers the NIS side, builds self-esteem in the local professionals, and allows the innovation to take root and spread. To ensure that the culturally sensitive style of the program benefits the senior policy level, not just the lay level providers, the program managers served as an effective interface between partnership organizations and NIS governments to broker strategic solutions, develop decision-maker’s buy-in, and facilitate replication. Insistence on the US origins of systems and practices was not the main point of such communications. Instead, many partnership-sponsored innovations have been branded as the National Model of PHC Reforms (as in Kazakhstan). The program has succeeded in the previously overlooked agenda of developing political taste for health reforms by explaining top-echelon executives how political dividends can be gained from the reforms accomplished, not avoided.
- The program management has been effective in its insightful monitoring of the ‘big picture’ of national policies in the partnership host countries, looking for synergies and trying to foresee the emerging needs for the adaptation of the partnership-sponsored PHC model. European integration has been identified as an important source of institutional motivation in Moldova and Ukraine. Partnerships have started and, former partners now continue to feed their experience into the health policy harmonization effort that is unfolding in Ukraine (mandated by law) and Moldova. While formal requirements for EU accession have not been set out for these countries, they are trying to be proactive in complying with the EU integration frameworks. This may present a challenge of reconciling US-based approaches with the European models of care.
- NIS partnership sites have become magnets for donor programs, for example Demeu PHC Center, Astana for UNICEF; and the SMPU Family Medical Center, Chisinau for the World Bank. Cultivating the well-understood demand for dependable local collaborators, former partners have engaged with a variety of internationally funded projects and were paid to sustain and replicate their experience. Some of the partners soon learned to skip the middlemen and succeeded in winning grants and attracting resources, particularly

- from the international development banks. The engagement of additional donor support requires conceptual alignment and coordinated decision making among programs. This may be challenging since organizational identity and procedural requirements of donor agencies and implementing teams do not always concur with the model, standards, and quality requirements that represent partnership-supported innovation.
- Responding to program's priorities, all partners made significant progress toward integrating model practice sites with the pre/post-graduate residence programs and continuing medical education. Several partnerships made important steps in support of the higher nursing education in the host countries. This was particularly difficult in educational environments where pre-existing domestic initiatives have interpreted the concept somewhat superficially or deformed it. The program's emphasis on the education strengthening agenda ensures the replication of new models, systems, and practices by investing in human capital. Partnership-sponsored improvement of educational systems contributes to replication in two important ways: (1) Makes replication a sustainable process. (2) Assigns a clinical training function to partnership model clinics, thus, securing their better access to resources and political support. Sustaining partnership 'heritage' facilities will continue to be important because they are the benchmark for replication.

These outlined factors have all contributed to progress with replication and helped offset many impediments to replication such as continued lack of resources in the health care sector, limited institutional memory, high turnover in key offices, limited continuity in donor country strategies and insufficient coordination among donors; unresolved structural pressures in the health care sector, and lack of involvement from influential interest groups. Some of these impediments are formidable and are likely to keep replication an arduous endeavor.

3.7 Other Aspects of the Partnership Program

3.7.1 Learning Resource Centers

Analysis in this subsection refers to the following evaluation questions:

To what extent:

- Q16. Did the PHC Learning Resource Centers (LRC) help advance the use of evidence-based medicine?*
Q17. Are the PHC Learning Resource Centers sustainable and replicable?

The evaluators have read three evaluation reports about the partnership-sponsored LRCs, produced under/for AIHA partnership programs in the time period of 1998-2002 (*Daniels, Starke, 2002*), (*AIHA/DC, 2002*), (*Filmore, 2002*). These reports have been based on specialized program-wide surveys and large number of field interviews conducted by IT and human communications experts with the LRC Information Coordinators and users. The current evaluation team have integrated findings from those reports in the current assessment of LRCs.

Both evaluation questions are addressed concomitantly, based on the pre-existing evidence and its update through a case-based assessment of LRCs in the visited post-partnership sites.

LRCs and evidence-based medicine

LRCs have created the following important supports for accessing and managing clinical information:

- Most partnerships have donated computers and peripherals, assigned space, trained and hired information coordinators, paid ISP and electronic subscription fees.

- Prospective users have been identified and educated on the critical need for a continuous update of clinical evidence. The roles of the Internet and web-enabled databases were explained.
- Users have been trained in computer literacy and web browsing skills.
- English language training has been conducted in most partnerships.
- Clinical resources on the Internet were reviewed and Web directories compiled.
- Information coordinators and practitioners have engaged in a skills development process around the practice standard review algorithm. It was intended to help providers of care evaluate their practice strengthening needs, formulate demand for information, pose an appropriate query, identify and review available practice evidence, and select the evidence that is responsive to their clinical needs and compliant with practice environment (regulations, resources, patient preferences, etc.). By 2002 nearly half of all LRCs have been able to demonstrate their ability to demand, search, analyze and apply evidence-based methodologies (*AIHA/DC, 2002*).
- In addition to the on-line access, the LRC component of the partnership program has provided access to information through publications, materials on CD-ROM, videos, and medical teleconferencing between US and NIS partners, using satellite channels and the partnership-sponsored conferencing facilities with multimedia equipment.
- An important function of LRCs was to assist providers in the preparation of their practice manuals and presentations for cross-partnership conferences and other professional events that increased their exposure to clinical best practice.
- LRC-enabled e-mailing served as a medium for professional consultation with US partners, particularly important at the trial stage of using clinical guidelines and in cases when funding was delayed or scaled back and e-mail became a major cost-containment tool – direct substitute for travel.

The outlined practices and achievements confirm that LRCs have definitely helped advance the use of evidence-based medicine. This finding is corroborated by the following opinion-based conclusions, presented previously in this report:

- Former partners have recognized the Information as the strongest and most important input of partnerships to the development of diagnostic, screening and preventive skills; treatment and counseling skills; differentiation of symptoms, and disease management skills in the NIS providers of integrated primary care (refer to Table 12).
- The most visible partnership contribution to strengthening quality of care was the development of provider capacity to base their decisions on evidence (refer to Figure 13).

To answer the question about LRCs' sustainability and replicability, the evaluators first used their site visits to ascertain whether LRCs have been sustained to date, and to visualize their principal functions. With little knowledge of the LRCs prior to the trip and therefore unclear about what they were going to see, the evaluators have simply asked partnership representatives whether they still have the LRC and if yes, "please show it to us or whatever has become of it". After the field trip the evaluators have studied a previous evaluation report with a robust classification of LRC organizational models (*Filmore, 2002*). They used it as a frame of reference for summarizing their observations. The following outline shows that most of the originally assigned functions have been preserved in the post-partnership LRCs:



partnership is strong: it has been presented to the evaluators in response to their request to show the partnership LRC.

Figure 21. *The Library of the Nicolae Testemitanu State University of Medicine and Pharmacology (Chisinau/Norfolk, VA Partnership). The lower right picture presents a magnified view of the computer area behind the library reading room shown on the upper left picture.*

Model 1: LRC functions as a library enhanced by electronic access to information. Students learn to equate electronic access to information with the clinical learning process (Figure 21). Because the computer room is housed within the library, librarians are available to assist patrons (students and faculty) with information search and retrieval. The identification of this facility with the



Model 2: LRC functions as a tele-/multimedia-conferencing facility enhanced with a satellite communication system. This is the high-tech aspect of the LRC legacy and an impressive display of LRC contribution to supporting evidence-based practice in the NIS. It also attests to the sustainability of the partnership as a vehicle for professional collaboration: two years after partnership has ended, the national residence in PHC program in Moldova, a country of 3.59m population and over 5,600 PHC practicing physicians (*Moldova/MOH, 2006*) continues to hold real-time clinical case conferences with the Eastern Virginia Medical School. Time difference seems to be the only complaint. The same model and facility to support it have been chosen and sustained in Kharkiv (Figure 22). The Kharkiv Medical Academy of Post-graduate Education administers the regional post-graduate medical and nursing programs and uses this facility as part of its multimedia approach to the clinical training of general practice doctors and nurses.



Figure 22. *The Multimedia Conference/Training Auditorium at the Kharkiv Medical Academy of Post-graduate Education, affiliate of the Kharkiv/La Crosse, WI Partnership.*

Model 3: An LRC unit functions as the centerpiece of an evidence-based clinical training and skills-testing center (Figure 23). A model PHC clinic was established by the Chisinau/Norfolk-VA partnership as a clinical training site for the national program of pre/post-graduate education in family medicine. One GP office is equipped with closed circuit television, video camera, and sound-recording equipment. Care

evaluators can monitor the patient encounter, tape it, review it with the student, and present it for peer discussion in a classroom.

Figure 23. *The University PHC Clinic (Chisinau/Norfolk, VA partnership): a clinical trainer is using a videotaped patient encounter to review and discuss family doctor communications skills.*



Model 4: LRC is used to support the health

education agenda. The Health Counseling Center at the Central Student Polyclinic in Kharkiv (Figure 24) serves an estimated student population of 80,000. Students are referred to the polyclinic for secondary care by the 11 student PHC centers replicated from the model PHC Center, that the Kharkiv/La Crosse, WI partnership had established at the Aerospace University. Students are encouraged to self-refer to the polyclinic for mental and general health counseling. The partnership LRC resources were put to use to strengthen conventional methods of health promotion, such as the dietary pyramid and ‘Smoking Sue’ and newer ones, e.g., by using LRC computers for on-screen presentations and design of health education materials. *En passant*, this case shows the complexity of the relationship between access to information and evidence-based primary care.



Figure 24. *‘Would you mind my smoking? – Oh, I cannot believe you wish me to die!’ – An emotionally charged message to reverse the social behavior code in the country where smoking is cultivated as the basic social skill. The anti-smoking message on the computer screen (left picture) is one of many, promoted by the Central Student Polyclinic in Kharkiv as part of their health education program. The same PC is used to develop animated slide sequences for student’s on-site mental health counseling and to design health education leaflets of professional quality. The latter are supplied to the 11 campus-specific PHC clinics replicated from the partnership-sponsored model clinic at Aerospace University. Computer-supported and ‘brick and mortar’ means of health education are used in concert in this LRC facility (right picture).*

The former Kharkiv partners are very enthused with the health education agenda and continue to use all the knowledge and tools acquired through their partnership experience. In November 2006, they have not known yet that in the United States, the food pyramid was declared ‘defunct’ by the new dietary guidelines published in January 2005 (DHHS/DoA, 2005). This may mean that despite being equipped with the

dedicated line to the Internet, and their ISP fees securely built in the Polyclinic budget, the former partners may not be using the LRC connectivity resources for an ongoing update of their practice evidence knowledge, or their Web-search capacity may not be attuned enough to their practice needs.

This agenda has yet another level of complexity: even if former partners are quite intent on staying abreast of the clinical and health education evidence, do they have enough analytical capacity to evaluate new evidence for competent updates? – The aforementioned dietary guidelines are complex. Their publication in 2005 has triggered a lively debate in the U.S. on their contextual value. Are the former partners ready to be part of such a debate, at least as a competent onlooker? – In the U.S., the new evidence is demanded for a variety of professional, legal, and economic reasons. Practitioners have strong institutional drive and support in their pursuit of the best practice. Medical executive boards review new evidence and recommend guidelines for insurance companies; medical (professional) practice committees review and selectively adopt relevant guidelines for hospitals; members of practice groups monitor the practice to make sure they adhere to ‘established local standards’ (a matter of professional responsibility and protection against malpractice liability). An intricate push-and-pull system generates the demand for, and supply of raw, pre-sorted, and pre-analyzed knowledge of evidence for clinical practice and health education. This system is the product of an evolutionary change. While the logic of that change is unique to the United States, any country following its own logic will need time to develop a system where the professional and institutional demand for practice evidence will be matched by the capacity to evaluate and adapt that evidence to the country-specific health system. The partnership program has made important initial steps towards



Figure 25. The ‘Information and Information Training Center’ at the Tomsk Central District Hospital is the direct successor to the LRC, established under the Tomsk/Bemiji, MN partnership. Internet access, centralized data searches, and computer and Web-browsing training are the most demanded functions.

developing such a capacity by recruiting LRC information coordinators from clinicians, taking all LRCs and a group of practitioners through the practice standards review exercise, and keeping NIS partners connected to the Internet for several years. Valuable as these steps were, partnership ended while the use of evidence was still at the trial stage. The consolidation stage must be just starting, and it will take more than access to the Internet to help former partners and their health care sector through this stage.

...Returning to the case of the food pyramid: Will former Kharkiv partners find out that it has been rendered obsolete in the U.S. in 2005? – Should their La Crosse partners tell them? – When they do find out, should they discard the current messages and training materials? – Who will be out there to advise them?

These questions suggest that time may be coming to invest in an NIS ‘knowledge maintenance conference’ to bring former partners up to date on the evolved practice evidence and learn about their own. NIS and international publishers of medical literature, particularly, those specializing in databases, journals and guides on clinical evidence could help leverage the cost.

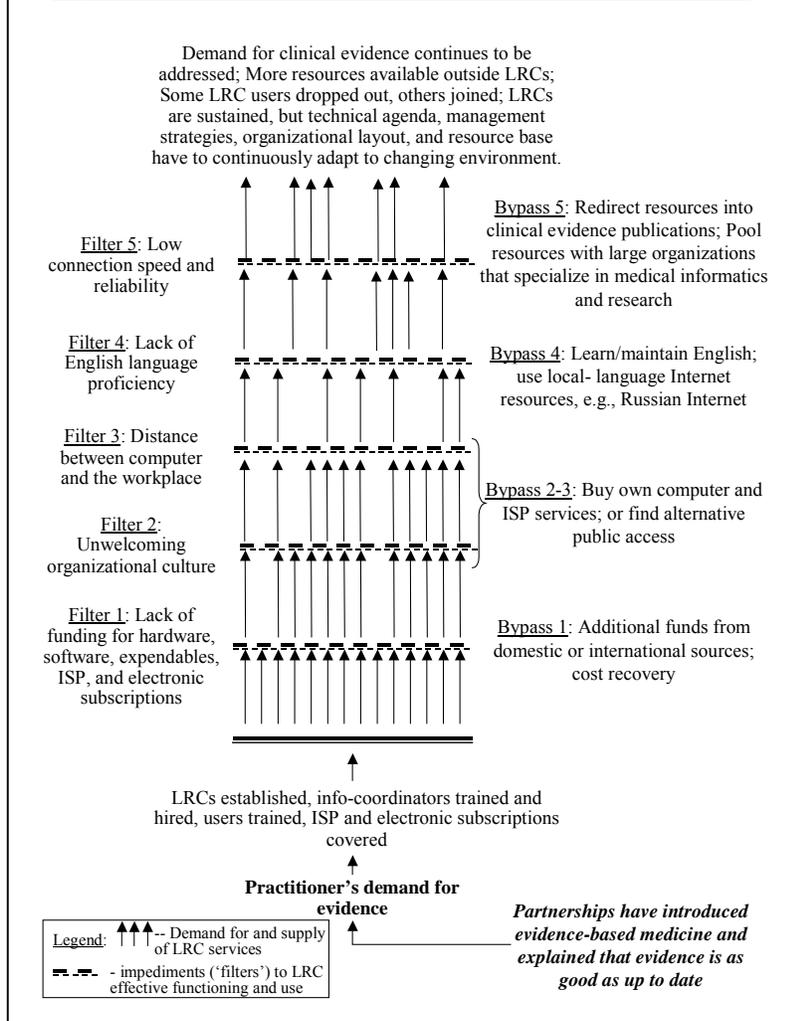
Model 5: LRCs are used for on-line access, e-mail, and data management. This basic function has been sustained in all observed LRCs. The ‘Information and Information Training Center’ at the Tomsk Central District Hospital (Figure 25) is the direct successor to the LRC, established under the Tomsk/Bemiji, MN partnership. The originally trained information coordinator continues to manage this center. Free Internet access is available for the staff of the central district hospital. In addition to the central location (hospital proper) the eligible users include five multi-specialty polyclinics and rural family physician ambulatories located around the district. The user-friendly brochure (flipped vertically on the right picture of Figure 25) explains the status of the Center, its work hours and services. As a post-partnership addition to the customer information resources, an annotated ‘Guide to Physician’s Internet Resources’ has been prepared jointly with the nearby Siberian University, Tomsk. The material was intended to compensate for the lack of user proficiency in English. It has focused on the Russian-language sources of practice evidence information. The Center offers computer and Web-browsing training free of charge to the health district staff and commercially in the competitive local market. General computing and desktop data management have become routine in the NIS health care facilities, however, the level of computer support varies proportionately to the number of PCs, seldom connected into a local area network. Accounting and human resource management are the most commonly-computerized workplaces. Health statistics and medical records come second. The level of statistical reporting varies from simple Excel worksheets that summarize staffing, spending, and clinical volume for routine upward reporting, to sophisticated patient encounter databases of the kind observed in the Darnitsa/Kyiv PHC Center and in the Central Student Polyclinic in Kharkiv. The partnership program did not always invest in the general computing capacity of NIS facilities, however it should be credited for having strengthened the demand of PHC practitioners and practice managers for a more productive and analytical work environment.

After the sustainability and functional diversity of LRCs have been ascertained, the evaluators took a closer look at the LRC sustainability factors. The logical framework for this review is presented in Figure 26. It reflects the demand-driven model of sustainability. Demand is displayed at the bottom of the flowchart and lies at the heart of the further success or failure of LRCs. Partnerships have demonstrated the value of evidence-based practice, trained and equipped practitioners to use their newly acquired knowledge of the integrated primary health care. They also explained that evidence rapidly evolves and needs to be kept up to date through an ongoing review of new pertinent clinical research. This has generated practitioners’ *demand* for evidence. By establishing and equipping LRCs, training information coordinators and users, and covering the recurrent cost of LRC operations, partnerships provided *supply* of LRC services to meet the demand. The post-partnership sustainability of LRCs is the matter of sustaining demand and supply. If any of the two is allowed to fail, LRCs will dwindle.

A number of demand- and supply-related filters stand in the way of the LRC sustainable operation. They are presented in an upward sequence in Figure 23. For each filter, there is a bypass – a solution or a set of alternative solutions to offset the problem. The evaluators have combined their field experience with desk review to assess the LRC chances to clear the filters and remain sustainable.

