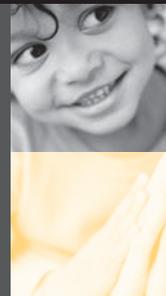


Emerging Opportunities for Addressing Maternal Depression under Medicaid



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Emerging Opportunities for Addressing Maternal Depression under Medicaid

The Problem of Maternal Depression

Depression is a common condition in the United States, with 9 percent of adults reporting current depression in 2006–2008; rates are higher for women than for men. Rates of current depression for those who do not graduate from high school (17 percent) are over twice as high as for those with some college (7 percent) (Centers for Disease Control and Prevention 2010).

Depression is a particularly serious problem for low-income mothers, since it can create two generations of suffering, for the mother and her children. The National Research Council and Institute of Medicine (2009) documented the scope of this problem and its damaging implications for the nation's children, recommending improved efforts to identify and treat depressed parents. Untreated parental depression, particularly when children are young, poses risks for children's cognitive, socioemotional, and behavioral development and for learning and physical and mental health over the long term (Center on the Developing Child 2009; NRC and IOM 2009; Knitzer, Theberge, and Johnson 2008).

Parental depression is also prevalent among low-income mothers of infants and young children. Over 10 percent of poor infants have a mother who is severely depressed and more than half have a mother with some depression (Vericker, Macomber, and Golden 2010). Similarly, among low-income mothers of young children ages 0–5, 8.8 percent had a major depressive episode (MDE) in the past year. And among mothers who do have an MDE, depression is more severe among low-income mothers than other mothers (McDaniel and Lowenstein forthcoming).

Effective Screening and Treatment for Maternal Depression

Depression is widespread and serious in its effects on parents and their children. The National Research Council and Institute of Medicine report (2009) identified a number of safe and effective treatments, both medication and talking therapies (Muñoz, Beardslee, and Leykin 2012). Others suggest that treatment of depression should be combined with additional preventive services targeted at improving parenting skills and positive mother-child interactions (NRC and

What Is Depression?

Depression is a medical illness manifest by persistent feelings of sadness and loss of interest. Often it can cause physical symptoms such as trouble eating, sleeping, and concentrating, as well as psychological symptoms such as persistent feelings of helplessness and hopelessness.

IOM 2009). When a mother's depression is successfully treated, her children may have reduced rates of emotional and behavioral problems (Weissman et al. 2006).

One key step toward improved outcomes is to identify mothers who may need treatment. Screening for maternal depression has become more common and standardized, and many different instruments have been developed and tested. The U.S. Preventive Services Task Force (2009) recommends screening all adults for depression, when appropriate support is available. The National Research Council and Institute of Medicine (2009) make the same point: screening is only useful if effective treatment can be offered. Such screening can occur in a variety of settings, either by clinicians or nonclinicians, depending on the instrument and training. Olson and colleagues (2005) show that pediatricians' recognition of parental depression can be increased. Dietrich and colleagues (2004) demonstrate that in general medical practice, a systemic approach to increasing screening and treatment can be effective. Wells and colleagues (2000) show that quality improvement strategies within health care systems can also increase recognition and treatment.

Despite the evidence of success from screening and treatment, few low-income mothers receive any help. In 2001 only about 30 percent of severely depressed low-income mothers with infants reported speaking with a doctor, psychologist, psychiatrist, or counselor in the past year about an emotional problem (Vericker et al. 2010). Similarly, in 2008–2010, only 42.2 percent of low-income mothers of young children who had an MDE in the past year received a prescription for their MDE, and only 35.3 percent talked to a psychologist, social worker, or other counselor about their MDE (McDaniel and Lowenstein forthcoming). Reasons for such low treatment rates include lack of access to appropriate mental health services, lack of health insurance coverage for mental health services, lack of trained providers, and stigma and distrust of mental health providers (Clemans-Cope and Kenney 2007; Golden, Hawkins, and Beardslee 2011; Kaiser Family Foundation 2010b; Knitzer et al. 2008; NRC and IOM 2009). Filling this gap in treatment and prevention for low-income mothers and their children is a major public health opportunity.

Medicaid's Potential Role

Medicaid already plays a central role in access to physical and mental health services for a large number of American mothers, and its role is expanding. Due to substantial past expansions in eligibility, about 40 percent of pregnant women and a similar proportion of children are covered by Medicaid or CHIP (Kaiser Family Foundation 2012; U.S. Census Bureau 2010).

Medicaid also offers a wide range of behavioral health services to enrolled mothers with depression. While states have some flexibility in the mental health services they cover, generally coverage must be



Study Design and Methods

This paper is part of the Urban Institute's "Linking Depressed Mothers to Effective Services" project, which aims to develop well-grounded, practical options for policy and system reform that will link more low-income mothers with depression to effective treatment. The project is funded by a research grant from the Doris Duke Charitable Foundation. Other products from the Urban Institute on this topic can be found at <http://www.urban.org/depressed-mothers-effective-services.cfm>.

The paper draws on a literature and policy synthesis from existing documents. In addition, in 2012 we conducted 13 telephone interviews with national experts in public health and Medicaid, including representatives from federal agencies (Centers for Medicare and Medicaid Services, the Health Resources and Services Administration, and the Substance Abuse and Mental Health Services Administration), the National Association of State Medicaid Directors, and other research and advocacy groups (the National Association of State Health Policy, the National Institute of Health Care Management, and the National Organization of Mental Health Directors). Quotes in the paper are taken from these interviews.

broader than for private insurance and cost sharing is rarer. At a minimum, inpatient and outpatient care, psychiatrist and psychologist visits, mental health clinics, and drug therapy are all generally covered (Kaiser Family Foundation 2010a). Some states limit the number of visits or prescriptions, or have limited cost sharing. The rehabilitation service category also broadens the array of mental health services offered in many states (for example, to include intensive outpatient therapy).

