



ZERO TO THREE  
RESEARCH TO POLICY PROJECT:

**Maternal Depression  
and Early Childhood  
FULL REPORT**

April 2011

Children's Defense Fund  
MINNESOTA

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The Children’s Defense Fund Minnesota Zero to Three Research to Policy Project is part of the Minnesota Community Foundation’s Project for Babies. Contact Marcie Jefferys, Policy Development Director at [jefferys@cdf-mn.org](mailto:jefferys@cdf-mn.org) or 651-855-1187 for more information.

# Executive Summary

## Key Research Findings

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Research across a variety of disciplines is illuminating the pathways through which people arrive at well-being in adulthood. Increasingly, the research is pointing to the importance of the earliest years of life as the foundation for all that follows. A major area of research is the impact parental mental health, especially maternal depression, has on very young children.<sup>1</sup> Both mothers and children suffer when depression is unaddressed.

Depression raises stress hormones to toxic levels in both mother and child and can affect mothers' capacity to nurture and meet their children's basic care needs. It may have lifelong consequences for the child's relationships with his or her parents and others in their lives. If not addressed, children of depressed parents are more likely to fall behind their peers across an array of developmental areas, including cognition, social—emotional, physical and mental health. They are at higher risk for needing special education in school, being involved in juvenile justice in adolescence and developing mental health and health problems in adulthood.

Research is also determining that maternal depression can be effectively treated or prevented, and its impact on children lessened or averted, if it is identified and addressed early. To be most effective, it must embrace a two-generation approach that attends to the mother-child relationship, as well as the mother's mental health and the child's development. Research is also determining the critical role other adults can play in an infant's development, including paternal depression and child care providers' depression. Many system barriers exist to families obtaining needed services, especially lack of health insurance, culturally appropriate services and problems finding or getting to services.

There are buffering factors that can reduce the impact of maternal depression on young children, including family financial security, involved and engaged extended family members and parents with more education.

## Implications for Minnesota

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Approximately one in ten new mothers in Minnesota experiences serious depressive symptoms in the year of her child's birth. This translates to approximately 14,000 mothers and newborns in 2009 experiencing the consequences of depression. While women at all income levels and backgrounds experience maternal depression, some women are more at risk than others including those with a history of depression and those who are poor, single, or young.

In Minnesota, women at highest risk are those with incomes below \$15,000, African American or American Indian women, or those with less than or equal to a high school degree. Families in the state's public assistance programs are particularly at-risk for experiencing the negative impact

of mental health disorders. Forty-four percent of the caregivers in MFIP families had a diagnosed mental health disorder in the last three years; 53% of caregivers in MFIP child-only cases have a diagnosed mental health disorder. This high rate of mental illness—most often depression—combined with the large number of children under three whose families receive MFIP means that many of the children most at-risk of experiencing developmental delay could be identified and served through early intervention programs in a cost-effective manner.

Maternal depression in early childhood exacts not only high personal but also high public costs. It is estimated that the annual cost to society of each untreated mother with maternal depression in Minnesota is at least \$23,000. State spending, however, is heavily tilted away from prevention and early intervention services. Instead, most public funds are spent on deeper-end services, provided after problems that could have been averted have developed. For instance, twelve percent of the education budget is spent on special education, compared to less than 1% on early intervention services. Some state policies, such as the freeze on assistance for families with newborns, likely exacerbate the strains that lead to depression.

## Current Policies and Options

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### **To Reduce the Incidence and Impact of Maternal Depression on Early Childhood**

There is growing awareness of the importance of early childhood in Minnesota, and the impact of parental mental health on children's well-being. Multiple planning and study efforts are underway involving representatives from a wide range of interests and groups. Child advocates, policy makers, program administrators, researchers and providers across a wide range of programs and services are increasingly calling for more attention to the early years in a child's life.

A review of research and program evaluations suggests that to continue this momentum and effectively reduce the incidence of maternal depression and its impact on Minnesota, the following elements should be in place:

- Public awareness of the symptoms of maternal depression and ways to get help,
- Effective early identification of those at risk through screening & referral practices in both health and non-health care settings,
- A two-generation approach to services that addresses the whole family, especially mother and child,
- Policies that reduce financial stress on families,
- A statewide vision and strategic plan that cuts across state agencies and policy silos to provide a coordinated approach to holistically addressing these issues, and
- A system of information collection and reporting that informs practice at the client level and planning and accountability at the state level.

