

## **November 2012 QRM style guide—Written Report**

Please **do not reformat** any text! The headings, fonts, bolding, and formatting in the attached template should stay as they were when we sent the template to you. Below is a list of the guidelines for text fonts, sizes and styles in the QRM written report:

- The **country heading** should be in **Arial, Size 16 and Bold** against the green background
- All **headings** (i.e. What are We Trying to Accomplish and at What Scale?, Key Results, etc.) should be in **Arial, Size 12 and Bold**
- Copy **text** in the report should be in Gill Sans MT, Size 11
- Table **text** should be in Gill Sans MT, Size 10, except table headings should be in **Gill Sans MT, Size 11 and Bold**

Thank you. We appreciate your work with the Quarterly Review Meeting written report!

# GEORGIA

## What Are We Trying to Accomplish and at What Scale?

Key activities	What are we trying to accomplish?	How will we know?	Geographic scale
<p>Improve Quality, consistency and continuity of medical care</p>	<ul style="list-style-type: none"> <li>• Improve timeliness, continuity, effectiveness, efficiency, patient-centeredness of provided services and their consistency with clinical guidelines through improvement collaborative approach</li> <li>• Strengthen capacity of medical providers to provide safe, timely, continuous, effective and efficient medical care;</li> <li>• Strengthen capacity of local partners (medical associations, training centers, teaching hospitals and medical schools) to deliver continuous learning opportunities;</li> <li>• Improve awareness on quality improvement experiences countrywide;</li> <li>• Strengthen HIS to support development of evidence-based decisions on improvement quality of medical care;</li> <li>• Ensure equitable access to priority “best-buy” high impact medical services <i>in IC regions</i>;</li> </ul>	<ul style="list-style-type: none"> <li>• Number and % of identified QI gaps addressed through improvement collaborative;</li> <li>• Number and % of health care facilities covered with QI activities through ICs in selected region(s);</li> <li>• Indicators of timeliness, continuity, effectiveness, efficiency and patient centeredness of priority “best-buy” high impact medical services;</li> <li>• Indicators of consistency of priority best-buy” high impact services with evidence-based clinical guidelines;</li> <li>• # of learning sessions conducted with support of HCI team in IC region(s), stratified by provider cadre, facility type and geographic location</li> <li>• # of case studies and other improvement experiences posted on MedPortal with support of HCI team;</li> <li>• # of meetings (including IC meetings) and online discussions held to share QI experiences;</li> <li>• # of quality indicators developed to measure progress of QI interventions;</li> <li>• The set of quality indicators is routinely reported by health care facilities, involved in ICs;</li> <li>• Utilization of priority “best-buy” high impact medical services, stratified by self-reported wealth quintiles <i>in IC regions</i>;</li> </ul>	<p>Dissemination of evidence for priority conditions to all physicians countrywide, Demonstration of QI intervention (CI) to improve quality, consistency and continuity of care in one region</p> <p>Demonstration phase is taking place in 4 hospitals (out of 40), 4 polyclinics (out of 42) and 13 village doctors (out of 212) in Imereti (1 out of 12 Regions of Georgia)</p> <p>This region has 699 890 population</p>
<p>Improve access and use of evidence based medical information by Georgian</p>	<ul style="list-style-type: none"> <li>• Improve access to evidence-based medical literature (guidelines, manuals, pathways, protocols) of Georgian Physicians;</li> <li>• Enhance the use of</li> </ul>	<ul style="list-style-type: none"> <li>• #/% of medical providers having access to evidence based medical information;</li> <li>• # of evidence based medical literature developed/adapted with close support of HCI team;</li> <li>• # of clinical guidelines disseminated through various</li> </ul>	<p>Dissemination of evidence for priority conditions to all physicians countrywide, Demonstration of QI</p>

physicians and enhanced availability of modern evidence based treatments.	evidence-based clinical guidelines, protocols and pathways in clinical practice; <ul style="list-style-type: none"> <li>Strengthen capacity of professional associations in developing and adapting international guidelines and evidence-based literature to Georgian context;</li> <li>Provide technical assistance to hospital and insurance company executives on planning and introduction of new essential medical technologies;</li> </ul>	communication channels; <ul style="list-style-type: none"> <li># of national and regional IC meetings, learning sessions and supportive supervision visits at selected IC sites held to support implementation of approved clinical guidelines;</li> <li>Indicators, measuring compliance of provided priority “best buy” high impact services with screening and treatment guidelines ;</li> <li>Document with recommendations on essential inputs (equipment, laboratory capacity, medicines) to provide priority “best-buy” high impact evidence-based services is developed and shared to ambulatory, hospital executives and insurance companies, that own medical facilities;</li> </ul>	intervention (CI) to improve quality, consistency and continuity of care in one region with 294 number of health facilities
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### Contributing to Attaining the Millennium Development Goals and Indicators

MDG / Indicators	HCI Activities that contribute to the attainment of the MDG
MDG 3 – Promote gender equality and empower women 3.1: Ratios of girls to boys in primary, secondary and tertiary education 3.2: Share of women in wage employment in the non-agricultural sector	<ul style="list-style-type: none"> <li>Support development of evidence-based gender-sensitive interventions through generating, collecting and analyzing the project specific and improvement collaborative (IC) data, stratified by gender;</li> <li>Develop recommendations to decision makers to incorporate quality of medical care indicators, stratified by gender, in National Surveillance and Routine Reporting Systems</li> <li>Analyze, develop and deliver Gender-sensitive strategies through the provider learning sessions in target IC region(s) to support treatment compliance;</li> </ul>
MDG 4 – Reduce child mortality rates 4.1: Under-five mortality rate 4.2: Infant mortality rate 4.3: Proportion of 1 year-old children immunized against measles	<p>Through complex analysis of country-specific mortality, morbidity and disease burden statistics, strengths of evidence and cost-effectiveness of the intervention, identify set of “best-buy” high impact pediatric services;</p> <p>Address the quality of priority “best-buy” high impact pediatric services through project IC interventions, including ensure access to and use of evidence-based clinical guidelines, protocols and pathways, related to priority best-buy” high impact pediatric services;</p> <p>Develop the set of key facility inputs (supplies, medicines, laboratory capacity, equipment) that are essential to deliver priority high impact “best buy” pediatric services in the medical facilities</p>

### Coverage of intervention

Activity	Region Target population/ Total population	District Target population/ Total population	Total facilities covered/ doctors in district	Total number of facilities/doctors in district
	( in 11/12 regions)	(5 of 11 in the region)		

Demonstration collaborative	Imereti Population: 699,890	Samtredia Population: 60,456	1 hospital, 1 polyclinic, 7 village doctors	2 hospital, 3 polyclinic, 16 village doctors
		Kutaisi (city) Population: 192,500	3 hospitals, 3 polyclinics	12 hospital, 14 polyclinic,
		Tskaltubo Population: 73,889	2 village doctors	32 village doctors
		Terjola Population: 45,496	2 village doctors	21 village doctors
		Tkibuli Population: 31,132	2 village doctors	12 village doctors

## Key Results and Program Status during July-September 2012

### Component I: Improve Quality, consistency and continuity of medical care in demonstration region

This quarter Georgia HCI team continued support of facility QI teams through integrated clinical, QI and other needs-based training and coaching of providers at CI facilities.

During the 4<sup>th</sup> quarter of FY12 the project team

*Conducted:*

- One learning session;
- 11 field trips;
- 2027 provider-hour trainings ( including 111 provider-hours in QI methodology and practice, 318 provider-hours in CVD risk factor screening & modification, 159 provider-hours in Acute Coronary Syndrome management, 802 provider-hours in pediatric pneumonia/acute respiratory tract infections management, 817 provider-hours in Asthma/COPD management);

At the beginning of each trainings the project team updates providers on current status and analyzes the results of the past QI activities. The agenda typically also includes case studies, group discussions and assignments, as well as rigorous pre and post-tests (MCQ and case study) to assess existing clinical practice, the impact of the trainings and to identify further training needs.

