

Public Health Practice Stories from the Field

National Public Health Improvement Initiative in North Carolina



Quality Improvement 101: Improving Public Health One Rapid-Cycle Improvement Project at a Time

Developed

workforce capacity by training almost 100 staff in the North Carolina Division of Public Health in quality improvement tools and methods

Engaged

state and local public health agencies, public/private partnerships, and academic institutions

Identified

teams with strong interest in quality improvement and projects with a high chance of success

Applied

quality improvement methods for planning and developing the training program

Enhancing the capabilities of the public health workforce at state and local levels is critical to improving public health service delivery and population health outcomes. The North Carolina Division of Public Health (NCDPH) and the North Carolina Center for Public Health Quality are working together to train NCDPH staff in using continuous quality improvement (QI) tools and methodologies in daily practice.

Building on a previous accomplishment of training local public health department staff members across the state, a five-month program was developed for NCDPH staff to learn about QI and apply what they learn to specific rapid-cycle improvement projects. Training included planning for specific projects; coaching by Center for Public Health Quality faculty; workshops on QI and project methods and tools; an action period for implementing plans with help from coaches; and a final workshop for celebrating successes and sharing lessons learned. Ultimately, more than 400 division staff will be trained.

NCDPH previously provided QI training to local public health staff, but its own staff had only limited QI training to date. Funding from the Centers for Disease Control and Prevention's (CDC) National Public Health Improvement Initiative (NPHII) allowed NCDPH to begin offering comprehensive QI training to its own staff.

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What We Did

CDC's NPHII funding was central to the implementation of the QI 101 pilot for NCDPH staff members. In year one, funds were used to

- Develop the QI training curriculum and train nearly 100 NCDPH staff
- Implement a five-month training, coaching, and program implementation program for four teams across NCDPH
- Implement four rapid-cycle QI projects
- Begin planning a "QI Advisor" course for individuals who want to become QI champions and promote QI culture change across North Carolina

What We Accomplished

A major goal of QI 101 is to institute sustainable change across the state by having teams apply QI tools and methods to real world problems in public health practice. For example, the NC Heart Disease and Stroke Prevention Branch

- Improved their response time for informational requests from local, state, and national customers from a baseline of 13.1 days to only 2 days
- Generated a return on investment of \$15.53 after costs for every \$1 invested in their quality improvement project

By pilot testing a process for implementing and sustaining the 5A's Tobacco Cessation Intervention and Referral Program within clinical settings, the NC Tobacco Prevention and Control Branch

- Increased the number of patients being assessed about tobacco use from 9% to 100%
- Increased the number of tobacco users receiving quit assistance from 9% to 42% in the pilot safety net clinic
- Generated a return on investment of \$14.97 after costs for every \$1 invested in their quality improvement project

NC Vital Records

- Decreased their service time for walk-in customers seeking vital record documents (birth, death, marriage, and divorce certificates) by 21%, from 34 to 28 minutes
- Improved overall customer satisfaction from 76% to 90%, while reducing temporary employee costs at an annual rate of \$9000

What We Learned

In year one, NCDPH learned that

- Quality service is derived from quality staff—training motivated staff will go a long way toward changing the culture within organizations
- Teams facing budget cuts or loss of staff have a difficult time following through with program goals and benefit from project management tools and coaching
- Leadership and management support at all levels are key to success

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