Minnesota has parts of an effective response already in place. This includes requiring health care providers to give new families information about maternal depression and how to get help, reimbursing health care providers in the state's public health care programs for depression screening during well-child check-ups for infants up to age one, and reimbursement for developmental screening of children. The state also has many early childhood, adult and children's mental health programs and experience with pilots demonstrating the effectiveness of early intervention and services for children at risk of not being ready for school. Requirements are already in law for assuring some of the most vulnerable children—that is, children who have been determined to have been abused or neglected—are referred for and can receive early intervention services and many individual providers are making strides in incorporating attention to parents' mental health in early childhood programs, or in addressing children's well-being in programs targeted primarily to their adults.

However, none of these efforts are implemented fully or statewide. Children of parents with some of the highest rates of depression—those in families participating in the Minnesota Family Investment Program—are nearly invisible in that program. Adult mental health services rarely incorporate attention to children in their intake, treatment and discharge planning. Few data are available on the extent to which screening and referral for more assessment or treatment occurs, especially within the health care system. Those most at risk for experiencing depression (such as women of color and low income mothers) are least likely to report they received information about maternal depression as part of their pre or postnatal care. At the state level, data and responsibility for the programs and issues that affect programs and policies in maternal depression and early childhood are spread across three state agencies with few institutional supports for collaboration. No entity is specifically charged with reducing maternal depression and its impact on early childhood.

An effective response at the policy level must encourage and support a philosophical shift to a more holistic, two-generation perspective. Policies should recognize that many adults struggling with mental health issues are also raising children, and many of the children falling behind their peers are being raised by parents challenged by mental health and associated issues. This means increased collaboration and communication across programs, public agencies and disciplines.

To assure depression can be identified and effectively treated early, all new mothers and their infants need uninterrupted access to health care until the child reaches at least age 2. Other options include ensuring young children of parents who are depressed are eligible for and receive early intervention and other preventive services such as Help Me Grow, Early Head Start, quality child care, and home visiting.

A long-term solution for reducing the incidence of depression includes addressing the broader context within which depression occurs. The significant role that the emotional and financial strains of poverty impose should be considered in reviewing state policies. Options include improving the capacity of the MFIP program to support poor families as well as reviewing other economic policies, such as unemployment insurance and minimum wage, to help more families move out of poverty.

Steps to improving Minnesota's response include a strategic plan that addresses the multiple agencies and policies that affect these families, improved data for planning, practice and tracking purposes and clear points of responsibility for overseeing the state's response.

Virtually all parents in Minnesota want what is best for their children. Maternal depression is an avoidable barrier that sometimes gets in the way of parents capacity to obtain that for their children. Part I of this report summarizes the major research findings on maternal depression, its effects on children, current treatment and related policies. Part II applies the research to Minnesota and looks at issues specific to the state's population. Part III sets out the components of an effective response in more detail including the state's current policies and practice, promising pilots and best practice in Minnesota and other states, and specific options to improve the state's response.

Despite depression's negative impact on children and its sustained individual, family and societal costs, "it is perhaps one of the most effectively treated psychiatric disorders, if recognized and treated early in its onset."<sup>2</sup>

—National Research Council and Institute of Medicine

# Part I. Research Findings in Maternal Depression and Early Childhood

*The information below is based on summaries and studies published in peer-reviewed scientific journals, research institute briefing papers, program evaluation reports, state survey and program data, and presentations from and conversations with Minnesota experts and practitioners. It represents just a small portion of the available research.*

## Finding #1

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**State survey data indicate that approximately one in ten new mothers in Minnesota experiences major depressive symptoms within the first year of her baby’s birth. This is consistent with national research estimates, and represents approximately 15,000 Minnesota mothers and infants experiencing the effects of maternal depression each year.**

Maternal depression refers to depression that occurs during motherhood, which is a time of increased vulnerability to psychological stress. Depression can develop in the prenatal period (i.e., during pregnancy), during the postpartum period (generally up to one year after birth) or in the following months and years. Depression that occurs during pregnancy or in the first year after delivery is referred to as perinatal depression.