*Developed 5 medical chart inserts, including:*

- Cardiovascular disease (CVD) risk factors screening and modification sheet (for ambulatory medical charts);
- Chronic diseases summary page (for ambulatory medical charts);
- Acute Coronary Syndrome initial assessment and treatment sheet (for inpatient medical charts);
- Acute Coronary Syndrome ongoing treatment and monitoring sheet (for inpatient medical charts).
- Standard hospital discharge summary form

*Adopted, translated and distributed 25 job-aids and informational materials after starting the improvement interventions:*

Cardiovascular risk factor screening and modification:

1. Change package
2. Hypertension flow sheet,

3. Fruit/vegetable serving size and drinks calculation,
4. Framingham risk table poster,
5. Fagerstrom test for calculating nicotine dependence
6. Instruction CVD risk-factor screening and modification (including filling standard ambulatory medical chart inserts)
7. Patient information material on prevention of heart disease and stroke

Acute Coronary Syndrome management:

1. Change package
2. Instruction on the initial assessment and treatment of ACS (including filling the ACS initial assessment and treatment sheet);
3. ACS clinical pathway.
4. Guidance on Clinical assessment of ACS: chief symptom

Asthma/COPD management:

1. Change package
2. Asthma attack severity assessment table,
3. Asthma control table,
4. Asthma treatment Stepwise approach table and poster,
5. Asthma control test for adult;
6. Asthma control test for children,
7. COPD flow sheet,
8. COPD Assessment Test (CAT),
9. Medical Research Council (MRC) test
10. Spirometry handout

Pediatric pneumonia/Acute Respiratory tract infection:

1. Change package for pneumonia hospital management
2. Change package for Acute Respiratory tract infection ambulatory management
3. Criteria of assessing severity of respiratory status,
4. Pneumonia treatment handouts.

**Third Learning Session**



USAID HCI project conducted The Third Learning Session of Collaborative Improvement in Imereti region on October 2-3<sup>rd</sup>. Along with facility quality improvement teams of regional collaborative, representatives of Ministry of Labour, Health and Social Affairs, National Center of Disease Control, Medical Corporation Managers, USAID Georgian field Mission (acting AOR, Dr. Tamara Sirbiladze) and US Georgian Medical Diaspora (Dr. Olena Ksovreli, Dr. George Kurdgelashvili, Dr. Irakli Giorgberidze and Dr. Alexander Gedevanishvili) participated in the Session. The agenda included:

- 11 presentations on progress and challenges of quality improvement (QI) activities by QI teams,
- 5 summary results in each project priority clinical condition by Georgia HCI project team,
- 4 technical sessions on latest evidence in Asthma, Cardiovascular disease risk-factor screening and modification, Hypertension treatment and Acute Coronary Syndrome, including presentations of medical Diaspora representatives on best screening and care practices of these conditions in the US,
- 4 case study discussions in each project priority clinical content areas on identifying quality gaps and planning, testing, implementing and evaluating changes and etc.
- One discussion forum on the role of wide-spectrum professionals in the US and Georgia hospitals.

During first months of Georgia HCI project implementation in the Collaborative Improvement region, facility QI teams reported 35-100% improvement in compliance with the best care practices. Learning session identified and awarded the best improvement teams in each clinical content area for the first 5 months of Collaborative Improvement interventions. Representatives of facility QI teams highlighted timeliness and importance of Georgia HCI project in improving quality of medical care. “During these months we have learned how requirements of best clinical practices can be incorporated in medical care ensuring that every patient every time receives the needed treatment. Clinical Trainings, Job aids and routine analysis of medical records became important part of our life improving provider performance and job satisfaction as well. We are extremely grateful to USAID technical assistance giving us such wonderful opportunity” — said Maia Ioseliani, pediatrician from Kutaisi 3<sup>rd</sup> Children Polyclinic.

Representatives of Georgian Medical Diaspora in the US were impressed by amount of work done in quality improvement and progress in each clinical area. “It is a pleasure to see how our colleagues in the region discuss modern evidence and are actively involved to provide high quality and cost-effective medical care. Many hospitals in the US would have been happy to present the performance results and the progress in improved medical care that we witnessed in Imereti” — said Dr. Irakli Giorgberidze, cardiologist working in US.

### ***Analyses of status and progress of regional collaborative improvement activities per project priority clinical focus areas***

#### ***a) CVD risk factor screening & modification:***

After 65-94% reported improvement in documentation of smoking status, tobacco cessation interventions in smokers, weight classification (Body Mass Index) and nutrition and physical activity counseling during last quarter, all abovementioned indicators continued improvement trend or remained at the high level, by the end of August smoking status documentation reached 88% (13% improvement for last two month), tobacco cessation interventions in smokers — 96% (2% improvement for last two month), body mass index calculation 90% (20% improvement for last two month), nutrition and physical activity counseling 94% (16% improvement for last two month).

Notable are improvements in other measures that were low by the end of June, 2012:

#### **Fig.1 Current updated list of chronic medications in 3 polyclinics and 13 village practices in Imereti, Georgia, March – August, 2012**

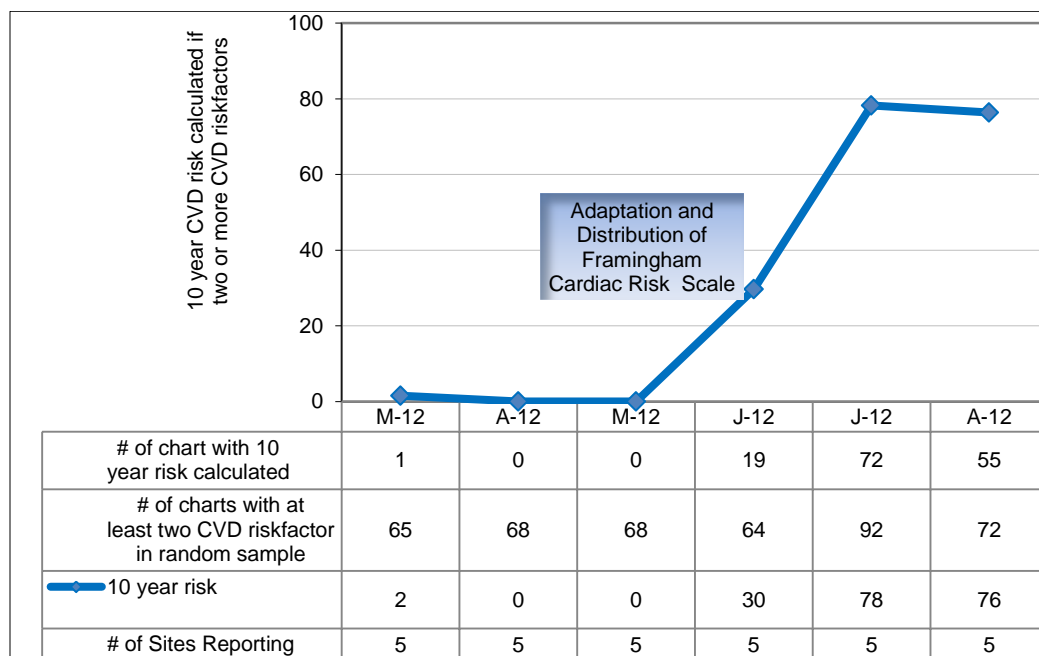


This design allows the doctor quickly review current therapy, make and document any changes. As noticed from the monthly monitoring all charts that have this insert document current updated list of chronic medications.

On introduction of CVD risk factor screening and modification sheet we instructed medical providers to use web-link of National heart, lung and blood institute ([www.nhlb.net](http://www.nhlb.net)). Later we found out that limited access of internet and lack of respective skills, also low prevalence of total cholesterol and high density lipoprotein screening restricted expected improvement of this indicator. To address these gaps the project adopted Framingham cardiac score from national guideline for management of hypercholesterolemia in primary health care. We adopted the design of various job-aids and patient education tools to develop the tool user friendly for providers and also effective to communicate risks to the patients.

