

Realizing Health Reform's Potential

How the Affordable Care Act Will Strengthen Primary Care and Benefit Patients, Providers, and Payers

MELINDA ABRAMS, RACHEL NUZUM, STEPHANIE MIKA, AND GEORGETTE LAWLOR

The mission of The Commonwealth Fund is to promote a high performance health care system. The Fund carries out this mandate by supporting independent research on health care issues and making grants to improve health care practice and policy. Support for this research was provided by The Commonwealth Fund. The views presented here are those of the authors and not necessarily those of The Commonwealth Fund or its directors, officers, or staff.

For more information about this study, please contact:

Melinda Abrams, M.S. Vice President Patient-Centered Coordinated Care The Commonwealth Fund mka@cmwf.org

To learn more about new publications when they become available, visit the Fund's Web site and register to receive e-mail alerts.

Commonwealth Fund pub. 1466 Vol. 1 Abstract: Although primary care is fundamental to health system performance, the United States has undervalued and underinvested in primary care for decades. This brief describes how the Affordable Care Act will begin to address the neglect of America's primary care system and, wherever possible, estimates the potential impact these efforts will have on patients, providers, and payers. The health reform law includes numerous provisions for improving primary care: temporary increases in Medicare and Medicaid payments to primary care providers; support for innovation in the delivery of care, with an emphasis on achieving better health outcomes and patient care experiences; enhanced support of primary care providers; and investment in the continued development of the primary care workforce.



OVERVIEW

Among the Affordable Care Act's many provisions, perhaps the least discussed are those reforms directly targeting primary care—the underpinning of efforts to achieve a high-performing health system. This brief describes how the health reform law will begin to address the decades-long neglect of America's primary care system and, wherever possible, estimates the potential impact these efforts will have on patients, providers, and payers. The primary care reforms in the Affordable Care Act include provisions for temporarily increasing Medicare and Medicaid payments to primary care providers; fostering innovation in the delivery of care, with an emphasis on care models that lead to better health outcomes and patient care experiences; enhancing support of primary care providers; and investing in the continued development of the primary care workforce (Exhibit 1). Together, these changes, if implemented effectively, will start the United States on the path to a stronger and more sustainable primary care system, one that provides expanded access, superior quality, and better health outcomes for millions of Americans while reducing future health care costs for the nation.

A WEAKENED PRIMARY CARE FOUNDATION

2

A strong primary care foundation is critical to the functioning of an effective health system. People who have access to a regular primary care physician are more likely than those who do not to receive recommended preventive services and timely care for medical conditions before they become more serious and more costly to treat. Having a regular doctor is also associated with fewer preventable emergency department visits and fewer hospital admissions, as well as with greater trust in and adherence to physicians' treatment recommendations. Among low-income patients, access to primary care is associated with better preventive care, better management of chronic conditions, and reduced mortality. And in geographic areas where there are higher levels of primary care, mortality rates are lower.

Although primary care is fundamental to health system performance, the nation has undervalued and underinvested in primary care for decades. As a result, health care in the U.S. is often poorly coordinated and expensive—to the detriment of patients and clinicians alike.⁵

Patients: Difficulties Accessing Care

In a recent study, half of adults reported problems obtaining access to care and nearly two-thirds experienced problems with the coordination of their care by providers.⁶ Compared with adults in several other countries, U.S. patients often have extended waits for

primary care, with one of five adults reporting a delay of six days or more to see a doctor or nurse.⁷ U.S. adults also have greater difficulty getting primary care after normal office hours without having to go to a hospital emergency room.⁸ Just 29 percent of U.S. primary care practices have made arrangements for their patients to obtain care on evenings, weekends, or holidays.⁹ Lacking ready access to care, one of five chronically ill adults visited the emergency room for care they could have received from their primary care practice.¹⁰ A recent study found that 46 percent of ER patients would have preferred to have seen a primary care provider instead of the ER clinicians but were unable to obtain an appointment.¹¹

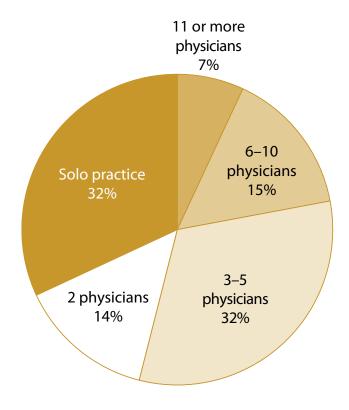
Physicians: A Difficult Practice Environment

Primary care physicians also report many challenges. Compared with their counterparts in other countries, U.S. physicians are far more likely to report that patients often cannot afford their treatment, and far less likely to report having electronic patient records and patient registries, e-alert systems regarding patient medications, or other office system supports that enable safe, patient-centered care. 12,13 In addition, nearly half of primary care physicians work in offices with only one or two practitioners (Exhibit 2). 14 Since the vast majority of such small practices are not connected to other ambulatory care providers or to hospitals through information systems, coordinating care is extremely difficult.

Exhibit 1. Affordable Care Act Provisions That Impact Primary Care

- Medicare 10% increase in primary care reimbursement rates, 2011–2016 (\$3.5 billion)
- Medicaid reimbursement for primary care increased to at least Medicare levels, 2013–2014 (\$8.3 billion)
- · 32 million more people insured, with preventive and primary care coverage, leading to less uncompensated care
- · Medicare and Medicaid patient-centered medical home pilots
- Grants/contracts to support medical homes through:
 - Community Health Teams increasing access to coordinated care
 - Community-based collaborative care networks for low-income populations
 - Primary Care Extension Center program providing technical assistance to primary care providers
- Scholarships, loan repayment, and training demonstration programs to invest in primary care physicians, midlevel providers, and community providers
- \$11 billion for Federally Qualified Health Centers, 2011–2015, to serve 15 million to 20 million more patients by 2015

Exhibit 2. Distribution of Primary Care Physicians, by Practice Size (number of physicians)



Source: T. Bodenheimer and H. H. Pham, "Primary Care: Current Problems and Proposed Solutions," *Health Affairs*, May 2010 29(5):799–805.

An Ineffective Payment System

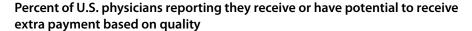
The way physicians in the U.S. are paid for the care they provide has heavily contributed to underinvestment in primary care and fragmentation of care. In the prevailing fee-for-service system, reimbursement is biased in favor of procedures, like surgeries or medical imaging. It does not adequately pay doctors for time spent with a patient to take a medical history, conduct an examination, or follow up before or after the next appointment. And core primary care services, like care coordination or management, and practice infrastructure, including health information technology and patient registries, are sometimes not reimbursed at all.

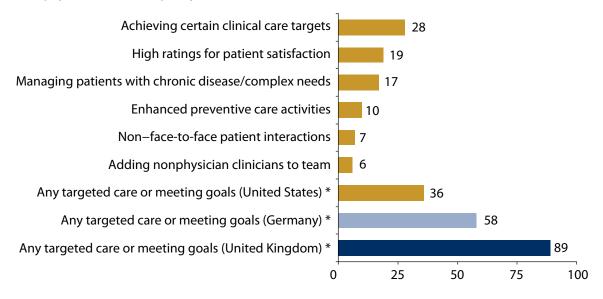
The current payment system also fails to provide physicians with incentives to improve care or incentives that encourage clinicians to work together in teams, a practice associated with better health outcomes for patients. Compared with doctors in such countries as Australia, Canada, Germany, and the

United Kingdom, U.S. doctors are much less likely to be offered financial support for team-based care or incentives linked to quality of care (Exhibit 3).

With lack of infrastructure support and inadequate reimbursement, it can hardly be surprising that only 7 percent of medical students choose careers in primary care. A number of factors contribute to the decline in the supply of primary care providers. For one, there has been a growing income gap between primary care and other specialties in the past two decades, leading fewer medical students and residents to choose primary care. From 1995 to 2004, the median pretax compensation for all specialist physicians grew 37.5 percent, compared with only 21.4 percent for all primary care physicians (Exhibit 4). Indeed, inflation over this period—nearly 24 percent—outpaced the increase in compensation of primary care physicians. 16 At the same time, administrative hassles and high patient loads contribute to the early retirement of practicing

Exhibit 3. U.S. Primary Care Doctors' Reports of Financial Incentives Targeted on Quality of Care





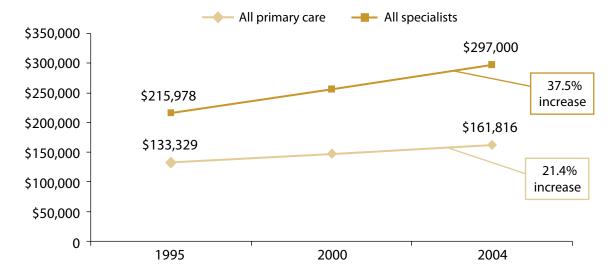
^{*} Can receive financial incentives for <u>any</u> of six: high patient satisfaction ratings, achieve clinical care targets, managing patients with chronic disease/complex needs, enhanced preventive care (includes counseling or group visits), adding nonphysician clinicians to practice and non–face-to-face interactions with patients. Source: 2009 Commonwealth Fund International Health Policy Survey of Primary Care Physicians.

primary care physicians.¹⁷ A 2008 study predicted that population growth, combined with the aging of the population, will expand primary care physicians' workloads by nearly one-third between 2005 and 2025.¹⁸ It

is important to note that the avoidance of primary care is not unique to physicians: the proportions of nurse practitioners and physician assistants choosing careers in primary care are also in decline.

Exhibit 4. The Primary Care-Specialty Income Gap Is Widening

Median pretax compensation of physicians, 1995-2004



Source: T. Bodenheimer, R. A. Berenson, and P. Rudolf, "The Primary Care—Specialty Income Gap: Why It Matters," *Annals of Internal Medicine*, Feb. 2007 146(4):301–06.

