Discussion Paper

Preparing Health Care and Public Health Professionals for Team Performance: The Community as Classroom

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Preparing Health Care and Public Health Professionals for Team Performance: The Community as Classroom

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INTRODUCTION

Today, team-based health care is no longer an innovation or even a choice. Increasingly, providers are using a team-based approach to deliver care, and the complexity of health problems facing many Americans, combined with the specialization of health professionals, makes teamwork and team training essential. This is especially true for dealing with factors that contribute to chronic conditions and for treating people with multiple chronic diseases—a group already comprising one-fourth of all Americans and two-thirds of people of age 65 or older (CDC, 2013, p. 6).

For individuals and families, health-related interactions occur in multiple settings. While these interactions often involve physicians and nurses in various disciplines and types of positions, they also involve physician assistants, pharmacists, dietitians and nutritionists, oral health professionals, eye care professionals, podiatrists, rehabilitation therapists, social workers, mental health and substance abuse therapists and counselors, health educators, speech-language-hearing pathologists, along with arrays of technologists and technicians, nursing assistants and aides, facilitators of health insurance coverage and socially aware care, clerks, translators, and administrators. Growing evidence suggests that to achieve the Triple Aim of improving the experience of care, improving the health of populations, and reducing per-capita costs of health care (Berwick et al., 2008), these health care professionals and workers must function interdependently, supporting and communicating with one another, coordinating services efficiently, and focusing their attention on the whole patient.

In the public health sphere, too, success is increasingly a function of teamwork. The ecological model of public health emphasizes interactions on the individual, organizational, community, and policy levels that affect multiple determinants of health, including social factors. These complicated interactions require multifaceted interventions (IOM, 2002) that recognize "a web of causation, in which multiple different influences interact to produce good or poor health" (Russo, 2011, p. 87). Broad population health improvement initiatives often focus on partnerships. For example, the National Diabetes Prevention Program includes public–private partnerships of community organizations, private insurers, health care organizations, employers, and government agencies to promote local evidence-based lifestyle change programs for people at high risk of type 2 diabetes (NDIC, 2013; CDC, 2014). Conceivably, this model could be replicated across other chronic diseases and be expanded broadly. Another example is Million Hearts®, a national initiative that combines actions by layers of organizational partners on the national, state, and local levels to prevent heart attacks and strokes (HHS, 2014a). Public health practitioners also collaborate on specific projects with community development practitioners, such as bankers and other financial agents, housing officials, educators, and recreation workers. In a 2013 survey of 2,600 members of 12 community health-related associations, most respondents reported such cross-sector collaboration (Mattessich and Rausch, 2014). In addition, multidisciplinary teams, frequently including physicians and nurses, perform traditional public health functions in many states. State and local health departments

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[1] The findings and conclusions in this report are those of the author(s) and do not necessarily represent the views of the Centers for Disease Control and Prevention.

often use teams for surveillance, as in the case of programs examining fatal child maltreatment (Schnitzer et al., 2008). Public health teams prepare for and respond to disasters of different types. For example, public health regional surveillance teams in North Carolina included physician epidemiologists, nurse epidemiologists, industrial hygienists, and administrative support technicians (Horney et al., 2011). Regional efforts to increase hospital surge capacity in south central Pennsylvania included representatives of hospitals, the public health preparedness office, emergency management agencies, and other entities (Terndrup et al., 2012). Multidisciplinary teams are also involved in disease prevention and control (Faubion et al., 2012) and in delivering primary care in community health centers (Ferrer et al., 2013), and are essential in conducting community health assessments (IDPH, 2014).

What are the essential aspects of team-based care? In a thorough review of the topic, a discussion paper published under the auspices of the IOM Roundtable of Value & Science-Driven Health Care and the Best Practices Innovation Collaborative[2] defines team-based health care as "the provision of health services to individuals, families, and/or their communities by at least two health providers who work collaboratively with patients and their caregivers—to the extent preferred by each patient—to accomplish shared goals within and across settings to achieve coordinated, high-quality care" (Mitchell et al., 2012, p. 5). The paper lists five principles of team-based health care: shared goals, clear roles, mutual trust, effective communication, and measurable processes and outcomes (Mitchell et al., 2012). Key aspects of this definition are its breadth (although teams may be large, only two providers are needed to constitute a team), its inclusion of public health to at least some extent ("provision of health services to . . . their communities"), and patient autonomy ("work collaboratively with patients and their caregivers—to the extent preferred by each patient").

