Challenges posed by NCDs in E&E region

According to the World Health Organization (WHO), by 2025 non-communicable diseases (NCDs) will be the single leading cause of mortality and morbidity in every region of the world, including Sub-Saharan Africa. Leading to this staggering figure are current statistics, which show that NCDs cause 63% of mortality worldwide, 80% of which occurs in low- and middle-income countries (LMICs). Furthermore, a full one third of NCD-related deaths in LMICs are premature, occurring before the age of 60.

In Europe, NCDs account for nearly 86% of deaths and 77% of the disease burden, putting increasing strain on health systems, economic development and the well-being of populations. These challenges can especially be seen in low- and middle-income European countries already struggling to build basic health systems and control communicable diseases. The effects are recognizable in both reduced human capital and increased economic burden for governments, insurance providers and patients’ families.

Governments and health systems in low- and middle-income settings face the formidable challenge of prioritizing, implementing, and scaling up NCD interventions at population and individual levels. Despite accelerating global evidence that the most detrimental NCDs are largely preventable, LMICs (including those in Europe and Eurasia) are poorly prepared to implement high-impact, NCD prevention, early detection and treatment interventions—considered “best buys” by WHO.

Global Policy and Actions for Prevention and Control of NCDs

In September 2011, the UN convened a High Level Meeting on NCDs, reflecting the growing international commitment to tackle the enormous and neglected problem of NCDs worldwide. Subsequently, there has been increasing focus on country-led implementation and global policy frameworks to accelerate prevention and control of NCDs, including but not limited to:

- The United Nations Political Declaration of the High-level Meeting of the General Assembly on the Prevention and Control of NCDs;
- Health 2020: the European policy for health and well-being;

In Europe, NCDs account for nearly 86% of deaths and 77% of the disease burden, putting increasing strain on health systems, economic development and the well-being of populations.
USAID Tackles the Burden of Non-Communicable Diseases in Europe and Eurasia Region


From Policy to Action

The USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project is a global effort to strengthen delivery systems to improve the quality of health care, social services, and health education in USAID-assisted countries. The USAID ASSIST Project is strongly positioned to help governments and service delivery institutions translate NCD policy into action through:

- Developing national policies, strategies and implementation tools in NCD prevention and control
- Applying cutting-edge quality improvement methods to translate best practices into service delivery in low- and middle-resource settings
- Disseminating technical expertise in high-impact NCD prevention, early detection, and treatment services and integrating these concepts into established services at different levels of care
- Supporting patient education and self-management of their chronic conditions
- Strengthening health systems in LMICs to deliver high impact, cost effective NCD screening and management services, including rational packaging of services across the health system

Applying cutting-edge quality improvement methods to translate best practices into service delivery in low- and middle-resource settings

Despite the availability of evidence-based, high-impact yet simple NCD screening and management services—interventions capable of saving lives and alleviating suffering—many patients are not benefiting from them. Much of this implementation gap is related to weak health systems and processes of care delivery. The USAID HCI and ASSIST projects in Georgia are addressing this challenge and reaching impressive results in closing the “know-do” gap between established “best buy” practices as designated by WHO.

Since 2011 the USAID HCI Project has been collaborating with the Georgia Government to improve quality of care for leading causes of adult and child mortality and morbidity, including prevention and treatment of CVD and chronic respiratory conditions such as asthma and chronic obstructive pulmonary disease (COPD).

Depending on the context, the project uses a combination of different quality improvement methods to improve quality of medical care in targeted ambulatories and hospitals. The project particularly focuses on the collaborative improvement model in medical facilities of Georgia’s Imereti Region (with a population of 700,000). Improvement

### National
- Advocacy of adoption
- Integration in antenatal care
- Advocacy of integration in EMR
- National Protocols/Guidelines

### Local
- Policy level support: presentation at Conference Medea 2013
- Quality course at Medical University School of Public Health

### National
- Chart standardization tools (amb., hosp.)
- Local protocols
- Job aids

### Local
- Training in QI
- Team-building support
- Peer Review
- Medical chart audit and feedback

<table>
<thead>
<tr>
<th>National</th>
<th>Local</th>
<th>National</th>
</tr>
</thead>
<tbody>
<tr>
<td>CME modules</td>
<td>Institutionalized tobacco cessation</td>
<td>Submitted: Dislipidemia</td>
</tr>
<tr>
<td>Improved access</td>
<td>Webpage</td>
<td>GAMPHA conference</td>
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</table>

### National Campaigns
- World Heart Day
- National Hypertension Week
- World No Smoking Day
- Patient website

### National
- Provider training in Chronic Care model
- Patient diaries
- Posters, leaflets

### Local
- Provider Capacity Building

### National
- National Campaigns
- Provider training in Chronic Care model
- Patient diaries
- Posters, leaflets

### Local
- Continued education

### National
- Patient website

### Local
- Provider Capacity Building

### National
- Health and Public Health (NCDC) to develop the National Hypertension Strategy for 2013–2018 and its implementation plan, based on the WHO Global Action Plan for Prevention and Control of Non-Communicable Diseases for 2013–2020. The new Plan addresses local needs, including gaps identified by the project team (e.g., baseline cost-effectiveness assessment of cardiovascular disease risk factors).

