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USAID
ASSIST PROJECT
*Applying Science to Strengthen
and Improve Systems*

USAID ASSIST Project

Georgia Country Report FY15

Cooperative Agreement Number:

AID-OAA-A-12-00101

Performance Period:

October 1, 2014 – April 30, 2015

JUNE 2015

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DISCLAIMER

This country report was authored by University Research Co., LLC (URC). The views expressed do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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For more information on the work of the USAID ASSIST Project, please visit www.usaidassist.org or write assist-info@urc-chs.com.

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Abbreviations

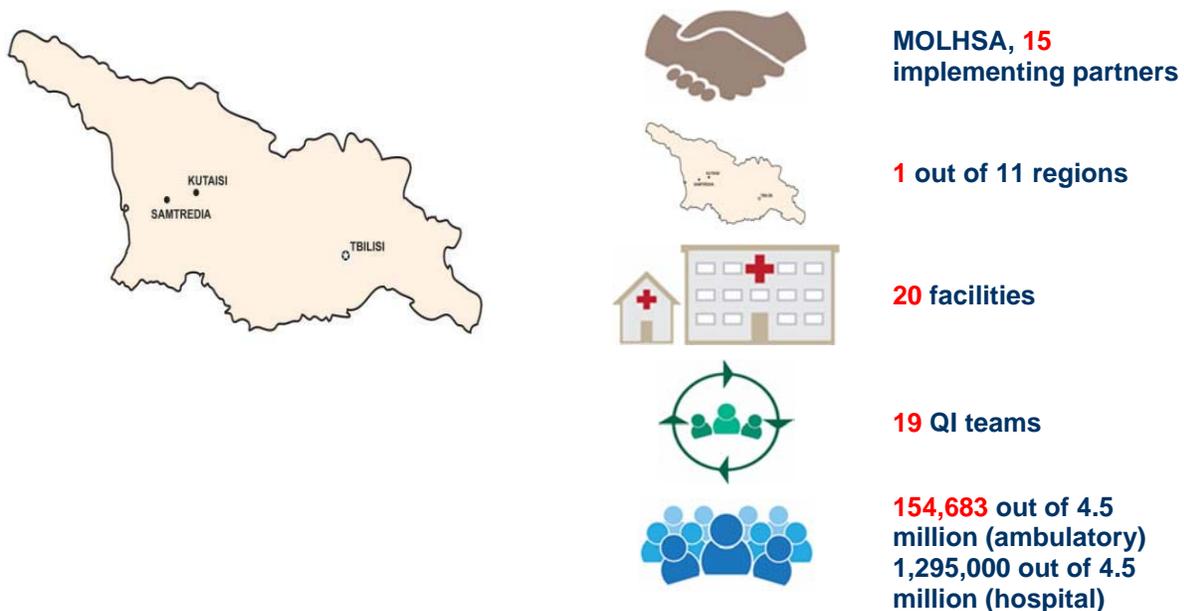
ACS	Acute coronary symptoms
ASSIST	USAID Applying Science to Strengthen and Improve Systems Project
BP	Blood pressure
CAD	Coronary artery disease
COPD	Chronic obstructive pulmonary disease
CPD	Continuous professional development
CVD	Cardiovascular disease
EB	Evidence-based
ECG	Electrocardiogram
HCI	USAID Health Care Improvement Project
MoLHSA	Ministry of Labor, Health, and Social Affairs
NCDC	National Center for Disease Control and Public Health
QI	Quality improvement
RTI	Respiratory tract infection
URC	University Research Co., LLC
USAID	United States Agency for International Development
WHO	World Health Organization

1 Introduction

The USAID Applying Science to Strengthen and Improve Systems Project (ASSIST) Project started full-scale activities in Georgia in August 2014, building on work carried out under the USAID Health Care Improvement Project (HCI) from 2011-2014. ASSIST worked with the Ministry of Labor, Health, and Social Affairs (MoLHSA) and other stakeholders in Georgia to address quality, consistency, and continuity of medical care; to improve access to and use of evidence-based medical information by physicians; and to enhance the availability of modern, evidence-based treatments in one region. In Imereti Region, the project supported hospital and primary care health facilities to improve the quality of cardiovascular disease, asthma, pneumonia, and chronic obstructive lung disease prevention and treatment in adults and acute respiratory tract infections and asthma in children. (Respiratory tract infections are the most frequent cause of seeking medical care in children in Georgia.)

In Georgia, the ASSIST team supported institutionalization of best practices through use of different policy, regulatory, and financial tools nationwide. These included: incorporating high-impact best practices in public and private programs/benefit packages; developing national protocols with audit criteria; and supporting medical record standardization at the national level. These efforts were aimed at creating the capacity of medical facilities in the country (particularly those involved in the project) to implement quality improvement activities without external assistance and to make improvement a permanent, integral part of their health care services.

Scale of USAID ASSIST’s Work in Georgia



2 Overview

What did we try to accomplish?	At what scale?
1. Improve quality, consistency, and continuity of medical care	
<ul style="list-style-type: none"> Improve timeliness, continuity, effectiveness, efficiency, and patient-centeredness of provided services and their consistency with clinical guidelines through application of the collaborative improvement approach in one demonstration region Strengthen capacity of medical providers to provide safe, timely, continuous, effective, and efficient medical care Improve awareness on quality improvement experiences countrywide 	<ul style="list-style-type: none"> Regions: 1 out of 11 (Imereti) Facilities in catchment area: 20 <ul style="list-style-type: none"> - 3 out of 40 hospitals - 4 out of 42 polyclinics - 13 out of 212 village doctors Catchment population facilities/communities served:

What did we try to accomplish?	At what scale?
<ul style="list-style-type: none"> Strengthen health information system to support development of evidence-based decisions on improvement quality of medical care Ensure equitable access to priority “best-buy,” high-impact medical services in one demonstration region 	<ul style="list-style-type: none"> - 154,683 out of 4.5 million (ambulatory) - 1,295,000 out of 4.5 million (hospital) • QI teams: 19
2. Improve access to and use of evidence-based medical information and treatments	
<ul style="list-style-type: none"> Improve access to evidence-based medical literature (guidelines, manuals, pathways, protocols) for Georgian physicians Enhance the use of evidence-based clinical guidelines, protocols, and pathways in clinical practice Strengthen capacity of professional associations in developing and adapting international guidelines and evidence-based literature to Georgian context 	<ul style="list-style-type: none"> Dissemination of evidence for priority conditions to all physicians countrywide

- Improvement Activity
- Cross-cutting Activity

3 Key Activities, Accomplishments, and Results

Activity 1. Improve Quality, Consistency, and Continuity of Medical Care

BACKGROUND

ASSIST worked to improve the quality, consistency, and continuity of clinical care in 17 ambulatory clinics and village solo practices and three hospitals in Georgia’s Imereti Region, with a population of almost 700,000 people. The clinical focus areas were: *Adult*: Cardiovascular disease (CVD), chronic obstructive pulmonary disease (COPD), asthma and their cross-cutting behavioral and physiological risk factors; *Child*: respiratory tract infections (RTI) and asthma. This activity supported the Government of Georgia’s strategic priority to improve the quality of medical services in the country.

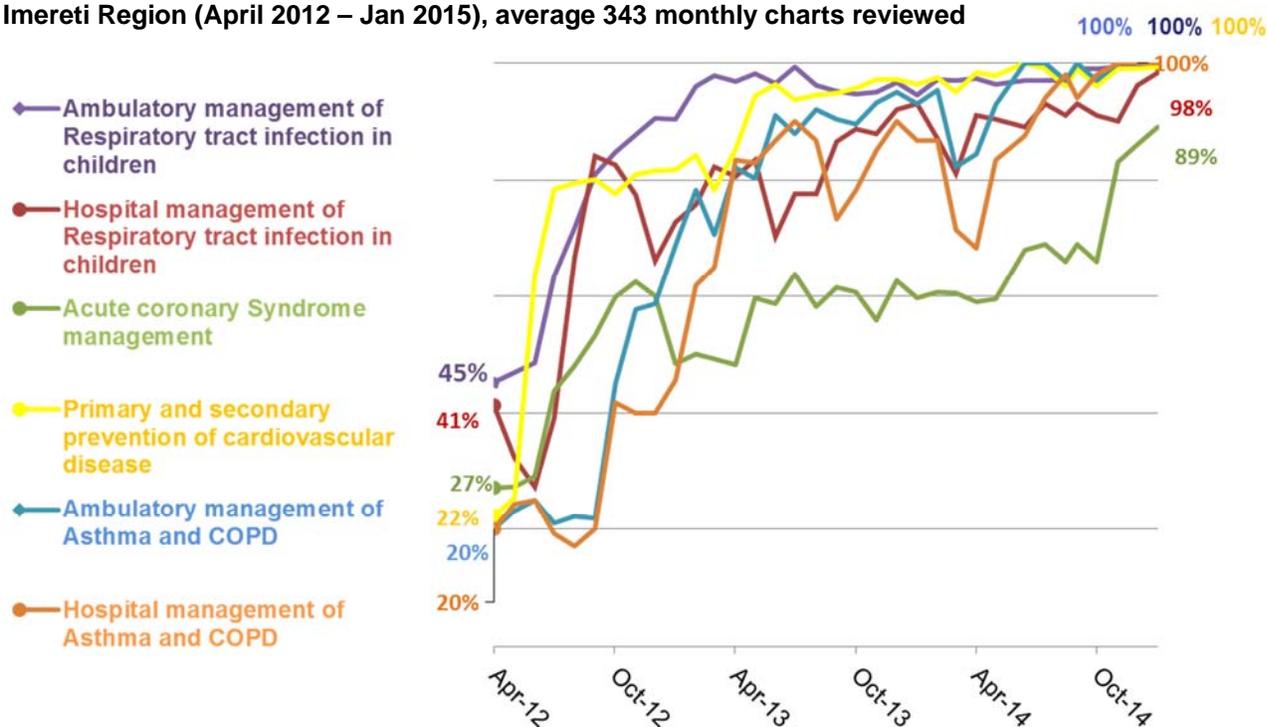
To spread and scale up improvement practices from one region to the whole country, as well as expand the priority clinical content areas, the ASSIST team shared the quality improvement (QI) initiatives, tools, interventions, and experiences through several communication channels (including project website and Facebook page and stakeholder meetings). In addition, the USAID ASSIST team continued the successful collaboration with medical corporations (Geo-Hospitals and EVEX) that own more than two-thirds of hospital facilities in Georgia, including three hospitals and one ambulatory facility supported by the project. By providing regular feedback to the corporations’ management teams on progress made in project-supported facilities and involving their quality improvement structures, working with all facilities of the corporations in project interventions, ASSIST initiated the spread of QI practices throughout these medical networks.