Related research suggests that well-designed and implemented treatment could be cost neutral or even cost saving for Medicaid:

- Depression is associated with unemployment or underemployment, potentially leading to greater reliance on public programs, including Medicaid (Coryell, Endicott, and Keller 1990; Kessler et al. 2006; Wang et al. 2004).
- Maternal depression is associated with increased risk of preterm birth and low birth weight, potentially leading to high infant costs for Medicaid (Grote et al. 2010).
- Failing to provide services for mild or moderate depression can lead to more severe and chronic depressive episodes requiring costly emergency room or inpatient stays (DiMatteo, Lepper, and Croghan 2000). Also, depression is often episodic and is likely to recur (Eaton et al. 2008; Solomon et al. 2000), and severe depression rarely occurs in isolation from other health problems (Kessler et al. 2003).
- Depression frequently occurs in the presence of comorbid medical conditions. Treating depression can significantly improve the

outcomes for these comorbid conditions (Bodenheimer and Berry-Millet 2009; Katon et al. 2010; Schneider, O'Donnell, and Dean 2009).

- Depression can affect a mother's ability to manage her child's chronic health conditions, such as asthma (Bartlett et al. 2001; Gaskin and Mitchell 2005; Perry 2008), leading to more episodes of costly hospitalization (Chee et al. 2008; Guttman, Dick, and To 2004; Sills et al. 2007) and emergency room visits (Mandl and Tronick 1999).
- Untreated maternal depression is associated with child abuse (Berger 2005) and neglect (Buist 1998; Knitzer et al. 2008; McLennan and Kotelchuck 2000). Children who have experienced abuse or neglect are at risk of greater health, developmental, and mental health needs and may require foster care, automatically entitling them to Medicaid (Lehmann, Guyer, and Lewandowski 2012).
- Children whose mother's depression goes untreated can themselves develop serious emotional and behavioral disorders, creating an additional cost burden for Medicaid and other public programs (Beardslee, Gladstone, and O'Connor 2011; Lesesne, Visser, and White 2003). Depression may also have effects on the physical well-being and safety of children (Goldman et al. 2003; Phelan et al. 2007).

The Affordable Care Act

The Affordable Care Act (ACA), Public Law 111-148, was signed into law on March 23, 2010. The ACA contains numerous provisions that can improve opportunities for treating low-income mothers with depression. Under current Medicaid rules, many mothers lose Medicaid eligibility shortly after their babies are born. As a result, in many states, young children are eligible for Medicaid but their parents are not. Even if a mother is identified as having depression during pregnancy or immediately postpartum, she will lack Medicaid coverage for ongoing mental health services.

In 2014 many such women will obtain Medicaid coverage under new provisions of the Affordable Care Act that allow states to cover all low-income adults up to 138 percent of the federal poverty level. It is too soon to know how many states will take up the option, and consequently how many mothers with depression will be newly covered by Medicaid, but about 2.7 million currently uninsured parents nationwide would be eligible (Kenney et al. 2012). All states taking up the Medicaid option must offer a minimum benefit package to new eligibles, which covers mental health services on parity with physical health services. In addition to newly eligible parents, many parents who are currently eligible but not participating may sign up for Medicaid as a result of better knowledge and the more streamlined processes mandated by ACA implementation.

The ACA contains numerous other relevant provisions. For example, it mandates coverage of preventive services recommended by the U.S. Preventive Services Task Force, hence screening for depression. The demand for mental health services, including services for maternal depression, is thus likely to grow with ACA implementation, creating further pressure to expand the supply of

behavioral health providers and to improve the performance of the existing delivery system. Such workforce expansions will take time to implement, in part because legal and accreditation obstacles must be overcome (Ormond and Bovbjerg 2011).

At the same time, the ACA may increase the burden on the state staff charged with implementing the law.

Challenges to Providing Services to Medicaid Mothers with Depression

Medicaid offers many opportunities for providing access to care for maternal depression because of its broad coverage of mental health services and expanded eligibility. However, there are also numerous obstacles and challenges. Some of the most serious of these challenges are highlighted here.

Fragmentation of services. The financing and delivery of mental health services are fragmented in federal, state, and local policy, making it difficult to design and implement effective services. Maternal depression poses particular challenges because it straddles two difficult divides. The first is between physical and mental health services. The physical and mental health safety net systems have been historically separate, as documented in a recent policy brief (Takach, Purington, and Osius 2010), with physical and mental health services generally delivered in separate locations by separately trained professionals with weak communication and little cross-training. The second divide is between care for adults and care for children, including a lack of focus on the mother/child dyad where the child is receiving health care. A pediatrician (with whom the mother may have more contact than with her own medical provider) will focus primarily on the child's physical and developmental needs, not the mother's. This leads to missed opportunities to identify a mother's depression.

Poor access to care under Medicaid. While Medicaid covers many low-income depressed mothers and children—and therefore theoretically provides access to critical health and mental health services—in fact, access to some services is limited by many factors, such as too few providers or poor geographic distribution of providers. Moreover, even when there are adequate numbers of providers they may not accept Medicaid patients (Decker 2012). A 2008 survey showed that nationwide only 40 percent of physicians were accepting new Medicaid patients, as were only 31 percent of psychiatrists (Bokus, Cassil, and O'Malley 2009). This poor access leads many Medicaid beneficiaries to seek care in the emergency

department, delay care, or avoid care altogether.

Low reimbursement and other reimbursement barriers. Physicians often attribute their limited participation in Medicaid to low reimbursement, since Medicaid fees for primary care visits are only 66 percent of Medicare fees nationally (Zuckerman, Williams, and Stockley 2009). Many of our interviewees agreed with this point, acknowledging that low reimbursement is often a disincentive for physicians and calling for more creative solutions to address the problem.

Beyond the level of reimbursement, providers and observers also cited some specific Medicaid reimbursement barriers that make using Medicaid to cover maternal depression services difficult. For example, states rarely cover depression screening as a service that is reimbursed separately from a primary care visit. In addition, when both a primary care and a mental health visit (for example, in the case of colocated services) are provided on the same day at the same site, Medicaid programs rarely pay for both visits.

This restriction was cited, particularly by community health centers, as a major barrier to integrating primary care and mental health services. One expert thought that the restrictions were an unintended consequence of long-standing concerns with fraud and abuse in both federal and state Medicaid policies. In addition, multidimensional behavioral health treatment often does not fit easily into existing reimbursement approaches that rely on defined mandatory and optional Medicaid-covered services.

