VIEWPOINT

Population Health Case Reports
From Clinic to Community

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Like a winning lottery ticket, the productive alignment of medical services with public health has been long desired but infrequently experienced.[1] Recently, however, the evolution of health care payment may be tilting the odds in favor of initiatives that cross from the clinic to the community.[2] As accountable care organizations, medical homes, and hospitals under global budgets begin to accept financial risk for the health of large populations of patients, there is new momentum for the development of collaborations that aim to reduce preventable illness.[3-5]

In April 2015, the Collaborative on Bridging Public Health, Health Care, and community associated with the Roundtable on Population Health Improvement at the National Academies of Sciences, Engineering, and Medicine solicited "population health case reports" that would describe

- A new collaboration between a health care organization such as a hospital or physician office and a public health department or community agency;
- Cultural and institutional barriers that had to be overcome;
- How the initiative was brought from conception to reality, including the relevance of new financial incentives and administrative structures;
- How data have been used to design or implement the effort; and
- The effect of the program on the health of a clearly defined population.

> Collaborations between health systems and public health agencies reflect the growing recognition that the medical care system is limited in its ability to achieve better outcomes at lower costs.

After peer review by public health officials, academic experts, and representatives of medical and public health organizations, a steering group chose 8 articles to publish online during 2016.[6]

Several of the articles described collaborations that began when clinical organizations identified high-risk populations. For example, Nemours Hospital in Delaware identified more than 800 children with asthma and then partnered with local schools and health agencies to provide education and intervention in the community. The hospital reported a substantial decline in emergency department visits for the target population. The Medicaid managed care plan associated with the University of Pittsburgh Medical Center sought to improve outcomes and reduce costs for homeless individuals. The plan then collaborated with local human services and housing agencies that involved providing housing, case management, and supportive services. Although there was no significant change in the cost of care, the effort has identified a promising shift in expenses toward primary care visits and outpatient prescriptions. The Denver Health system recognized an opportunity to advance smoking cessation among thousands of patients attending outpatient clinics; a collaboration with public health led to an intensive quality improvement effort that saw expanded use of cessation services and reductions in tobacco use.

Other collaborative projects took community health goals as their starting point. In Olmsted County Minnesota, the county health department achieved improvements in influenza vaccine coverage by collaborating with the Mayo Clinic and Olmsted Medical Center to offer school-based influenza vaccinations. In 2013, New Hampshire's Department of Public Health, as part of the national Million Hearts Initiative, worked with Cheshire Medical Center and the Dartmouth Hitchcock-Keene health system and other partners, including local public health agencies, to implement a broad hypertension control initiative in 3 communities. The project, which involved a patient registry, a community education campaign in concert with the YMCA and local grocers, and free community resources for blood pressure assessment, was associated with community-wide improvements in hypertension control. In Franklin County and North Quabbin, Massachusetts, a broad public-private coalition came together to develop a comprehensive approach to prevent addiction. The strategy involves improved compliance checks for underage alcohol sales, a new school curriculum, expanded brief screening and intervention in the Baystate Franklin Medical Center, and enhanced clinician education on the prescribing of pain medications.

In 2 cases, the use of technology spanned clinical and public health settings. In Olmsted County, Minnesota, the hospitals shared real-time alerts of emergency department visits by high-risk pregnant women with maternal and child health nurses. In Boston, Massachusetts, a web-based program that refers individuals to transportation, employment, and other community services was developed at Children's Hospital and then adopted by the city's health department and the Mayor's Health Line. This program grew 4-fold between 2011 and 2015, helping 4167 users seen by more than 150 health care practitioners and organizations and social service providers to connect with more than 1700 agencies.

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The diversity of these efforts shows that there is no set pathway for effective collaboration between medical services and public health. Funding sources varied widely across the 8 collaborative initiatives. Some received federal funding, including from the Office of the National Coordinator for Health Information Technology, the Centers for Medicare & Medicaid Services' (CMS's) Innovation Center, the Centers for Disease Control and Prevention, the Prevention and Public Health Fund, and the Department of Housing and Urban Development. Others received support from a range of local or state sources.

Notwithstanding this diversity, several common themes emerged among the initiatives. Most of the projects reflected a recognition of patients' social needs or the broader context that influences a patient's health status and of the importance of cross-sector partnerships to respond. Attention to social needs through clinical-community linkages is the centerpiece of the recent funding opportunity announcement from the CMS Innovation Center.

A number of the efforts saw promise in sustaining these programs through savings available under payment reform. Most directly, the Pittsburgh/Allegheny County project to support individuals with chronic homelessness, through the hospital's managed care section, was able to capture savings in acute care costs.

Many of the partnerships featured in the series reported similar challenges, including barriers to accessing data and using common technology, the difficulty in continuing initiatives beyond the end of a grant, and the frustration of establishing a new reporting functionality when 2 funders require slightly different metrics. Relationships between leaders of medical and public health organizations in support of an overriding health objective helped to overcome these challenges.

More rigorous research is needed to evaluate the effect of innovative work at the boundary of medical care and public health.[7] Because of the nature of these projects, it is unrealistic to expect to see many randomized controlled trials. Alternative studies suited to the complexity of community-based work are available.[8,9] But questions about sustainability and long-term improvement of patient outcomes need to be answered.

Collaborations between health systems and public health agencies reflect the growing recognition that the medical care system is limited in its ability to achieve better outcomes at lower costs. As payment reform advances, the need for successful partnerships will grow stronger. A robust national dialogue about how to nurture and reward such efforts is in the interest of clinical organizations, patients, and communities.

ARTICLE INFORMATION

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