Providers received instruction to use averages for total cholesterol from population survey and assumed HDL as recommended by WHO and national guideline, where their measurement are not possible. As it was predicted calculation of 10 year risk of CVD event raised for 76% from the beginning of the project (46% for the last two month).

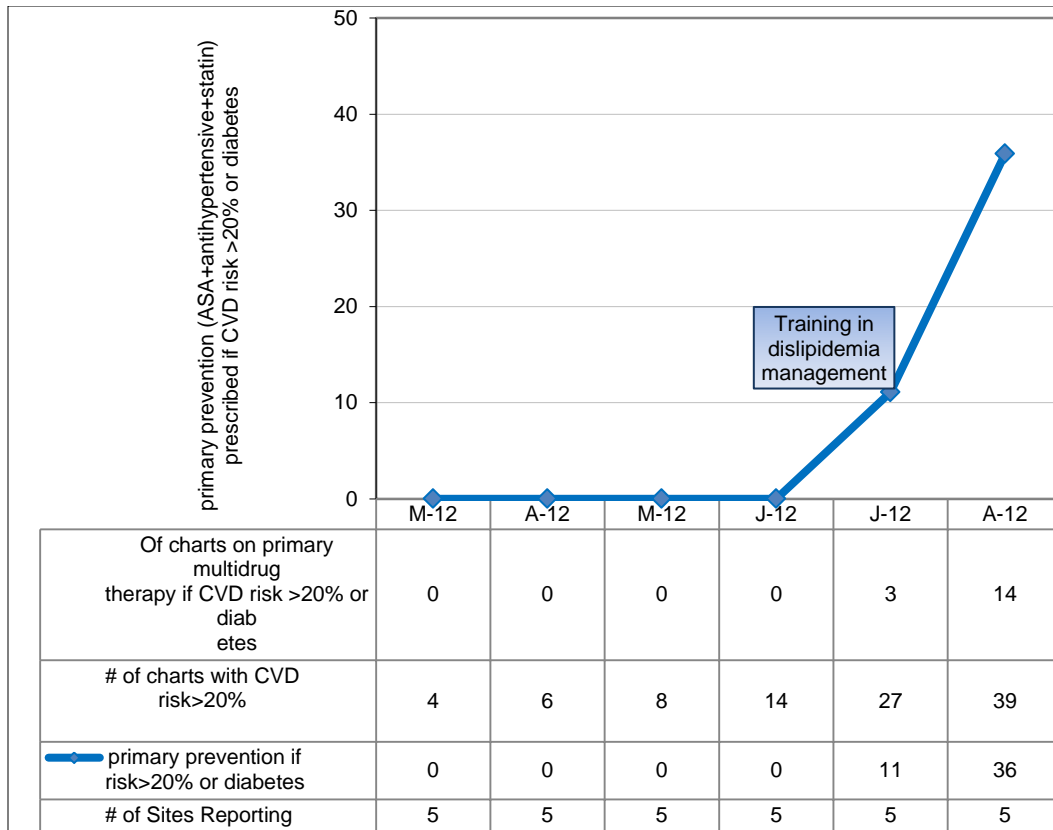
**Fig.2. 10 year cardiovascular disease risk calculated if two or more CVD risk-factors in 3 polyclinics and 13 village practices, Georgia, March – August, 2012**



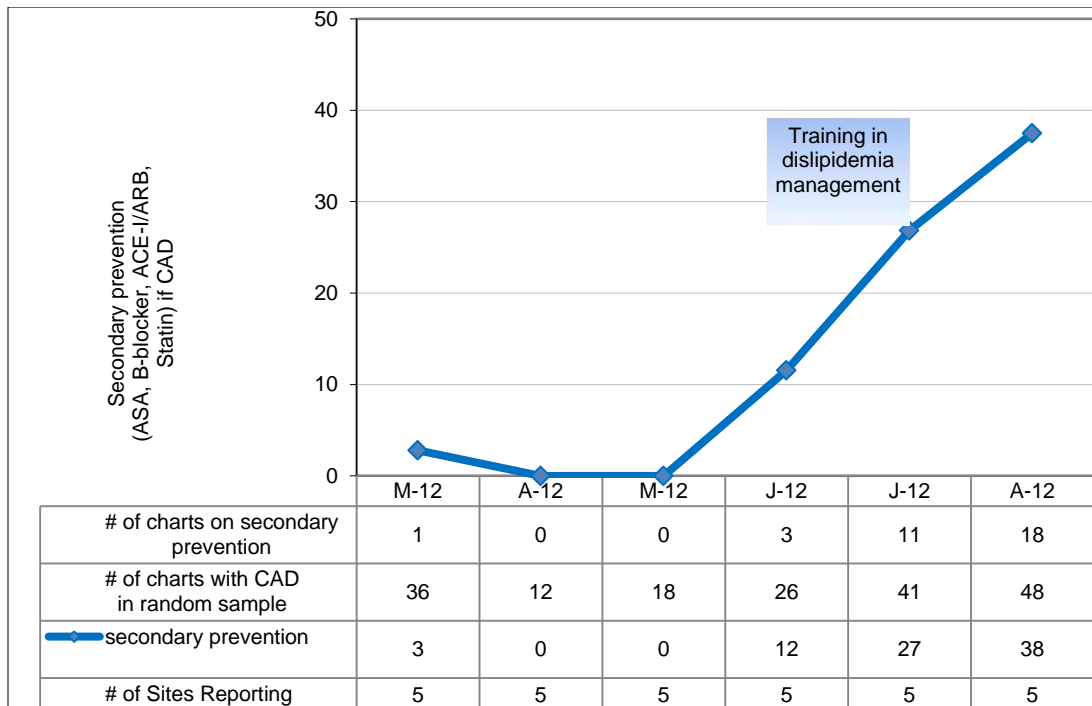
Intensive training in dislipidemia management (identified as one of major gaps in providing evidence-based primary or secondary prevention), distribution of detailed instruction of CVD risk-factor screening and modification interventions (including filling standard ambulatory medical chart inserts), routine monthly monitoring and feedback also improved prescription of high-impact medications in case of CVD risk >20%, diabetes or coronary artery disease (see fig. 3 and 4)

**Fig.3. Primary prevention (ASA + antihypertensive + statin) prescribed if CVD risk >20% or diabetes in 3 polyclinics and 13 village practices in Imereti, Georgia, March – August, 2012**





**Secondary prevention (ASA, B-blocker, ACE-I/ARB, Statin) if Coronary Artery disease in 3 polyclinics and 13 village practices in Imereti, Georgia, March – August, 2012**



Despite improved providers' prescribing behavior, financial access to chronic medications that patient need to take regularly remained challenging; high cost of medications was cited a major access barrier for the 67% of patients interviewed in ambulatory clinics. In order to enable availability and affordability of appropriate diagnostic services and treatment of CVDs, Georgia HCl project team advocated improved coverage of essential blood pressure and high cholesterol medications to private medical insurance companies, As the result, agreement has been achieved with one of the Georgia's largest integrated medical corporation to cover the cost of essential blood pressure and high cholesterol medications for beneficiaries of state-subsidized and private insurance programs implemented by insurance company GPI Holding in Samtredia district (as a pilot project) This is a particularly significant accomplishment given cost-effectiveness and high impact of CVD primary and secondary prevention medication bundle.

The biggest challenge in this clinical focus area remains cholesterol measurement. This diagnostic test was done only by 4% of patients in August, while medical care providers ordered the test in 47% patients, when indicated.

To support increased demand for and use of lipid screening tests, HCl successfully advocated to the Ministry of Labor, Health and Social Affairs (MOLHSA) inclusion of lipid measurement in publicly funded health programmes. As of September 2012, significant portion of the Georgian population will have free access to this cost-effective diagnostic test, nationwide.

The project will continue its efforts to advocate inclusion of all high impact best buy CVD screening, prevention, treatment practices and medications in public-funded and private insurance programmes.