Provider availability. Experts told us of a shortage of mental health providers and advocated evidence-based treatments be provided by teams of mental health clinicians at various levels of training. However, those we interviewed reported that complex limitations on scope of practice sometimes bar promising approaches—for example, the use of master's-level mental health clinicians to provide in-home mental health treatment to poor mothers.

A high proportion of mental health care is provided by primary care physicians, particularly psychotropic medication. However, providers in such settings may not be well trained in screening for or providing mental health services (Russell 2010). Some providers we interviewed alluded to the consequences from a lack of training, such as misdiagnoses which lead to improper medication or lack of necessary treatment.

Stigma and distrust of mental health providers. In spite of great progress, mental health problems—including depression—are often stigmatized, resulting in preventable and treatable problems being hidden from the view of health professionals (Abrams,

“While she's pregnant she's got coverage for the full range of benefits that she needs. Pregnancy-related benefits are broadly defined . . . The challenge is if she doesn't meet the income limit and loses coverage after the postpartum period.”

“It is going to be the largest expansion in the history of the program in terms of . . . the enormous amount of behind-the-scenes changes that are going to have to take place . . . I wouldn't discount how hard this is going to be.”

“One of the barriers we find is when the person who needs the care is not the beneficiary . . . So it's an issue of who the covered unit is . . . mother-child in this case.”



“That’s the curse and blessing for having [behavioral health] on site . . . It doesn’t matter if [it’s the] same provider, they can’t have the same day treatment [and be reimbursed for both].”

“Evidence-based practices are not necessarily [individual] services. For example, [they] may instead be a package of services. Medicaid covers certain parts of [the] package but not all.”

“Physicians are frustrated because of the hoops and the low reimbursement rates . . . but at the end of the day, Medicaid is the largest provider of mental health services. Medicaid has the capacity to do this work on maternal depression.”

Dornig, and Curran 2009; Anderson et al. 2006). Physicians may be reluctant to ask a mother about her depression for this reason (Heneghan, Morton, and DeLeone 2007). For maternal depression in particular, mothers report reluctance to disclose their depression to someone they do not trust or with whom they do not have a relationship, partly because they fear being reported to child protective services. Some mothers say that they have a relationship with their medical provider that makes them comfortable discussing mental health problems, while others do not (Golden et al. 2011).

Another issue highlighted in our interviews was that some Medicaid beneficiaries with depression had difficulty obtaining appropriate medication. Most states and managed care plans use formularies that restrict which psychotropic medication can be prescribed or first require attempts of cheaper generic drugs. In addition, many states charge copayments. This may lead to inappropriate or inconsistent use of depression medication. Research has shown that inconsistent use of antidepressants, especially abrupt discontinuation, leads to negative side effects including the reemergence of symptoms (Rosenbaum et al. 1998).

Emerging Opportunities to Address the Challenges

Despite these many challenges, Medicaid offers extraordinary opportunities to serve low-income mothers with depression and reap the benefits for both generations.

Integrated health care models. The time is ripe to address the fragmentation between physical and mental health care, because Medicaid and other public programs are undertaking new initiatives to improve access to appropriate care. These initiatives are well positioned to provide maternal depression services using teams of differently skilled physical and behavioral health providers who together provide depressed mothers and their children with high-quality care. Such integrated models have been shown to improve mental and physical health outcomes, as well as patient satisfaction (Archer et al. 2012; Katon et al. 2010).

New federal funding has provided states and providers with a substantial incentive to adopt integrated care approaches:

- The Center for Medicare and Medicaid Innovation has funded several demonstration programs to foster integrated care models, including the Advanced Primary Care Practice Demonstration with 500 participating federally

qualified health centers (<http://www.innovations.cms.gov>).

- The health homes state plan amendment authorized by a provision of the Affordable Care Act and administered by the Centers for Medicare and Medicaid Services (CMS) could provide stable funding for integrated care initiatives—by mid-2012 seven states had taken up the option (Integrated Care Resource Center 2012).
- An integrated services demonstration, whereby the Substance Abuse and Mental Health Services Administration (SAMHSA) awarded 90 providers with grants to bring primary care services into a behavioral health provider setting (SAMHSA 2012).

In all, 30 states have one or more of these federally funded integrated care initiatives. Some are new and none are addressing maternal depression directly, but each has components that will facilitate depression screening and referral to treatment. CMS has recently highlighted the importance of such approaches by issuing “State Guidance on Developing and Implementing Integrated Care Models in Medicaid Programs” (Mann 2012a).

The Center for Integrated Health Solutions is funded jointly by SAMHSA and the Health Resources and Services Administration (HRSA) to provide grantees with technical assistance under the SAMHSA-funded integrated services demonstrations (<http://www.integration.samhsa.gov>). With joint HRSA funding, the center is facilitating links from behavioral health providers to primary care sites. However, currently grants are all focused on serious mental illness and are not likely to serve many mothers with milder depression.

The inventory of federal initiatives does not include a wide array of efforts funded by private organizations or state or local governments. The Center for Studying Health System Change has evaluated 12 U.S. metropolitan areas for the past decade. In 2000 only two study cities had initiatives to coordinate care across safety net providers; by 2010 six cities had active care coordination networks (Cunningham, Felland, and Stark 2012).

The Patient-Centered Medical Home (PCMH) is a concept which has evolved to incorporate, among other features, attention to the whole patient (all conditions, not just the condition for which the patient is seeking care) and coordination of care across providers (Berenson, Devers, and Burton 2011). The concept has developed wide support among providers and payers. The National Academy of State Health Policy (NASHP 2012)



has documented that 9 states have patient-centered medical home initiatives with a specific focus on behavioral and physical health integration. These are stimulated by funding from CMS as described above, and by payments from public- and private-sector payers to providers that implement the PCMH concept. The National Academy of State Health Policy finds that 41 states have some PCMH initiatives underway (NASHP 2012), and that 25 states offer enhanced Medicaid payments to PCMHs (Takach 2012).

