Trends in Hospital-based Population Health Infrastructure:

Results from an Association for Community Health Improvement and American Hospital Association Survey

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Association for Community Health Improvement™

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Table of Contents

Executive Summary

Hospitals and care systems increasingly are moving into the field of population health management to improve the health of their patients and surrounding communities. Hospitals' adoption of population health management signals a fundamental change in the health care field. In addition to hospitals providing acute care, they are also striving to promote health and wellness outside their walls.

Hospitals will need to realign their organizational infrastructures to be congruent with a population health management agenda. Health care leaders recognize that population health will be key to their success moving forward, but are unclear how to integrate it into their operations. Anecdotal evidence from the field indicates there is no standard for how hospitals and care systems should operationalize population health management.

In response to growing interest from members of the American Hospital Association and the Association for Community Health Improvement, a survey on population and community health organizational and staffing infrastructure was sent to 5,000 acute care hospitals across the United States; 1,198 hospitals (24%) completed the questionnaire.

Survey results indicate great variation in all aspects of population and community health infrastructure.

- Hospitals are equally likely to run population health initiatives out of one department as three or more departments; administrative/executive office and community health are the most common departments in which to embed population health.
- Middle managers are most likely to lead population health initiatives, though in small and rural hospitals the leaders are more likely to be executives.
- The time dedicated by the leader of the primary population health department varies from less than a quarter to a majority of their work time. Large hospitals are more likely to have leaders devote a majority of their work effort to population health.
- Hospitals demonstrate an array of community collaborations with schools, public health departments, community coalitions and more. Urban hospitals reported more community partnerships than rural hospitals.
- Most population health leaders are fairly new to the field and their position but have extensive experience in health care. A majority have earned advanced degrees in a variety of fields.
- There is high demand for further training and continuing professional education in the population health field. Community health, health education and community benefit are the most desirable professional and educational backgrounds, while community health needs assessments, healthy communities and collaborative facilitation and leadership are considered the most critical professional education subjects.

These findings confirm the heterogeneity of hospital-based population health infrastructure and staffing and can serve as a baseline to assess the development of the field moving forward. Despite differences in infrastructure, hospitals and care systems face similar challenges moving forward. They will require the organizational capacity to integrate population health management into practice and need to develop a workforce capable of initiating challenging changes that align institutional priorities with population health goals. Thriving in the Affordable Care Act era will require hospitals to transform into organizations that excel at acute patient care alongside population health management.

Introduction

Hospitals and care systems increasingly are expanding their scope to focus on population health management as a tool to improve the health of their patients and surrounding communities. The ultimate goal of population health management is to promote the overall health of a given population while also reducing health disparities by integrating public health principles into health care delivery.[1] This approach necessitates addressing a broad array of health determinants including the physical and social environment, individual behavior and access to high-quality, holistic health care to prevent chronic and acute diseases.[2] By focusing on the upstream factors that affect health, population health management promotes wellness at the community level.

Myriad factors are driving hospitals and care systems to address the nonmedical determinants of population health. Most notably, the Affordable Care Act implicitly and explicitly promotes a population health management approach to care delivery. Not only does this legislation expand health insurance to a majority of the United States population, it compels hospitals to address the socioeconomic, behavioral and environmental factors that affect people before hospital admission and after discharge. The ACA is accelerating the shift of reimbursement models from fee-for-service to value-based, a structure that promotes better health outcomes, improved quality of care, illness prevention and coordination across the continuum of care. Care systems are now being held accountable for the health of their patient population and are responsible for implementing health improvement strategies to address community health needs. Adopting a population-based approach to care that encompasses the spectrum of determinants of health is essential for care systems to thrive in the ACA era.

To improve health outside their walls, hospitals and care systems must engage in multisectoral partnerships with community-based groups, health departments and public health organizations. By bringing together stakeholders from across the health care system and local community, hospitals can collaborate to identify population health priorities and develop strategies to address the health issues unique to their specific community. The federally mandated community health needs assessment process can provide a forum for enhanced collaboration between hospitals and their partners.

Hospital leaders recognize that population health management will be a key aspect of their function in the future. The American Hospital Association's 2012 Annual Survey of Hospitals found that 98 percent of CEOs believe that hospitals need to investigate and implement population health management strategies. Furthermore, a survey of hospital leaders on health care trends suggests a paradigm shift toward population health management over the coming years.[3]

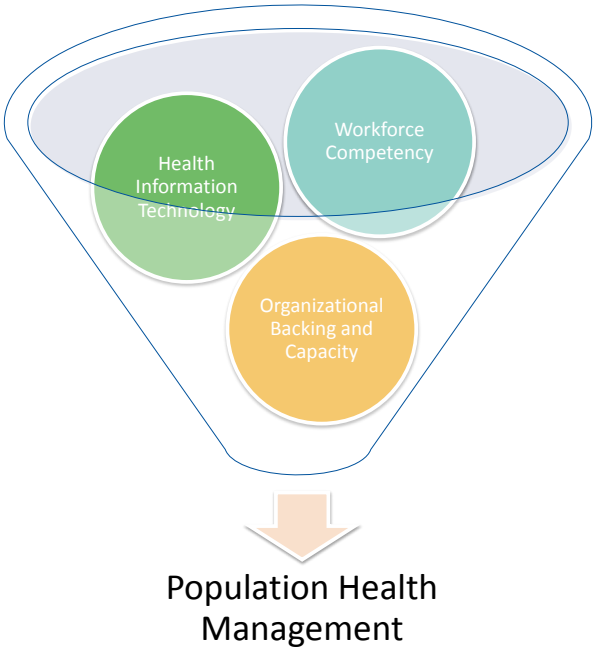
As established community stakeholders, hospitals and care systems have the opportunity to play a significant role in population health transformation. Hospitals can leverage their medical expertise and extensive resources to achieve population health goals, but they will have to recalibrate their organizational infrastructure. Forward-looking hospitals will need to engage in challenging but necessary changes to improve the health of their population as well as their institution's financial bottom line.

