



Improving Women's Health Outcomes Through Payment and Delivery System Reform

By Thomas Waldrop June 2019

Center for American Progress



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Introduction and summary

Despite health care spending in the United States far outpacing other nations', outcomes in this country are worse—particularly when it comes to women. Simply put, the U.S. health care system is failing to meet women's health needs in myriad ways. Because health care in the United States has traditionally focused its resources on treating discrete, acute conditions and procedures—rather than coordinating care, focusing on preventive services, or addressing root health concerns—women's health can suffer. For instance, this fee-for-service approach can result in improper or insufficient care during pregnancy and birth, leading to increased costs and recovery times. Additionally, women are more likely to report a variety of mental health conditions and to develop multiple chronic conditions—treatments for which should be coordinated and patient centered.

This report explains how targeted payment and delivery system reforms can change this approach and improve outcomes in care settings that uniquely affect women, such as pregnancy, mental health, and chronic conditions. It also outlines steps that policymakers should take to build on these reforms. By incorporating these evidence-based, patient-centered efforts, policymakers and payers can improve the health outcomes of women while reducing overall health system costs.

Background

Since 1970, real health care expenditures in the United States have increased from \$75 billion annually to nearly \$3.5 trillion.¹ Additionally, the United States spends roughly twice as much on health care as do its peer nations.² Despite this higher level of spending, however, the United States has worse health outcomes; its health care system fails to deliver high-value care,³ which has real impacts on patients' lives. For example, the United States has the lowest life expectancy at birth of all of its peer nations, and this number is decreasing.⁴ A person born in the United States in 2016 is expected to live to around age 78, for example, while a person born in one of the United States' peer nations in 2016 is expected to live to an average of around age 82.⁵

A key reason why the U.S. health care system underwhelms in terms of outcomes is tied to its payment and delivery system. Traditionally, health care payers in the United States—including federal and state governments as well as private insurers and employers—have paid for health care services on a fee-for-service basis. Under this approach, hospitals, doctors, and other health care providers receive separate payments for each item or service delivered to a patient. But this system creates incentives that encourage quantity over quality, regardless of the need for a particular service or the patient’s outcome. As a result, over the past few decades, U.S. health care payers are adopting reforms to the fee-for-service system.

Alternatives to fee-for-service payments

Payment and delivery system reform efforts are attempts to improve health outcomes by moving away from fee-for-service payments to payments that encourage high-quality, evidence-based care. Bundled payments, accountable care organizations (ACOs), and medical or health homes—all reforms that center the patients’ needs and work to coordinate patients’ care—are some of the most common payment reforms.

A bundled payment is a single payment for an episode of care or to treat a specific condition for a set period of time, incentivizing providers to coordinate care and focus on the patient’s individual needs rather than one particular service.⁶ Because the ultimate payment amount is conditioned in part by meeting quality and patient experience measures, the entire care team has an incentive to focus on improving quality.

The structure of bundled payments varies: It can be prospective, where payment is made prior to service delivery, or retrospective, in which costs are tracked against a predetermined rate and payments are adjusted based on adherence to this rate and quality measurement.⁷ The Health Care Payment Learning and Action Network’s analyses of payment information from several large private insurers and the Centers for Medicare and Medicaid Services (CMS) found that bundled payment arrangements have consistently increased in recent years—from around 23 percent of all payments in 2015 and 29 percent in 2016, to 34 percent of payments in 2017.⁸

Similar to bundled payments, ACOs are designed to incentivize care coordination, “avoiding unnecessary duplication of services and preventing medical errors.”⁹ An ACO is “a network of doctors and hospitals that shares financial and medical responsibility for providing coordinated care to patients.”¹⁰ Doctors and other providers continue to be paid separately, but ACO participants share in savings if they collectively provide high-quality care at lower costs. For example, a payer may pay a provider a percentage of the amount saved through more efficient care as an incentive payment, in which the provider receives a higher payment while the payer pays a lower overall cost.

