



# Maternal Depression

Strengthening Systems of Care



# About the Highmark Foundation

The Highmark Foundation is a charitable organization, a private foundation and an affiliate of Highmark Inc. that supports initiatives and programs aimed at improving community health. The Foundation's mission is to improve the health, well-being and quality of life for individuals who reside in the Pennsylvania communities served by Highmark its affiliates and subsidiaries. The Foundation awards general health grants that support chronic disease, communicable disease, family health and service delivery systems. The Highmark Foundation strives to support evidence-based programs that impact multiple counties and work collaboratively to leverage additional funding to achieve replicable models. More information about the Foundation can be found at [www.highmarkfoundation.org](http://www.highmarkfoundation.org).

# Executive Summary

This brief is part of a series addressing issues of importance to the Highmark Foundation and its commitment to the health, well-being and quality of life of individuals and communities served by Highmark Inc., its affiliates and subsidiaries.

This publication highlights community and programmatic strategies supported by one national and several local grants to reduce maternal depression. These public health strategies provide greater access to coordinated maternal and child health care through cohesive systems-level approaches. As a result of these proactive approaches, mothers, children and families have access to affordable, quality resources to assist with challenges associated with maternal depression.

According to statistics, maternal depression affects 10% to 20% of mothers within the first year after giving birth and contributes to staggering economic costs. Therefore, improving the health of mothers, infants and children is an important public health goal for the United States. Their well-being determines the health of the next generation and can help predict future public health challenges for families, communities and the health care system. Various measures are used to identify and treat women who have maternal depression. The results provide them and their families with needed programs, services and treatment.

Since 2004, the Highmark Foundation has awarded five multi-year grants totaling more than \$800,000 to organizations in central and western Pennsylvania to develop or sustain innovative public health strategies to improve maternal and child health. As a result, community-based organizations have increased their capacity to develop and implement programs and services. One program is based on the Doula model, two applied the Nurse Family Partnership model and two created a collaborative approach with government entities, funders, behavioral and physical health providers and social service organizations.

These grants have also changed systems of care, strengthened public/private partnerships, provided opportunities for funders to collaborate on an issue of interest, and created new policies, processes and procedures for the diagnosis and treatment of maternal depression.



## Background

Depression is a common mental disorder that presents with depressed mood, loss of interest or pleasure, feelings of guilt or low self-worth. These problems can become chronic or recurrent and lead to substantial impairments in an individual's ability to take care of his or her everyday responsibilities. Depression is the leading cause of disability as measured by YLDs (years lived with disability) and the fourth leading contributor to the global burden of disease in 2000. By the year 2020, depression is projected to reach second place of the ranking of DALYs (disability adjusted life years) calculated for all ages and both sexes.<sup>1</sup>

Worldwide, depression affects 121 million people. It can be reliably diagnosed and treated in primary care. Antidepressant medications and brief structured forms of psychotherapy are effective for 60% to 80% of those affected, and can be delivered in primary care settings. However, fewer than 25% of those affected have access to effective treatments. Barriers to effective care include the lack of resources, lack of trained providers and the social stigma associated with depression.<sup>2</sup>

Like depression, maternal depression is a widespread public health issue that takes its toll on the well-being and livelihood of mothers and their families. It is a depressive disorder characterized by restlessness, profound sadness, social isolation, loss of motivation and interest in one's self or children and can occur during (prenatal) or after (postpartum) childbirth. It demands a strong community response involving people who share a common vision to strengthen the health and resilience of all mothers and their families in need of help and support.<sup>3</sup> The physical and mental health of parents and caregivers are influenced by socio-demographic factors, such as family income, but are also linked to infant and child health. For example, having a child with developmental delays also places parents and caregivers at risk for maternal depression.<sup>4</sup>

The effects of maternal depression on women and their families has been well documented. Given the prevalence and impact of the problem, one important strategy is to strengthen and expand public health approaches through education, screening, interventions, therapy and medication management.<sup>5</sup> Approximately 10% to 20% of mothers will be affected with maternal depression within the first year after giving birth. Maternal depression can lead to serious health risks for both the mother and infant, increasing the risk for costly complications during birth and causing long-lasting or even permanent effects on child development and well-being.<sup>6</sup>