For a new mother, the “drive, energy and enjoyment needed to build and maintain positive family relationships recedes.”<sup>3</sup> If unaddressed, it is more likely to recur. The symptoms of perinatal depression are generally the same as those for depression occurring at other times in life. These symptoms include low mood, feelings of guilt and worthlessness, irritability, difficulty concentrating, loss of energy, anxiety, sleep and appetite disturbances, and, in more severe cases, hopelessness and suicidal thoughts.<sup>4</sup> Providers who work with mothers observe that the additional strain and fatigue accompanying caring for a newborn and the hormonal changes accompanying childbearing give postpartum depression some unique qualities.

“In the context of parenting, depression can be defined as a combination of symptoms that interfere with the ability to work, sleep, eat, enjoy and parent and that may affect all aspects of work and family life...”<sup>5</sup>

—National Center for Children in Poverty

Depression can be mild, moderate or severe. Perinatal depression of any severity affects children. It is different from the “baby blues,” a non-pathologic condition that affects up to 80% of all new

mothers and often includes tearfulness, fatigue, insomnia and a feeling of being overwhelmed. While the baby blues typically resolves within two weeks, approximately 10%–20% of women continue to have symptoms of depression for weeks or even months.<sup>6</sup>

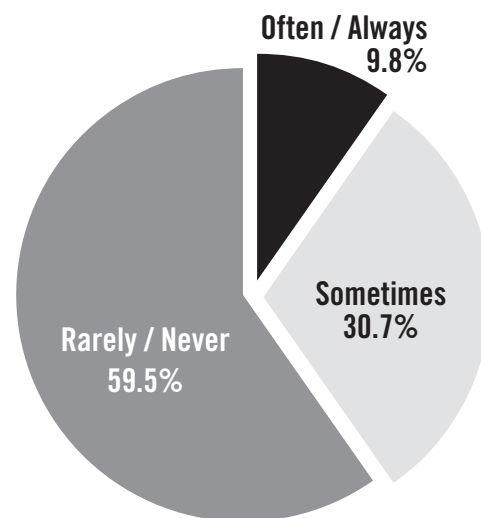
The chart below shows how an annual sample of new mothers in Minnesota, on average three and a half months after their baby's birth, responded to two questions often used to screen for depression: Since your new baby was born, how often

- (1) have you felt down, depressed or hopeless, and
- (2) have you had little interest or little pleasure in doing things?

Based on the PRAMS rates, out of approximately 70,000 births in 2009, 2,300 women felt depressed, hopeless and have little interest in doing things all or almost all of the time. Another 5,000 feel down or depressed or have little interest in doing things “often or always.” More than 20,000 new mothers feel this way sometimes in the year following their child's birth.

Other mental health disorders that can occur around a baby's birth with serious consequences for mother and child include severe anxiety, obsessive-compulsive symptoms, and post-traumatic stress reactions, sometimes triggered by a difficult birth or past or present interpersonal violence. These conditions can occur simultaneously with depression.<sup>8</sup> Postpartum psychosis, which requires immediate treatment, occurs in approximately 1–2 out of every 1,000 births, usually within two weeks after birth. Mothers experiencing postpartum psychosis may experience delusional beliefs or hallucinations instructing them to harm themselves or their babies. Without effective intervention, this small group of very high risk mothers may kill their babies and commit suicide as well.

### Minnesota Mothers Reporting Depression Symptoms, 2008



Data Source: Minnesota Department of Health, PRAMS, 2010.<sup>7</sup>

... the best available evidence suggest[s] that perinatal depression, whether major or minor depression, is a very common complication of pregnancy. Furthermore, and arguably more important, after labor and delivery this dramatically common complication, rather than primarily affecting one individual, now directly affects two: mother and child.<sup>9</sup>

—RTI-University of North Carolina  
Evidence-Based Practice Center

A growing body of research is documenting that some fathers also experience depression around their child's birth that can negatively impact their children's development.<sup>10</sup> Rates of paternal depression are similar—approximately one in ten. It is generally under recognized, despite the substantial impact it can have on families. Fathers are somewhat more likely to be depressed when mothers are also depressed. The mental health of other significant people in children's lives can also impact their well-being. Child care providers in low income and non-subsidized child care centers are also more likely to suffer depression than other women, with negative implications for the children in their care.