The number of ACOs grew rapidly after the passage of the Affordable Care Act, which included a new ACO program for Medicare.¹¹ A 2016 *Health Affairs* study estimated that more than 17 million patients are enrolled in commercial ACOs, meaning through a private payer rather than through the Medicare program, in addition to the 8.3 million Medicare beneficiaries in ACOs.¹² The same study found that total ACO enrollment has consistently grown over time, from 2.7 million covered lives in 2011 to 28.3 million in 2016.¹³

Health homes, including patient-centered medical homes (PCMHs), are models of care in which an individual physician—typically a primary care physician—coordinates patient care across providers.¹⁴ Under this model, payers typically increase payment to the coordinating physician so that the practice can invest in care coordination.¹⁵ Physicians use these payments to hire staff to coordinate each patient’s care across providers.¹⁶ This care approach can help reduce duplication of services, as it allows for all of a patient’s providers to be more informed about what care a patient is receiving or has received. Care coordinators also help patients with medication adherence, follow-up appointments, scheduling, as well as connect them with other social services.

According to the U.S. Department of Health and Human Services’ Agency for Healthcare Research and Quality, there are five defining features of a PCMH: It offers comprehensive care that meets the majority of a patient’s physical and mental needs; it is patient centered, providing care in a relationship-based format focused on the patient as a whole; it offers coordinated care that provides care across elements of the health care system; its services are accessible, providing services that meet a patient’s needs; and it centers quality and safety by working to improve and maintain evidence-based care.¹⁷

While many health homes are focused on primary care, others have a specialist as the coordinating provider. For example, the federal government and some states have implemented health homes for pregnant Medicaid beneficiaries.¹⁸ Health homes are also being expanded to address mental health. Some of these expansions involve introducing behavioral health interventions into primary care medical homes, while others focus on creating specific health homes to address mental health conditions.¹⁹

These efforts share the common goal of improving care by transitioning the system from one that pays for volume to one that pays for value. Fundamental to these efforts is determining which reforms are effective at improving the quality of care or lowering cost. Ensuring that evidence-based reforms are at the center of future reform efforts is critical to improving women's health.

Measuring quality in health care

The Agency for Healthcare Research and Quality outlines three types of quality measures: structural, process, and outcome.²⁰ Two of these—process and outcome measures—are particularly relevant to evaluating the impact of payment reforms. Process measures are those that “indicate what a provider does to maintain or improve health.”²¹ These would include efforts such as ensuring that patients are connected with preventative services or questioned about risk factors. These measures are important for efforts such as care coordination of chronic conditions, as these conditions typically require ongoing treatment.

Outcome measures are those that “reflect the impact of the health care service or intervention on the health status of patients.”²² These measures are important for maternal health in particular. For example, monitoring the rate of women receiving cesarean sections (C-sections) is the first step to identifying cases where C-sections are not medically appropriate. Determining the appropriate quality measures for a given condition or episode of care is a fundamental aspect of using these delivery system reforms to improve care and evaluating their effectiveness in reducing costs without sacrificing quality.

As private payers and federal and state health care programs continue to reform how they pay for health services, they must ensure that the benefits of such reforms are accrued by all segments of the population. For instance, because women report higher incidents of mental health conditions, it is important to measure the impact of payment reforms to mental health services—not just for all patients but also specifically for women.

Payment reform and pregnancy health

Maternal mortality is on the rise in the United States,²³ despite the rates decreasing globally.²⁴ Driving this trend in the United States is the significant disparity in maternal health outcomes by race. Black women are more than three times more likely than white women to die from some of the most common pregnancy-related medical conditions, such as preeclampsia and postpartum hemorrhage.²⁵ Moreover, these disparities in maternal and infant mortality rates persist regardless of a black woman's socio-economic status.

While the causes of these deaths are not entirely identical across groups, more than 70 percent of all maternal deaths globally are directly attributable to obstetric care.²⁶ In 2014, the World Health Organization found that birth-related hemorrhage accounted for 27.1 percent of maternal deaths, hypertension accounted for 14 percent, and sepsis accounted for 10.7 percent.²⁷ Studies limited to the United States find similar results. The National Center for Chronic Disease Prevention and Health Promotion at the Centers for Disease Control and Prevention reviewed data from 13 maternal mortality review committees across the country and found that around 60 percent of the deaths were preventable and that more than 55 percent of all pregnancy-related deaths were caused by hemorrhage, cardiovascular and coronary conditions, or infection.²⁸

This report focuses on the benefits that can accrue for women through payment reforms. It should be noted that not all pregnant people are women, though transgender and nonbinary people will face additional barriers to receiving high-quality care due to discrimination. The research on pregnancy predominantly refers to its participants as “women,” and due to these data limitations, this section is limited to cisgender women.