The **first filter** is the lack of funding to sustain the cost of LRCs. At the end of partnerships, the program-wide concern was about the costs of electronic connectivity (ISP and subscription fees) and other recurrent costs (paper for printers, file storage media). Many LRC-related expenses were not budgeted costs in the NIS public health care sectors. The problem was exacerbated by the still limited autonomy of the health care facilities, particularly the manager’s limited right to reallocate available funds across cost categories.

Figure 26. Threats and Supports for LRC Sustainability



These hurdles have been resolved in all of the observed LRCs, thanks to the managerial versatility shown by the leaders of LRC host facilities. Successful solutions included: (1) shifting LRC operating costs on a teaching institution that uses the PHC center as their clinical site; (2) cost leveraging through donor grant or project; (3) an authorization from the local health administration to fund LRC costs from internal budget surpluses; (4) cost recovery: net revenues from commercial services can be used at the facility's discretion. Wear and tear is the rising resource problem, as the useful life of the partnership-donated or purchased equipment is ending. The cost of fixed investment has not yet been considered by the former partners with respect to the replacement of the LRC equipment, and multimedia technology. They generally are confident that computers and peripherals are not a big cost item and will be financed within the annual investment program that budgets can support. Multimedia technology may be a bigger problem but will be matched with a stronger support from the leading educational institutions.

All cost leveraging strategies that have been used to supplement the provider operating budget will work to support investment in durable equipment. Additionally, the interviewed health administrators felt optimistic about their ability to engage support from private sponsors and local authorities (including elected leaders at the rural district and village levels). It thus may be concluded that the resource-related filter #1 is being and will be cleared. Program-wide extrapolation of the positive 'spot evidence', involves a realistic prediction that where resources are found insufficient, the LRC activities will be scaled back (e.g., fewer workstations, less e-mail traffic, fewer subscriptions and downloads) but not stopped.

The **second filter** – unwelcoming organizational culture, looks esoteric by comparison with the shortage of funding, but should not be overlooked. Hierarchical management treats information as the source of power and status. Access to information is rationed openly or subtly, and there are many ways to do that in countries with limited information infrastructure. The centralized control of practice styles and professional opinions has been observed in some partner settings. Even lay level participation in the evaluation's opinion poll has been seen as a challenge of local authority on one occasion. Coincidentally, the LRC resources in that partnership are used in a highly centralized fashion.

The **third filter** is the distance that separates the user from the computer. All the four rural family practice sites visited in the Kharkiv Oblast, Ukraine and Tomsk Oblast, Russia are remote from LRCs, located in the

oblast capital cities. The Tomsk LRC is located in the Central District Hospital in a health care area stretched for approximately 100 miles. It takes 2.5 hours by car in good weather for the most distant cluster of family care providers to reach the district center.

The user can effectively lower the second and third filters to information access by buying a computer and paying for Internet access. Global research shows that three factors drive computer and Internet penetration rates: per capita income (by far the most statistically significant variable), main telephone lines per 100 people, and rule of law (*NET, 2006*). The variance of these variables within partnership host countries suggests that practitioners in towns and rural areas will remain excluded from home-based connectivity in the foreseeable future. City-based providers may be somewhat better off. However, they are also part of the NIS healthcare sectors where salaries are 70 percent of the economy-wide average, while average computer owner's income is 3-5 times higher than the nationwide per capita average. Computer ownership rate in the transition countries is 5 times lower, and Internet users rate is 4 times lower than in the developed world. This review explains that, as a PC and Internet user, even the city-based physician in the NIS is at a disadvantage, compared to his/her colleagues in the West. Partnerships have created a strong demand for computer and Internet applications, and prompted several interviewed practitioners to buy their own computers. Yet, the remaining dependence on work-based access impedes clinical information search as need arises.

The **fourth filter** is insufficient English language skills. The change for the better is impressive: most of the practitioners, met by the evaluators have learned English during the partnership. The level of proficiency varies from fluent conversational to fair comprehension and use of professional terminology. Yet, the review of the partnership self-evaluations has shown that language barrier persisted program-wide and, admittedly, has increased after partnerships due to lack of practice. Partial recourse to the language barrier is the use of local-language Internet. The review of the health information websites in Russian has shown an increased attention to clinical evidence. The Russian-language *International Journal of Medical Practice*— a global compendium of clinical practice research is published in Russian by the *Mediosphera* publisher's and available to subscribers. Additionally, the annual version of the *BMJ Clinical Evidence* is published in Russian, priced at \$9. Most of the Russian medical information websites provide electronic access to Russian clinical journals. Their evidence is seldom based on randomized controlled trials. The most effective response to the language barrier remains the learning of English. The organizational solution is to strengthen medical libraries and large teaching clinics in their capacity to search for, analyze, translate, and recommend new clinical evidence for NIS practice.

The **fifth filter** is the slow connection speed and reliability. Lack of dedicated lines and slow dial-up (at 9,600 bps in two observed LRCs) remain a deterrent from using the Internet for data-intensive searches. The response to this impediment may consist of redirecting part of the LRC budget to paper journals and books, particularly, the two aforementioned compilations of international clinical evidence, now published in Russian. The considerable time lag in putting new evidence in print is a widely recognized drawback of this approach. Pooling resources to facilitate electronic connectivity through other organizations, particularly local universities and medical libraries is a viable strategic solution. Ultimately, the future of evidence-based practice will critically depend on the local capacity to evaluate new evidence. To become more sustainable and effective, LRCs need to become part of the professional network of organizations, focused on medical informatics and research.

To conclude this analysis, LRCs have potential for survival. To be successful in serving the demand for best practice information they will have to integrate with external resources of connectivity and research. Pooling funds and customer base with other organizations may be part of this strategy.

Since the adaptation to changing environment will require a continuous adjustment of the LRC management strategies, organizational layout, and resource base, the LRCs may evolve into a different type of entity.

Even then, however they will sustain and replicate themselves as an important ‘abstract innovation’ -- the institutional culture and individual mind-set, changed to include the ideas and values rooted in the technology (Daniels, Starke, 2002). Each Internet search and clinical document, downloaded by, or at the request of a practicing PHC physician in a partner host country will bear the imprint of the once introduced linkage between quality of care and clinical evidence.

3.7.2 Cross-partnership Activities

Analysis in this subsection refers to the following evaluation questions:

To what extent:

Q14. Did region-wide conferences and workshops help achieve the individual partnerships goals and objectives?

Q15. Did cross-partnership initiatives benefit the individual partnerships?

Q18. Did AIHA publications, media relations, and websites contribute to the achievement of partnership objectives?

These interrelated questions refer to the initiatives and activities performed by, and with key coordinative inputs from the **AIHA program management** at the global and regional office levels. The importance of the program management (further referred to as ‘AIHA’) has been useful in furthering partnership objectives, as can be concluded from the following summary of partner opinions and evaluators’ findings:

- AIHA had a formative influence on the program identity: determined its demand- and peer-driven character – features that have defined *modus operandi* of each partnership.
- Provided the complete cycle of the matchmaking and start-up support: helped partners identify each other, facilitated their initial discussions, brokered important decisions with USAID country missions and host country authorities; shared robust planning and implementation templates that have spared partners from reinventing the wheel and ensured quality management.
- Brought partnerships into organizational contact and technical exchange; helped develop a sense of community among the partners – an important integrative experience in the time of disintegration.
- Put the NIS health providers and administrators in the driver’s seat in defining program strategies and priority areas. The landmark event to this effect was the 1998 PHC Advisory Committee Meeting. The definition and scope of PHC – the conceptual backbone of the program, have been worked out in an intensive discussion among NIS health policy makers and representatives of the provider community.
- Provided PHC partnerships with access to summary experience of the previous generation of hospital-based partnerships – an important extension to the limited prior experience of international and NIS work for many US partners.
- Played an important policy mediation role between partnerships, USAID, and national and local health administrators throughout the implementation period; helped partners be better understood by their local constituencies.
- Provided important program-wide technical and organizational inputs through its in-house resources and external consulting. LRC support, management training, mid-term evaluations, teaching materials; as well as technical and logistical information support illustrate these inputs.
- Served as a clearinghouse and exchange for the partnership best practices, using its CommonHealth magazine, Russian-language website, clinical conferences, training workshops, and annual meetings.

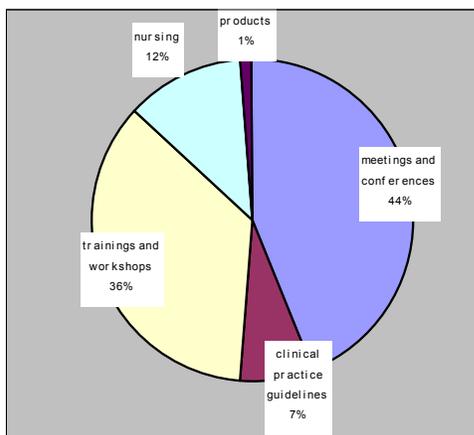
- Through their global and regional offices provided dependable administrative backstop, particularly valuable in facilitating travel, coordinating events, moving commodities, dealing with emergency and other strenuous situations.
- Facilitated partnership phase-out by providing post-partnership support at NIS partner request.

A more specialized study of the partnership program operations, management, and management costs may be considered to analyze program management costs. The following topics are suggested: (1) Reasons for the observed sizeable variation of overheads across the program sub-regions and partnerships. The utility and efficiency of sub-contracts may be examined, given that subcontracts generate the second layer of overheads. (2) Variation of program management cost by type of partnership activity, geographic location, and composition of partnership inputs (for example, moving commodities to the NIS may require more involvement from AIHA than ‘moving’ knowledge). (3) Variation of program management cost by stage in the partnership life cycle (e.g., support at the start-up and closeout stages, versus support with implementation and dissemination). This multi-dimensional analysis may produce an empirical program budgeting equation of possible practical value for the funding agency.

According to partners’ uniform opinion, regional conferences and other **cross-partnership activities** have benefited individual partnerships. The former partnership coordinator from Odessa provided, perhaps, the strongest opinion on this account by concluding that ‘inter-partnership activities were the main driver in partnership project activities’. Several partnerships highlighted the value of cross-partnership meetings for benchmarking: to gauge one’s own achievement vis-à-vis other partnerships’ progress. NIS partners have used region-wide events to discuss partnership operations and brainstorm on coping strategies for dealing with common problems. NIS partners used regional and program-wide events to acquire and practice new skills in conference management, technical presentations, professional networking, and public relations. Cross-partnership activities have fostered professional cohesion among partnerships in the following way:

Same-country partnerships: The integrative role of the AIHA country/sub-regional offices has facilitated an on-going experience sharing and cross-fertilization among same-country partners. In Ukraine, six

Figure 27. Cross-partnership spending by area (total cross-partnership spending = 100%)



partnerships have networked through the AIHA/Kyiv office. Their professional relationship has survived the partnership program, as could be clearly observed during the six-partnership focus group held in Kyiv as part of this evaluation. In Kazakhstan, a strong professional bond has been established between the Astana-based model FMC ‘Demeu’ and a replicator polyclinic in Semipalatinsk. The Semipalatinsk followers, interviewed by the evaluators in Astana, have emphasized the invariably competent technical guidance and administrative support from the AIHA/CAR office. In Armenia and Azerbaijan, countries with the highest geographic density of partnership organizations and activities, most training events have been conducted for two or more partnerships. Occasionally, US partners extended their involvement beyond their partnership and consulted others – another benefit of a partnership network in a compact country.

Partnerships working in the same clinical or health education area have sought advice from, and shared experience with each other. The long presence of AIHA in the NIS and CEE regions has facilitated a ‘cross-generational’ transfer of experience, thus providing economies of scope and scale for newer partnerships. For example, experts from Dubna have developed their diabetes management system under their partnership

with La Crosse, WI in the 1990's and helped establish a Diabetes School for the Sarov/Los Alamos, NM partnership in 2002. Sarov in turn has conducted training for the Odessa partnership to help establish a smoking and alcoholism prevention program there. Odessa partners have also benefited from the maternal health experience of a Konstantsa (Romania)-based organization, a participant in the AIHA health partnership program for CEE. This still rare instance of collaboration between NIS and CEE partnerships is indicative of a growing need to consolidate partnership legacy across the E&E region. The policy trend towards European integration, observable in the West NIS geopolitical cluster, implies greater NIS demand for the PHC health sector experience of the Baltic and other CEE countries.

Cross-partnership conferences, thanks to their high profile as regional or sub-regional events, have produced greater response from the leading US health policy and public health institutions to the AIHA's call for participation. The resulting involvement of top experts from CDC and SAMHSA was very important: the government-driven health care systems in the NIS countries request and value inputs from the U.S. government agencies.

Cross-partnership activities have accounted for 3.2 percent of the cash and in-kind spending under the program, and 8.3 percent of the cash spending. The breakdown by cross-partnership activity type is presented in Figure 27. There is no direct evidence as to whether this level of expenditure was sufficient and/or optimal. Participants in the questionnaire-based survey have overwhelmingly agreed that cross-partnership activities "have proven to be effective during partnership". They were mostly pessimistic about the prospects to sustain these activities after the partnerships. Finally, they indicated that they would want to see more conferences in the next partnership design, if the program experience is ever to be repeated. The latter opinion, however, does not have much validity. The evaluators asked the respondents to emphasize/de-emphasize one or several of the listed 21 types of partnership activities for a hypothetical future partnership, however they forgot to include the budget neutrality condition ("Your resources will be limited, so when emphasizing some future areas of partnership activities you should not forget to scale back some others".) As a result, respondents misinterpreted this question as an invitation to submit an unconstrained statement of need and requested "more of everything".

4. Best Practices, Lessons Learned, and Recommendations

4.1 Best Practices

4.1.1 Responsiveness to Community Demand

Responsiveness to community³ demand has been frequently observed in the evaluated partnerships. One of the strongest exemplars is the Astana/Pittsburgh partnership that integrated social services into the primary healthcare model, in response to community interest and need. This successful partnership expands PHC services to include social services for the disabled, clubs for the elderly, teenagers, drug addicts, and parents/children. Largely because of its responsiveness to the community, the Demeu Family Medicine Center (FMC) was rated the best PHC facility in the city of Astana during the last year of the partnership. This visibility and the community support it represents attest to the excellence of the community relationships as well as the services delivered. In general, the flexibility to respond to community needs is one of the strengths of the partnership model that was frequently stated by NIS participants.

This flexibility is fostered by the productive professional dialogue between US and NIS partners that results in innovative problem-solving. The ability to incorporate solutions based on need rather than on a preconceived approach is an outstanding strength within the partnerships, and should be incorporated into other health assistance projects wherever possible. Flexibility has also been observed across partnerships in

³ The term community is used in this section to denote not only end users, but also the professional community in the NIS that was concerned with partnership activities.

regard to the locally preferred placement of family physicians. Far from insisting on only one model such as freestanding FPs separate from polyclinics, the partners supported models where family physicians were part of a polyclinic (e.g., ProSan in Chisinau, Moldova) and a central district hospital (Tomsk, Russia). This approach was fully supported at the policy level, and increased the likelihood that the partnership models of family practice would not only be accepted but sustained long after the partnerships ended.

Another example of this flexible response to NIS partner needs was observed in the Kharkiv/La Crosse, WI partnership. The health needs of the 120,000 student population of Kharkiv shaped the student primary healthcare model, implemented by the Central Student Polyclinic with its network of 11 on-campus PHC clinics. The emphasis on psychosocial support, the availability of student discussion and meeting areas, quiet rooms for stress reduction, and the incorporation of a significant health education program provided at the polyclinic in combination with acute care services is driven by the unique needs of the target population and organizational capacity within this partnership. The popularity of the student health model can be clearly seen in the support to the clinics that is provided by all local universities and by the staff of the student polyclinic. The flexibility required to define and support the customized mix of services and service delivery sites necessary for this large student population was fostered by the U.S. partner. This adaptable response to services can also be observed in Russia where partners quickly moved to prioritize non-communicable disease in primary healthcare. The traditional maternal/child primary healthcare services were also delivered, but partnerships realized that the community need for non-communicable disease services was predominant, an observation also supported by the burden of disease data previously discussed. A review of the PHC partnerships shows numerous instances of the service mix customized to community need, for example, miners health in Donetsk, alcohol and substance abuse in Odessa, domestic violence in Kurgan and Schuche, and poison control in Volgograd. This responsive approach to adapting the traditional basic package of primary care services should be carefully evaluated and considered as a strong option to a “one-size-fits-all” definition of primary care. In many middle-income countries, a rigid approach to defining PHC services on the basis of a standard basic benefit package approach, may render primary health care much less attractive to the community and result in underutilization of these essential health care services.

Features that support responsiveness to community demand include:

- Flexibility within the partnership to consider new approaches and new constituents as needed.
- Open consideration of multiple care delivery models including solo, group, and multi-specialty practice.
- Motivation to address the service needs of the community, even if outside the internationally advised basic primary care package.
- The ability to change direction in response to community need, including the addition of services to PHC clinics, and the incorporation of social support functions with clinical care if required.
- Location of some services, traditionally considered under the purview of specialty care such as mental health or substance abuse, at the first-encounter primary health care level.

4.1.2 Integration of the Family Medicine Model into Education, Finance and Policy

The need for integrating provider education, health care policy and finance, and service delivery has been previously discussed. Throughout the partnerships there were numerous instances of such integration, frequently because former partners had been promoted to high positions in the government or academe. These former partners became persuasive advocates of the family medicine model that the partnerships supported, and frequently were the agents for a system-wide change. An impressive example of this integration was observed in Moldova. In this instance, the environment surrounding the partnership was supportive of the change to family medicine, in part because Moldova was looking toward Europe and considering future accession to EU membership. However, the work of the partners to include the MOH, the State University of Medicine and Pharmacology, the City of Chisinau Department of Health, and district

health authorities in the design and implementation of the family medicine model was exemplary. The environmental support engendered by this approach was evident to the evaluation team. A national movement to roll out the family medicine model is underway, supported by the State University of Medicine and Pharmacology and the MOH. The dialogue with both rural and urban PHC providers is supported and expanded by such activities as the Second National Family Medicine Congress which was held in November, 2006 during the evaluation visit. This well-attended event included presentations of new evidence to support better family medicine practice as well as presentations on the use of data to understand trends in pediatric infections. Additionally, the inclusion of nurse training as a national priority, and the move of nursing education to the medical university attest to the initial work that the partnership advanced to increase the role and responsibility of nursing in primary care.

