

They now have a limited window of opportunity to engage policymakers about protecting Dreamers through legislative action, the public health benefits of doing so, and the potentially dire mental health consequences of failing to enact a definitive legal remedy. Advocates can also make clear that protecting Dreamers — and other immigrant groups — would have few, if any, economic disadvantages for native-born workers⁵ and that legislation like the RAC Act or the American Hope Act would have broad support in the business sector. In this vein, partnering with organizations outside the health sector that are advocating for DACA would amplify all contributing voices.

If a legislative solution cannot be found to provide DACA's former beneficiaries with a definitive legal status, health care and public health institutions will need to work together to ensure that the people under threat do not bear the burden of mental distress alone. In such an environment, organizations would need to proactively reach out to undocumented immigrants to keep open lines of communication and reassure

them of ongoing efforts to establish a firewall between health care policy and immigration policy. Clinicians will continue to ensure the delivery of high-quality health care despite immigration status. Providing Dreamers with information about public resources that can be safely used in the case of severe mental distress will be critical. On a broader systems level, tracking health care utilization and health outcomes will help organizations monitor health at the population level and provide hard data to policymakers seeking to implement other supportive remedies.

The DACA program in many ways reflects the American ideal: people who first came to the United States as children were given a chance to pursue the American dream. DACA was never intended to be a public health program, but its population-level consequences for mental health have been significant and rival those of any large-scale health or social policies in recent history. Rescinding DACA therefore represents a threat to public mental health, and it is a humanitarian imperative for health care providers and public health

officials to take an active role in countering that threat.

Disclosure forms provided by the authors are available at NEJM.org.

From the Department of Medical Ethics and Health Policy, Perelman School of Medicine, and the Leonard Davis Institute of Health Economics, University of Pennsylvania, Philadelphia (A.S.V.); and the Chester M. Pierce, MD Division of Global Psychiatry, Massachusetts General Hospital, Boston, and the Harvard Center for Population and Development Studies, Cambridge — both in Massachusetts (A.C.T.).

This article was published on September 13, 2017, at NEJM.org.

1. Venkataramani AS, Shah SJ, O'Brien R, Kawachi I, Tsai AC. Health consequences of the US Deferred Action for Childhood Arrivals (DACA) immigration programme: a quasi-experimental study. *Lancet Public Health* 2017;2(4):e175-e181.
2. Patler C, Laster Pirtle W. From undocumented to lawfully present: do changes to legal status impact psychological wellbeing among latino immigrant young adults? *Soc Sci Med* 2017 March 9 (Epub ahead of print).
3. Hainmueller J, Lawrence D, Martén L, et al. Protecting unauthorized immigrant mothers improves their children's mental health. *Science* 2017 August 31 (Epub ahead of print).
4. Williams DR, Medlock MM. Health effects of dramatic societal events — ramifications of the recent presidential election. *N Engl J Med* 2017;376:2295-9.
5. Chassamboulli A, Peri G. The labor market effects of reducing the number of illegal immigrants. *Rev Econ Dyn* 2015;18:792-821.

DOI: 10.1056/NEJMp1711416

Copyright © 2017 Massachusetts Medical Society.

Primary Care Spending Rate — A Lever for Encouraging Investment in Primary Care

Christopher F. Koller, M.P.P.M., M.A.R., and Dhruv Khullar, M.D., M.P.P.

Why doesn't the United States invest more in primary care? A large body of evidence suggests that greater investment in primary care is good for patients and health systems. Greater use of primary care has been associated with lower costs, higher patient satisfaction, fewer hospitalizations and emergency department visits, and lower mortality.¹ Within the United States, health care mar-

kets with a larger percentage of primary care physicians (PCPs) have lower spending and higher quality of care.²

Despite this evidence, the United States continues to undervalue primary care. A recent Commonwealth Fund analysis identified underinvestment in primary care as one of four fundamental reasons that the U.S. health system ranks last among high-income

countries.³ Compared with peer countries, the United States has fewer primary care clinicians than specialists — along with larger income disparities between the two groups — and provides fewer services in the primary care setting.^{3,4} Although the Affordable Care Act introduced a number of payment and regulatory changes that offer incentives to invest in primary care, they have not been

enough to fix this foundational problem.