The concept of team-based care, as described and promoted by the discussion paper authored by Mitchell and colleagues, could be extended to a broader population health orientation. We posit that the governmental public health agencies may be viewed as being part of a model complementary or analogous to the team-based care model. An illustration of this is local health departments' use of a team approach in improving community health while delivering health services to individuals. Local health departments are well-suited to support population health due to their presence in and connection with their communities and their awareness of local social and environmental determinants of health, such as the quality of housing, sources of employment, and access to fresh food and green areas. Combining public health and health care functions also has been proposed for community health centers as another way to help meet population health needs (Prevention Institute, 2011).

Team-based care is already associated with improved performance in managing several serious and common conditions, including cancer (IOM, 2013c), diabetes (NIH and CDC, 2013), and hypertension (Carter et al., 2009). As Dzau and colleagues note, helping to develop an "inter-professional team-based workforce—expanding the medical team to better coordinate care" is a key role of academic health centers in efforts to transform American health care (2014, p. 16). Not all health care teams are models of high-quality, cost-effective care. Although research on which factors make teams succeed is not yet very well developed, the basic advantages of coordination, clearly delineated roles, and mutual support—advantages that include avoiding harmful miscommunications—are clear enough to justify the promotion of team concepts now.

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[2] Now the Leadership Consortium for Value & Science-Driven Health Care, a program of the National Academy of Medicine.

AGENDA FOR CHANGE

To help prepare health professionals in health care and public health for team practice, changes are needed in four areas:

1. Improving the education of health care practitioners and public health practitioners,
2. Building partnerships,
3. Steering research and technology, and
4. Financing of the areas just described.

The discussion below describes several strategies that are proposed as part of an agenda for change. All of the proposed strategies build on existing initiatives or on ideas tested or proposed by others in the field.

Education

The education of health care professionals and public health practitioners, at both the undergraduate ("pre-licensure") and graduate levels, is fundamental to building a team-based health workforce. This is how future team members acquire the knowledge, skills, and attitudes they will carry into their professional practices and activities, so shaping such education can contribute substantially to overall change. Post-graduate education, including continuing education, also presents unique opportunities.

Introducing Health Professions Students to Multidisciplinary Education

The siloed education of health care professionals, giving them little or no exposure to team training or practice working in teams, reinforces fragmentation and impedes performance in subsequent team-based care settings (Morrison et al., 2010). It does not have to be this way, however. George Thibault, president of the Josiah Macy Jr. Foundation, says that team-based competencies should be a core goal of health professions education (IOM, 2013a). To function in teams, future health professionals need to develop, along with the skills necessary for their individual roles, skills for identifying team goals and tasks (IOM, 2013b). There is a need to incentivize and support joint educational exercises and instruction delivered by faculty members from diverse professions, such as medical, nursing, and other health professional schools, in order to achieve team-based competencies. There is also a pressing need to ensure that new and aspiring health professionals receive some of their clinical training in structured, multidisciplinary team settings. In continuing education, interprofessional programs should be supported (see Owen et al., 2014, and Wolf et al., 2010), partly because team-based care is fundamental to an effective learning health system (IOM, 2011).

Incorporating Population Health into Health Professions Education

A core component of all clinical academic preparation should be teaching clinicians—especially primary care practitioners—how to assess their patients' health status through an epidemiologic lens and to consider the impacts of numerous factors on the health of patients and communities alike. This requires an understanding of risk factors for diseases, including various underlying social and environmental factors. Too often, the origin of diseases is "medicalized," leading policy makers and providers to focus solely on access to health care services instead of on the social and economic causes of health vulnerability and disparities (Lantz et al., 2007).