Analysis of this integrated approach shows that consideration has been given to the critical factors required for national rollout of the model: policy support, health financing in the form of a new national health insurance plan; health workforce with particular attention to nurse education; continuing education in family medicine and primary care through national conferences and international experts; new initiatives in health informatics; and new programs in school and rural health promotion and illness prevention. Moldova is a relatively small country with only one medical school, thus the conditions for uptake of the partnership-fostered primary care initiatives were excellent. However, studies of the mechanisms of expansion of the model in Moldova form the basis for understanding model expansion in larger countries. Critical stakeholders need to be included, health financing must be considered, and opportunities for supporting healthy behaviors in communities and schools should also be exploited. Additionally, where new skills and professional retraining are required, such as in nursing, informatics, and family medicine, the educational establishment of the country needs to be engaged. It is not an overstatement to say that a relatively modest investment in the primary healthcare partnership in Chisinau, Moldova has resulted in national impact and international support for improved health for every citizen in Moldova.

Features that support integration and expansion of the family medicine model include:

- Inclusion of medical and nursing educators, health policy-makers at national, regional, and local levels, polyclinics, and family practice providers and nurses.
- Attention to health financing and health insurance.
- Inclusion of health promotion and disease prevention education at the community and school levels.
- Involvement of international agencies, donor groups, and other supportive organizations both in funding and in expert assistance.
- Early attention to continuing education in family medicine and primary care both to build support for the approach and to keep early adopters current with new trends.
- Recognition that new skills and new professional roles must be supported by new or redesigned training programs located within the educational establishment of the country.

4.1.3 Integration of Family Medicine and Community Action in Rural Primary Health Care

It has long been understood that access to health services presents a significant challenge for rural and remote communities. Because of their size, rural communities frequently have difficulty advocating for system change, since urban majorities have more attention from the policy community. Additionally, it is difficult to attract health care professionals to rural communities where cultural resources are often too limited for educated health professionals. These challenges are recognized worldwide and effective solutions have yet to be found. Many NIS partnerships not only retrained rural health providers but also modernized their equipment, created a more collegial work environment, and helped develop stronger provider/community ties, thus giving PHC practitioners an additional motivation for staying in rural PHC

practice after the partnership ended. Field visits to some of the rural centers in Tomsk and Kharkiv highlighted the intense involvement of the rural health care team with the community. Rural physicians and nurses lived near the facility, were active members of the community, and saw community advocacy as a strong component of their rural practice. Several rural physicians had been elected to local political office, and many of the nurses routinely visited rural homes and schools and were considered as reliable source for health information and education. The turnover of health workers in these clinics was low, and many nurses and physicians had been located in the same rural center for at least three years, many much longer.

One of the most notable activities that signal excellence in rural health practice is the advocacy of the rural providers for improved community conditions. For example, the rural physician in Tomsk had successfully advocated for ablation of a nearby factory's air pollution. He described his effort as a year-long campaign with local politicians and the factory manager to improve air quality and decrease polluting emissions from the factory. His eventual success speaks to his dedication to the community and his improved communication and advocacy skills. The interviewed rural providers spoke of advocacy activities such as improving access to clean water in the community, identifying families in need of help and engaging community leaders to provide such help; and working to decrease community exposure to unhealthy situations such as poor sanitation, improper trash removal, and other disease vectors.

The results discussed above are an outstanding success, seldom achieved in rural and remote areas, and should be examined in detail for replication possibilities in other settings where the improvement of rural PHC is a concern.

Features that deepen the involvement of primary health practitioners with rural communities include:

- Improvement of rural provider capacity in diagnosis, health education and advocacy. Such improvements increase the credibility of the rural PHC practice in the eyes of the rural citizens.
- Linkage of the rural PHC practice to the Internet. While this result has not sustained in all rural practices visited, the benefit of such connection during the partnership has highlighted the need. In Tomsk, for example, the health district is working to connect rural providers to the Internet as a follow-up on the partnership experience. This linkage appears to mitigate the professional isolation of the rural providers, and serves as an incentive to keep them in the rural community.
- Improved community outreach techniques that were fostered during the program have changed the nature of the relationship between provider and community. Providers report a strong relationship with their rural community, frequently are part of the local political structure, and act as strong advocates for health.
- Strengthened ties between rural providers and district/regional/national health officials as a result of high-profile partnership activities.

4.2 Lessons Learned and Recommendations

The following discussions highlight observed windows of opportunity within the partnership program. It should be recognized that the partnerships could not be all things to all people. The very important work that was presented in this report stands on its own merit. The discussion that follows provides some guidance for future projects of this type and recommends some strategies that can support and sustain excellence.

4.2.1 There is Need for Project Evaluation Frameworks and Planning

An impressive finding of this evaluation has been the success of partnerships as transformational demonstrations. Demonstration projects have been suggested as a viable way to explore vital health system reform in the United States (*IOM/BHCS, 2002*). A review of the plethora of results from the partnerships

suggests that these partnerships were essentially successful transformational demonstration projects. However, in order to maximize learning from demonstration projects, it is essential to precisely determine the direction and extent of changes that have been made. This determination cannot be made without well-organized and categorized qualitative and quantitative baseline data that can support pre/post-project comparisons and analysis. The partnership evaluation data reports were largely descriptive summaries, despite AIHA's efforts to encourage as much categorical and numeric reporting as possible by introducing such evaluation templates as patient satisfaction surveys and model clinical compliance assessment. This may have occurred because of some uncertainty on the part of the partners as to what data they could reasonably provide. For example, there was little systematic data available on the individual physician's encounters either at baseline or after the partnership ended. While most partnerships were able to report on the annual number of encounters in the model clinics and replication sites, they did not usually have detailed information on the type, severity, duration, and result of the encounter at the patient level. These output data would be extremely important for evaluating PHC demonstration projects. Similarly, most pilot facilities were unable to compare their catchment area results with other geographically and demographically similar catchment areas. For this reason, it is not possible to definitely measure the health impact of the partnership facility. All partnerships reported increased numbers of primary healthcare encounters, decreased referrals to specialists, improved control of chronic disease. However, measurement of the magnitude of contribution that could be ascribed to the partnership alone could not be done, since a control group was neither defined nor monitored. Effects such as general improvement in primary healthcare, increased attention to chronic disease in the population, and the effects of confounding factors were not controlled, and therefore a definitive statement of the magnitude of difference that a given partnership made is simply not possible. The lost of opportunity for a rigorous evaluation could have been averted with more attention to creative monitoring and evaluation planning at the outset of the partnership experience.

The partnership program management plan might need to assure a systematic, detailed, and appropriate collection of baseline and post-intervention data. The gradual evolution of partnerships from professional exchanges to formal demonstration projects may be one reason why more detailed data were not collected. Most US partners were clinicians themselves, focused on improving the professional environment, quality of care, equipment, and practice guidelines. They were much less focused on evaluation, and indeed were not quite sure what could be accomplished at the beginning of the partnership. For this reason, if thorough evaluations are to be achieved, it is likely that the organization managing the partnership program will have to devote resources to monitoring and evaluation that would be appropriate to the demonstration project environment. General guidance in the evaluation literature suggests that 5-10% of the total project budget should be allocated to evaluative efforts, and that evaluation planning must go hand in hand with demonstration project planning (*IOM/BHCS, 2002*). While the AIHA partnership projects were in many cases "moving targets" it is recommended that evaluation resources be carefully considered at the start of any new partnership activity likely to result in a project of significance.

Recommendations:

- A structured evaluation and data collection plan should be defined at the start of each partnership, based on the individual characteristics of the partnership.
- Baseline measurements pertinent to the goals and objectives should be required.
- A qualified evaluation manager responsible for consistent attention to the evaluation agenda should be appointed for each partnership or clusters of similar partnerships.
- Evaluation experts need to be available to the evaluation managers on an ongoing basis to assure technically robust evaluation.
- Annual evaluation reports that include structured qualitative and quantitative data should be completed for the duration of the partnership project.

- A final summative evaluation should be completed that compares achievement to baseline in critical areas of the partnership.

4.2.2 Replication Requires Focused Organizational Planning and Skills Development

As discussed in Subsection 3.6.2, there are several levels of replication and factors that contribute to replication success. Some former partners expressed dissatisfaction either because replication was moving too slow or too fast. In other cases, replication was viewed positively by former partners who spearheaded the replication process and monitored it for technical quality. One common observation is that replication of the partnership demonstrations requires significant technical and administrative skill together with the support from influential community and government stakeholders. Not all demonstration projects should be replicated, however if replication of partnership models is determined to be a priority, then explicit decisions need to be made regarding the targets and pace of replication, as well as mission-critical institutional supports. To the extent possible, decisions regarding replication should be made early in the partnership project. This would enable US partners to focus some attention on developing the requisite technical and administrative skills. It would also focus the partnership on advocacy and consensus-building activities that will certainly be needed to support the replication effort. Field observations confirmed that partnership leaders on the NIS side were frequently “stretched thin” between their administrative activities as leaders of successful clinical sites and the advocacy, consensus-building, and training roles required of a replication manager. AIHA staff frequently facilitated policy dialogue, and worked tirelessly to assure that the partnership activities were brought to the attention of the policy community. However, NIS partners also needed leadership development that could provide the skills and planning needed for successful replication of a partnership model. It should also be kept in mind that replication should be done in the context of good evaluation to avoid replicating models that could be improved before rollout.

Although most partnerships clearly have achieved excellent clinical results, the fact that systematic evaluative data on the cost of these results, the human resource requirements, and the workforce management and educational strategies necessary to sustain the results are not available is cause for concern. As partnerships are replicated, these requirements become more pressing, and replication may be permanently constrained if they are not met. For example, the introduction of the medical social worker into the PHC setting proved to be an extremely useful innovation, popular with the community and attractive to the government. However, the lack of an official civil service job designation and salary structure, is proving to be a significant obstacle to replication of this successful model as is the lack of agreed-upon standards for training these professionals. In general, the educational pipeline needs to be considered before an orderly replication of a successful demonstration project can be achieved. Proper consideration should also be given to the system integration of new professionals through modifications in the provider organizational chart, staffing schedule, budgeting requirements, and performance standards. These system-level adjustments while less significant in a demonstration project, are of great significance at the replication stage. Planning for replication during the partnership project is highly recommended, and should be part of the technical work within partnerships and program-wide. A clearly stated replication mandate is also advised, since the political endorsement for replication has to be stronger than for a site-specific demonstration.

Recommendations:

- Replication should not be assumed, but should be explicitly planned.
- Replication planning should begin as soon as the likelihood of partnership success is determined through annual evaluation findings.
- Critical areas of replication should be defined and addressed with capacity-building activities.

- Successful partnerships should be prepared for the professional and political burden that replication will impose on their key staff.
- Advocacy, policy support, and required changes in the legislative, regulatory, educational and health finance system should be discussed before the end of the project.
- Scanning environment for external demand for partnership-sponsored innovation and aggressive engagement with interest groups that represent that demand should not be overlooked as important elements of the replication agenda.
- Partnership role in replication should be defined at realistic levels, assuming it will be supplemented and enhanced by the system-wide ‘demand pull’.

4.2.3 Some Partnership Innovations Require Additional Support

Some areas of partnership innovation are vulnerable to a conservative setback simply because they are too far outside the national or regional experience. This may be true of the advanced role that partnership nurses have taken while supported by the US partners, and the medical informatics role assumed by LRC coordinators. For the most part these professionals are practicing far outside the usual and customary role expected in their country. They have been able to sustain these roles largely due to the support and understanding of the partnership facilities. However, professionals who are isolated from the mainstream of their profession may find it increasingly difficult to maintain their acquired professional role as facility management changes and the partnership cohort is diluted. Some of these professionals have already moved on to assume roles in government or higher administration. Particularly for nurses with advanced skills, departure from the caring nursing role to an administrative role is typical but not well understood by their professional peers. However, their influence over the nursing profession in their country may diminish as they assume new roles and responsibilities perceived as external to the profession of nursing. The end result will be that the gain for nurses that can be seen from partnership activities is transitory, significantly benefiting some individual nurses, but not the profession as a whole. In order to change the role of the nurse within a health care system from the technical to the professional, attention would need to be paid to nursing education, professional associations for nurses, and sustainable change in nursing job descriptions, salary scales, and career ladders. While the partnerships attempted to impact some of these areas through nursing leadership training, professional associations, and other activities, the magnitude of the required change was probably beyond their scope. This is also true for the role of medical informatics within the partnerships. The gains achieved through LRCs may degrade as support for them decreases. During the field visits the evaluation team observed significant effort to keep Internet connectivity, maintain computers, and even expand the LRC capacity in some cases. The issue of personnel to support the informatics function was much less frequently addressed. Similar to nurses, the LRC coordinators were often either physicians or nurses working outside of their accepted job descriptions. Their present scope of work was not institutionalized within the civil service system, and depended upon the good will of the facility manager.

Recommendations:

- Partnership coordinators should be aware of the difference between focused development within the partnership and institutional change across the health system.
- Professionals who expand the parameters of their professional practice far beyond traditionally accepted boundaries need to be prepared for either significant professional challenges or role transition.
- Changes in professional roles, or the introduction of new professions requires significant system change that may not be possible for a partnership to accomplish. Measures that can improve the likelihood of sustainability for these new roles include changes in the educational level, support of professional associations, and educational and policy advocacy.

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Annex B. Partnerships' Outcome/Impact Results by Beneficiary Population Group

Section 1: General Adult Population, Including Adult Men 25-60 Years Old; and Unspecified Groups

More Competent Self-care and Peer Support	Strengthened Demand for Care	Improved Access to Health Care	Rationalized Utilization of Care	Improved Quality of Care	Health / Welfare Gain
<p>Astana/PA: 'Demeu' Family Medicine Center (FMC) has set up Anonymous Drug User Club. Former addicts have provided voluntary support to up to 27 current addicts; 3 stations opened for IV drug users. Sarov/NM: 300 patients, incl. 30 children were enrolled in the asthma education program (Asthma School). Patients have been taught how to control the aggravating asthma factors, inhalation therapy, and basic (maintenance) medications and rapidly acting (rescue) drugs. They have passed the test on using metered dose inhaler, spacer, and peak flow meter. Under the diabetes management program, 80 patients learned self-control over blood glucose level with the use of an individual glucometer, as well as advantages of healthy diet and</p>	<p>Astana/PA: Enrollment in FMC 'Demeu' ↑ by 32%. Minsk/NJ: As a result of increased patient satisfaction with the services of Cardiovascular Wellness Center, demand for its services ↑ and so did the # of patient visits: from 5,903 to 7,030 in 2001-3. Kyiv/PA: Share of voluntarily enrolled patients ↑ to over 10% of the catchment area population at the Kyiv/Darnitsa Family Practice Center (FPC). Sarov/NM: Under the asthma education program, patients now visit their physicians 7 times per semester for an ongoing follow-up. Monthly exams include auscultation, FEV1, PEFR, inhalation and degree of severity measurements. Under the hypertension management program (Hypertension School) patients come to see their doctors once a month for health status</p>	<p>Astana/PA: 'Demeu' FMC and its replication site in Semipalatinsk contribute to increased access to quality primary care by integrating social and health services and empowering family medicine clinics to meet the needs of high-risk segments of the community, including the elderly, children with special needs, adults affected by chronic diseases, drug users, and sex workers. Minsk/NJ: The Cardiovascular Wellness Center was opened in Polyclinic #36 to offer integrated services in cardiovascular disease screening and early detection, education and counseling to 27,000 persons – 1st such center in Belarus. Later in the partnership, three replication centers were opened in Minsk. Chisinau/VA: The PMC Center affiliated with the SMPU (National Med U) is fully equipped and staffed to provide community health education and personal PHC care to the population of 12,000. Kyiv/PA: A Family Practice Center (FPC) established in the Darnitsa City District of Kyiv to provide comprehensive PHC to the population of 10,500. Health education provided on a regular basis: 593 interactive group sessions on 91 topic and 458 lectures on 37 topics. L'viv/OH: Four Family Medicine Centers (FMC) were equipped and set up to provide a patient-centered family care, incl. three in the rural area to the patient panel that ↑ over the partnership from 6,300 to 20,000 persons. Odesa/CO: FPC, Detoxification Center and Family Dental Clinics opened as model PHC practice centers, and replicated across Odesa. Uzhgorod/OR: A model Family Medicine Clinic (FMC) opened in Velykoberezhnyi Rayon to serve rural population of 12,000. Kurgan/WI: PHC Clinic opened in Schusche. Sakhalin/TX: Introduction of home care as part of the community/personal PHC provided by the outpatient department of the Korsakov hospital. Samara//IA: Municipal Polyclinic #15 has introduced a 'Hospital at Home' program to provide hospital-substituting care for patients who declined or did not need hospital admission. The polyclinic has also established a day-hospital</p>	<p>Ashgabat/ND: After PHC providers were trained and equipped to perform eye and hearing exams, referrals to ophthalmologists ↓. Kharkiv/WI: Ambulance calls ↓ by 48% in the catchment areas of Korobochkino Rural PHC Clinic, as a response to patient education on proper utilization of care. # of referrals to the Central District hospital ↓ by 46%. # of cases treated at home ↑ by 23%. # of hospital-substituting day treatment at the PHC Clinic ↑ by 32%. 90% of patients start and complete care with a family physician. 13% ↓ in ambulance calls in Kharkiv Oblast. Inappropriate admission rate for acute bronchitis ↓ from 46.8% to 4.7%. Kyiv/PA: Referral rate from PHC to specialty care level ↓ from 60% to 21% in 2000-2. Integration of the psycho-behavioral care in the Darnitsa FPC led to the ↑ in the # of visits to the clinic's psychologist: from 124 to 116 in 2001-2. Social workers have managed 252 cases in 2002, and conducted 59 daily living assessments for their patients. L'viv/OH: Prompted by the partnership-sponsored innovation, the share of FP in the total utilization of care ↑ from 12% to 28.9% in L'viv Oblast. Uzhgorod/OR: Referral rate for outpatient specialty care ↓ from 53% to 27% in Velykoberezhnyi FMC in 2000-4. Sakhalin/TX: Newly introduced home care was used by 690 patients in 2002 as an outreach extension to polyclinic-based services. Samara//IA: General Practice (GP) has become the main source of quality PHC in the partner Polyclinic #15: in 2000-2, the share of visits to GP physicians ↑ from 32.8% to 41.8% (compared to the citywide average of 17.2%). The share of medical problems among the reasons for visit to GPs has steadily declined from 66.8% to 58.8% over 1998-2002, while the share of surgical and ophthalmologic visits to GP has ↑. The # of patients treated in the day-hospital department of the polyclinic has ↑ from 1,320 to 2,100 in 2000-2. The Hypertension Management Program implemented in Polyclinic #15 has led to the ↓ of the ambulance call rate for hypertensive patients by 35.4% (957 cases) and hospital admission rate by 14.5% (106 cases).</p>	<p>Bishkek/FL: Improvement of the faculty competence at KSMA (National Med U) in ob/gyn, ped, AIDS, and minor surgery was confirmed in pre/post-training tests. Ashgabat/ND: Demonstrated improvement in PHC trainers' skills in physical exam, use of ophthalmoscope, otoscope, peak flow meter, urinary bladder catheterization; patient/ provider communications. Chisinau/VA: Demonstrated improvement in PHC residents' clinical and communication skills at the SMPU Clinical Skills Training and Assessment Center. Kharkiv/WI: Clinically inappropriate prescription of antibiotics to URI patients ↓ from 84.6% to 0.9% in 2001-2. # of inappropriate admissions for ulcer ↓ from 63% to 37.5% in Chuguev District over 17 months of 2001-3. Kyiv/PA: 24 residents at Kyiv/Darnitsa FPC passed the PHC knowledge/skills test based on the standardized patient methodology introduced by the partnership at KMAPE (Postgraduate Medical Academy). L'viv/OH: 17 partner physicians were able to articulate management of hypertension, diabetes, asthma, otitis media, coronary artery disease, and minor surgeries according to the training and practice guidelines received. Uzhgorod/OR: A partnership-trained physician from Velykoberezhnyi received the Best Family Physician National Award. Khbarovsk/KY: School of Diabetes has contributed to a much-improved treatment of diabetes type I and II. Sakhalin/TX: The error rate on lab tests for infection has ↓ from 25-35% to 5-7% pre/post training in the Korsakov District Hospital. Active surveillance for nosocomial infections implemented in the district led to ↑ detection rate and improved case</p>	<p>Minsk/NJ: The study of 547 patients (186 males and 361 females) at the Minsk Cardiovascular Wellness Center has indicated a ↓ in the incidence of high blood pressure in women from 33.9% to 28.8% in 2001-2, as they attended health education sessions. 4% of participating male patients quit smoking during 2002. Kharkiv/WI: Share of late-stage cancer Dx ↓ from 40% to 20%. Antibiotic usage rate in patients with acute bronchitis ↓ from 87.2% to 33% in 2001-02. Kyiv/PA: Mortality ↓ by 30% and disability incidence ↓ by 60% among the Darnitsa FPC enrollees. The design and implementation of clinical protocols on hypertension, pneumonia, coronary heart disease, peptic ulcer, and STDs have resulted in the ↓ of complications in persons treated according to protocols. Samara//IA: Diabetes management program, based on a significantly increased role of clinical and community nursing in Polyclinic #15, has translated into a ↓ of complication rates. Rate of amputation of the lower limbs ↓ from 0.8% to 0.3% in 2001-3. Sarov/NM: Absence of acute complications in diabetic patients; absence of mortality among patients with severe asthma. Days of work and school absenteeism due to asthma have ↓ by more than twice. # of day and night asthma symptoms has ↓ in 40% of patients. # of days of disability has ↓ in hypertensive patients. Sarov/NM: The diabetes management program has resulted</p>

