

New Models of Care: Building Medical Homes in Empowered Communities

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Quality health care has long been viewed as a relationship between a competent and compassionate physician and a patient who seeks advice and guidance.¹ Unfortunately, for a growing number of North Carolinians such relationships are increasingly hard to find, and the health outcomes, even in the best of circumstances, are often less than ideal.²

There is no question that having an adequate number of physicians is essential to ensuring health, but it is also increasingly clear that doctors alone are not sufficient. This is not because individual physicians have become less important, but rather because there is not enough time for individual physicians to provide everything a patient needs; the challenges our patients face today require new models of care that build on the work of physicians and extend out to involve entire communities.

The growing rates of chronic disease, rising numbers of uninsured, unrelenting racial disparities, and soaring obesity rates are problems for which physicians have essential roles but which require multidisciplinary teams across multiple locations to provide the continuum of needed services. From the public health department dietitian or agricultural extension agent encouraging healthy eating and exercise habits to the church members who are providing health ministries about chronic illness, every part of the community has a role to play.

The traditional focus on individual patients in the office and hospital, which is necessary to deal with acute care needs, has often obscured the need for physicians to collaborate and partner with community groups

who can help institute the larger changes needed to confront the growth of chronic disease. This new model seeks such collaboration and resolves the growing time demands on practicing physicians by sharing tasks—in particular, those dealing with prevention and education—with members of the office team and other groups within the local community. In doing so, this model extends the efforts of each physician.

The Time Trap

Primary care physicians today face a scarcity of time due to our exceptional fortune in finding effective therapies to prevent or treat illness in primary care settings. As the number of prevention and treatment guidelines has increased, so has the burden of following those guidelines. In our own research at Duke University, we found that it takes an average of 7.4 hours a day

for a physician to deliver recommended prevention messages and services to an average panel of patients. To deliver all recommended care for patients with chronic conditions takes an additional 10.6 hours a day.³

A vicious cycle ensues. There is not enough time for individual doctors to properly encourage prevention and, too often, this lack of prevention leads to the onset of chronic conditions. A lack of good chronic disease management leads to

increased acute care visits that are more painful for the patient, difficult for the physician, and costly to the system. The increased level of acute care cases (and the higher reimbursement rates for

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procedures associated with them) encourages physicians to choose specialties other than primary care.

The number of medical students attracted to primary care has been steadily declining in recent years in part because of the inflexible demands on their time. Students, as well as currently practicing doctors, care about having time for their personal lives. Among physicians under the age of 50, time for family is cited as very important by 69%—more than any other factor. Of physicians under 50, 80% would reduce their hours if they could.⁴

This cycle seemingly indicates that primary care is a Sisyphean effort—only doomed to failure. The time needed is impossible for one physician who holds her or himself accountable for delivering all needed care. However, it is quite possible for an interdisciplinary team of physicians, nurse practitioners, physician assistants, nurses, health educators, social workers, and other professionals assisted by technology who work with each other and in tandem with their community.

Interdisciplinary Teamwork

Primary care has been traditionally centered on the role of the physician with subordinate roles for all other members of the health care team—including the patient. But as the demands and expectations on practices grow, the role of the physician needs to shift. With medical practice increasingly faced with the challenges of managing chronic disease, the role of the nurse practitioner, physician assistant, nurse, health educator, social worker, psychologist, and dietitian become more important. And with so many of the underlying cases of chronic disease rooted in personal behaviors, the role of community health and nonhealth agencies in supporting long-term behavior change becomes as important as the work done in the office.

The idea of interdisciplinary teams is not new. Literature abounds with examples of successful interdisciplinary teamwork in all fields of medicine. In primary care practices across the nation, private and group practice physicians have invested in training their office staff, physician assistants, nurse practitioners, and nurses in office systems that rely on technology to seamlessly capture patient information, ease scheduling and billing, consistently provide patient education, and ensure follow-up.^{5,6,7,8} Physicians based solely in the hospital managing inpatient care are also helping to streamline care and free up doctors in outpatient settings. What is different in all of these new models is the shift from the physician being the center of the team, coordinating all of the care, to the patient being at the center of the team with the physician playing a key leadership role.

Here at Duke, we are working to change our primary care offices systemwide. By shifting staffing, we are able to better support our many patients with chronic illness. We are adding dietitians, social workers, physician assistants, and nurse practitioners to enhance the services of our clinics and make appointments and care more available. Developing new electronic medical records helps our clinics coordinate information across offices and hospitals.

The transition from physicians operating as independent practitioners to their participation in and sharing of tasks and

responsibilities within interdisciplinary teams is a significant challenge by itself. But teamwork alone is not the answer to improving primary care if it means that care begins only after patients choose to come to us for help. Teamwork must be accompanied by delivery systems that are accessible to those we seek to serve. Although the science of prevention and chronic disease management has grown stronger, racial and ethnic minorities and the poor have not benefited from these advancements as much as other groups. For example, minorities and those with lower incomes are more likely to be at risk for cancers and chronic diseases and less likely to be screened or treated effectively. Waiting for people to be seen in the medical office is not sufficient. For too many, the office is too far, too threatening, or too expensive.

Empowered Communities

We also need to be effective not only in forming teams downstream with specialists, hospitalists, and others involved in the care of our patients but also upstream with organizations and leaders in our communities that have the capabilities to support the difficult lifestyle changes that our patients increasingly need.