Better pregnancy outcomes with bundled payments and medical homes

Previous work by the Center for American Progress outlined a comprehensive approach to address the maternal mortality crisis.²⁹ Any efforts to reduce black mothers' mortality rates must tackle the underlying systemic racism that is the root cause of these disparities. At the same time, there is also an important role for targeted payment reforms within this broader effort. For example, payment reforms can encourage care coordination for medically high-risk patients, increasing access to preventive care and mental health care throughout pregnancy.

One of the largest drivers of high pregnancy care costs are C-sections. A 2013 report by Truven Health Analytics found that the average commercial insurer payments were \$32,093 for vaginal births and \$51,125 for C-section births.³⁰ Reducing the rate of medically inappropriate C-sections is one of the most effective methods to reduce high pregnancy care costs, improve care, and reduce racial disparities in pregnancy outcomes. Case in point: Black women are more than 12 percent more likely than white women to have a C-section, even for low-risk pregnancies.³¹

In addition to the procedure's financial costs, C-section births have an increased risk of hemorrhage, the most common cause of deaths related to obstetric care.³² C-section births also prolong recovery times: Compared with vaginal births, women who had C-section births without complications stay an average of three to five more days in the hospital, and 1 in 14 women reports incisional pain six months or more after surgery.³³ Coordinating care throughout pregnancy is associated with much lower C-section rates, and bundling payments for prenatal care and delivery is associated with lower C-section rates and fewer preterm births.

Timely postpartum care can help assess women's physical recovery from childbirth in addition to treating chronic conditions, screening for postpartum depression, and helping with family planning. Assessing these issues early helps ensure that health conditions can be treated before they become debilitating and costly and can also help avoid future related costs, such as those associated with neonatal intensive care.

Moreover, payment reforms can encourage additional interactions between pregnant women and health care providers that are shown to improve outcomes, such as individual and group check-ins throughout the pregnancy to prepare women for labor. A 2007 study published in *Obstetrics and Gynecology* found that women receiving group prenatal care were 33 percent less likely than those receiving standard

care to have a preterm birth, even after controlling for risk factors such as education, income, and age.³⁴ This effect was even greater for black women, who, after receiving group care, were 41 percent less likely to have preterm births—reducing the racial disparity in birth outcomes.

Studies also show that integrated behavioral health and primary health care models lead to improvements in not only quality and access but also physical and mental health of pregnancy patients.³⁵ Regardless of the specific model, reforms can improve both patient outcomes and women's experiences as they move through the health care system during pregnancy.

Payers at a variety of levels, ranging from the federal and state governments to private hospital groups and insurers, have implemented reforms to improve pregnancy outcomes. These include bundling payments for pregnancy care—during the prenatal period and through delivery—as well as implementing pregnancy medical homes.

CMS' Strong Start for Mothers and Newborns

Strong Start for Mothers and Newborns is a medical home program administered by Centers for Medicare and Medicaid Services to improve birth outcomes. The program pays enhanced rates to awardees—state agencies, health networks, and provider groups—to help fund care coordination. In 2014, the Center for Medicare and Medicaid Innovation contracted with the Urban Institute, the American Institutes for Research, Health Management Associates, and Brilljent to evaluate the program. Among other findings, the groups found that women participating in the Strong Start program were more than 40 percent less likely than the national average to have a C-section.³⁶ However, the benefits of the program were diminished slightly by limited enrollment, as many awardees struggled to implement the program and hire staff. This lack of optimal program implementation was seen most notably in birth weight outcomes. While the program did reduce C-section rates, rates of low and very low birth weights were still higher than the national average, as was the rate of preterm births.³⁷

