

this infrastructure would require a transfer of funds from specialists or hospitals to primary care, and it may be difficult for organizations to unilaterally alter the flow of funds to accomplish these aims. Moreover, although organizations may face strong incentives to control costs, specialist physicians who continue to be paid through the fee-for-service system and hospitals, which continue to receive DRG-based payments, face no such inherent incentives — and in fact will continue to benefit from practicing in much the same way as they do now.

Over time, if global payments become the norm, there is likely to be a resurgence of subcapitation and budgets for particular specialties, and systems will be designed to provide similar incentives to specialists while also enhancing funding for primary care. In addition, ACOs and their aligned hospitals must share in-

centives to control hospital costs. This transition, however, is likely to be painful and prolonged under the current design of the programs. Certainly, adjustments to the fee schedule that limit specialist pay and divert funds to primary care will be helpful, but even more helpful would be upfront payments that organizations can use to invest in their care-management and primary care infrastructure to facilitate this transition without taking funds from specialists or hospitals, at least until they achieve surpluses that ensure the continuation of this funding stream. Tightly managed multispecialty or primary care groups without strong alignment with a hospital may be well positioned to manage this transition.

The health care system is placing tremendous hope in changing incentives to control the ever-increasing costs of care. Hybrid approaches such as ACOs that incorporate global incentives but

continue to keep score using fee-for-service payments will face serious challenges as they attempt to place increasing burdens on the already-stressed primary care system without providing additional resources for achieving the aims of global payments — slowed growth in costs and higher-quality care.

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Opportunity in Austerity — A Common Agenda for Medicine and Public Health

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Faced with the growing pressure to reduce the federal budget deficit, government leaders have increasingly turned their attention to reducing health expenditures. In this atmosphere of austerity, public health programs are likely to be hit particularly hard as they compete for funds against the health care delivery juggernaut and as state and local governments, which carry out the bulk of public health activities, are forced to make further cuts.

The political vulnerability of public health financing was clearly illustrated in 2011 by Con-

gress's attempt to repeal the Prevention and Public Health Fund created by the Affordable Care Act (ACA), with House Republicans labeling it a \$15 billion "slush fund." The Obama administration, though it initially threatened to veto a repeal bill, ultimately mounted a more tepid defense, proposing to cut \$3.5 billion from the fund as part of the President's deficit-reduction plan. Many public health leaders believe this move is shortsighted and will hamper efforts to improve population health and reduce medical spending.

Taking a longer view, disease-prevention advocates assert that skyrocketing health care costs must not crowd out investments in public health; they point to what should be common goals in both fields and an arguably disproportionate allocation of resources to the health care delivery system. Indeed, whereas inadequate medical care accounts for 10% of premature deaths in the United States, behavioral patterns, social circumstances, and environmental exposures have a far greater effect, accounting for roughly 60% of deaths.¹ Yet de-

spite these compelling data, public health programs receive less than 5% of U.S. health spending, an amount that does not even reflect the latest budgetary squeeze.²

This seemingly imbalanced approach to health investment reflects a long-standing schism between medicine and public health, which remain professionally and institutionally distinct despite past calls for a closer bond.³ Ideally, population health would benefit from the integrated, complementary activities of a cooperative health sector. Often, however, the predominant interaction between a clinic or hospital and the local public health department is mandatory reporting of communicable diseases. Meanwhile, physicians and health care systems seeking to promote population health generally do so at their own expense, which leads to missed opportunities for both collaboration across health disciplines and potential cost savings.

Perhaps paradoxically, the current push for austerity could bring together clinical medicine and public health in unprecedented, mutually beneficial ways that could improve population health and reduce spending. One example is found in the Internal Revenue Service (IRS) community-benefit requirement for nonprofit hospitals, recently revised in accordance with the ACA. To qualify for tax-exempt status, hospitals must provide community benefit, a historically vague term referring to uncompensated care, professional training, research, and community engagement. Under the new requirement, each hospital must perform a community health needs assessment (CHNA) every 3 years, adopt a strategy to address identified needs, and report its progress to the IRS (or

incur a \$50,000 tax penalty and jeopardize its tax-exempt status for failing to do so).⁴

A health care system responsible for meeting CHNA requirements could conceivably partner in such an endeavor with a public health institution that is already engaged in similar activities but that might lack the funds necessary to fully assess and address identified needs. A partnership built on the financial and technological resources of hospitals and the broader perspective and population-management expertise of the public health sector could serve as a blueprint for future community collaborations on other common goals, such as reducing hospital readmissions.