ACCOMPLISHMENTS

- **Provided clinical, quality improvement, and other needs-based training and coaching of ASSIST-supported medical facilities** (October 2014-March 2015). The ASSIST team continued support to quality improvement teams of facilities in the Imereti Region to test and implement changes in their care processes to improve prevention and treatment of CVD, asthma, COPD, and RTIs. From October 2014 – March 2015, the ASSIST team conducted three field trips and delivered 488 provider-hours of training, including:
 - 60 provider-hours in quality improvement
 - 197 provider-hours in CVD risk factor screening and modification, including secondary prevention in patients with coronary artery disease (CAD)
 - 128 provider-hours in acute coronary symptoms (ACS) management

- 62 provider-hours in pediatric pneumonia/acute RTI management
- 84 provider-hours in asthma/COPD management
- **After 34 months of project QI interventions, routine monitoring showed sustained improvement of best care practices in all project priority clinical areas from baseline (April 2012) to January 2015 (Figure 1).** Particularly:
 - Average compliance with evidence-based best practices for screening, prevention, and management of CVD risk factors, reached 99% in January 2015, a 77 percentage point gain from baseline
 - Average compliance with management of acute coronary syndrome best practices reached 89%, a 62 percentage point increase from baseline
 - Average compliance with respiratory tract infection management best practices in ambulatories and hospitals improved by 55 and 57 percentage points, respectively
 - Average compliance with asthma and COPD management best practices in ambulatories and hospitals improved on average by 80 percentage points

Figure 1: Average compliance with all percentage process indicators per clinical focus area, Imereti Region (April 2012 – Jan 2015), average 343 monthly charts reviewed



Routine monitoring results in each clinical focus area complemented the results of the ASSIST study of the “Effectiveness and Cost-effectiveness of QI Interventions in Ambulatory and Hospital Facilities”. This study included an assessment of medical charts, interviews with managers, providers, and patients (parents), as well as key inputs assessments. Along with intervention facilities, comparison sites were chosen in different regions of Georgia to serve as a control group. The baseline assessment was conducted from April-August 2012 and the endline assessment from August-December 2013. The key results of the assessment are summarized below for each clinical area.

a) Ambulatory screening and modification of cardiovascular disease risk-factors:

Figures 2-4 illustrate statistically significant improvement in compliance with best practices after 18 months of quality improvement interventions.

Figure 2. Percentage of medical charts with improved documentation of screening and counselling on CVD behavioral risk factors (n=562) (April 2012-Sept 2013)

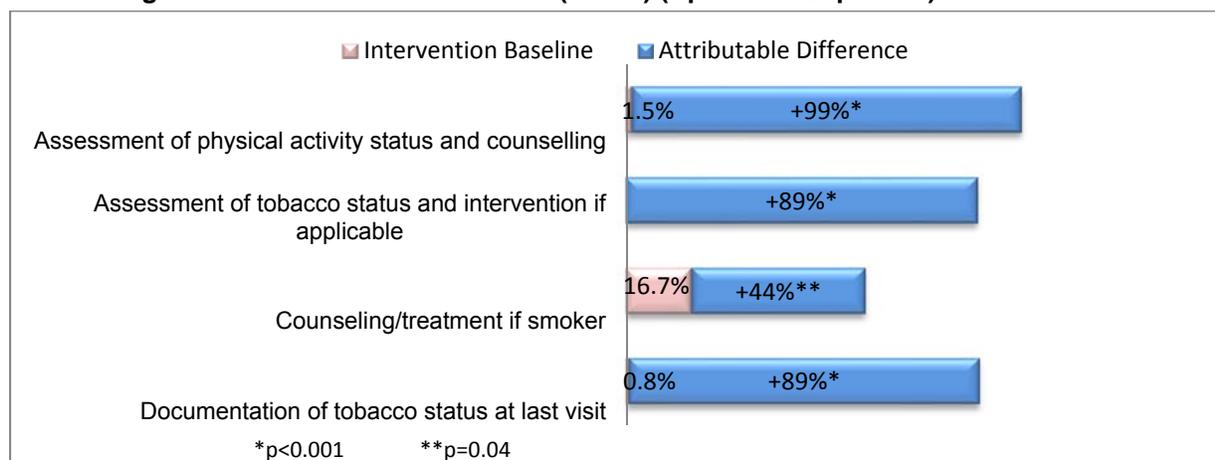


Figure 3. Percentage of medical charts with improved screening and modification of CVD physiologic risk factors (n=562) (April 2012-Sept 2013)

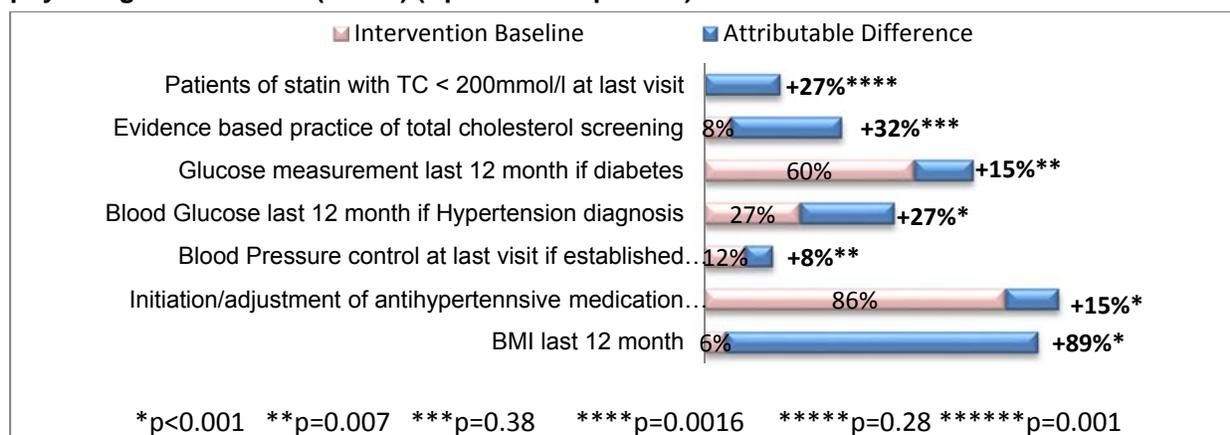
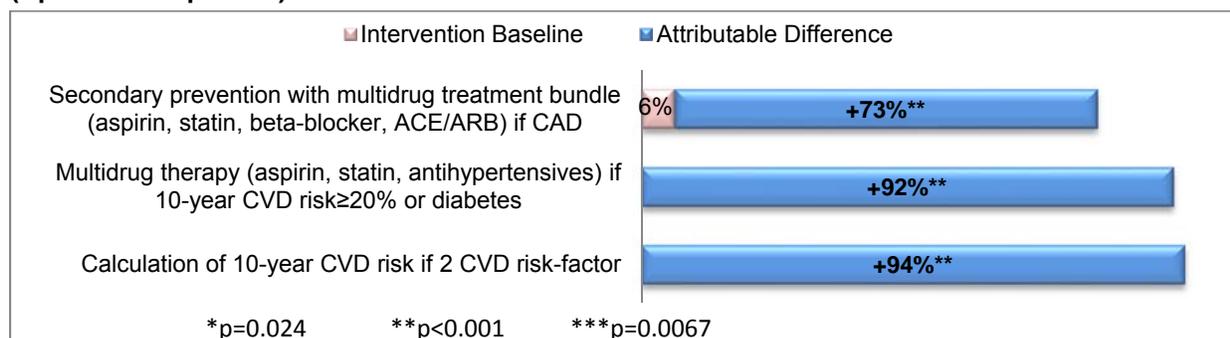


Figure 4. Calculation of 10-year CVD risk and primary and secondary prevention of CVD (n=562) (April 2012-Sept 2013)



b) Hospital Management of Acute Coronary Syndrome:

Despite the high toll of CVD deaths among the Georgian population, according to the National Center for Disease Control (NCDC), in 2013 acute ischemic conditions accounted only for 0.5% of all registered diseases, manifesting problem with access to timely care, diagnosis, and quality of health data. **Figures 5-7** illustrate statistically significant improvement in compliance with best practices after 18 months of quality improvement interventions.