Exhibit 5. Timeline for Implementation of Primary Care Provisions in the Affordable Care Act

| | Student loan support to strengthen the health care workforce: - primary care student loans - nursing student loans - pediatric health care workforce student loans Additional funding for Community Health Centers and the National Health Service Corps begins | Increased Medicare reimbursement (10%) for primary care services State option to allow Medicaid beneficiaries with chronic conditions to designate a health home | Medicare demonstration program to test payment incentives and | Medicaid primary care provider payment rates set no lower than Medicare rates Preventive service coverage for adult Medicaid beneficiaries without costsharing increases federal Medicaid assitance percentages | Qualified health plans offering in the exchanges must include federally qualified health centers in covered networks and reimburse at minimum of Medicaid rates HHS grants or contracts to establish |
|---|--|--|---|---|---|
| | | J | payment | | contracts to |
| _ | coverage without cost-sharing | collaborative care networks | home-based primary care teams | care extension centers | patient-centered medical homes |
| | 2010 | 2011 | 2012 | 2013 | 2014–2017 |

Source: Commonwealth Fund Analysis of the the Affordable Care Act (Public Law 111-148 and 111-152).

THE AFFORDABLE CARE ACT: INVESTING IN PRIMARY CARE AND INNOVATION

Fortunately, multiple provisions of the Affordable Care Act have the potential, in combination, to improve patients' and physicians' experiences and lower the costs of care over time (Exhibit 5). The new law temporarily increases Medicare and Medicaid payments for primary care, puts a premium on innovation in health care delivery, enhances support for primary care providers, and invests in the continued development of the primary care workforce. In the following sections, we review the provisions related to physician payment, new care delivery models (including the medical home), and workforce investment. Wherever possible, we also estimate the impact of the reforms on patients, providers, and payers.

Changing Payment and Financial Incentives to Promote Primary Care

There are two provisions in the Affordable Care Act that augment payments to primary care clinicians.

One provides a bonus to clinicians who participate in Medicare. The second raises reimbursement to providers caring for Medicaid beneficiaries (Appendix A). The goal of these financial incentives is to stabilize and expand the existing primary care workforce: with greater access to primary care providers, patients should have better health outcomes, disparities in outcomes and access to care should be lessened, and overall health care spending should decline.¹⁹

Medicare primary care bonus. Beginning in 2011, primary care practitioners participating in Medicare will be eligible for a 10 percent payment bonus. ²⁰ The bonus, which will be available for five years, will target primary care service billing codes for office visits, nursing facility visits, and home visits and will be payable to physicians, nurse practitioners, clinical nurse specialists, and physician assistants who furnish at least 60 percent of their services in those primary care codes. In addition, for five years the bonus will be available to practitioners providing major

surgical procedures in areas of the country where there are shortages of health care professionals.²¹

In total, the Affordable Care Act invests an estimated \$3.5 billion in the primary care provider bonus program from 2011 to 2016.²² The impact on individual providers will depend on the percentage of Medicare patients they see and the share of eligible primary care services they deliver. Estimates vary widely. According to Robert Phillips of the Robert Graham Center, a research institution affiliated with the American Academy of Family Physicians, a physician who meets the eligibility requirements for the bonus and receives 25 percent of practice payments from Medicare could see an additional \$2,000 per year from 2011 to 2016, when the bonus policy is in effect.²³ The American College of Physicians, meanwhile, estimates that a general internist with the typical annual Medicare revenue of \$200,000 would receive \$12,000 to \$16,000 in additional practice revenue each year during that same period.24

The Medicare Payment Advisory Commission (MedPAC) recognizes that primary care services are undervalued by Medicare's provider reimbursement system and has recommended that Congress increase reimbursement for primary care services and establish a medical-home pilot program.²⁵ According to an analysis by the Lewin Group, enhancing payment for primary care services—if done within the context of comprehensive health reform—could yield \$71 billion in reduced national health expenditures over 10 years.²⁶

Medicaid primary care reimbursement floor. Low reimbursement rates in the Medicaid program, the principal public insurance program for low-income Americans, have long threatened beneficiaries' access to primary care providers and services. Even though most primary care physicians—85 percent in 2004–2005—participate in Medicaid,²⁷ one of five report he or she is accepting no new Medicaid patients, a rate six times higher than that for Medicare patients and five times higher than for the privately insured.²⁸ Medicaid fees are one of many factors that affect providers' decisions to accept Medicaid as payment.²⁹ In states that have

increased their Medicaid reimbursement rates, the number of physicians participating in Medicaid feefor-service, including those located in medically underserved areas, has grown.³⁰

As part of the Affordable Care Act, Medicaid payment rates for primary care physicians will be raised to the level of Medicare payment rates for equivalent primary care services in 2013 and 2014,³¹ a change intended to encourage physicians who already accept Medicaid insurance to continue accepting it, as well as persuade those who do not to begin accepting Medicaid. The federal government will fund the entire cost through increased federal matching assistance for these primary care services.³² As a result, Medicaid primary care physicians are estimated to gain an additional \$8.3 billion in reimbursement between 2013 and 2019.

In 2008, the average physician fees for primary care visits in state Medicaid fee-for-service programs were just 66 percent of the fees for equivalent care in the Medicare fee-for-service program.³³ However, because states set Medicaid provider payment rates, the new policy will have widely different impacts on physicians in different states (Exhibit 6). Primary care physicians in states with lower Medicaid-to-Medicare fee ratios will benefit more from the policy than those in states where there is greater parity between the two programs' reimbursement rates. For example, a physician practicing in New Jersey, whose Medicaid primary care rates for evaluation and management services and immunizations was 41 percent of the Medicare rates in 2008, will see a much greater increase in Medicaid payment than a physician practicing in Nevada, whose Medicaid rates in 2009 were 93 percent of Medicare rates—nearly the same.34

At the same time, primary care physicians in all states stand to gain as Medicaid is expanded by the Affordable Care Act to cover an additional 16 million to 20 million beneficiaries and another 16 million people who are now uninsured gain private coverage through the new health insurance exchanges. For the first time, low- and middle-income adults, as well as children, will be assured continuous access to comprehensive insurance coverage.

Exhibit 6. Wide Variation in Medicaid-to-Medicare Fee Ratio for All Primary Care Services, 2008

| State | Ratio | State | Ratio | State | Ratio |
|----------------------|-------|----------------|-------|----------------|-------|
| Alabama | 0.78 | Kentucky | 0.80 | North Dakota | 1.01 |
| Alaska | 1.40 | Louisiana | 0.90 | Ohio | 0.66 |
| Arizona | 0.97 | Maine | 0.53 | Oklahoma | 1.00 |
| Arkansas | 0.78 | Maryland | 0.82 | Oregon | 0.78 |
| California | 0.47 | Massachusetts | 0.78 | Pennsylvania | 0.62 |
| Colorado | 0.87 | Michigan | 0.59 | Rhode Island | 0.36 |
| Connecticut | 0.78 | Minnesota | 0.58 | South Carolina | 0.86 |
| Delaware | 1.00 | Mississippi | 0.84 | South Dakota | 0.85 |
| District of Columbia | 0.47 | Missouri | 0.65 | Tennessee | N/A |
| Florida | 0.55 | Montana | 0.96 | Texas | 0.68 |
| Georgia | 0.86 | Nebraska | 0.82 | Utah | 0.76 |
| Hawaii | 0.64 | Nevada | 0.93 | Vermont | 0.91 |
| Idaho | 1.03 | New Hampshire | 0.67 | Virginia | 0.88 |
| Illinois | 0.57 | New Jersey | 0.41 | Washington | 0.92 |
| Indiana | 0.61 | New Mexico | 0.98 | West Virginia | 0.77 |
| lowa | 0.89 | New York | 0.36 | Wisconsin | 0.67 |
| Kansas | 0.94 | North Carolina | 0.95 | Wyoming | 1.17 |

Source: Adapted from S. Zuckerman, A. F. Williams, and K. E. Stockley, "Trends in Medicaid Physician Fees, 2003–2008," Health Affairs Web Exclusive, April 28, 2009, w510–w519.

The Medicaid expansion will particularly benefit physicians practicing in states where adults are uninsured at high rates, such as states in the West and South, where nearly one of four adults is uninsured (Exhibit 7). By 2019, the vast majority of Americans will be insured, and providers will benefit from the near-universal ability of patients to pay for preventive and primary care.

Incentives for patients to obtain preventive care. Preventing illness is as much a part of primary care as is the identification and treatment of health problems.³⁵ The Affordable Care Act provides positive incentives to encourage people to obtain preventive care services. Through three provisions applying to Medicare and Medicaid beneficiaries as well as the privately insured, the law eliminates coinsurance, deductibles, and copayments for approved preventive services and tests, such as blood-pressure and cancer screenings, mammograms and Pap tests, and immunizations (Appendix B). In a study of Medicare beneficiaries, full coverage of

preventive services with no patient cost-sharing was shown to increase use of preventive screening services over time.³⁶ And in a study of low-income patients, researchers found that even small incremental changes in copayments had a substantial impact on the affordability and utilization of care.³⁷

The Affordable Care Act adds a new Medicare benefit that will make preventive services more accessible for seniors. Beginning in 2011, Medicare will invest \$3.6 billion to cover a free annual wellness visit during which each beneficiary will receive a personalized prevention plan.³⁸ The checkup will include a personalized health risk assessment, a review of personal and family medical history, and screening for cognitive impairment; in addition, a list will be compiled of all doctors providing care to the patient. Based on the outcome of the health risk assessment, the patient will receive a five-to-10-year plan for screenings and other preventive services, and advice and referrals for educational services covering weight loss, physical activity, smoking cessation, nutrition, and fall prevention.