## The Impact of Maternal Depression

Approximately 18 million Americans are impacted annually by depression. Research has consistently shown that in the United States and other countries twice as many women as men experience major depression or chronic low-level depression, most commonly during their reproductive years. It is estimated that one in five women will develop depression at some point in their childbearing years. In fact, women in their childbearing years account for the largest group of Americans with depression.<sup>7</sup>

Serious depression in parents and caregivers can affect far more than the adults who are ill. It also influences the well-being of the children in their care, and its widespread occurrence can undermine the future prosperity and well-being of society as a whole. When children grow up in an environment of mental illness, the development of their brains may be seriously weakened, with implications for their ability to learn as well as for their own later physical and mental health.<sup>8</sup> Sex differences have been described in some studies with boys being more vulnerable, distressed and display more outwardly violent behavior by maternal depression than girls.<sup>9, 10</sup>

However, maternal depression is rarely considered through a lens that focuses on how it affects parenting and child outcomes, particularly for young children. Also to be considered is what kind of strategies can prevent negative consequences for parents. When appropriate interventions are not available to ensure mothers' well-being and children's healthy development, the missed opportunities can be substantial for both the child, mother and family.<sup>11</sup>



## Maternal Depression Prevalence

Maternal depression cuts across all ages, races, ethnicities and socioeconomic status. Studies have found that ethnicity, age and protective factors affect maternal depression. However, there is no direct correlation or evidence to support a causal relationship. Among ethnically and socioeconomically diverse populations, the prevalence of maternal depression has not been as well established. Moreover, the highest rates have been observed among low-income women. For low-income women, the estimated prevalence of maternal depression doubles to at least 25%, particularly those with young children.<sup>12</sup>

A longitudinal study examined maternal depression status from birth of a child to 36 months of age using data from the National Institute of Child Health and Human Development (NICHD) Study of Early Child Care and Youth Development. The study found that younger maternal age, minority status, lower education, unemployment, single status, lack of social support, and poor general health were all risk factors for increased prevalence of maternal depression.<sup>13</sup>

Although studies have shown higher rates of depressive symptoms among blacks than whites, studies that use the diagnostic criteria for major depression generally find little racial difference in incidence. The *National Co-morbidity Study and Epidemiological Catchment Area Studies* found that blacks were less likely than whites to be depressed, whereas another study found no racial difference in the incidence of depression in a sample of poor women. These findings suggest that although poor mothers may be at higher risk than others, race does not play an independent role in explaining the incidence of maternal depression. However, it is possible that both race and socioeconomic status affect whether, and how effectively, women are treated for depression, but there is little hard evidence that race, as such, is a factor.<sup>14</sup>

Obtaining a clear picture of the data on maternal depression is difficult as there is wide variation among the published estimates of prevalence and incidence of depression in prenatal and postpartum periods across races and ethnicities. Therefore, further research regarding risk factors and prevalence in diverse populations is vital to understand the consequences of maternal depression.<sup>15</sup>



## Risk Factors for Maternal Depression

Depressed mothers often do not have a secure emotional attachment or healthy emotional bond with their child. The relationship between the parent and/or primary caregiver is key to the emotional development of the child.<sup>16</sup>

Risk factors most commonly associated with maternal depression include race/ethnicity, younger age, and socioeconomic status, current or previous history of depression in parent and/or primary caregiver, change in hormones, history of mood disorders, substance abuse problems, maternal depression from a previous pregnancy and life stressors, which include access to health care, employment and education. A child born to a mother who suffers from postpartum depression is also more likely to experience worse long-term behavioral health problems.<sup>17</sup>

Comprehensive interventions such as Doula and Nurse-Family Partnership programs that include clinical, educational and supportive services have the ability to mitigate the risk factors of maternal depression. These programs are designed to provide low-income mothers and their children with opportunities for long-term success in health, education and self-sufficiency.<sup>18</sup> Not only can organizations work in a preventative capacity to help mothers and families with behavioral health issues such as depression, they can also facilitate linkages to other organizations, programs and services.