Organizational Infrastructure

An organization's structure determines its efficiency and ability to fulfill its goals. To be successful and sustainable, population health management initiatives must be integrated into the institution's operations. Hospitals are currently organized to be acute care delivery systems; in the future, they will also be required to provide health education, healthy lifestyle promotion and disease and injury prevention programs. These new demands on care systems will require hospitals to prioritize multisectoral expertise, diverse collaborations and co-leadership within and outside the hospital setting. A strong institutional culture and supportive infrastructure are essential to the success of population health management.

Hospitals need three foundational components to integrate population health management into their organizational infrastructure: 1) a capable and qualified workforce trained in community and population health principles and practices; 2) health information technology and translatable data to track health trends for targeting at-risk populations; and 3) organizational capacity, including strong backing from senior hospital leadership, clinician engagement, formalized community partnerships and aligned resources[4] (see Figure 1).

Figure 1. Key competencies for population health management infrastructure



Source: Association for Community Health Improvement, 2013.

Anecdotal evidence from the field indicates there is no standardized approach for how population health should be integrated into a hospital's operations or who should manage it. Many hospitals and care systems continue to struggle to define what they mean when they say "population health" and how that concept is differentiated from "community health" and "community benefit." While these concepts overlap theoretically, in practice the latter are contributors to the greater goal of population health improvement. As the field of population health gains momentum and influence, it is important to assess its current state and develop a more distinctive picture of how hospitals and care systems practice population and community health today.

Survey

Members of the Association for Community Health Improvement and the American Hospital Association have sought advice on best practices for population health management as it relates to changing models of health care delivery and financing. Furthermore, the AHA identified population health management as a priority for the entire association. For an initial environmental scan of the field, AHA, in conjunction with ACHI, surveyed hospitals nationwide about the organizational structure, leadership and staffing of their population and community health initiatives. The survey addressed two of the three identified core competencies for population health infrastructure: organizational capacity and workforce competency. A future report will address health information technology competencies for population health management.

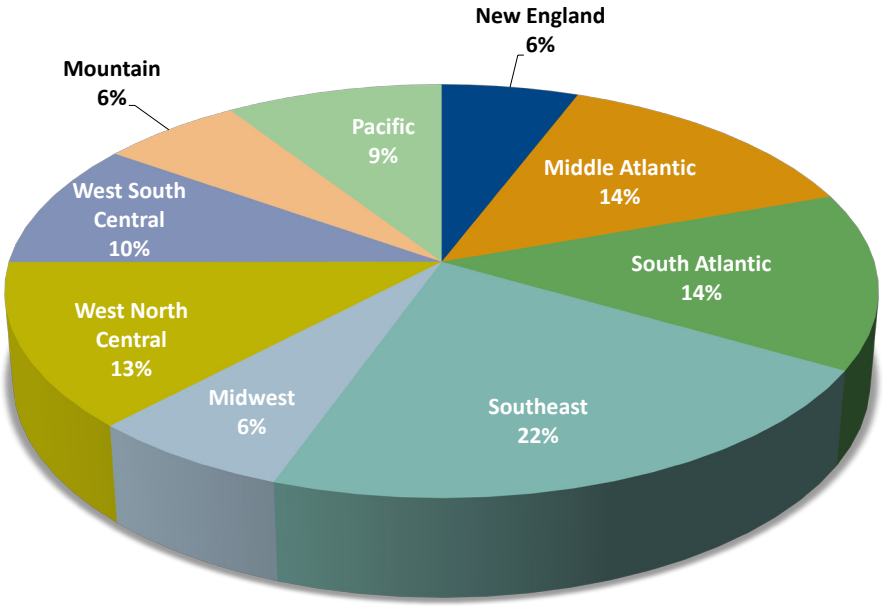
Survey questions aligned with four topic areas related to population health infrastructure: 1) organizational structure, 2) community partnerships, 3) leadership characteristics and 4) demand for professional and educational backgrounds for hospital-based population health staff. For this survey, community and population health programs are defined as activities that may include, but are not limited to: prevention and wellness initiatives; health education; health screenings; health fairs; community-based chronic disease management; community health needs assessment; provision or support of primary care services for medically indigent populations; outreach for enrollment in Medicaid, State Children's Health Insurance Program and related programs; participation in community health or healthy community coalitions; and programs to address social or environmental determinants of health.