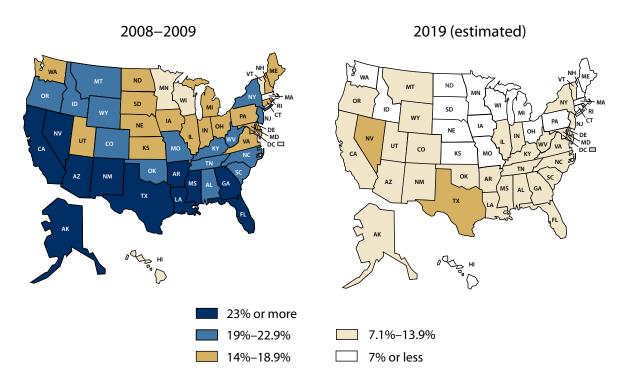


Exhibit 7. Uninsured Rate Among Adults Ages 19-64, 2008-09 and 2019

Data: U.S. Census Bureau, 2009–10 Current Population Survey ASEC Supplement; estimates for 2019 by Jonathan Gruber and lan Perry of MIT using the Gruber Microsimulation Model for The Commonwealth Fund.

Source: Commonwealth Fund State Scorecard on Child Health System Performance, forthcoming 2011.

Testing and Spreading Innovative Ways to Deliver Primary Care

8

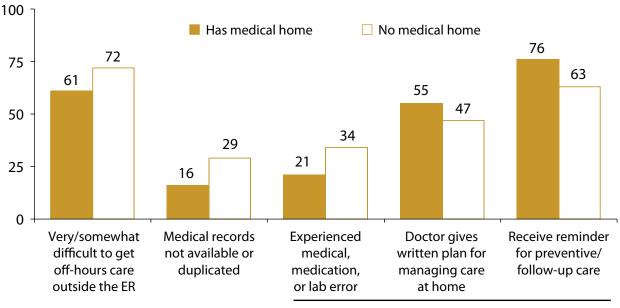
Patient-centered medical homes. The patient-centered medical home has emerged as a promising model for strengthening primary care, and several provisions in the health reform statute encourage its adoption by providers. A patient-centered medical home is a primary care site that provides patients with timely access to care, including availability of appointments after regular office hours (especially evenings and weekends), partners with patients to manage health conditions and prevent complications, coordinates all care, and engages in continuous quality improvement. A growing body of evidence shows that patients with a medical home have better access to care, are more likely to receive recommended preventive services, and have chronic conditions that are better managed compared with those lacking a medical home.³⁹ Medical home patients are also less likely to report errors in their care or duplication of tests, and less likely to go to the emergency

room (Exhibit 8). 40 A recent review of results from medical home pilots consistently shows cost-savings through reductions in unnecessary hospitalizations and emergency department use. 41

The Affordable Care Act advances the medical home concept by offering all states the option to enhance reimbursement of primary care sites designated as "health homes" for Medicaid patients with chronic conditions.⁴² Similar in concept to medical homes, health homes explicitly emphasize both integration with the public health system and the key role of advanced practice nurses. In the law, health homes are defined as designated primary care providers (physicians, nurse practitioners, or physician assistants) who work in teams with other health care professionals and provide services to eligible patients, including comprehensive care management, care coordination and health promotion, transitional care between hospital and primary care, referral to community and social services, patient and family engagement, and use of information

Exhibit 8. Impact of Medical Homes on Quality of Care

Percent of adults reporting



Adults with a chronic condition

Note: Medical home includes having a regular provider that knows you, is easy to contact, and coordinates your care. Errors include medical mistake, wrong medication/dose, or lab/diagnostic errors.

Source: 2007 Commonwealth Fund International Health Policy Survey.

Data collection: Harris Interactive, Inc.

technology to link services. To ensure greater coordination between the primary care site and local emergency departments, area hospitals in participating states will be required to establish a mechanism for referring any eligible Medicaid beneficiaries with chronic conditions who seek care in the emergency department to their designated health home providers. The Affordable Care Act gives states flexibility to design their payment approach in the way that works best for them.

Thirty-seven states have already undertaken a demonstration, pilot program, or other intervention to reap the benefits of the medical home model, and the health reform law provides states the support needed to sustain, improve, and expand those programs. The health home option could help make the range of demonstration projects more cohesive, encourage more states and more providers to participate, and prompt states to develop more comprehensive programs. For the states that opt to participate in the health home program, the federal government will, for the first two

years, provide an enhanced contribution (90%) exceeding usual federal–state Medicaid matching rates. The guaranteed 90 percent federal contribution will bring additional resources and facilitate the transition from pilot to permanent program for Medicaid enrollees with chronic conditions. For primary care practices, the enhanced reimbursement will vary by state. For example, enhanced Medicaid medical home payments range from an additional \$3.00 per member per month in Rhode Island to an adjusted average per-patient–per-month fee of about \$31 for qualified practices in Minnesota. 43

If all states take advantage of the opportunity to develop the health home program, up to 10 million Medicaid beneficiaries with at least one chronic condition could have a health care home in 2011 (Appendix C).⁴⁴ An estimated 20 million people will be newly eligible for Medicaid in 2014 when coverage expands to adults up to 133 percent of the federal poverty level.⁴⁵ Among those newly eligible, an estimated 8 million

individuals will have at least one chronic condition. If states spread the medical home concept throughout Medicaid, more than 15 million chronically ill Medicaid enrollees could have a health home in 2014 to help them manage their chronic conditions and improve their health outcomes.⁴⁶

Center for Medicare and Medicaid Innovation. Underlying many of the delivery system reforms in the Affordable Care Act is the Center for Medicare and Medicaid Innovation, part of the Centers for Medicare and Medicaid Services. The new center will test innovative payment and delivery system models that show promise for improving or maintaining the quality of care provided to beneficiaries of Medicare, Medicaid, and the Children's Health Insurance Program (CHIP), while slowing the rate of cost growth in those programs.⁴⁷ Beginning in January 2011, the innovation center will research, develop, test, and expand these innovative payment and delivery arrangements. Considerable resources have been invested to help the center carry out its mission: \$5 million was appropriated in 2010 for planning and design, implementation, and evaluation, and \$10 billion was appropriated to support activities from 2011 to 2019.

The Affordable Care Act provides the secretary of the Department of Health and Human Services (HHS) significant flexibility in selecting the innovations to be tested, but specifically prioritizes the testing of new models of primary care delivery. For example, the statute suggests testing patient-centered medical homes for high-need individuals, women's health care, and comprehensive or salary-based payment of clinicians. Another recommended model to test is the establishment of community-based health teams to support medical homes based at small physician practices.

The HHS secretary is authorized, without additional legislative action, to spread successful innovations sponsored by the innovation center to all Medicare, Medicaid, and CHIP providers who voluntarily choose to participate. If the tested innovations demonstrate improvements in quality without increased spending, reductions in spending without compromising quality, or both, the intervention can be spread voluntarily to Medicare, Medicaid, and CHIP providers. Thus far, medical home demonstrations have met this test of improved quality while slowing the rate of health system expenditures. In an independent analysis, the Lewin Group estimated that widespread adoption of the medical home model in Medicare and Medicaid could reduce national health spending, relative to currently projected levels, by an estimated \$175 billion through 2020 if it is tied to strong positive incentives for patients to participate and is embedded in supportive care systems.⁴⁸ Other estimates are less optimistic. For example, the Congressional Budget Office (CBO) estimated that a Medicare medical home intervention would cost the federal government an additional \$6 billion over 10 years.⁴⁹ However, this estimate assumes that physicians would receive monthly payments in addition to regular fee-forservice reimbursement to compensate for additional time spent managing more comprehensive care, but does not include any patient incentives to choose a medical home. In contrast, CBO estimated that using a partial-capitation system for primary care physicians in Medicare, with patients assigned to a primary care physician, would save the federal government \$5 billion over 10 years; this estimate only accounts for the payment and does not consider cost-savings from moreaccessible primary care.50

Supporting Medical Homes and Facilitating Transformation

As stipulated in the Affordable Care Act, to qualify as a medical home, participating primary care sites will need to provide a wide range of services, such as expanded access to care, comprehensive care management, coordinated and integrated care, referral to community and social support services, and use of information technology and continuous quality improvement methods. Surveys of primary care doctors show, however, that most primary care practices do not have the infrastructure to meet these expectations.⁵¹ Several provisions of the health reform law are designed to help primary care sites secure the support they need to function as medical homes.

In most instances, this structural support—whether it takes the form of clinical services, a care coordinator, or a quality improvement coach—is intended to be shared by multiple primary care sites. Sharing such resources not only allows smaller practices to keep costs manageable, but it can also foster a sense of shared accountability, which can ultimately lead to improved quality of care for patients and better health outcomes.⁵² Under the Affordable Care Act, the shared-resources concept will be tested through the promotion of community health teams, collaborative care networks, and primary care extension centers (Appendix C).

Community health teams. In 2011, the HHS secretary will begin awarding grants to states, statedesignated organizations, and American Indian tribes to establish "community health teams" to support patient-centered medical homes. Intended to bring together a broad spectrum of professionals, from medical specialists to dieticians to alternative medicine practitioners, these teams will contract with local primary care practices to provide support for an array of services to patients with chronic conditions, including preventive care and health promotion activities, 24-hour care management and support following hospital discharge, and collection and reporting of data about patient outcomes, including patient experience. The contracted primary care providers must agree to develop a care plan for each participating patient, give the health teams access to the patient's health record, and meet regularly with the patient's care providers to ensure proper coordination and integration of care.

Community Health Teams in Action: Vermont

As part of Vermont's Blueprint for Health, public and private payers have come together to support community care teams to help medical homes refer patients to community resources, coordinate care with hospitals, and work with other providers to help chronically ill patients better manage their conditions. Participating physicians are paid an extra \$1.20 to \$2.39 per patient a month to coordinate care with the local

health team. By helping patients stay out of the hospital, the state estimates that annual health care spending in Vermont will be nearly 29 percent lower within five years of implementing the Blueprint for Health statewide.⁵³

Community-based collaborative care networks. Another grant program created by the Affordable Care Act will provide comprehensive, integrated health care services for low-income populations through "community-based collaborative care networks." 54 The grant funds will be used to help low-income individuals obtain access to, and appropriately use, medical homes; provide case and care management in collaboration with the medical home; conduct outreach; provide transportation to patients; expand capacity through telemedicine, after-hours care, or urgent care; and provide direct patient-care services. To be eligible for funding, each network must include groups of health care providers within a joint governance structure, including hospitals with a high volume of Medicaid patients and all federally qualified health centers located in the community. Although the program is authorized to operate from 2011 to 2014, funds have not yet been appropriated.