More Competent Self-care and Peer Support	Strengthened Demand for Care	Improved Access to Health Care	Rationalized Utilization of Care	Improved Quality of Care	Health / Welfare Gain
<p>lifestyles. <u>Mtskheta/WI</u>: The hypertension education and screening program in Dusheti and Mtskheta has immediately benefited 470 hypertensive patients: 70% of their number is able to control their condition with lifestyle changes and available medications.</p>	<p>monitoring and ongoing disease control training. <u>Lori/CA</u>: In the 1990's, PHC providers lost touch with communities in Armenia because of the lack of basic resources (drugs, functional equipment, heat and electricity). Patients were reluctant to pay for untrustworthy PHC services. In 1999-2003, Vanadzor Polyclinic #5, has ↑ its popularity as a 'US-trained provider' and effectively reengaged with the patient population of 10,000 who started demanding general care services again.</p>	<p>department with 66 beds to enhance hospital-substituting care. Retrained nurses perform an increased range of Px for home-based patients. General Nurse Practice has been established as an extension of / alternative to physician care. <u>Sarov/NM</u>: The City Council of Sarov has responded to successes in the clinical pilot projects in diabetes and asthma by introducing on-budget funding for diabetes test strips and high potency inhaled glucocorticoids, thus making them available free of charge for patients with insulin dependent diabetes, children with asthma and adults with severe persistent asthma. <u>Tomsk/MN</u>: FMC in Kislovka, one of the 5 rural areas of the Tomsk District was set up to serve 4,070 persons. Based on patient satisfaction survey, FMC's work hours were adjusted and an appointment scheduling system introduced. <u>Volgograd/AR</u>: Three GP clinics have been equipped and established in Volgograd, a Family Medicine Department at the District Teaching Hospital # 3, and an FMC in the City of Volzhsky. <u>Lori/CA</u>: Three health fairs conducted in the Lori Marz over 3 years provided health screening for 3,000 persons and were used to inform the community about the access to modernized PHC care through Polyclinic #5.</p>	<p>Improved coordination of care between the polyclinic and referral hospitals has resulted in reduced LoS of 1,629 patients who were discharged earlier for outpatient follow-up. # of visits to/by general nurse practitioners in the Polyclinic #15 catchment area has ↑ from 29,423 to 52,831 in 2000-2. <u>Sarov/NM</u>: Asthma: The # of ambulance calls has ↓ by a factor of 2; # of hospital admission for asthma has ↓ 4 times. Improved diabetes management has resulted in the ↓ hospital admission rate from 1.3% to 0.6% in 2001-2 for diabetes type 2 patients with impaired peripheral circulation in the lower limbs; from 0.7% to 0.3% for patients with ketoacidosis; and from 0.2% to 0.1% for diabetes-related kidney complications. <u>Tomsk/MN</u>: PHC-to-specialty outpatient visits at the outpatient department of the Tomsk Central District Hospital ↓ by 40%. <u>Volgograd/AR</u>: GP-to-specialty referral rate has ↓ by 22-46% in the PHC facilities supported by the partnership. <u>Lori/CA</u>: In Vanadzor Polyclinic #5, the # of patient visits has ↑ by 50% in 3 years thanks to the increased scope and quality of PHC care. The 'one stop' model of PHC services has enabled integration of general, ob/gyn and diabetic care in one provider facility.</p>	<p>management, incl. antibiotic-resistant cases. <u>Samara/IA</u>: The introduction of individual risk assessment as part of the enrollment process and general exam has resulted in the identification of major health risks in the local population and active management of over 4,000 at-risk patients annually. Patient satisfaction rate has ↑ from 86% to 95% over 15 months of 2001-2. <u>Gegarkunik/RI</u>: The introduction of glucose level measurement during the 1st visit to the local polyclinic has led to an ↑ in early detection of diabetes. The community mental health survey has improved case detection and allowed to identify 36 cases of mild depression, 221 cases of severe depression, 168 cases of severe alcohol abuse, and 66 cases of alcohol abuse in the patient population of 420. <u>Lori/CA</u>: The newly trained staff of Vanadzor Polyclinic #5 has established monitoring of 490 patients with hypertension, 192 with diabetes, 326 with chest pain, and 9 with asthma, using disease management guidelines introduced by the partnership.</p>	<p>in improved compensation of type I and II diabetes by 84% with significantly improved glycozylated hemoglobin. Complication rate for ketoacidosis and hypoglycemia has ↓ significantly. Multivariate analysis showed significant difference between self-control and control groups in terms of improved hemoglobin A1c over 6 months of the program (P=0.39). <u>Tomsk/MN</u>: Nosocomial infection rate in the Tomsk Central District Hospital has ↓ from 5% to 2% over 2000 as a result of the hospital infection control program. <u>Armavir/TX</u>: The Armavir City Polyclinic has reported a ↓ of helminthes cases in the catchment area from 113 to 58 over 2001, attributable to the infectious and parasitic disease management program as part of the PHC strengthening effort under the partnership. <u>Mtskheta/WI</u>: After the start of the hypertension education and screening program in Dusheti and Mtskheta there were no deaths from hypertension, and the hospital admission and complication rates have ↓.</p>

Section 2: General Female Population

More Competent Self-care and Peer Support	Strengthened Demand for Care	Improved Access to Health Care	Utilization of Care	Quality of Care	Health / Welfare Gain
<p>Ashgabat/ND: Women's education on breast self-exam has increased self-Dx rate of breast cancer.</p> <p>Kramatorsk/PA: Each woman enrolled in the Women's Wellness Center (WWC) is trained to perform breast self-exam: # of trained women increased from 2,983 in 2000 to 6,364 in 2002. In total, 12,930 women were trained.</p>	<p>Donetsk-Kramatorsk/PA: Women and adolescents have positively responded to the ongoing counseling on the importance of routine visits to their doctor to maintain health.</p> <p>Yerevan/DC: The partnership-sponsored Armenian-American Wellness Center applies 50% discount to all patients during the 'Breast Cancer Awareness' month. A group of survivors has been formed and holds monthly meetings as an advocacy medium to increase awareness of women's diseases. As a result, the # of women with serious problems, incl. cancer of 3rd and 4th levels, who regularly come to the Armenian-American Wellness Center has tripled. Outreach health education in the country has helped rural women overcome psychological impediments in turning to a doctor in a cancer-related context.</p> <p>Gegarkunik/RI: Partnership effort in women's health education has allowed to overcome patient resistance to the cervical cancer screening.</p>	<p>Astana/PA: Women's Health Centers as part of PHC Clinics, provide comprehensive PHC services for women of all ages.</p> <p>Chisinau/VA: The ProSan PHC Center was opened in 2001 and provides general care with the emphasis on women's wellness.</p> <p>Kramatorsk/PA: provides weekly consultations on the walk-in basis to women from all over the city.</p> <p>Odessa/CO: Comprehensive PHC care is provided in Women's Health Centers.</p> <p>Uzhgorod/OR: A model WWC was established at the Zakarpatsky Oblast Teaching Hospital to serve >594,000 women incl. 303,000 of the reproductive age.</p> <p>Yerevan/DC: The Armenian-American Wellness Center was established to provide nationwide coverage with breast and cervical cancer screening for Armenian women.</p>	<p>Astana/PA: FMC 'Demeu'-based Crisis Center reports intensive call volume on the hotline phone number from domestic violence victims and individuals with psychiatric and behavioral disorders.</p> <p>Kramatorsk/PA: As a result of the 2-year health education effort (162 classes in 2002), per capita # of preventive checkups has increased in the WWC catchment area.</p> <p>Kharkiv/WI: Admission rate for acute cystitis ↓ following implementation of the disease management guidelines.</p> <p>Uzhgorod/OR: A model WWC serves female population of the oblast and manages 500 encounters daily.</p> <p>Yerevan/DC: Over 40,000 women were examined in the Armenian-American Wellness Center in 2000-2 (an estimated 13% of the nationwide need in Armenia).</p>	<p>Ashgabat/ND: Provider training in breast exam and patient education led to increased early Dx of breast cancer.</p> <p>Kramatorsk/PA: 69 breast pathology cases were detected as a follow-up on breast self-exam in the WWC catchment area.</p> <p>Khaborovsk/KY: More comprehensive physical exams of women are carried out at the partnership-supported Women's Wellness Center. Improved treatment of bronchial asthma, hypertension, diabetes; as well as Dx of breast cancer.</p> <p>Armavir/TX: Steady ↑ in the # of early diagnosed breast cancer cases in the catchment area of the Armavir Polyclinic: from 15 to 23 in 2000-2. The # of detected mastopathy cases has ↑ from 25 to 43 cases over the same period.</p> <p>Gegarkunik/RI: ↑ in early detection of cervical cancer thanks to increased use of pap smear tests and colposcopy.</p> <p>Yerevan/DC: The partnership's cervical cancer program has resulted in the detection of more than 1,800 cases in 2000-2.</p>	<p>Khaborovsk/KY: Abortion rate ↓ due to use of contraceptives increased to 25.7%.</p> <p>Kurgan/WI: Abortion rate ↓ from 57.3% to 33.9% in 1999-2002 as a result of the education on modern contraception methods.</p> <p>Samara/IA: Breast cancer prevention program in Polyclinic #15 led to the ↓ in the number of breast cancer cases detected at the late stage from 9 in 2000 to 5 in 2002 (for comparison: the rate in the City of Samara has ↑ from 10.7% to 12.9% in the same period).</p> <p>Snezhinsk/CA: Membership in the WWC breast cancer support group has ↑ to 23 members, incl. 20 who have received breast prostheses donated by the US partners.</p> <p>Armavir/TX: In 2000, the use of oral contraceptives has quadrupled and the use of IU devices ↑ from 60 to 92 among Armavir Polyclinic female patients.</p> <p>Yerevan/DC: Cervical cancer mortality has ↓ due to increased share of T1 and T2-stage cases in new cases.</p>

Section 3: Mothers, including care in pregnancy, and infants

More Competent Self-care	Strengthened Demand for Care	Improved Access to Health Care	Utilization of Care	Quality of Care	Health / Welfare Gain
<p>Most partnerships have strengthened women's capacity in breast self-examination.</p>	<p>Samara/IA: Married couples, educated at the partnership WWC, realized the importance of pre-gestational screening: 26 married couples requested and received counseling. 175 married couples have been treated for STIs. 21% of young fathers applied for «The Young Father» educational program in 2002 (the best rate in Samara).</p>	<p>Kramatorsk/PA: Support to victims of domestic violence provided jointly with local NGOs.</p> <p>Kurgan/WI: Strengthened and modernized services in the Kurgan Birthing Home #1.</p>	<p>Kramatorsk/PA: Lamaze classes were held for 301 pregnant women and 21 couples during partnership. Early prenatal care (<=12 weeks of gestation) provided to 92.2% pregnant women enrolled in WWC, up from 85% in 2000. Number of pregnant women covered with 2 ultrasonic exams ↑ from 42% to 95% in 2000-2.</p>	<p>Kramatorsk/PA: As a result of Lamaze classes, pregnancy complication rates and related hospital admissions ↓. Patient satisfaction with Lamaze education was 100%, based on a customer satisfaction survey.</p> <p>Kharkiv/WI: Partnership introduced family-supported childbirth including post-delivery family visits in the Chuguev Central District Hospital. Babies and mothers share room. 1st breastfeeding occurs immediately after birth.</p> <p>Kurgan/WI: The share of babies kept with their mothers from birth ↑ from 18% to 100% in 1999-2002 in Kurgan Maternity Home #1.</p>	<p>Kramatorsk/PA: Number of women who had induced abortion ↓ from 118 to 45 in the WWC catchment area in 2000-2. Perinatal mortality ↓ from 12.6% to 4.6%.</p> <p>Kharkiv/WI: Breastfeeding rate ↑ by 20% among young mothers served by the Student Polyclinic in Kharkiv. Average length increased.</p> <p>Khaborovsk/KY: Breastfeeding rate ↑ from 58% to 75%. Pregnancy visit rate remained at low 50%. There was a case of teenage girl death with aggravated venereal disease.</p> <p>Sarov/NM: The newly established WWC has contributed to ↓ perinatal and infant mortality rates, and ↑ breastfeeding among 608 women who attended breastfeeding promotion classes. In 1999-2002, breastfeeding rates ↑ from 60.1% to 80.6% till 3 months after birth, from 38% to 56% till 6 months, and from 18.2% to 32.5% till 12 months.</p> <p>Sakhalin/TX: Breastfeeding (up to 12 months) rate ↑ by 30%. Infant morbidity ↓ by 8.2%, the decline attributable to increased breastfeeding rate.</p> <p>Snezhinsk/CA: Using techniques taught by AIHA and partners, the Snezhinsk Maternity Home staff successfully resuscitated a premature baby born to a woman with previous six unsuccessful pregnancies.</p> <p>Tomsk/MN: The up-to-6 months breastfeeding rate among the Kislovka FMC mothers has ↑ from 49% to 85.9% in 2001-2.</p>