Arkansas Health Care Payment Improvement Initiative

As part of its 2012 statewide payment reform initiative, the Arkansas Health Care Payment Improvement Initiative (AHCPII), Arkansas established perinatal episode payments that were adopted by nearly all of the state's payers, including Medicaid, private insurers, and large employers such as Walmart.³⁸ The perinatal model is retrospective and sets spending targets for prenatal care, labor and delivery, and postpartum care. Both neonatal care and high-risk pregnancies are excluded from

the bundle.³⁹ Under the AHCPII, the physician or midwife who performs the delivery—known as the principal accountable provider (PAP)— can receive incentive payments for delivering high-quality care while meeting cost targets.⁴⁰ While the PAP initially receives fee-for-service payments, the payments are adjusted after a 12-month performance period.⁴¹ If the PAP’s average costs for all episodes are beneath the target threshold and the provider meets quality measures, they receive the incentive payment. If the cost is above the target threshold, the PAP is responsible for the additional costs.⁴²

Results from the perinatal program episode payment model have shown improvement in quality measures as well as cost savings. From 2012 through 2015, the C-section rate dropped from 39 percent to 32 percent.⁴³ Over the same period, average costs per perinatal episode decreased from \$3,508 to \$3,413. One study found that, compared with surrounding states, Arkansas’s perinatal spending decreased by 3.8 percent.⁴⁴

Tennessee Health Care Innovation Initiative

In 2013, Tennessee launched its Tennessee Health Care Innovation Initiative (THCII) utilizing funds from a CMS State Innovation Models Initiative grant.⁴⁵ Under the THCII, the state launched a retrospective perinatal episode-of-care program modeled after existing initiatives, including the Arkansas program. Tennessee’s perinatal program bundles prenatal care, labor and delivery, and postpartum care. Similar to Arkansas’s program, if the PAP meets target cost and quality thresholds, they receive shared savings. Moreover, in the case that the PAP exceeds the cost target, providers are responsible for risk-sharing payments. The state immediately experienced savings, with the cost of perinatal care decreasing by 3.4 percent from 2014 through 2015.⁴⁶ Initial quality measures also showed signs of improvement: The C-section rate decreased from 31.4 percent to 29.2 percent over the same period.⁴⁷

North Carolina’s Pregnancy Medical Home program

In 2011, North Carolina launched its Pregnancy Medical Home (PMH) program to improve access to and quality of pregnancy care for the state’s Medicaid population.⁴⁸ The program covers the majority of pregnancy care providers in the state, with more than 350 practices and 1,600 individual providers participating.⁴⁹ PMHs are required to perform risk screenings for each Medicaid-eligible pregnant patient to determine if they are at risk for premature birth.⁵⁰ The PMHs must refer at-risk patients to pregnancy care managers who develop individualized care plans to prevent premature birth and other poor birth outcomes. PMHs also agree to aim for C-section rates below 20 percent and not to perform elective deliveries before 39 weeks.⁵¹

Similar to traditional patient-centered medical homes, North Carolina's program incentivizes care coordination and preventative care. PMH providers receive \$50 per risk screening, \$150 per postpartum visit, and enhanced Medicaid reimbursement for vaginal deliveries.⁵² According to North Carolina Community Care Networks' 2017 Annual Quality Report, about 80 percent of pregnant women in the PMH program received risk screenings, allowing for earlier interventions for risk factors such as tobacco use, late entry to prenatal care, and the presence of a chronic condition such as hypertension or diabetes. As a result, the rate of elective deliveries before 39 weeks declined.⁵³

Wisconsin's Medicaid Obstetric Medical Home program

In an effort to reduce infant mortality, Wisconsin launched its Obstetric Medical Home (OBMH) program, targeting high-risk pregnant women enrolled in Medicaid.⁵⁴ The program was initially piloted in a limited number of Wisconsin counties from 2011 through 2013, and it expanded to additional counties in 2014. In order to enroll, patients must be in their first 16 weeks of pregnancy and meet one of several criteria for high-risk pregnancy, such as being homeless or having a preexisting chronic condition. Additionally, to address maternal mortality racial disparities, all black women are eligible to enroll.