Demographics

The survey questionnaire was mailed to 5,000 acute care hospitals across the United States. A total of 1,198 hospitals completed the survey between mid-November 2011 and mid-January 2012, for a 24 percent response rate.

Hospitals in the sample were demographically diverse. The Southeast (22%), South Atlantic (14%), Middle Atlantic (14%) and West North Central (13%) regions were most frequently represented (see Figure 2). The distribution of hospitals in this sample is similar to the national distribution of AHA member hospitals, with the Southeast slightly overrepresented. Urban hospitals comprised 61% of respondents, with fewer micropolitan (20%) and rural (19%) hospitals responding. In line with Agency for Healthcare Research and Quality designations, micropolitan and rural hospitals are both considered rural for the purpose of data analysis.[5]

Figure 2. Geographic distribution of responding hospitals (n=1,198)

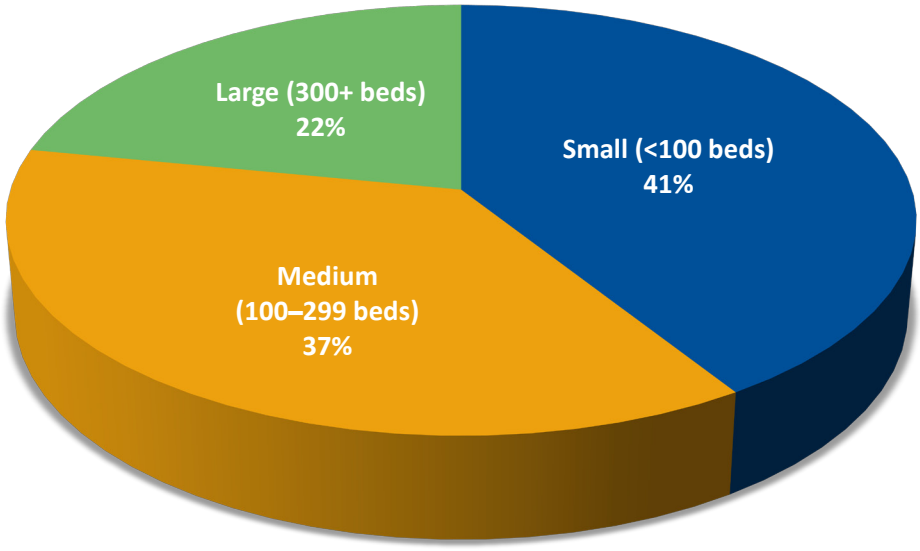


* Regions are aligned with the AHA's designation. Click here for a full list.

Source: Association for Community Health Improvement, 2013.

Responding hospitals varied in size (see Figure 3). Most large hospitals were located in urban areas (96%), while small hospitals were more likely to be in rural areas (68%). A majority of hospital respondents (52%) were not part of a hospital network and 32% were academic medical centers.

Figure 3. Hospital size by number of beds (n=1,198)



Source: Association for Community Health Improvement, 2013.

Organizational Structure

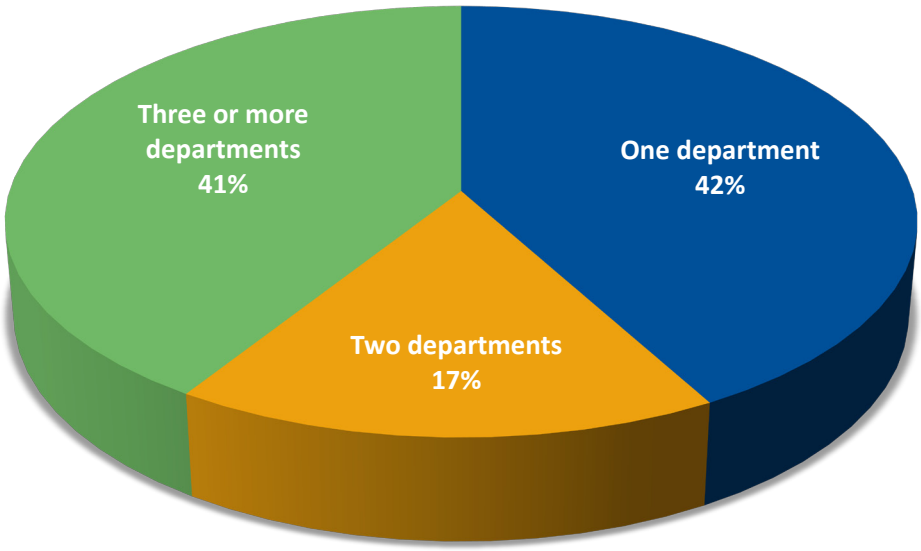
Why It Is Important

Departmental ownership, staff distribution and leadership structure influence how work gets accomplished, in any organization and with respect to any activity. Anecdotal evidence from the population and community health field suggests a high degree of variability in how hospitals structure and allocate resources to population health management.

Finding 1: Departmental responsibility for population health is highly variable.

Forty-two percent of respondents reported that responsibility for population health in their hospital is centralized in one department, while 41% stated it is distributed across three or more departments, suggesting diverse organizational structures (see Figure 4). The distribution was similar across hospital sizes.

