Data-Driven Population Health: Collaboration Between Macon County Public Health and Community Hospitals

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In North Carolina, local health departments (LHDs) have traditionally led efforts to develop community health improvement plans [1], but their leadership and advocacy in this role must be strengthened and supported by community partnerships. When it comes to the delivery of core and essential public health services, all North Carolina LHDs have similar missions and responsibilities [2], but they differ in size, scope, competency, and capacity to deliver essential services. To compensate for these differences, rural LHDs are most successful when they partner with a variety of community stakeholders in conducting a community health needs assessment (CHNA) and implementing identified priorities.

Macon County Public Health (MCPH) is a medium-sized rural LHD located in Western North Carolina. Several factors differentiate rural counties from their more urban counterparts. First, small communities have a limited number of community partners with whom the LHD can collaborate. If these partners become disenfranchised, a rural LHD may have no way to replace their input. Second, it is important for directors of rural LHDs to maintain healthy relationships with hospital chief executive officers, because poor relations can have a negative impact on LHD program development. Third, relationships are often more personal in rural communities, with information sometimes spreading quickly via word of mouth rather than through formal communication channels.

Even before passage of the Patient Protection and Affordable Care Act of 2010, LHDs began to notice that the roles of the private and public health sectors were shifting in such a way that future population health efforts would require cooperation and strong partnerships. LHDs have long advocated for and provided most of the population-based health initiatives at the community level, and developing strong partnerships with private-sector health organizations such as hospitals can lead to improvements in quality, reductions in the cost of health services, and ultimately improvements in population health [3].

In Macon County, CHNAs were conducted in 2011 and 2012. The 2012 assessment was conducted in an effort to align MCPH with the CHNA schedule of the county’s nonprofit hospitals, which must perform a CHNA and adopt an implementation strategy every 3 years in order to retain their tax-exempt status [4]. In conducting the 2012 CHNA, MCPH partnered with Angel Medical Center in Franklin, Highlands-Cashiers Hospital in Highlands, and specific employees of MedWest Health System in Clyde. The CHNA committee was made up of staff members from all 4 organizations and other key community stakeholders.

The first step in the assessment process involved getting all of the partners to agree on a standardized method for collecting, analyzing, and prioritizing data. The process then required collecting information via a telephone survey, conducting focus group discussions, interviewing key informants, and reviewing the available statistical data. Once the data were collected and analyzed, MCPH and the partnering hospitals identified 3 health priorities: reduction in the incidence of preventable chronic diseases related to obesity; improved access to care through recruitment and retention of additional primary care physicians and dental practitioners; and reduction in the incidence and mortality rates of breast, colon, and lung cancer through prevention and early intervention [5].

To address these priorities, several new evidence-based initiatives have been implemented. Highlands-Cashiers Hospital has collaborated with MCPH to expand a diabetes self-management training program at their facility. MedWest Health System is working with 6 LHDs and Western Carolina University to implement a regional mobile endocrinology clinic. Angel Medical Center has
sponsored diabetes programs at “ladies night out” events and has kicked off a weight-loss program, Lighten Up 4 Life [6]. Angel Medical Center has also required new hospital-based physicians to volunteer time at Community Care Clinic of Franklin and has promoted the American Cancer Society’s Cancer Prevention Study-3, a multyear survey studying lifestyle, behavioral, environmental, and genetic factors that may cause or prevent cancer [7]. Finally, MCPH has added a second registered dietitian to its diabetes self-management training program and has expanded its gestational diabetes education services.

These new programs have had a significant impact on population health. Five-year diabetes mortality rates fell to 16.8 per 100,000 population in 2008-2012 [8] from 23.0 per 100,000 population in 2003-2007 [9], and 71% of the patients who completed MCPH’s diabetes self-management training program reduced their glycosylated hemoglobin level to 6.5% or lower (personal communication from registered dietician Jessi Bassett, January 2014). In addition, participants in the Angel Medical Center’s Lighten Up 4 Life program have collectively lost more than 4,775 pounds [6].

In small rural communities such as Macon County, it is imperative that LHDs form sound partnerships in order to strengthen their capacity to deliver core and essential public health services. Hospital leaders can have a major impact on public health initiatives through their access to resources, including staff and funding. Because of this reality, all partners within a community must fully invest in CHNAs as a way of reaching consensus about the direction and focus of their population health interventions.

References

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