Various concepts from population health have been introduced into medical and other health professions education. But, as one state health officer has noted, the growing use of the

term "population health" reflects how the term has migrated from referring only to the health of an entire population—such as a state or community—to referring also to the health of a more limited group, such as people covered by a single insurer or served by a single hospital (Sharfstein, 2014). According to this official, 16 medical schools already teach public health competencies. He suggests that medical schools (and, presumably, other entities) purporting to support "population health" should collaborate with public health agencies and should strive to improve health outcomes for an entire population and not just for people served by a specific provider or plan. This is a reasonable approach, potentially applicable to all medical schools.

Various formal links between primary care (and health care more broadly) and public health are emerging. Two examples of this are the Population Health Research Scholars training program at Mayo Clinic (Jacobson and Rutten, 2013) and the Association of State and Territorial Health Officials–supported Primary Care and Public Health Collaborative (ASTHO, 2014). The ASTHO collaborative builds on the foundation laid by an IOM report on primary care and public health (IOM, 2012b). Similarly, a recent report released by the Bipartisan Policy Center recommends that medical students and residents receive more educational content on nutrition and physical activity in order to bolster their capacity to provide prevention-oriented care (BPC et al., 2014). Another type of link involves the facilitation of clinicians' social effectiveness through such measures as patient referrals to attorneys or social workers who can help patients obtain insurance benefits and other assistance. In a study of 40 residents in pediatric medicine, those who worked and trained in clinics that provided them with social and legal resources were found to screen for social determinants of health more frequently than other pediatric residents and to have greater confidence in obtaining patients' social histories (O'Toole et al., 2012).

In a related step forward, the Healthy People Curriculum Task Force, representing eight health professional educational associations and convened by the Association for Prevention Teaching and Research, created a curriculum framework for increasing the disease prevention and health promotion content of undergraduate education in medicine, nursing, and other health professions. The framework encompasses four areas: (1) evidence-based practice, (2) clinical preventive services and health promotion, (3) health systems and health policy, and (4) population health and community aspects of practice (APTR, 2009).

Medical education currently emphasizes the development of focused, specialized skills rather than broad primary care competencies or chronic disease management (Sisson and Dalal, 2011). While the crowded medical school curriculum does not easily allow much room for new course requirements, such as in epidemiology and other public health disciplines, there are ample opportunities to inject concepts from population health into students' didactic and clinical experiences and into residency training. To spur the incorporation of population health into the curricula of health professions schools, the principles of population health should be considered for accreditation standards and within the content of licensure examinations. For example, such principles might include those described by the Mitchell et al. (2012) paper, as listed above. They also might include constructs to improve health outcomes across populations (PHA, 2014) or, more narrowly, ways to incorporate rapid learning and evidence-based medicine into clinical practice (Etheridge, 2014).

Incorporating an Emphasis on the Care of People with Multiple Chronic Conditions within Health Professions Education

The impact of chronic diseases on U.S. health expenditures can hardly be overstated, especially with regard to care of the elderly. Medicare per-capita spending rises dramatically in proportion to the number of chronic conditions a beneficiary has (Erdem et al., 2013), and Medicare beneficiaries with five or more chronic conditions accounted for fully two-thirds of all Medicare spending in 2007 (Anderson, 2010). Indeed, 93 percent of Medicare expenditures

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involve the care of people with more than one chronic condition (CMS, 2012). Yet many physicians specialize in an area of care and, aside from primary care physicians, are asked to address specific conditions. As a result, they often do not attend to the interaction of multiple chronic conditions.

Patients with multiple conditions need care that is coordinated across a range of professional services, including health education to support self-care and promote healthy behavior, links to community resources, caregiver training and support, and other services that are traditionally secondary in the medical model but which are viable and practical within a team-based model. It will be essential to preparing future health professionals who are knowledgeable about how the effective care of people with chronic conditions may require attention to environmental factors, including social determinants of health, and such knowledge may increase receptivity to team-based approaches. For example, the San Francisco Department of Public Health has collaborated with a housing development agency to supply formerly homeless people with housing linked to health and social services provided by the Mission Creek Senior Community (MHC, undated; see also IOM, 2014c). Integrative educational formats can be used to prepare future health professionals to care for patients with multiple needs that extend beyond their physical health, including enhancing the patients' ability to manage their own health. Several innovations in education for chronic disease management have emerged in recent years (e.g., Abramowitz et al., 2010; Nieman and Cheng, 2011; Yu and Beresford, 2010). This body of work should be expanded and applied more broadly.

