Improving Quality of Diagnosis and Management of Chronic Respiratory Diseases in Georgia

Tamar Chitashvili, Kathleen Hill, Nato Shengelia
USAID Health Care Improvement Project, University Research Co., LLC

Background

With support from the United States Agency for International Development (USAID), the USAID Health Care Improvement Project (HCI) is collaborating with the Ministry of Health (MoLHSA) of the Republic of Georgia to improve quality of care for priority high-burden and under-diagnosed diseases, including asthma and chronic obstructive pulmonary disease (COPD).

The project supports improvement work in 17 ambulatory clinics and village solo practices and three hospitals in Georgia's Imereti Region, with a population of 700,000. In addition to facility-level activities, the project supports improved access and use of evidence-based medical information and development of different tools to institutionalize and spread the best practices countrywide.

Problem Description

Despite high population use of tobacco (50% of men and 4% women are daily smokers) and air pollution, COPD and asthma remain largely under-diagnosed in Georgia. A 2008 population-based pilot study by the Global Alliance for Non-Communicable Diseases measured five-times higher COPD prevalence in Georgia than official national prevalence measures.

Proven, high-impact care services for prevention and treatment of asthma and COPD exist but face many challenges in Georgia, including lack of supportive national policy and financing mechanisms, low provider knowledge and competence, lack of essential medications and equipment, and lack of basic monitoring systems to track chronic respiratory disease rates and the quality of asthma and COPD management, resulting in prevalence of outdated, non-evidence-based disease diagnosis, classification, and treatment practices and poor patient outcomes.

Strategy for Change and Interventions

Starting in March 2012, HCI supported the development of asthma and COPD change packages for ambulatory and hospital quality improvement teams with a strong focus on high-impact, cost-effective best practices. The project delivered intensive clinical and quality improvement method trainings and developed and distributed four job aids and other evidence-based medical information on diagnosis and management of asthma and COPD.

Improvement teams made up of managers, nurses, and doctors in each participating ambulatory clinic and hospital in Imereti have been supported to identify gaps in management services of chronic respiratory diseases. These teams then planned, tested, and refined changes in their local health care processes to overcome obstacles to the delivery of asthma and COPD best practices. During learning sessions, improvement teams from different facilities have met to share their progress toward improving best practices and discuss priority implementation and clinical topics.

Measurement of Improvement

The HCI team supported improved chart documentation through chart standardization tools (asthma and COPD flow sheets) for project-supported ambulatory clinics and hospitals. The project also developed/adapted site-level tools (measurement criteria for compliance with asthma/COPD change packages, data collection and analysis tools) to support routine data collection, monitoring, analysis, and documentation of progress towards implementation of asthma and COPD best practices. Using these tools, improvement teams monitored on a monthly basis the implementation of best practices through review of patient medical charts with diagnosis of asthmas or COPD and analyzed them during improvement team meetings.

Effects of Changes

Figures 1 and 2 demonstrate results from 19 months' implementation of improvement interventions in 17 ambulatory centers and three hospitals in Georgia's Imereti Region. Monthly chart reviews show that average compliance with COPD and asthma best practices increased from less than 10% of charts at baseline to over 67% at the hospital level (**Figure 1**) and 78% at the ambulatory level. Sites also improved their diagnosis of asthma and COPD.

In addition to improved compliance with the evidence-based asthma and COPD clinical practices, the interventions led to a decrease in use of non-evidence-based medications, both in ambulatory and hospital settings, with a parallel increase in the use of effective nebulizer treatments in hospitals (see **Figure 3**).

Figure 1. Baseline and ongoing compliance with process indicators in hospital management of asthma and COPD: Percent of medical charts of patients discharged for asthma/COPD last month with documented evidence-based best practices
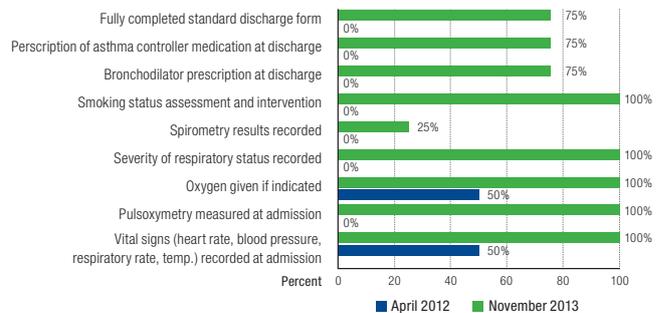

Figure 2. Baseline and ongoing compliance with process indicators in ambulatory management of asthma and COPD: Percent of charts of patients seen for asthma/COPD last month with documented best practices
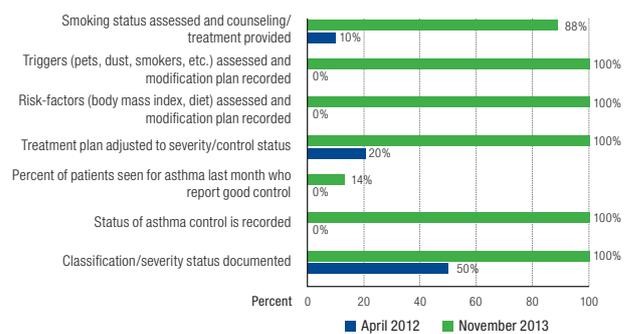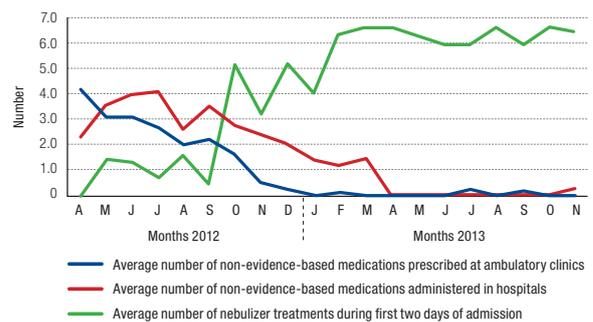

Figure. 3 Prescription/administration of medications during ambulatory and hospital management of asthma and COPD per patient medical chart review

Message for Others

Improved compliance with high-impact, cost-effective asthma and COPD treatment practices and decreased use of non-evidence-based medications will have significant impact on premature death caused by chronic respiratory disease, as well as cost-savings for patients and payers.

Lessons Learnt

Although improving patient information was not a direct focus of the project, HCI has supported provider-level activities directed at patient education and counselling. The project has shown that a combination of national, population, and facility-based activities are essential to modify asthma and COPD risk factors and improve patient self-management support.