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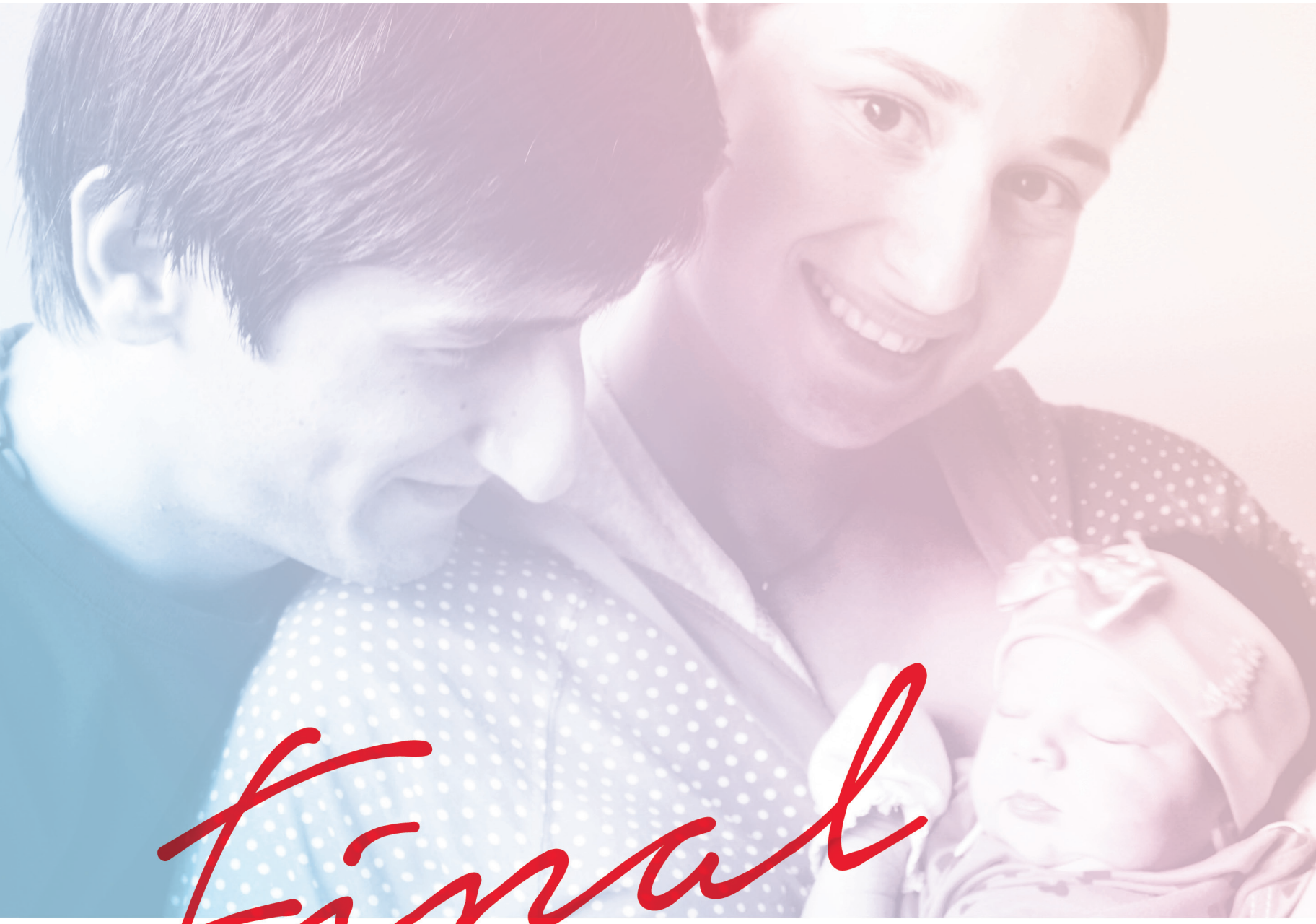

final REPORT

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Table of Contents

LETTER FROM THE CHIEF OF PARTY 1

ACRONYMS 2

EXECUTIVE SUMMARY 3

INTRODUCTION 5

PART I: THE LEGACY OF HEALTHY WOMEN IN GEORGIA 6

PART II: THE SUSTAIN PROJECT: THE FIRST FIVE YEARS 9

PART III: 2015: THE CHALLENGE OF SUSTAINING THE FUTURE 22

PART IV: RESULTS 29

PART V: RECOMMENDATIONS 33

Letter from the Chief of Party

I am a Georgian, an obstetrician/gynecologist, and a passionate advocate for women's health. Through the generosity of the U.S. government, I was sponsored (U.S. State Department Edmund S. Muskie Graduate Fellowship) to obtain my MPH at Emory University in Atlanta, Georgia. Subsequently, I joined JSI and returned to my home country to work on this project's predecessor, Healthy Women in Georgia. I then managed the USAID-funded Europe and Eurasia Regional Family Planning activity (which was administered out of Washington, DC) before returning to my homeland again to lead SUSTAIN.

Over the last decade, Georgia's health sector has changed dramatically. It has modernized, privatized, improved quality, embraced evidence-based medicine, and transformed perinatal care, family planning, and awareness of women's cancer for ordinary people. Georgia is now on the cusp of adopting regionalized services and large-scale quality of care management. Obviously, USAID, JSI, and our partners did not accomplish this alone. Many forces, including donors and visionary leaders, were part of the process. Yet as this report demonstrates, the contributions of the SUSTAIN project were substantial.

JSI's work over the last eleven years has made a real difference in health system transformation. We partnered with the Ministry of Labor, Health, and Social Affairs (MOLHSA), other government institutions, the private sector, UN agencies, bilateral partners, the Georgian Orthodox Church, five medical universities, and numerous international and local nongovernmental organizations (NGOs). It was a team effort based on a shared vision. The results speak for themselves.

After completing the innovative and demanding objective structured clinical examinations at Tbilisi State Medical University, students were asked how they felt about the process and results. They answered, "Now we feel like we are Europeans." The Georgian health system is on a path toward European levels of quality, equity, and efficiency. We at JSI are honored to have played a part in this health sector transformation.

Our gratitude goes first and foremost to USAID and the American people for continuous financial support and visionary guidance. We thank the government of Georgia, our many implementing partners, health providers at all levels, JSI leadership, and, most of all, the clients who have embraced modern health practices.

NINO BERDZULI, Chief of Party, SUSTAIN

Acronyms

AMTSL	active management of the third stage of labor
BCC	behavior change communication
CDC	U.S. Centers for Disease Control
COC	combined oral contraceptive
CPR	contraceptive prevalence rate
CYP	couple years of protection
ENMR	early neonatal mortality rate
EPC	effective perinatal care
EU	European Union
FP	family planning
GRHS	Georgia Reproductive Health Survey
HERA	HERA Women's Wellness Alliance
HWG	Healthy Women in Georgia
IUCD	intrauterine contraceptive device
JCI	Joint Commission International
JSI	John Snow, Inc.
MCH	maternal and child health
MDG	Millennium Development Goal
MMR	maternal mortality rate
MNCH	maternal, newborn, and child health
MOHLSA	Ministry of Labor, Health, and Social Affairs
NCDC	National Center for Disease Control and Public Health
NGO	nongovernmental organization
NICU	newborn intensive care unit
NMR	neonatal mortality rate
OB/GYN	obstetrician/gynecologist
OSCE	objective structured clinical examination
PPH	postpartum hemorrhage
QI	quality improvement
RAMOS	Reproductive Age Mortality Study
RH	reproductive health
SUSTAIN	Sustaining Family Planning and Maternal and Child Health and Services in Georgia
TFR	total fertility rate
TIAR	total induced abortion rate
TSMU	Tbilisi State Medical University
UHC	universal health coverage
UN	United Nations
U.S.	United States
USAID	United States Agency for International Development
WHO	World Health Organization

Executive Summary

The Sustaining Family Planning and Maternal and Child Health Services in Georgia (SUSTAIN) project was funded by the United States Agency for International Development (USAID) in October 2009 and awarded to John Snow, Inc. (JSI). Originally planned to run until September 2014, it was awarded an extension with a shift in its scope of work until September 30, 2015.

The government of Georgia changed hands halfway through the project in January 2013. This was accompanied by significant changes in health sector policies and strategies, particularly the adoption of universal health coverage, which required rapid adaptation by SUSTAIN. Thus the story of SUSTAIN unfolds in three phases: the original project scope and activities (2009-2012); adaptation of new health priorities (2012-2014); and a final push for quality and organization of health services, accreditation, and sustainability (2015). The overall goal of improving women's health, quality of care, and equity never changed.

The successes of SUSTAIN are nothing short of groundbreaking. In a relatively short amount of time, the project:

1. **Contributed to a veritable revolution in maternal and newborn care. SUSTAIN scaled up previous successful efforts to introduce effective perinatal care to cover 80 percent of all deliveries in Georgia.** Hospitals and clinics that implement effective perinatal care report fewer complications at birth for both mothers and newborns, which has resulted in Georgia's maternal mortality ratio decreasing by 40 percent in just six years.
2. **Promoted family planning and reproductive health in challenging times and social currents. SUSTAIN increased access to modern family planning methods by ensuring the availability of free and low-cost contraceptives across the country, even in the most remote villages and rural areas.** SUSTAIN's efforts resulted in 280,000 couple-years of protection (CYP). Importantly, Georgia's historically high abortion rate decreased while the fertility rate slightly increased, indicating that access to modern family planning does not inherently reduce a country's birth rate.
3. **Adapted readily to rapid, profound changes in the health sector. Georgia's 2013 change in government brought with it a significant health sector policy shift from a private sector-based market approach to one with a larger budgetary and coordinating role for government, including the adoption of universal health coverage.** SUSTAIN moved quickly to assist the government in setting policies, protocols, and regulations to ensure the free care was also high quality.
4. **Demonstrated the power of modernized medical education. SUSTAIN worked closely with five Georgian medical schools to introduce modern, student-centered teaching methods, clinical skills-building labs, and updated curricula.** Tbilisi State Medical University (TSMU) became the first university in the region to hold the internationally-

renowned OSCE (objective structured clinical examination) to assess student knowledge and clinical skills in obstetrics and gynecology. The OSCE was such a successful experience for both professors and students that TSMU is planning to expand the OSCE to other medical disciplines as soon as possible.