Under the OBMH program, the state's contracted Medicaid managed care organizations must in turn contract with individual medical home sites. Medical homes are required to designate obstetric practitioners who lead care teams made up of primary care providers and care coordinators for each patient.⁵⁵ Care teams are expected to provide a wide range of health services to address all patient health needs, including treatment of chronic and behavioral health conditions, as well as connect patients to services for other issues, such as domestic violence. Home visiting services are also a recommended component of the Wisconsin program. Patients are required to attend at least 10 prenatal visits and a postpartum visit within 60 days of birth.⁵⁶

Medical homes are eligible for up to \$1,000 in bonus payments for each patient meeting enrollment criteria. Moreover, homes are awarded similar bonuses for each positive birth outcome. Managed care organizations are required to track enrollees and eligibility for bonus payments through the OB Medical Home Registry, an online database. In the case of a poor birth outcome—preterm birth, low birth rate, or neonatal death, for example—the managed care organization is responsible for covering follow-up maternal and infant care for two years after birth, assuming the mother remains in the Medicaid program.⁵⁷ From 2013 through 2015, the rate of

postpartum care visits increased from 61.4 percent to 85.5 percent.⁵⁸ The program is responsible for the increased delivery of timely postpartum and behavioral health care for participating women.

Texas' medical home pilot program

Texas has also established medical homes to improve maternal health outcomes, including its higher-than-average maternal mortality rates.⁵⁹ In 2014, Harris County implemented a pregnancy medical home program for pregnant women enrolled in Medicaid. The program includes care coordination components such as care management teams and pregnancy risk assessments.⁶⁰ An evaluation by the state's Health and Human Services Commission found that the Harris County program has yielded better outcomes for mothers and babies:⁶¹ Program enrollees were less likely to deliver by C-section, less likely to visit the emergency department while pregnant, and their children were less likely to need neonatal intensive care.⁶²

Private initiatives

Private insurers and provider organizations are also implementing bundled payment models for pregnancy care. Horizon Blue Cross Blue Shield of New Jersey launched episode-based payments for pregnancy care in 2013. Through this payment model, each physician gets a per-patient budget based on the practice's historical data, including all physician fees, surgical fees, and other costs incurred—regardless of whether the birth is by C-section or vaginal.⁶³ While the program initially only applied to low-risk pregnancies, it has expanded to include all pregnancies. When the provider meets cost and quality standards, they receive a retrospective bonus payment. The program has expanded to more than 300 practices and has dramatically reduced the rate of unnecessary C-section deliveries—dropping the rate by nearly one-third since the program started in 2013.⁶⁴

In 2017, Cigna announced the first nationwide pregnancy episode-of-care model in partnership with the U.S. Women's Health Alliance. Under the program, more than 1,700 providers are eligible to receive shared savings payments if they meet certain quality standards, including reducing rates of C-sections, infections, and postpartum depression.⁶⁵ In 2018, Humana introduced a similar program, with providers receiving retrospective bonus payments for meeting cost and quality standards.⁶⁶

In 2019, the nation's largest insurer, UnitedHealthcare, announced a retrospective bundled payment program for two health care providers—Lifeline Medical Associates in New Jersey and Privia Medical Group-Gulf Coast in Texas⁶⁷—as well as for women enrolled in UnitedHealthcare's employer-sponsored coverage. The

program excludes women at risk of pregnancy complications.⁶⁸ Providers receive bonuses if they decrease costs while meeting quality measures that include frequency of prenatal visits and timeliness of postpartum care. By the end of 2019, UnitedHealthcare plans to expand the program to as many as 20 providers—including practices affiliated with the U.S. Women’s Health Alliance.⁶⁹

In 2013, Providence Health and Services in Oregon developed a bundle of services related to pregnancy. The program, called the Pregnancy Care Package, provides a large number of services over the course of a pregnancy under a single bundled rate and operates through a shared savings approach, in which both payers and providers receive a share of the savings achieved.⁷⁰ The program was first established as a pilot program in Portland, Oregon, and was expanded after being shown to reduce C-sections and overall costs.⁷¹ For example, 20 percent of the women enrolled in the program have C-sections, while 31 percent of women nationwide do.⁷² Women enrolled in the program receive seven individual and four group prenatal check-ins throughout the pregnancy; continuous support during delivery; and group and individual check-ins postpartum.⁷³

Lessons learned

Payment reforms for pregnancy care have proven to improve outcomes while reducing costs. In particular, well-designed reforms can improve the quality of care for medically high-risk patients and women of color, which can in turn reduce racial disparities in birth outcomes.