The USAID HCI Project also collaborated with NCDC Georgia to develop implementation plans of prevention and control of other priority NCDs (prevention and modification of cross-cutting behavior and physiological risk factors of major NCDs and diabetes).

Developing national policies, strategies and implementation tools to prevent and control NCDs

Figure 1. USAID ASSIST Project’s approach and activities at local and national levels

All teach, all learn: medical providers of different facilities share their successes and failures with each other how to improve quality of medical care and ensure that it is delivered to every patient every time. Learning Session in Imereti region organized by USAID Health Care Improvement Project. Photo by Eka Cherkezishvili, URC.
USAID ASSIST reaches impressive results in closing the “know-do” gap on prevention and control of NCDs

teams made up of managers, nurses and doctors are supported to identify gaps in prevention and treatment of priority clinical conditions. These teams then plan, test, and refine changes in their local health care processes to overcome obstacles to the delivery of best practices. QI teams of different facilities regularly share their progress toward improving best practices and initiate discussions in priority topics in an all-teach, all-learn environment at the regional learning sessions. In addition, the demonstration collaborative places a strong emphasis on improving care processes for all diseases (diagnosis, severity classification, evidence-based case-management, regular monitoring of disease progression, patient self-management support, etc.), as well as on coordination between hospital and ambulatory services.

All strategies that prove to be successful at local levels are rigorously advocated and institutionalized through various policy/ financial and regulatory tools at the national level. Working simultaneously at all levels to identify and address gaps in quality of care, as well as guide implementation strategies, effectively tackling identified barriers and leverage low-cost opportunities best describes the project’s main approach. (See Figure 1)

To support improved access and use of evidence-based medical information for prevention and management of NCDs. In Georgia, the USAID HCI Project developed national guidelines and protocols in CVD risk factor screening, modification and management at ambulatory and hospital levels, as well as protocols related to diagnosis and management of Asthma and COPD. These protocols, as well as other evidence updates, quality improvement tools and best practices are shared through the project’s website and Facebook pages.

**Illustrative results of USAID’s NCD work in Georgia**

After 18 months of implementation in Georgia, the USAID HCI Project-supported facilities achieved reliable, consistent delivery of essential, high impact cost-effective prevention and treatment services of high burden NCDs, considered “best buys” by WHO (Table 1).

Figure 2 demonstrates improved CVD risk-factor screening and management practices, calculation of global CVD risk, which can be reduced dramatically with a low-cost “bundle” of medications like aspirin and blood pressure and cholesterol drugs (primary prevention) and secondary prevention of heart attack significantly reduces risk for future complications and premature deaths.

**Support public awareness, patient education and self-management on NCDs**

To support involvement of patients in day-do-day management of their own conditions and shared decision making, the USAID HCI Project developed and distributed patient diaries on COPD, Hypertension and smoking cessation.

As a testament to the success of patient education materials, the USAID ASSIST Project supports population-level efforts to develop materials and conduct public awareness campaigns on NCDs and their cross-cutting risk factors (e.g., Hypertension week, World Heart and World COPD day activities in Georgia).

**Table 1. Percent of Medical Charts with best clinical practices per each clinical focus area in project supported 17 ambulatory sites and 3 hospitals, April 2012-July 2013, Imereti, Georgia**