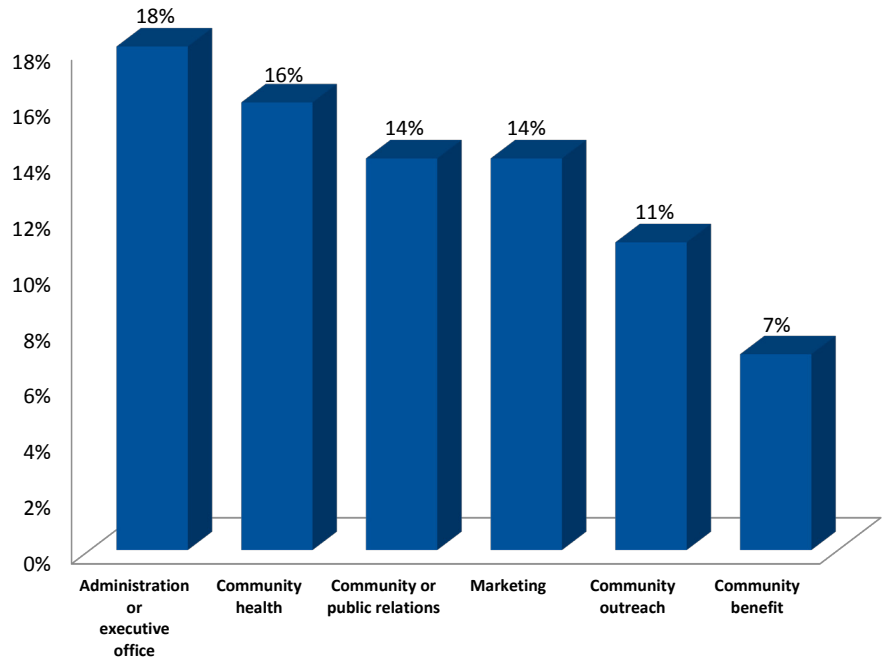
Figure 4. Departmental responsibility for population health programs (n=1,192)



Source: Association for Community Health Improvement, 2013.

The top five departments reported as having principal responsibility for population health accounted for 73% of responses, while the remaining 27% identified one of six other specific departments or "other" (see Figure 5). The most commonly reported department for population health management was administration/executive, followed by community health.

Figure 5. Department with principal responsibility for population health programs (n=1,191)



Source: Association for Community Health Improvement, 2013.

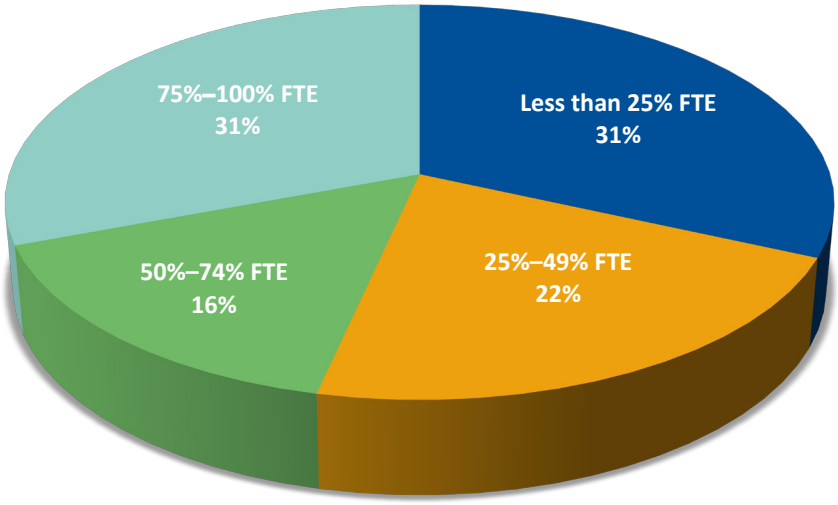
Finding 2: Middle managers are most likely to lead the department with primary responsibility for population health, though leadership structure differs by hospital size and location.

In nearly half (49%) of hospitals surveyed, a middle manager headed the department with principal responsibility for population health programs. While middle managers were most likely to head the department across hospital types, the proportion varied by hospital size and location. Rural hospitals were more likely than urban hospitals to have executive managers head their population health function (22% vs.10%). Similarly, small hospitals were more likely to have executive managers leading the department (23%) than medium (10%) and large (6%) hospitals.

Finding 3. The amount of work time dedicated to population health by the leader of the department with principal responsibility varies.

Population health was equally likely to be less than a quarter or a majority of how the department leader's time was allocated (see Figure 6).