Figure 5. Increasing compliance with ACS initial assessment best practices: Results of baseline assessment and attributable difference at the endline (n=564) (April 2012-Sept 2013)

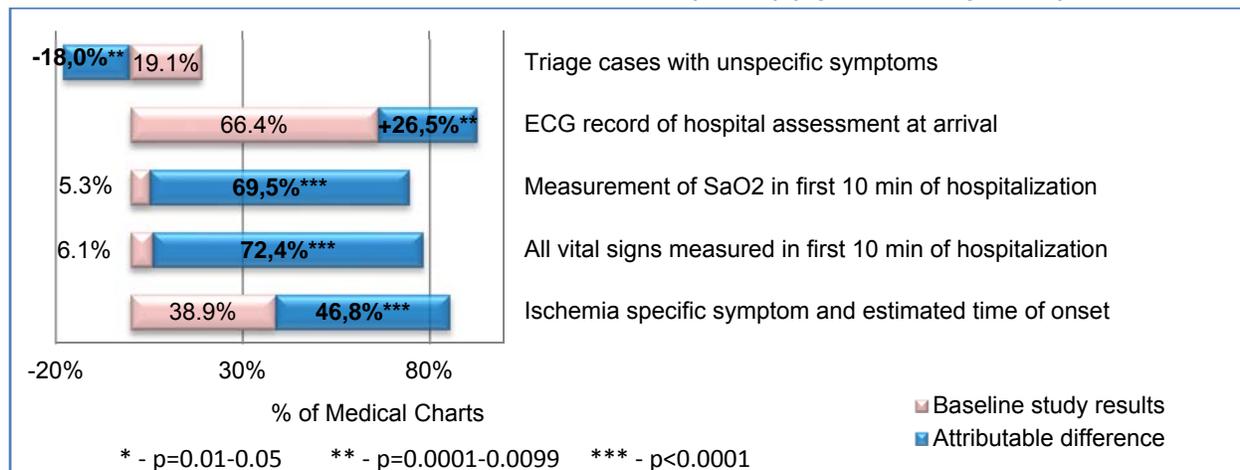


Figure 6. Improved compliance with initial (n=264) and ongoing (n=218) medication treatment and discharge medication prescription (n=217) with evidence-based ACS treatment practices (April 2012-Sept 2013)

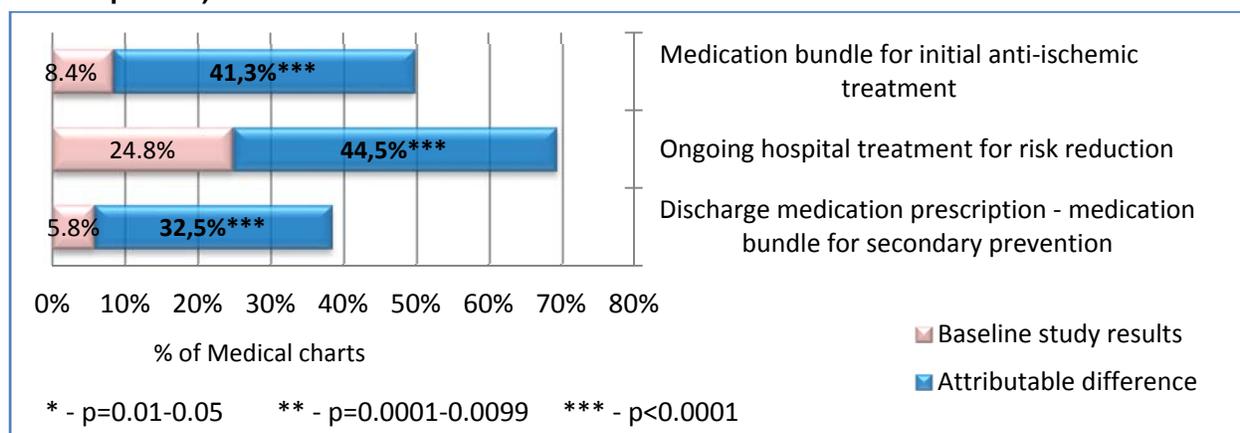
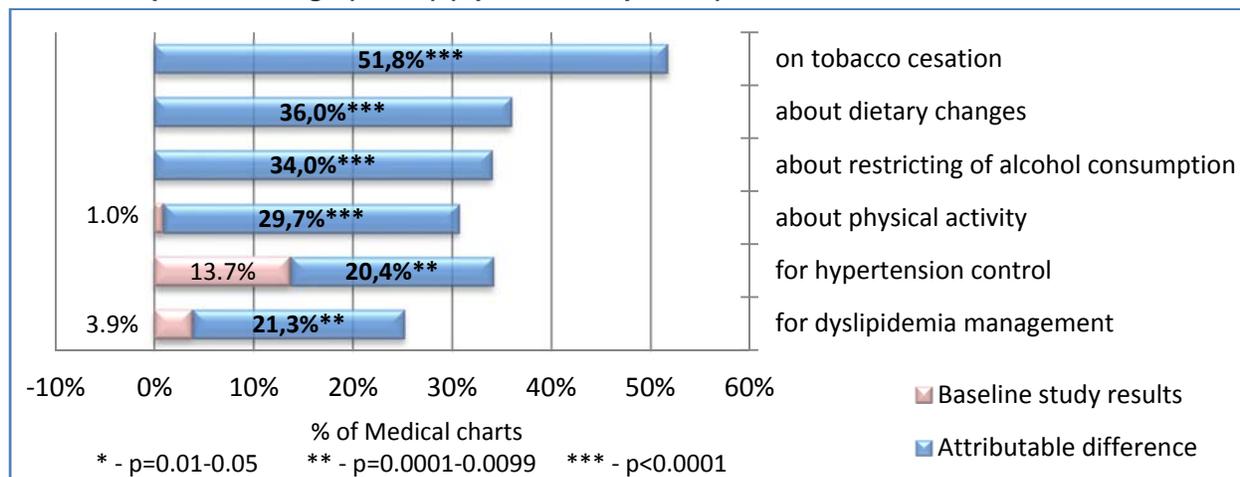


Figure 7. Increased CVD risk factor assessment and modification best practices in patients with ACS at hospital discharge (n=217) (April 2012-Sept 2013)



c) Management of Chronic Respiratory Conditions:

Figures 8-11 illustrate statistically significant improvements in compliance with best practices after 18 months of quality improvement interventions.

Figure 8. Percentage of charts with evidence-based (EB) prescription practices for ambulatory management of COPD (n=109) (April 2012-Sept 2013)

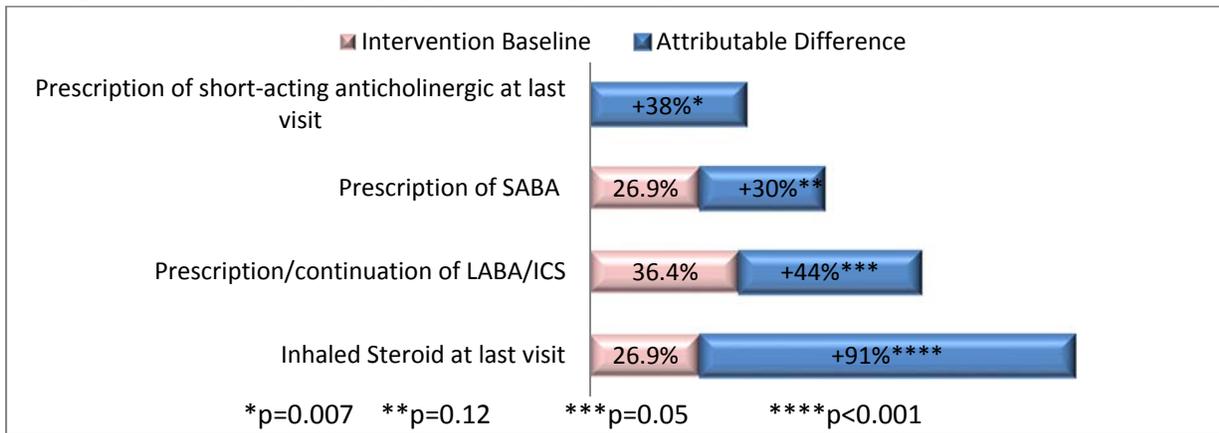


Figure 9. Percentage of charts with EB prescription practices for ambulatory management of asthma (n=225) (April 2012-Sept 2013)

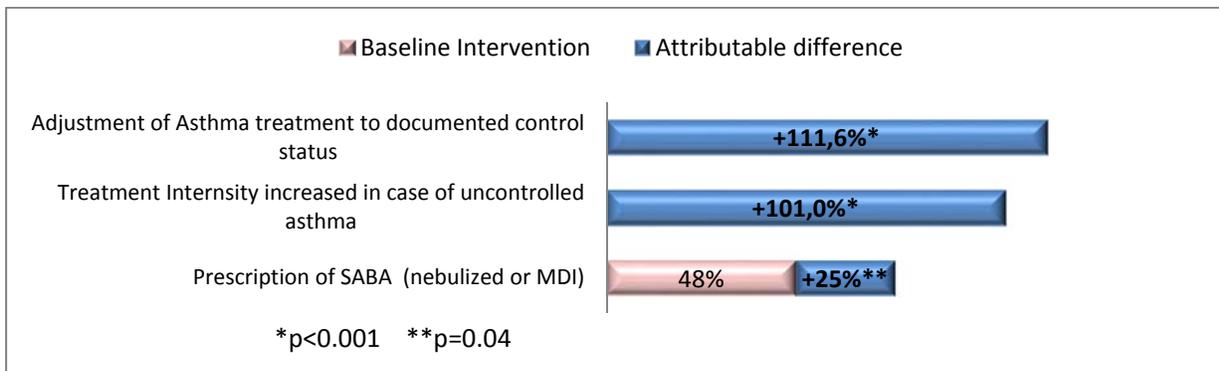


Figure 10. Percentage of charts with EB medication administration practices for hospital management of COPD exacerbation (n=143) (April 2012-Sept 2013)