Implementation of the PCMH concept is being facilitated nationally by stakeholder groups such as the Patient-Centered Primary Care Collaborative (PCPCC 2012) and the Agency for Healthcare Research and Quality's Patient-Centered Medical Home Resource Center (AHRQ 2011). Additional resources for implementation guidance come from quality of care organizations such as the National Committee for Quality Assurance (NCQA 2011), which review primary care practices and designate them as PCMHs once the practice has met the organization's criteria. The criteria assure that the practice has care coordination mechanisms in place (including electronic health records, among other features) to identify important health conditions (such as depression) and refer patients appropriately. When an organization is designated as a PCMH by NCQA, it has demonstrated that it manages psychotropic medication appropriately and links patients to formal mental health services. To date about 150 federally qualified health centers have been designated by NCQA as PCMHs. While maternal depression is not explicitly targeted in these models, in such an environment a mother would have a better chance of being identified and referred to services.

While none of these initiatives are as yet focused on maternal depression specifically, the developing structure is well suited for such services. Still, policy analysts have called for a stronger emphasis on integrating mental health services and screening and treatment for depression into the PCMH model (Croghan and Brown 2010; Hogan et al. 2010).

Since health homes are now an optional Medicaid service, over time more states may take up the option. A provision of the Affordable Care Act (Section 2703), health homes are very closely related to patient-centered medical homes in terms of care coordination, with an increased emphasis on links between physical and behavioral health care. States apply for a state plan amendment, and those that are approved will receive enhanced federal match for health home services. So far states have targeted high-need and high-cost patients, including the elderly and disabled. To qualify, beneficiaries must have two chronic conditions, one chronic condition and be at risk for a second, or one serious and persistent mental health condition. States have some leeway in which conditions they choose to target. Thus the demonstrations could be serving some mothers with depression or children with behavioral problems who also have co-occurring physical problems such as diabetes, hypertension, or asthma. According to an Urban Institute review of information in health home state plan amendments in 2012, five states incorporate screening for depression and one incorporates medication management for depression into the quality goals they will be measuring. In our interviews, we heard some interest in pursuing a two-generational health home that would serve both mothers and their children, although no states do so far.

The Strong Start Perinatal Initiative is a new CMS grant program with two primary goals: (1) to test new alternative approaches for providing prenatal care in order to reduce preterm birth rates and (2) to test ways to avoid early elective deliveries. The initiative was announced in February 2012 and proposals were due August 2012. Applicants can be obstetrical providers, states, or consortiums, and they are expected to serve at least 500 pregnant women a year (over a three-year grant period) at risk for preterm birth. These grantees may incorporate maternal depression screening and links to treatment into these innovative new prenatal care programs, and so they provide an additional opportunity to test such approaches. As of this writing, awards have not been announced.

Accountable care organizations (ACOs) are a service delivery model whereby a group of affiliated providers administers all care to a defined population, usually with financial incentives such as shared cost savings. ACOs have been established as Medicare demonstrations around the country, with strong emphasis on care coordination across providers and service types. While ACOs were not initially designed for Medicaid, several state Medicaid programs are developing their own initiatives (McGinnis and Small 2012).

Risk-based Medicaid-managed care (e.g., HMOs) is a financing model states are increasingly adopting for both physical and behavioral health. The use of risk-based managed care is growing nationwide in Medicaid programs, and growth is expected to continue with the addition of new Medicaid beneficiaries under the Affordable Care Act (Howell, Palmer, and Adams 2012). There are two approaches to providing mental health services under risk-based managed care. The first is to "carve in" mental health services to physical health plans, so that the plan has financial incentives to improve coordination across physical and mental health services, improve access to care, and potentially reduce costly emergency department and inpatient hospital use. Another approach is to "carve out" mental health services to a special plan that is experienced in providing such services. A mixed model carves in mental health care for some conditions (such as mild or moderate depression) and carves out care for more serious and chronic conditions (such as major depression).

States could use risk-based managed care to improve services for depressed mothers enrolled in Medicaid. For example, they could require plans to implement quality of care initiatives that examine how often mothers receive screening and referral for maternal depression and whether mothers are successfully linked to mental health services. A recent brief from the Integrated Care Resource Center (Hamblin, Verdier, and Au 2011) outlines various examples from states around the country for integrating physical and mental health services through managed care approaches.

Managed care plans are increasingly monitoring the quality of their services through the Healthcare Effectiveness Data and Information Set (HEDIS), the Consumer Assessment of Health Plans Survey, or other measurement approaches. Currently the HEDIS standard measures, as defined by the National Committee for Quality Assurance (NCQA), do not include measures of services for maternal depression (for example, the rate of screening). The HEDIS does incorporate an adolescent screening for depression measure and a



measure that examines medication management for those already diagnosed with depression. These recently adopted measures indicate an increased awareness of the importance of managing depression appropriately.

The National Institute for Health Care Management (funded by Blue Cross plans around the country) produced a brief emphasizing the importance of maternal depression as a problem for health plans serving both public and commercial enrollees (Santoro and Peabody 2010). The brief provides strategies for health plans to follow in screening for maternal depression and providing effective treatment.

Home visiting. The ACA authorizes substantial new funding for home visiting to mothers and young children. We discuss the opportunities that these programs offer to depressed mothers and their children in a separate paper under this project (Golden et al. 2011).

Guidelines. As a complement to these various emerging models for integrating care and providing a structure to improve identification and treatment of maternal depression, new guidelines for screening and treatment have come out recently. For example, a recent CMS bulletin to states, “Coverage and Service Design Opportunities for Individuals with Mental Illness and Substance Use Disorders,” gives guidance on coverage options for mental health services under the ACA (Mann 2012b).

As specified in the ACA, the U.S. Preventive Services Task Force (USPSTF) is responsible for recommending appropriate preventive services to be covered. The USPSTF recommends routine screening for depression for all adults when “staff-assisted care supports are in place to assure accurate diagnosis, effective treatment, and follow-up” (USPSTF 2009). Such a recommendation emphasizes the value of integrating physical and mental health services, since the task force found no evidence for improved outcomes without such care support. The USPSTF recommendation for depression screening has been incorporated into the 16 recommended preventive services for adults that must be covered under the Affordable Care Act (US DHHS 2012). The USPSTF has not recommended a particular screening tool.