Another significant opportunity for strengthening ties between medicine and public health lies in the emerging consensus that metrics that track health outcomes and per capita costs over time must replace metrics that track services delivered. The final regulations recently promulgated by the federal government for Medicare accountable care organizations (ACOs) provide a framework that holds provider networks responsible for their patient groups and outlines a shared savings program and performance metrics based on cost and quality, including domains of patient experience, care coordination, patient safety, preventive health, and the health of at-risk and frail elderly populations.⁵

The ACO framework represents an important new approach to measuring value in health care. Yet to fully capitalize on the potential for improving population health, ACOs will need to push the boundaries further toward metrics that really matter for patients and communities. For ex-

ample, current pay-for-performance programs often focus on what is easy to measure (such as whether physicians check glycosylated hemoglobin levels) rather than what will be more likely to improve health outcomes (such as population-level control of glycosylated hemoglobin levels).

Moreover, ACOs are held accountable only for patients already in a particular health care system. If the overarching goal is to improve outcomes for people in a community, the focus must be not only on patients already receiving care, but also on patients who are lost to follow-up, patients who have the most fragmented care, and high-risk persons who are not engaged in care. Although health systems already face a host of challenges in organizing as nascent ACOs, extending providers' accountability to include marginalized groups is critical to the long-term success of health care reform.

If stronger indicators of population health were built into pay-for-performance or value-based purchasing schemes, cost controls could prompt a stronger alliance between clinical medicine and public health. A more robust primary care system could serve as the nexus for clinical and community interventions by combining personal and population-based approaches to address fundamental health problems. For example, to battle the obesity epidemic, clinical interventions such as weight-loss counseling could be reinforced by community interventions to eliminate "food deserts," promote safe and usable recreational space, and develop smarter nutrition-labeling requirements. Meanwhile, local public health departments could serve as clearinghouses for networks

Examples of Effective Collaboration between Health Systems and Public Health Departments.

Program	Collaborators	Description
Healthy San Francisco	San Francisco Department of Public Health (SFDPH) and more than 30 participating clinics and local hospitals	A safety-net consortium of providers for the uninsured is coordinated by SFDPH for more than 50,000 enrollees, with centralized emphasis on coordination of services, the medical home model of primary care, and decreased emergency department use
Primary Care Information Project	New York City Department of Health and Mental Hygiene (DOHMH) and more than 500 independent small practices, community health centers, and hospitals serving a quarter of the city's population	An integrated health care information system and public health hub was created, in which the DOHMH coordinates and supports the implementation of electronic health records, quality initiatives, and panel-management tools. Data sharing drives strategic planning for citywide public health initiatives
Million Hearts	Multiple public and private partners, including the Centers for Disease Control and Prevention, Centers for Medicare and Medicaid Services, and the American Heart Association	The program promotes coordinated clinical practices and community interventions for heart disease and stroke prevention through quality measures incorporated in the Medicare Shared Savings Program, coverage of preventive services, and community-transformation grants
Maryland State Health Improvement Process (SHIP)	Maryland Department of Health and Mental Hygiene and the Maryland Hospital Association	Under a framework of accountability, local action, and public engagement, local health coalitions involving health departments and hospitals adopt coordinated strategies for progress on 39 statewide health measures
Project LAUNCH and Massachusetts Young Children's Health Interventions for Learning and Development (MYCHILD)	Boston Public Health Commission, Massachusetts Department of Public Health, Massachusetts Executive Office of Health and Human Services, and Boston-based community health centers	Both programs embed teams of early childhood mental health clinicians and family partners at primary care sites, including pediatric clinics, to identify children with social and emotional needs and to develop comprehensive care plans that address the health needs of families

of primary care practices, initially for data-sharing purposes and ultimately for structuring effective interventions across practices (see precedents in the table).

A new function of public health departments could be creating the information infrastructure for such an integrated approach to managing population health. Patients could be organized into panels by primary care providers that would be aggregated into registries at the health-center or health-system level, then further aggregated through health information exchanges at the health-department level. Work on building such information systems is ongoing, spurred by the federal Health Information Technology for Economic and Clinical Health (HITECH) Act. Although there remain substantial privacy and system-integration issues to resolve, connecting clinicians, provider organizations, and health

departments would advance public health beyond what any one health system could accomplish. Potential applications include tracking radiation risk associated with frequent computed tomographic scans, augmenting prescription-drug-monitoring programs to identify problematic opioid prescribing, and developing a citywide antibiogram that provides clinicians and hospitals with cumulative data on antibiotic resistance.

The opportunity to reinforce a common agenda for medicine and public health is perhaps the greatest promise of health care reform. Although the political spotlight is currently on spending cuts, the grim economic outlook could motivate public health officials and health care practitioners to cross their institutional boundaries in search of new, cost-effective interventions. In this way, the confluence of austerity mea-

asures and shifting payment priorities may herald a new era of collaboration toward improving the health of all Americans.

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