Section 4: Children and Youths/Students

More Competent Self-care and Peer Support	Strengthened Demand for Care	Improved Access to Health Care	Utilization of Care	Quality of Care	Health / Welfare Gain
<p><u>Astana/PA</u>: STI education conducted by 'Healthy Parents – Healthy Children' Club resulted in safer sex practice. The experience was replicated in Semipalatinsk where FGP #11 has set up the "Apples and Blossoms" youth club focused on prevention of drug and alcohol abuse and reproductive health education. <u>Uzhgorod/OR</u>: Two peer education programs in Velikoberezhnyi and Uzhgorod provide peer guidance to 1,200 students on HIV/AIDS and STI. <u>Khabarovsk/KY</u>: Schoolchildren's clubs focus their agenda on smoking avoidance and substance use. <u>Kurgan/WI</u>: "Program Teenager" focused on prevention of drinking, drug abuse, HIV/AIDS, and domestic violence. <u>Sakhalin/TX</u>: A 20-member volunteer team of school-age children, trained and equipped with materials, conducted peer health education in order to ↓ teenager smoking and drinking. <u>Sarov/NM</u>: Peer education on STIs and safe sex was established under the 'Aurora' Program, assisted by the city school superintendent. <u>Snezhinsk/CA</u>: An estimated 1,231 children have attended 64 school-based lectures and practical trainings on maintaining healthy teeth. The WWC jointly with the local Family and Youth Committee launched a peer education program that, reportedly, has contributed to reduced incidence and prevalence of STIs and drug abuse. <u>Lori/CA</u>: According to a pre/post test, the learning score has ↑ from 50 to 80+% among 800 students, enrolled in a school-based health education program.</p>	<p><u>Astana/PA</u>: STI education, conducted by 'Healthy Parents – Healthy Children' Club has resulted in increased demand for contraceptives. <u>L'viv/OH</u>: The 'Red Flags' Program of schoolchildren education on, and diagnosing and treating for teenage-related psychiatric and behavioral problems was well accepted and increasingly demanded by the local school system and PHC administrators. <u>Sarov/NM</u>: Training of 7 dentists and 1 dental nurse in the U.S. as well as local education of PHC providers and personnel of kindergarten and pre-school facilities has translated into a massive dental health education of parents and children and, consequently, increased customer interest in having good teeth. As a result, per capita number of prophylactic dental visits has grown sizably.</p>	<p><u>Astana/PA</u>: PHC-based program of social support of children with disability and special learning needs: 82 kids were enrolled as of December 2002. <u>Kramatorsk/PA</u>: Group of teenager volunteers has been organized to provide peer education in the areas of HIV/AIDS and drug use. The 'Get to Know Yourself' Program was offered to increase adolescents' responsibility for health. <u>Kharkiv/WI</u>: Number of university-based PHC clinics in Kharkiv ↑ from one (model Aerospace U Clinic) to 11. The number of PHC replication sites ↑ to 201 oblast-wide. <u>L'viv/OH</u>: The depression awareness program was implemented in the schools of Zhovkva including referral and case management systems. <u>Odessa/CO</u>: Integration of dental care into PHC clinics has made free dental prevention more available to children. <u>Uzhgorod/OR</u>: Youth dental education and fluoridation program was opened by the partnership in a local dental care facility.</p>	<p><u>Kramatorsk/PA</u>: The 'Get to Know Yourself' Program covered 2,190 girls and 1,143 boys in the teenage group. <u>Kyiv/PA</u>: # of pediatric visits to family practitioners ↑ from 593 to 4,966 in 2001-2 (8.4 times). <u>Kharkiv/WI</u>: Students from all over Kharkiv actively use the Psychosocial Counseling and Support Center for Students: 60 patients per day, of whom 50% are repeat visits. <u>Snezhinsk/CA</u>: Under the dental hygiene and prevention program, 208 children received dental sealants in 2001 and 377 in Jan-Nov 2002.</p>	<p><u>Astana/PA</u>: Partnership enabled early Dx of STIs and more advanced curative response in PHC, enhanced by modern medications in the "Demeu" FMC. <u>L'viv/OH</u>: Six family physicians trained in diagnosing mental health problems have detected and provided first response to mental disorders in 356 children.</p>	<p><u>Astana/PA</u>: Special Learning Needs Program: 4 kids were graduated to ordinary schools (previously disqualified); 14 won the National 'Blue Bird' Creativity Contest. <u>Kramatorsk/PA</u>: the number of abortions among teenage girls has ↓ from 13 to 1 in 2001-2. Smoking and alcohol-use rates have ↓ by 2/3 in a population of 168 school students, in response to the health education effort. <u>L'viv/OH</u>: Reduction of stigma around mental illness in children of Zhovkva. <u>Uzhgorod/OR</u>: Dental prevention program resulted in 28% ↓ of dental caries among children. The school-based smoking cessation program covered 400 students and 50 teachers and resulted in the certification of a school and a college as non-smoking facilities; 120 students and teachers quit smoking. <u>Khabarovsk/KY</u>: Cigarette use ↓ to 30% and drug use ↓ to 26% in the target Khor School #3 (compared with the baseline drug use rate of 41.1%). <u>Kurgan/WI</u>: Better organized teenager leisure time likely correlated with the reduced teenage crime rate. <u>Sarov/NM</u>: As a result of the Adolescent Health Program of school-based health education, the # of teenage abortions has ↓.</p>

Section 5: Other Population Groups

Beneficiary groups	More Competent Self-care and Peer Support	Strengthened Demand for Care	Improved Access to Health Care	Utilization of Care	Quality of Care	Health / Welfare Gain
Elderly	<u>Astana/PA</u> : The 'Respectable Age' Health Club has been set up under the auspices of FMC 'Demeu' and enabled improved knowledge of risk factors, disease symptoms and acuity management; unprecedented practice of mutual care and peer bedside support. Family Group Practice (FGP) #9 in Semipalatinsk has replicated this experience by setting up the "Second Youth" club for the health education and mutual social support among the elderly.	<u>Astana/PA</u> : There is a great demand for membership in the 'Respectable Age' Club: the number of chapters has ↑ to 5 by fall 2006, increasingly drawn by applicants from outside the 'Demeu' FMC catchment area.		<u>Astana/PA</u> : The 'Respectable Age' Health Club: Significant ↓ in ambulance calls and outpatient physician visits; Significant ↑ of PHC-based psychosocial care and support sessions and events.		
Occupational groups			<u>Odessa/CO</u> : First-aid training, trauma prevention, and toxicological security programs were implemented at the Odessa seaport to ensure workplace safety.	<u>Donetsk-Kramatorsk/PA</u> : The Miner's Health Center, a model PHC clinic, serving miners and their families opened in Donetsk at City Hospital #25. In addition to basic PHC services it offers comprehensive occupational health services for miners incl. nutrition, hearing loss, alcohol, smoking, and muscular-skeletal disease care.		<u>Odessa/CO</u> : No occupational injuries reported by the Odessa Seaport Authority during partnership years.
Disabled	<u>Astana/PA</u> : Semipalatinsk-based FGP #9, a replication site for the integrated primary care/social support model piloted by FMC 'Demeu' in Astana, has created the 'Victoria' club for families raising disabled children. The club has succeeded in empowering these families with additional knowledge and helping them support each other. The membership in this club has tripled over two years.	<u>Astana/PA</u> : Parents of disabled children, an NGO for disabled children, government officials and members of the 'Safe Childhood' club, based in 'Demeu' FMC engaged in monthly meetings to raise awareness of the needs of families with disabled children.				<u>Astana/PA</u> : As part of its health/social rehabilitation effort for the disabled, the 'Demeu' clinic has involved persons with disability in the provision of social support to vulnerable populations in its catchment area. Partially paid jobs for the disabled include a hotline-based crisis counseling service and a gift workshop/outlet.
Internally displaced persons		<u>Baku/VA</u> and <u>Baku/OR</u> : The IDP/refugee community of 26,000 persons has been addressed with health education and 'became involved in primary care' – have increased demand and utilization of services of the Narimanov District Polyclinic, strengthened by the partnerships.	<u>Baku/VA</u> : A clinic for IDPs/refugees was established and provides medical screening for children and adults, mostly women in the Narimanov District of Baku. <u>Ganja/CA</u> : An integrated PHC model was introduced in the Polyclinic #6 of Ganja serving 330,000 local population incl. 40,000 IDPs/refugees.	<u>Baku/VA</u> and <u>Baku/OR</u> : The PHC-to-specialist referral rate has ↓ to 12% (estimated on 812 PHC visits) in the Narimanov District Polyclinic for IDPs/refugees, owing to increased scope and quality of general practice.	<u>Baku/VA</u> : Timely diagnosis rate has ↑ by 19% in the Narimanov District Polyclinic for IDPs/refugees. A breast cancer management program has resulted in a timely diagnosis of 470 breast-related conditions, incl. 2 cases of breast cancer.	<u>Baku/VA</u> : Timely detection of pre-cancer conditions enhanced breast cancer prevention. <u>Baku/OR</u> : Continued effort to implement a clinical practice guideline on bronchial asthma has resulted in good health outcomes: 44% of patients (32 of 72) achieved the targeted Peak Expiration Volume (PEV) of >80% by Feb 2003 and ↑ further up to 59.2% by June 2003 and 63.2% by Sep 2003. # of patients who had their asthma under control has ↑ up to 18.7%.

Sources: Partnership End-of-project Self-evaluation Reports; Partnership Summary descriptions on the AIHA Website. AIHA Program Annual Reports. Field observations.

Annex C. Selected Evaluation Tools



AIHA Partnership Legacy Survey

Program Evaluation:
AIHA Primary Health Care Partnerships
(1998-2006)

October 2006

The information you provide will be kept confidential. Your name, should you wish to give it, will not be linked to the information you provide in any public venue. Analytical data from the survey will not be attributed to any specific individual or personally identifiable group. After the data are summarized, original survey forms will be retained in a secure location and treated as restricted documents.

*[Disclaimer per USAID ADS 200 Procedures for Protection of Human Subjects
In Research Supported by USAID, and 22 CFR section 225.101(b)(2) and (3)]*

October 1st, 2006

To a Program Participant,
The AIHA Primary Health Care (PHC) Partnership Program

Re: AIHA Partnership Legacy Survey

Dear Program Participant,

Welcome to the AIHA Legacy Survey! This letter has reached you because you have been identified as a Key Informant for your PHC Partnership.

On behalf of Terra P Group, Inc., the PHC Partnership Program evaluation team, we are privileged to request your response to the attached AIHA Partnership Legacy Survey. Professionals of your level of knowledge about the PHC Partnership Program are few, and your insight into the Program's experience is very important.

We thank you in advance for taking an estimated 2.5 hours of time out of your busy schedule to respond to this questionnaire. We will share the results of this important survey with you if you provide contact information. Please feel free to contact us should you have any questions prior, during, or after filling out the attached questionnaire.

We thank you again for your very important contribution and wish you all the best.



Mary Paterson, Ph.D.
Evaluation Team Leader



Alexander Telyukov, Ph.D.
Evaluation Specialist

Attachments:

- 1) Survey Instructions
- 2) Partnership Activities: Intensity Scale and Grading Guide
- 3) Questionnaire

Survey Instructions

Please read these instructions carefully before proceeding to the questionnaire. Failure to comply with the following guidance may significantly reduce the relevance of your responses.

1. This is a complex survey that requires your undivided attention for an estimated total of 2.5 hours. As a token of professional appreciation of your great effort of filling out this questionnaire, we will provide you with an electronic copy of the resulting PHC Partnership Program evaluation report if you choose to give us your contact information.

Managing Survey Content

2. **Important! -- This survey is not intended either for evaluating your partnership or for comparing it with other partnerships. This is not an attempt to audit or judge your individual or partnership performance.** Instead, the survey is intended for highlighting program patterns and legacy, based on informed opinions about the partnership experience and host country health agendas and systems. Consistent with this approach, individual responses will be aggregated and analyzed as a whole.

3. The information you provide will be kept confidential. Your name, should you wish to give it, will not be linked to the information you provide in any public venue. If you work with an electronic copy and have e-mail access, you may prefer to e-mail the completed survey form directly to us at partners@terra-p-group.net to ensure confidentiality. Otherwise, you may want to detach the first page with your personal data from the rest of the survey and fax it to us at 1-240-238-9888 or scan and e-mail it at the above address. The rest of the survey can then be mailed or otherwise transferred to us, e.g., through an AIHA regional/country office. If you choose to give your name and contact information, we may contact you for an interview.

4. Please, think about YOUR partnership and YOUR personal experience in that partnership. Consult with the partnership records to additionally inform your opinion, but DO NOT substitute other people's opinions for your own.

5. **Important! -- Please, do not inflate your partnership experience by providing 'strong' responses to all questions and checking too many areas of work.** While your partnership might have had tangencies with a very diverse and intensive agenda, it is important that you emphasize its core interventions and results. Please, use your best professional judgment to provide a balanced view of the depth and breadth of your partnership experience. Parts of the survey contain options that may be mostly or completely unrelated to your individual program scope, so we expect that some of your responses will reflect little or no involvement with these programmatic areas.

6. Much as we tried to avoid 'double-barrel' questions (those requiring two or more answers per question), some of them proved unavoidable – a preferred alternative to an even lengthier questionnaire. Please answer such questions on the whole or on average. For example, in stating your opinion about the importance of "Improved mobilization, allocation and use of resources" as a partnership objective (line 62), answer "4" for "High" if you feel that the health financing agenda was important overall for your partnership. This rating may be based on your opinion that the improved use of resources has been aggressively pursued by your partnership as a high-priority objective; allocation of resources was addressed systematically as an important objective, while mobilization of resources was moderately addressed.

7. When answering Question 32, please enter ONLY ONE innovation even if you know that several of them will go to posterity as your partnership legacy. We have your self-evaluation reports and other materials to obtain a comprehensive list of your partnership achievements. The sole purpose of Question 32 is to set a strong context for your opinions about the innovation supports and impediments in the NIS health

sectors. Therefore, when answering Q33-34, think specifically about that single innovation that you have designated as the ‘Most Valuable Innovation’ under Q32. If you are eager to state other very important innovations, please write them on a clean page and attach at the end of the completed questionnaire.

8. **Important! – The innovation title in Q32 cannot be phrased as a partnership objective or activity. It must be referenced to a product or an integrated set of products (toolkit).** For example, ‘Raising awareness of the local community about health status and risks’ is incorrect. ‘A Comprehensive Guide to Community Assessment and Public Health Advocacy’ is correct. Similarly, the ‘Integration of Behavioral Health in PHC’ is incorrect. ‘Mental and Behavioral Health Guidelines for General/Family Practice’ is correct.

9. When answering Q33-35, try to think realistically about the confounding factors that might have minimized or offset the partnership’s push for better PHC systems and performance. If you think that the post-partnership situation has not improved compared to the pre-partnership situation, respond accurately and do not feel guilty: it is not your fault that the local environment might be resilient to a quick positive change.

10. The ‘Don’t know’ option is available to answer most questions. Please, do not use this option unless you really don’t know. Avoiding this option would require additional effort to recall and reflect on your partnership’s activities and experience. We very much appreciate your effort.

Managing Response Entry

11. If you plan to enter your opinions in an electronic copy of the questionnaire, save the blank questionnaire file under two different filenames, and keep one file as a backup copy.

12. **Important! – Do not add or delete columns, rows, or cells in the Excel spreadsheet. This will shift cells with your responses and disrupt the computational process at the post-survey stage.**

13. When answering questions in the electronic questionnaire file, please check appropriate boxes with the capital **X** using font Arial bold 10pt.

14. When specifying residual items (“Other (Specify)_____”), please write in the reserved cell instead of the word “Other” or next to it in blank space.

15. When you need to enter strings of text, please enter them in the leftmost cell of the designated space. The wrap option is disabled in those cells, so your text will be displayed in one line across the designated space. This is better than trying to enter your text one character per cell. – This refers particularly to the personal data section of the questionnaire.

16. Even when filling out the questionnaire electronically, we recommend that you print out a blank questionnaire. Dependent on your PC screen resolution, some text, visible on a printout may not be visible on screen. This will complicate reading the questions.

17. The turnaround time on this questionnaire will be limited to a few days, so we wish you a productive engagement with this survey and thank you again for your contribution to preserving the AIHA partnership legacy.

Partnership Activities: Intensity Scale and Grading Guide
[Please consult with this page to enter your answers in six-cell blocks under Q16-22]

Intervention Areas	Intensity Levels				
	1	2	3	4	5
	<i>None or negligible</i>	<i>Low</i>	<i>Medium</i>	<i>High</i>	<i>Very high</i>
Information support	None or less than under Category "2"	Internet literacy training; Handouts during workshops and visits; Spending on educational materials <\$1,000	Review of pertinent Websites; Donation and/or financing of a library of <100 items of one or both types: (1) Publications, and books; (2) Technical information from US partner's organizational resources; Information about conferences; Spending on educational materials = \$1,001-\$5,000	Support of full on-line access; A library of >=100 items of both types listed under Category 2; Co-financed conference attendance; Spending on educational materials = \$5,001-\$15,000	Support of subscriptions to on-line catalogues and databases; Support of an NIS partner with data acquisition through trade magazines; literature subscriptions, mailing lists, and regular Web downloads; financed conference attendance; Spending on educational materials >\$15,000
System / tool development	None or less than under Category "2"	A reference to potentially applicable prototype tools and review of their importance	Selection and focused review and demonstration of prototype tools with strong reference to the partnership context	Guidance toward prototype tool customization and their in-depth study	Focused supervision of, and hands-on support with tool customization, including piloting and validation in technical and policy discussions
Education, training, and related professional exchange	None or less than under Category "2"	Subject-specific review in a multi-subject lecture, meeting, or workshop; Minimal face-to-face time (US-to-NIS travel + NIS-to-US travel <500 days)	Subject-specific lecture or training session of up to one day; Focused discussion during a specialized session of a multi-subject workshop or conference; Medium face-to-face time (US-to-NIS travel + NIS-to-US travel =501-1000 days)	Subject-specific training module or workshop longer than one day; Focused discussion in a single-topic meeting paired with observation during a multi-subject study tours; Significant face-to-face time (US-to-NIS travel + NIS-to-US travel =1001-1500 days)	Subject-specific training course; In-depth discussion during specialized workshops, conferences, and visits; Significant face-to-face time (US-to-NIS travel + NIS-to-US travel >1500 days)
Equipment / commodity support (other than in other categories)	None or less than under Category "2"	Isolated purchase or transfer of 'sure-shot' items, e.g., PCs; Acquisition value: <\$10,000	Targeted purchase of equipment or supplies consistent with partnership's priorities. Acquisition value: \$10,000 - \$50,000	Targeted purchase of equipment or supplies consistent with partnership's priorities. Acquisition value: \$50,001 - \$150,000	Targeted purchase of equipment or supplies consistent with partnership's priorities. Acquisition value: >\$150,000
Implementation support	None or less than under Category "2"	General encouragement and periodic consultation	Focused implementation planning and management support, including design of resource and time schedules, and readiness/progress check lists	Systematic pre- and post implementation support, including involvement in government, community and media relations	Emphasis on sustainability: support with medium-term planning, fund-raising, policy advocacy, and regulatory design

1. INFORMATION ABOUT PARTNERSHIP AND RESPONDENT

Partner-
ship #

1 Today's date (DD/MM) → / / 0 6 2 Check appropriate box → I represent a US partner a I represent an NIS partner b

3 Please, enter your partnership's number from the list below. If you work with a paper copy, reenter the survey number in the upper right corner of each page. _____ ↑
 01-Astana/PA; 02-Bishkek/NV-FL; 03-Dushanbe/CO; 04-Ashgabat/ND; 05-Minsk/NJ; 06-Chisinau/VA; 07-Donetsk/PA; 08-Kharkiv/WI; 09-Kiev/PA; 10-Lviv/OH; 11-Odessa/CO; 12-Uzhgorod/OR; 13-Khabarovsk/KY; 14-Kurgan/WI; 15-Sakhalin/TX; 16-Samara/IA; 17-Sarov/NM; 18-Snezhinsk/CA; 19-Tomsk/MN; 20-Volgograd/AR; 21-Armavir/TX; 22-Gegarkunik/RI; 23-Lori/WI; 24-Lori/CA; 25-Yerevan/DC; 26-Baku-VA; 27-Baku-OR; 28-Ganja-CA; 29-Mtskheta/WI; 30-Gori-WI; 31-Guria/WI.