Creating Externships in Community Health Systems and Public–Private Partnerships

Public health is not practiced in a vacuum. The promotion and protection of public health requires economic, environmental, transportation, housing, and criminal justice regulation and policy development, as the "Health in All Policies" approach recognizes (Rigby et al., 2013; Rudolph et al., 2013). In northern Ohio, both the Cuyahoga County Place Matters and the Connecting Cleveland 2020 Citywide Plan use a collaborative approach to promote population health, while Chicago's Healthy Schools Campaign provides an example of cross-agency local government efforts to improve the food and fitness environment for children that is led from outside the traditional health care system (IOM, 2014a, pp. 20-21, 23).

Because health is affected by multiple factors, the business community and other non-traditional public health partners have key roles to play in developing and implementing public health programs (Kindig et al., 2013). Often, these contributions can involve participation in local health coalitions. Toward that end, schools and programs of public health should examine credit-granting placements in broad-based community enterprises in order to assist future public health practitioners in developing practical skills in building, supporting, and even "quarterbacking" community coalitions (Monroe, 2014). As the students learn, the coalitions could benefit from the student involvement in such areas as compiling and disseminating information, taking advantage of students' social media skills.

Promoting Primary Care and Population Health–Oriented Practice

For at least three reasons, primary care is likely to serve as the central element of any broad effort to promote team-based or collaborative approaches in the context of both health care and public health. First, primary care practitioners provide coordinated, comprehensive care that is at the foundation of team-based care (Stille et al., 2005). Second, new opportunities to integrate primary care and public health are emerging. As an IOM report observed, "Primary care and public health presently operate largely independently, but have complementary functions and the common goal of ensuring a healthier population" (IOM, 2012b, pp. 4-5). That report proposed ways for federal agencies to promote integration, including cross-agency linkages in

implementing programs created by the Affordable Care Act. Third, primary care itself is increasingly envisioned as a team endeavor, involving nurse practitioners and other non-physicians to provide front-line primary care services with backup from relatively scarce primary care physicians (Bodenheimer and Smith, 2013).

Based on current utilization patterns, the demand for primary care physicians is projected to grow, mostly due to the aging of the population and overall population growth, and it is expected that by the year 2020 the supply of primary care physicians will not be able to meet patient demands. Specifically, it is projected that there will be a shortage of 20,400 primary care physicians estimated by that year (HHS, 2013). In the face of this growing shortage of primary care physicians, the use of nurse practitioners and physician assistants will be a key component of the strategy for meeting primary care needs (HHS, 2013). Another approach to dealing with the anticipated shortage of primary care physicians (AAMC, 2010) will be for medical schools to more strongly promote primary care disciplines (Erikson et al., 2013). (A proposal to assign "social mission" rankings to medical schools is one method of fixing this and would base scores on the percentage of graduates who practice primary care as well as on the percentages who work in underserved communities and are underrepresented minorities [Mullan et al., 2010]). At the same time, schools and programs of public health should be actively involved in efforts to link primary care clinicians with accountable care organizations, chronic care organizations, or other endeavors geared to population health-oriented practice or community-oriented primary care, as these efforts incentivize and engage clinicians, teams, and coalitions in serving both the individual patient and the community.

As recommended by a recent IOM report, Medicare financing of graduate medical education for the training of medical residents should reflect national health care workforce priorities, with the goal of improving population health; furthermore, Medicare financing should prioritize the funding of initiatives that create positions in primary care, population health, and team-based disciplines (IOM, 2014b). The Department of Health and Human Services lists "strengthen the primary care workforce" as the first item in a section on fostering a 21st-century health workforce (HHS, 2014b).