Collaborative Care Networks in Action: North Carolina

Community Care of North Carolina (CCNC) illustrates the potential benefit of collaborative care networks to improve care and increase efficiency for patients and providers. The program is a public-private partnership between the state and 14 local, nonprofit networks encompassing 3,500 physicians and 750,000 Medicaid and CHIP beneficiaries. Each network receives \$3.00 per member per month for the shared service of care coordination, and each physician in the network receives an additional \$2.50 per member per month. Since 2006, CCNC has saved the state of North Carolina more than \$500 million dollars compared with the projected cost trend. Moreover, it has improved quality of care, especially for patients with asthma, and reduced emergency department use by 23 percent. 55

Primary care extension centers. The Agency for Healthcare Research and Quality is charged with establishing the Primary Care Extension Program, which is designed to provide educational support and assistance to primary care providers.⁵⁶ The aim is for providers to regularly incorporate preventive medicine, health promotion, chronic disease management, mental and behavioral health services, and evidence-based medicine into their practices by working with community-based health connectors known as health extension agents. Health extension agents are local, community-based health care workers who facilitate and provide assistance to primary care practices to implement quality improvement or system redesign, incorporate the principles of the patient-centered medical home, and link the practices to a diverse array of health and social services. Competitive grants will be awarded to "hubs"—state health departments, the state Medicaid agency, and schools that train primary care providers. The hubs will then contract with county or local organizations to serve as the primary care extension agency, which will hire the agent who provides the technical assistance and support. The extension agencies may also provide training and support for the community health teams, collect and report data to primary care providers about their performance, and collaborate with other community organizations and entities to identify local health care workforce needs. The legislation allocates \$120 million each for fiscal years 2011 and 2012; these funds have not yet been appropriated. Further funding for 2013 and 2014 has been authorized, but it will need to be appropriated by Congress.

Primary Care Extension Centers in Action: Oklahoma

An initiative in Oklahoma illustrates the value of a primary care extension program. The Oklahoma Physicians Resource/Research Network, which is a collaboration of state agencies, the local chapter of the American Academy of Family Physicians, and the University of Oklahoma, aims to provide community physicians with information, education, and technology to enhance their primary care practices and generate new knowledge. The network supports more

than 200 clinicians at 110 sites, most of which are small, independent practices. Participating providers receive data feedback with benchmarking, practice coaching, support on how to use and optimize health information technology, and assistance with quality improvement projects. Similar to agents in the extension center model, "practice enhancement assistants" support the participating primary care practices.⁵⁷ The program has produced significant improvements in preventive services and diabetes care.⁵⁸

Ensuring an Adequate Supply of Primary Care Providers

Although over half of patient visits are for primary care, ⁵⁹ primary care providers accounted for only 35 percent of the nation's physician workforce and 37 percent of the physician assistant workforce in 2008. ⁶⁰ The number of U.S. medical graduates selecting primary care residencies dropped by half from the mid-1990s to the mid-2000s, and from 2000 to 2005 the percentage of medical graduates choosing family medicine decreased from 14 percent to 7 percent. ⁶¹ More alarming, one-quarter of the primary care physician workforce is nearing retirement age, and there are not sufficient replacements. ⁶² Even before health reform, a multitude of studies warned that the U.S. will face a shortage of primary care providers as large as 45,000 by 2025. ⁶³

To address this growing shortage, the Affordable Care Act starts the process of expanding and stabilizing the nation's primary care workforce, through support of education and training for physicians, midlevel providers, community providers, and community health centers. (For a list of workforce-related provisions, see Appendix D.)

Primary care physicians. Perhaps the best-known provision in the Affordable Care Act related to workforce training is the new \$1.5 billion authorized over 2011 to 2015 for the National Health Service Corps to provide scholarships and loan forgiveness for primary care physicians, nurse practitioners, and physician assistants practicing in health professional shortage areas.⁶⁴ Other provisions that offer financial

support for training new primary care physicians include more favorable loan repayment requirements for the federally supported Primary Care Loan Program (which provided \$30 million to over 400 medical students in 2009), and a loan repayment program for pediatric subspecialists and child or adolescent mental or behavioral health providers working in underserved areas.⁶⁵

(The funding amounts listed here and in Appendix D reflect the levels authorized by the Affordable Care Act. Although the funds for the Corps were appropriated, many other funding provisions authorized future appropriations; thus, these provisions may ultimately receive lower levels of funding than those specified in the law, or no funding at all. Effective implementation of these provisions will depend on Congress to appropriate the funds authorized by the law.)

Beyond these financial incentives for new primary care physicians, the Affordable Care Act develops and enhances structural support for training primary care physicians through a variety of programs including the creation, reauthorization, or expansion of a number of training programs created under Title VII, Section 747, of the Public Health Services Act. Title VII programs are designed to encourage health care workers to practice in underserved areas and to increase the number, quality, and diversity of primary care providers. According to a 2008 study, physicians trained in Title VII-funded medical schools or residency programs are significantly more likely to work in community health centers and to participate in the National Health Service Corps loan repayment program.⁶⁶ Title VII programs supported by the Affordable Care Act include:

- a new program to cover the direct and indirect expenses incurred by teaching health centers for training primary care residents in new or expanded Title VII residency training programs (\$230 million for 2011–15);⁶⁷
- grants for teaching health centers to establish or expand Title VII primary care residency programs (\$25 million for 2010, \$50 million annually for 2011–12);68

- the reauthorized Primary Care Training and Enhancement programs to provide five-year grants to hospitals, medical schools, or other nonprofit entities to develop and operate primary care education and training activities (\$125 million for 2010);⁶⁹ and
- a new Capacity Building in Primary Care program to provide five-year grants to medical schools to establish, maintain, or improve clinical teaching in primary care, or programs that integrate training in primary care fields or enhance interdisciplinary recruitment, training, and faculty development (\$750,000 for 2010–14).

In addition to the Title VII programs, the Affordable Care Act creates more training opportunities for primary care physicians through a new \$500 million Prevention and Public Health Fund, with \$168 million for new primary care residency positions, and redistributes 900 unused but authorized graduate medical education positions to train primary care physicians and general surgeons.⁷¹ The Prevention and Public Health Fund resources are expected to train 500 new primary care physicians by 2015.

Midlevel practitioners. Physician assistants and nurse practitioners are essential to the primary care workforce, though their roles vary by state. The health reform law bolsters the midlevel primary care practitioner workforce through scholarships, loans, and loan repayment programs, as well as through the creation and expansion of training opportunities. As noted above, an additional \$1.5 billion will be available for the National Health Service Corps for scholarships and loan repayment for primary care physicians, physician assistants, and nurse practitioners from 2011 to 2015.72 Physician assistant students and nurse practitioner students qualify for the Primary Care Loan program described above and will benefit from the limited service obligation, decreased penalties for noncompliance, and exclusion of parental financial status in need determination.⁷³ The reform law also reauthorizes a number

of nursing education programs under Title VIII and increases the amount available for federal nursing student loans.⁷⁴

Sixty-two million dollars from the Prevention and Public Health Fund has been invested to train 600 new primary care physician assistants and 600 new primary care nurse practitioners by 2015.75 Another \$15 million from this fund and a new \$50 million grant program in 2010 will support the operation of nurse-managed health clinics to help train new nurse practitioners. And a new training demonstration program will support family nurse practitioners for a year to train new nurse practitioners in health centers and nurse-managed clinics in 2011–2014.76

Community providers. Comprehensive primary care requires a team approach involving physicians, physician assistants, advanced practice nurses, nurses, and community providers, such as patient navigators and allied health professionals. The Affordable Care Act expands a loan forgiveness program to include allied health professionals who work in an area of national need.⁷⁷ The law also establishes grants for state and local public health and allied health workforce loan repayment programs, with \$60 million authorized in 2010 and additional funds as needed for 2011–2015, divided evenly between public health and allied health.⁷⁸

The reform law further expands support for community health workers in the primary care system through a grant program for states, hospitals, public health departments, health centers, or a consortium of these entities. These grants will support community health workers to educate and provide outreach on health problems prevalent in medically underserved communities, promote positive health behaviors, help enroll eligible individuals in federal health insurance programs, and identify underserved populations and refer them to appropriate resources.

Federally qualified community health centers. A large portion of the investment in the primary care

workforce will require training in settings like health centers. Although the effects will reach beyond primary care, the renewed investment in federally qualified health centers will bolster and expand access to comprehensive primary health care for health center patients, who are disproportionately medically underserved, minority, and low-income. 80 The Affordable Care Act authorizes an additional \$11 billion for health centers from 2011 to 2015 and authorizes continued higher spending compared to current levels in later years.81 The new funding includes \$1.5 billion for capital improvements, and the remaining \$9.5 billion will expand centers' operational capacity to serve millions of new patients and enhance medical, behavioral, and oral health services.82 Through the Medicaid and private insurance coverage gains in 2014 and the new federal funding for health centers, 15 million to 25 million more people are expected to have access to comprehensive primary care as health center patients by 2015 (Exhibit 9).83 This will require a significant influx of primary care providers working in health centers, which increased support for the Title VII programs should help bring about.