Policymakers face a number of technical choices when designing these reforms—determining the appropriate cost and quality thresholds as well as any exclusions or exceptions, for example. They must also decide if payments should be prospective or retrospective and if they should include risk sharing for providers. Any additional care coordination payments must be sufficient to allow providers to adopt new approaches to care and to pay for staff who can provide these services to high-risk patients.⁷⁴

In addition to these payment and design-related decisions, it is essential that policymakers carefully choose quality measures, such as the rate of positive birth outcomes, C-sections, and patient satisfaction. Consistently applied patient-reported outcome measures that evaluate not only outcomes, but also patients’ experiences during pregnancy and delivery, are essential to incentivize correct provider behaviors. In addition, health care payers—especially state Medicaid programs—should

evaluate care coordination best practices, including any requirements to connect patients with local, culturally sensitive nutritional counselors; sleep and breastfeeding experts; and other health literacy and education programs.

States can also work with private organizations to implement reforms and utilize existing provider networks, as seen in Cigna's and UnitedHealthcare's respective partnerships with the U.S. Women's Health Alliance. Moreover, when possible, states should try to support multipayer reforms in order to align incentives and improve care for as many patients as possible.

Payment reform for nonpregnancy care

Pregnancy care is not the only area in which women can benefit from reforms to the fee-for-service system. For example, many mental health conditions and chronic illnesses disproportionately affect women, as do several forms of cancers. Payers have implemented a variety of reforms to improve outcomes for patients with these illnesses, most notably to improve care coordination through medical homes and accountable care organizations.

Unfortunately, more analysis is needed to fully understand the benefits of these reforms for women specifically, as well as how the intersections of women's other identities affect these reforms. As discussed below, evaluation studies often do not break out results by sex or gender. However, given the disparities in disease prevalence and treatment of these conditions, it is likely that these interventions can help improve women's health.

Reforms to improve mental health treatment

Women are far more likely than men to report mental health conditions. The World Health Organization highlights this, describing depression as twice as common and more persistent in women than men.⁷⁵ Researchers at the University of Michigan support this conclusion, finding that women are about 1.7 times as likely as men to report having experienced a major depressive episode.⁷⁶ Additionally, lesbian and bisexual women are more likely to report poor mental health than straight women.⁷⁷

In addition to depression, women are more likely than men to report anxiety disorders. The National Comorbidity Survey Replication, conducted by Harvard Medical School, found that the number of women reporting an anxiety disorder in the past year increased by more than 60 percent.⁷⁸ Women are also more likely to have common eating disorders. For example, they are three to four times more likely than men to have anorexia nervosa and 10 times more likely to have bulimia nervosa. Moreover, black women are more than 60 percent less likely than white women to have disordered eating identified as such.⁷⁹

Despite the evidence that mental health treatment can improve mental health outcomes, the rates for access to and uptake of such treatment are extremely low. The Substance Abuse and Mental Health Services Administration under the U.S. Department of Health and Human Services, looking just at 2014, found that nearly 60 percent of individuals with a mental health condition received no services during the year.⁸⁰ And as with pregnancy care, racial disparities exist: Black women are half as likely as white women to receive mental health treatment.⁸¹ This lack of treatment has significant consequences. Adults with serious mental illnesses die younger than neurotypical people, in large part because of treatable, comorbid medical conditions.⁸² The following case studies offer examples of how payment reforms can improve mental health treatment uptake and quality of care.

Serious mental illness vs. any mental illness

Any mental illness (AMI) refers to a mental, behavioral, or emotional disorder. AMI can vary in impact, ranging from no impairment to mild, moderate, and even severe impairment.⁸³

Neurotypical refers to individuals with typical neurological processes.⁸⁴

Serious mental illness (SMI) refers to a mental, behavioral, or emotional disorder resulting in serious functional impairment, which substantially interferes with or limits one or more major life activities. The burden of mental illnesses is particularly concentrated among those who experience disability due to SMI.⁸⁵

Pennsylvania's Behavioral Health Home Plus program

Care coordination can significantly increase access to mental health treatment. Primary care physicians are some of the most commonly seen providers—more than 51 percent of physician visits in the United States in 2017 were to a primary care physician⁸⁶—but few report consistently screening patients for depression.⁸⁷ The University of Pittsburgh Medical Center began its Behavioral Health Home Plus program in 2013. The program, which was limited to individuals with serious mental illnesses such as major depression, used a full-time nurse to coordinate care for participants by educating staff members about common comorbidities and developing individualized treatment plans.⁸⁸