May we contact you? Yes → Answer Q4-6. No → Skip to Q7 6 Your phone # with country & area code

6 Your first and last names 6 Your e-mail

7 Check if you were/are partnership coordinator 8 Your 1st mm/yy with partnership / 9 Your last mm/yy with partnership /

10 Estimate % of time you were spending in the following professional role(s) at the beginning of your partnership experience

% a % b c % d % e % f % g % h % i % j % k %

GP/family doctor PHC specialist (internist, pediatr., ob/gyn) "Narrow" specialist Nurse Provider administrator Provider ancillary Faculty / research Government / insurance Community worker International development / Consulting Outside the health sector

11 Estimate % of time you were spending in the following professional role(s) at the end of your partnership experience

% a % b c % d % e % f % g % h % i % j % k %

GP/family doctor PHC specialist (internist, pediatr., ob/gyn) "Narrow" specialist Nurse Provider administrator Provider ancillary Faculty / research Government / insurance Community worker International development / Consulting Outside the health sector

Enter a random 3-digit Copy # below if you are working with an electronic copy, or else enter it on every page.

2. PARTNERSHIP OBJECTIVES

Copy #

12 What sources of information did your partnership use to determine its objectives? -- Check appropriate boxes

a E-mail exchange: b Document review c Secondary data review d Meeting(s) with partners e Meeting(s) with AIHA
 f Meeting(s) with USAID g Meeting(s) with host country agency(ies) h Partner organizational assessment i Community assessment
 j Patient data review k Patient survey l Other (Specify) _____ m Don't know

13 What was the role in setting partnership objectives: 1-None, 2-Minimal, 3-Moderate, 4-Strong, 5-Very strong, 0-Don't know

a Main US partner 1 2 3 4 5 0 b Other US partner(s) 1 2 3 4 5 0 c Main NIS partner 1 2 3 4 5 0 d Other NIS partner(s) 1 2 3 4 5 0
 e NIS non-partner agency 1 2 3 4 5 0 f USAID 1 2 3 4 5 0 g Other (specify) _____ 1 2 3 4 5 0

14 When were partnership objectives finalized? -- Check one box. Note: PA stands for Partnership Agreement

a Before PA was signed b 1-3 months after PA c 3-6 months after PA d 6-12 months after PA e >1 year after PA f Don't know L →

Continue

Rate the importance of the following areas for your partnership: 1-None, 2-Minimal, 3-Moderate, 4-High, 5-Very high, 0-Don't know

For objectives rated 3 or higher, check level(s) at which the partnership mainly worked: 1-Hardly at all; 2-Individuals (e.g., educators, providers, administrators); 3-Practice/Organization; 4-Local community/network of organizations; 5-Region/Country; 0-Don't know

Partnership #

a Increased scope of general care	1 2 3 4 5 0	If rated 3 or higher	b	1 2 3 4 5 0
c Personal & public health alignment	1 2 3 4 5 0	If rated 3 or higher	d	1 2 3 4 5 0
e Integration of clinical, behavioral, & economic aspects of health	1 2 3 4 5 0	If rated 3 or higher	f	1 2 3 4 5 0
g Improved quality of health care	1 2 3 4 5 0	If rated 3 or higher	h	1 2 3 4 5 0
i Focus on at-risk populations across care continuum	1 2 3 4 5 0	If rated 3 or higher	j	1 2 3 4 5 0
k Preparedness for, and response to emergencies and disasters	1 2 3 4 5 0	If rated 3 or higher	l	1 2 3 4 5 0
m Improved mobilization, allocation & use of resources	1 2 3 4 5 0	If rated 3 or higher	n	1 2 3 4 5 0
o Workforce planning and development	1 2 3 4 5 0	If rated 3 or higher	p	1 2 3 4 5 0
r Access to, and use of information for decision-making	1 2 3 4 5 0	If rated 3 or higher	s	1 2 3 4 5 0
t Empowering individuals in the matters of health	1 2 3 4 5 0	If rated 3 or higher	u	1 2 3 4 5 0
v Supporting NGOs to improve community & family health	1 2 3 4 5 0	If rated 3 or higher	x	1 2 3 4 5 0
y Supporting grassroots initiatives in health	1 2 3 4 5 0	If rated 3 or higher	z	1 2 3 4 5 0
aa Policy & legislative reforms, supporting community-based PHC	1 2 3 4 5 0	If rated 3 or higher	ab	1 2 3 4 5 0
ac Preparing NIS and US professionals for further collaboration, including in third countries	1 2 3 4 5 0	If rated 3 or higher	ad	1 2 3 4 5 0

Copy #

Strengthening provision of care in the following areas:

ae HIV/AIDS	1 2 3 4 5 0	If rated 3 or higher	af	1 2 3 4 5 0
ag Tuberculosis	1 2 3 4 5 0	If rated 3 or higher	ah	1 2 3 4 5 0
ai Family planning	1 2 3 4 5 0	If rated 3 or higher	aj	1 2 3 4 5 0
ak Maternal health	1 2 3 4 5 0	If rated 3 or higher	al	1 2 3 4 5 0
am Infant and child survival	1 2 3 4 5 0	If rated 3 or higher	an	1 2 3 4 5 0
ao Infectious diseases	1 2 3 4 5 0	If rated 3 or higher	ap	1 2 3 4 5 0
aq Non-communicable diseases (diabetes, cardiovascular)	1 2 3 4 5 0	If rated 3 or higher	ar	1 2 3 4 5 0
as Environmental health risks	1 2 3 4 5 0	If rated 3 or higher	at	1 2 3 4 5 0
au Occupational health risks	1 2 3 4 5 0	If rated 3 or higher	av	1 2 3 4 5 0
aw Healthy lifestyles to reduce adult male mortality	1 2 3 4 5 0	If rated 3 or higher	ax	1 2 3 4 5 0
ay Poverty reduction	1 2 3 4 5 0	If rated 3 or higher	az	1 2 3 4 5 0
ba Integration of health with social assistance and safety net	1 2 3 4 5 0	If rated 3 or higher	bb	1 2 3 4 5 0

Continue

3. PARTNERSHIP INPUTS AND ACTIVITIES

Partner-
ship #

Rate the intensity of partnership activities by PHC clinical and management area. **Activities** are defined as follows:

Information support, e.g., transfer and production of printed matter, information on tape and digital media; electronic subscriptions and mailing lists, conference attendance.

System/tool development, e.g., curricula, training materials, practice guidelines, standard operating procedure manuals, assessment tools, software applications.

Education and training, e.g., basic and continuing education, and in-service training of any of the following: faculty, providers, practice managers, ancillaries, health sector administrators, regulators, policy-makers, community workers, and opinion leaders. Includes discussions during study tours and other face-to-face time of educational value

Equipment/commodity support, e.g., capital and minor equipment and expendable parts, incl. computer, medical, and office; capital renovation; drugs and health supplies

Implementation support, e.g., implementation planning, preopening assessment, workplace guidance, support with fund-raising; community, media and government relations. Implementation refers to any and all areas of professional and community activity targeted by a partnership, e.g., teaching, providing care, managing provider facilities, developing communities, and administering health care sector. Implementable products would include curricula, training methods and materials, clinical guidelines, bylaws, policies and procedures, management methods, information systems, and other systems and tools developed by/with support from the partnership.

Copy #

Intensity should be graded according to the 'Intensity Scale and Grading Guide' chart attached to this questionnaire. Use '0' for 'Don't know'

Check one number in each six-cell bloc (1-5,0) to grade the intensity of partnership effort by broadly defined PHC area (titled in bold and underlined)

PHC areas	Partnership activity areas	Information	Systems/Tools	Education/ Training	Equipment/ Commodities	Implementation
16 <u>Diagnostic, screening, and preventive:</u>	a	1 2 3 4 5 0	b 1 2 3 4 5 0	c 1 2 3 4 5 0	d 1 2 3 4 5 0	e 1 2 3 4 5 0

Please, check areas of partnership's effort to strengthen PHC providers to conduct examinations, tests, other screening and preventive Px, and family planning:

f General medical exam	<input type="checkbox"/>	g Well baby exam	<input type="checkbox"/>	h General psychiatric or psychological exam	<input type="checkbox"/>	i Unconfirmed pregnancy exam	<input type="checkbox"/>
j Prenatal exam, routine	<input type="checkbox"/>	k Postpartum exam, routine	<input type="checkbox"/>	l Breast exam	<input type="checkbox"/>	m Gynecological exam	<input type="checkbox"/>
o Other special exam (specify) _____	<input type="checkbox"/>						
p HIV test	<input type="checkbox"/>	q Glucose level determination	<input type="checkbox"/>	r Other blood test	<input type="checkbox"/>	s Blood pressure screening	<input type="checkbox"/>
t Urine test	<input type="checkbox"/>						
u Diagnostic radiology	<input type="checkbox"/>	v EKG, ECG, treadmill, stress testing	<input type="checkbox"/>	w EEG	<input type="checkbox"/>	x Hearing test	<input type="checkbox"/>
y Pap smear	<input type="checkbox"/>						
z Other and unspecified Dx tests _____	<input type="checkbox"/>	aa Prophylactic inoculations	<input type="checkbox"/>	ab Exposure to STD, HIV, other infectious	<input type="checkbox"/>		
ac Family planning: counseling, exam, and general advice	<input type="checkbox"/>	ad Contracep. medication	<input type="checkbox"/>	ae Contracept. Device	<input type="checkbox"/>	af Other family planning	<input type="checkbox"/>

Please, check areas of partnership's effort to strengthen PHC providers to read and followup on abnormal test results:

ag Blood glucose	<input type="checkbox"/>	ah Cholesterol	<input type="checkbox"/>	ai HIV	<input type="checkbox"/>	aj Urine	<input type="checkbox"/>
ak Cytology	<input type="checkbox"/>	al Radiology	<input type="checkbox"/>	am EKG	<input type="checkbox"/>	an Other tests	<input type="checkbox"/>

Activity Area	Activity Categories	Information	Systems/Tools	Education/ Training	Equipment/ Commodities	Implementation
17 <u>Treatment and counseling:</u>	a	1 2 3 4 5 0	b 1 2 3 4 5 0	c 1 2 3 4 5 0	d 1 2 3 4 5 0	e 1 2 3 4 5 0

Please, check areas of partnership's effort to strengthen PHC providers to administer medications and provide following types of treatment and counseling:

f Medications (prescriptions, injections and other, including allergy shots and treatments)	<input type="checkbox"/>	g Pre- and post-operative visits	<input type="checkbox"/>	h Minor surgery	<input type="checkbox"/>
i Physical therapy & rehab	<input type="checkbox"/>	j Asthma therapy	<input type="checkbox"/>	k Psychotherapy	<input type="checkbox"/>
l Other specific therapies (radiation, chemo, acupuncture)	<input type="checkbox"/>				
m Detoxification	<input type="checkbox"/>	n Other specific Px (incl. insert/apply/fit/adjust/remove/change, as applicable to: glasses, contact lenses, cast, splint, brace, dressing, bandage, suture)	<input type="checkbox"/>		
o Diet & nutritional counseling	<input type="checkbox"/>	p HIV/AIDS counseling	<input type="checkbox"/>	q Other medical counseling (incl. patient education, disease counseling, referral, 2nd opinion)	<input type="checkbox"/>
r Social problem counseling (access to medical care; marital, parent-child, other family, educational, social adjustment, legal, economic and other problems)	<input type="checkbox"/>				

Continue
➔

Activity Area	Activity Categories	Information	Systems/Tools	Education/ Training	Equipment/ Commodities	Implementation	Partnership #
18	Symptoms/diseases:	a	b	c	d	e	

Please, check areas of partnership's effort to strengthen PHC providers to prevent, diagnose, treat, and manage general symptoms and disease-specific conditions:

f Allergy	<input type="checkbox"/>	g Obesity	<input type="checkbox"/>	h Other general symptoms	<input type="checkbox"/>	i HIV/AIDS	<input type="checkbox"/>	j Other viral	<input type="checkbox"/>	k Venereal	<input type="checkbox"/>	l TB	<input type="checkbox"/>
m Nosocomial	<input type="checkbox"/>	n Other infectious & parasitic	<input type="checkbox"/>	o Breast cancer	<input type="checkbox"/>	p Cancer, female genital	<input type="checkbox"/>	q Other neoplasms	<input type="checkbox"/>				
r Diabetes	<input type="checkbox"/>	s Other endocrine, nutritional & metabolic	<input type="checkbox"/>	t Blood and blood forming	<input type="checkbox"/>	u Nervous	<input type="checkbox"/>	v Eye	<input type="checkbox"/>	w Ear	<input type="checkbox"/>		
x Hypertension	<input type="checkbox"/>	y Other circulatory	<input type="checkbox"/>	z Asthma	<input type="checkbox"/>	aa Other respiratory	<input type="checkbox"/>	ab Digestive	<input type="checkbox"/>	ac Genitourinary	<input type="checkbox"/>		
ad Skin & subcutaneous	<input type="checkbox"/>	ae Musculoskeletal	<input type="checkbox"/>	af Congenital anomalies	<input type="checkbox"/>	ag Perinatal morbidity	<input type="checkbox"/>	ah Other _____	<input type="checkbox"/>				

Activity Area	Activity Categories	Information	Systems/Tools	Education/ Training	Equipment/ Commodities	Implementation	Copy #
19	Injuries, poisonings, & other adverse effects:	a	b	c	d	e	

Please, check areas of partnership's effort to strengthen PHC providers to prevent, diagnose, treat, and manage the following conditions:

Injuries (incl. fractures, dislocations, sprains, strains, cuts, wounds, bruises, contusions, foreign body)	<input type="checkbox"/>	f Burns	<input type="checkbox"/>	g Bites	<input type="checkbox"/>	h Accidents	<input type="checkbox"/>
j Violence	<input type="checkbox"/>	k Suicide attempt	<input type="checkbox"/>	l Rape	<input type="checkbox"/>	m Cardiac arrest	<input type="checkbox"/>
n Alcohol intoxication	<input type="checkbox"/>	o Other poisoning	<input type="checkbox"/>				
o Adverse effects of environment (incl. air, water, and noise pollution)	<input type="checkbox"/>	p Other (specify) _____	<input type="checkbox"/>				

Activity Areas	Activity Categories	Information	Systems/Tools	Education/ Training	Equipment/ Commodities	Implementation
20	Quality management in education	a	b	c	d	e

Please, check areas of partnership's effort to strengthen quality management and improve quality in the medical and health professional education:

f Education need assessment and planning	<input type="checkbox"/>	g Curricula	<input type="checkbox"/>	h Teaching materials	<input type="checkbox"/>	i Teaching methods	<input type="checkbox"/>	j Technology	<input type="checkbox"/>
k Student evaluation methods	<input type="checkbox"/>	l Faculty evaluation methods	<input type="checkbox"/>	m Faculty performance incentives	<input type="checkbox"/>	n Access to, and use of information	<input type="checkbox"/>		
o Strengthening academic research	<input type="checkbox"/>	p School administration	<input type="checkbox"/>	q Community and government relations and advocacy	<input type="checkbox"/>				
r Accreditation of educational programs	<input type="checkbox"/>	s Licensure exams	<input type="checkbox"/>	t Laws and regulations to support quality in education	<input type="checkbox"/>				
u Other systems/tools to support quality in education (specify) _____	<input type="checkbox"/>								

21	Quality management in PHC practice	a	b	c	d	e
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Please, check areas of partnership's effort to strengthen quality management and improve quality in the PHC provider and practice management:

f Community assessment guidelines	<input type="checkbox"/>	g Practice (=clinical) guidelines	<input type="checkbox"/>	h Care protocols/standards	<input type="checkbox"/>	i Provider competency testing	<input type="checkbox"/>
j Provider pre/in-service training planning	<input type="checkbox"/>	k Work scheduling	<input type="checkbox"/>	l Patient safety standards	<input type="checkbox"/>	m Clinical information systems	<input type="checkbox"/>
n Clinical audits	<input type="checkbox"/>	o Performance measurement	<input type="checkbox"/>	p Patient satisfaction/complaint management	<input type="checkbox"/>	q Patient's Bill of Rights	<input type="checkbox"/>
r Practice ethics (incl. confidentiality, privacy and informed consent)	<input type="checkbox"/>	s Laws/regulations supporting quality at practice level	<input type="checkbox"/>				
t Provider credentialing standards	<input type="checkbox"/>	u Other practice-level system/tools for quality _____	<input type="checkbox"/>				

Continue



Activity Area	Activity Categories	Information	Systems/Tools	Education/ Training	Equipment/ Commodities	Implementation	Partnership #
22	Resource management in PHC practice	a 1 2 3 4 5 0	b 1 2 3 4 5 0	c 1 2 3 4 5 0	d 1 2 3 4 5 0	e 1 2 3 4 5 0	

Please, check areas of partnership's effort to strengthen resource management at the PHC practice level:

f Cost tracking and analysis	<input type="checkbox"/>	g Service pricing	<input type="checkbox"/>	h Budget planning and control	<input type="checkbox"/>	i Supply and inventory management	<input type="checkbox"/>
j Financial risk management	<input type="checkbox"/>	k Cash flow and asset management	<input type="checkbox"/>	l Tax optimization	<input type="checkbox"/>	m Management information systems	<input type="checkbox"/>
n Performance incentives	<input type="checkbox"/>	o Fund-raising	<input type="checkbox"/>	p Worker motivation	<input type="checkbox"/>	q HR management systems	<input type="checkbox"/>
r Cost-recovery systems	<input type="checkbox"/>	s Equipment management	<input type="checkbox"/>	t Employee performance evaluation	<input type="checkbox"/>	u Other _____	<input type="checkbox"/>
						v Other _____	<input type="checkbox"/>