We propose using the primary care spending rate — the proportion of all medical spending devoted to primary care — as a measure for assessing a health system's orientation toward high-value care. The proportion of a health system's resources that it devotes to primary care — including clinician incomes, performance payments, case-management activities, and health information technologies — has an important effect on patient care, and in some respects is the clearest reflection of its leaders' priorities. Greater use of this metric — for measuring health system performance, studying the role of primary care, and focusing public awareness and policy action — could help close the gap between what the evidence supports and how primary care is practiced in the United States.

Traditionally, the supply of PCPs per capita and the ratio of PCPs to specialists have been used for quantifying a health system's focus on primary care, but we believe the primary care spending rate offers several advantages. First, it focuses on finances, which is ultimately how communities and societies express their values. Second, it is a straightforward concept that is readily understood by people of various political persuasions and varying levels of familiarity with the health care system: what slice of the health care pie is devoted to the resource we rely on for most of our medical needs? Finally, if effectively deployed, this measure has the potential to nudge insurers and delivery systems to reevaluate their distribution of resources and confront market and political forces that have historically led to low investment in primary care.

Many universal health care systems accustomed to global budgeting measure the primary care spending rate — in part because, as a proportion, it adjusts for pricing differences between jurisdictions. For example, the United Kingdom's National Health Service regularly tracks the proportion of its payments that go to general practitioners and recently committed to increasing that figure. Some Canadian provinces also use the primary care spending rate, and a World Health Organization project supported by the Bill and Melinda Gates Foundation is developing a standard metric for international comparison.

Monitoring of primary care spending rates is also slowly gaining traction in the United States. Rhode Island and Oregon require payers to measure and report these figures, and a recent report from the Milbank Memorial Fund (of which one of us is the president) evaluated rates for nine commercial insurers.⁵ The table shows estimated primary care spending rates for international and domestic health systems, though direct comparisons are somewhat limited because measurement methods aren't consistent.

What can we learn from these measurement efforts? Primary care spending generally accounts for a small proportion of total spending and varies considerably depending on the population being served. It is difficult to compare figures from various states and studies, since there is no standard method for translating conceptual definitions of "primary care" into claims, diagnosis codes, and accounting terms. The Milbank study, for example, tested 12 definitions of primary care, each including different combinations of physician specialties and services — none of which

correspond to what is used in Rhode Island or Oregon or in international systems. These varying definitions notwithstanding, international health systems generally appear to have a greater orientation toward primary care than health systems in the United States. Finally, collecting spending data from multiple payers with different payment methods and administrative systems is challenging.

Using the primary care spending rate as a metric for assessing health systems is also prompting policy changes that should help nurture a more primary care-oriented delivery system. From 2009 to 2014, Rhode Island regulators required commercial insurers to raise their primary care spending rate by 1 percentage point per year (using strategies other than increasing fee-for-service rates) as a condition of having their rates approved. Insurers responded by spending more on patient-centered medical homes, accountable care organizations (ACOs), performance incentives, and "common good" services such as health information technology, practice transformation, and loan-repayment programs.

As a result, primary care spending in Rhode Island grew from \$47 million to \$74 million. Rhode Island was the only state in New England to increase its supply of PCPs per capita over this period, while per capita spending by commercial health insurers grew more slowly than in any other New England state (by 0.6% in Rhode Island, vs. 2.8% in Massachusetts and 5.5% in Connecticut, for example). Insurers must now maintain this higher level of investment, and primary care remains a focus of delivery system reform efforts.