## Tools for Screening Maternal Depression

Despite the availability of effective treatments and screening tools, depression remains undertreated. In primary care settings, approximately 75% of depressed women of childbearing age do not receive mental health treatment.<sup>19</sup>

Screening for maternal depression is not standard and treatment does not always follow a diagnosis. Several studies conducted to examine screening practices among obstetrician-gynecologists found that 44% of respondents always screen for depression, 41% sometimes screen and 15% never screen. Screening rates for pediatricians are even lower. A study of pediatricians routinely ask mothers about maternal depression symptoms with 81% surveyed reporting relying on observation alone to diagnose maternal depression and none reporting using a screening questionnaire. This reliance on observation and lack of routine screening could contribute to missed opportunities to diagnose maternal depression.<sup>20</sup>

Research has proven that screening regularly during pregnancy and postpartum with validated tools developed specifically for screening maternal depression such as the Edinburgh Postpartum Depression Scale (a 10-question self-report test), the United States Preventive Services Task Force (USPSTF), the Patient Health Questionnaire-2 (PHQ-2; two-question screening) and Patient Health Questionnaire-9 (PHQ-9; nine-question screening) can be used to effectively identify maternal depression. These tools measure the determinants of depression, namely altered mood or inability to experience pleasure from activities, and are powerful for assisting primary care clinicians in diagnosing depression as well as selecting and monitoring treatment.<sup>21, 22</sup>

Another widely used screening tool, PRAMS (Pregnancy Risk Assessment Monitoring System) is a surveillance project of the Centers for Disease Control and Prevention (CDC) and state health departments. Currently, 37 states (including Pennsylvania) and cities in the United States participate in PRAMS. It measures self-reported maternal attitudes and experiences before, during and after delivery of a live infant. PRAMS is also useful in identifying other risk factors for postpartum depressive symptoms. However, it also has several limitations including self-reporting of depressive symptoms that are not confirmed by physician diagnosis.<sup>23</sup>

While there is no perfect screening tool, and research is limited on effectiveness, it is important to note that screening does not replace a diagnostic interview. However, it can help to identify women who are at risk and in need of further intervention or referral to mental health services.<sup>24</sup>



## Barriers to Identifying and Treating Maternal Depression

In addition to the lack of effective research on the effectiveness of screening tools and lack of national guidelines or recommendations for screening and treating maternal depression, other barriers and challenges persist in reaching this population. These challenges include concerns of pregnant women and new mothers such as social stigma, cost of treatment and reluctance to take medications.

Physician barriers include inadequate time to provide counseling and education, lacking confidence in diagnosing, limited treatment modalities due to mother's insurance coverage and general unavailability of mental health resources. Another barrier is the lack of training to treat depression. A study by Dietrich et al. reported that fewer than half of newer obstetricians felt their residency had prepared them to diagnose depression.

Workforce barriers are compounded by shortages of primary care physicians and lack of access to mental health professionals, particularly in rural areas. These factors limit the likelihood that new mothers will be screened and treated for depression. Additionally, the lack of coordination between providers and mental health professionals is a further barrier to depression treatment.

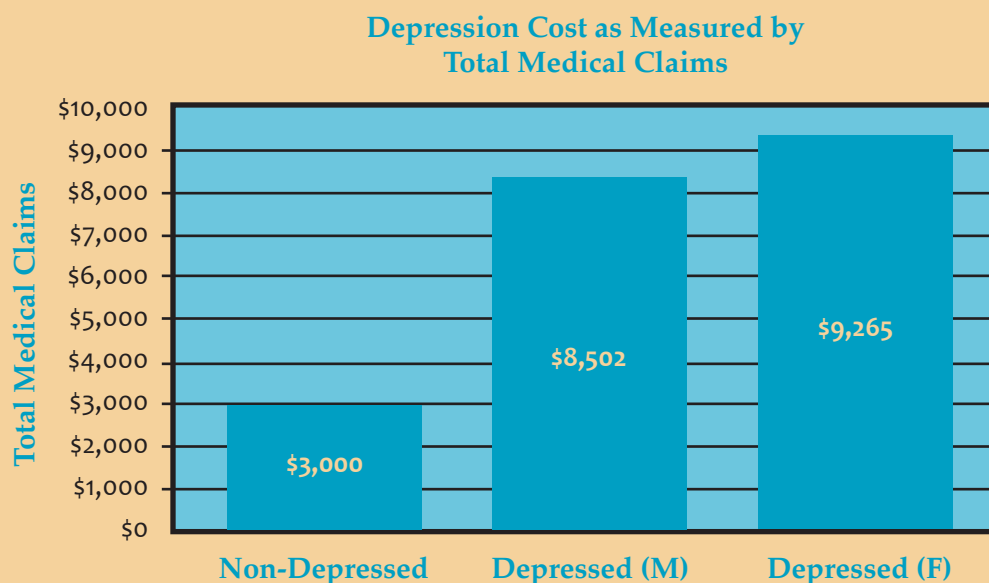
Especially given the renewed focus on prevention and additional women who will have access to insurance as a result of the health care reform law; providing valuable mental health educational materials, as well as conducting and coordinating for screening and treatment, are all strategies that can be employed to remove barriers and improve early identification and treatment of maternal depression.<sup>25</sup>