5. **Developed a constituency for quality health care and quality improvement among clients, providers, and the Georgian government.** The provision and scale-up of effective perinatal care (EPC) coupled with three successful communication campaigns contributed to a more informed client-base, who now actively seek out health facilities offering EPC. Equally important is the Georgian government's adoption of a regionalization policy and implementation plan as well as hospital networks' introduction of quality improvement methodologies with the eventual aim of adopting accreditation as a means of verifying quality of care.

Recommendations for the Georgian government:

1. **Scale up Regionalization Nationwide.** The Georgian Ministry of Labor, Health, and Social Affairs should plan and implement a sound strategy to scale up Georgia's long-awaited health services regionalization policy across Georgia.
2. **Scale up and Institutionalize QI Approaches and Develop a National Accreditation Program.** The MOLSHA should develop a national accreditation program open to all health care organizations. As part of this, the MOLHSA should establish a quality management mechanism that can support health care organizations to develop and implement quality improvement strategies as well as assess the effectiveness and quality of health services at the primary health care, hospital, and laboratory levels.

Recommendations for USAID

1. **Focus on EU-Georgia Association Requirements in Health.** USAID should consider providing punctual assistance in crucial areas mentioned in the EU association agreement and at key junctures in the ongoing process.
2. **Maintain Quality of Care as the Centerpiece of Health Systems Reform and Regulation.** USAID should consider either making selected, strategic investments in this area, or using its influence to encourage other bilateral or multilateral donors to step up with specific technical support.
3. **Share Georgia's Story. USAID should share Georgia's reform experiences in countries facing similar challenges.** USAID's withdrawal from active funding of the Georgian health sector should not mean that hard lessons are lost to the wider development community.

Introduction

This is the final report of the USAID-funded SUSTAIN project, which was implemented by John Snow, Inc. (JSI) and ran from 2009 to 2015. It is future looking and focuses on how project activities have contributed to the recent transformation of the Georgian health sector. Few countries transformed so rapidly, and many countries could learn from Georgia's process and results. The government of Georgia changed hands halfway through the project in January 2013. This was accompanied by significant changes in health sector policies and strategies, particularly the adoption of universal health coverage, which required rapid adaptation by SUSTAIN. Thus the story of SUSTAIN unfolds in three phases: the original project scope and activities (2009-2012); adaptation of new health priorities (2012-2014); and a final push for quality and organization of health services, accreditation, and sustainability (2015). The overall goal of improving women's health, quality of care, and equity never changed.

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A lot remains to be done if Georgia is to achieve its near-term goal of meeting the European Union Association requirements in health and its long-term goal of a strong and healthy population with high-quality health care. This report documents the SUSTAIN project's many contributions, and notes areas which remain to be done in the future.

Part 1

THE LEGACY OF HEALTHY WOMEN IN GEORGIA

The successes of the SUSTAIN project are built on the foundation of a package of evidence-based maternal and newborn health services promoted by the World Health Organization (WHO) and introduced in the previous JSI-implemented project, Healthy Women in Georgia, which ran from 2003 to 2009.

Introducing effective perinatal care to Georgia. People who were not in Georgia prior to 2003 can't appreciate the circumstances in which women delivered babies, especially outside the few more modern hospitals in Tbilisi. The Soviet Union claimed that it provided excellent maternity care, but the reality was different. Georgian women delivered in large, damp, freezing maternity rooms, four to six women to a room, without family support. Pregnant and delivering women were given many useless or harmful medications and interventions including unnecessarily induced labor and C-sections. Newborns were taken from mothers immediately after birth and weighed on cold exam tables and newborn hypothermia was common. Women describe the psychological and physical trauma of giving birth under these conditions.

In 2003, inspired by JSI's work in Ukraine (where an initial study tour was organized), and WHO standards for evidence-based effective perinatal

The Soviet Union claimed that it provided excellent maternity care, but the reality was different.

Before the reforms, Georgian women delivered in large, damp, freezing maternity rooms, four to six women to a room, without family support.

The first-ever Georgian family to experience a partner-assisted delivery!

care (EPC), JSI began introducing EPC in Georgia. Starting with a small group of influential professionals, the first (of many) EPC courses took place in January 2005. JSI introduced active management of third stage labor (AMTSL); use of part-o-grams to track labor; newborn care (skin-to-skin and warm chain); private, comfortable, and cozy delivery rooms; allowed women to choose their position for labor; encouraged family members to be present in the labor and delivery room; and reduced medications and unnecessary interventions.

Research documented a win-win-win scenario: improved medical outcomes for delivering mothers and infants (reduction of morbidity and mortality), greatly reduced costs for budget-restricted maternity centers, and overwhelmingly positive client satisfaction. By the end of HWG, EPC was institutionalized in 16 large hospitals.

Bringing modern family planning to Georgia. In 2003, family planning was dire. Abortion was the main way many women regulated their fertility, and consequently, Georgia had one of the highest abortion rates in the world. Abortions were a significant income source for ob/gyn(s), which decreased their incentive to embrace family planning. Adding to this was the persistence of rumors and misinformation about modern contraceptives among medical professionals and the community at large.

Despite barriers, reproductive health surveys showed unmet need for family planning, especially in rural areas and among poorer, less-educated segments of society. HWG increased access to and use of family planning (FP) by providing in-service training in women's ambulatories and other clinics (especially in clinical methods, such as intrauterine contraceptive device [IUCD] insertion), and a website devoted to reproductive health.

HWG circumvented the ob/gyn stranglehold by working with doctors and nurses in village clinics and pediatricians in urban clinics. Based on a needs assessment and ability-to-pay study, USAID agreed to provide USAID-donated contraceptives. This increased access for people who could not afford to pay for contraception.

By the end of HWG, a system was in place for rural and urban FP access, contraceptive use had increased, the abortion rate was decreasing, EPC was accepted, and various community mobilization and education activities were ongoing. HWG had begun working with medical universities, and an HWG office was opened in Tbilisi, which regularly engaged policymakers and senior health leaders. Considerable capacity had been built, but systems change was coming to Georgia and much remained to be done.

JSI provided prototype design and equipment for modern maternity units in hospitals across Georgia.

Part 2

THE SUSTAIN PROJECT: THE FIRST FIVE YEARS

The SUSTAIN design: Improving MNCH/ FP in a rapidly changing health landscape

USAID designed SUSTAIN taking into account the gains made by HWG and other USAID programs, and overall health sector trends in Georgia. The project was not, strictly speaking, a follow-on to HWG. Rather, it broke new ground in its emphasis on supporting and leveraging the private sector, while continuing to foster expansion of access to women's health services. Its design took into account the growing impetus toward privatization of health services, improving economic conditions, and expansion of the pharmaceutical sector, including increased availability of moderately priced contraceptives commercially and the growth of media influence, including the Internet.

Original purpose, objectives, and expected results of SUSTAIN

The original purpose of SUSTAIN was to improve access to and quality of women's health services and information, especially family planning and reproductive health and scale-up of evidence-based, family-friendly maternal and newborn health services. SUSTAIN was designed to be in line with the national health strategy at the time, which stressed market-based, private sector delivery and minimum state regulation. Quality supervision was also part of the original program.

SUSTAIN's original objectives were to: 1) launch new private sector-led MCH/FP service delivery, health insurance, and product-specific social marketing models; 2) build strong commercial sector distribution of contraceptives and public-private partnerships to finance behavior change communication (BCC) campaigns; 3) catalyze the Georgian health insurance sector to "become the vanguard of FP/MCH services;" and 4) incorporate FP/RH modules and practices into medical and nursing school pre-service curricula. The scope of work also provided for SUSTAIN to co-finance the 2010 Reproductive Health Survey and build capacity of the MOLHSA (via the National Center for Disease Control [NCDC]) to conduct population-based studies.

The major outcomes expected of the SUSTAIN project were to demonstrate that FP saves lives and improves birth outcomes; increase demand for contraceptives and quality maternity services; and partner with the private sector and medical schools to improve contraceptive

availability and maternity care. SUSTAIN was expected to lead to more efficient management of health services, higher productivity and quality, and better access to high-quality health services.

The one-year SUSTAIN extension (to 2015) saw completion or phase-out of many original SUSTAIN activities except for medical education reform, and increased high-level focus on accreditation, regionalization of health services, and sustainable quality improvement models.

An evolving health landscape: the context for SUSTAIN

Activities undertaken by SUSTAIN unfolded in the context of and in response to rapid privatization and modernization of Georgia's health system and, subsequently, introduction of universal health coverage. Given such rapid change and SUSTAIN's mandate to adapt, the project's context is particularly relevant for understanding its results and achievements.

Evolution of privatization in Georgia (through 2012)

Beginning in 2006 with a hospital development master plan, privatization occurred at a stunningly rapid rate. Now almost all hospitals are owned by private investors, many of which are private insurance companies. Georgia's original privatization principle was to enable market mechanisms to improve quality, reduce costs, and increase efficiency.

During this period incentives to expand the private insurance industry were offered. A voucher system was created as a "safety net" mechanism for the poor and very poor, but otherwise the philosophy of the government during this period was "hands off" and allowed market forces to regulate the industry.

Privatization, corresponding improvements in health infrastructure (including hospital and clinic construction), and expansion of health insurance did much to improve health care. JSI contributed during this period by providing prototype design and equipment for modern maternity units, which many private hospitals used as models. These newly constructed or modernized private hospitals typically had the basic infrastructure for effective perinatal care and patient privacy.