Estimated impact on workforce. Much of health reform's impact on the primary care workforce is focused on the medical educational system, with the goal of increasing the supply and diversity of the primary care workforce in underserved areas. Investments made by the American Recovery and Reinvestment Act of 2009 and the Affordable Care Act, particularly in the National Health Service Corps, will support the training and development of more than 16,000 new primary care providers over the next five years.84 Training in cultural competency will be more heavily emphasized in research and demonstration projects, and grants provided to community colleges and other training institutions for training low-income and lowskill populations in health care will increase the diversity of the workforce.85

Although both laws offer significant financial and structural resources to stabilize and expand the

Exhibit 9. Opportunities in the Affordable Care Act for Federally Qualified Health Centers

- Eleven billion dollars provided over five years to expand the federally qualified health center (FQHC) program beyond amounts previously appropriated.
- New teaching health center grant program to support new or expanded primary care residency programs at FQHCs, with \$125 million authorized for fiscal years 2010–12, and \$230 million additional funding to cover direct and indirect expenses of teaching health centers to train primary care residents in expanded or new programs.
- Loan forgiveness for pediatric subspecialists and mental or behavioral health service providers working with children and adolescents in a federally designated health professional shortage area, medically underserved area, or areas with a medically underserved population.
- Training/workforce development, including demonstration grants for family nurse practitioner training programs supporting providers in FQHCs.
- Grants to FQHCs to promote positive health behaviors and outcomes in medically underserved areas through the use of community health workers.
- Essential health benefits requirement for insurance plans offered in the new health insurance exchanges will ensure that networks of preferred providers include FQHCs, and that payments by qualified health plans to FQHCs are at least as high as the payments under Medicaid.
- New prospective payment system for Medicare-covered services furnished by FQHCs, including preventive services, with \$400 million in expected additional revenues for health centers.

Source: L. Ku, P. Richard, A. Dor et al., Strengthening Primary Care to Bend the Cost Curve: The Expansion of Community Health Centers Through Health Reform (Washington, D.C.: George Washington University School of Public Health and Health Services, June 30, 2010, available at http://www.gwumc.edu/sphhs/departments/healthpolicy/dhp_publications/pub_uploads/dhpPublication_895A7FC0-5056-9D20-3DD88A6567031078.pdf.

primary care workforce, these provisions only lay the foundation for addressing the demand for primary care providers. By 2015, it is estimated that a total of 25 million Americans who are newly insured will be seeking care, further straining an already overburdened primary care system. 86 Millions more who have improved coverage are also likely to obtain primary care at higher rates than before. Federal and state policymakers will need to ensure there are sufficient resources and support for the primary care workforce to provide needed services to these individuals.

CONCLUSION

The Affordable Care Act places new value on primary care. Taken together, the provisions in the law provide a solid foundation for strengthening and sustaining the U.S. primary care system, with tangible positive impact on patients and providers (Exhibit 10). Separately, however, none of the provisions is robust enough to address the many challenges facing the primary care system today or to ensure that the system will be able to accommodate 32 million more Americans seeking care.

If patients and physicians are to reap the benefits of a strong primary care system, it will be critical for these provisions to be implemented together at both the federal and state levels. It will depend on coordination between Medicare and Medicaid, and between public and private payers. And it will depend on Congress appropriating funding for reforms that support communities and the primary care workforce. Simply put, it will require us to be faithful to the commitments that have been made.

Exhibit 10. Affordable Care Act and Primary Care: Impact of Selected Provisions on Patients and Providers

• Fifty million Medicare beneficiaries in 2011 will have free access to currently covered preventive services, such as high-blood-pressure screening, alcohol misuse counseling, and colon cancer screening.

- Up to 40 million people in 2011 and 90 million by 2013 will no longer have to make a copayment for recommended preventive screenings, including cancer screenings.
- Nearly 40 million Medicaid enrollees in 2013 will have access to free preventive care services.
- In 2011, 50 million Medicare seniors will be eligible for free annual wellness check-ups and personalized prevention plans.
- A 10 percent bonus will be paid to primary care practitioners who see Medicare patients (2011–2015).
- Payment rates for primary care physicians who see Medicaid patients will be increased (2013–2014).
- Starting in 2011, as many as 10 million Medicaid patients who have at least one chronic condition could have a "health home" to help them manage their condition. An estimated 8 million newly eligible Medicaid beneficiaries with at least one chronic condition could have a health home by 2014.
- The Affordable Care Act and the American Recovery and Reinvestment Act (the so-called stimulus package) will together support the training of more than 16,000 new primary care providers over the next five years.

Notes

- A. B. Bindman, K. Grumbach, D. Osmond et al., "Primary Care Receipt of Preventive Services," Journal of General Internal Medicine, May 1996 11(5):269–76; and L. A. Blewett, P. J. Johnson, B. Lee et al., "When a Usual Source of Care and Usual Provider Matter: Adult Prevention and Screening Services," Journal of General Internal Medicine, Sept. 2008 23(9):1354–60.
- S. T. Orr, E. Charney, J. Straus et al., "Emergency Room Use by Low-Income Children with a Regular Source of Health Care," Medical Care, March 1991 29(3):283–86; B. Starfield, Primary Care: Concept, Evaluation and Policy (New York: Oxford University Press, 1992); L. J. Weiss and J. Blustein, "Faithful Patients: The Effect of Long-Term Physician—Patient Relationships on the Costs and Use of Health Care by Older Americans," American Journal of Public Health, Dec. 1996 86(12):1742–47; and J. M. Gill, A. G. Mainous 3rd, and M. Nsereko, "The Effect of Continuity of Care on Emergency Department Use," Archives of Family Medicine, April 2000 9(4):333–38.
- ³ K. Fiscella, S. Meldrum, P. Franks et al., "Patient Trust: Is It Related to Patient-Centered Behavior of Primary Care Physicians?" *Medical Care*, Nov. 2004 42(11):1049–55.
- ⁴ B. Starfield, L. Shi, and J. Macinko, "Contribution of Primary Care to Health Systems and Health," *Milbank Quarterly*, Sept./Oct. 2005 83(3):457–502.
- E. A. McGlynn, S. M. Asch, J. Adams et al., "The Quality of Health Care Delivered to Adults in the United States," *New England Journal of Medicine*, June 26, 2003 348(26):2635–45.
- S. K. H. How, A. Shih, J. Lau, and C. Schoen, Public Views on U.S. Health System Organization: A Call for New Directions (New York: The Commonwealth Fund, Aug. 2008).
- ⁷ C. Schoen, R. Osborn, D. Squires, M. M. Doty, R. Pierson, and S. Applebaum, "How Health Insurance Design Affects Access to Care and Costs, by Income, in Eleven Countries," *Health Affairs* Web First, Nov. 28, 2010.
- 8 C. Schoen, R. Osborn, S. K. H. How, M. M. Doty, and J. Peugh, "In Chronic Condition: Experiences of Patients with Complex Health Care Needs, in Eight

- Countries, 2008," *Health Affairs* Web Exclusive, Nov. 13, 2008, w1–w16.
- ⁹ Ibid.
- ¹⁰ Ibid.
- S. R. Pitts, E. R. Carrier, E. C. Rich et al., "Where Americans Get Acute Care: Increasingly, It's Not at Their Doctor's Office," *Health Affairs*, Sept. 2010 29(9):1620–29.
- C. Schoen, R. Osborn, M. M. Doty, D. Squires, J. Peugh, and S. Applebaum, "A Survey of Primary Care Physicians in Eleven Countries, 2009: Perspectives on Care, Costs, and Experiences," *Health Affairs* Web Exclusive, Nov. 5, 2009, w1171–w1183.
- ¹³ Ibid.
- ¹⁴ T. Bodenheimer and H. H. Pham, "Primary Care: Current Problems and Proposed Solutions," *Health Affairs*, May 2010 29(5):799–805.
- K. G. Shojania, S. R. Ranji, K. M. McDonald et al., "Effects of Quality Improvement Strategies for Type 2 Diabetes on Glycemic Control: A Meta-Regression Analysis," *Journal of the American Medical Association*, July 26, 2006 296(4):427–40.
- U.S. Department of Labor, Bureau of Labor Statistics, Consumer Price Index for All Urban Consumers (CPI-U) for All Items (Washington, D.C.: Bureau of Labor Statistics, Oct. 15, 2010, ftp://ftp.bls.gov/pub/special.requests/cpi/cpiai.txt.
- "How Is a Shortage of Primary Care Physicians Affecting the Quality and Cost of Medical Care?" White paper (Philadelphia: American College of Physicians, 2008).
- J. M. Colwill, J. M. Cultice, and R. L. Kruse, "Will Generalist Physician Supply Meet Demands of an Increasing and Aging Population?" *Health Affairs* Web Exclusive, April 29, 2008, w232–w241.
- ¹⁹ Institute of Medicine, Crossing the Quality Chasm: A New Health System for the 21st Century (Washington, D.C.: National Academies Press, 2001); J. M. Ferrante, B. A. Balasubramanian, S. V. Hudson et al., "Principles of the Patient-Centered Medical Home and Preventive Services Delivery," Annals of Family Medicine, March-April 2010 8(2):108–16; and A. C. Beal, M. M. Doty, S. E. Hernandez, K. K. Shea, and K. Davis, Closing the Divide: How Medical

THE COMMONWEALTH FUND

- Homes Promote Equity in Health Care—Results from The Commonwealth Fund 2006 Health Care Quality Survey (New York: The Commonwealth Fund, June 2007).
- § 5501, "Patient Protection and Affordable Care Act (Brief title: Affordable Care Act)" (PL 111-148, March 23, 2010), United States Statutes at Large, 124 Stat. 119; "Health Care and Education Reconciliation Act" (PL 111-152, March 30, 2010), United States Statutes at Large, 124 Stat. 1029. All section numbers refer to the Affordable Care Act as modified by the Health Care and Education Reconciliation Act unless otherwise noted.
- P. A. Davis, J. Hahn, G. J. Hoffman et al., "Medicare Provisions in the Patient Protection and Affordable Care Act (PPACA): Summary and Timeline," Report R41196 (Washington, D.C.: Congressional Research Service, June 18, 2010).
- ²² Congressional Budget Office, Letter to the Hon. Nancy Pelosi, March 20, 2010, available at http://www.cbo.gov/ftpdocs/113xx/doc11379/ AmendReconProp.pdf.
- J. Arvantes, "Provisions in Health Care Reform Law Lay Out Role of Primary Care, Family Physicians: Measures Place Greater Emphasis on Prevention, Care Coordination," AAFP News NOW, July 28, 2010, available at http://www.aafp.org/online/en/ home/publications/news/news-now/governmentmedicine/20100728hcreformoverview.html.
- American College of Physicians, Division of Governmental Affairs and Public Policy, An Internist's Practical Guide to Understanding Health System Reform (Washington, D.C.: American College of Physicians, June 2010), available at http://www.acponline.org/advocacy/where_we_ stand/access/int_prac_guide.pdf.
- Medicare Payment Advisory Commission, Report to the Congress: Reforming the Delivery System, Chapter 2 (Washington, D.C.: MedPAC, June 2008).
- The Lewin Group, A Path to a High Performance U.S. Health System: Technical Documentation (The Commonwealth Fund, Feb. 19, 2009).
- P. J. Cunningham and A. S. O'Malley, "Do Reimbursement Delays Discourage Medicaid Participation by Physicians?" *Health Affairs* Web Exclusive, Nov. 18, 2008, w17–w28.