## Economic Consequences of Maternal Depression

The economic health care cost of depression is substantial. In 2000, over \$83.1 billion dollars were spent on depression in the United States; \$26.1 billion dollars (31%) for direct medical costs, \$5.4 billion dollars (7%) for suicide-related mortality costs and \$51.5 billion dollars (62%) for workplace costs. Workplace costs include persistent absence, loss of productivity and disability. While maternal depression is responsible for only a portion of these costs, it remains an important cost consideration.<sup>26</sup>

The specific costs of maternal depression are unknown. However, Figure 1 shows that depressed employees average \$3,000 more in total medical claims than do non-depressed employees; and women with depression generally have more expensive medical claims than men with depression (averaging \$9,265 compared to \$8,502 per year). Pregnant women with untreated depression are at risk for costly complications such as preterm birth. Children of depressed mothers may also have higher lifetime medical spending due to the adverse effects of postpartum depression on the child's own health. In fact, children of depressed mothers have been found to use health care services, including office and emergency room visits, more frequently than children of healthy parents.<sup>27</sup>

Figure 1: Depression Cost in Males and Females by Total Medical Claims





## Public Health Approaches to Address Maternal Depression

Because maternal depression is so widespread, affecting millions of families in communities nationwide, a comprehensive public health approach is needed. A public health approach aims to promote population health and well-being, prevent illness and reduce disability from illness through coordinated efforts that reach and engage all people affected by a particular issue. As a result of the far-reaching impact, it is important for communities to intervene at each of these levels.<sup>28</sup>

Although a number of effective evidence-based treatments for maternal depression exist, including traditional cognitive and interpersonal therapies, medication interventions, peer support, and support groups. Three public health approaches to address depression in pregnant and parenting women are commonly used.<sup>29</sup>

- Screening for depression in obstetrical settings.
- Provision of social support through home visitation.
- Promotion of help-seeking for maternal depression via large-scale media campaigns.

Despite the credibility of screening, which has been recommended in the research literature, adopted as best practice guidelines in other disciplines, and mandated as a standard medical practice in some states; recent studies with diverse samples of pregnant and postpartum women have found that screening has either no or minimal effect in ameliorating depressive symptoms or increasing use of behavioral health care. With the exception of home visitation conducted in the postnatal period by trained health care professionals, the effectiveness of each of these strategies has been limited.<sup>30</sup>

The limited effectiveness of current public health approaches suggests changing systems and developing new strategies to address depression in women. This fact, and the need for new public health approaches, necessitates the development of public-private partnerships and community-wide public health promotion efforts to reduce the burden of maternal depression.<sup>31</sup>





## Highmark Foundation's Approach to Addressing Maternal Depression

The Highmark Foundation has often been the largest non-governmental funder for many of the following projects. It is able to leverage its funding to secure commitment and interest from other funders regarding a particular issue. Collectively, a group of funders can make a greater impact and advocate for issues that impact communities.

Through grants to support family health initiatives, the Highmark Foundation demonstrates its commitment to reducing the incidence and prevalence of maternal depression; thereby enabling community-based organizations to increase the quantity and quality of programs and services. The purpose for supporting these organizations is to change systems of care by developing and delivering new or sustaining existing models to address the effects of maternal depression through prevention programs.