This is one of the only reforms that shows gender-specific outcomes. Women enrolled in the program showed consistent improvements. Over two years, the average Patient Activation Measure score—a measure of the extent to which a patient feels in control of and committed to improvements in their health—for women enrolled in the program increased by nearly 3 points on the Patient Activation Measure scale, a trend associated with nearly a 6 percent decrease in hospitalization and a 6 percent increase in medication adherence.⁸⁹

Minnesota's DIAMOND program

In 2008, Minnesota implemented its Depression Improvement Across Minnesota, Offering a New Direction (DIAMOND) program, which encouraged primary care providers to form ACOs for treating depression. As part of this program, providers were given a payment to implement the program and hire care coordinators.⁹⁰ The program was widely adopted; the payment incentives were generous enough that more than 93 percent of the anticipated clinic sites participated in the program.⁹¹ The program was associated with higher rates of patient satisfaction than usual care, as well as reduced costs.⁹² Researchers evaluating the program did not find a significant improvement in clinical outcomes but caveated that the already high quality of depression care in Minnesota at the time made it difficult to detect the program's impact.⁹³

IMPACT model for depression

Research led by the Semel Institute for Neuroscience and Human Behavior at the University of California, Los Angeles, found significant improvements in outcomes for patients with depression who enrolled in a medical home through the Improving Mood—Promoting Access to Collaborative Treatment (IMPACT) program.⁹⁴ Around 900 enrollees in five states were assigned a depression care manager to supplement their primary care treatment. Outcomes on a variety of metrics improved 12 months after enrolling in the program; 45 percent of patients showed significant

reductions in depressive symptoms, while only 19 percent of usual care patients showed similar results.⁹⁵ In addition to direct symptom reduction, program enrollees also reported greater rates of treatment, more satisfaction with care, less functional impairment, and greater quality of life.⁹⁶

CALM model for anxiety

Care coordination interventions such as IMPACT are effective for a variety of mental health conditions. An evaluation of a similar model used for patients with anxiety, Coordinated Anxiety Learning and Management (CALM), found that it was associated with reduced global anxiety symptoms and lower rates of functional impairment.⁹⁷ From 2006 through 2008, CALM operated similarly to IMPACT in 17 clinics across the country. More than 1,000 CALM patients were linked to a care manager who worked with the patients and their primary care doctors to help promote medication adherence as well as optimize cognitive behavioral therapy delivery to best meet the patients' needs.⁹⁸ As with IMPACT, CALM participants reported significant improvements in their health, including lowering by nearly 25 percent interference with daily life after 12 months of treatment compared with individuals receiving usual care.⁹⁹

Care coordination for anorexia

In addition to improving outcomes for depression and anxiety, care coordination can also improve outcomes for patients with anorexia. Researchers at St. Thomas University in Miami examined outcomes for patients receiving care at a single-site health home compared with those who received care through providers located at multiple clinics. Patients enrolled in the health home program received significantly more frequent care, including 9.25 percent more physician visits, 36.6 percent more dietician visits, and nearly 95 percent more therapist visits.¹⁰⁰

Reforms to improve chronic care delivery

The incidence of several chronic and autoimmune diseases is higher in women than in men, in part because women live longer. Women are more than 26 percent more likely to have one or more chronic diseases;¹⁰¹ at least two to three times more likely to have multiple sclerosis;¹⁰² and about 30 percent more likely to have arthritis.¹⁰³ In 2014, 90 percent of all health care expenditures were for care for individuals with one or more chronic conditions,¹⁰⁴ creating an opportunity for payment reforms to improve care and lower costs.

For example, medical homes can help patients with multiple chronic conditions avoid health care complications and risks. Individuals with multiple chronic conditions are more likely to take multiple medications than those with only one illness, and research shows that taking multiple medications is associated with increased likelihood of adverse drug events.¹⁰⁵ In 2017, CVS Health examined medication adherence from 2011 to 2013 among patients with multiple chronic conditions who were enrolled in patient-centered medical homes compared with those who were not. The CVS study found that patients in PCMHs were more than 8 percent more likely to have adhered to their medication regimens.¹⁰⁶