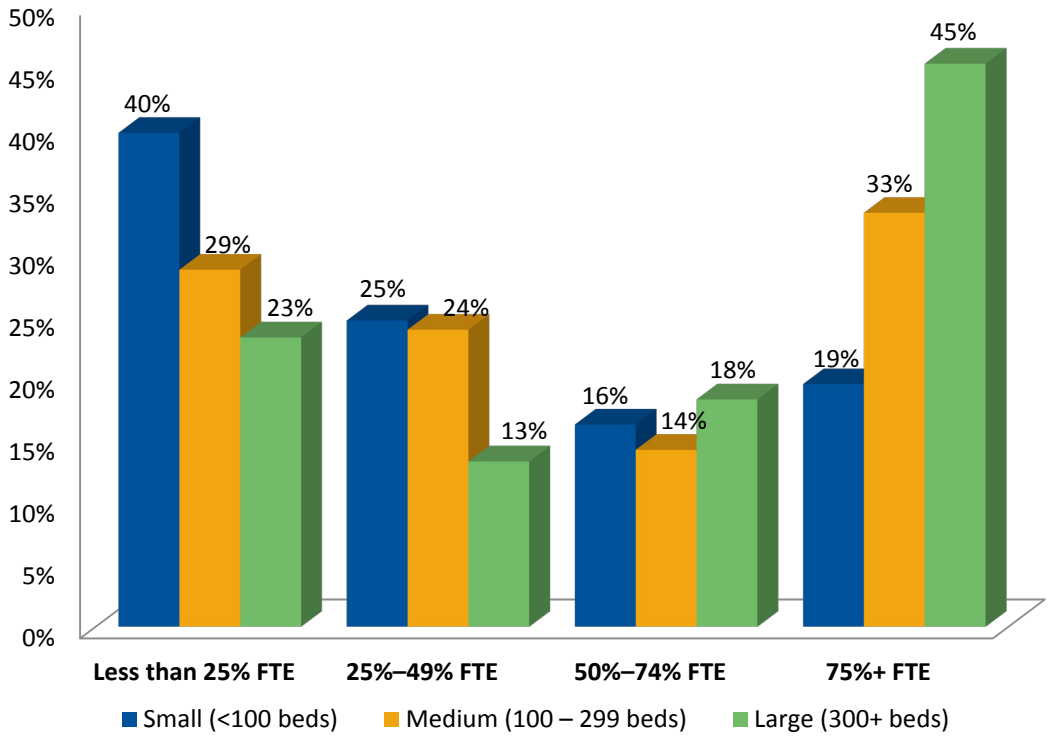
Figure 6. Percentage of leader's time allocated to population health (n=1,066)



Source: Association for Community Health Improvement, 2013.

When analyzed by hospital type, it becomes evident that hospital size strongly correlates with time devoted to population health. Small and rural hospitals were more likely to have the leadership position spend less than a quarter of their time on community health, while large and urban hospitals were more likely to have the position devote a majority of its time to population health (see Figure 7).

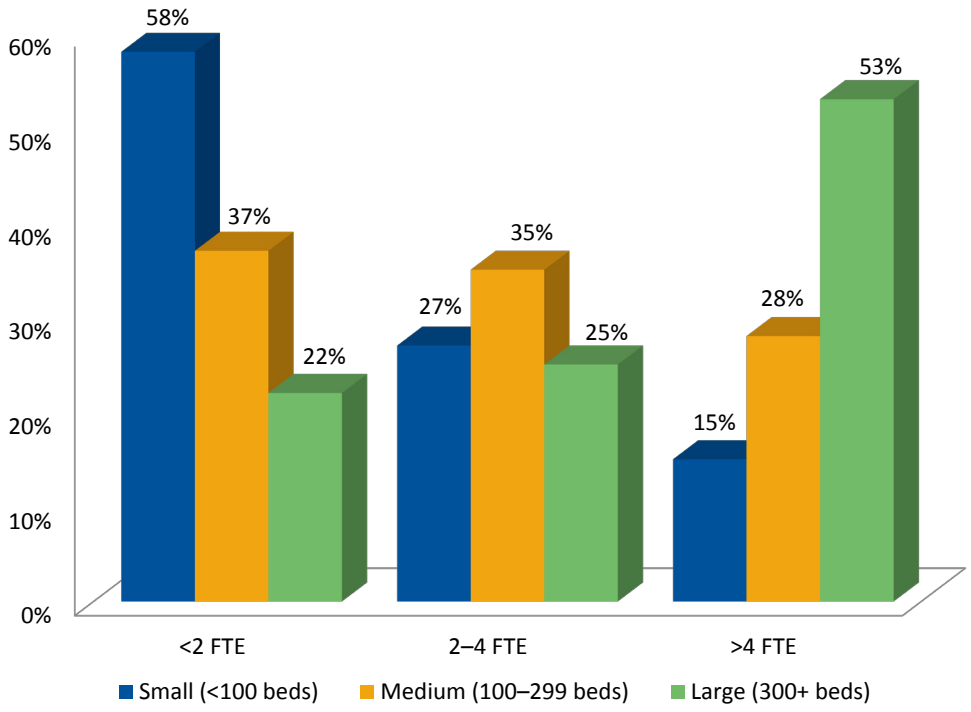
Figure 7. Percentage of leader's time allocated to population health by hospital size (n=1,066)



Source: Association for Community Health Improvement, 2013.

Staffing levels for population health, including both program and administrative staff, varied widely. Overall, the median number of full-time equivalent positions was two, with 42% of hospitals reporting fewer than two FTEs and 29% reporting between two and four FTEs. These statistics simplify the degree of variation in the field; the average number of FTE positions devoted to population health in this sample was 7.4 (SD = 27; range 0–650). Hospitals that are part of systems allocated more FTEs to population health (mean = 14.5) than stand-alone hospitals (mean = 4.4). The number of FTE positions devoted to population health positively correlated with the size of the hospital (Pearson's r = 0.343). Large hospitals (53%) were more likely to have more than four FTE positions devoted to community health than small or medium hospitals (15% and 28%, respectively). (See Figure 8.) These divergent time allocations may be reflective of resource availability or a hospital's commitment to a population health agenda.