Activities undertaken by SUSTAIN unfolded in the context of and in response to rapid privatization and modernization of Georgia's health system and, subsequently, introduction of universal health coverage.

Change of government and shift in priorities. After the change in government in January 2013, one of the new administration's first acts was to inaugurate universal health coverage (UHC).[1] At the time, the new government's priority was to increase financial access to health care services.

In 2014, MOLHSA began to shift emphasis and took on a regulatory function for quality of health care. Unfortunately, there is no national system or mechanism to assess the effectiveness and quality of health services at the primary health care, hospital, or laboratory levels. Georgia also lacks a minimum package or standardized set of national quality indicators that compare the

[1]Universal health coverage covers primary health care, emergency out-patient, emergency in-patient, planned in-patient, cardiac surgery, chemotherapy, hormonal and radiation therapy, and deliveries.

A Georgian father provides life-saving skin-to-skin contact just minutes after his baby was born.

performance of Georgian health care facilities and the country overall with neighboring European countries.

The UHC program assumes responsibility for providing health services to the entire Georgian population. It pays the still-private health facilities on a per capita basis for primary health care services and fee-for-service basis, replacing the former voucher system. While this change was dramatic and extremely popular in Georgia, it is fraught with challenges. Claims for services remain basically unregulated and enormous; as a result, the government's health budget is under severe stress.

Adapting quickly and effectively to new political realities. The dramatic change in government health strategy mandated rapid turnaround changes to the SUSTAIN project strategy, from helping the private sector take leadership of FP/MCH, as was envisioned in the original project, to working directly with the national government to set policies, protocols, and regulations to monitor quality of health services.

SUSTAIN's ability to adapt to the new political realities was especially important to USAID and essential to the continued relevance and effectiveness of the program. USAID's final project evaluation praised SUSTAIN's ability to shift gears and adapt to changes after the 2012 elections.

The dramatic change in government health strategy mandated rapid turnaround changes to the SUSTAIN project strategy, from helping the private sector take leadership of FP/MCH, as was envisioned in the original project, to working directly with the national government to set policies, protocols, and regulations to monitor quality of health services.

Effective perinatal care training for teams of doctors, nurses, and midwives was a key element of scaling up the approach across Georgia.

Improving MCH and FP in private health facilities (Objective 1)

By 2009, Georgia had come a long way in embracing new ideas about family-centered and evidence-based maternity care. New private sector entrepreneurs and facility owners were especially keen to adopt modern practices and for their hospitals to be seen as state-of-the-art. Many adopted EPC principles, such as modern design of labor and delivery rooms, and hired staff who understood evidence-based EPC. HWG had succeeded in introducing EPC in the largest hospitals, but the challenge of scaling up EPC throughout Georgia remained.

Rolling out EPC and clinical FP training throughout Georgia was a significant achievement of SUSTAIN. The approach differed from HWG in that it incorporated capacity building and sustainability. Rather than undertake EPC directly (sometimes using international consultants), SUSTAIN engaged local teams of trainers and NGOs to organize trainings.

Family planning training was conducted by experienced partner NGOs. HERA conducted trainings in Guria, Adjara, Racha-Lechkhumi, and Samtskhe-Javakheti regions. Healthy Life trained providers in Shida Kartli and Tbilisi, and Healthy Generation in Mtskheta-Mtianeti. SUSTAIN trained more than 1,600 ob/gyn(s), primary health care doctors, and nurses in FP.

By 2014, 57 of 96 maternity hospitals and clinics were trained and equipped to provide EPC and family-centered maternity care, covering approximately 80 percent of the annual deliveries in Georgia. Uncovered facilities fall into two categories—a few existing hospitals (in Tbilisi) that already provided modern maternity care did not require training, and small maternities with very few deliveries, many of which are candidates for closure under the new regionalization policy.

The 57 facilities implementing EPC recorded fewer complications at birth, which led to a decline in Georgia's maternal mortality ratio (MMR) from 44.4 to 26.[2] Indeed, scale-up and institutionalization of EPC helped decrease

Georgia's maternal mortality **DECLINED** by **40 PERCENT** between 2006 to 2012.

[2] Georgia Reproductive Age Mortality Study, 2008 and 2014.

the use of unnecessary medicines, tests, and procedures; reduce complications; and shortened length of stay in maternity hospitals from seven to three days. All this also decreased expenditures on medicines and tests and increased funds for quality improvement initiatives and infection control materials and supplies.

The project's capacity building of maternal and newborn health personnel at all levels of the perinatal care system is highly regarded and valued by both the private sector and the MOLHSA. Throughout the project, SUSTAIN provided intensive training programs for both obstetric and neonatal staff to strengthen their knowledge and skills in accordance with evidence-based clinical practice guidelines adopted by the MOLHSA and best practices in maternal and newborn care. A total of 461 ob/gyn(s), midwives, neonatologists, and nurses received training in evidence-based EPC.

During the roll out of EPC, SUSTAIN continued to encourage and introduce parent schools in hospitals. Having informed clients (and partners) who understand the natural process of birth and how to take care of themselves and their newborns is a keystone of EPC. However, attendance at parent schools was never high,

JSI Technical Expert Lia Gvinjilia and Georgian ob/gyn Dr. Maia Chikovani both played key roles in developing the parent school online course.

in part because of cost and transportation challenges. SUSTAIN budget constraints prohibited major investments in this area.

Fortunately, major growth in Internet use in Georgia provided an excellent and travel-free way to educate parents. The SUSTAIN team created an online parents'

One of the hospitals included in EPC training and follow-up was the Georgian Orthodox Church's maternity hospital for the poor in Tbilisi, which also received a generous equipment donation from a U.S. hospital. When visitors from that (U.S.) hospital came to see how their donation was being used, the chief doctor (who was also a priest) proudly showed them their facility, and explained how they were implementing EPC and family-centered care. The chief doctor expressed gratitude to JSI for the training, which changed the hospital's practices. Although the Georgian Orthodox Church is still officially opposed to family planning, it finds abortion worse. Evidence of reduced abortions and a warm partnership with JSI has softened the hospital's stance on modern FP.

school course, including nine video modules. SUSTAIN field tested and publicized the online course (*www.mshobeltaskola.ge*) through SUSTAIN-supported facilities and media campaigns. This Georgian-language, online course proved to be enormously popular, attracting Georgians living abroad as well as throughout the country.

Traffic to the site has grown. Since its launch in November 2013, almost 300,000 visitors have come to the website, which has favorable bounce and click through rates, indicating that the course information is interesting and relevant for parents and parents-to-be. To ensure sustainability, SUSTAIN negotiated with the Georgian Obstetrician, Gynecologist, and Perinatologist Association to take over and maintain the parent school website, update it periodically, and publicize it through their members and at their annual meetings. Georgia is one of the few countries in the region with such a course.

With EPC expanded throughout Georgia, and medical education for MCH/FP well on the way, it was time to look into ensuring the technical sustainability of improved practices through major ongoing quality of care initiatives.

Ensuring contraceptive access and sustainable behavior change promotion (Objective 2)

This result area was partially met in a literal sense, and more than fully met in the context of the overall goal, which was to ensure contraceptive access, equity, affordability, and diversity, and to undertake effective behavior change activities.

A classic social marketing approach was not highly successful in Georgia. Rather, SUSTAIN's total market approach produced excellent public-private partnerships with the pharmaceutical sector and increased access and equity throughout Georgia. A total market approach analyzes the entirety of the public and private supply systems together (in this case family planning) and builds a multifaceted approach to achieving objectives.

SUSTAIN created public-private partnerships with the three main pharmaceutical distributors in the country: GPC, Aversi, and PSP. These companies were open to partnership, and memoranda of understanding were created. They shared sales and cost data on various contraceptive brands and provided sales, at minimal price, of USAID-subsidized contraceptives in exchange for medical detailing and promoting these low-cost contraceptives.

To improve services for clients seeking contraception at pharmacies, SUSTAIN, working through NGO partner GMG, continued training pharmacists, approximately 400 over the life of the project. As a result, clients, including youth, get accurate and up-to-date information on a variety of contraceptive products.

One clinician claims there are two parts to her career in medicine.

"I now think my career is divided into two phases, before evidence-based medicine and after. I was transformed!"

Her perspective sounds dramatic, but it's a fairly typical stakeholder response.

An ability-to-pay study under HWG formed the rationale for donated contraceptives. In 2010, SUSTAIN undertook a second ability and willingness-to-pay analysis, which showed that while the urban poor had access to pharmacies, even low-cost commercial products such as Rigevidon, an oral contraceptive pill, were too pricey. The study showed that 60 percent of couples do not have the ability to pay for any combined oral contraceptive pills (COCs), and the 40 percent wealthiest have the ability to pay for only a limited set of COCs.

Trusting in the eventual growth of the economy, a system was devised to market very low cost, subsidized contraceptive pills (a progestin only pill and a low dose COC) to the poor in urban areas. Some pharmacies continue to sell the remaining supplies of these, and will do so until supplies run out.

Market forces (mostly unrelated to SUSTAIN) did result in increased contraceptives on the markets overall (and a few brands with moderate prices). The SUSTAIN project did not provide pharmacies with condoms, although subsidized condoms were supplied to some NGOs (HIV, youth reproductive health, and education programs).

Rural areas present a different picture in terms of contraceptive access. They account for 59 percent of the total poor and 62 percent of the extreme poor. In rural areas, moreover, commercial distribution of contraception does not meet need due to three barriers of lower access to commercial pharmacies, associated transportation costs to markets, and contraceptive price. When the 2010 ability-to-pay analysis noted that the rural poor still could not pay even for lower-cost commercial brands, USAID decided to continue to distribute free product to some 875 rural and very poor urban communities through channels created under HWG. This pragmatic decision allowed Georgia, USAID, and SUSTAIN to continue to meet the needs of this key group, and went a long way to guarantee equity in contraceptive access.