Developing Communication Skills

The quality of health care professionals' communication with patients and families significantly affects health outcomes. Diagnostic accuracy, clinical decision making, adherence to regimens, satisfaction with care, and malpractice risk are all influenced by the quality of the communication between the clinician and the patient and family (IHC, 2011). It is critically important to improve both shared decision making (e.g., Veroff et al., 2013; Elwyn et al., 2012) and patient-centered decision making (Fineberg, 2012). Effective communication with patients and families has a direct impact on population health.

The overall communication performance of clinicians often falls well short of what is needed. People with chronic diseases report experiencing "disrespectful, discrediting, and distressing" communications, which may lead people to distrust their clinicians and reject the recommendations of health authorities (Thorne, 2006). A study of 21,000 patient visits with 954 primary care physicians, using National Ambulatory Medical Care Survey data for 2007–2008, found that 58 percent of physicians never provided weight counseling (Kraschnewski et al., 2013). A survey of 183 attending and trainee physicians at a major academic teaching hospital in 2008–2009 found that fewer than one-fourth of physicians felt they had received adequate training on either diet or physical activity (Howe et al., 2010; see also BPC, 2014).

Health professionals must also be able to communicate effectively with other professionals on the team. "If the team members are unable to provide information and understanding to each other actively, accurately, and quickly, subsequent actions may be ineffective or even harmful"; effective communication requires use of the same values

underlying team-based care, namely, "honesty, discipline, creativity, humility, and curiosity" (Mitchell et al., 2012, p. 16).

In the area of public health, the importance of communication to and with the public is clear (Bernhardt, 2004), as was illustrated by communications relating to the 2001 anthrax scare in the eastern United States (Chess and Clarke, 2007) and in the 2003 SARS epidemic in Toronto and other cities (Blendon et al., 2004). Culturally competent communication is vital, given the nation's increasingly diverse population, and has been linked to positive outcomes in, for example, diabetes care (Fernandez et al., 2012). So far, training communication skills to health professionals has met with limited success (Berkhof et al., 2011; Moore et al., 2013), and there is a long way to go in developing and implementing effective communications training programs for health care and public health professionals.

Building Partnerships

The second area where changes are needed, which builds on and complements effective education, is the development of partnerships to promote improvements in the public's health. Effective and efficient teams or partnerships do not emerge spontaneously. They require investment.

Building Relationships Between Health Care and Public Health Practitioners

A good example of the health care–public health nexus is community health centers that deliver first-contact and coordinated care to individual patients while also engaging, to some extent, in public health activities (Lebrun et al., 2012). Community health center staff perform both public health and clinical functions while balancing demands on their time and finances and serving patients who often have complicated issues (Gross et al., 2013).

One study of public health partnerships, which the study defined as "social relationships formed among organizations" (Mays and Scutchfield, 2010, p. 4) and which typically included health care organizations, found that:

> A growing body of evidence and experience suggests that multiorganizational partnerships are promising mechanisms for improving public health practice. However, the types of partnerships likely to have the most direct effects on population health are among the most difficult, and therefore least prevalent, forms of collaboration. These implementation partnerships are those that focus on expanding the reach of proven but underused interventions and policies through collaboration among public health agencies, health care organizations, and other stakeholders. To succeed in improving population health, such partnerships must target programs and policies tightly to populations at risk, implement activities on a sufficiently large scale, and maintain fidelity to key program and policy components over time. If successful, these partnerships can serve as vehicles for transforming public health practice from a diverse collection of activities and organizations into an organized and accountable delivery system for public health interventions (Mays and Scutchfield, 2010, p. 5).

Engaging clinicians in activities that help assess and improve population health will require more than the educational activities suggested or described above. Clinical engagement may also require joint continuing education programs with high-profile speakers, payment incentives for participating in public health projects (such as public education campaigns or participatory research studies), and incentives for employed and contracted physicians to become board-certified in preventive medicine and for nurses to become certified in community health nursing. Such incentives may entice health care practitioners to spend part of their time

in public health-related activities and could help health professions schools see value in offering more public health-oriented academic preparation. The fact that fewer than 11,000 physicians have obtained specialty board-certification in preventive medicine since that certification program was launched 66 years ago (ABPM, 2014; ABMS, 2012) indicates that incentives are indeed necessary.