Figure 8. Staff work time devoted to population health by hospital size (n=1,132)



Source: Association for Community Health Improvement, 2013.

Community Partnerships

Why It Is Important

Effective population health promotion necessitates collaborative relationships between hospitals and external organizations to expand the scope of hospital influence into communities. Partnerships span public health departments, schools or houses of worship. Clarifying the nature of hospital-community collaborations provides insight into where hospitals can augment their partnerships.

Finding 4: Hospitals collaborate with a wide range of community partners on population health improvement programs.

Respondents indicated the community and civic organizations with which they had at least one current, shared or collaborative project or initiative on population health (see Table 1). Survey results reveal that hospitals engage in numerous and diverse community partnerships. The mean number of reported partnership types per hospital was 8.63 (SD = 3.72). Across almost all partnership types, urban hospitals averaged more active partnerships than rural hospitals (9.17, SD = 3.7 vs. 7.78, SD = 3.64).

Table 1. Hospitals' partnerships with community organizations (n=1,198)

Organization Type	Current Partnerships (%)		
	Total	Urban	Rural
Primary and secondary education (school districts)	78	80	75
Public health department (local)	77	76	79
Chamber of Commerce or other business group	71	72	70
Community health center	70	74	66
American Heart/Lung/Diabetes Associations	68	73	60
City or county government	66	70	60
Community health coalitions	61	65	54
Faith community organization(s)	58	66	47
Postsecondary education (colleges, universities)	58	62	51
Service leagues (Lions, Rotary, etc.)	55	53	60
United Way	52	60	41
Neighborhood organization(s)	45	55	29
Public health department (state)	43	43	44
YMCA/YWCA	38	48	25
Environmental organization(s)	18	21	15

Source: Association for Community Health Improvement, 2013.

Professional and Educational Characteristics of Population Health Leaders

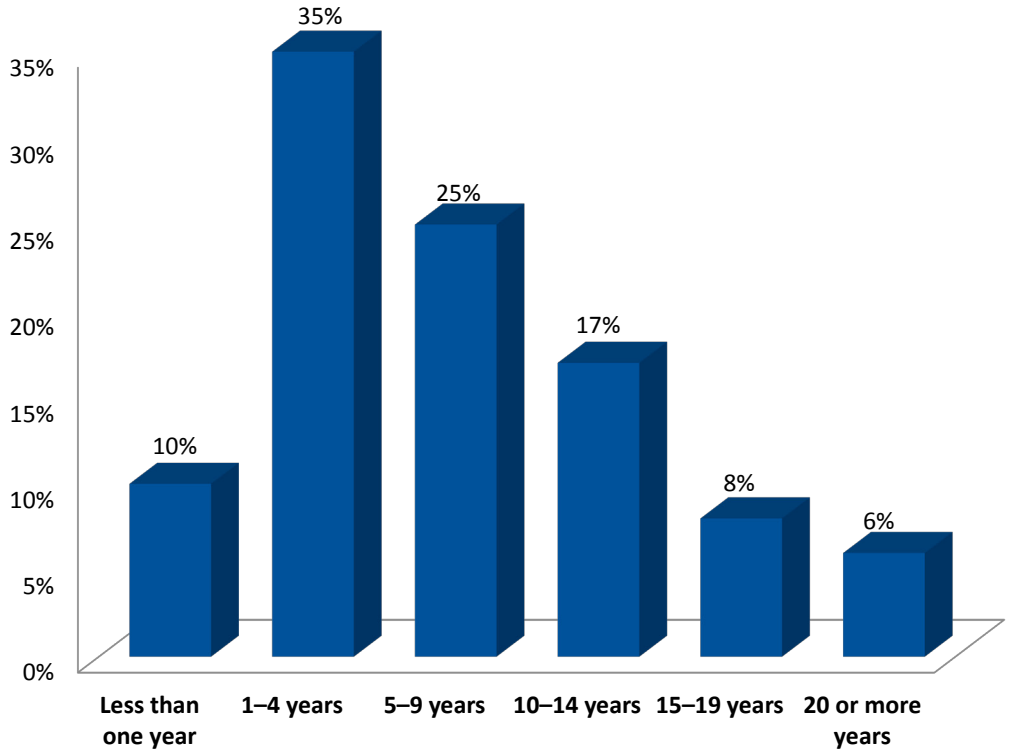
Why It Is Important

Identifying professional and educational characteristics of hospital-based population health leaders is essential to understanding how population health is operationalized. This information also allows for tailoring career training and education to ensure the development of population health as a field of practice.

Finding 5: Though population health leaders have extensive experience in health care, they tend to be fairly new to their position and the field.

Nearly one-half of hospital-based population health leaders in this sample were relatively new to the role, which suggests high turnover, the creation of new leadership positions or both. Only 31% held their position for 10 years or more (see Figure 9). The existence of a significant number of staff with experience in hospital-based population health leadership points to an opportunity to transfer skills and knowledge to junior members of the field.