Careful coordination of resources at all levels on the continuum—upstream and downstream—is the keystone to the overall health of a community. Data from the United Health Foundation, which ranks health status in each state, find that offering and rendering more services does not always equate to better overall health care and, in fact, in some states greater use of services goes hand-in-hand with poorer quality and lower satisfaction.⁸

Instead, we need to think creatively about how and where to deliver health care services and information in a way that centers on the patient. For example, care does not always need to be provided in the doctor's office. Community-based teams of health educators and social workers can ably assist patients in caring for their illnesses, as has been demonstrated in communities across the state by Community Care of North Carolina.^{9,10} Senior center-based physician assistants using laptops with electronic medical records and backed up by physicians, can dramatically improve outcomes for senior citizens—and decrease inpatient admissions as well—even when these patients already have primary care physicians.¹¹

The effectiveness of the office encounter is greatly enhanced when it works in tandem with communities. At Duke, we are working with neighborhoods across the state to find ways to reduce the risk of chronic disease from obesity and inactivity, building on the strengths and resources of not only doctors but also schools, health departments, and community agencies. Through the Just for Us program, in-home chronic disease management visits are provided to over 350 Durham seniors living in 10 low-income apartment complexes.¹² The LATCH program connects thousands of Latino immigrants in Durham to health care services and culturally and linguistically appropriate health education classes. We operate 4 school-based clinics and 2 neighborhood clinics offering easier access to services for hard-to-reach populations. Community health isn't just a

concept. It's a reality that improves the health of thousands of North Carolina residents every day.

These innovations are not ideas that can be instantaneously dropped into place. A rural county with rampant poverty and a dearth of providers or a wealthier suburban area with higher rates of insurance but care that isn't integrated will require different solutions.¹³ Diverse communities require diverse solutions, but the common thread to each is teamwork and new roles for all the members of the primary care team including the physician.

Preparing physicians for both teamwork and a focus on community-centered care requires new approaches at every level of education. In undergraduate and graduate medical education, students must be afforded opportunities to practice teamwork so they can appreciate the overlapping and complementary skills of different disciplines. And those who teach them must model that teamwork and interdisciplinary collaboration.

Communicating across disciplines is also a challenge and educators in programs for nurses, physicians, social workers, dietitians, physical therapists, nurse practitioners and physician assistants need to standardize how teamwork is conceptualized and taught. In real-world situations, this highly coordinated communication and collaboration among teams is facilitated by technology. Educational programs need to address teamwork and define explicit goals, methods, and outcomes so that graduates are competent to practice in this new environment.

As has been widely reported, Duke is restructuring our Family Medicine Residency program to better prepare family physicians for teamwork both upstream with the community, downstream with hospitalists and specialists, and horizontally within the office. Part of our effort to restructure the program is a shift in emphasis from the inpatient setting to the community. Hospitalization rates for primary care have dropped by almost 72% over the past decades¹⁴ so it no longer makes sense to focus family medicine residencies in hospital settings. Instead, we should be training residents in the settings where needs are greatest and there is more opportunity to practice prevention and early intervention. In addition to moving where we train residents, we are changing how we train residents. We want to find ways to better instill teamwork with physician assistants, nurse practitioners, physical therapists, and other health professionals.

Put all of these pieces together and the result is a very different form of medical practice. It begins by asking the community what services it needs, provides an analysis of the areas for potential improvement in health status (and in North Carolina there are plenty of opportunities) and then seeks to provide

those services in ways acceptable to those being served. The practice does not wait for a patient to come to the office with a problem; the practice is engaged with community groups, employers, schools, and health departments to identify ways in which it can help support needed services without duplicating them. It uses health educators to supplement the individual instruction in the office and to empower and educate patients to take control of their health and take on primary leadership roles in their care. It uses physician assistants and nurse practitioners in the community and in the office to provide care in settings and frequencies beyond what the most dedicated physician can provide.

To many old timers and small town physicians, this may not seem radical or even new. Those who trained in community-oriented primary care, and/or public health, or who have already evolved this community-integrated form of practice, are familiar with these concepts. But to mitigate, and eventually reverse, the decline of primary care, what once was an interest of a few now needs to become a core skill of all.

An obvious critique of all these ideas is, "How do you pay for it?" The financial challenges to primary care are well documented.^{15,16} The reimbursement system is currently not equipped to encourage or sustain these types of innovations and to build the case for change requires evidence of success. So should we wait or should we try? Funding for innovation is difficult but not impossible. At Duke, we have used a mixture of grants, contracts, public and private insurance funding, and our own funds to create sustainable, community-oriented programs.¹⁷ It has not been easy, but it is possible. It is the obligation of physicians, and especially academic physicians, to help find ways to improve the health of our citizens.

What if we succeed in redesigning care? Imagine that interest in primary care is rekindled by medical students who know they do not have to do it all, who are equipped with the knowledge, skills, and attitudes to not only be excellent clinicians but also excellent leaders, and who can effectively harness the power and spirit of teamwork to improve the health of their communities. Imagine empowered, informed populations that become leaders in managing their own health, instigating a culture of accountability, and improving access to and quality of care in their communities. Imagine that the racial and economic gaps in health care delivery narrow and evaporate, that the incidence of chronic disease is lowered, and that those who do live with chronic disease find their challenges eased. If we succeed in this effort to build and test new models that allow adequate time for prevention and disease management, we just might find a North Carolina with healthier people and happier and more productive doctors. **NCMJ**

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