Since 2004, the Highmark Foundation has supported five organizations located in four counties (Allegheny, Butler, Dauphin and Erie) in central and western Pennsylvania with multi-year grants totaling more than \$800,000. Several organizations deliver programs to additional counties within Highmark Foundation's giving area. These programmatic grants provided grantees with resources to initiate or expand community-based, preventive health programs for underinsured and uninsured families.

## Key Outcomes of these grants and the programs made possible

**Allegheny County Department of Human Services** (2006-2009) – A grant of \$200,000 to support Phase III: *Bridging the Silos: a Community-based Multi-strategy Quality Improvement Collaborative Effort for Enhancing the Delivery of Care*. Bridging the Silos was created to change systems of care for high-risk pregnant women or mothers with maternal depression enrolled in the HealthChoices program in Allegheny County. Details from this model of system change initiative are described in detail in the RAND 2010 *Building Bridges* Report.

### Key outcomes:

- 86% of participating physical health providers conducted more than 8,500 screens of pregnant and postpartum women for a screening rate of 54%.
- Approximately 1,200 women were identified as high risk with 57% referred by the provider to their physical health managed care organization (MCO) managers.
- MCO managers were able to reach 53% of their high-risk members. Approximately 46% of high-risk women referred had engaged in behavioral health treatment at some point.
- While some of these women engaged in behavioral health treatment prior to the referral, 35% of referred women engaged in behavioral health treatment after being identified as at high risk for maternal depression, which is higher than 20% engagement rate recently published for a similar population. Contact with an MCO care manager and the timeliness of the contact were associated with the increased engagement rate.

The collaborative was successful in improving key organizational and clinical processes to standardize the way in which women suffering from maternal depression and receiving public health insurance are diagnosed, treated and monitored. Phase III concluded in 2010 and the Collaborative has successfully initiated Phase IV, *Helping Families Raise Healthy Children* which is also highlighted in this publication.

**Butler Memorial Hospital (2006-2009)** – A \$200,000 grant assisted with establishing the *Maternal Services Program* within Butler Memorial Hospital to meet the unmet complicated needs of low-income and uninsured pregnant teens and women and their children from birth through age five. The program features components of the Nurse-Family Partnership model including coordinated medical care, such as immunizations, well-child checks, postpartum screenings and supportive services like home visits and health education classes. The *Maternal Services Program* was successful in conducting maternal depression screening and coordinating follow-up for mothers at no cost. Having the referrals through the Butler Health System also reduced barriers for mothers by having the *Maternal Services Program* as the single point of contact.

Key outcomes:

- *During the grant period, 242 babies were delivered at Butler Memorial Hospital. All mothers were screened for post partum depression; and 12 were referred for additional follow-up with behavioral health counselors through Butler Health System.*
- *A total of 373 low-income mothers and teens received services. Approximately 134 (46%) women and 15 (28%) teens were enrolled at the conclusion of the grant period.*
- *The 20% follow-up rate of return for postpartum care surpassed the projected goal of 10%. Prior to program participation, the rate was 57%; at the end of the grant period, it was 78%.*

The increased follow-up rate demonstrated that a combination of education, tailored and supportive services were effective in motivating mothers to return for follow-up care and ongoing services. The *Maternal Services Program* is ongoing and sustained by Butler Health System.

**Community Care Behavioral Health Organization (2008)** – Helping Families Raise Healthy Children: A Cross-Systems Quality Improvement Initiative is a three-year initiative and expansion of Phase III: Bridging the Silos. The initiative is changing systems of care with an innovative cross-system quality improvement collaborative approach designed to change the way local systems in Allegheny County provide care management and treatment for families and caregivers at risk for depression and children at risk for developmental delays. The initiative follows the Institute of Medicine principles for redesigning health care processes and achieving long-term sustainable outcomes for families.

This quality improvement initiative is being accomplished with a \$500,000 grant from Robert Wood Johnson Foundation Local Funding Partners Initiative, a \$200,000 leadership grant from the Highmark Foundation as the local foundation sponsor, and grants from six (including the Highmark Foundation) local funders: UPMC Health Plan, The Pittsburgh Foundation, The Fine Foundation, FISA Foundation, and Jewish Healthcare Foundation. Additional funding support was arranged with the assistance of the Pennsylvania Department of Public Welfare.