Undoubtedly, providing donated contraceptives is one of the most cost-effective interventions USAID makes for FP expansion. This has proven to be the case in Georgia as well. The distribution system is based on a "pull" system from regional public health centers and functions remarkably smoothly. From 2009 to 2015, donated free contraceptives accounted for over 280,000 couple-years of protection to avert pregnancy.

As SUSTAIN prepares to close, however, it is critical to pass this program to a Georgian entity. Negotiations had advanced well for NCDC, which is responsible for vaccine cold chain, to take over this function, but the final decision is currently stalled within the Ministry of Health. Buffer stocks are being pushed down the system; supplies lingering in a warehouse need to be returned to USAID or taken over by the Georgian government.

In addition to marketing the USAID-supplied contraceptive pills Microgynon and Microlut, in 2013 SUSTAIN introduced Implanon, a three-year contraceptive implant. Implanon has proven to be even

From 2009 to 2015, donated free contraceptives accounted for over **280,000 couple-years of protection** to avert pregnancy.

more popular than anticipated. Some 500 providers in women's wellness centers, polyclinics, and maternity units of hospitals were trained in Implanon insertion and removal and provided with implants. By the end of 2014—just one year—more than 500 implants had been inserted. Unfortunately, there is no commercial distributor of implants in Georgia, putting the method availability at risk when USAID-donated supplies run out.

One of the original tasks in the SUSTAIN scope of work—developing local contraceptive product production—was abandoned by mutual consent between USAID and JSI. The market in Georgia is too small to make this feasible, even when taking into account the availability of a plethora of private contraceptives in pharmacies and possible regional markets.

Recognizing the national expansion of family-centered maternity care, the second communication campaign promoted health-seeking behavior in maternal and child health and family planning.

Behavior change communication (BCC), on the other hand, was a big success. Over the life of the project, three BCC campaigns were planned and conducted. The first was undertaken between July and December 2010 by McCann Erickson Georgia. The campaign promoted contraception and FP/RH services as safe, reliable, high quality, and available ways to prevent unplanned pregnancies. The target audience was married women ages 18 to 35 with one or two children.

It was undertaken throughout Georgia and involved repeated advertisements and programs using mass media (on all four major television channels, plus radio stations), 12 attractive, colorful billboards, a dozen buses with the same messages and logos as the billboards, and postings on Georgia's most popular websites. Brochures also were prepared and distributed. Media promoted the CLARITAS hotline, which experienced a surge in calls over this period.

The second campaign, "Healthy Families in Georgia," was undertaken in 2012 by Zebra (advertisement production) and UM Georgia (placement). It also involved mass media, print materials, websites, and talk shows, but expanded the topics and target audiences. Recognizing the national expansion of family-centered maternity care, advertisements promoted health-seeking behavior in maternal and child health and family planning, such as warm chain for thermal protection of newborns, male involvement, breastfeeding, and postpartum visits for both baby and mother. Contraceptive testimonials that stressed safety, convenience, and effectiveness of both oral contraceptives and IUDs were aired and promoted.

The third campaign, "Make Your Future Today," was youth-focused and used free public television time for messaging. SUSTAIN engaged NGO partners for this campaign and produced a variety of colorful

print materials and web announcements. The centerpiece of the campaign was a youth reproductive health week in May 2014 with activities across the country aimed at improving youth knowledge of reproductive health and family planning. Peer education programs played a central role, and facilitators report that sessions were filled beyond capacity. Sessions meant to be 90 minutes often went for two hours or more. A social media campaign that included web-based quizzes and competitions reached over 60,000 youth.

With more Georgians gaining Internet access and Facebook becoming a hugely influential communication tool in Georgia, the SUSTAIN team reasoned that creating a SUSTAIN Facebook page would help it share information and communicate messages. In Georgia, Facebook is used similarly to how Twitter is used in the U.S.: Georgians use Facebook to obtain the political, economic, and social news of the day.

More than 6,500 people "like" SUSTAIN's Facebook page, which means SUSTAIN's Facebook posts appear in their newsfeeds. Of these 6,500 people, 87 percent are women. A third of the women are ages 25-34 and 21 percent are ages 18-24. So the correct demographic is being reached. The majority of people who like the page come from Tbilisi, although a significant number come from all over Georgia, including some isolated communities. A small number come from around the globe.

Participants run in the 2014 Komen Race for the Cure, held in Tbilisi, Georgia's capital.

HERA Women's Wellness Alliance remained a partner throughout SUSTAIN's first five years. HERA continued to implement the Susan G. Komen-affiliated Race for the Cure in Tbilisi, as well as other activities to promote awareness and screening for breast and cervical cancer. In 2015, with funding from several sources and only occasional encouragement from SUSTAIN, HERA organized, for the first time, *three* Races for the Cure—in Tbilisi, Kutaisi, and Batumi.

JSI's partner HERA continued to implement the Susan G. Komen-affiliated **Race for the Cure** in Tbilisi, even after the project ended.

Quality improvement initiatives led to better appreciation and use of data.

Catalyzing Georgia's health insurance sector to become the vanguard of MCH and FP: introducing the quality improvement model (Objective 3)

Early in the introduction of EPC, JSI staff realized that institutionalizing and sustaining changes is not a simple matter. Old habits return quickly. And while clearly beneficial practices such as advanced management of the third stage of labor (AMTSL) were easily adopted, more cumbersome principles such as part-o-gram use were often neglected. It became clear that providers who were implementing new practices needed to be supported and encouraged to continue. Thus supportive supervision (using trainers), on-site in-service training, quality audits, and continuous quality improvement were instituted and built into the follow-up of both EPC and family planning training.

In the old system, if supervision happened at all, it tended to be harsh, punitive, and involve public embarrassment (or worse, dire consequences) for providers who made a mistake, no matter how innocent. The result was that mistakes, even serious ones causing death or injury, were often hidden, so providers did not learn from them. Data on morbidity and mortality was inaccurate, and data to drive in-service training or other clinical improvements could not be collected.

Supportive supervision helped change the culture of learning and feedback in health facilities. When combined with improvements in vital registration and the institution of systematic maternal death audits, there was a fuller picture of the situation, so actions could be taken. The term "supportive supervision" and related tools and procedures were used until 2013, when SUSTAIN moved to the more sustainable, effective, and less costly quality improvement model. However, the underlying philosophy of a non-punitive and evidence-based approach was retained.

Quality improvement (QI) is an evidence-based best practice for improving health care service delivery. It involves securing the commitment of senior leadership, putting together multi-disciplinary quality teams, identifying and prioritizing specific quality issues, collecting and analyzing data on a problem, testing solutions, and instituting them throughout the system.

The beauty of QI is that it continues. As one problem is solved or on the way to being solved, new problems are identified, and the QI process starts over. The underlying philosophy of QI is that quality is a *process* and *ideology* and not something tangible or static. QI topics can be broad and include infection prevention, provider skills, outcomes, procedures and decision trees, patient attitudes and respectful care, and administration and cost. Almost anything that affects the smooth running of a maternity, patients' rights, and quality of care can benefit from QI.

SUSTAIN helped Georgia's two largest hospital networks, EVEX and Geo Hospitals, build their human resource and institutional capacity to adopt QI practices. Specifically, SUSTAIN trained hospital-based quality teams and leadership in the QI methodologies, including plan-do-study-act and regional quality improvement collaboratives. JSI promoted the notion that good metrics and record-keeping allow facilities, their results, and costs to be compared across indicators. The leadership of EVEX and Geo Hospitals understands that complications are costly and bad for business, and that standardization across the networks increases cost-effectiveness. Partnerships with EVEX and GEO Hospitals were strong by late 2014, and the extension in 2015 saw greater efforts to institutionalize a culture of quality improvement in both networks.

SUSTAIN helped Georgia's two largest hospital networks, EVEX and Geo Hospitals, build their human resource and institutional capacity to adopt **QUALITY IMPROVEMENT** practices.

Introducing the concepts of accreditation and regionalization. The idea of accreditation grew organically from the quality of care initiatives. As private hospitals increasingly felt that they had reached, or wanted to reach, international standards and wanted an impartial way to publicize this to their clients, international work on accreditation was explored.

SUSTAIN invited a team from the premier accreditation body, Joint Commission International (JCI), to Georgia for two weeks in March 2013 to discuss and explain what setting up an accreditation program entails. Two SUSTAIN technical staff went through intensive training in Chicago at JCI headquarters to learn about accreditation methodology.

After a meeting hosted by the MOLHSA in 2013 a White Paper Concept Note on a National Accreditation System in Georgia was produced. This paper outlined the structure and methodology of establishing an accreditation body that would be a quasi-governmental organization with private sector participation. The concept has advanced since the original white paper, and was the focus of activities under the 2015 extension, although mostly with the private hospital networks (see section three).

As with accreditation, the idea of regionalization to reduce unnecessary maternal and neonatal deaths and improve health care service quality emerged during the first five years of SUSTAIN. Regionaliziation took more time to take hold, but gradually it did, and the extension provided an important opportunity and funding to advance it in a dramatic way.

Medical education reform (Objective 4)

The SUSTAIN scope of work called for the project to "incorporate FP/RH modules into medical and nursing school pre-service courses." By mutual agreement between USAID and JSI, the project did not focus on nursing schools because nursing education requires reform beyond the budget and capacity of SUSTAIN's small staff. In addition, other donors were involved with these schools. The project did, however, train hundreds of nurses in practice and met and greatly exceeded its medical education targets.

SUSTAIN's effect on Georgian medical education goes beyond merely developing and providing modules. The importance of breaking the rote Soviet system of following antiquated medical textbooks and introducing research, observation, and evidence cannot be over-emphasized.

A student performs a task at one of the OSCE clinical skills testing stations. While a professor looks on to evaluate his performance, the student is inserting an IUD into one of the USAID-donated ob/gyn simulators.