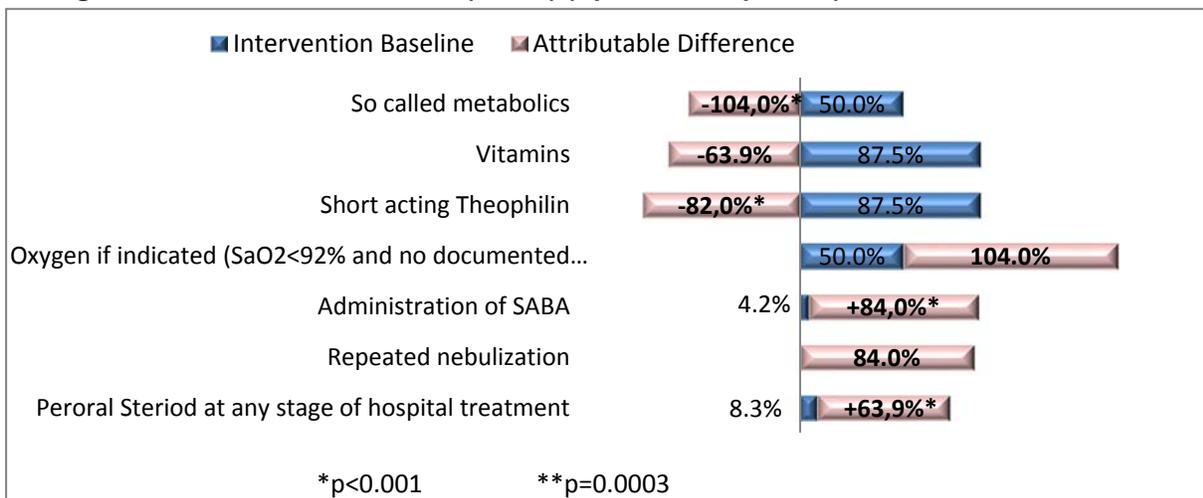
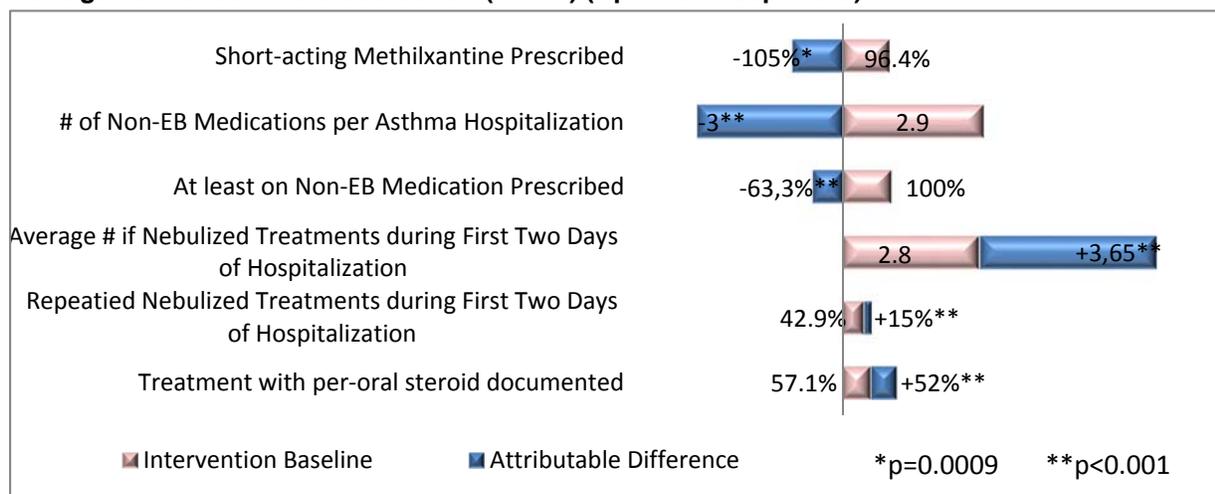


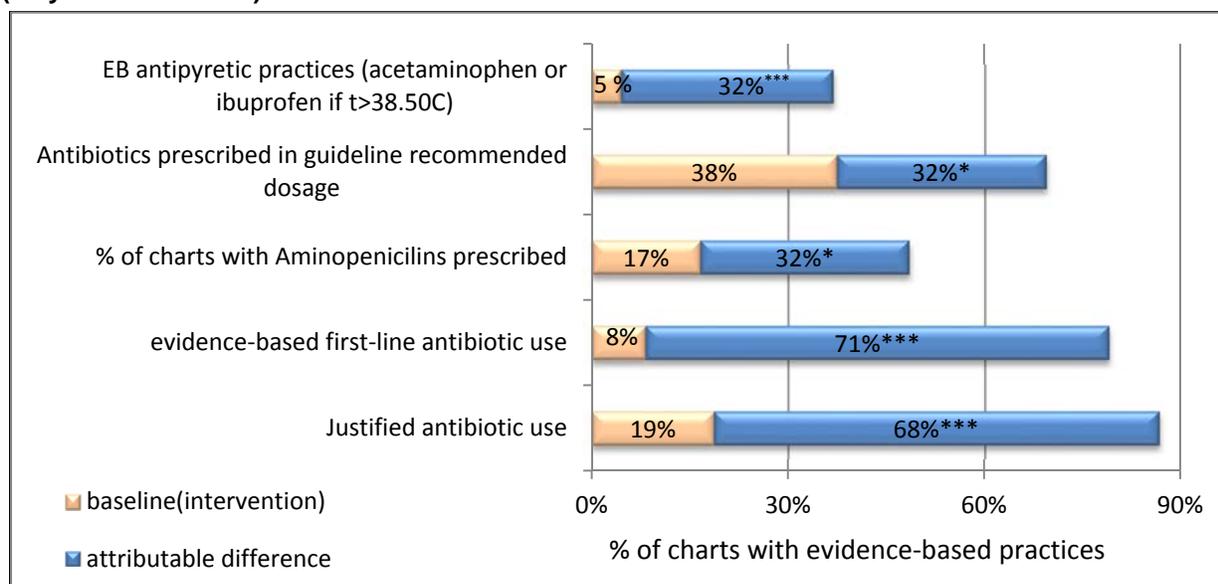
Figure 11. Percentage of charts with EB medication administration practices for hospital management of asthma exacerbation (n=117) (April 2012-Sept 2013)



d) Management of Pediatric Respiratory Tract Infections:

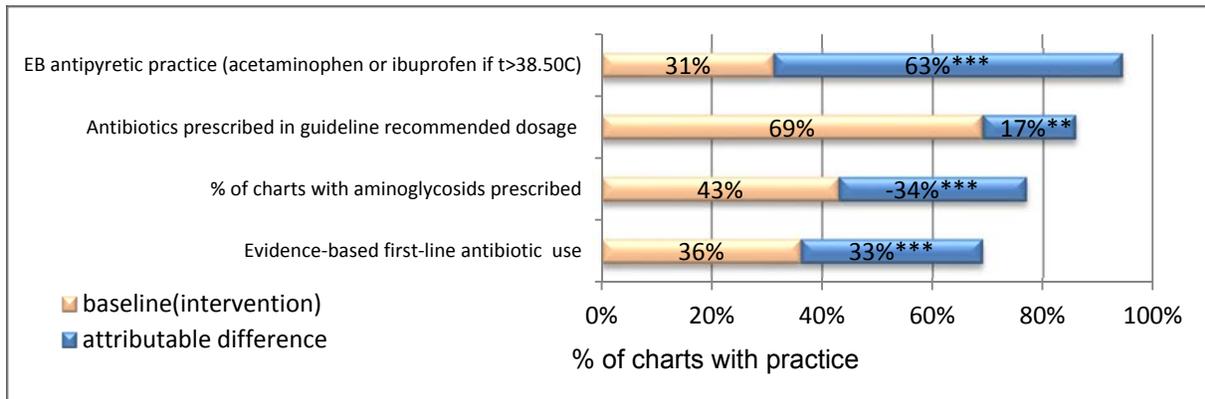
Respiratory tract infections are the most common diagnosis for seeking medical care in children in Georgia. In contrast to many other developing countries, the core reason for inappropriate care in Georgia is not access but overutilization of non-evidence-based (non-EB) medications, particularly antibiotics. **Figures 12-15** illustrate statistically significant improvement in compliance with best practices after 18 months of quality improvement interventions.