4. PARTNERSHIP OUTCOMES/IMPACT

23	Identify populations who have benefited from partnership's activities. Use the following scale to grade the benefit: 1-None, 2-Minimal; 3-Average; 4- High; 5- Very high. Use '0' for 'Don't know'	If rated 3 or higher, check areas in which the benefit (improvement) is believed or known to have been achieved						Please, check source(s) of your belief or knowledge			Copy #		
		Self-care	Demand for care	Access to care	Utilization of care	Quality	Health gain	Intuition	Anecdotal evidence	Patient/provider data			
	<i>Start here</i> ▼												
a	Women of childbearing age	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	b <input type="checkbox"/>	c <input type="checkbox"/>	d <input type="checkbox"/>	e <input type="checkbox"/>	f <input type="checkbox"/>	g <input type="checkbox"/>	h <input type="checkbox"/>	i <input type="checkbox"/>	j <input type="checkbox"/>
k	Mothers and infants	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	l <input type="checkbox"/>	m <input type="checkbox"/>	n <input type="checkbox"/>	o <input type="checkbox"/>	p <input type="checkbox"/>	q <input type="checkbox"/>	r <input type="checkbox"/>	s <input type="checkbox"/>	t <input type="checkbox"/>
u	Children, 1-14 years of age	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	v <input type="checkbox"/>	x <input type="checkbox"/>	y <input type="checkbox"/>	z <input type="checkbox"/>	aa <input type="checkbox"/>	ab <input type="checkbox"/>	ac <input type="checkbox"/>	ad <input type="checkbox"/>	ae <input type="checkbox"/>
af	Youth/students, 14-18/25y. old	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	ag <input type="checkbox"/>	ah <input type="checkbox"/>	ai <input type="checkbox"/>	aj <input type="checkbox"/>	ak <input type="checkbox"/>	al <input type="checkbox"/>	am <input type="checkbox"/>	an <input type="checkbox"/>	ao <input type="checkbox"/>
ap	Adult males, 25-60 years old	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	aq <input type="checkbox"/>	ar <input type="checkbox"/>	as <input type="checkbox"/>	at <input type="checkbox"/>	au <input type="checkbox"/>	av <input type="checkbox"/>	ax <input type="checkbox"/>	ay <input type="checkbox"/>	az <input type="checkbox"/>
ba	Occupational groups	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	bb <input type="checkbox"/>	bc <input type="checkbox"/>	bd <input type="checkbox"/>	be <input type="checkbox"/>	bf <input type="checkbox"/>	bg <input type="checkbox"/>	bh <input type="checkbox"/>	bi <input type="checkbox"/>	bj <input type="checkbox"/>
bk	Inmates	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	bl <input type="checkbox"/>	bm <input type="checkbox"/>	bn <input type="checkbox"/>	bo <input type="checkbox"/>	bp <input type="checkbox"/>	bq <input type="checkbox"/>	br <input type="checkbox"/>	bd <input type="checkbox"/>	bt <input type="checkbox"/>
bu	Internally displaced persons	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	bv <input type="checkbox"/>	bw <input type="checkbox"/>	bx <input type="checkbox"/>	by <input type="checkbox"/>	bz <input type="checkbox"/>	cz <input type="checkbox"/>	cb <input type="checkbox"/>	cc <input type="checkbox"/>	cd <input type="checkbox"/>
ce	Disabled	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	cf <input type="checkbox"/>	cg <input type="checkbox"/>	ch <input type="checkbox"/>	ci <input type="checkbox"/>	cj <input type="checkbox"/>	ck <input type="checkbox"/>	cl <input type="checkbox"/>	cm <input type="checkbox"/>	cn <input type="checkbox"/>
co	Elderly	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	cp <input type="checkbox"/>	cq <input type="checkbox"/>	cr <input type="checkbox"/>	cs <input type="checkbox"/>	ct <input type="checkbox"/>	cu <input type="checkbox"/>	cv <input type="checkbox"/>	cw <input type="checkbox"/>	cx <input type="checkbox"/>
cy	Other _____	1 2 3 4 5 0	<i>If rated 3 or higher</i>	<input type="checkbox"/>	cz <input type="checkbox"/>	da <input type="checkbox"/>	db <input type="checkbox"/>	dc <input type="checkbox"/>	dd <input type="checkbox"/>	de <input type="checkbox"/>	df <input type="checkbox"/>	dg <input type="checkbox"/>	dh <input type="checkbox"/>

24 Assess the effect of the partnership on each organizational model: **1-Disproved, 2-Questioned, 3-Neutral (No partnership impact or involvement), 4-Somewhat affirmed, 5- Completely affirmed. Use '0' for 'Don't know'**

	Stand-alone	Polyclinic-based	Hospital-based	Community-based	Other
General/FM practice (solo, group)	a 1 2 3 4 5 0	b 1 2 3 4 5 0	c 1 2 3 4 5 0	d 1 2 3 4 5 0	e 1 2 3 4 5 0
Single-specialty PHC practice (solo, group)	f 1 2 3 4 5 0	g 1 2 3 4 5 0	h 1 2 3 4 5 0	i 1 2 3 4 5 0	j 1 2 3 4 5 0
Multi-specialty group practice	k 1 2 3 4 5 0	l 1 2 3 4 5 0	m 1 2 3 4 5 0	n 1 2 3 4 5 0	o 1 2 3 4 5 0
Public health service: broad-based	p 1 2 3 4 5 0	q 1 2 3 4 5 0	r 1 2 3 4 5 0	s 1 2 3 4 5 0	t 1 2 3 4 5 0
Public health service: population/risk-focused	u 1 2 3 4 5 0	v 1 2 3 4 5 0	w 1 2 3 4 5 0	x 1 2 3 4 5 0	y 1 2 3 4 5 0
Other	z 1 2 3 4 5 0	aa 1 2 3 4 5 0	ab 1 2 3 4 5 0	ac 1 2 3 4 5 0	ad 1 2 3 4 5 0

Continue

In column titles below, please enter PHC organizational models affirmed by your partnership. Estimate change in performance that your partnership innovation has produced and/or will produce if sustained: **1-Deteriorated; 2-No change; 3-Somewhat improved; 4-Improved; 5-Significantly improved.**

Order of responding: down then right	Model 1:	Model 2:	Model 1:	Model 2:	Partner-ship #
Health status:					
Overall population health & well-being	1 2 3 4 5 0	a 1 2 3 4 5 0	Early detection	o 1 2 3 4 5 0	p 1 2 3 4 5 0
Targeted populations, health/social risks	1 2 3 4 5 0	c 1 2 3 4 5 0	Appropriateness of treatment	q 1 2 3 4 5 0	r 1 2 3 4 5 0
Satisfaction:			Effectiveness of treatment	s 1 2 3 4 5 0	t 1 2 3 4 5 0
Of patients/families	1 2 3 4 5 0	e 1 2 3 4 5 0	Coordination of care	u 1 2 3 4 5 0	v 1 2 3 4 5 0
Of communities	1 2 3 4 5 0	g 1 2 3 4 5 0	Provider/system efficiency		
Of providers	1 2 3 4 5 0	i 1 2 3 4 5 0	Labor productivity	x 1 2 3 4 5 0	y 1 2 3 4 5 0
Of purchasers/regulators	1 2 3 4 5 0	k 1 2 3 4 5 0	Space/equipment utilization	z 1 2 3 4 5 0	aa 1 2 3 4 5 0
Clinical performance:			Drugs/supplies utilization	ab 1 2 3 4 5 0	ac 1 2 3 4 5 0
Prevention	1 2 3 4 5 0	m 1 2 3 4 5 0	Access to/use of information	ad 1 2 3 4 5 0	ae 1 2 3 4 5 0
			Effectiveness of self-care	af 1 2 3 4 5 0	ag 1 2 3 4 5 0

Assess pre-partnership status and partnership contribution to knowledge, attitude, and practice in the six areas of high-quality PHC:

Note per Q26-31,33: The **partnership contribution** is the 'push' towards solving a problem and improving the situation. An observable change during the partnership and/or the creation and strengthening of important change-enabling conditions are the key estimators of the partnership contribution. Contribution in this definition does not necessarily imply a sustainable change or change replicated significantly beyond the partnership operational level.

PHC quality-related areas and definitions	Use the following scale to assess pre-partnership knowledge, attitude, and practice related to each quality-related area: 1-Completely neglected; 2-Mostly neglected; 3-Addressed sporadically; 4-Addressed routinely but incompletely/inconsistently; 5-Addressed consistently. Use '0' for 'Don't know'		Use the following scale to assess partnership contribution to each quality-related area: 1-None, 2-Minimal, 3-Average, 4-Strong, 5-Very strong.	
	Before partnership	Partnership contribution	Before partnership	Partnership contribution
<i>Patient safety:</i> Avoiding injuries to patients from the care that is intended to help them.	---> a 1 2 3 4 5 0	-> b 1 2 3 4 5 0		
<i>Effectiveness:</i> Providing services based on scientific knowledge to all who could benefit, and refraining from providing services to those not likely to benefit	---> c 1 2 3 4 5 0	-> d 1 2 3 4 5 0		
<i>Patient-centered care:</i> providing care that is respectful of, and responsive to individual patient preferences, needs, and values, and ensuring that patient values guide all clinical decisions	---> e 1 2 3 4 5 0	-> f 1 2 3 4 5 0		
<i>Timely care:</i> Reducing waits and sometimes harmful delays for both those who receive and those who give care	---> g 1 2 3 4 5 0	-> h 1 2 3 4 5 0		
<i>Efficient care:</i> Avoiding waste, including waste of equipment, supplies, ideas, and energy	---> i 1 2 3 4 5 0	-> j 1 2 3 4 5 0		
<i>Equitable care:</i> Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status	---> k 1 2 3 4 5 0	-> l 1 2 3 4 5 0		

Assess pre-partnership situation and partnership contribution to the conditions of PHC that lead up to PHC quality improvement. Use scales as in Q26

	Before partnership	Partnership contribution	
Care is based on continuous healing relationships: Patients should receive care when needed and not just face-to-face but also over the Internet, by telephone, and other means in addition to in-person visits	---> a 1 2 3 4 5 0	-> b 1 2 3 4 5 0	Continue →
Care is customized according to patient needs and values: The system is designed to meet the most common needs, but should also be responsive to individual patient choices and preferences.	---> c 1 2 3 4 5 0	-> d 1 2 3 4 5 0	
The patient is the source of control: Patients should be given information and opportunity to exercise control they choose over relevant health care decisions. The system should encourage shared decision making.	---> e 1 2 3 4 5 0	-> f 1 2 3 4 5 0	

Knowledge is shared and information flows freely: patients should have unfettered access to their own medical information and to clinical knowledge. Clinicians and patients should communicate effectively and share information.	---->	g	1	2	3	4	5	0	=>	h	1	2	3	4	5	0	Partner- ship #
Decision making is evidence-based: Care should be based on the best available scientific knowledge. Care should not vary illogically from clinician to clinician and from place to place	---->	i	1	2	3	4	5	0	->	j	1	2	3	4	5	0	
Safety is a system property: Greater attention to systems that help prevent and mitigate errors and neglect.	---->	k	1	2	3	4	5	0	->	l	1	2	3	4	5	0	
Transparency is necessary: The system should provide patients and families with comparative data on safety, evidence-based practice, and patient satisfaction to enable informed consumer choice of a provider and treatment.	---->	m	1	2	3	4	5	0	->	n	1	2	3	4	5	0	
Needs are anticipated: The system should anticipate patient needs, rather than simply react to events.	---->	o	1	2	3	4	5	0	->	p	1	2	3	4	5	0	Copy #
Waste is continuously decreased: The system should not waste resources of patient time.	---->	q	1	2	3	4	5	0	->	r	1	2	3	4	5	0	
Cooperation among clinicians is a priority: Providers and institutions should actively collaborate and communicate to ensure coordination of care.	---->	s	1	2	3	4	5	0	->	t	1	2	3	4	5	0	
Payment policies are aligned with quality improvement: Reward quality and do not punish for care of sicker patients	---->	u	1	2	3	4	5	0	->	v	1	2	3	4	5	0	

28 Assess pre-partnership status and partnership contribution to clinical services, markers of increased PHC practice scope and quality. Use scales as in Q26

	Before partnership	Partnership contribution		Before partnership	Partnership contribution
a Appropriate treatment for children with URI	1 2 3 4 5 0	1 2 3 4 5 0	g Appropriate diabetes care	1 2 3 4 5 0	1 2 3 4 5 0
b HIV/AIDS counseling and testing	1 2 3 4 5 0	1 2 3 4 5 0	h Breast cancer prevention/detection	1 2 3 4 5 0	1 2 3 4 5 0
c Prevention, diagnosis & treatment of STDs	1 2 3 4 5 0	1 2 3 4 5 0	i Initiation/engagement in alcohol/drug prevention and treatment	1 2 3 4 5 0	1 2 3 4 5 0
d Prevention, diagnosis and treatment of TB	1 2 3 4 5 0	1 2 3 4 5 0	j Assistance with smoking cessation	1 2 3 4 5 0	1 2 3 4 5 0
e Use of appropriate asthma medications	1 2 3 4 5 0	1 2 3 4 5 0	k Screening for fetal alcohol syndrome	1 2 3 4 5 0	1 2 3 4 5 0
f Controlling high blood pressure	1 2 3 4 5 0	1 2 3 4 5 0	l Social problem counseling	1 2 3 4 5 0	1 2 3 4 5 0

Assess pre-partnership status and partnership contribution to the general practice/family physician clinical skills. Rating scale for 'Pre-partnership Status': 1-No skills; 2-Limited skills; 3-Average skills; 4-Advanced skills; 5-Highly advanced skills; 0-Don't know. Rating scale for 'Partnership Contribution': 1-None, 2-Minimal, 3-Average, 4-Strong, 5-Very strong.

	Before partnership	Partnership contribution
Population-based need assessment	a 1 2 3 4 5 0	1 2 3 4 5 0 k
Understanding disease patterns and trends for effective prevention	b 1 2 3 4 5 0	1 2 3 4 5 0 l
Use of current evidence as the basis for practice decisions	c 1 2 3 4 5 0	1 2 3 4 5 0 m
Thorough and complete patient history	d 1 2 3 4 5 0	1 2 3 4 5 0 n
Thorough and complete physical exam	e 1 2 3 4 5 0	1 2 3 4 5 0 o
Appropriate use of diagnostic tests	f 1 2 3 4 5 0	1 2 3 4 5 0 p
Appropriate use of pharmaceuticals	g 1 2 3 4 5 0	1 2 3 4 5 0 q
Appropriate referrals and care coordination	h 1 2 3 4 5 0	1 2 3 4 5 0 r
Good patient documentation and follow-up	i 1 2 3 4 5 0	1 2 3 4 5 0 s
Effective team work with clinical support staff	j 1 2 3 4 5 0	1 2 3 4 5 0 t

Continue



30 Assess pre-partnership status and partnership contribution to the community and clinical nursing skills. Rating scale for 'Pre-partnership Status': 1-No skills; 2-Limited skills; 3-Average skills; 4-Advanced skills; 5-Highly advanced skills; 0-Don't know. Rating scale for 'Partnership Contribution': 1-None, 2-Minimal, 3-Average, 4-Strong, 5-Very strong.

Partner-
ship #

	Before partnership	Partnership contribution
Act as a health advocate for individuals, groups and communities ----->	a 1 2 3 4 5 0	b 1 2 3 4 5 0
Act in a culturally sensitive way; Communicate with people of other cultures and life experience ----->	c 1 2 3 4 5 0	d 1 2 3 4 5 0
Know and practice ethical behavior in a health care context ----->	e 1 2 3 4 5 0	f 1 2 3 4 5 0
Use skills of team work in a health care context ----->	g 1 2 3 4 5 0	h 1 2 3 4 5 0
Comply with regulatory requirements in the health sector ----->	i 1 2 3 4 5 0	j 1 2 3 4 5 0
Maintain safety of patient and self in a health care context ----->	k 1 2 3 4 5 0	l 1 2 3 4 5 0
Educate patients and supervise measures to protect health and safety in the home environment --->	m 1 2 3 4 5 0	n 1 2 3 4 5 0
Assist patients, families, and communities to manage their own health ----->	o 1 2 3 4 5 0	p 1 2 3 4 5 0
Provide first aid ----->	q 1 2 3 4 5 0	r 1 2 3 4 5 0
Provide basic life support ----->	s 1 2 3 4 5 0	t 1 2 3 4 5 0
Support the individual who is dying ----->	u 1 2 3 4 5 0	v 1 2 3 4 5 0
Interact with family members in a supportive way ----->	w 1 2 3 4 5 0	x 1 2 3 4 5 0
Describe general characteristics of the community population ----->	y 1 2 3 4 5 0	z 1 2 3 4 5 0
Apply knowledge of environmental conditions to the promotion of wellness ----->	aa 1 2 3 4 5 0	ab 1 2 3 4 5 0
Implement health education programs and projects in social or community settings ----->	ac 1 2 3 4 5 0	ad 1 2 3 4 5 0
Assess or facilitate analysis of community concerns, issues, needs and resources ----->	ae 1 2 3 4 5 0	af 1 2 3 4 5 0
Manage volunteer community workers ----->	ag 1 2 3 4 5 0	ah 1 2 3 4 5 0
Engage in counselling in groups in social or community service settings ----->	ai 1 2 3 4 5 0	aj 1 2 3 4 5 0
Establish care and protection for people in situations of abuse or self endangerment ----->	ak 1 2 3 4 5 0	al 1 2 3 4 5 0
Facilitate empowerment of people who have experienced oppression and abuse ----->	am 1 2 3 4 5 0	an 1 2 3 4 5 0
Identify, record and report suspected abuse of individuals ----->	ao 1 2 3 4 5 0	ap 1 2 3 4 5 0
Other _____>	aq 1 2 3 4 5 0	ar 1 2 3 4 5 0

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31 Assess pre-partnership status and partnership contribution to the development of health practice management skills. Use following scale to rate 'Pre-partnership Status': **1-No skills; 2-Limited skills; 3-Average skills; 4-Advanced skills; 5-Highly advanced skills; 0-Don't know.** Use following scale to rate 'Partnership Contribution': **1-None, 2-Minimal, 3-Average, 4-Strong, 5-Very strong.**

	Pre-partnership status	Partnership contribution
Supervise non-clinical staff	a 1 2 3 4 5 0	b 1 2 3 4 5 0
Plan and manage workflow	c 1 2 3 4 5 0	d 1 2 3 4 5 0
Manage patient, work, and financial records	e 1 2 3 4 5 0	f 1 2 3 4 5 0
Understand recruitment and recruit staff and temporary workers	g 1 2 3 4 5 0	h 1 2 3 4 5 0
Manage equitable distribution of revenue	i 1 2 3 4 5 0	j 1 2 3 4 5 0
Define, measure, allocate and control costs	k 1 2 3 4 5 0	l 1 2 3 4 5 0
Understand and apply pricing strategies & price services	m 1 2 3 4 5 0	n 1 2 3 4 5 0
Understand and apply cost recovery strategies (e.g., user fees, commercial contracts)	o 1 2 3 4 5 0	p 1 2 3 4 5 0
Develop financial plans and financial controls	q 1 2 3 4 5 0	r 1 2 3 4 5 0