## Finding #2

### **Some mothers are much more at risk for experiencing depression than others, due to complex interactions of biological, genetic, interpersonal and life circumstances.**

Women with a personal or family history of depression or other mood disorders are at higher risk for experiencing maternal depression.<sup>11</sup> Reflecting the multi-generational effects of depression, many depressed parents were raised by depressed parents. In those who are vulnerable, major life stressors, including the trauma of a difficult birth or the challenges of caring for a newborn, can trigger depressive episodes.

Also at higher risk of experiencing maternal depression are women with limited social support, including poor, single, and young mothers. Maltreatment in childhood also increases the risk for developing major depression. These risk factors combine and interact to multiply the odds of being depressed.<sup>12</sup>

PMD [Perinatal Mood Disorder] is referred to as a biopsychosocial problem. Biologically, hormones seem to play a part in the onset and presentation of the illness. Sometimes women can develop a thyroid problem postpartum, or may have a genetic predisposition to depression. Neurochemically, it appears that women with PPD suffer from a neurochemical imbalance, most often involving the neurotransmitter serotonin. Psychosocial issues are also important. These include the new infant-mother relationship, changes in the marriage, impact on other family members and career and work issues.<sup>13</sup>

From the State of New Jersey, “Speak Up When You’re Down” public education website

As the data in the table below indicate, many of the women most at risk can often be identified before they give birth.

### **Risk of developing Postpartum Depression or Other Mood Disorders<sup>14,15</sup>**

All women	10–20%
History of major depression	30–50%
Depression during pregnancy	50%
History of bipolar disorder	50%
History of postpartum psychosis	80–90%
Low-income status	40–60%
Teen parenthood	40–60%

Sources: Helen Kim, 2010; National Center for Children in Poverty, 2008

## Finding #3

### A strong association between poverty and depression exists in the U.S., as well as globally, although women at all income levels experience depression.

Depression is often viewed as a “disease of poverty.”<sup>16</sup> Poverty often brings with it many other challenges including social isolation, economic and educational disadvantage, intimate partner violence, poor health and problems with anxiety or substance abuse. Heightened levels of the stress hormone cortisol, which is associated with depression, are also found at high rates in people living in poverty.<sup>17</sup>

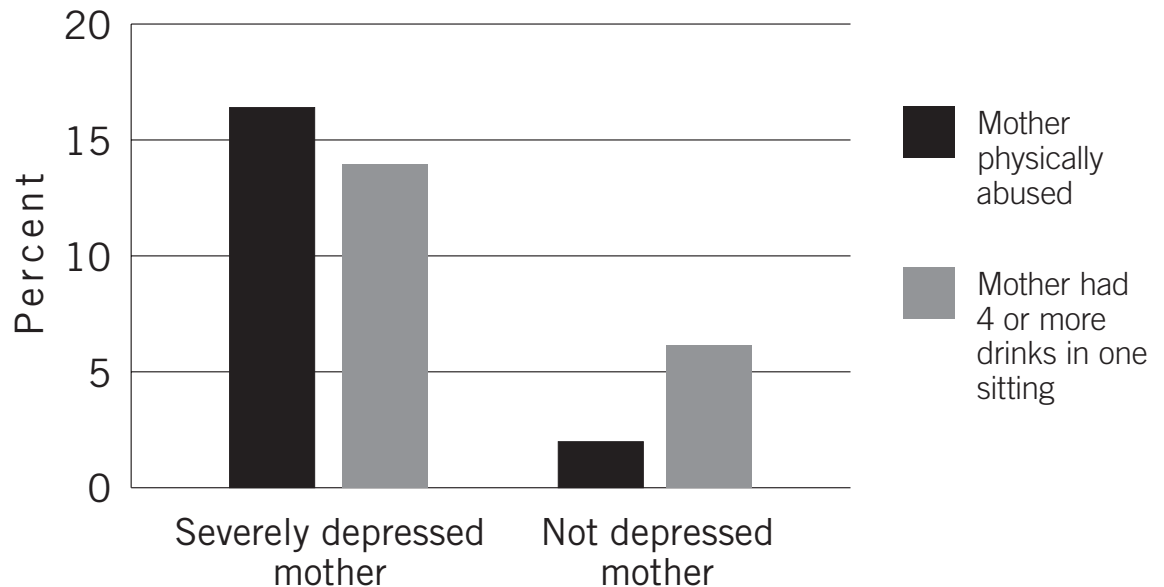
Poverty and depression have “bidirectional effects.”<sup>18</sup> The stress of living with food insecurity in substandard housing and unsafe neighborhoods can trigger depression; and depression can make it harder (psychologically and materially) for people to cope or find their way out of these circumstances.