Team training of community partnership members may also build partnerships between health care and public health practitioners. Local public health coalitions could benefit not only from placing students in a staff support role, as suggested above, but also from training coalition members in team performance. Coalitions can make a big difference if they include the active and effective participation from nontraditional groups. Besides state and local health departments, such nontraditional groups might include the business community, elected office holders, educators, researchers, information specialists, integrated health systems and accountable care organizations, hospitals, health professional associations, payers, the faith community, organized labor, consumer groups, disease-specific advocacy organizations, students, community activists, opinion leaders, and policy makers in related areas of public policy. Of course, these groups and individuals have unique or even competing goals, and coalitions often fail when team principles (shared goals, clear roles, mutual trust, effective communication, and measurable processes and outcomes) are not adhered to. Effective team training and efficient processes can help make these principles paramount and will help avoid the waste of time and resources.

Scaling Up Evidence-Based Team Approaches to Chronic Disease Prevention and Management

For some time, effective chronic disease interventions have involved patient care teams (Wagner, 2000). One example of this is a family medicine practice in Milwaukee, Wisconsin, that restructured itself around a practical team approach based on registries of high-risk patients, beginning with diabetes care:

> Here's how our diabetes care teams work: All team members receive a printed registry that lists the patients assigned to the team. The registry includes measures for the clinical outcomes being tracked, e.g., A1C levels. All measures that are not current, such as overdue labs or missing vaccinations, are highlighted. The team's MA [medical assistant] contacts patients to schedule appointments and make arrangements for these services to be completed prior to the visit. Based on the registry data, the physician may identify some high-risk patients or patients whose chronic diseases are not well-controlled to discuss with the RN, who then will develop an individualized care management plan. The RN follows up with these patients, updates their care plans and communicates with the physician as needed. Additional patients rotate onto this management list as patients who no longer need close support are removed. The number of patients chosen depends on the resources and time available (Lyon and Slawson, 2011, p. 29-30).

This Milwaukee model uses physicians, registered nurses, and medical assistants, and the practice experienced, with a relatively small patient population, improvements in A1C levels as well as improved adherence to diabetes management best practices. Other care teams described in the literature have included pharmacists (CCC, 2014), social workers (Bayliss et al., 2011), mental health professionals (Chung et al., 2013), community health workers (Herman, 2011), and rehabilitation therapists (Weinrich et al., 2014). One successful model uses layperson "care guides" who receive limited training on disease management and behavior change (Adair et al., 2013). And at the El Rio Community Health Center in Tucson, a clinical

pharmacist and two pharmacy residents focus on diabetes care and complex cases in contributing to care provided to people of all income levels (Mitchell et al., 2012, p. 11). (Note that these examples involve diverse conditions and diverse type of patients.)

This constellation of activity is impressive, but what is missing is a concerted effort to implement team models on a large scale, such as across a state with federal support, as in the opportunity provided by the CMS State Innovation Models program (Auerbach et al., 2013). Health professions schools could take a leadership role in promoting and facilitating the wider adoption of team-based practice. Under the right circumstances, an efficient practice model that carried the imprimatur of a prestigious health professions school or school of public health could prove highly attractive to both patients and payers.

Research and Technology

The third area of actions worth consideration is in research and technology. Increasingly, team-based practice will benefit from the contributions of science, including investigations into how to create and manage effective and efficient teams.

Filling Research Gaps Involving Team-Based Care

We need to know more about what makes teams succeed or fail and to better identify the characteristics of teams and team processes that achieve the best results in specific circumstances. Furthermore, we need to learn which barriers impede teams from coming together or delivering high-quality coordinated care. Health professions schools and public health programs are appropriate venues for research about team care. As reported in recent research efforts using various methods, examples of the wide range of possible topics for investigation include the examination of basic team-based primary care (Goldberg et al., 2013), models of comprehensive care (Patel et al., 2014), the team care of Medicaid beneficiaries with diabetes (Scanlon et al., 2008), and team training of internal medicine residents and nurse practitioner trainees (Shunk et al., 2014).