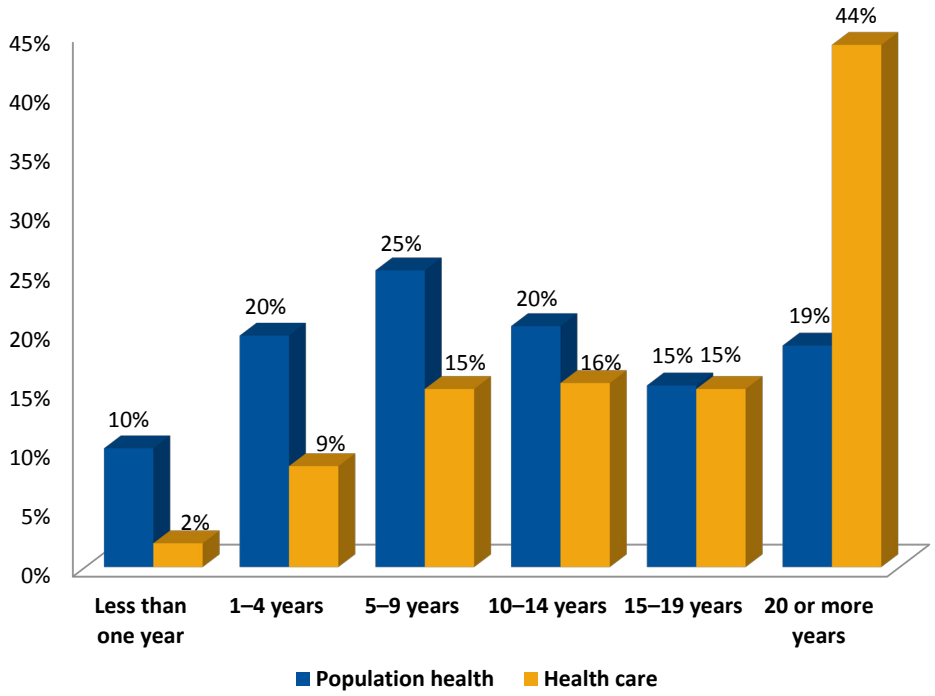
Figure 9. Tenure of person heading the department with principal responsibility for population health (n=1,137)



Source: Association for Community Health Improvement, 2013.

Though hospital-based population health leaders are fairly new to the field, they have many years of experience working in health care (see Figure 10). This finding highlights the emergence of population and community health as a hospital-based profession and signals an opportunity to build the capacity of current leaders by providing continuing professional education and developing graduate training programs focused on population health principles and practices.

Figure 10. Years incumbent leaders have been in the population health and health care fields

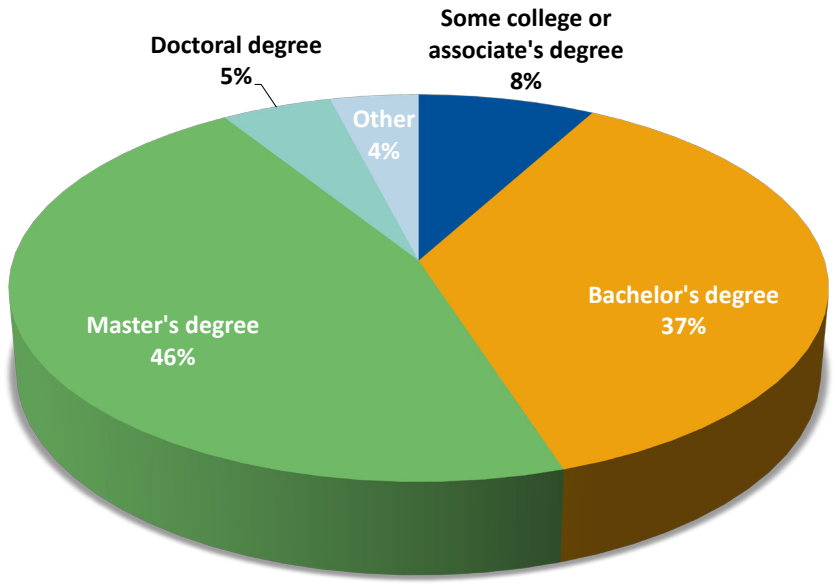


Source: Association for Community Health Improvement, 2013.

Finding 6: Hospital-based population health leaders tend to be highly educated in a wide range of disciplines.

Not unexpected for leaders working in large and complex organizations, slightly more than one-half (51%) of population health leaders have earned advanced degrees in a variety of fields (see Figure 11).

Figure 11. Educational attainment of person heading department with principal responsibility for population health (n=1,148)



Source: Association for Community Health Improvement, 2013.

The breadth of fields of study represented among the degrees of population health leaders is striking (see Table 2). Nursing, business and health care administration are the most common fields of education. It is notable that 15% of respondents selected "other" with responses ranging from medicine to philosophy. This finding speaks to the wide diversity in educational preparation for population health leadership, and is indicative of the lack of a specific educational or career track in population health for the hospital-based workforce.

Table 2. Fields of highest academic degree for population health leaders (n=1,117)

Educational Field	Percent (if ≥5)
Nursing	22
Business	20
Health care administration	16
Communications	13
Marketing	13
Health education	9
Public health	8
Clinical (other than nursing)	6
Social sciences	5
Other	15

Source: Association for Community Health Improvement, 2013.