JSI worked in a minor way with medical education beginning in 2006. The pace picked up considerably under SUSTAIN. Since 2009, the project provided technical assistance to medical education institutions country-wide to introduce competency-based and practice-oriented teaching strategies. SUSTAIN helped revise the ob/gyn training curriculum (including FP modules), trained ob/gyn faculty on curriculum development, and introduced modern methods of teaching, such as case-based teaching and problem-based learning, and student evaluation techniques.

To complement these efforts, SUSTAIN supported Tbilisi State Medical University (TSMU) to set up and operate a clinical skills teaching center and to introduce

the world-renowned OSCE testing methodology. An OSCE, which stands for objective structured clinical examination, is an evidence-based exam often used in health sciences to test performance and competence in skills such as communication, clinical examination, and medical procedures. The test comprises a series of short, timed stations.

In February 2014, TSMU held Georgia's first OSCE in obstetrics and gynecology. The exam, which was given to fourth-year medical students, was conducted in a partnership between TSMU, Oslo University, and SUSTAIN. As 276 students rotated through each station, they were tested on their gynecological and obstetric examination, IUD insertion, and family planning counseling skills. SUSTAIN provided equipment for the exam, including simulators and medical supplies.

Since the first OSCE was conducted in February 2014, 1,000 medical students have taken it. Student feedback on the methodology was positive. 87 percent of students who took the exam agreed that it is an appropriate method to objectively evaluate knowledge and skills.

TSMU is gradually integrating the OSCE into other curricula including pediatrics, internal medicine, and surgery. Medical students now find themselves in a learning environment where evidence-based medicine is an important value and medical practitioners are encouraged to research and adopt new thinking and technologies. Students even have begun to demand modern evidence-based teaching in other clinical areas, indicating the entire medical education system is beginning to change.

The SUSTAIN team continued to strengthen medical education right up to the end of the project. In August 2015, a training unit on patient safety and quality of care was rolled out and incorporated into medical education. Helping to modernize Georgian medical education and introduction of evidence-based medicine are two of SUSTAIN's clear victories.

Celebrating a decade of partnership

In mid-2014, USAID and JSI began negotiations for a one-year extension, which would change the emphasis and focus of the program. By this time, many SUSTAIN activities were completed, winding down, or being locally sustained. As part of the transition, *JSI organized an event to acknowledge ten years of engagement with its partners.* Senior leadership from the MOLHSA, U.S. Embassy, USAID, other donors, JSI headquarters, major partners, NGOs, and collaborators celebrated the joint work and achievements that had been accomplished in a decade of partnership.

Since the first objective structured clinical examination (OSCE) was conducted in February 2014, **1,000 medical students** have taken it. **87 percent** of students who took the exam agreed that it is an appropriate method to objectively evaluate knowledge and skills.

Part 3

2015: THE CHALLENGE OF SUSTAINING THE FUTURE

Many activities undertaken in SUSTAIN's first five years were phased out or completed by September 2014.

As negotiated with USAID and in consultation with the MOLHSA, SUSTAIN shifted its focus to a new scope of work that included: 1) regionalization of perinatal care; 2) accreditation and quality of care initiatives with private health facilities; 3) medical education reform; and 4) a second RAMOS study. One important effort that was retained were ongoing efforts to provide free contraceptives to the poor, and transfering responsibility for distributing free contraceptives to the poor in rural areas to local authorities and the MOLHSA.

Effective perinatal care promotes increased bonding for mothers and newborns.

Regionalization of perinatal care

The concept and rationale for the regionalization of perinatal care worldwide is relatively simple. To improve obstetric and newborn care, systems are developed to ensure that women deliver in a facility with the kind of routine and emergency obstetric services appropriate to the patient, and that transfers women and babies to a facility that has the capacity to treat complications. The concept is simple; implementation is complex.

SUSTAIN helped design a perinatal care regionalization system based on **three levels of care**.

Georgia's maternal mortality rate, while low, has not met its MDG goal of 16 maternal deaths per 100,000 live births.[3] Despite decline, neonatal mortality is still the largest contributor to Georgia's infant mortality.[4] Determined to improve quality of care and reduce mortality and morbidity, the MOLHSA, private sector hospital partners, and JSI looked at the landscape of the some 96 hospitals and maternity centers in the country. On first examination, it seemed clear that preventable deaths were occurring because too often women delivered in facilities unprepared to take care of complications, or because the referral system was insufficient to get women and newborns to a higher-level hospital in time. This, however, needed to be confirmed by evidence, and a system had to be designed and rationalized. JSI took the challenge of working with the MOLHSA and hospital owners to accomplish this.

Three major activities presented themselves. The first was to design and legitimize a system for regionalization. The second was to study and test implementation and results in selected regions. Third—and most difficult—was to scale up nationally and make politically sensitive health care decisions based on regionalization principles.

Step One: system design. On January 20, 2015, Decree Number 01-12, which provided the legal basis for regionalizing perinatal care, was signed by Georgia's minister of health. In the eyes of health system reformers and interested donors, regionalization of perinatal care is not only a major step in maternity care, it also is the precursor and a test case for regionalization of many other types of health services, such as intensive care, cardiac care, and diagnosis and treatment of cancer. Moreover, with the introduction of universal health care and government financing for health care, the private sector has a renewed incentive to upgrade facilities to meet standards for levels of care they intend to provide.

SUSTAIN helped design a perinatal care regionalization system based on three levels of care. Levels were determined based on detailed assessments and highly specific criteria in four areas: 1) human resources (type of provider/knowledge/skills); 2) infrastructure; 3) equipment; and 4) laboratory and diagnostic services. Level III facilities are the highest, equipped and capable of caring for the most complicated cases. Level II facilities provide a broad range of obstetric and neonatal care, including Caesarian sections and treatment of obstetric and neonatal complications. Level I facilities are authorized to provide basic obstetric and newborn care for uncomplicated deliveries.

Expert groups were formed and trained to validate self-reported information from health facilities and to make field visits to verify whether each facility met

[3]Georgia Health Care Statistical Year Book 2013, National Center for Disease Control and Public Health, Ministry of Labor, Health, and Social Affairs of Georgia, Tbilisi, 2013.

[4]Ibid.

the requirements to be designated a particular level. Typically, health facilities had some deficiencies in one or more areas, which had to be addressed before they received a level designation. SUSTAIN provided technical support and training, and many of the privately-owned hospitals invested significant amounts of their own funds (up to US$50,000) to upgrade facilities.

The dilemma of the Level 0 facilities. A major issue during regionalization was the dilemma of "Level 0" facilities; that is, facilities are so weak (for a variety of reasons) that they do not meet criteria for any designation. The profile of typical (Level 0) facilities is that they tend to be very small, poorly equipped, without anesthesiologists or staff able to perform C-sections or hysterectomies. Dealing with this kind of facility is the bane of reformers throughout the former Soviet Union. Closing them is politically sensitive, since parliamentarians want a facility in their district, despite proximity to nearest contemporary facility, modern transportation availability, and known risks to clients. And yet, these unrated facilities account for negative obstetric and neonatal events. They urgently need to be upgraded or closed.

Step Two: implementation research. To test the practicality and utility of the regionalization plan, SUSTAIN and MOLHSA's Perinatal Care Regionalization Committee designed and implemented a pilot perinatal care regionalization program in Imereti and Racha-Lechkhumi regions. The program launched in April 2015 at a high-profile event attended by the deputy minister of health and both regional governors.

Natia Chkoidze was fortunate to be able to travel to Zestaponi Medical Center to give birth where her ob/gyn team used effective perinatal care principles when delivering Natia's son, Luka.

Based on the positive results of the pilot, it is clear that regionalization of perinatal care is an appropriate and effective path to improve maternal and neonatal outcomes in Georgia.

A group of experts assessed and determined the appropriate level of each facility in the pilot area. The results were discussed with the Perinatal Care Regionalization Committee and individual reports with gaps and areas for improvement noted were sent to each facility. Facilities were given two months to fill existing gaps before the official onset of the implementation in two regions (May 1, 2015). The process itself was a quality improvement activity, as private sector owners and hospital staff worked hard and spent a good deal of their own resources to meet the criteria.

As part of regionalization, training was put in place to ready facilities to be designated Level II. As part of this, SUSTAIN introduced the innovative "team approach for handling medical emergencies" methodology. The first training course was conducted by instructors from Harvard Medical School and Boston University for ob/gyn(s), neonatologists, midwives, and anesthesiologists from the TSMU teaching hospital, ob/gyn and neonatologist professional associations, and pilot region facilities. The course introduced the core principles of team work and team language to improve patient safety and enhance the performance of medical teams in managing critical conditions. After the trainings, SUSTAIN continued to work with Level II and Level III facilities to institutionalize the team approach.

SUSTAIN also helped MOLHSA develop a monitoring system, including indicators of the effectiveness of regionalization, to track the progress of facilities in applying regionalization principles. At the same time, the transportation system was being developed, tested, and evaluated. A computerized referral program for the MOLHSA call center that provides a centralized list of women and newborns referred was developed. This facilitated tracking the referral process and identifying inadequacies in referral flow and transportation services.

By mid-August 2015, data had come in from the pilot test and were analyzed by SUSTAIN and the Perinatal Care Regionalization Committee. The results once again validated the wisdom of regionalization.

The data examined the percent of early preterm births at Level I and Level II facilities, stratified by gestational age,[5] and showed over 60 percent reduction in the number of infants born at 22 to 27 weeks gestational age in Level II facilities and 54 percent reduction in infants born at 28 to 33 weeks gestational age in Level I facilities.

This is a positive trend since regionalization of high-risk perinatal care resulted in concentration of care for preterm infants and other high-risk babies.

[5]The data examines infants born at 22 0/7-27 6/7 weeks and 28 0/7-33 6/7 weeks.