**b) Acute coronary Syndrome management:**

Establishment and support of hospital Quality Improvement teams in management of acute coronary syndrome started by the end of May, 2012. Interventions included but not limited with intensive training, discussion of clinical cases and introduction of several medical chart standardization tools (see pic 1 and pic.2)

**Pic.1. Fragment of Acute Coronary Syndrome initial assessment and treatment sheet (absence/presence of clinical signs/physical findings, EKG results, myocardial markers, risk stratification according to internationally recognized criteria)**

Risk stratification <input type="checkbox"/>		Time of assessment ____ / ____		doctor: _____			
Clinical signs/symptoms <input type="checkbox"/>		Physical findings <input type="checkbox"/>		EKG results <input type="checkbox"/>		Myocardial markers <input type="checkbox"/>	
Chest Pain/discomfort	<input type="checkbox"/>	Hypotension	<input type="checkbox"/>	Stable ST $\uparrow$	<input type="checkbox"/>	Troponin T (RPT)	<input type="checkbox"/>
Dyspnea	<input type="checkbox"/>	diaphoresis	<input type="checkbox"/>	Stable ST $\downarrow$	<input type="checkbox"/>	Time of assessment: ____ / ____	
nausea	<input type="checkbox"/>	Tachycardia	<input type="checkbox"/>	New LBBB	<input type="checkbox"/>	Result: (+) <input type="checkbox"/> (-) <input type="checkbox"/>	
diaphoresis	<input type="checkbox"/>	Pulmonary edema (wheeze)	<input type="checkbox"/>	Transitory ST $\uparrow$	<input type="checkbox"/>	Troponin I	<input type="checkbox"/>
Blurred/lost consciousness	<input type="checkbox"/>	murmur (mitral regurgitation)	<input type="checkbox"/>	Transitory ST $\downarrow$	<input type="checkbox"/>	Time of assessment: ____ / ____	
pre-/syncope	<input type="checkbox"/>	Murmur on peripheral artery	<input type="checkbox"/>	Ischemic T $\downarrow$	<input type="checkbox"/>	Result: mg/L	
Established CAD	<input type="checkbox"/>	other:	<input type="checkbox"/>	Chronic ST and T $\uparrow$	<input type="checkbox"/>	CK-MB	<input type="checkbox"/>
repeated problems of ACS	<input type="checkbox"/>			ST without changes	<input type="checkbox"/>	Time of assessment: ____ / ____	
past MI	<input type="checkbox"/>			Other:	<input type="checkbox"/>	Result: ng/ml	
past PCI or CABG	<input type="checkbox"/>						
Suspected myocardial ischemia	<input type="checkbox"/>			<b>Use of TIMI Criteria</b>			
family history of CAD	<input type="checkbox"/>	<b>STEMI <input type="checkbox"/></b>		<b>NSTEMI/UA <input type="checkbox"/></b>		<b>TIMI score</b>	
Diabetes	<input type="checkbox"/>	Age <65y.	<input type="checkbox"/> +0	Age $\geq$ 65y.	<input type="checkbox"/> +1		
PAD	<input type="checkbox"/>	65-74y.	<input type="checkbox"/> +2	$\geq$ 3 risk factor or CAD	<input type="checkbox"/> +1		
age >70 years without distinguished non-cardiac symptoms	<input type="checkbox"/>	$\geq$ 75y.	<input type="checkbox"/> +3	Established CAD (>50% stenosis)	<input type="checkbox"/> +1	<b>Risk %</b>	
other:	<input type="checkbox"/>	Diabetes/hypertension/angina	<input type="checkbox"/> +1	Aspirin in last 7 days	<input type="checkbox"/> +1		
		SBP <100mmHg	<input type="checkbox"/> +3	Severe angina ( $\geq$ 2x day)	<input type="checkbox"/> -1		
		HR <100'	<input type="checkbox"/> +2	ST $\uparrow$ or $\downarrow$ ( $\geq$ 0.5mV)	<input type="checkbox"/> +1		
		Killip II-IV f.c.	<input type="checkbox"/> +2	Positive myocardial markers.(+)	<input type="checkbox"/> +1		
		Body weight <67kg.	<input type="checkbox"/> -1	Not any	<input type="checkbox"/> +1		
		ST $\uparrow$ or LBBB	<input type="checkbox"/> -1				
		Time before treatment >4hr.	<input type="checkbox"/> +1				

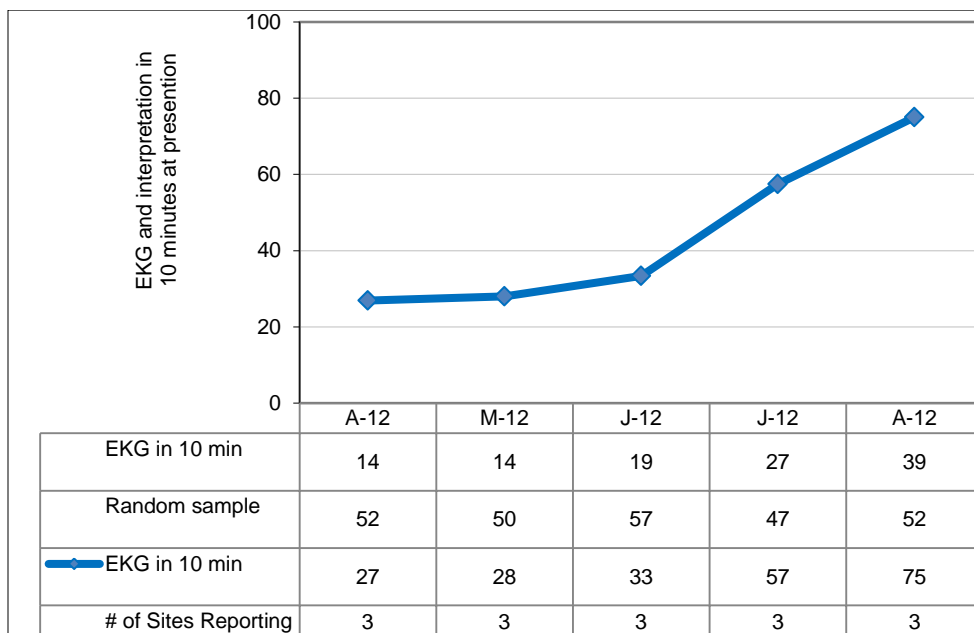
**Pic.2. Fragment of Acute Coronary Syndrome ongoing management sheet (standard tests, cardiovascular risk factors, high impact medications)**

Diagnostic tests / results / Assessment					Risk factor		
CBC	<input type="checkbox"/>		TCHOL total cholesterol	<input type="checkbox"/>		Hypertension	<input type="checkbox"/>
UA	<input type="checkbox"/>		HDL cholesterol;	<input type="checkbox"/>		Hypercholesterolemia	<input type="checkbox"/>
Glucose	<input type="checkbox"/>		LDL cholesterol	<input type="checkbox"/>		Hyperglycemia	<input type="checkbox"/>
aPTT	<input type="checkbox"/>		TG triglycerides	<input type="checkbox"/>		Overweight/obesity	<input type="checkbox"/>
PT	<input type="checkbox"/>		X-ray	<input type="checkbox"/>		Tobacco	<input type="checkbox"/>
INR	<input type="checkbox"/>		Echocardiography	<input type="checkbox"/>		Anthropometry	
Creatinine	<input type="checkbox"/>		Coronary angiography	<input type="checkbox"/>		Height	m.
ALT	<input type="checkbox"/>		Other	<input type="checkbox"/>		Weight	kg.
AST	<input type="checkbox"/>					BMI	kg/m <sup>2</sup>