Figure 12. Improved compliance with EB practices: Baseline and attributable improvement in compliance with EB practices to treat pediatric respiratory infections at ambulatory level (n=212) (July 2012-Dec 2013)



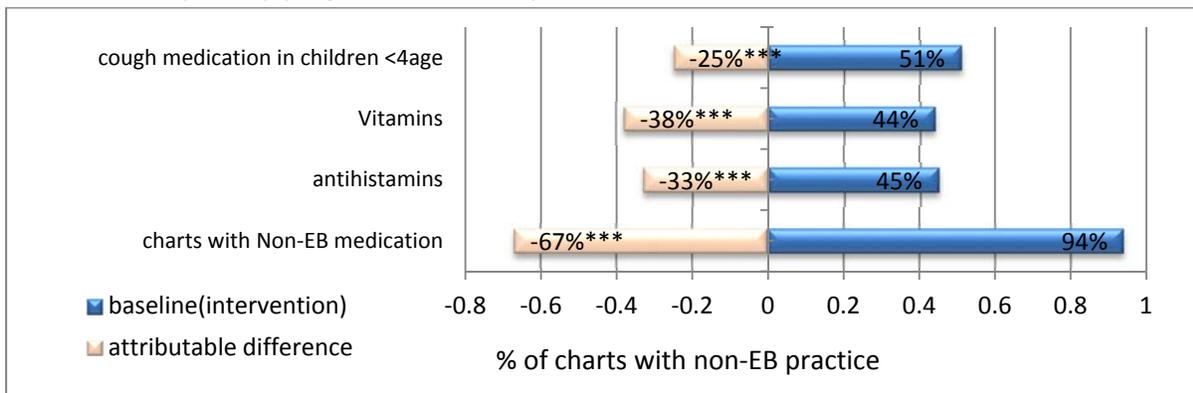
* - p=0.01-0.05 ** - p=0.0001-0.0099 *** - p<0.0001

Figure 13. Improved compliance with EB practices: Baseline and attributable improvement in compliance with evidence-based practices to treat pediatric pneumonia in hospitals (n=274) (July 2012-Dec 2013)



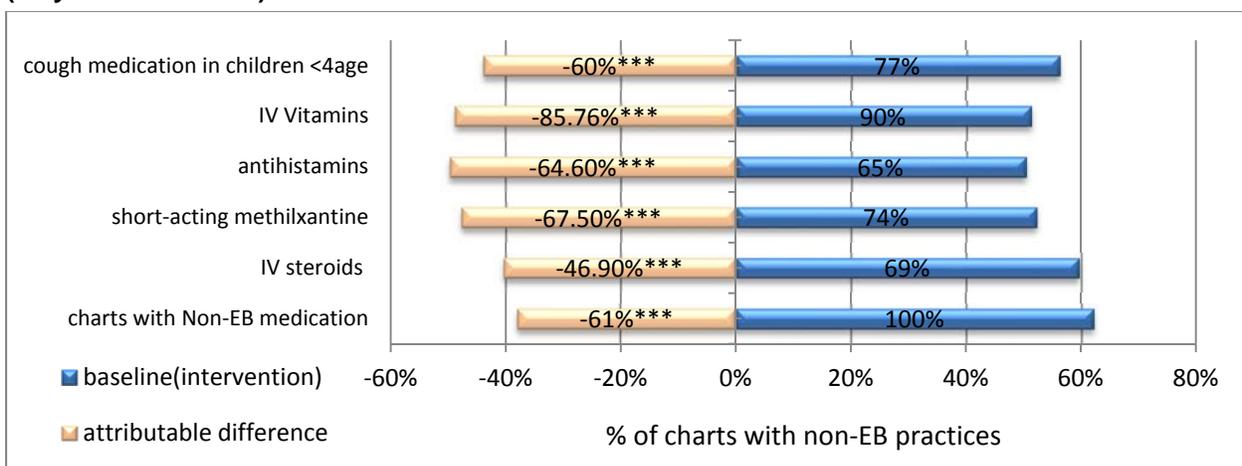
* - p=0.01-0.05 ** - p=0.0001-0.0099 *** - p<0.0001

Figure 14. Decreased use of non-EB practices: Baseline and attributable improvement in prescription of non-EB medications for pediatric patients with respiratory infections at ambulatories (n=212) (July 2012-Dec 2013)



* - p=0.01-0.05 ** - p=0.0001-0.0099 *** - p<0.0001

Figure 15. Decreased use of non-EB practices: Baseline and attributable improvement in administration of non-EB medications for pediatric patients with pneumonia at hospitals (n=274) (July 2012-Dec 2013)



* - p=0.01-0.05 ** - p=0.0001-0.0099 *** - p<0.0001

The figures above also indicate that in addition to improved compliance with care practices, there were statistically significant decreases in the use of non-evidence-based medications and diagnostic tests in all project priority clinical areas. In addition to the improved safety and rational use of medications, these results created the important opportunity to decrease the cost of treatment for payers (patients, insurance companies, medical care facilities, employers) and the associated economic benefits for society. The medical chart review results from the abovementioned assessment corroborate not only with routine monitoring results but also with the interview results of care providers and patients. For example, provider interview results demonstrate improved knowledge and practices in management of project priority diseases (Table 1).

Table 1. Knowledge and self-reported practices of medical care providers for project priority diseases in intervention ambulatory care clinics and hospitals (April 2012 – Dec 2013)

Indicator	Baseline (April – July 2012)	Endline (Sept – Dec 2013)	Attributable improvement
Acute Coronary Syndrome			
% of providers who correctly answered questions on ACS treatment medications	0 n=10	61.11% n=18	+61.11% p<0.001
Average number of correctly answered questions on ACS management (mean, 95%CI)	8.7 95%CI (3.99-13.40) n=10	35.66 95%CI (34.5-36.8) n=18	+28.25 p<0.001
Average number of incorrectly answered questions on ACS management (mean, 95%CI)	44.9 95%CI (39.7-50.1) n=10	9.5 95%CI (8.2-10.8) n=18	-37.25 p<0.001
Ratio of correctly and incorrectly answered knowledge questions on ACS management (mean, 95%CI)	0.21 95%CI (0.08-0.3) n=10	4.07 95%CI (3.4-4.7) n=18	+3.93 p<0.001
Asthma/COPD			
% of providers who correctly answered questions on stepwise treatment of asthma	31.3% n=67	78.1% n=64	+47.93% p<0.001
% of providers correctly answered questions on tobacco cessation medications	16.9% n=53	61.8% n=55	+30.8% p=0.006
CVD			
% of providers who self-reported confidence on tobacco counseling and treatment	24% n=34	15% n=34	-27.8 p=0.059
% of providers who correctly answered questions on secondary prevention of CVD	9% n=34	76% n=34	+48.4 p=0.001
% of providers who correctly answered questions on diagnostic criteria of hypercholesterolemia	41% n=32	56% n=34	+45.9 p=0.003
RTI /Pneumonia management			
% of ambulatory care providers who answered correctly all four knowledge questions on RTI management	3.57% n=28	76.92% n=26	+81% p<0.001
Average number of irrelevant assessment procedures reported by providers managing hospital pneumonia in pediatric patients	3.4 95%CI (1.98-4.82) n=28	0 n=26	-
% of providers mentioning 4 essential pneumonia treatment and counseling interventions (antibiotic, oxygen, antipyretic, and vaccination counseling)	0 n=28	100% n=26	+70%

- **Economic Evaluation of Quality Improvement Interventions:** As part of the cost-effectiveness assessment, the project conducted an economic evaluation of QI interventions. An incremental cost-effectiveness evaluation was conducted using decision-tree analysis on each of the variables used to indicate the quality of care provided at each level of care and clinical focus area. Analysis focused on incremental cost-saving from decreased utilization of non-evidence based medications and diagnostic tests (**Table 2**).

The economic evaluation of the project's QI interventions, summarized in **Table 2**, found that while the total cost of the intervention was \$147,258 during 18 months, the intervention *saved four times more* (\$584,000) on decreased prescription/administration of non-evidence-based medications and diagnostic tests. The analysis of incremental cost-savings from decreased utilization of non-evidence-based practices demonstrated that except for hospital treatment of asthma and COPD (where number of patients benefitted from improved care was low), QI interventions show themselves to be far superior to the business-as-usual model from the cost-effectiveness perspective. Simultaneously, these interventions significantly increased the probability of receiving better quality of care.

The analysis of the results of the economic evaluation of QI interventions shows that interventions directed to improve vertically and horizontally integrated care delivery of high-burden adult and pediatric conditions at primary care and hospital levels are more efficient than quality improvement interventions focused on single-disease management and one level of care, since some direct (e.g., travel) and indirect costs (e.g., administrative costs, infrastructure maintenance costs, etc.) of an intervention can be significantly reduced. Analysis also shows that investment in improving quality of care for high-burden diseases (including chronic diseases that need routine follow-up) is more efficient, since cost of the intervention per patient visit is small, with a large number of patients benefitting from the better care.

Table 2. Summary cost results for all clinical focus areas

Dimensions	# of patients	Average cost of QI (medical Facility) (USD)	Total cost of project (HCI/ASSIST) (USD)	Total cost of intervention (project & facility) in USD	Incremental cost-saving from non-EB medications and diagnostic tests (USD)	Total incremental saving from decreased non-EB practices (USD)
COPD ambulatory	1040	1,501	14,391	15.3	22.9	23,862
COPD hospital	210	1,486	9,593	52.8	3.7	770
Asthma ambulatory	1152	1,501	14,391	13.8	25.5	29,376
Asthma hospital	116	1,486	9,593	95.5	7.4	863
RTI ambulatory	26236	8,952	22,484	1.2	4.9	127,802
Pneumonia hospital	1544	6,229	14,989	13.7	12.1	18,614
CVD	303,195	4,401	37,091	0.1	0.9	269,507
ACS	6836	3,663	24,727	4.2	16.6	113,174
Total (USD)			147,258			584,000

- Considering the fact that the associated cost-benefit from QI interventions in the three hospitals and 17 ambulatory clinics is about 584,000 USD, spread and scale-up of QI interventions countrywide would save hundreds of million USD from decreased non-evidence-based practice. Considering that the cost of the demonstration phase of the QI intervention is higher than the cost of its spread in the same number of facilities (due to higher costs associated with assessment of quality gaps, preparation of QI implementation, and development of evaluation tools and materials), scale-up of QI interventions has the potential to achieve even greater cost-savings per patient.
- The results of the effectiveness and cost-effectiveness assessment of the project's QI interventions demonstrated that the QI strategy as implemented was effective and can be scaled up and adapted

across different settings (local, national). Scaling up, sustaining, and institutionalizing proven QI interventions countrywide with a focus on delivering essential, high-impact, cost-effective clinical interventions for high-burden priority diseases will most likely lead to measurable improvement, prevention of high-burden diseases and their complications, reduction in premature death, and associated cost-saving for payers and society.