Step Three: countrywide change and systems reform. Based on the positive results of the pilot, it is clear that regionalization of perinatal care is an appropriate and effective path to improve maternal and neonatal outcomes. Geographically distributing maternal and newborn care facilities equitably and integrating risk-appropriate antepartum, intrapartum, and postpartum services can be done. This is in line with experiences in the U.S., Western Europe, and many other countries.

SUSTAIN's work with MOLHSA on the pilot accomplished a number of important things. The detailed criteria set for each level of care were validated, as was the basic architecture of a transportation system. At the same time, the pilot noted a series of deficiencies in hospitals along the continuum, which pointed to an ongoing need for in-service skills training, particularly urgent neonatal and obstetric interventions. Considerable investments in facility assessments, monitoring, and in-service training will be needed to take regionalization to scale.

Facilities need to be monitored to ensure that they maintain standards and continue to receive their facility rating. The government of Georgia needs to publicize facility ratings. Rating criteria need to be re-assessed every few years, as technology and best practices in obstetric and newborn care evolve.

Finally, the issue of Level 0 facilities must be prioritized and resolved. Not to do so puts both clients and regionalization principles at risk. It is ironic that a country that has embraced privatization in a dramatic way and adopted universal health coverage should be so timid about this important policy step. Hopefully, as the evidence grows, Level 0 hospitals will be upgraded or closed.

The regional quality improvement collaborative approach has sparked a culture of internal quality improvement within Georgia's largest hospital network.

Accreditation and quality improvement

SUSTAIN continued and accelerated its accreditation and QI work with hospital networks, particularly EVEX (the largest hospital network in Georgia). SUSTAIN helped achieve MOLHSA buy-in of the process and fostered collaboration between private sector providers and the ministry of health.

Work on regional QI collaboratives also progressed. The QI collaborative approach is a coordinated improvement effort that helps teams work for a common goal. Throughout the extension period, SUSTAIN organized a series of meetings for EVEX's regional QI collaborative. EVEX central quality management staff and QI teams from EVEX's four largest maternity facilities (Kutaisi Intervention Clinic, Zugdidi Multi-profile Hospital, Batumi Mother and Child Medical Center, and Tbilisi New Life Hospital) gathered to set clinical standards for improvement, and to design, collect, and present data on key problems they had studied: improving antibiotic prophylaxis compliance during Caesarian sections and improving antibiotic prophylaxis compliance in women with premature pre-term rupture of membranes (PPROM). All essential components and staff-related human performance factors that contributed to non-compliance with standard

protocols were studied by the group. SUSTAIN helped the facility-based QI teams develop an antibiotic prophylaxis protocol and evaluation tools and provided technical assistance to implement modern QI practices. The data demonstrated significant positive change in the administration time, duration, and use of appropriate types of antibiotics.

The collaborative approach allowed QI teams from the four EVEX hospitals to share their practices and data and compare their hospital's performance against a series of indicators. It also gave them a strong sense of professional accomplishment. The collaborative has sparked a culture of internal quality improvement within EVEX, and central management has expressed a desire to replicate the process in other medical disciplines beyond perinatal care. QI efforts give EVEX and other partners a demonstration of how compliance with standards and protocols can be monitored, studied, and managed.

SUSTAIN also collaborated with EVEX on implementing perinatal accreditation. This accreditation is based on a JCI model but will not be JCI accreditation per se. SUSTAIN worked with JCI to develop perinatal care accreditation standards with measurable elements for EVEX. SUSTAIN then conducted an intensive training based on the standards for 15 EVEX perinatal care accreditation surveyors. The aim was to provide in-depth understanding of the concept of accreditation, standards, measureable elements, survey methodology, and interviewing, observation, and document review skills. Mock surveys gave participants the opportunity to observe the complete survey process, work with various information gathering tools, and gain practical experience.

EVEX management is working to establish a unit that will have the authority to accredit network facilities. This is a huge step forward, and hopefully other hospital networks and eventually the Georgian government itself will embrace and implement accreditation as a means to verify quality of care.

Medical education reform

Details on the evolution of SUSTAIN's work in medical education are provided in section II. As per the extension scope of work, the SUSTAIN team continued to improve medical education during the final year of the project. One of the last contributions was a set of modules on patient safety and quality of care, which were specifically requested by TSMU. In addition, in partnership with the University of Oslo, SUSTAIN continued to expand the OSCE and other medical education innovations. It is hoped that the University of Oslo and other collaborators will continue to support their support. A well-trained medical workforce is necessary for continued advancement of the sector.

RAMOS II and NCDC capacity building

In 2008, JSI, working with the U.S. Centers for Disease Control and Prevention (CDC) and the Georgian National Center for Disease Control and Public Health (NCDC) undertook a Reproductive Age Mortality Study (RAMOS). This massive task involved identifying all deaths of reproductive age women (15-49) in 2006 (recorded and unrecorded, harmonizing various data sources); investigating health facilities and communities; conducting verbal autopsies; recoding reasons for death; and entering and analyzing the data.

The stated reason for the study was to verify the maternal mortality ratio, which turned out to be in line with WHO estimates and two times higher than Georgian government estimates. RAMOS accomplished this aim and ended up being so much more important and a rich source of public health information. It exposed huge

Better organization of care (**regionalization**, more **timely referrals**, **ability to recognize obstetric emergencies and danger signs**) could have helped prevent **57 percent of maternal deaths**.

deficiencies in vital registration and reporting/investigating maternal deaths. It gave impetus to ongoing efforts to improve vital registration, and a cadre of Georgian researchers and coders was trained. Results shocked the Georgian health community. The single biggest cause of death was not heart failure (as it seemed from records), but breast cancer. Likewise, data on traffic fatalities and violent death led to policy change, such as a mandatory seat belt law. It was in every way a seminal research event.

The RAMOS 2014 study was undertaken with funding and support from SUSTAIN and is the second national study looking at deaths of women of reproductive age (WRA). It is based on 2012 data. Methodologically, RAMOS 2014 is similar to the 2008 study with one crucial difference: it was conducted entirely by Georgian researchers from the NCDC and JSI. This is a capacity development triumph. RAMOS 2014 marks the first time the NCDC designed and implemented such a large, population-based study.

Because researchers knew what information they could harvest from the study, RAMOS 2014 had broader expectations. It aimed to identify the magnitude of maternal mortality and assess changes since RAMOS 2008, as well as identify the causes of maternal death. It also set out to evaluate the existing civil registration system, assess facility-based standards of care for women experiencing complications from pregnancy and abortion, and provide recommendations for policy makers.

RAMOS 2014 found that nearly all deaths (98 percent) of WRA were registered by Georgia's vital registration system. This is a significant improvement. Cancer caused the deaths of 45.3 percent of WRA, more than any other category of mortality. Breast cancer still leads cancer deaths. Other leading causes of mortality were external causes (18.5 percent), mainly traffic accidents and homicides, and circulatory system diseases (13.2 percent). Relative proportions of deaths from various causes did not change significantly from the findings of RAMOS 2008.

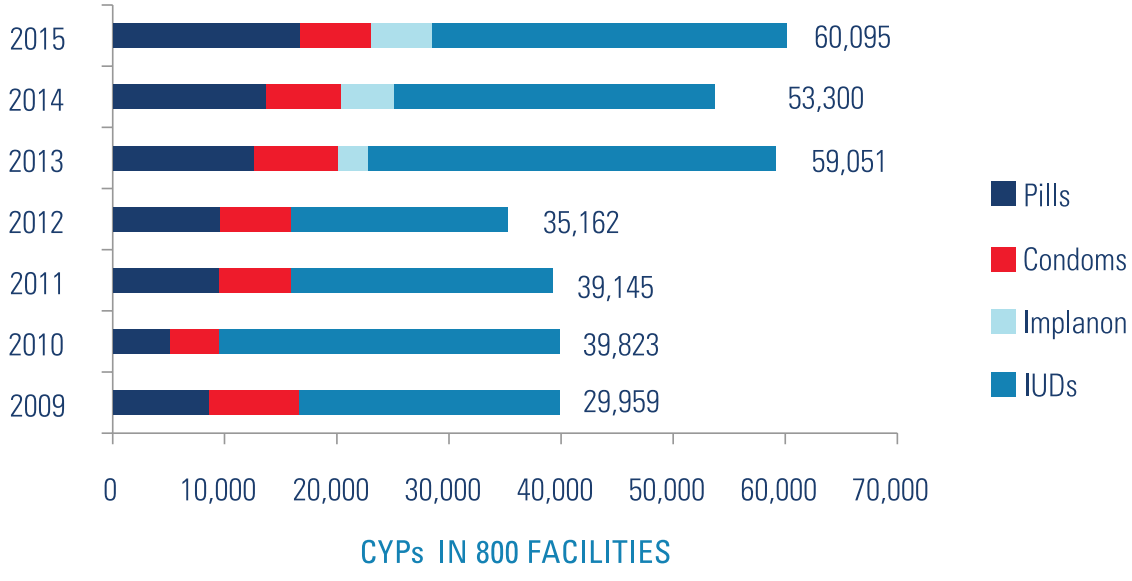
Georgia's maternal mortality ratio compares well with other countries in transition, but distribution patterns and causes show that in cases of infection and severe obstetric hemorrhage, Georgia resembles less developed countries. Substandard care by health providers remains the most important avoidable factor. Better organization of care (regionalization, more timely referrals, ability to recognize obstetric emergencies and danger signs) could have helped prevent 57 percent of maternal deaths. Delays in seeking care were the most frequent patient and family factors, contributing to 30.4 percent of maternal deaths.

Both RAMOS 2014 and RAMOS 2008 make a strong case for continued efforts in regionalization of perinatal care and improvements in quality of care. The future agenda is clear.