Continue

Analyse and interpret financial statements	s	1	2	3	4	5	0	---	t	1	2	3	4	5	0	Partner- ship #
Assess and manage financial risks	u	1	2	3	4	5	0	---	v	1	2	3	4	5	0	
Raise capital and manage investment and credit	w	1	2	3	4	5	0	---	x	1	2	3	4	5	0	
Understand procurement strategies and conduct competitive procurement	y	1	2	3	4	5	0	---	z	1	2	3	4	5	0	Copy #
Manage equipment maintenance	aa	1	2	3	4	5	0	---	ab	1	2	3	4	5	0	

5. PARTNERSHIP SUSTAINABILITY AND REPLICATION

32 **What was the most important product, tool or set of products/tools that your partnership has provided for strengthening PHC in/through the host partner organization.** _____ **Let's call it the 'Most Valuable Innovation'**

33 **What were the pre- and post-partnership factors of support of/resistance to the Most Valuable Innovation: 1-None; 2-Minor/Limited; 3-Average/Somewhat limited; 4-High/Strong/Sufficient; 5-Very high/Very strong/Plentiful. Use '0' for 'Don't know'**

Why didn't the innovating partner (individual, organization, or health agency) discover, develop, and/or try the Most Valuable Innovation prior to the partnership. What was the partnership's contribution to the determinants of successful and sustainable innovation? Rate your end-of/post-partnership perception of the supports/enablers that are at work to sustain the Most Valuable Innovation

	Before partnership		Partnership contribution		After partnership
Urgency of the underlying health need/problem	1 2 3 4 5 0	a	----->	b	1 2 3 4 5 0
Level of professional knowledge of the need/problem	1 2 3 4 5 0	c	---->	d	1 2 3 4 5 0
Public awareness of the problem and demand to address it	1 2 3 4 5 0	f	---->	g	1 2 3 4 5 0
Policy support for addressing the problem	1 2 3 4 5 0	i	---->	j	1 2 3 4 5 0
Incentives /expected economic returns for the innovators	1 2 3 4 5 0	l	---->	m	1 2 3 4 5 0
Knowledge of best-practice strategies and prototype solutions	1 2 3 4 5 0	o	---->	p	1 2 3 4 5 0
The organization's own funds for addressing the problem	1 2 3 4 5 0	r	---->	s	1 2 3 4 5 0
Supply of external domestic funds for addressing the problem	1 2 3 4 5 0	u	---->	v	1 2 3 4 5 0
Supply of international funds for addressing the problem	1 2 3 4 5 0	x	---->	y	1 2 3 4 5 0
Organizational capacity to make the best use of available resources	1 2 3 4 5 0	aa	---->	ab	1 2 3 4 5 0
Cost-recovery: increasing revenue through user fees, commercial contracts	1 2 3 4 5 0	ad	---->	ae	1 2 3 4 5 0
Fund-raising capacity to obtain additional resources	1 2 3 4 5 0	ag	---->	ah	1 2 3 4 5 0
Organizational capacity to address the problem / manage innovation	1 2 3 4 5 0	aj	---->	ak	1 2 3 4 5 0
Legal/regulatory support for addressing the problem/supporting innovation	1 2 3 4 5 0	am	---->	an	1 2 3 4 5 0
Advocacy capacity to recruit policy, regulatory, & funding support	1 2 3 4 5 0	ap	---->	aq	1 2 3 4 5 0
A match between the innovation and the innovator's mission/operational scope	1 2 3 4 5 0	as	---->	at	1 2 3 4 5 0
Ability to adjust mission/operational scope in order to address the problem	1 2 3 4 5 0	av	---->	aw	1 2 3 4 5 0

Continue
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34 **Summarize your knowledge/perception of the post-partnership status of the Most Valuable Innovation: 1-Strongly disagree; 2-Disagree; 3-Neutral; 4-Agree; 5-Strongly agree; Use '0' for 'Don't know'**

Post-partnership developments suggest that the innovation:	Following post-partnership changes are propitious for the Most Valuable Innovation:
Is used as developed during the partnership a 1 2 3 4 5 0	The underlying health need(s) have aggravated j 1 2 3 4 5 0
Modified and used b 1 2 3 4 5 0	Consumer/community demand has increased k 1 2 3 4 5 0

Scaled up within organization	c	1	2	3	4	5	0	Management culture & capacity of health organizations are more supportiv	l	1	2	3	4	5	0	Partner- ship #
Replicated in other local organizations	d	1	2	3	4	5	0	Stronger individual incentives motivate innovation	m	1	2	3	4	5	0	
Replicated region-wide	e	1	2	3	4	5	0	Health policy is more conducive	n	1	2	3	4	5	0	Copy #
Replicated nationwide	f	1	2	3	4	5	0	Health laws and/or regulations are more supportive	o	1	2	3	4	5	0	
Replicated to other countries	g	1	2	3	4	5	0	Health financing has increased	p	1	2	3	4	5	0	
Scaled back	h	1	2	3	4	5	0	Country environment has improved for public advocacy	q	1	2	3	4	5	0	
Abandoned	i	1	2	3	4	5	0	Country environment has improved for professional exchange	r	1	2	3	4	5	0	
								NIS environment has become more conducive to the innovation	s	1	2	3	4	5	0	

The following partnership tools to sustain and replicate the partnership legacy:

Have proven to be effective during partnership (if applied in your partnership): ▾ Are being /will be used by you and/or your partners to support partnership legacy: ▾

Regular Internet access to keep up with best practice and new evidence	a	1	2	3	4	5	0	----->	b	1	2	3	4	5	0
E-mail exchange to learn, advise, and collaborate	c	1	2	3	4	5	0	----->	d	1	2	3	4	5	0
Access to professional information through Learning Resource Centers	e	1	2	3	4	5	0	----->	f	1	2	3	4	5	0
Teaching at/attending educational events in your country	g	1	2	3	4	5	0	----->	h	1	2	3	4	5	0
Teaching at/attending educational events NIS-wide	i	1	2	3	4	5	0	----->	j	1	2	3	4	5	0
Teaching at/attending educational events outside your country and NIS	k	1	2	3	4	5	0	----->	l	1	2	3	4	5	0
Presenting at/attending professional events in your country	m	1	2	3	4	5	0	----->	n	1	2	3	4	5	0
Presenting at/attending professional events NIS-wide	o	1	2	3	4	5	0	----->	p	1	2	3	4	5	0
Presenting at/attending professional events outside your country and NIS	q	1	2	3	4	5	0	----->	r	1	2	3	4	5	0
Joint research, design, and field work & consulting in your country	s	1	2	3	4	5	0	----->	t	1	2	3	4	5	0
Joint research, design, and field work & consulting NIS-wide	u	1	2	3	4	5	0	----->	v	1	2	3	4	5	0
Joint research, design, and field work & consulting outside your country and NIS	w	1	2	3	4	5	0	----->	x	1	2	3	4	5	0
(Co)-authoring papers/publications with your NIS/US partners	y	1	2	3	4	5	0	----->	z	1	2	3	4	5	0
(Co)-authoring papers/publications with non-partner colleagues	aa	1	2	3	4	5	0	----->	ab	1	2	3	4	5	0
Sustainability grant-based experience of applying for/working on grant funding	ac	1	2	3	4	5	0	----->	ad	1	2	3	4	5	0
Other (specify) _____	ae	1	2	3	4	5	0	----->	af	1	2	3	4	5	0

Continue



6. PARTNERSHIP IMPLICATIONS FOR ORGANIZATIONAL AND SOCIETAL CHANGE

35 Refer to the partnership legacy as a whole. Respond to the following statements about the NIS health providers and organizations that were directly involved in and affected by the partnership: **1-Strongly disagree; 2-Disagree; 3-Neutral; 4-Agree; 5-Strongly agree; Use '0' for 'Don't know'**

Partnership #

By agreeing with the following statements, you validate them, by disagreeing, you give them the opposite meaning. For example '1' on 'Strong cohesion' means 'Strong alienation'

Before partnership Partnership acted in support of this statement External factors acted in support of this statement After partnership

	A	B	C	D
a Providers are accountable to patients and/or communities	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
b Health organizations are accountable to patients and/or communities	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
c Providers feel cohesion with their patients and/or communities	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
d Providers enjoy clinical autonomy within their health organizations	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
e Health organizations demonstrate participatory management	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
f Physicians exhibit collegial attitude toward health professionals	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
g Providers get equitable share of practice/organization revenue	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
h Doctors have enough incentives & access to knowledge for job enrichment	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
i Nurses have enough incentives & access to knowledge for job enrichment	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
j Organization is willing to redesign itself to accommodate strong performers	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
k Nurses are effective advocates of gender fairness in the health sector	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
l Providers want & have capacity to opt out of public sector employment	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
m Providers want and have capacity to engage with civic agendas	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
n Communities are effective advocates on health and public matters	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
o Decentralization is widely supported as a viable administrative model	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
p Private services are seen as a legitimate part of the health sector	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0
r Quality care is accessible and affordable for the mainstream consumer	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0	1 2 3 4 5 0

Copy #

7. RECOMMENDATIONS FOR FUTURE DESIGN

36 If made responsible for designing the next partnership program, which areas would you emphasize/deemphasize, compared to your past partnership experience? **1-None of this activity; 2-Less; 3-Same; 4-More; 5-Much more**

a Need assessment	1 2 3 4 5 0	b Formulation of objectives	1 2 3 4 5 0	c Selection of partners	1 2 3 4 5 0
d Design of interventions	1 2 3 4 5 0	e Design of M&E plan	1 2 3 4 5 0	f Work planning	1 2 3 4 5 0
g Resource planning	1 2 3 4 5 0	h Budget planning	1 2 3 4 5 0	i Training design	1 2 3 4 5 0
j Joint research	1 2 3 4 5 0	k Travel volume & program: US->NIS	1 2 3 4 5 0	l Travel volume & program: NIS->US	1 2 3 4 5 0
m Equipment	1 2 3 4 5 0	n Pharmaceuticals	1 2 3 4 5 0	o Literature & documents	1 2 3 4 5 0
p Conferences	1 2 3 4 5 0	q Training events	1 2 3 4 5 0	r Education system	1 2 3 4 5 0
s Medical practice	1 2 3 4 5 0	t Nursing	1 2 3 4 5 0	u Community strengthening	1 2 3 4 5 0
v Specific health risks	1 2 3 4 5 0	w Specific populations	1 2 3 4 5 0	x Specific conditions	1 2 3 4 5 0
y Sustainability	1 2 3 4 5 0	z Replication	1 2 3 4 5 0		

END

of Survey

Thank you for your heroic effort!

Annex D. Statement of Work

The Contractor will undertake the following activities—for more details, see section I. Illustrative Evaluation Questions and Section II Evaluation Methodology:

- Review AIHA PHC program documents;
- Visit field sites to assess program outcomes;
- Use rapid appraisal techniques such as key informant interviews, focus group interviews, and survey questionnaires to assess PHC models and outcomes; and
- Produce an evaluation report that:
 - 1) Documents the developmental outcomes of the 28 AIHA NIS PHC Health Partnerships, including the extent to which the program has contributed to changes in the health status, health systems, health practice and the illustrative questions suggested in Section IV below.
 - 2) Assesses the sustainability and replication of the PHC models and outcomes and related cross-partnership services, training, and information centers; identify factors that contribute to sustainability.

“Sustainability” is the capacity of the program to continue successfully in the future after foreign assistance is withdrawn. Sustainability includes financial and institutional dimensions. Financial sustainability refers to the capacity of the NIS partner to replace withdrawn donor funds with funds from other, usually domestic, sources. Are local institutions investing their own funds in supporting these changes? How much? Institutional sustainability refers to the capacity of the NIS partner, if suitably financed, to assemble and manage the necessary non-financial resources to carry on successfully the program.

“Replication” is the expansion of the AIHA model or targeted interventions such as improved clinical and management practices to other facilities, other regions within the country, or other countries. How many people are affected by these changes--what percentage of the local, regional and national populations? The contractor will identify both actual and planned replications.

- 3) Includes a matrix that summarizes the outcomes, sustainability and replication of the partnerships;
- 4) Identifies 3-5 major “lessons learned” and 3-5 best practices that other USAID Missions can apply in other countries and regions; and
- 5) Draws 3-5 summary conclusions on the PHC partnership models and outcomes and makes 3-5 recommendations for strengthening PHC models and outcomes in the future.

I. ILLUSTRATIVE EVALUATION QUESTIONS

Below are illustrative evaluation questions that the evaluation team will address. Some are generic to all partnerships; others may or may not apply depending upon the specific objectives of the partnership. The evaluation team will decide the appropriate set of questions for each partnership.

A. PHC Partnerships

To what extent (cite evidence) did the PHC partnerships:

- 1) Achieve their partnership goals and objectives?

- 2) Contribute to USAID Mission goals and objectives?
- 3) Contribute to E&E Bureau goals and objectives?
- 4) Address the leading causes of death and disability? Evaluate program success in addressing the priority health issues of the communities served.
- 5) Achieve improvements at the local and national levels?
- 6) Increase the capacity to deliver quality PHC services in targeted communities? Foster more effective and efficient delivery of PHC services?
- 7) Transfer technical knowledge that bridged the gap in clinical practice standards? Evaluate the extent to which the partnership increased the acceptance and availability of PHC evidence-based practices and clinical practice guidelines.
- 8) Promote modern techniques of health care management and quality in health care practice and education?
- 9) Increase the quality and availability of information for decision-making?
- 10) More closely align personal health and public health efforts?
- 11) Promote democratic values and expand civil society? Increase community participation in improving the health of the community?
- 12) Contribute to the sustainability of the PHC centers?—see definition of sustainability above. What are the key determinants and barriers (internal and external) to their long-term success? Assess the success and sustainability of outreach and patient education activities as well as prevention-oriented programs.
- 13) Contribute to the replication of partnership models and outcomes?—see definition of replication above.

B. Cross-Partnership Region-wide Activities

To what extent (cite evidence):

- 14) Did NIS/CEE and NIS region-wide conferences and workshops help achieve the individual partnerships goals and objectives?
- 15) Did cross-partnership initiatives such as those to produce clinical practice guidelines and strengthen primary care nursing capacity benefit the individual partnerships?
- 16) Did the PHC Learning Resource Centers help advance the use of evidence-based medicine?
- 17) Are the PHC Learning Resource Centers sustainable and replicable?
- 18) Did AIHA publications, media relations, and web sites, particularly EurasiaHealth, contribute to the achievement of partnership objectives?

II. EVALUATION METHODOLOGY

The contractor will:

- Review project documents including the AIHA NIS cooperative agreements and modifications; annual reports; quarterly progress reports, earlier evaluation studies; partnership work plans, partner self-assessment reports, technical reports; website, etc.;

- Visit field sites in four countries where AIHA has implemented PHC activities to assess program impact. Attachments B and C provide illustrative itineraries. USAID identified the sites in the attachments to reach optimal coverage; i.e., to cover several representative PHC approaches and to cover more sites by traveling within a relatively contiguous geographic region. Further, USAID evaluated PHC partnerships recently in Armenia and Georgia, the partnerships in Georgia and Azerbaijan are still active, and completed an evaluation of the Azerbaijan PHC partnerships in 2003. The evaluation team will review site selection with USAID and AIHA at the team planning meeting.
- In preparation for the site visits, prepare and send a list of questions to NIS partners that will be used during the interviews and focus group meetings.
- Use rapid appraisal techniques such as key informant interviews, focus group interviews, survey questionnaires, and phone interviews to assess PHC models and outcomes; those interviewed should include NIS partners and other key stakeholders (such as policymakers), current and former USAID Washington and Mission staff, and current and former AIHA staff; survey questionnaires will be sent to all partnerships and missions not visited; the contractor will emphasize quantitative performance measurements to the extent possible.
- The Contractor will hold a team planning meeting with the E&E Bureau activity managers and AIHA within 2 days after the contract begins to discuss the Statement of Work and produce the evaluation work plan. The work plan will outline the steps the Contractor will take to produce the results; propose an implementation schedule with target dates for accomplishing each task; and will include a draft outline for the report.

III. REPORTS

A. Work Plan

The contractor will submit a 3-5-page work plan to Forest Duncan within 2 working days after the team planning meeting. The E&E Bureau activity managers will provide comments on the work plan within 2 working days. The Contractor and USAID will finalize the work plan the following working day. USAID will invite AIHA to comment on the work plan and the draft reports.

B. First Draft Report

The Contractor will submit the first draft report to Forest Duncan on November 24, 2006. He will circulate the draft report within USAID for comment. The Contractor will make an oral presentation within 3 working days after circulating the draft. Forest Duncan will submit written comments to the Contractor within 1 week after the oral presentation.

C. Second Draft Report

The Contractor will submit the second draft of the health strategy to Forest Duncan on December 8, 2006. USAID will submit comments on the second draft within 1 week of receiving it.

D. Final Reports

The Contractor will submit 50 copies of the final report on December 20, 2006. The final report should be approximately 25 single-spaced pages in length, excluding the executive summary and

annexes. The Contractor will also send a copy of the report to USAID’s Center for Development Information and Evaluation.

IV. ILLUSTRATIVE IMPLEMENTATION SCHEDULE

June 17	Contractor starts work.
June 18	Health Team and Contractor hold team-planning meeting.
June 19	Contractor submits draft work plan.
July 26	Contractor submits revised work plan.
July 28	E&E Health Team approves revised work plan.
July 31-August 11	Contractor collects and reviews information; begins interviews with AIHA staff
August 14-18	Contractor develops and sends survey questionnaire to NIS partners
September 11	Contractor sends list of interview questions to partners at NIS sites that will be visited
October 1-29	Contractor undertakes site visits in at least three countries and interviews NIS partners
November 24	Contractor submits first draft.
December 8	Contractor submits second draft.
December 20	Contractor submits final evaluation report.

Addendum: Field Study Program

NIS sites of the following partnerships were visited:

- Chisinau, Moldova – Norfolk, VA
- Kyiv, Ukraine – Philadelphia, PA
- Kharkiv, Ukraine – , WI
- Tomsk, Russia – Bemidji, MN
- Astana, Kazakhstan – Pittsburgh, PA

NIS and/or US partners from the following partnerships were interviewed off-site, individually or in focus groups:

- Kyiv, Ukraine – Philadelphia, PA
- L’viv, Ukraine – Cleveland, OH
- Odessa, Ukraine – Boulder, CO
- Uzhgorod, Ukraine – Corvallis, OR
- Semipalatinsk (replication site of the Astana/Pittsburgh partnership)
- Sarov, Russia – Los Alamos, NM
- Guria, Georgia – , WI.