RESULTS

Table 3 presents the final results achieved by improvement teams supported by ASSIST in Imereti Region.

Table 3. ASSIST performance toward meeting project targets (Mar 2012 – Jan 2015)

Indicator	Target	USAID ASSIST Project Final Results
% of project-supported ambulatories or village solo practices that demonstrate improved quality of care	At least 60% of QI teams demonstrated improved quality of care in at least one targeted clinical content area for at least 70% of routine monitoring indicators (measured as at least 25% improvement or at least 70% compliance with best practices)	<ul style="list-style-type: none"> 100% of QI teams¹ of ambulatory facilities demonstrated improved quality in all targeted clinical content indicators for at least 83% of (10 out of 12) indicators (measured as at least 90% compliance with best practices) ALL facilities reached >90% performance for ALL indicators in at least two out of three project priority clinical areas On average 65-78 percentage point improvement in indicators per clinical focus area <p><i>Source: Consolidated routine monitoring data</i></p>
% of project-supported hospitals that demonstrate improved quality of care	Two out of three hospitals demonstrated improved quality of care in at least one clinical content area for at least 70% of routine monitoring indicators (measured as at least 25% improvement or at least 70% compliance with best practices)	<ul style="list-style-type: none"> All three hospitals reached improvement of at least 80% of process indicators in ALL clinical content area (measured as at least 90% compliance with best practices). On average 60-74 percentage point improvement in indicators per clinical focus area <p><i>Source: Consolidated routine monitoring data</i></p>
Number of medical and para-medical practitioners trained in evidence-based clinical guidelines, including trained in child health (standard indicator from USAID Georgia)	FY2012 target: not specified FY2013 target: 148 FY2014 target: 200 FY2015 target: 50	FY2012 actual: 148 FY2013 actual: 240 FY2014 actual: 300 FY2015 actual: 62 <i>Source: Training registry</i>
CVD risk screening: % of charts of patients with at least 2 documented CVD	CVD risk screening: At least 70% of charts of patients with at least 2 documented CVD risk	100% increase (0/6-Apr 2012, 48/48-January 2015)

¹ Note: 6-7 village ambulatory practices are considered as one improvement team.

Indicator	Target	USAID ASSIST Project Final Results
risk factors documented as risk estimate for CVD event in next 10 years	factors document a risk estimate for CVD event in next 10 years	<i>Source: Aggregated routine monitoring data from all project supported ambulatories</i>
CVD risk reduction: % of charts with CVD risk estimate ≥ 20% in next 10 years or diabetes in which patient initiated/continued on multi-drug treatment (WHO best buy regimen: aspirin, statin, BP medication)	At least 70% of charts with CVD risk estimate > 20% in next 10 years in which patient initiated/continued on multi-drug treatment (WHO best buy regimen: aspirin, statin, BP medication)	100% of charts of patients with CVD risk estimate > 20% in next 10 years in which patient initiated/continued on multi-drug treatment (WHO best buy regimen: aspirin, statin, BP medication) <i>Source: Aggregated routine monitoring data for ambulatory screening and modification of CVD risk factors</i>
Rational antibiotic use: % of medical charts of children treated for RTI demonstrate rationale antibiotic use (use of an evidence-based antibiotic when antibiotic use is justified)	At least 70% of medical charts of children treated for RTI demonstrate rationale antibiotic use (use of an evidence-based antibiotic when antibiotic use is justified)	100% of medical charts of children treated for RTI demonstrate rational antibiotic use (use of an evidence-based antibiotic when antibiotic use is justified) <i>Source: Aggregated routine monitoring data for ambulatory and hospital management of respiratory tract infections</i>
% decrease in average number of non-evidence based medications prescribed per child with acute RTI diagnosis in intervention ambulatory facilities	At least 50% decrease in average number of non-evidence based medications prescribed per child with acute RTI diagnosis in intervention ambulatory facilities	88% decrease in average number of non-evidence based medications prescribed per child with acute RTI diagnosis in ambulatory facilities
% decrease in average # of non-evidence-based medications prescribed in hospitals per pneumonia hospitalization	At least 300% decrease in average # of non-evidence-based medications prescribed in hospitals per pneumonia hospitalization	A six-fold decrease in average # of non-evidence-based medications prescribed in hospitals per pneumonia hospitalization (5.95 in Mar 2012; 0 in Jan 2015) <i>Source: Aggregated routine monitoring data for hospital management of respiratory tract infections</i>
Improve access and use of evidence-based medical information by Georgian physicians and enhanced availability of modern evidence-based treatments	Number of evidence updates developed and posted on project website and Facebook pages in Georgian language	Under HCI: 387 Under ASSIST: 352

SPREAD OF IMPROVEMENT

To address the need to spread and scale up improvement practices from one region to the entire country as well as expand priority clinical content areas, the ASSIST team shared the QI initiatives, tools, interventions, and experiences through different communication channels, including project website and Facebook page and stakeholder meetings. In addition, the USAID ASSIST team continued to successfully collaborate with established with medical corporations (Geo-Hospitals and EVEX) that owned project-supported facilities as well as other ambulatories and hospitals in different regions of the country. The project provided regular feedback to corporation management teams on progress and recommendations for sustaining improvement efforts in respective project-supported sites.

Activity 2. Improve Access to and Use of Evidence-based Medical Information and Treatments

BACKGROUND

This activity responded to limited access to and use of evidence-based medical information by Georgian physicians. To strengthen the capacity of Georgian professional associations and improve access to evidence-based medical information, the ASSIST team facilitated collaboration between Georgian Medical Associations and US professional associations and supported providers to:

- a) Translate and publish evidence-based medical literature;
- b) Support regional collaborative clinical training and supportive supervision; and
- c) Regularly survey relevant international literature and prepare succinct evidence summaries disseminated through project-supported website and Facebook page (as well as written dissemination).

ACCOMPLISHMENTS AND RESULTS

- **ASSIST Georgia developed six technical reports in Georgian language on results of non-randomized controlled assessment of effectiveness and cost-effectiveness of project's quality improvement interventions in different clinical content areas** (Dec 2014 - Feb 2015): 1) Ambulatory and hospital management of asthma; 2) Ambulatory and hospital management of COPD, 3) Prevention and management of cardiovascular disease; 4) Hospital management of acute coronary syndrome; 5) Ambulatory management of acute pediatric respiratory tract infections; and 6) Hospital management of pediatric pneumonia. The reports have been printed and disseminated to key stakeholders, including the Ministry of Labor, Health, and Social Affairs and the National Center for Disease Control and Public Health. During March-April 2015, the project team also developed English versions of the technical briefs in the abovementioned clinical focus areas.
- **To support sustainability and institutionalization of trainings, the ASSIST team worked with relevant professional and non-governmental associations to develop 12 modules for Continuous Professional Development.** During the reporting period, four modules (Management of Asthma in Clinical Practice, Management of COPD in Clinical Practice, Practical and Theoretical Aspects of Spirometry, and Tobacco Cessation and Prevention) that had already been adopted by Tbilisi Medical University and the Counsel of Continuous Professional Development (CPD) at MoLHSA were reviewed and updated based on the latest scientific evidence, in collaboration with the professional medical associations. During Q2 in FY15, eight of the following modules were developed and/or revised and submitted to MoLHSA:
 - 1) Use of Essential Interventions in Initial Assessment, Diagnosis, and Management of Acute Coronary Syndrome
 - 2) Assessment Evaluation and Management of Adult Dyslipidemia in Clinical Practice
 - 3) Implementation of CVD Risk-factor Screening and Modification in Routine Medical Practice
 - 4) Approaches for Accurate Interpretation of Electrocardiogram
 - 5) Evidence-Based Medical Practice
 - 6) Blood Pressure Measurement and Diagnosis of Hypertension
 - 7) Assessment and Management of Coronary Artery Disease
 - 8) Health Care Quality

- **The MoLHSA accredited all abovementioned eight training modules** (April 2015).
- **Continued to upload evidence updates to Evidence-based Medical Portal www.healthquality.ge.** In February 2015, the website originally developed under HCI and subsequently supported under ASSIST was transferred to our partner, the Medical Association for Healthcare Quality, to continue its operation after the project closure. The association assumed responsibility for maintaining the website and sustaining the work begun by USAID ASSIST in Georgia to make available the latest evidence-based medical information, quality improvement methodologies, tools, and experiences to improve the quality of medical care in Georgia.
- **Continued to upload evidence updates on the project Facebook page:** <http://www.facebook.com/USAIDGeorgiaHealthCareImprovementProject>. During the reporting period, the Georgia ASSIST team posted 132 updates on evidence-based management of different clinical conditions. The updates contain links to the original resources on best clinical and QI practices and translated summary evidence updates in Georgian. Currently, the Facebook page has 2003 likes, mostly from medical personnel, professional medical associations, and health care facilities.
- Gathered and systematized more than 700 summary evidence updates, translated from peer-reviewed journals by the project team in Georgia as an e-book and shared it on the project's website: <http://www.healthquality.ge/ka/node/628#.VQBvghCX-QY.facebook>.