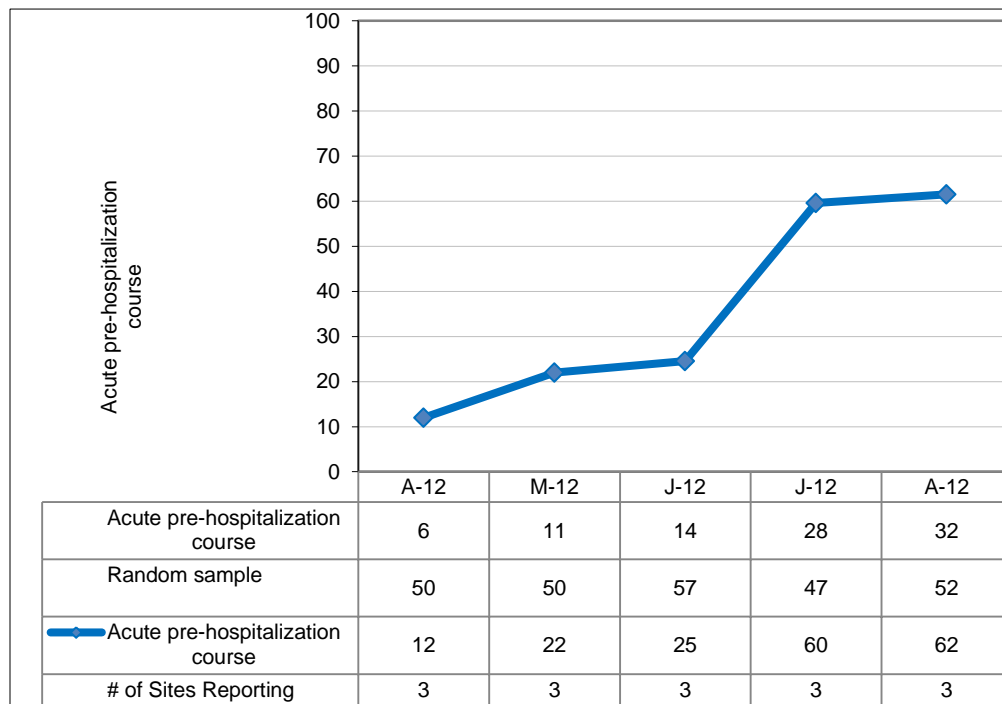
High Impact therapy					doctor: _____;									
Aspirin	yes <input type="checkbox"/>	no <input type="checkbox"/>	$\beta$ -blocker	yes <input type="checkbox"/>	no <input type="checkbox"/>	ACE-I/ARB	yes <input type="checkbox"/>	no <input type="checkbox"/>	Statin	yes <input type="checkbox"/>	no <input type="checkbox"/>	Thienopyridins	yes <input type="checkbox"/>	no <input type="checkbox"/>
time: ___/___			time: ___/___			time: ___/___			time: ___/___			time: ___/___		
dose:			dose:			dose:			dose:			dose:		
contraindic:			contraindic:			contraindic:			contraindic:			contraindication:		

After a few months of improvement interventions, most positive are progress toward initial assessment of patients with suspected ACS and its timeliness. Specifically, EKG recording and interpretation documentation within 10 minutes after presentation improved by 47% (fig. 5), documentation of acute pre-hospitalization course improved by 50% (fig. 6) and EKG tracking requirements fulfilled according to diagnosis improved by 29%(fig. 7)

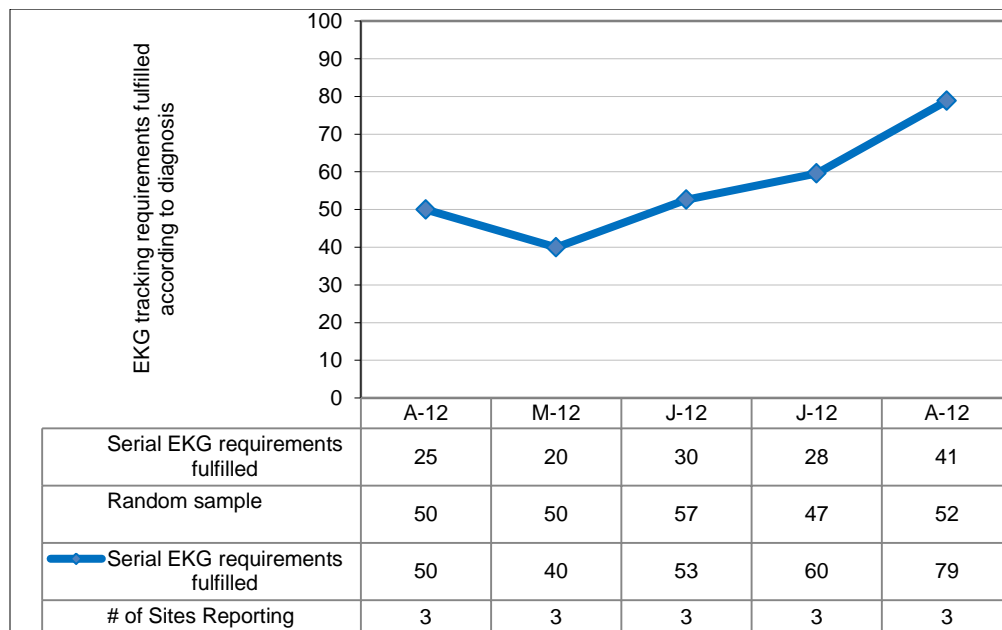
**Fig.5. EKG and its interpretation in 10 minutes at presentation in 3 CI hospitals in Acute Coronary Syndrome patients, Imereti region, April – August, 2012**



**Fig.6. Acute pre-hospitalization course in 3 CI hospitals in Acute Coronary Syndrome CI in Imereti region, April – August, 2012**



**Fig. 7. EKG tracking requirements fulfilled according to diagnosis in 3 CI hospitals in Acute Coronary Syndrome CI in Imereti region, April – August, 2012**



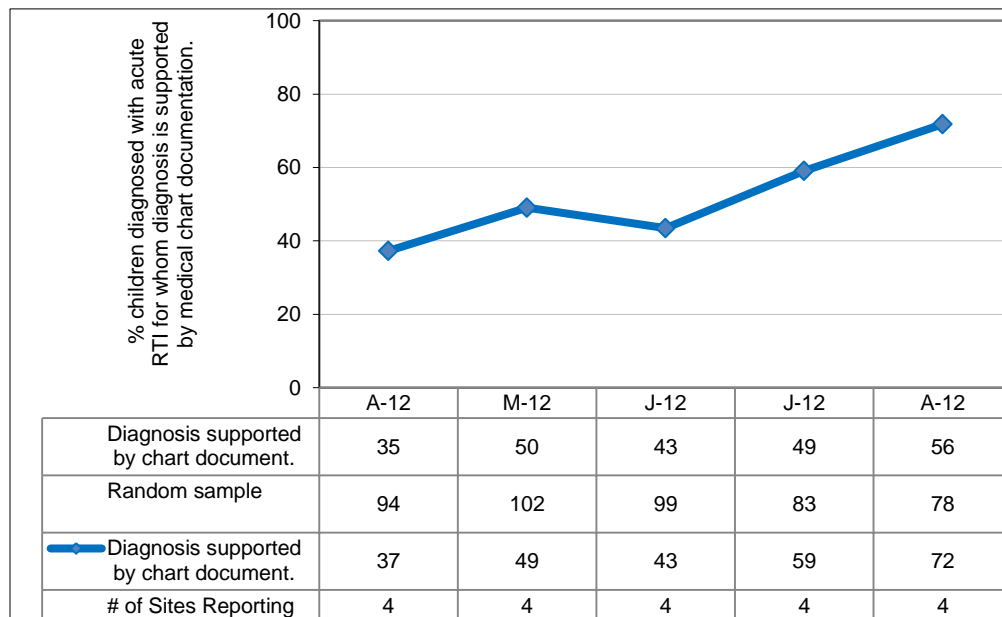
Indicators of initial treatment and ongoing management also show promising trends. Project works closely with the management of hospital facilities to ensure availability of recourses and changes in infrastructure. The weakest point remains discharge and linkages between different levels of care.