The American Academy of Pediatrics recommends in its Bright Futures Guidelines (Tanski et al. 2010) that pediatricians regularly screen for maternal depression during an infant’s pediatric care. The guidelines do not recommend a specific screening tool but suggest that at a minimum, providers use the brief two-question Patient Health Questionnaire-2 (PHQ-2) (Kroenke, Spitzer, and Williams 2003) rather than more informal screening. The PHQ-2 includes the questions, “During the past two weeks, have you ever felt down, depressed, or hopeless?” and “during the past two weeks, have you felt little interest or pleasure in doing things?” The Bright Futures guidelines (sometimes used by states for establishing screening periodicity under the Early Periodic Screening, Diagnosis, and Treatment program) suggest screening for maternal depression at the one-, two-, and six-month visits following birth.

In contrast, the American College of Obstetricians and Gynecologists (2010) recently issued a committee opinion that “at this time, there is insufficient evidence to support a firm recommendation for universal antepartum or postpartum [depression] screening.” However, the opinion goes on to state that “screening for

depression has the potential to benefit a woman and her family and should be strongly considered.” The brief then provides information on various screening tools such as the PHQ-2 and somewhat longer PHQ-9 (Kroenke, Spitzer, and Williams 2001), as well as the specially designed 10-item Edinburgh Postnatal Depression Scale (Cox, Holden, and Sagovsky 1987).

Screening for depression for adults is also one of the 35 health care quality measures from the initial core set required by the Affordable Care Act for Medicaid-eligible adults and published in the Federal Register on January 4, 2012. Currently, reporting these measures is voluntary for state Medicaid programs. Although the tool for depression screening is not specified in the quality measures, SAMHSA (2012) recommends using the PHQ-9 for depression screening.

Workforce initiatives. As noted above, a major challenge to implementing new and improved services for mothers with depression is the lack of a multidisciplinary, well-trained workforce that can provide services. A new health care workforce must emerge to staff the integrated care initiatives described above, which in turn could improve the structure for maternal depression services. The innovations represent a new shift toward team-based care, for which behavioral health can become a component. A recent brief (Ormond and Bovbjerg 2011) outlines a variety of innovative approaches underway for expanding the primary care workforce, some of which are facilitated by the ACA through increased reimbursement for primary care services. While most innovations mentioned in the brief do not directly involve behavioral health services, the new initiatives to expanding the overall health care workforce have implications for the mental health workforce. For example, these initiatives may lead to inclusion of counselors in team-based care, as well as to retraining primary care providers to administer depression treatment within their practices.

Summary and Recommendations

Maternal depression has large implications for state Medicaid programs, which cover a high proportion of the nation’s low-income pregnant women, children, and mothers. A comprehensive and rigorous documentation of the cost savings from maternal depression screening and treatment does not yet exist. However, we have here shown considerable evidence that untreated depression is associated with a range of damaging and potentially costly consequences for both generations, and that opportunities are emerging to overcoming the barriers to addressing this pervasive problem.

We have summarized the challenges to providing maternal depression services. These include the fragmentation between physical and mental health services and between services to adults and children; poor access to mental health services; limitations in the size of the appropriate workforce to deliver services; and stigma, among others.

We also have identified emerging opportunities to address these challenges, including new federal, state, and local initiatives, many linked in some way to the Affordable Care Act. For example, the nationwide movement toward integration of Medicaid services

provides an evolving structure for screening and treating the maternal depression. These efforts are enhanced by new guidelines and quality measures being developed for depression screening and treatment by government agencies and others.

We see important roles for multiple stakeholders in these emerging opportunities to improve services for depressed Medicaid mothers and their children. These include federal funders (for example, CMS, HRSA, SAMHSA, and ASPE, the Assistant Secretary for Planning and Evaluation), state Medicaid programs, and other key stakeholders (such as the National Academy of State Health Policy, the Center for Healthcare Strategies, local governments, and foundations). It may be necessary to design specific programs or demonstrations for this population. However, another approach is for funders to encourage maternal depression services be incorporated into existing programs and services.

Federal agencies and state governments should use program guidance and existing technical assistance programs to improve awareness of maternal depression and how it can best be addressed through existing demonstrations and ongoing programs, including the existing Medicaid service package:

- States could provide incentives—through enhanced reimbursement or new service packages—for the integration of physical and mental health services through colocation or care coordination; there could be a special emphasis on maternal depression services and the integration of care for parents and children.
- The Center for Integrated Health Care Solutions could provide technical assistance to SAMHSA/HRSA grantees in implementing integrated programs within demonstration grants, and CMS could advise its existing integrated services grantees about how to address maternal depression.
- States and managed care plans could implement performance measurement or other quality assurance programs that focus on maternal depression services, for example, studying whether screening and treatment are undertaken.
- CMS and SAMHSA could issue joint guidelines concerning which screening tools are most useful under various circumstances, as well as what treatment service partnerships are essential for screening to occur. Guidelines could advertise a current list of evidence-based approaches for maternal screening and depression treatment.
- Evaluations of integrated services demonstrations and programs funded by ASPE, CMS, and others could focus on how maternal depression services have been incorporated into programs (if at all); lessons learned should be disseminated widely.

Because there is little information on the size and composition of the health care workforce to provide maternal depression services, we recommend a study to assess gaps in the supply of health professionals providing such services (both primary health care and mental health care). In particular, the study should address the levels of care appropriate for maternal depression services, how such services can be integrated into patient-centered medical home teams, and how to retrain primary care staff to provide maternal depression treatment.

These are only a limited number of ideas for a new focus on maternal depression within the existing federal-state Medicaid policy framework. Enhancing the role of Medicaid in identifying and treating maternal depression could benefit many women and improve life chances for the nation's children. The time is now to begin this important effort.