- P. J. Cunningham and J. H. May, Medicaid Patients Increasingly Concentrated Among Physicians (Washington, D.C.: Center for Studying Health System Change, Aug. 2006), available at http:// hschange.org/CONTENT/866/.
- P. J. Cunningham and L. M. Nichols, "The Effects of Medicaid Reimbursement on the Access to Care of Medicaid Enrollees: A Community Perspective," *Medical Care Research and Review*, Dec. 2005 62(6):676–96.
- D. Reynolds, J. Vitaliz, and M. Whorley, "Medicaid Fee-For-Service Physician Participation and Reimbursement Analysis," Prepared for the House Appropriations Committee, Virginia House of Delegates, Fall 2007, available at https://www. wm.edu/as/publicpolicy/documents/prs/med.pdf.
- ³¹ § 1202.
- ³² Congressional Budget Office, Letter to Pelosi, 2010.
- S. Zuckerman, A. F. Williams, and K. E. Stockley, "Trends in Medicaid Physician Fees, 2003–2008," *Health Affairs* Web Exclusive, April 28, 2009, w510–w519.
- 34 Ibid.
- B. Starfield, Primary Care: Balancing Health Needs, Services, and Technology (Baltimore: Johns Hopkins University Press, 1993).
- ³⁶ A. N. Trivedi, W. Rakowski, and J. Z. Ayanian, "Effect of Cost Sharing on Screening Mammography in Medicare Health Plans," New England Journal of Medicine, Jan. 24, 2008 358(4):375–83.
- L. Ku and V. Wachino, "The Effect of Increased Cost-Sharing in Medicaid" (Washington, D.C.: Center on Budget and Policy Priorities, July 2005), available at http://www.cbpp.org/cms/?fa=view&id=321.
- § 4103; and Congressional Budget Office, Letter to Pelosi, 2010.
- B. Starfield and L. Shi, "The Medical Home, Access to Care, and Insurance: A Review of Evidence," *Pediatrics*, May 2004 113(5 Suppl.):1493–98;
 P. A. Nutting, W. L. Miller, B. F. Crabtree et al., "Initial Lessons from the First National Demonstration Project on Practice Transformation to a Patient-Centered Medical Home," *Annals of*

- Family Medicine, May–June 2009 7(3):254–60; T. C. Rosenthal, "The Medical Home: Growing Evidence to Support a New Approach to Primary Care," Journal of the American Board of Family Medicine, Sept.—Oct. 2008 21(5):427–40; Beal, Doty, Hernandez et al., Closing the Divide, 2007; and B. D. Steiner, A. C. Denham, E. Ashkin et al., "Community Care of North Carolina: Improving Care Through Community Health Networks," Annals of Family Medicine, July—Aug. 2008 6(4):361–67.
- In addition to improving patient experience and outcomes, the medical home model has been linked to higher job satisfaction for primary care providers. Assessments of practices that have converted to team care, with an emphasis on prevention, coordination, and transitional care, further find that primary care innovation reduces total costs of care over time. Emerging studies repeatedly find that reduced use of hospitals and more specialized care by avoiding complications yields in net savings compared with more traditional practices. Recent evaluations of medical home programs, for example at Group Health Cooperative in Washington and Geisinger Health System in Pennsylvania, have shown relative cost-savings from fewer emergency department visits and fewer unnecessary hospitalizations; these cost-savings more than offset the investment in primary care teams. See R. J. Reid, K. Coleman, E. A. Johnson et al., "The Group Health Medical Home at Year Two: Cost Savings, Higher Patient Satisfaction, and Less Burnout for Providers," Health Affairs, May 2010 29(5):835-43; R. J. Gilfillan, J. Tomcavage, M. B. Rosenthal et al., "Value and the Medical Home: Effects of Transformed Primary Care," American Journal of Managed Care, Aug. 2010 16(8):607-14; and K. Grumbach, T. Bodenheimer, and P. Grundy, The Outcomes of Implementing Patient-Centered Medical Home Interventions: A Review of the Evidence on Quality, Access and Costs from Recent Prospective Evaluation Studies (Washington D.C.: Patient-Centered Primary Care Collaborative, 2009).

Similar results have been seen in a variety of settings, including statewide initiatives with urban, suburban, and rural practices; interventions targeted at older patients or patients of all ages; and programs sponsored by health care delivery systems, by private insurance companies, or by Medicare

- or Medicaid. See Reid, Coleman, Johnson et al., "Group Health Medical Home at Year Two," 2010; Gilfillan, Tomcavage, Rosenthal et al, "Value and the Medical Home," 2010; Grumbach, Bodenheimer, and Grundy, *Outcomes of Implementing*, 2009; and Steiner, Denham, Ashkin et al., "Community Care of North Carolina," 2008.
- ⁴¹ Grumbach, Bodenheimer, and Grundy, *Outcomes of Implementing*, 2009.
- ⁴² § 2703.
- Minnesota Department of Human Services, Minnesota Department of Health, Health Care Homes: Minnesota Health Care Programs (MHCP) Fee-for-Service Care Coordination Rate Methodology, Jan. 2010, available at: http://www.dhs.state.mn.us/.
- ⁴⁴ Estimate of full-year Medicaid beneficiaries with at least one chronic condition based on Columbia University analysis of Medical Expenditure Panel Survey 2009 data. Chronic conditions include diabetes, high blood pressure, asthma, heart attack, diagnosis of coronary heart disease, diagnosis of angina, diagnosis of other heart disease, diagnosis of stroke, joint pain in past 12 months, or diagnosis of arthritis.
- The Congressional Budget Office estimates that there will be 10 million more individuals covered by Medicaid and CHIP in 2014 because of the Affordable Care Act. Our analysis includes all those newly eligible for Medicaid in 2014, many of whom will likely not enroll in the program. However, 20 million individuals are estimated to be eligible, with more than 8 million of those chronically ill and therefore eligible for a health home within the Medicaid program.
- Wumerous studies have shown that patients who receive chronic care management as part of their primary care experience better quality care and better outcomes. See T. Bodenheimer, E. H. Wagner, and K. Grumbach, "Improving Primary Care for Patients with Chronic Illness," Journal of the American Medical Association, Oct. 9. 2002 288(14):1775–79; and T. Bodenheimer, E. H. Wagner, and K. Grumbach, "Improving Primary Care for Patients with Chronic Illness," Journal of the American Medical Association, Oct. 16, 2002 288(15):1909–14.

- § 3021. For an in-depth discussion of the CMI, see S. Guterman, K. Davis, K. Stremikis, and H. Drake, "Innovation in Medicare and Medicaid Will Be Central to Health Reform's Success," *Health Affairs*, June 2010 29(6):1188–93.
- ⁴⁸ The Commonwealth Fund Commission on a High Performance Health System, *The Path to a High Performance U.S. Health System: A 2020 Vision and the Policies to Pave the Way* (New York: The Commonwealth Fund, Feb. 2009).
- ⁴⁹ Congressional Budget Office, Budget Options, Volume 1: Health Care, The Congress of the United States (Washington, D.C.: CBO, Dec. 2008), available at http://www.cbo.gov/ftpdocs/99xx/ doc9925/12-18-HealthOptions.pdf, Option 39.
- ⁵⁰ Ibid., Option 38.
- D. R. Rittenhouse, L. P. Casalino, R. R. Gillies et al., "Measuring the Medical Home Infrastructure in Large Medical Groups," Health Affairs, Sept./Oct. 2008 27(5)1246–58; M. W. Friedberg, D. G. Safran, K. L. Coltin et al., "Readiness for the Patient-Centered Medical Home: Structural Capabilities of Massachusetts Primary Care Practices," Journal of General Internal Medicine, Feb. 2009 24(2):162–69; C. Schoen, R. Osborn, M. M. Doty et al., "Toward Higher-Performance Health Systems: Adults' Health Care Experiences in Seven Countries, 2007," Health Affairs Web Exclusive, Oct. 31, 2007, w717–w734.
- M. K. Abrams, E. L. Schor, and S. Schoenbaum, "How Physician Practices Could Share Personnel and Resources to Support Medical Homes," *Health Affairs*, June 2010 29(6):1194–99.
- ⁵³ C. Jones, "Blueprint Integrated Pilot Programs," Presentation at the National Medicaid Congress, Washington, D.C., June 2010, available at http:// www.ehcca.com/presentations/medicaidcongress5/ jones_pc2.pdf.
- ⁵⁴ § 10333.
- 55 Steiner, Denham, Ashkin et al., "Community Care of North Carolina," 2008.
- ⁵⁶ § 5405.
- K. Grumbach and J. W. Mold, "A Health Care Cooperative Extension Service," *Journal of the American Medical Association*, June 2009; and