**c) Pediatric respiratory tract infections (RTI) at ambulatory level and pediatric pneumonia management at hospital level:**

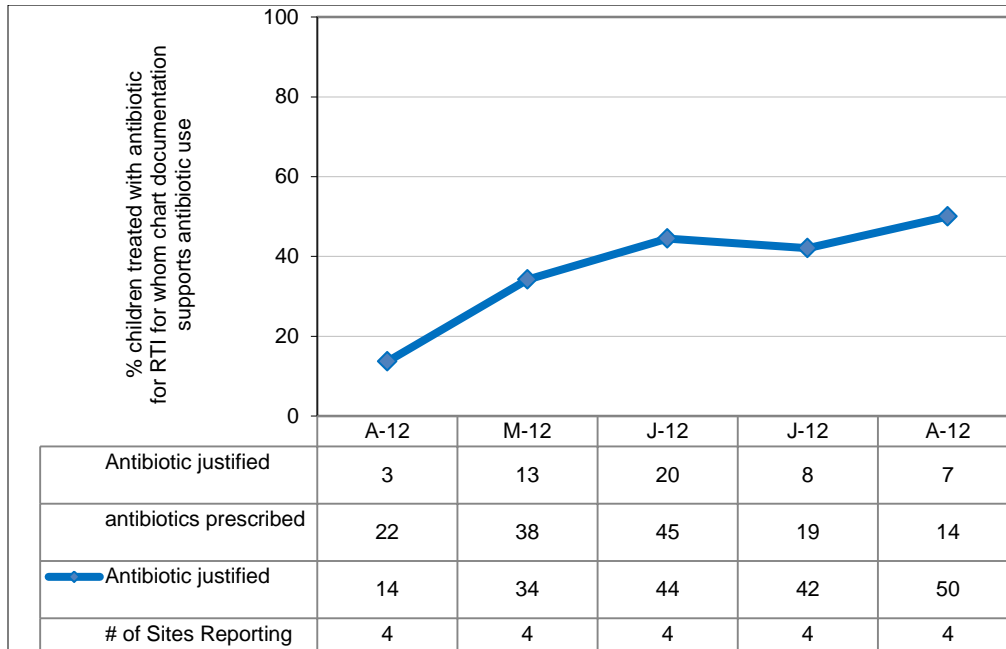
Intensive support of pediatric quality improvement teams started by the end of June Project QI advisor,-consultant and head of Georgian Respiratory Association, professor Ivane Chkhaidze conducted group and individual trainings of all relevant providers of CI facilities, , supportive supervision through medical record review and case study discussions, data collection, monitoring and analysis of progress through routine measurement criteria . Because of the summer season, the numbers of clinical cases were not high especially at hospital level.

In general we witnessed 35% increase in correct diagnosis (fig. 8), 36% increase in justification of antibiotic therapy (fig. 9) and 28% increase in choosing first line antibiotic at ambulatory level (fig. 10).

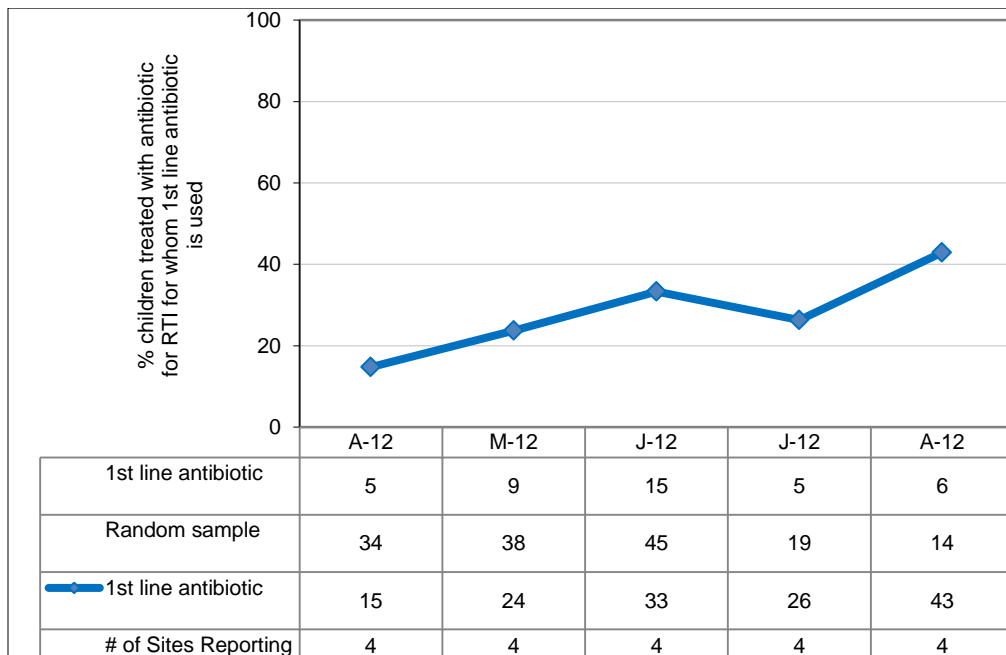
**Fig.8. % children diagnosed with acute RTI for whom diagnosis is supported by medical chart documentation (at least one symptom criteria with its duration and at list one relevant physical finding). in 3 polyclinics and 13 village practices in Imereti, Georgia, April – August, 2012**



**Fig.9 % children treated with antibiotic for RTI for whom chart documentation supports antibiotic use in 3 polyclinics and 13 village practices in Imereti, Georgia, April – August, 2012**



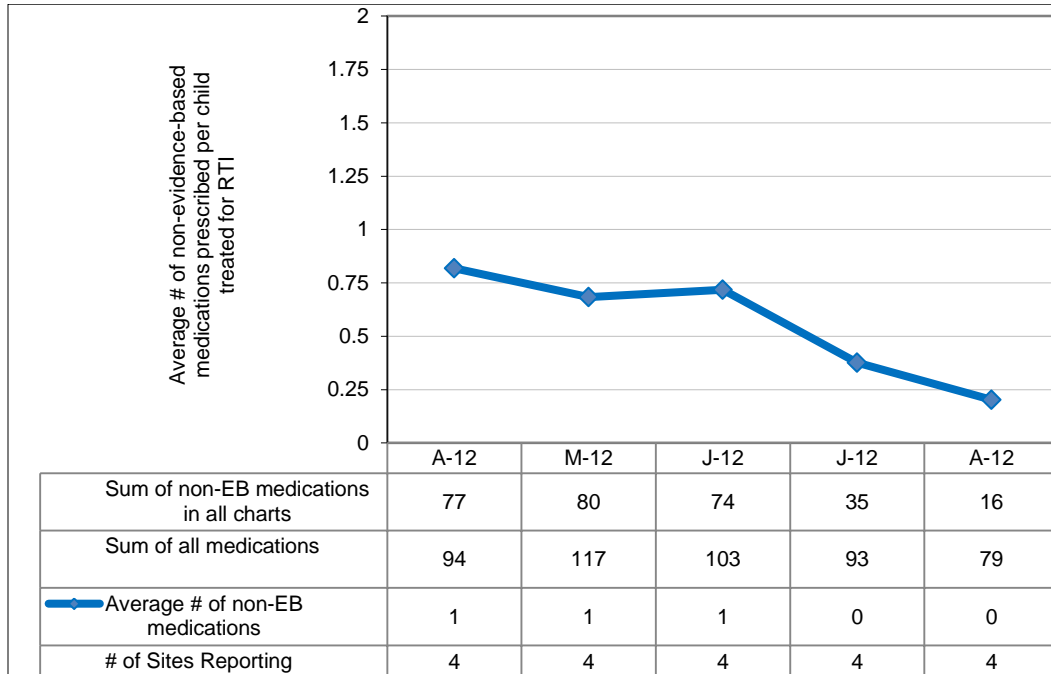
**Fig.10. % children treated with antibiotic for RTI for whom 1st line antibiotic is used in 3 polyclinics and 13 village practices in Imereti, Georgia, April – August, 2012**