Similarly, after studying state primary care spending for 2 years,

Primary Care Spending Rate by Health System.*			
Source (Measurement Year)	Populations Covered	Primary Care Spending Rate (%)	Definitions (Sources)
National Health Service, United Kingdom (2012)	All ages	8.4	Payments to general practitioners only (press accounts)
Ontario (2010)	All ages	8.1	Payments to family physicians only (provincial audit)
Organization for Economic Cooperation and Development (OECD) average of 24 countries (2013)	All ages	12	“Outpatient curative and rehabilitative care (excluding specialist care and dental care), home-based curative and rehabilitative care, ancillary services, and preventive services if provided in an ambulatory setting” (OECD working paper, 2016)
Rhode Island (2013)	Commercial	10.6 for largest insurer (vs. 5.8 in 2008)	All payments to family physicians, internists, pediatricians, and affiliated advanced practice providers and for approved “common good” services (health information technology, loan repayment, and practice transformation) (published report, 2014)
Oregon (2015)	Commercial Medicare Medicaid	10.2 8.9 12.5	All payments for selected services to family physicians, general medicine physicians, pediatricians, obstetrician/gynecologists, psychiatrists, geriatricians, physician assistants, nurse practitioners, and naturopaths and homeopaths (published report, 2017)
Milbank sample of 9 carriers (2015)	Commercial (PPO) Commercial (HMO)	7.7 8.6	All payments for services provided by physicians in specialties designated by the insurer as primary care (including family practice, internal medicine, pediatrics, general medicine, geriatrics, adolescent medicine, and obstetrician/gynecologist) as well as nurse practitioners and physician assistants (published report, 2017)

* PPO denotes preferred provider organization, and HMO health maintenance organization.

the Oregon legislature recently passed statutory requirements mandating that commercial insurers, Medicaid coordinated care organizations, and health plans serving public employees have a minimum primary care spending rate of 12%, effective in 2023. It also established the Primary Care Payment Reform Collaborative to develop recommendations for how additional funds can be most effectively deployed.

The maturation of federal, state, and commercial value-based payment reforms, such as ACOs and Medicare’s Comprehensive Primary Care Plus program, provides other opportunities for evaluating primary care spending as both a characteristic of health systems and a desired outcome. Insurers and integrated health systems could consider tracking primary care spending to measure progress toward higher-value care and improved population health management. State and federal policymakers might incorporate the primary care spending rate when evaluating the success of delivery

system reform efforts and create incentives to shift spending, using it as a metric.

The potential for broader use of a primary care spending measure raises important research questions. For example, what types of primary care expenditures have the greatest effect on population health and per capita costs? What is the “right” level of primary care spending? How large an improvement in health should we expect with each unit increase in primary care spending, and how does the effect of additional spending vary with the patient population being served?

Given the persistent gap between the evidence supporting an emphasis on primary care and U.S. spending in this area, policymakers may need to take a more active role in fostering investment in primary care. There is reason to believe such an approach would be palatable, even welcome. State-led reforms focusing on primary care, health system redesign, and resource stewardship enjoy bipartisan support, even as the con-

tentious national debate about insurance coverage rages on. The use of the primary care spending rate as a measure for assessing health systems could help advance knowledge and promote policy change and population health improvement.

Disclosure forms provided by the authors are available at NEJM.org.

From the Milbank Memorial Fund (C.F.K.) and Weill Cornell Medical College (D.K.) — both in New York.

1. Friedberg MW, Hussey PS, Schneider EC. Primary care: a critical review of the evidence on quality and costs of health care. *Health Aff (Millwood)* 2010;29:766-72.
2. Chernew ME, Sabik L, Chandra A, Newhouse JP. Would having more primary care doctors cut health spending growth? *Health Aff (Millwood)* 2009;28:1327-35.
3. Schneider EC, Squires D. From last to first — could the U.S. health care system become the best in the world? *N Engl J Med* 2017;377:901-4.
4. Bodenheimer T, Berenson RA, Rudolf P. The primary care-specialty income gap: why it matters. *Ann Intern Med* 2007;146:301-6.
5. Bailit MH, Friedberg MW, Houy ML. Standardizing the measurement of commercial health plan primary care spending. New York: Milbank Memorial Fund, July 25, 2017 (<https://www.milbank.org/publications/standardizing-measurement-commercial-health-plan-primary-care-spending/>). DOI: 10.1056/NEJMp1709538
Copyright © 2017 Massachusetts Medical Society.