- Oklahoma Physicians Resource/Research Network, http://www.okprn.org/aboutus.html.
- J. W. Mold, C. A. Aspy, Z. Nagykaldi et al., "Implementation of Evidence-Based Preventive Services Delivery Processes in Primary Care: An Oklahoma Physicians Resource/Research Network (OKPRN) Study," *Journal of the American Board of Family Medicine*, July-Aug. 2008 21(4):334–44.
- ⁵⁹ D. K. Cherry, E. Hing, D. A. Woodwell et al., "National Ambulatory Medical Care Survey: 2006 Summary," National Health Statistics Report No. 3 (Washington, D.C.: National Center for Health Statistics, 2008).
- ⁶⁰ R. L. Phillips and A. W. Bazemore, "Primary Care and Why It Matters for U.S. Health System Reform," *Health Affairs*, May 2010 29(5):806–10.
- ⁶¹ "How Is a Shortage of Primary Care Physicians," American College of Physicians, 2008; and P. A. Pugno, G. T. Schmittling, G. T. Fetter et al., "Results of the 2005 National Resident Matching Program: Family Medicine," *Family Medicine*, Sept. 2005 37(8):555–64.
- Rural Health Research and Policy Centers, "The Aging of the Primary Care Physician Workforce: Are Rural Locations Vulnerable?" Policy brief (Seattle: WWAMI, University of Washington School of Medicine, June 2009), available at http://depts.washington.edu/uwrhrc/uploads/Aging_MDs_PB.pdf.
- M. J. Dill and E. S. Salsberg, "The Complexities of Physician Supply and Demand: Projections through 2025" (Washington, D.C.: Association of American Medical Colleges, Nov. 2008); Colwill, Cultice, and Kruse, "Will Generalist Physician Supply," 2008; and American Association of Colleges of Osteopathic Medicine, American Medical Association, American Osteopathic Association, Association of Academic Health Centers, Association of American Medical Colleges, and National Medical Association, "Consensus Statement on Physician Workforce," Advisory #97-9, Feb. 28, 1997 (Washington, D.C.: Association of American Medical Colleges, 1997).
- ⁶⁴ § 10503.
- §§ 5201, 5203, "HHS Loan Program Update," Presentation at Coalition of Higher Education

- Assistance Organization Conference, Jan. 27, 2010, available at http://www.coheao.org/resource/data/am2010/1.27.10,%201115-12,%20HHS%20 Loan%20Program%20Update.pdf.
- ⁶⁶ D. R. Rittenhouse, G. E. Fryer, R. L. Phillips et al., "Impact of Title VII Training Programs on Community Health Center Staffing and National Health Service Corps Participation," *Annals of Family Medicine*, Sept.—Oct. 2008 6(5):397–405.
- ⁶⁷ § 5508.
- 68 Ibid.
- ⁶⁹ § 5301.
- 70 Ibid.
- 71 U.S. Dept. of Health and Human Services, "Creating Jobs and Increasing the Number of Primary Care Providers," Fact sheet (Washington, D.C.: HHS, June 16, 2010), available at http://www. healthreform.gov/newsroom/primarycareworkforce. html; § 5503; and J. K. Iglehart, "Health Reform, Primary Care, and Graduate Medical Education," New England Journal of Medicine, Aug. 5, 2010 363(6):584–90.
- ⁷² § 10503.
- ⁷³ § 5201.
- ⁷⁴ §§ 5202, 5308–5312, 5404.
- 75 HHS, "Creating Jobs and Increasing Primary Care Providers," 2010.
- ⁷⁶ §§ 5208, 5316.
- ⁷⁷ § 5205.
- ⁷⁸ § 5206.
- ⁷⁹ § 5313.
- *U.S. Health Centers National Profile" (Bethesda, Md.: National Association of Community Health Centers), available at http://www.nachc.org/state-healthcare-data-list.cfm.
- ⁸¹ §§ 10503, 5601.
- **Community Health Centers and Health Reform: Summary of Key Health Center Provisions" (Bethesda, Md.: National Association of Community Health Centers, 2010), available at http://www.nachc.com/client/Summary of Final Health Reform Package.pdf.

- Source: L. Ku, P. Richard, A. Dor et al., Strengthening Primary Care to Bend the Cost Curve: The Expansion of Community Health Centers Through Health Reform (Washington, D.C.: George Washington University School of Public Health and Health Services, June 30, 2010, available at http://www.gwumc.edu/sphhs/departments/ healthpolicy/dhp_publications/pub_uploads/ dhpPublication_895A7FC0-5056-9D20-3DDB8A6567031078.pdf.
- The American Recovery and Reinvestment Act of 2009 provided \$300 million for the National Health Service Corps and \$200 million for health professionals training programs. See R. Steinbrook, "Health Care and the American Recovery and Reinvestment Act," New England Journal of Medicine, March 12, 2009 360(11):1057–60; and HHS, "Creating Jobs and Increasing Primary Care Providers," 2010.
- ⁸⁵ §§ 5307, 5402, 5404.
- ⁸⁶ Ku, Richard, Dor et al., Strengthening Primary Care to Bend the Cost Curve, 2010.

Appendix A. Affordable Care Act Provisions Regarding Primary Care Provider Payment

| Provision | Summary of Provision | Impact on Providers |
|---|--|---|
| Medicare bonus for primary care providers (2011–16) § 5501 | Qualified primary care practitioners will receive a 10 percent bonus for five years for office visits, nursing facility visits, and home visits. Physicians, nurse practitioners, clinical nurse specialists, and physician assistants can qualify if 60 percent of their annual revenue is from primary care services. | Additional \$3.5 billion paid to primary care providers from 2011 to 2015. ^a A primary care physician with a typical annual Medicare revenue stream of \$200,000 could earn an additional \$12,000 to \$16,000 per year for five years. ^b |
| Increased Medicaid bonus for primary care providers (2013–14) § 1202 | Medicaid payment rates to primary care physicians for furnishing primary care services will increase to equal Medicare payment rates for these same services, with the increase paid through a 100 percent federal match to the state. | Additional \$8.3 billion paid to primary care physicians accepting Medicaid reimbursement. Limpact on providers will vary by state depending on the current Medicaid-to-Medicare primary care fee ratio. |

^a Congressional Budget Office, Letter to the Hon. Nancy Pelosi, March 20, 2010, available at http://www.cbo.gov/ftpdocs/113xx/doc11379/AmendReconProp.pdf.

^b American College of Physicians, Division of Governmental Affairs and Public Policy, *An Internist's Practical Guide to Understanding Health System Reform* (Washington, D.C.: American College of Physicians, June 2010), available at http://www.acponline.org/advocacy/where-we-stand/access/int-prac?guide.pdf.

^c Congressional Budget Office, Letter to Pelosi, 2010.

Appendix B. Patient Incentives to Obtain Preventive Care in Primary Care Settings

| Provision | Summary of Provision | Impact on Patients |
|--|---|--|
| Elimination of cost- sharing in private plans (2010) § 1001 | Group health plans and insurance plans sold in the group or individual market must provide coverage with no cost-sharing of United States Preventive Services Task Force–recommended preventive services and immunizations, and preventive screenings for women recommended by the Health Resources and Services Administration. Insurance plans that were in effect on March 23, 2010, are exempt from these requirements. | Up to 40 million people in 2011 and 90 million by 2013 enrolled in health plans subject to these provisions could have access to timely, preventive care. ^d With no cost-sharing for these services, utilization is expected to increase 5 percent to 10 percent and could save tens of thousands of lives each year. Depending on their age and personal health risks, patients could save hundreds of dollars in out-of-pocket costs annually. |
| Elimination of cost- sharing for preventive services for Medicare beneficiaries (2011) § 4014 | Preventive services for currently covered preventive services that are recommended with an "A" or "B" rating by the United States Preventive Services Task Force (e.g., high blood pressure screening, alcohol misuse counseling, colorectal cancer screening in adults ages 50–75 years old; go to http://www.uspreventiveservicestaskforce.org/uspstf/uspsabrecs.htm for a complete listing) will no longer require coinsurance, copayments, or deductibles. | Free access to recommended preventive services for nearly 50 million Medicare beneficiaries in 2011, and more seniors in later years. ^e Federal investment of \$100 million in 2011 and \$800 million from 2011 to 2019 will help defray the costs of preventive services now borne by seniors. ^f |
| States that choose to provide coverage of preventive services to Medicaid-eligible adults with no cost-sharing will receive a 1 percent increase in federal Medicaid assistance percentages. | | Nearly 40 million Medicaid enrollees in 2013 and up to another16 million new Medicaid enrollees by 2019 will have access to free preventive services. Federal investment of \$100 million dollars will help states support the cost of free preventive services for Medicaid enrollees. |
| Medicare annual wellness visit and prevention plan (2011) § 4103 | Medicare will cover an annual wellness visit that includes a personalized health risk assessment and prevention plan for each beneficiary; this service will be provided with no copayment, coinsurance, or deductible. | Free annual wellness checkups and five- to 10-year personalized prevention plan for nearly 50 million seniors in 2011 and more in later years. Federal investment of \$300 million in 2011 and \$3.6 billion from 2011 to 2019 to cover the costs of annual checkups and personalized prevention plans now carried in part by seniors. |

^d "Interim Final Rules for Group Health Plans and Health Insurance Issuers Relating to Coverage of Preventive Services Under the Patient Protection and Affordable Care Act," 75 Federal Register 137 (July 19, 2010), pp. 41726–60.

^e Department of Health and Human Services, *Budget in Brief, FY 2011* (Washington, D.C.: HHS, Feb. 2010), available at http://dhhs.gov/asfr/ob/docbudget/2011budgetinbrief.pdf.

^f Congressional Budget Office, Letter to Pelosi, 2010.