Demand for Professional and Educational Backgrounds

Why It Is Important

The field of population health and its place in the United States' health care delivery system is changing rapidly, with health care reform legislation driving an enhanced role for population health in the years to come. Preparing for the future requires anticipating the demand for leaders and staff with the professional and educational backgrounds, knowledge and skills for population health management. Such preparation is necessary to ensure appropriate and effective workforce development and leadership succession planning.

Finding 7: The demand for professional and educational backgrounds for hospital-based population health management mirrors the multidisciplinary nature of the field.

The most important professional and educational backgrounds for staffing population health initiatives over the next few years were identified as community health, health education and community benefit (see Table 3). Interestingly, there are few dedicated advanced degree programs in those fields, suggesting an opening for new programs to fill the gap. Meanwhile, up-and-coming population health professionals will have to take responsibility to learn the necessary skills for entering the workforce, or hospitals will need to provide educational and professional development for their employees.

Table 3. Most important professional and educational backgrounds for staffing population health initiatives (percent responding "critically important" or "highly important")

	Professional Background (%)	Educational Background (%)
Community health *	85*	78*
Health education *	80*	73*
Community benefit *	76*	65
Communications *	73*	64
Planning	63	58
Public health	59	59
Nursing	52	54
Marketing	52	45
Clinical (other than nursing)	52	50
Epidemiology and health statistics	-	50

* Twenty-five percent or more said "critically important."

Source: Association for Community Health Improvement, 2013.

Finding 8: Demand for continuing education topics focuses on the practical and applied aspects of population health that align with ACA requirements.

Respondents identified community health needs assessments, healthy communities, collaborative facilitation, leadership and community benefit as the most in-demand continuing professional education subjects (see Table 4). These needs are likely to evolve as hospitals adapt to using their community health needs assessments and community benefit requirement to advance population health initiatives.

Table 4. Most important continuing professional education subjects for staff involved in population health initiatives (percent responding "critically important" or "highly important")

Subject	Percent
Community health needs assessments	90*
Healthy communities	84*
Collaborative facilitation and leadership	81*
Community benefit	80*
Evidence-based programs	79*
Health education	76
Communications	75
Social determinants of health	72*
Care coordination and care transitions	67*
Evaluation	66
Public health	63

* Thirty percent or more said "critically important."

Source: Association for Community Health Improvement, 2013.

The data suggest that multidisciplinary preparation will be vital for future hospital-based population health staff. An education grounded in a range of health-related fields is important to provide a foundation for an individual interested in becoming an effective population health coordinator, manager or leader. Hospitals should consider how these areas can be reflected in position descriptions, recruiting and staff professional development.

Furthermore, much of the subject matter, knowledge and expertise in demand are not necessarily taught within traditional medical or public health curricula, nor are they aligned with the departments that hospitals reported assigning principal responsibility for population health. Population health personnel needed now and in the foreseeable future should be capable communicators and collaborative leaders who have the ability to understand and analyze the impacts of complex social systems on individual and community health, integrate public health concepts and use data to plan and evaluate their work. This demand creates an opportunity to cultivate a hospital-based workforce with the ability to integrate population health initiatives that are aligned with a community's resources and needs.

Conclusion

Results from the ACHI and AHA survey reveal the heterogeneity of hospital-based population health infrastructures. Though some trends exist within hospital types, there is no standard for how population health is integrated into a hospital's operations. This finding is due, in part, to lack of a one-size-fits-all approach to population health. Organizational culture, institutional priorities, available resources and community needs impact how a hospital chooses to implement population health management.

The varied academic and professional backgrounds of hospital-based population health professionals reflect a lack of standardization in the workforce. As hospitals increasingly prioritize population health management and augment their population health workforce, staff will need to pool their knowledge and skills to develop effective, multidisciplinary approaches to care management and community health improvement.

Clearly, there is demand for further education and work experience in hospital-based population health principles and practices. As the field develops and distinguishes itself from public health, it may be advantageous to develop specific degree programs or educational tracks to focus on the unique skills necessary for hospital-based population health management, including conducting and implementing community health needs assessments, community benefit reporting, developing community-based partnerships and applying health information technology to population health. Having a theoretical basis for population health management will advance the field and, ideally, improve health care delivery.

Though hospitals differ, their overarching needs for the future are similar: All hospitals want to achieve the highest quality care at lower costs; hospitals are required to conduct community health needs assessments and demonstrate their attempts to improve community health; and all hospitals will have to work toward developing integrated solutions to keep their patient population and surrounding communities healthy. Hospital-based population health management is a relatively new field, so there is ample opportunity to explore innovative approaches.

Population health leadership at the executive and clinical levels will require institutional realignment. Health care systems will need to adopt a common language around population health and a governing paradigm to build the organizational capacity to effectively transform into institutions that excel in population health management. Only by having a strong infrastructure designed around population health goals can hospitals and care systems implement effective and sustainable population health management.

Most hospitals have yet to optimize and integrate population health management into their daily operations. The findings from this survey provide insight into the field's development and a baseline to assess the infrastructure and staffing for hospital-based population health initiatives. The data will enable ACHI and the AHA to support hospitals as they adopt infrastructures to improve population health in their communities.

Endnotes

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