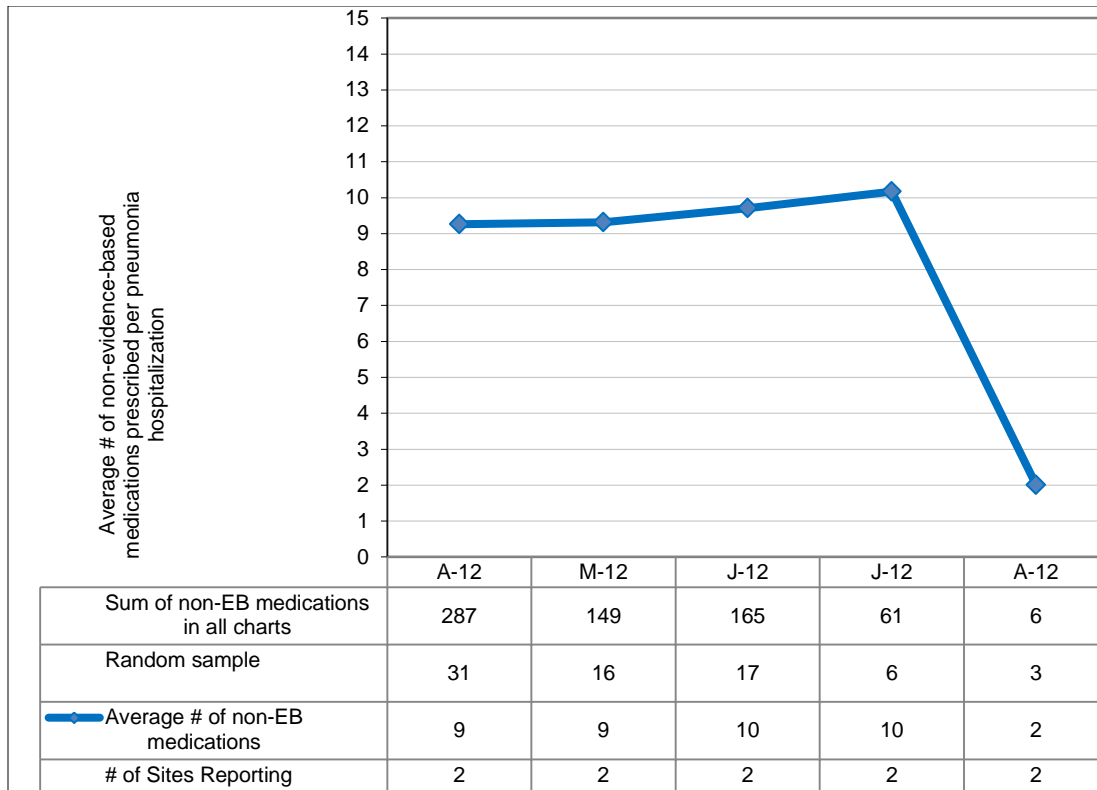
Improved diagnosis and rational antibiotic therapy is highly important for Georgia context given the fact that antibiotics, and other medications (with exception of a few narcotic and psychotropic drugs) are available in the pharmacies without prescription from drugstores and antibiotic resistance is huge problem of the country.

According to the baseline assessment, **Polypharmacy** (the use of multiple medications by a patient) is the routine practice in the region. Medical Charts documented vitamins, short-acting methylxanthines, metabolic, expectorants, and cough depressors. There is no medical evidence of using any of them for the conditions/symptoms recorded in the chart. For these months project was able to document significant reduction of these numbers resulting reducing costs of treatment for patients, families, facilities or insurance companies. As shown on the graphs below average number of unnecessary medications used to treat children with pneumonia at hospital decreased from 10 to 2 (fig. 11) and average number of unnecessary medications prescribed for children with respiratory infection decreased from 0.76 to 0.03 at ambulatory level (fig. 12)

**Fig. 11. Average # of non-evidence-based medications prescribed per child treated for RTI in 3 polyclinics and 13 village practices in Imereti, Georgia, April – August, 2012**



**Fig. 12. Average # of non-evidence-based medications prescribed per pneumonia hospitalization in 2 hospitals in Imereti region, April – August, 2012**



#### d) Asthma/Chronic Obstructive Pulmonary disease:

Since the beginning of collaborative improvement activities the project witnessed very low numbers of Asthma and COPD diagnosis, use of outdated treatment interventions that do not have modern evidence base and insufficient infrastructure: out of 4 polyclinics and 3 hospitals only one had spirometer — simple equipment necessary to diagnose and monitor these diseases. After recommendations from the project Geo-hospitals — abovementioned Medical Corporation purchased 2 spirometers for hospital and ambulatory facilities. The same decision made management of one ambulatory facility. To build capacity of using this test in practice soon after the central management received the spirometers the project volunteered to bring them in the region and support practical and theoretical training. For this reason we contracted the president of Georgian Respiratory Association Prof. Tamaz Maglakelidze, who together with project staff conducted three day trainings in Kutaisi for internists, family doctors, allergologists in diagnosis and management of chronic respiratory diseases. Specifically:

- **Theoretical Module on Asthma and Nebulized Bronchodilator Therapy (with pre- and post-test)**
- **Theoretical Module on COPD (with pre-and post-tests)**
- **Theoretical and 2 day practical module in Spirometry**



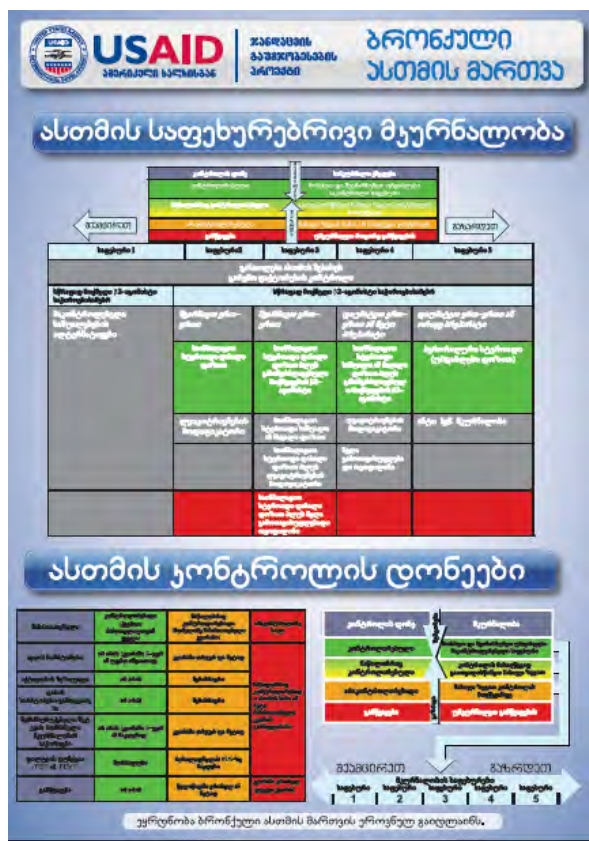
After the trainings Georgia HCI project approached the central management of Geo-hospitals and informed about further infrastructure needs to assure operation of spirometers and its valid results. Specifically facilities need room thermometers, barometers, humidity measuring devices



and calibration syringes as well as IT support for complying with the international standards of spirometry.

For evidence-based decision support in treatment of asthma the project also adopted and distributed among providers respective poster (pic. 3).

**Pic. 3. Asthma treatment Stepwise approach table poster**



**Component II: Improve access and use of evidence based medical information by Georgian physicians and enhanced availability of modern evidence based treatments**

**Collaboration with US Georgian Medical Diaspora**

To facilitate communication between US Georgian Medical Diaspora representatives and their Georgian colleagues and utilize their expertise to the extent possible, project invited 4 doctors working in US to meet with key stakeholders in Georgia and participate in the Learning Session in Imereti Region.