⁹ HHS, *Budget in Brief, FY 2011,* 2010.

^h Congressional Budget Office, Letter to Pelosi, 2010.

Appendix C. Affordable Care Act Provisions That Test and Support Medical Homes

| Provision | Summary of Provision | Impact on Patients | Impact on Providers | |
|--|--|--|--|--|
| Testing Medical Homes | Testing Medical Homes | | | |
| Health homes for chronically ill Medicaid beneficiaries (2011) § 2703 | States have the option to enroll Medicaid beneficiaries with chronic conditions into a health home composed of a team of health professionals that provide a comprehensive set of medical services, including care coordination. | In 2011, as many as 10 million Medicaid beneficiaries with at least one chronic condition could have a health home to help manage these conditions. An estimated 8 million newly eligible Medicaid beneficiaries with at least one chronic condition could have a health home in 2014. | Primary care sites designated as health homes could receive enhanced Medicaid reimbursement, potentially tiered to reflect the severity of the patients' conditions. Impact will vary by state and payment method but could result in tens of thousands of additional payments to a health homedesignated practice each year. | |
| Center for Medicare and Medicaid Innovation (2011) § 3021 | The Innovation Center is charged with researching, developing, testing, and expanding innovative payment and delivery system models to improve the quality and reduce the cost of care in the Medicare and Medicaid programs. "Medical homes" is listed as one of the priority models to be tested by the new Center. | If effective, pilots are expanded nationally within Medicare and Medicaid, all enrollees in these programs—nearly 100 million people in 2011—could benefit from the improved quality and care coordination of these programs. | If effective medical home pilots are expanded nationally within Medicare and Medicaid, providers could be eligible for enhanced reimbursement. | |

ⁱ Estimate of full-year Medicaid beneficiaries with at least one chronic condition based on Columbia University analysis of Medical Expenditure Panel Survey 2009 data for The Commonwealth Fund. Chronic conditions include diabetes, high blood pressure, asthma, heart attack, diagnosis of coronary artery disease, diagnosis of angina, diagnosis of other heart disease, diagnosis of stroke, joint pain in past 12 months, or diagnosis of arthritis.

^j Kaiser Commission on Medicaid and the Uninsured, "Medicaid Enrollment: December 2009 Snapshot" (Washington, D.C.: Kaiser Commission on Medicaid and the Uninsured, Sept. 2010), available at http://www.kff.org/medicaid/upload/8050-02.pdf; and HHS, Budget in Brief, FY 2011, 2010.

| Provision | Summary of Provision | Impact on Patients | Impact on Providers | |
|--|---|--|---|--|
| Supporting Medical Hon | nes | | | |
| Community health teams to support patient-centered medical homes (date not specified) § 3502 | Grants or contracts to establish community health teams to support the development of medical homes by increasing access to comprehensive, community-based, coordinated care. Key services provided by the teams will include coordination and provision of preventive care and health promotion activities; access to specialty care and inpatient services; medication management services; 24-hour care management and support during transitions following hospital discharge; and development and implementation of care plans that integrate clinical and community providers. | Provides patients with additional support to help manage their care. | Community health teams will contract with local primary care practices to provide support services to patients with chronic conditions. Program will enhance providers' capacity in key areas that will make it easier to be eligible for enhanced funding as part of medical home programs, and grant funds will include a capitated payment to participating providers. Program will be particularly helpful to small practices that often do not have the financial resources or personnel to provide medical home services independently (e.g., qualified staff to offer self-care education, 24/7 triage, or case management). | |
| Community-based collaborative care networks (2011–15) § 10333 | Grants to develop networks of providers to deliver coordinated care to low-income populations. | Provides low-income patients with comprehensive, coordinated, and integrated care as well as assistance with access, enrollment, finding medical homes, case management, transportation, and off-hours coverage. | Program will enhance providers' capacity to provide comprehensive, coordinated care and care-related services to low-income patients. A similar program in North Carolina resulted in an additional \$2.50 per member per month for providers in medical homes as well as a care coordinator that works in the community with multiple providers. | |
| Primary care extension program (2011–14) § 5405 | State hubs will work with community-based health connectors ("health extension agents") to educate and provide technical assistance to primary care providers about evidence-based therapies, preventive medicine, health promotion, chronic disease management, and mental health. | | \$240 million federal investment FY 2011–FY 2012 for planning and program grants to establish and develop provider capacity; additional funding for FY 2013– FY 2014 authorized. Provides technical assistance to improve performance and be eligible for medical home payments. | |
| Patient navigator program (2014) § 3510 | Demonstration programs to provide patient navigator services within communities to help patients overcome barriers to health services. | Assistance with coordinating health services and provider referrals, and disseminating information about clinical trials. Improved outreach to populations with disparate health status or access. | | |

Appendix D. Affordable Care Act Provisions to Increase Primary Care Workforce

| Provision | Summary of Provision |
|---|---|
| National Health Service Corps funding (2010–15) § 5207 | Appropriated \$1.5 billion over five years above the existing annual discretionary funding (\$142 million in FY 2010, \$156 million authorized each year for FY 2011–FY 2015). |
| 3 5 2 6 7 | NHSC resources are used to recruit primary care providers to serve underserved areas or populations through reduction or elimination of student debt. The Affordable Care Act increased the award amount available to NHSC members. |
| Federally supported student loan funds (2010) | Limits the service obligations to practice in primary care, including residency training, for a maximum of 10 years. |
| § 5201 | Decreases the penalty for noncompliance from 18 percent interest accrual per year to 2 percent interest accrual per year greater than the rate the student would have paid if he or she had been compliant. |
| Health care workforce loan repayment (2010) | Loan repayment program for pediatric subspecialists or providers of child or adolescent mental or behavioral health care services. |
| § 5203 | Appropriated \$50 million each year for FY 2010–FY 2013 and \$30 million for FY 2014 for pediatric medical or surgical specialists. |
| Primary care training and enhancement programs (funding for 2010–14) | Resources to develop and support primary care training programs, provide financial assistance to trainees and faculty, enhance faculty development in primary care and physician assistant programs, and establish and improve academic units in primary care. |
| § 5301 | Authorized up to \$750,000 each year for FY 2010–FY 2014 to integrate academic units of medical training and to promote interdisciplinary recruitment and training. |
| | Authorized up to \$125 million for FY 2010 and such sums as necessary for FY 2011–FY 2014 for all other grant/contract programs, including physician assistant training. |
| Family nurse practitioner training demonstration (2011–15) | Demonstration program to support recent family nurse practitioner graduates in primary care for a year of practice in federally qualified health centers or nursemanaged health clinics, in order to provide new nurse practitioners with clinical training to enable them to serve as primary care providers, and to train nurse |
| § 5316 | practitioners to work under a model of care appropriate for vulnerable populations. |
| | Authorized the appropriation of such sums as necessary for each of FY 2011–FY 2015. |
| Graduate medical education resident training position redistribution (2011) | Nearly one-third of hospitals' unused graduate medical education (GME) slots will be redistributed to hospitals in regions with health professional shortages that want to expand or establish primary care or general surgery residency programs. |
| § 5503 | As many as 900 GME slots will be redistributed to serve these needs. ^k |

^k J. K. Iglehart, "Health Reform, Primary Care, and Graduate Medical Education," *New England Journal of Medicine*, Aug. 5, 2010 363(6):584–90.

ABOUT THE AUTHORS

Melinda Abrams, M.S., vice president at The Commonwealth Fund, directs the Patient-Centered Coordinated Care program. Since coming to the Fund in 1997, Ms. Abrams has worked on the Fund's Task Force on Academic Health Centers, the Commission on Women's Health, and, most recently, the Child Development and Preventive Care program. She serves on the board of managers of TransforMED, the steering committee for the American Board of Internal Medicine's Team-Based Care Task Force, and three expert panels for the Agency for Healthcare Research and Quality's Primary Care Transformation Initiative, and is a peer reviewer for the *Annals of Family Medicine*. Ms. Abrams holds a B.A. in history from Cornell University and an M.S. in health policy and management from the Harvard School of Public Health. She can be e-mailed at mka@cmwf.org.

Rachel Nuzum, M.P.H., is assistant vice president for Federal Health Policy at The Commonwealth Fund. She is responsible for implementing the Fund's national policy strategy for improving health system performance, including building and fostering relationships with congressional members and staff and members of the executive branch to ensure that the work of the Fund and its Commission on a High Performance Health System inform their deliberations. Previously, she was a legislative assistant for Senator Maria Cantwell (D–Wash.) and served as a David Winston Health Policy Fellow in Senator Jeff Bingaman's (D–N.M.) office. Before arriving in Washington, D.C., she served former Governor Roy Romer of Colorado in the office of Boards and Commissions and worked as a health planner in west central Florida. She holds a B.A. in political science from the University of Colorado and an M.P.H. in health policy and management from the University of South Florida. She can be e-mailed at rn@cmwf.org.

Stephanie Mika, M.P.H., is associate policy officer for The Commonwealth Fund. She supports the Fund's program on Federal Health Policy and its Commission on a High Performance Health System. Previously, Ms. Mika was program associate working with the Fund's program on State Innovations. Before joining the Fund, she was head course associate for the Program in Human Biology at Stanford University where she led a team of four course associates responsible for 300 students enrolled in a year-long course sequence. Her research background includes the study of language development and memory in infants and toddlers. Ms. Mika holds a B.A. in Human Biology from Stanford University, and an M.P.H. in health policy from the George Washington University School of Public Health and Health Services.

Georgette Lawlor is program associate for the Patient-Centered Coordinated Care program. She joined the Fund in July 2009 as the program assistant after moving to New York City from Washington, D.C., where she had been working at the National Business Group on Health. Prior to joining NGBH, she was a research assistant intern with the American Institute for Research in their assessment division. Ms. Lawlor holds a B.S. in psychology from James Madison University.

Editorial support was provided by Christopher Hollander.