“Low socioeconomic position is the source of a host of chronic stressors.”<sup>19</sup>

—National Research Council and Institute of Medicine

Depression often co-occurs with substance abuse, as parents try to “self-medicate,” and is more frequently observed in women experiencing intimate partner violence. One study of families in poverty found that mothers who were poor, physically abused and severely depressed were more likely to abuse alcohol than poor mothers who were physically abused and not depressed (see chart below). Like poverty, substance abuse and family violence are associated with social isolation. These factors compound the negative impact of maternal depression and economic deprivation on adults and children.

### Nine-Month-Old Babies Living in Poverty More Likely to Experience Additional Risks when Mother Is Depressed



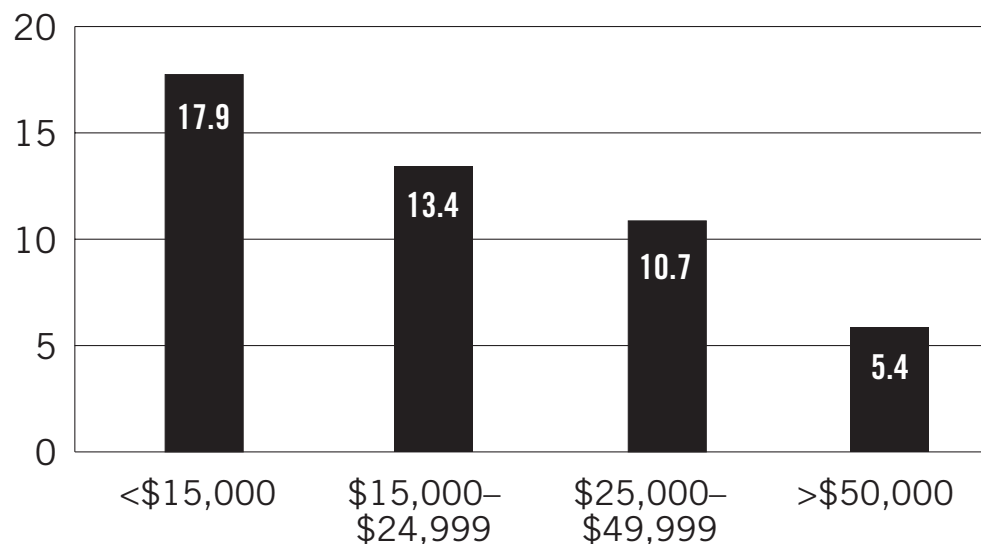
Source: Urban Institute, 2010<sup>20</sup>

Many low income women view depressive feelings as just “part of everyday life.”<sup>21</sup>

—National Center for Children in Poverty

In Minnesota, the annual survey of new mothers (PRAMS) consistently finds a close relationship between income and maternal depression. Mothers with annual incomes less than \$15,000 report severe depression symptoms at more than three times the rate of mothers with yearly incomes of \$50,000 or more.