The collaborative also includes community stakeholders, local organizing partners (Community Care Behavioral Health Organization, The Alliance for Infants and Toddlers, Family Advisory Council and RAND-University of Pittsburgh Health Institute), and various community partners to guide and support the initiative. Working together, families, health care practitioners, early intervention specialists, and social service providers have the potential to impact 2,790 infants born to parents with depression and another 4,200 primary caregivers at increased risk for depression in Allegheny County.

Key outcomes:

- *Approximately 3,000 caregivers have been screened for depression; 10% have identified as high risk.*
- *Community-based partners identified and referred over 170 families with caregiver depression as a qualifying risk factor to early intervention. For 12% of these families a child was identified as having a developmental delay and as linked to appropriate supportive services.*
- *A total of 85% of referred families engaged in relationship-based services; 75% in home-based behavioral health services and 97% in early intervention services.*
- *More than 300 early intervention and behavioral health practitioners were trained on family-centered interventions and relationship-based practices.*
- *Increased communication and coordination of services among early intervention, behavioral health, and other community partners.*

This is an active grant expected to conclude during the summer/fall of 2012. However, the work and efforts of the collaborative will be ongoing. As a result of its initial success, families will continue to be screened, referred and engaged. *Helping Families Raise Healthy Children* also has the potential to be replicated outside of Allegheny County for all mothers regardless of health insurance status.

**Every Child** will sustain services funded with a two-year \$105,000 Highmark Foundation grant awarded in September 2011. The grant enables Every Child to increase staff to provide services to 177 existing clients and support to 50 additional low-income disadvantaged pregnant women and teens through its *Doula Pregnancy and Parenting Support Program*. Since 2007, these services enabled ECI mothers' outcomes to surpass national outcomes for measures such as low birth weight babies, premature birth and immunization rates which are significant given the extraordinary challenges.

Expected outcomes include increased number of mothers screened, diagnosed and treated for postpartum depression, reduction in low birth weight babies and completion of individualized plans for each client. This is an active grant and interim outcomes are expected in October 2012.

**PinnacleHealth System** (2010) is making use of the Highmark Foundation's \$150,000 grant to expand its *Nurse-Family Partnership Program* to improve the health, well-being and self-sufficiency of 25 low-income first-time mothers and their children from birth to age two in Dauphin and Franklin counties. The goal of the family-focused program is to improve pregnancy outcomes by helping women engage in good preventive health practices.

During the first six weeks after child birth, visits focus on maternal health and child health. The Edinburgh Postpartum Depression Screening is administered to screen for postpartum depression. If the score determines the new mother is at risk for postpartum depression, a referral is made to her primary care provider for further assessment and follow-up. Infant development is assessed through the use of Ages and Stages Questionnaires and is administered periodically beginning at four months and continuing through age two. The tool is used to also screen for developmental delays. As with Doula Programs, Nurse-Family Partnerships are also effective in improving maternal and child health with a goal of recognizing and facilitating services for maternal depression.

Key outcomes:

- The program is in much demand because of the need. PinnacleHealth has received more referrals than planned and currently has 22 active clients. The program could easily surpass the expansion goal of 25 additional families.
- None of the 22 clients have had additional pregnancies. Furthermore, all of the babies are current with immunizations and are connected to a physician or health center.
- Each of the 22 (100%) clients received prenatal visits in the first trimester.
- A total of 5 (23%) clients smoked at intake and 3 (60%) of the 5 clients stopped smoking.
- Completion rates for all recommended immunizations are 90% or greater by the time the child is two years of age.
- Of the 14 babies born to active clients, only 3 (28%) were born prematurely.

This is an active grant that concludes in 2012. The preceding outcomes were reported in September 2011. The program consistently achieves or exceeds identified national and local goals.





# Recommendations:

Although grant funding to assist community-based organizations, hospitals and other systems in reducing the incidence of or treating maternal depression is helping to bring the issue into the forefront, there are still gaps such as inadequate community involvement, lack of strong policies around screening, identification, diagnosis and treatment of maternal depression. Until these gaps are closed, the issue of undertreated or untreated depression in mothers and caregivers will continue to be a serious public health issue. Long-term goals are to increase the number of women and families who are screened, treated and monitored appropriately and to develop routine standards of maternal depression care during the perinatal, prenatal and postpartum periods. However, several recommendations have been proposed to close the gaps and develop routine standards for care.