4 Sustainability and Institutionalization

The ASSIST Georgia team supported institutionalization of best practices through the use of different policy, regulatory, and cost efficiency tools nationwide. These included:

- Incorporating high-impact best practices in public and private programs and benefit packages
- Developing national protocols with audit criteria
- Supporting standardization of ambulatory and hospital medical charts at the national level and implementation instruments (e.g., flow sheets) for generation, collection, and analysis of primary data for making evidence-based decisions
- Integrating quality improvement indicators in the national health information system, reporting forms and health care system effectiveness appraisal documents
- Including cost-effective interventions (diagnostic tests, medications) of common diseases in publicly funded programs
- Replicating an internal system of quality improvement and evaluation (with strong focus on high-burden clinical conditions and cost-effective interventions) piloted in project-supported facilities owned by private medical corporations in the other medical facilities of the corporations

Our hope is to create the capacity of medical facilities in the country (particularly those involved in the project) to implement quality improvement activities without external assistance and to make improvement a permanent, integral part of their health care services. During February-April 2015, the project developed strategic recommendations for institutionalization, sustainability, and scale-up to share with key counterparts in Georgia.

5 Recommendations

Despite recent efforts of the government to improve access to care, affordability of medical services and pharmaceuticals still remains a problem for the Georgian population. For example, 67% of ambulatory patients reported financial access to medications as a barrier to use. To support improved access to quality health services, USAID ASSIST worked collaboratively with the MoLHSA, insurance companies, and other key national stakeholders to advocate for inclusion of a minimum package of priority “best buy” high-impact medical services and medications in publicly funded programs and private insurance schemes. The key approaches to address health system gaps and linkages used by the ASSIST team in the country have been: 1) use evidence to address the system challenges; 2) involve all key stakeholders in sharing, analyzing systemic gaps, and developing relevant, country-specific strategies to overcome systemic barriers to deliver high-quality medical care in ambulatories and hospitals of Georgia; 3) engage in unceasing efforts to find new solutions and opportunities, when due to changes in the political

environment, almost final programs were stopped or not approved.

The work of the USAID-funded HCI and ASSIST projects demonstrated that there are effective strategies to improve quality of care which are available, adaptable, and spreadable to the local, regional, and national levels in Georgia, as well as for adaptation globally. The spread and institutionalization of the best QI approaches countrywide will result in improved quality management of priority diseases in Georgia, decreased morbidity and mortality, and cost-savings for payers and society. To improve prevention and management of priority clinical conditions, reduce disease burden, and prevent premature mortality, the project offers following recommendations:

- **Reduce modifiable risk factors for non-communicable diseases and underlying social determinants through creation of health-promotion environment:**
 - Promote assessment and early detection of cross-cutting behavioral and physiologic risk factors of NCDs at every clinic visit
 - Reduce tobacco consumption through increased individual and population tobacco control public health interventions, outlined in national tobacco control plan
 - Reduce sodium content in food for catering facilities and food processing industries by development/revision and implementation of relevant regulatory tools
 - Support introduction of limits for trans and saturated fat and sugar content in food for catering facilities and food processing industries by development and implementation of regulatory mechanisms
 - Improve access to health food in wholesale and retail outlets and develop and implement regulatory mechanisms
 - Support a healthy diet in the population (including increased fruit and vegetables and lower sodium consumption) by planning and implementing national information campaigns and social marketing initiatives
 - Increase awareness of population of food content by implementing international labeling standards of Codex Alimentarius.
- **Increase physical and financial access to prevention, diagnosis, and management of priority diseases in Georgia:**
 - Develop sustainable funding and reimbursement mechanisms for prevention, diagnosis, and management of priority diseases by integration of public funding, donor financial support, and innovative funding mechanisms
 - Increase effectiveness and cost-effectiveness of use of mobilized state resources by integrating high-impact, cost-effective services (clinical, diagnostic) for prevention, timely diagnosis, and management of priority diseases in publicly funded health care programs
 - Develop/revise basic benefit package of essential high-impact, cost-effective services and integrate it in publicly funded health care programs and/or private insurance schemes
 - Inform population (beneficiaries) about the services covered by state health programs to ensure effective utilization of benefit package (including diagnostic services, consultations, and medications)
 - Integrate essential outpatient medicines for prevention and treatment of priority acute and chronic conditions in the National List of Essential Medications to address limited treatment compliance caused by limited access/affordability to essential medications
 - Improve access to essential outpatient medicines for prevention and treatment of priority acute and chronic conditions by planning and implementing effective cost-containment and rational medication use strategies (including, but not limited to, support for prescription of generic medications through different regulatory and financial tools, improved rational medication prescription practices through capacity building of medical personnel, and support for patient/parent education activities at population and facility levels)
- **Improve quality of prevention, early diagnosis, and management of priority clinical conditions:**
 - Improve professional knowledge, skills, and practices of medical practitioners in screening, management, and counseling of priority high-burden clinical conditions

- Integrate updated recommendations on evidence-based care of priority clinical conditions into all levels of medical education, including pre-service, post-diploma and CPD programs for health providers, pharmacists, health administrators, and public health providers with close involvement of respective professional associations
- Support increased participation of medical personnel into CPD programs through different regulatory and/or financial tools (e.g., determine providers' participation in CPD programs as one of the main criteria for the accreditation of the health care facilities)
- Develop and initiate standard accreditation/clinical certification programs (including standards, methodology, and implementation tools) for medical facilities through close involvement of professional associations
- o Support continuous quality improvement in medical care facilities
 - Support continuous quality improvement, clinical supervision, and internal clinical audit through establishment of quality improvement teams within medical facilities countrywide
 - Support facility QI teams to assess the quality of care for priority clinical conditions and plan, implement, and evaluate changes in their health care processes to address the gaps and continuously improve quality of care
 - Support generation, collection, and use of clinical data for routine monitoring of progress through integration of key QI indicators for prevention and management of priority clinical conditions in medical charts, routine reporting forms, and national Health Management Information System
 - Revise regulatory tools to ensure quality, safety, and rational medication practices by medical care providers and patients
- o Support access to and use of evidence-based medical information by care providers
 - Develop and implement mechanisms to support close involvement of professional medical associations in development/adaptation of evidence-based medical information applicable for local settings and provide regular coaching to facility QI teams to improve compliance with evidence-based practices
 - Promote compliance with evidence-based practices through development of different policy, regulatory, and financial tools at different levels of health system
- Monitor tendencies in the burden of disease and mortality caused by priority clinical conditions and evaluate the effectiveness of their prevention, early diagnosis, and management practices to support evidence-based decisions at all levels of health system
 - o Define national targets for prevention and management of priority clinical conditions in compliance with national priorities, global targets, and monitoring frameworks
 - o Integrate national targets and their assessment indicators into the national Health Management Information System and promote routine generation, collection, analysis, and use of relevant data for evidence-based policy, program, and clinical decisions
 - o Periodically plan and implement population- and facility-level studies to assess prevention, screening, and management practices for priority diseases
 - o Improve quality of vital statistics and registration of mortality causes through capacity building of responsible personnel and regulatory changes
 - o Strengthen human and institutional capacity in generation, analysis, and use of high-quality clinical data and quality of care assessment results for evidence-based decisions at different levels (medical facility, regional, and national levels)

6 Knowledge Management Products and Activities

- Developed six technical reports in Georgian summarizing results of implementation of quality improvement interventions as well as project recommendations.
- Six CPD modules derived from trainings conducted by the project were submitted to the Continuous Professional Development Board of the Ministry of Labor, Health, and Social Affairs.

- In January 2015, the study dissemination conference was held at NCDC to communicate the results to country stakeholders. Representatives of the MoLHSA, professional associations, medical facilities supported by the project as well as other clinics, insurance companies, international donors, wide range of experts, and other interested parties attended this meeting. The event was widely featured by the medical TV Channel Pulse TV:

<https://www.youtube.com/watch?v=9g4FFI7w784>
<https://www.youtube.com/watch?v=4XwXaUHh79g>
<https://www.youtube.com/watch?v=ijjN2TsHGT2E>
<https://www.youtube.com/watch?v=UGnAQgXXLOA>

- On February 11, 2015, ASSIST conducted the Georgia project close-out ceremony. Different stakeholders from the USAID Mission, MoLHSA, NCDC, professional organizations, and managers and care providers of medical corporations and facilities attended the event. It was featured on national television Imedi TV and posted on the Facebook page of USAID/Georgia:
<https://www.facebook.com/USAIDGeorgia?pnref=story>.
- Produced the technical report, *Scaling Up, Sustaining and Institutionalizing Better Health Care in Georgia: Results and Strategic Recommendations from USAID Support for Improving Quality of Priority Clinical Conditions during 2012-2015*.

7 Gender Integration Activities

In FY15, the project collected and analyzed sex-disaggregated results for ambulatory screening and modification of cardiovascular risk factors from a random sample of ambulatory medical charts of patients over 30 years who visited an ambulatory facility in three polyclinics and 13 medical practices in the Imereti Region and continued to close an identified gender-related gap in CVD risk factor calculation. ASSIST supported teams to continuously monitor sex-disaggregated indicators. By the end of the project, the teams showed there were no gaps between quality of care provided to men and women (**Figures 16-18**).