In addition to participation in regional Learning Session (see details above) the Diaspora representatives have intensive meetings in Tbilisi to discuss ways of collaboration, to get familiar with service delivery context in Georgia and establish individual and organizational linkages:

- a) Round-table at URC office with Professional Medical Associations: Representatives of Family Medicine Associations, Cardiology Association, and Respiratory Association.
- b) Visit at the newly built medical center (General Hospital) in Mtskheta “MediClub Georgia” Hospital in Tbilisi —
- c) Meeting with Boards of Directors and quality team members of medical corporation “Geo Hospitals” owning several hospitals and ambulatory facilities in different regions of Georgia (including collaborative improvement facilities in HCI Project Demonstration Region).
- d) Meeting with Boards of Directors and quality team members of Medical Corporation of “My Family Clinic” owning several hospitals and ambulatory facilities in different regions of Georgia (including collaborative improvement facilities in HCI Project Demonstration Region).

During the trip close collaboration on review of national protocols developed within the project and close collaboration in evidence review was also agreed.

### **Development of web-resource**

The project has also created the web resource: <http://www.hciproject.org/georgiahealthquality>, where clinical tools, job aids, and training materials in the clinical focus areas of the project are available in Georgian. The project is using Facebook page to connect with medical professionals in Georgia to post alerts about newly published clinical evidence, with brief summaries in Georgian (<http://www.facebook.com/USAIDGeorgiaHealthCareImprovementProject>).

### **Cross-cutting Activities**

*Here, please describe any activities or progress during the quarter related to these cross-cutting activities which may be relevant to all countries and units. If you have no progress or relevant activities, please just write “Not applicable.”) The cross-cutting activities we would like you to address are:*

#### **Documentation/Knowledge Management**

On September 28th the project COP Dr. Tamar Chitashvili presented project activities and next steps in cardiovascular risk-factor screening and modification and management of acute coronary syndrome management on scientific conference dedicated to the World Heart Day. The leading cardiologists of Georgia shared their satisfaction on impressive results on the first five month of project implementation and expressed readiness to collaborate with project in its various activities.

On September 29<sup>th</sup> together with representatives of USAID Georgian Mission and National Center of Disease Control and Public Health the project conducted work meeting with the management and medical personnel of Clinic Curatio to details of their collaboration and next steps to improve current practices in prevention of Heart Disease. The participants also distributed patient information leaflet developed within the project, that explains the burden of cardiovascular disease, simple steps and lifestyle changes needed to avoid its development and complications and importance of taking the leading role in managing their health. The event was on news programs of national-wide TV channel.



The project also developed profile for cardiovascular disease risk factor screening and modification regional collaborative and uploaded on global HCI portal.

## **Research and Evaluation**

The project completed data collection at control sites and data entry for cost effectiveness study. Currently more than 1800 questionnaires are filled and entered. We also developed phone interview questionnaires and that are conducting their pre-tested now. Patient survey is planned to be finished in upcoming months.

The project finished cleaning data for chart review of hospital patients with Chronic Obstructive Pulmonary Disease and sent the data in head-quarters Research and Evaluation team for detailed analysis. We also developed first draft of data analysis plan for the respective area.

## **Human Resources**

To coordinate cleaning of data, analysis plan development and coordination with headquarters Research and Evaluation team the project hired part-time Data Analyst Consultant. She also will coordinate patient survey including develop epi-data forms to simplify data collection process.

In September the project team also received training in corporate ethics and anti-harassment policy by field review team from the head quarters.

## **Institutionalization**

### At national level

#### **Advocacy of inclusion of WHO best-buy interventions in State Health Programs**

As mentioned above From the September of 2012 lipid measurement is included in publicly funded insurance scheme of persons older than 65.

Also from September 2012 oral antibiotics for children under 5 are included in **the list of medications adopted by decree of minister of Labour, Health and Social Affairs under publicly funded Medical Assistance Program (MAP)** — the basis for reimbursement at the ambulatory level for the program beneficiaries. As reported in previous quarter this inclusion of antibiotics was one of the recommendations of the project submitted to the ministry in June.

#### **Development of National Protocols:**

The project is also supporting the development of evidence-based clinical protocols for nationwide use. To date, 10 national protocols have been developed or are under development in collaboration with MoLHSA, professional associations, and physicians of the Georgian Medical Diaspora in US. Georgia HCI project supports translation and adaptation of protocols in project clinical focus areas. These protocols will be institutionalized at the national level by MoLHSA and are intended to:

- 1) Standardize diagnostic/treatment interventions at specific levels of care;
- 2) Evaluate quality of medical services through standard audit criteria and use these criteria for making evidence-based decisions at each level of health system;

3) Be used for billing and reimbursement purposes by different payers (including state purchaser, insurance companies and etc).

Georgia HCI project team has developed **methodology** and **scope of work** for Senior Technical Advisers/Reviewers to develop/review the clinical protocols.

Currently within the project draft versions of following national protocols have been developed:

- Cardiovascular disease prevention
- Management of dislipidemia
- Hospital management of Myocardial Infarction with ST elevation
- Hospital management of Myocardial Infarction without ST elevation and Unstable Angina
- Management of Bronchial Asthma in general practice
- Management of Asthma exacerbation (in general practice and hospital)
- Management of COPD in general practice
- Management of COPD exacerbation (in general practice and hospital)
- Spirometry in Clinical practice

#### **Development of Continuous Professional Development modules:**

To support sustainability and institutionalization of training modules, together with Georgian Respiratory Association, Georgia HCI team prepared application to Tbilisi State Medical University (TSMU) to register training courses as Continuous Professional Development (CPD) modules under institutional umbrella of the University. Georgia HCI project has submitted applications for 4 CPD courses:

- a) smoking status screening and tobacco cessation interventions**
- b) Theoretical and practical aspects of Spirometry,**
- c) Modern recommendations on assessment and treatment of Asthma,**
- d) Modern recommendations on assessment and treatment of Chronic Obstructive Pulmonary disease**

According to the agreement with professional medical associations and the University, after completion of HCI project, they will continue to implement abovementioned CPD modules together: professional associations will conduct the CPD modules while TSMU will organize trainings and provide administrative support.

#### At facility/medical corporation level

Georgia HCI project continues supporting spread of the information about the project and gaining collaborators within the country and out to improve quality of medical services. In addition to the already reported partners several facilities expressed interest to use recourses developed to implement QI activities in their facilities.

According to MoU signed in June to use resources developed within the project to improve quality of care, receive minimal external technical assistance and share results with us) our partner Clinic Curatio finished baseline assessment of cardiovascular risk-factor screening and modification (130 chart reviews, 30 primary doctors, 30 patients). The project provided guidance/training on data entry and analysis. Findings of the assessment and future steps were presented by quality manager of the facility on the 3rd learning Session. Specifically main finding was low percentage of documentation of cardiovascular disease screening interventions in medical charts. On the other hand high percentage of patients reported provision of these interventions. Survey also showed gaps in knowledge of providers. After discussion of results with managers and providers facility decided to conduct trainings, to standardize medical chart

and establish monthly monitoring of cardiovascular disease risk factors screening interventions. They also plan to conduct baseline assessment of management of Respiratory Tract infections in Children.

### **Coordination with Other Implementing Partners and Agencies**

The project conducted several meetings with the USAID-supported Health System Strengthening Project to join efforts and work collaboratively to support the national electronic medical record system through standardization of medical record, ensuring generation of necessary information on project priority clinical content areas needed for making evidence-based decision at each level of the health system.

### **Planned Activities for October-December 2012**

*Here, please briefly list the main activities you will focus on in the next quarter.*

- Continue to provide intensive support to facility personnel of quality improvement teams in Imereti to test and implement changes in their care processes for CVD, asthma, COPD pneumonia and RTI.
- Continue supporting the spread of information about the project, including development and sharing of success stories and case studies
- Support translation and spread of current clinical evidence-based medical information among Georgian physicians
- Conduct patient survey for baseline study; develop data analysis plan and data cleaning for all clinical focus areas and types of questionnaires of cost-effectiveness study.