References

- Abrams, Laura S., Katrina Dornig, and Laura Curran. 2009. "Barriers to Service Use for Postpartum Depression Symptoms among Low-Income Ethnic Minority Mothers in the United States." *Qualitative Health Research* 19(4): 535–51.
- Agency for Healthcare Research and Quality (AHRQ). 2011. "Table 1: Patient-Centered Medical Home (PCMH) Activities across Federal Agencies as of March 2011." Rockville, MD: Patient-Centered Medical Home Resource Center.
- American College of Obstetricians and Gynecologists. 2010. "Screening for Depression during and after Pregnancy. Committee Opinion 453." *Obstetrics & Gynecology* 115:394–95.
- Anderson, Carol M., Cynthia S. Robins, Catherine G. Greeno, Helen Cahalane, Valire Carr Copeland, and R. Marc Andrews. 2006. "Why Lower-Income Mothers Do Not Engage with the Formal Mental Health Care System: Perceived Barrier to Care." *Qualitative Health Research* 16(7): 926–43.
- Archer, Janine, Peter Bower, Simon Gilbody, Karina Lovell, David Richards, Linda Gask, Chris Dickens, and Peter Coventry. 2012. "Collaborative Care for Depression and Anxiety Problems: Cochrane Database of Systematic Reviews." Issue 10. Art. No. CD006525. Oxford: Cochrane Collaboration.
- Bartlett, Susan J., Kenneth Kolodner, Arlene M. Butz, Peyton Eggleston, Floyd J. Malveaux, and Cynthia S. Rand. 2001. "Maternal Depressive Symptoms and Emergency Department Use among Inner-City Children with Asthma." *Archives of Pediatrics and Adolescent Medicine* 155(3): 347–54.
- Beardslee, William R., Tracy R. G. Gladstone, and Erin E. O'Connor. 2011. "Transmission and Prevention of Mood Disorders among Children of Affectively Ill Parents: A Review." *JAACAP* 50(11): 1098–109.
- Berenson, Robert A., Kelly J. Devers, and Rachel A. Burton. 2011. "Will the Patient-Centered Medical Home Transform the Delivery of Health Care?" Washington, DC: The Urban Institute. <http://www.urban.org/url.cfm?ID=412373>.
- Berger, Lawrence M. 2005. "Income, Family Characteristics, and Physical Violence toward Children." *Child Abuse & Neglect* 29(2): 107–33.
- Bodenheimer, Thomas, and Rachel Berry-Millet. 2009. "Care Management of Patients with Complex Health Care Needs." *Research Synthesis Report 19*. Princeton, NJ: Robert Wood Johnson Foundation.
- Boukus, Ellyn, Alwyn Cassil, and Ann S. O'Malley. 2009. "A Snapshot of U.S. Physicians: Key Findings from the 2008 Health Tracking Physician Survey." Washington, DC: Center for Studying Health System Change.
- Buist, Anne. 1998. "Childhood Abuse, Parenting and Postpartum Depression." *Australian and New Zealand Journal of Psychiatry* 32:479–87.
- Center on the Developing Child at Harvard University. 2009. "Maternal Depression Can Undermine the Development of Young Children." Working Paper 8. Cambridge, MA: Center on the Developing Child at Harvard University.
- Centers for Disease Control and Prevention. 2010. "Current Depression among Adults—United States, 2006 and 2008." *MMWR* 59(38): 1229–35. Atlanta, GA: US Department of Health and Human Services.
- Centers for Medicare and Medicaid Services (CMS). 2010. "CMS Introduces New Center for Medicare and Medicaid Innovation, Initiatives to Better Coordinate Health Care," press release, November 16. Baltimore, MD: Centers for Medicare and Medicaid Services.
- Chee, Cornelia Y. I., Yap-Seng Chong, T. P. Ng, Dominic T. S. Lee, L. K. Tan, and Calvin S. L. Fones. 2008. "The Association between Maternal Depression and