Using Large Datasets and Information Technologies

Expanding the sources of data that are of potential value to clinicians and public health practitioners alike is an area that will require exploration and progress (Krumholz, 2014). In part, this work will involve developing new ways of supporting teams in the use of data and the findings from data collected through comparative effectiveness studies (Fleurence et al., 2013), participatory research (Hood and Friend, 2011), cloud computing (Dudley et al., 2010), patient registries (AHRQ, 2010), the clinical trials enterprise (if reorganized to support the learning health system) (IOM, 2012a), and electronic health records (Tomasallo et al., 2014). In one example cited by Dzau and colleagues, BJC HealthCare and the Washington University School of Medicine in St. Louis, Missouri, are collaborating to create a "laboratory-to-bedside-to-community" approach to improving population health through an "innovations incubator" that integrates data from 5 million patients (Dzau et al., 2014, p. 13). As the age of big data continues to develop, epidemiologic and health outcomes data could grow exponentially.

Information advances have especially interesting implications for health workforce policy. For example, data programmers, analysts, and data scientists will cement their role as essential members of health care and public health teams. Furthermore, data analysis—including the ability to translate data into information useful in patient, family, community, and political decision making—will likely become a core competency of practitioners engaging in team efforts.

Financing of Innovations and Changes

The final area of actions to address is the financing of the strategies recommended above. All of them require some commitment of resources. Where will the investment come from? Three of the proposed strategies—introducing health professions students to multidisciplinary education, incorporating population health into health professions education, and creating externships in community health systems and public-private partnerships—might be relatively easier adjustments, but they will still require a substantial commitment of time as well as a clarity of purpose. External pressures (Gable, 2011) and meaningful use regulations on electronic records (Bates and Bitton, 2010) may be creating incentives to move in this direction.

Other strategies might involve a range of ways to support increasing the evidence and the capacity for team-based care. For example, government and private entities that conduct research could prioritize and support efforts to fill research gaps involving team-based care. Health professional schools and schools of public health also could gradually create programs to develop communications skills and to train students in using large datasets and information technologies. Team training might be supported, at least to some degree, by some coalition members. Professional associations, sponsors of continuing education programs, third-party payers, and large providers could cooperate to build relationships between health care and public health practitioners—and, over time, they should expect these relationships to result in meaningful health improvements.

However, strategies such as incorporating within health professions education an emphasis on the care of people with multiple chronic conditions, scaling up evidence-based team approaches to chronic disease prevention and management, and promoting primary care and population health–oriented practice will likely rely heavily on culture change. A culture change that demonstrably leads to improved population health would benefit the nation in many ways, not just by improving team-based care, and the current shift to value-based payments should serve to further the culture change that is already taking place (CMS, 2015). Population health is a likely pathway to better health outcomes in general as well as a pathway to a more cost-effective and less wasteful system and great reductions in health disparities.

CONCLUSION

The health of the individuals in a community is a byproduct of both health care and public health, broadly construed. Most of the remarkable progress in extending longevity in the 20th century was due to public health advances involving sanitation, cleaner air and water, better nutrition, and support for healthy behavior (Frieden, 2010). Community engagement and other aspects of population health tend to be important contributors to improved health outcomes. And over the past century health care has made tremendous advances that have benefited countless millions of patients. Efforts that combine the best of health care and public health— from well-publicized disease-prevention campaigns to care for vulnerable populations— epitomize the promise and the successes of America's health sector.

Health care and public health are often constrained by artificial silos that impede cooperation between these two essential fields. The existence of these silos—and, in particular, the resulting lack of exposure to, experience with, and trust in practitioners in areas outside one's own—may also impede the adoption of team-based care models and community-based collaboration which may be most effective in confronting the accelerating burden of chronic conditions. Progress in health care and public health requires breaking down these silos.

Restructuring undergraduate, graduate, and continuing education to encourage and support team-based care and interdisciplinary and cross-sector collaboration, may eventually contribute to breaking down the silos. With increasing ease, learners at all stages could interact with each other in classrooms, online, in clinical situations, and in the community. The ideas

within this paper are intended to encourage actions that will create and support the best classroom of all—one that is based in the community.

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