Payers and providers are also working together to develop health homes to improve care for patients with specific chronic illnesses. For instance, the Transmural Care Model for multiple sclerosis is a multidisciplinary care protocol intended to facilitate cooperation among health care professionals by having a nurse specialist work as a care manager between primary care physicians and neurologists.¹⁰⁷ The program, essentially a medical home for patients with multiple sclerosis, was found to significantly improve care and quality of life among participants. Participation resulted in the patients experiencing fewer health care needs in the areas of personal care, defecation, and vision.¹⁰⁸ Additionally, the participants reported greater increases in energy and vitality and fewer general health changes than did nonparticipants.¹⁰⁹

Reforms to improve breast cancer care

About 1 in 8 women will develop breast cancer of her lifetime, while about 1 in 880 men will.¹¹⁰ Nearly 42,000 women are expected to die from breast cancer in 2019, and the mortality rate for black women is more than 40 percent higher than that of white women.¹¹¹ Beyond the cost in lives, breast cancer also has a high financial cost. A year of breast cancer treatment costs an average of between \$60,637 and \$134,682, depending on the cancer's progression.¹¹²

CMS has implemented a payment model to test bundled payments for cancer care.¹¹³ In addition, private payers have adopted bundled payments to improve outcomes for women with breast cancer.

UnitedHealthcare launched a bundled payment program for breast cancer treatment in 2009. The payment amount was based on the average sales price for chemotherapy drugs needed to treat the patient's specific cancer diagnosis along with a case management fee.¹¹⁴ The program used about 20 quality measures to evaluate care,

including hospitalization rates, admissions for cancer or treatment-related symptoms, length of stay, and time to first progression.¹¹⁵ A study published in the *Journal of Oncology Practice* evaluated the program on two additional metrics: total medical cost of care per episode and chemotherapy drug cost.¹¹⁶ Overall, the study found that the program saved more than \$33 million in total medical cost—around a 34 percent decrease—but raised the chemotherapy drug cost by about \$13.5 million from 2009 through 2012.¹¹⁷ Additionally, the program reduced hospitalizations.¹¹⁸

Unfortunately, results from other similar programs are limited, but the wide scope of these models indicates the potential for savings and care improvement. Most recently, Humana launched a bundled payment initiative for breast cancer care for both its Medicare Advantage and commercial plan enrollees in January 2019.¹¹⁹ The program is a pay-for-performance model in which the 16 participating cancer practices will receive an additional payment for improving the quality of care. Humana plans to examine a variety of quality metrics, including inpatient admissions, emergency department visits, medicines ordered, and patient education.¹²⁰ In addition to the enhanced rates for quality improvements, the program also includes initial payments to help practices build their reporting requirement and care coordination infrastructure.¹²¹

Other recent initiatives include Anthem Blue Cross of California’s episode-of-care payment model for radiation treatments for women diagnosed with breast cancer at stages 1 through 3, which the insurer started in 2017.¹²² And in 2016, Horizon Blue Cross Blue Shield of New Jersey also implemented an episode-of-care payment bundle for breast cancer treatment as part of its ongoing episode-of-care program, which began in 2014.¹²³

Lessons learned

Many of the illnesses and conditions that women are more likely to experience, such as depression and multiple sclerosis, are more effectively treated when patients are part of programs that prioritize and pay for care coordination. But as these reforms continue to be implemented, policymakers should collect data to confirm that women—who are the majority of the patients with these conditions—are in fact benefiting from these reforms. Currently, outcomes and quality based on a patient’s gender, as well as any other intersecting identity, are often not reported. This information can help identify if there are particular design or payment approaches that have a differential impact on women.

Policymakers should work to ensure that patients are at the center of these health reform discussions. Among the most effective reform efforts for mental health and chronic conditions were those that focused on patients' needs and perspectives throughout the care process. Patient experience measures are of particular importance for this reason and should be a quality metric for any payment reform.

Conclusion

Health care payment and delivery system reform efforts in the United States have the potential to deliver the health care that women need and deserve. By coordinating care; focusing on preventive services; and addressing the unique care issues of women in the areas of pregnancy and breast health, in addition to a variety of mental and chronic health conditions that are more likely to affect women, the health outcomes for women can improve dramatically. Policymakers should therefore include disaggregated demographic data collection requirements for illnesses that disproportionately affect women as part of any delivery system reform package. With that additional information, policymakers will be able to better assess payment reforms and tailor reform efforts to continue to improve outcomes for women while reducing costs to private and public payers.

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