- **Working with Title V of the Social Security Act, the Maternal and Child Health (MCH) Services Block Grant**, which is one of the largest federal block grant programs and a critical source of flexible spending for public health. The grant is used to support core MCH public health functions in states, assesses needs, and identifies gaps in services. It also provides a platform for all mothers and children and includes a special emphasis on children with special health care needs.<sup>32</sup> Maternal depression services and programs with children with developmental delays are covered under Title V. Pennsylvania received \$24,390,794 in MCH Block Grant funding in 2010. Funds from this grant are distributed among a number of programs, all targeted to the improvement of the health of women and infants, children and adolescents, and children with special health care needs. A portion of Pennsylvania's funding is spent to increase behavioral health (mental health and substance abuse) screening, diagnosis and treatment for pregnant women and mothers (this includes postpartum depression).<sup>33</sup>
- **Improving the identification of maternal depression** through validated universal screening tools to ensure more women with maternal depression receive services as needed and appropriate. Simple interventions such as encouraging physicians, obstetricians, pediatricians, primary care physicians and other health professionals to screen for maternal depression, raising awareness of maternal depression through patient education in maternity programs and offering access to nurse case management during the postpartum period could have a substantial impact on the number of maternal depression diagnoses. Early and appropriate identification would aid in the prevention of further complications and unnecessary costs.<sup>34</sup>

- **Encourage pediatricians to support families as part of their role providing health care to children.** The American Academy of Pediatrics Bright Guidelines includes question and anticipatory guidance that health care professionals can use to assess parental (maternal well-being). Specific questions are provided to assess depressive symptoms and are tailored for use at prenatal, newborn, first week, one-month and two-month visits.<sup>35</sup>
- **State and federal support for maternal depression screening and treatment.** Federal and state governments can raise awareness about maternal depression and implement efforts to increase the availability of screening and treatment. Several states have passed laws mandating screening or education in order to improve depression screening and treatment. In 2006, New Jersey became the first state to pass a law mandating universal screening education and referral for postpartum depression.<sup>36</sup>
- **Philanthropic involvement can often strengthen an issue.** Foundations often receive immediate attention and secure buy-in from key policymakers and decision makers than their government counterparts. Having some influence with higher-level individuals and other key power brokers allows foundations to move processes more quickly than governmental agencies. Funders should (and often do) come in at the highest levels to get initiatives and processes going. Funders can often serve as conveners to bring together the right entities to get work done, build partnerships and promote awareness and advocacy of maternal child health issues.<sup>37</sup>

## Summary

Maternal depression is a serious public health issue with devastating social and economic consequences for mothers, their children and families. To reduce the incidence of maternal depression, early identification and treatment is necessary. This will challenge patients, providers, and states, since many have yet to develop or mandate standard guidelines to benefit women with maternal depression. Strengthening systems of care for women with maternal depression will require cross-collaboration and coordinated efforts from many stakeholders including policymakers, public and private funders, universities, communities and community-based organizations to ensure that diagnosis and treatment successfully advance. Best practices, such as Doula services, Nurse-Family Partnership programs and innovative quality improvement initiatives have shown promise in effectively addressing maternal depression.

The Highmark Foundation has used grant making to invest in organizations to improve access to programs that provide services to underserved women and their families. These programs have the potential for replication as best practices beyond their respective communities and to other populations. With grants, these organizations have raised awareness, increased knowledge, reduced health disparities, improved the social and physical determinants of maternal health, positively changed behaviors and gained a better understanding of how to manage and treat maternal depression.



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- <sup>17</sup> Ibid.
- <sup>18</sup> Doula's provide support to a woman and her partner or support system throughout the childbearing year. Doula's can serve as a source of information during pregnancy, labor and birth. Doula's do not provide medical advice or services. Nurse-Family Partnership is an evidence-based maternal and early childhood health program that fosters long-term success for vulnerable first-time moms, their babies and society.
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