Part 4

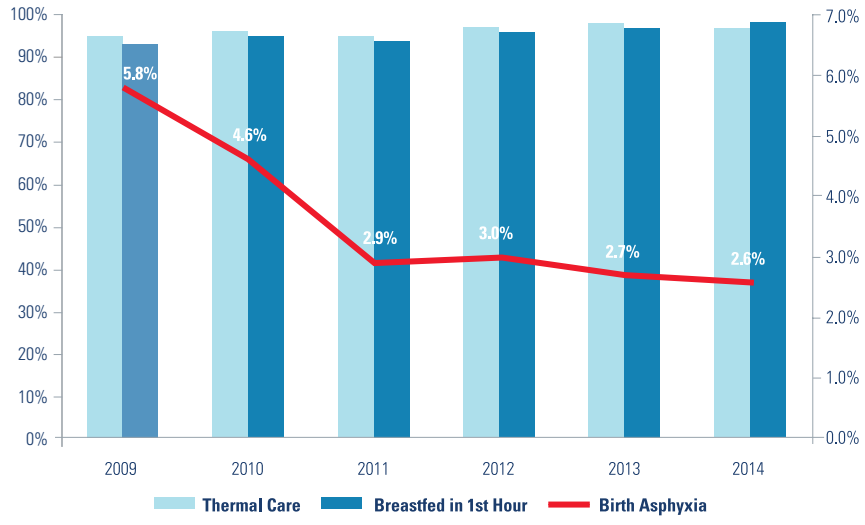
RESULTS

ANNUAL CYP DISTRIBUTION OVER 6 YEARS BY METHOD

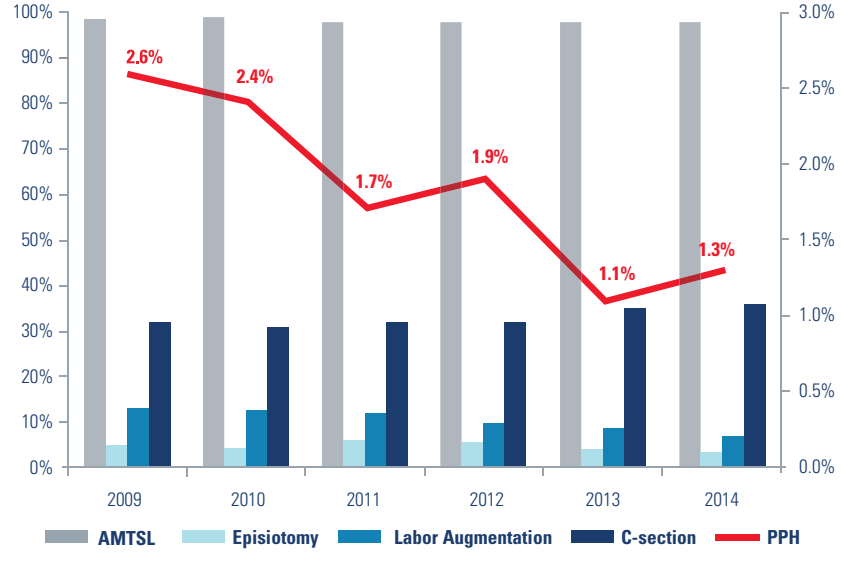


CYP: couple years of protection

6 YEAR CHANGE IN ESSENTIAL NEWBORN CARE

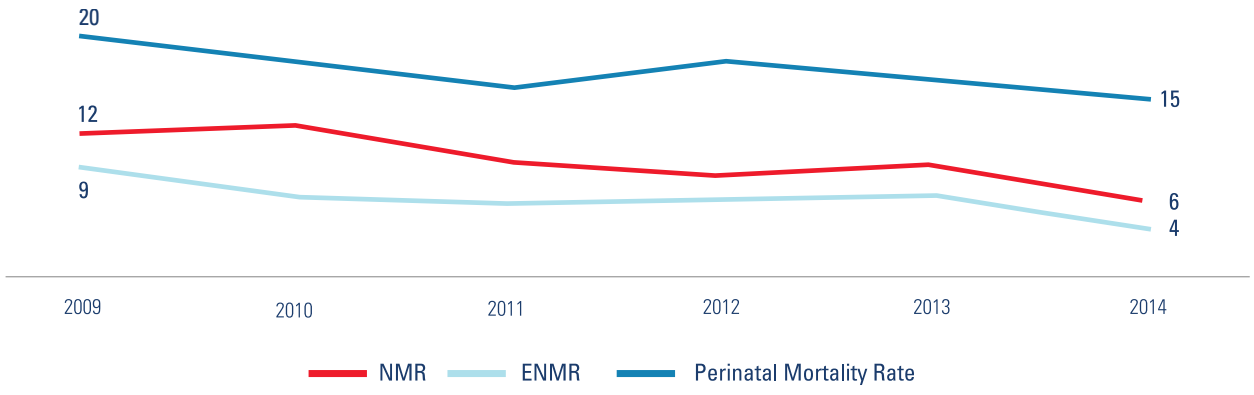


6 YEAR CHANGE IN MATERNAL QUALITY OF CARE



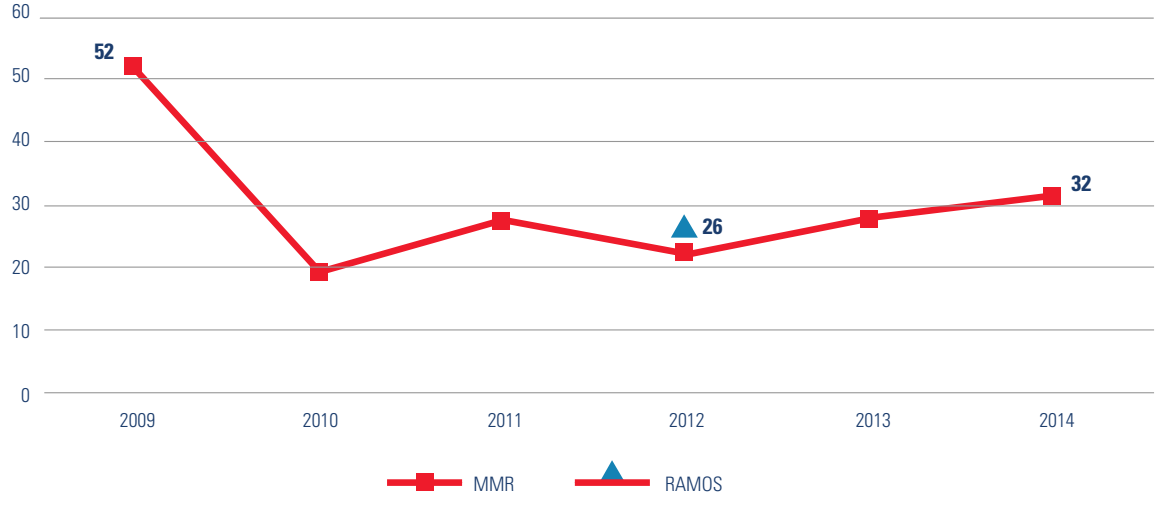
AMTSL: active management of the third stage of labor **PPH:** postpartum hemorrhage

6 YEAR CHANGE IN NEONATAL AND PERINATAL MORTALITY



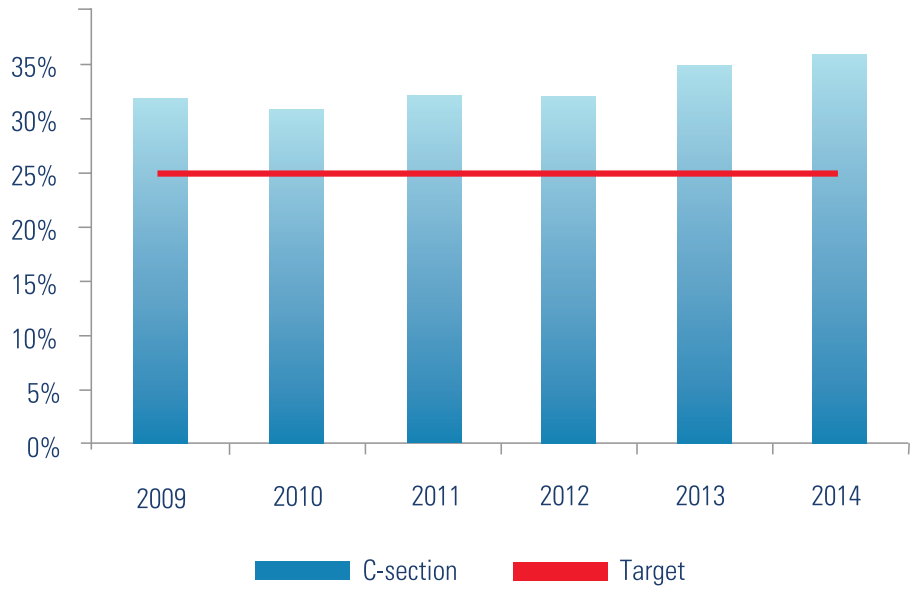
NMR: neonatal mortality rate **ENMR:** early neonatal mortality rate