Figure 16. Tobacco status at last visit by sex, 3 polyclinics and 13 medical practices, Imereti Region practices (April 2012 - Jan 2015)

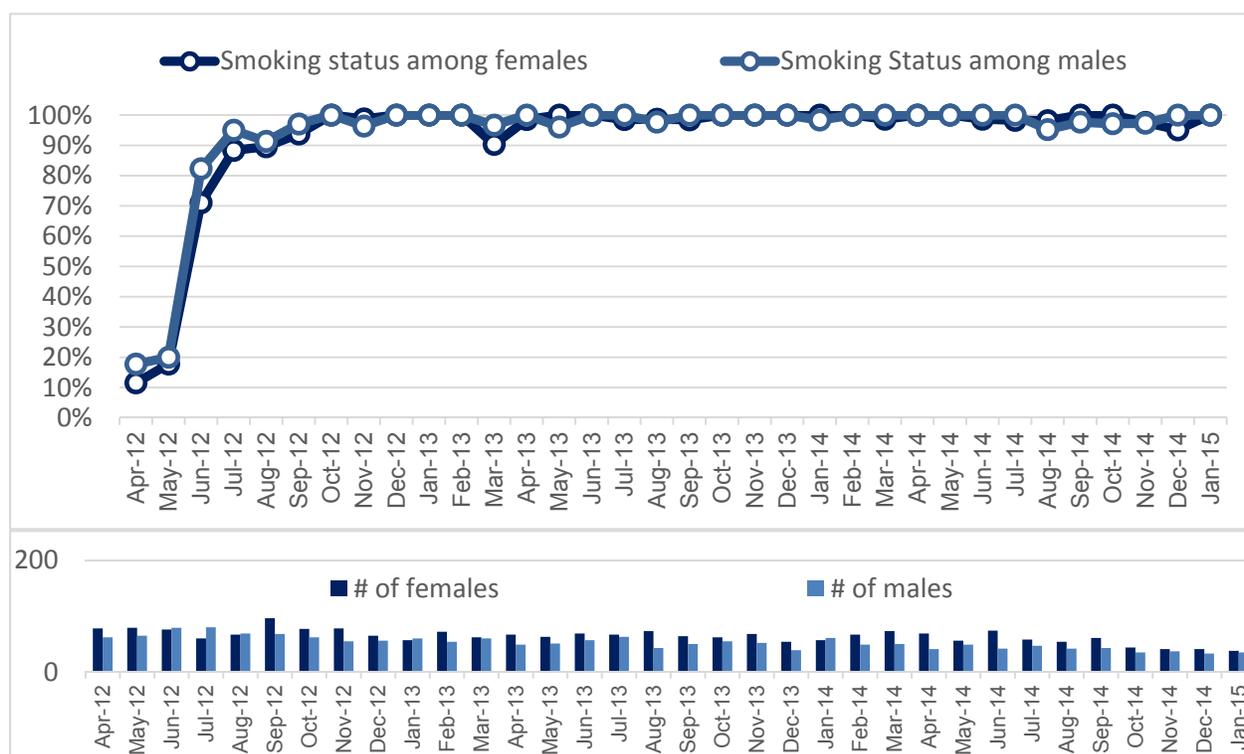


Figure 17. Nutrition and physical activity counseling within last 12 months by sex, 3 polyclinics and 13 medical practices, Imereti Region (April 2012 – Jan 2015)

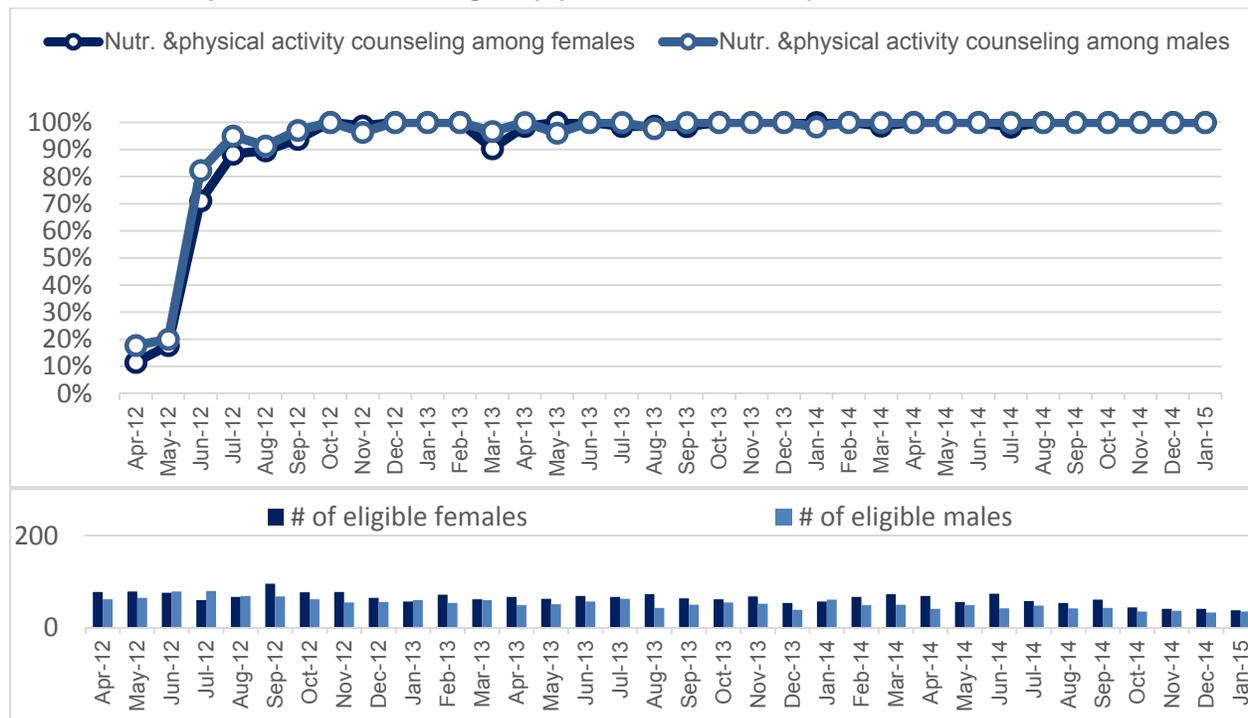
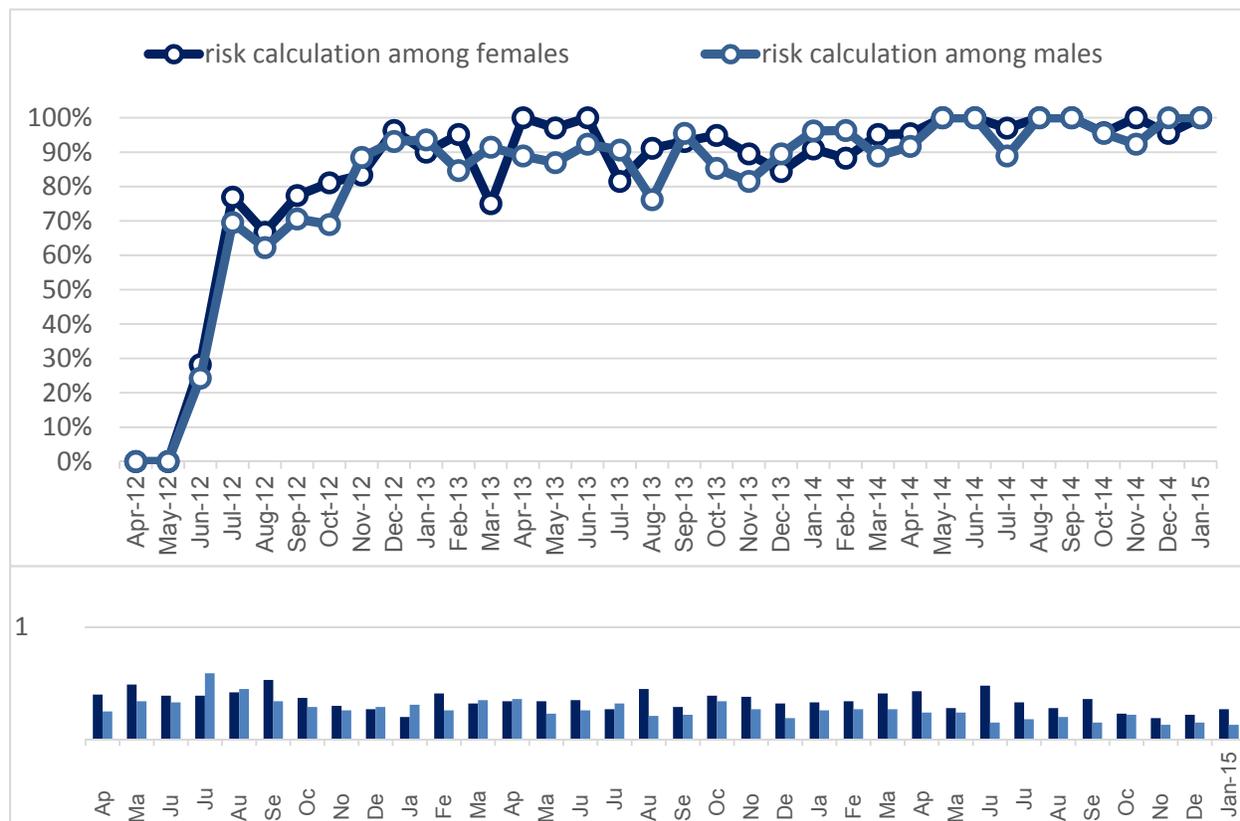


Figure 18. 10-year CVD total risk calculation by sex, 3 polyclinics and 13 medical practices, Imereti Region (April 2012 – Jan 2015)



**USAID APPLYING SCIENCE TO STRENGTHEN
AND IMPROVE SYSTEMS PROJECT**

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