- Frequent Non-routine Visits to the Infant's Doctor—A Cohort Study." *Journal of Affective Disorders* 107:247–53.
- Clemans-Cope, Lisa, and Genevieve Kenney. 2007. "Low-Income Parent's Reports of Communication Problems with Health Care Providers: Effects of Language and Insurance." *Public Health Reports* 122:206–16.
- Coryell, William, Jean Endicott, and Martin Keller. 1990. "Outcome of Patients with Chronic Affective Disorder—A 5-Year Follow-Up." *American Journal of Psychiatry* 147:1627–33.
- Cox, J. L., J. M. Holden, and R. Sagovsky. 1987. "Detection of Postnatal Depression: Development of the 10-Item Edinburgh Postnatal Depression Scale." *British Journal of Psychiatry* 150:782–86.
- Croghan, Thomas W., and Jonathan D. Brown. 2010. "Integrating Mental Health Treatment into the Patient Centered Medical Home." Washington, DC: Mathematica Policy Research.
- Cunningham, Peter, Laurie Felland, and Lucy Stark. 2012. "Safety-Net Providers in Some U.S. Communities Have Increasingly Embraced Coordinated Care Models." *Health Affairs* 31(8): 1698–1707.
- Decker, Sandra L. 2012. "In 2011 Nearly One-Third of Physicians Said They Would Not Accept New Medicaid Patients, but Rising Fees May Help." *Health Affairs* 31(8): 1673–79.
- Dietrich, Allen J., Thomas E. Oxman, John W. Williams, Herbert C. Schulberg, Martha L. Bruce, Pamela W. Lee, Sheila Barry, et al. 2004. "Re-engineering Systems for the Treatment of Depression in Primary Care: Cluster Randomized Control Trial." *British Medical Journal* 329:602–5.
- DiMatteo, M. Robin, Heidi S. Lepper, and Thomas W. Croghan. 2000. "Depression Is a Risk Factor for Noncompliance with Medical Treatment." *Archives of Internal Medicine* 160(14): 2101–7.
- Eaton, William W., Huiibo Shao, Gerald Nestadt, Ben Hochang Lee, Joseph Bienvenu, and Peter Zandi. 2008. "Population-Based Study of First Onset Chronicity in Major Depressive Disorder." *Archives of General Psychiatry* 65(5): 513–20.
- Gaskin, Darrell J., and Jean M. Mitchell. 2005. "Health Status and Access to Care for Children with Special Health Care Needs." *Journal of Mental Health Policy and Economics* 8:29–35.
- Golden, Olivia, Amelia Hawkins, and William Beardslee. 2011. "Home Visiting and Maternal Depression: Seizing the Opportunities to Help Mothers and Young Children." Washington, DC: The Urban Institute. <http://www.urban.org/publications/412316.html>.
- Goldman, Jill, Marsha K. Salus, Deborah Wolcott, and Kristie Y. Kennedy. 2003. "What Factors Contribute to Child Abuse and Neglect?" In *A Coordinated Response to Child Abuse and Neglect: The Foundation for Practice*. Washington, DC: Office on Child Abuse and Neglect, U.S. Department of Health and Human Services.
- Grote, Nancy K., Jeffery A. Bridge, Amelia R. Gavin, Jennifer L. Melville, Satish Iyengar, and Wayne J. Katon. 2010. "A Meta-analysis of Depression during Pregnancy and the Risk of Preterm Birth, Low Birth Weight, and Intrauterine Growth Restriction." *Archives of General Psychiatry* 67(1): 1012–24.
- Guttman, A., P. Dick, and T. To. 2004. "Infant Hospitalization and Maternal Depression, Poverty and Single Parenthood—A Population-Based Study." *Child: Care, Health, and Development* 30:67–75.
- Hamblin, Allison, James Verdier, and Melanie Au. 2011. "State Options to Integrating Physical and Behavioral Health Care." Baltimore, MD: Integrated Care Resource Center.
- Heneghan, A. M., S. Morton, and N. L. DeLeone. 2007. "Paediatricians' Attitudes about Discussing Maternal Depression during a Paediatric Primary Care Visit." *Child: Care, Health and Development* 33(3): 333–39.
- Hogan, Michael F., Lloyd I. Sederer, Thomas E. Smith, and Ilana R. Nossel. 2010. "Making Room for Mental Health in the Medical Home." *Preventing Chronic Disease* 7(6): A132.
- Howell, Embry M., Ashley Palmer, and Fiona Adams. 2012. "Medicaid and CHIP Risk-Based Managed Care in 20 States." Washington, DC: The Urban Institute. <http://www.urban.org/publications/412617.html>.
- Integrated Care Resource Center. 2012. "State Health Home CMS Proposal Status." Hamilton, NJ: Center for Health Care Strategies. http://www.chcs.org/usr_doc/HHMap_v9.pdf.
- Kaiser Family Foundation. 2010a. "Medicaid Benefits: Online Database." <http://medicaidbenefits.kff.org>.
- . 2010b. "State Medicaid Agencies Prepare for Health Care Reform While Continuing to Face Challenges from the Recession." Publication #8091. Menlo Park, CA: Henry J. Kaiser Family Foundation.
- . 2012. "Medicaid's Role for Women across the Lifespan: Current Issues and the Impact of the Affordable Care Act." Publication #7213-03. Menlo Park, CA: Henry J. Kaiser Family Foundation.
- Katon, Wayne J., Elizabeth H. B. Lin, Michael Von Korff, Paul Ciechanowski, Evette J. Ludman, Bessie Young, et al. 2010. "Collaborative Care for Patients with Depression and Chronic Illness." *New England Journal of Medicine* 363(27): 2611–20.
- Kenney, Genevieve M., Stephen Zuckerman, Lisa Dubay, Michael Huntress, Victoria Lynch, Jennifer M. Haley, and Nathaniel Anderson. 2012. "Opting In to the Medicaid Expansion under the ACA: Who Are the Uninsured Adults Who Could Gain Health Insurance Coverage?" Washington, DC: The Urban Institute. <http://www.urban.org/publications/412630.html>.
- Kessler, Ronald C., Hagop S. Akiskal, Minnie Ames, Howard Birnbaum, Paul Greenberg, Robert M. A. Hirschfeld, et al. 2006. "Prevalence and Effects of Mood Disorders on Work Performance in a Nationally Representative Sample of U.S. Workers." *American Journal of Psychiatry* 163:1561–86.
- Kessler, Ronald C., Patricia Berglund, Olga Demler, Robert Jin, Doreen Koretz, Kathleen R. Merikangas, et al. 2003. "The Epidemiology of Major Depressive Disorder: Results from the National Comorbidity Survey Replication (NCS-R)." *Journal of the American Medical Association* 289(23): 3095–105.
- Knitzer, J., S. Theberge, and K. Johnson. 2008. "Reducing Maternal Depression and Its Impact on Young Children: Toward a Responsive Early Childhood Policy Framework." Project Thrive Issue Brief 2. New York: National Center for Children in Poverty.
- Kroenke, Kurt, Robert L. Spitzer, and Janet B. Williams. 2001. "The PHQ-9: Validity of a Brief Depression Severity Measure." *Journal of General Internal Medicine* 16(9):606–13.
- . 2003. "The Patient Health Questionnaire-2: Validity of a Two-Item Depression Screener." *Medical Care* 41(11):1284–92.
- Lehmann, Brooke, Jocelyn Guyer, and Kate Lewandowski. 2012. "Child Welfare and the Affordable Care Act: Key Provisions for Foster Care Children and Youth." Center for Children and Families brief. Washington, DC: Georgetown University Health Policy Institute.
- Lesesne, Catherine A., Susanna N. Visser, and Carla P. White. 2003. "Attention-Deficit/Hyperactivity Disorder in School-Aged Children: Association with Maternal Mental Health and Use of Health Care Resources." *Pediatrics* 111(5): 1232–37.
- Mandl, Kenneth D., and Edward Z. Tronick. 1999. "Infant Health Care Use and Maternal Depression." *Archives of Pediatrics and Adolescent Medicine* 153(8): 808–13.
- Mann, Cindy. 2012a. "State Guidance to Developing and Implementing Integrated Care Models in Medicaid," CMCS Informational Bulletin, July 10. Baltimore, MD: Department of Health and Human Services, Centers for Medicare and Medicaid Services.
- . 2012b. "Coverage and Service Design Opportunities for Individuals with Mental Illness and Substance Use Disorders," CMCS Informational Bulletin, December 3. Baltimore, MD: Department of Health and Human Services, Centers for Medicare and Medicaid Services.
- McDaniel, Marla, and Christopher Lowenstein. Forthcoming. "Rates of Treatment for Major Depression among Low-Income Mothers with Young Children." Washington, DC: The Urban Institute.