6 YEAR CHANGE IN MATERNAL MORTALITY

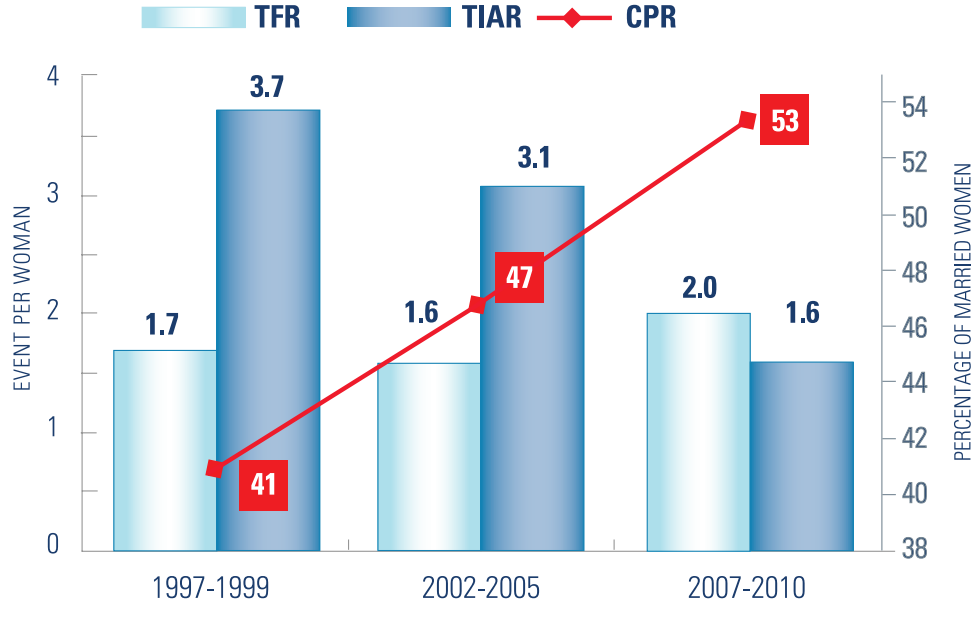


MMR: maternal mortality rate **RAMOS:** Reproductive Age Mortality Study

6 YEAR CHANGE: C-SECTION RATE



CHANGES IN FERTILITY, ABORTION RATE, AND CONTRACEPTIVE PREVALENCE BETWEEN 1999 AND 2010



TFR: total fertility rate **TIAR:** total induced abortion rate **CPR:** contraceptive prevalence rate

Part 5

RECOMMENDATIONS

The story of SUSTAIN's work in Georgia is compelling, as is the data on its achievements in a variety of intervention areas. They indicate increased skills and clinical capacity, physical infrastructure and equipment improvements; access and utilization by the poorest and most rural quintiles of high-quality family planning and other services; new ways of training and teaching in universities; family-centered care; research for evidence-based protocols and tools; and monitoring and evaluation systems that will outlive the project.

Non-quantitative achievements such as internalization of evidence-based medicine and QI in all levels of medical system; the aspiration of accreditation and regionalization of care; changes in provider and client attitudes and behavior; and capacity built at all levels of public, NGO, and private hospitals and clinics are harder to measure. A USAID evaluation found that SUSTAIN had met its objectives and, through its ongoing, excellent relationships within the Georgian medical and professional community, contributed to lasting change.

Leaving behind a stronger civil society is an important factor of lasting change. SUSTAIN not only built the capacity of several Georgian NGOs as discussed above, but also donated useful operational items such as computers, vehicles, and office furniture and supplies after the project closed. NGOs that received these donated items include HERA Women's Health Alliance, Healthy Family in Georgia, and Georgian Medical Group, which is a new recipient of direct funding from USAID.

A USAID evaluation found that SUSTAIN had met its objectives and, through its ongoing, excellent relationships within the Georgian medical and professional community, **contributed to lasting change.**

RECOMMENDATIONS FOR THE FUTURE

Recommendations for Georgia

The U.S. government's health investments are hugely popular in Georgia and widely praised. Few reform efforts have demonstrated as clear and positive an impact. Regrettably, USAID's investments in the health sector are ending at a crucial moment for regionalization scale-up, institutionalization of public-private quality of care mechanisms on a national scale, and policies needing a push to meet EU standards and conditions. We hope that Georgians will continue without USAID's expert advice and partnership, and offer the following recommendations based on the work and legacy of the SUSTAIN project.

Recommendation #1:
Scale up Regionalization Nationwide

The Georgian Ministry of Labor, Health, and Social Affairs should plan and implement a sound strategy to scale up regionalization across Georgia. Scale up efforts should include: 1) establishing a mechanism for the mandatory collecting, analyzing, and reporting on perinatal care regionalization effectiveness indicators; 2) developing a policy for the regular exchange of regionalization information and maternal and newborn quality data in and between the regions; and 3) continuing support for Perinatal Regionalization Committee high-level meetings and reporting on perinatal regionalization implementation. Scaling up regionalization will be required to achieve rapid positive change and significantly decrease preventable maternal and newborn morbidity and mortality in Georgia.

Recommendation #2:
Scale up and Institutionalize QI Approaches and Develop a National Accreditation Program

SUSTAIN introduced modern QI approaches and trained hospitals' top managers, quality managers, and health care providers to use them. In particular, SUSTAIN worked closely with Georgia's largest hospital network, EVEX, to introduce QI approaches with an eye toward accreditation. Yet so much more can be achieved through a national accreditation program open to all health care organizations. As part of this, **the MOLHSA should establish a quality management mechanism that can support health care organizations to develop and implement QI strategies and assess the effectiveness and quality of health services at the primary health care, hospital, and laboratory levels.**

Recommendations for USAID

Recommendation #1:
Focus on EU-Georgia Association Requirements in Health

Given Georgia's regional geopolitical importance, its association and eventual inclusion in the European Union is strongly in the U.S. government's strategic interest. The U.S. government should therefore continue to help Georgia meet the requirements, including health, of the association agreement.

The EU-Georgia Association Agreement, which was signed in June 2014, is an important milestone in EU-Georgian relations. Through this agreement, Georgia has committed to gradual establishment of the European political, economic, social, and legislative standards, which will bring greater economic prosperity, welfare, and stability to the population.

According to Article 47 of the Agreement, "Georgia shall take measures necessary to achieve approximation of the European Union's technical regulations, standards, metrology, accreditation, conformity assessment, corresponding systems and market surveillance system. With a view to integration of its standardization system, Georgia shall use best endeavors to progressively move and ensure that national hospital and health care standards fulfill European standards and other conditions to be eligible for accreditation by the European standards organizations."

In Articles 355 and 356a, the parties agree to develop their cooperation to raise public health safety and protection of human health as an essential component

for sustainable development and economic growth. This cooperation will strengthen the public health system of Georgia, in particular through continuing health sector reform; ensure high quality health care; develop human resources for health; and improve health governance and health care financing.

USAID and its partners can be justifiably proud of their enormous and seminal role in readying Georgia to meet the health terms of EU association. Georgia's health leadership has come to rely on the advice and technical expertise of partners such as SUSTAIN. **USAID should consider providing punctual assistance in crucial areas mentioned in the EU association agreement and at key junctures in the ongoing process.**

Recommendation #2:
Maintain Quality of Care as the Centerpiece of Health Systems Reform and Regulation

QI interventions cannot be time-limited and donor driven. They must be institutionalized and sustained by national programs to strongly signal to providers that quality care is not optional. This can be done in multiple ways, some of which were introduced and piloted by SUSTAIN. But these need to be scaled to national level.

The Georgian government has focused increasingly on improving the quality of health care and assuming its role in regulation and quality assurance. In 2014, the MOLHSA developed a seven-year (2014-2020) health sector strategic plan entitled "Universal Health Care and Quality Management for Protecting Patients' Rights,"[6] which outlines key directions for health sector reforms.

The plan's "Strategic Direction 1 – Improving Stewardship of Health Sector," identifies health care quality improvement as a key objective. This includes supporting evidence-based clinical practice and strengthening regulatory mechanisms. This will include introducing standardized national quality indicators and a health facility accreditation process, and developing internal MOLHSA quality improvement teams to lead the reform.

Large private health care networks want to participate in quality initiatives. For example, EVEX Medical Corporation is particularly keen on standards-based management and accreditation of its health services throughout Georgia.

Despite the strong desire to improve quality, Georgia's current health care quality infrastructure remains weak, and there is not enough capacity in the country to help health care teams diagnose and solve systems-based problems related to quality of care. Both government and the private sector are concerned that hospital management personnel lack the skills and expertise to address problems related to the quality of health services and conform to the ministerial order.

Quality improvement in hospitals and health facilities requires a workforce capable of measuring quality, mapping and optimizing processes, leading teams, and managing change, including conflict and resistance to change, which tend to arise whenever new processes or ideas are introduced. Thus implementing the health sector strategic plan and introducing a culture of quality improvement and accreditation will require an investment in training on QI methods and

[6]Health Sector Development Strategic Plan 2014-2020. Ministry of Labor, Health, and Social Affairs of Georgia, Tbilisi, 2014.

Quality improvement mechanisms must be scaled to national level to ensure that childbirth continues to become safer and safer for mothers and newborns.

building MOLHSA capacity to manage and oversee the process.

Quality improvement is now and should continue to be a major priority of both the government of Georgia and private sector hospitals. Nevertheless, huge challenges remain. As the largest, longest standing and most respected international donor in the health sector, **USAID should consider either making selected, strategic investments in this area, or using its influence to encourage other bilateral or multilateral donors to provide specific technical support.** Georgia has come very far; the time is ripe to consolidate gains.

Recommendation #3:
Share Georgia's Story

Since 2002, Georgia has made an extraordinary journey in MNCH, family planning, women's health, privatization, and health systems reform. More recently, Georgia has taken on universal health coverage, regionalization, regulation, and quality of care. Results have been impressive, but the process may be even more interesting for middle and lower income countries, within and outside Eastern Europe. Progress has not proceeded without setbacks, missteps, and abrupt policy shifts. Yet these too provide useful lessons.

Georgian colleagues would never claim to have a definitive "roadmap." They are still struggling with challenges of regionalization, quality of care, health financing, medical education, and consolidation of gains. Nevertheless, they are thoughtful about the process, and their story could help others. Two areas that are particularly relevant for health sector reform in middle-income countries are regionalization and accreditation. Georgia has solid experience and advice in these areas.

USAID should consider mechanisms to share these experiences in countries facing similar challenges. Its withdrawal from active funding of the Georgian health sector should not mean a loss of lessons for the wider development community.

This report started with a declaration of thanks, and it will end with one. JSI acknowledges, once again, the funding, encouragement, and technical support USAID has provided throughout the HWG and SUSTAIN projects. It has been the best kind of partnership: respectful, results-oriented, and effective. Thank you.

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