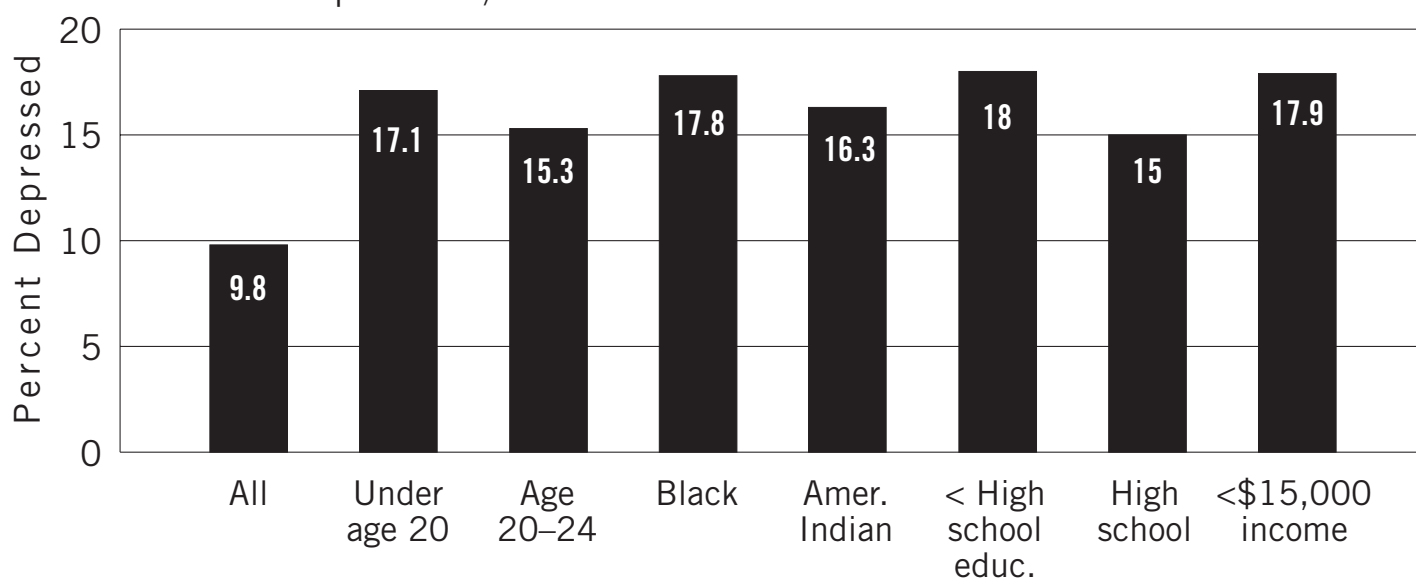
### Postpartum Depression by Income, Minnesota 2008



Source: Minnesota Department of Health, 2010<sup>22</sup>

Depression during or after pregnancy is associated not only with low income, but also with being a young mother, being African American or American Indian, and/or having a high school education or less. Women indicating they were of “Hispanic origin” in the survey were more likely to report depressive symptoms than white mothers (12% vs. 8%) but were substantially less likely than African American (18%) or American Indian (16%) mothers to report depressive symptoms.<sup>23</sup>

### Demographic Groups Reporting the Highest Rates of Postpartum Depression, Minnesota 2008



Source: Minnesota Department of Health, 2010<sup>24</sup>

It is important to note, however, that most low income mothers are not depressed, and many children raised in poverty successfully overcome their odds. The fact that “the majority of people living even in squalid poverty remain well, cope with the daily grind of existence and do not succumb to the stressors they face in their lives...[is]...the real challenge for public health researchers; to identify the protective qualities in those who do not become depressed when faced with awful economic conditions.”<sup>25</sup>

More education and social support are two of the major factors observed to decrease the likelihood of depression in poor mothers in the U.S. and other countries.<sup>26</sup> Some cross-cultural research indicates that maternal depression is less prevalent in societies with more extended families and more supportive birthing practices. Children can be buffered from the effects of poverty if the maternal-child attachment is strong.<sup>27</sup>

## Finding #4

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### **Depression diminishes parents’ ability to nurture their infants.**

Mothers who are depressed have a harder time responding to their infants’ cues and cries for attention in a nurturing manner. This is hard on both the mother and the newborn. Depressed mothers may withdraw emotionally from their infants and be unresponsive to their baby’s cries or smiles. They may fail to return their newborns’ gaze and take little pleasure in their babies, instead misreading or ignoring their infants’ cues, and over- or under-stimulating their babies in response.<sup>28</sup> Depressed mothers are also less likely to read books, sing songs or tell stories to their children.

Some depressed parents react irritably or in a hostile manner for prolonged periods of time to their children. They may be easily provoked to anger, lack empathy and demand reactions that their children are developmentally incapable of producing. These parents may express negative attitudes toward their babies, for instance, attributing anger to their infants’ cries or labeling their babies as “bad.” Some depressed parents exhibit both patterns of parenting, responding in ways unpredictable to their infants.<sup>29</sup>

Depression can also impair a parent’s ability to fulfill the “management functions” of parenthood. Mothers experiencing depression are less likely than nondepressed mothers to breastfeed, follow safety practices (e.g., put children in proper car seats, or cover electrical sockets), follow preventive health advice for their children or adequately manage their children’s chronic health conditions such as asthma. In turn, the additional care burden caused by low birth weight and other birth complications that occur more frequently in births to depressed mothers can also overwhelm depressed mothers once their children are born, resulting in higher medical neglect and abuse rates for these children.<sup>30</sup>