<table>
<thead>
<tr>
<th>Clinical focus Area</th>
<th>April-12</th>
<th>July-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary and secondary prevention of cardiovascular disease (average compliance with best practices)</td>
<td>23%</td>
<td>94%</td>
</tr>
<tr>
<td>Body Mass Index documentation &amp; counseling on diet and physical activity during last 12 months</td>
<td>6%</td>
<td>98%</td>
</tr>
<tr>
<td>Smoking status documentation &amp; tobacco cessation intervention at last visit</td>
<td>8%</td>
<td>96%</td>
</tr>
<tr>
<td>Antihypertension treatment prescribed/adjusted at last visit if hypertension</td>
<td>72%</td>
<td>100%</td>
</tr>
<tr>
<td>Acute Coronary Syndrome management (average compliance with best practices)</td>
<td>27%</td>
<td>69%</td>
</tr>
<tr>
<td>EKG and interpretation in 10 minutes at presentation</td>
<td>27%</td>
<td>70%</td>
</tr>
<tr>
<td>Evidence-based (EB) Initial treatment bundle (opioid analgesic, oxygen if indicated, nitrate and aspirin)</td>
<td>2%</td>
<td>56%</td>
</tr>
<tr>
<td>Lipids measured prior to discharge</td>
<td>–</td>
<td>49%</td>
</tr>
<tr>
<td>Screened for tobacco and if smoker received tobacco cessation intervention</td>
<td>–</td>
<td>45%</td>
</tr>
<tr>
<td>Discharged home on post-Myocardial Infarction (MI) high-impact treatment bundle</td>
<td>9%</td>
<td>54%</td>
</tr>
<tr>
<td>Ambulatory management of Asthma and COPD (average compliance with best practices)</td>
<td>15%</td>
<td>87%</td>
</tr>
<tr>
<td>Classification/severity status updated at last visit</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Average number of non-evidence-based medications</td>
<td>4.20</td>
<td>0.17</td>
</tr>
<tr>
<td>Trigger (pets, viral infections, dust, smokers at home) assessed and modification plan recorded</td>
<td>0</td>
<td>83%</td>
</tr>
<tr>
<td>Hospital management of Asthma and COPD (average compliance)</td>
<td>20%</td>
<td>85%</td>
</tr>
<tr>
<td>Average number of nebulizer treatments during the first two days of admission in patients discharged for asthma/COPD last month</td>
<td>0</td>
<td>6.0</td>
</tr>
<tr>
<td>Spirometry results documented prior to discharge</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Bronchodilator prescribed at discharge</td>
<td>0</td>
<td>100%</td>
</tr>
<tr>
<td>Controller prescribed at discharge</td>
<td>0</td>
<td>100%</td>
</tr>
</tbody>
</table>
Strengthen health systems to deliver high impact cost effective NCD screening and management services, including rational packaging of services across the health system

Despite widespread efforts to improve access to care, affordability of medical services and pharmaceuticals still remain a challenge for many LMICs. To support improved access to quality health services, USAID ASSIST works collaboratively with host country governments to ensure that priority NCD services and medications are included in publicly funded programs. For example, the USAID HCI Project in Georgia developed an adapted version of the Package of Essential Non-communicable Disease Interventions for Low-income Settings (developed by WHO) and advocated its inclusion in state health programs. Through close collaboration with NCDC, the project also developed program alternatives (to improve financial access to essential medications for primary and secondary prevention of cardiovascular diseases in Georgia. As a result of project advocacy, from July 2013, measurement of cholesterol, blood lipids, creatinine, and liver enzymes were included in the universal health care program and became accessible throughout the country.

To foster continued availability and sustainability of such measures, USAID ASSIST also supports the development of the minimum set of essential inputs for priority NCDs and supports their institutionalization under formal regulatory tools where possible (licensing, accreditation, clinical certification etc). For example, USAID ASSIST supported the development of the hospital accreditation and clinical certification standards and measurement criteria for CVD and chronic pulmonary diseases in Georgia.

Strengthen NCD monitoring and evaluation and use of data for evidence-based decision making

Integrating NCD indicators in national HMIS

As part of the HCI Project in Georgia, USAID supported the adaptation of Global Voluntary Targets on prevention and control of NCDs, agreed under WHO leadership, and advocated for their integration in routine Health System Performance Appraisal and National Hypertension Strategic Plan 2013-2018.

Medical Chart Standardization Support

To support generation of reliable primary data that will inform clinical and management decision making on NCD prevention and management practices, there is continued support for medical chart standardization and proper documentation through developing chart documentation support tools (general and disease specific medical chart insert forms and flow-sheets) with instructions and providing intensive trainings/on-job coaching to properly document and use these data for routine monitoring progress in prevention and management of NCDs.

Economic Evaluation

To ensure effectiveness and efficiency of quality improvement interventions on prevention and management of NCDs, rigorous operational research is in place by way of non-randomized, controlled evaluation of the quality improvement interventions in ambulatories and hospitals of Georgia.

With the above-mentioned activity, the USAID ASSIST team aims to generate valuable evidence for managers of private medical facilities, and the Government of Georgia to support access to and delivery of high impact cost-effective NCD prevention and management practices throughout the country.

Multi-Country Assessment of NCD Screening and Management Practices

A solid understanding of NCD service delivery and health system gaps is an essential first step for planning the scale-up of “best buy” NCD practices. In 2011, the USAID HCI Project conducted a USAID-funded four-country assessment of NCD prevention, early detection and treatment services for women of reproductive age in ambulatory health centers in Albania, Armenia, Georgia and Russia. This assessment helped to shed light on what is happening for clients in this region as they interact with the health care system, highlighting service delivery and broader health system gaps and opportunities.

The assessment demonstrated low to intermediate performance of basic health system functions essential for effective NCD service delivery and variable but generally weak delivery of cost-effective, high-impact individual NCD interventions, the WHO “best buys”. The report recommended immediate- and mid-term actions to scale up NCD prevention and control practices. Recommendations of above mentioned assessments are likely to be relevant for most LMICs struggling to avert millions of preventable premature deaths and illnesses and promote stable development.