- McGinnis, Tricia, and David Marc Small. 2012. "Accountable Care Organizations in Medicaid: Emerging Practices to Guide Program Design." Hamilton, NJ: Center for Health Care Strategies.
- McLennan, John D., and Milton Kotelchuck. 2000. "Parental Prevention Practices for Young Children in the Context of Maternal Depression." *Pediatrics* 105(5): 1090–95.
- Muñoz, Ricardo F., William R. Beardslee, and Yan Leykin. 2012. "Major Depression Can Be Prevented." *American Psychologist* 67(4): 285–95.
- National Academy on State Health Policy (NASHP). 2012. "Medical Homes and Patient-Centered Care." <http://www.nashp.org/med-home-map>.
- National Committee for Quality Assurance (NCQA). 2011. "Patient-Centered Medical Home." <http://www.ncqa.org/Programs/Recognition.aspx>.
- National Research Council and Institute of Medicine (NRC and IOM), Committee on Depression, Parenting Practices, and the Healthy Development of Children. 2009. *Depression in Parents Parenting, and Children: Opportunities to Improve Identification, Treatment, and Prevention*. Washington, DC: National Academies Press.
- Olson, Ardis L., Allen J. Dietrich, Gregory Prazar, James Hurley, Ann Tuddenham, Viking Hedberg, et al. 2005. "Two Approaches to Maternal Depression Screening during Well Child Visits." *Journal of Developmental and Behavioral Pediatrics* 26(3): 169–76.
- Ormond, Barbara A., and Randall R. Bobberg. 2011. "Assuring Access to Care under Health Reform: The Key Role of Workforce Policy." Washington, DC: The Urban Institute. <http://www.urban.org/publications/1001581.html>.
- Patient Centered Primary Care Collaborative (PCPCC). 2012. "Pilots and Demonstrations (Self-Reported)." <http://www.pcpcc.net>.
- Perry, Cynthia D. 2008. "Does Treating Maternal Depression Improve Child Health Management? The Case of Pediatric Asthma." *Journal of Health Economics* 27(1): 157–73.
- Phelan, K., J. Khoury, H. Atherton, and R. Kahn. 2007. "Maternal Depression, Child Behavior, and Injury." *Injury Prevention* 13:403–8.
- Rosenbaum, Jerrold F., Maurizio Fava, Sharon L. Hoog, Richard C. Ascroft, and William B. Krebs. 1998. "Selective Serotonin Reuptake Inhibitor Discontinuation Syndrome: A Randomized Clinical Trial." *Biological Psychiatry* 44(2): 77–87.
- Russell, Lesley. 2010. "Mental Health Care Services in Primary Care: Tackling the Issues in the Context of Health Care Reform." Washington, DC: Center for American Progress.
- Santoro, Kathryn, and Hillary Peabody. 2010. "Identifying and Treating Maternal Depression: Strategies and Considerations for Health Plans." Washington, DC: National Institute of Health Care Management.
- Schneider, Kathleen M., Brian E. O'Donnell, and Debbie Dean. 2009. "Prevalence of Multiple Chronic Conditions in the United States' Medicare Population." *Health and Quality of Life Outcomes* 7:82.
- Sills, Marion R., Susan Shetterly, Stanley Xu, David Magid, and Allison Kempe. 2007. "Association between Parental Depression and Children's Health Care Use." *Pediatrics* 119:829–36.
- Solomon, David A., Martin B. Keller, Andrew C. Leon, Timothy I. Mueller, Philip W. Lavori, Tracie Shea, et al. 2000. "Multiple Recurrences of Major Depressive Disorder." *American Journal of Psychiatry* 157:229–33.
- Substance Abuse and Mental Health Services Administration (SAMHSA). 2012. "Health Homes and Primary and Behavioral Health Care Integration." <http://www.integration.samhsa.gov>.
- Takach, Mary. 2012. "About Half of the States Are Implementing Patient-Centered Medical Homes for Their Medicaid Populations." *Health Affairs* 31(11): 2432–40.
- Takach, Mary, Kitty Purington, and Elizabeth Osius. 2010. "A Tale of Two Systems: A Look at State Efforts to Integrate Primary Care and Behavioral Health in Safety Net Settings." Washington, DC: National Academy for State Health Policy.
- Tanski, Susanne, Lynn C. Garfunkel, Paula M. Duncan, and Michael Weitzman. 2010. "Performing Preventive Services: A Bright Futures Handbook." Elk Grove Village, IL: American Academy of Pediatrics.
- U.S. Census Bureau. 2010. "Table HI01: Health Insurance Coverage Status and Type of Coverage by Selected Characteristics." Current Population Survey, 2011. Annual Social and Economic Supplement.
- U.S. Department of Health and Human Services (US DHHS). 2012. "Preventative Services Covered under the Affordable Care Act." Fact Sheet. Washington, DC: U.S. Department of Health and Human Services.
- U.S. Preventive Services Task Force (USPSTF). 2009. "Screening for Depression in Adults: U.S. Preventive Services Task Force Recommendation Statement." *Annals of Internal Medicine* 151:784–92.
- Vericker, Tracy, Jennifer Ehrle Macomber, and Olivia Golden. 2010. "Infants of Depressed Mothers Living In Poverty: Opportunities to Identify and Serve." Washington, DC: The Urban Institute. <http://www.urban.org/publications/412199.html>.
- Wang, Philip S., Arne L. Beck, Pat Berglund, David K. McKenas, Nicolaas P. Pronk, Gregory E. Simon, and Ronald C. Kessler. 2004. "Effects of Major Depression on Moment-in-Time Work Performance." *American Journal of Psychiatry* 161:1885–91.
- Weissman, Myrna M., Daniel J. Pilowsky, Priya J. Wickramaratne, Ardesheer Talati, Stephen R. Wisniewski, Maurizio Fava, et al. 2006. "Remissions in Maternal Depression and Child Psychopathology: A STAR*D-Child Report." *JAMA* 295(12): 1389–98.
- Wells, Kenneth B., Cathy Sherbourne, Michael Schoenbaum, Naihua Duan, Lisa Meredith, Jürgen Unützer, Jeanne Miranda, et al. 2000. "Impact of Disseminating Quality Improvement Programs for Depression in Managed Primary Care." *Journal of the American Medical Association* 283(2): 212–20.
- Zuckerman, Stephen, Aimee F. Williams, and Karen E. Stockley. 2009. "Trends in Medicaid Physician Fees, 2003–2008." *Health Affairs* 28(3): 510–19.

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