A national longitudinal study of families involved in child protection found high rates of depression and “high levels of clinical need.” Over a five-year period, 46% of the parents of young children involved with the child welfare system reported depressive symptoms. Many caregivers reported recurring depression. Domestic violence was highly correlated with depression in these families.<sup>31</sup>

The research on fathers experiencing depression after their child’s birth also shows negative interactions between parent and child. Depressed fathers were more likely to spank their one year old children and were less likely to read books to them.<sup>32</sup>

For some children, growing up with a depressed parent means a childhood of negative and unpredictable parental behaviors, irritability, and inconsistent discipline, frequently accompanied by heightened marital conflict. It can also mean less supportive parental behaviors-less warmth, praise, nurturance and mentoring.<sup>33</sup> For adults, it means a diminished capacity to enjoy parenting and family life.

## Finding #5

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### **The harmful effects of unaddressed depressed parenting can compromise children’s healthy development at several points, starting before birth. The effects are transmitted biologically and environmentally and result in high personal and public costs.**

The impact of maternal depression is especially great prenatally and during early childhood. These are periods of especially rapid brain growth as the neural circuitry in the brain is being developed in a step by step progression.<sup>34</sup> It is during these years that children are most dependent on their caregivers. They begin to learn how the world works from their parents’ responses.

Maternal depression and anxiety is a stronger risk factor for child behavior problems than smoking, binge drinking and emotional or physical domestic violence.<sup>35</sup>

—National Center on Children in Poverty

Babies of depressed mothers are more than three times as likely to be born prematurely, and four times as likely to be born at low birth weight or with birth complications.<sup>36</sup> This is due to both the high levels of stress chemicals produced by their mothers, and poorer self-care during pregnancy.<sup>37</sup> Before they are born, their mother’s heightened cortisol levels can affect the development of their stress response and immune system. After birth, they may continue to have high cortisol levels with lifelong effects, including higher rates of chronic diseases in adulthood as a result of damage to multiple organs and systems from heightened cortisol levels.

In infancy, the toxic stress levels in both mother and baby may also make their relationship more challenging. “Difficult” babies whom mothers have a hard time consoling often exacerbate maternal depression. These babies, in turn, are more vulnerable to the effects of depressed parenting.

The dynamics of depressed parenting can also be observed behaviorally. Nurturing parents let babies know someone will respond when they are upset and need comforting, or are hungry and need food. Parents who respond appropriately to their young children confer “predictability, stability and a sense of security from which the infant gradually learns emotional and behavioral self-regulation.”<sup>38</sup>

Infants and toddlers whose parents are depressed, however, often fail to get these supportive messages. In response to a mother’s hostility or indifference, an infant may turn away “to limit her intrusiveness and internalize activity.”<sup>39</sup> As a result, the infant may be less likely to develop the confidence necessary to explore and learn through his or her environment.<sup>40</sup> Because their mothers do little to support their early attempts at exploring and communicating, they are “unable to cope” and become passive and withdraw. Some exhibit signs of clinical depression as early as preschool age.

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Children of depressed parents are at “great risk for depression and maladjustment in academic, social and intimate roles ...”<sup>42</sup>

—National Research Council and Institute of Medicine

During their school years, these children often have “poorer mental, motor, and language skills development, less capacity to concentrate; fewer abilities across a broad spectrum of emotional skills; more negative response to their environment; and more behavioral difficulties than children of nondepressed mothers.”<sup>43</sup> They are more likely to exhibit attention and hyperactivity disorders during grade school and their pattern of interacting negatively with others may escalate.<sup>44</sup> In addition, they more frequently exhibit aggressive behavior, and have higher rates of asthma, and tobacco and substance use than children of nondepressed parents. Chronic maternal depression even predicts cardiovascular problems in adulthood.<sup>45</sup>

## Potential Impact of Maternal Depression On a Child’s Development<sup>46 47 48</sup>

	<b>Newborn</b>	<b>Infancy</b>	<b>Toddlerhood</b>	<b>Later Childhood</b>	<b>Adolescence</b>
<b>Examples of Elevated Childhood Risks</b>	Low birth weight Preterm birth complications	Difficulty self-soothing Impaired parent-child attachment	Behavior problems Emotional problems Delayed development of language	Learning difficulties Conduct disorders Vulnerability to depression	Depression Anxiety disorders Substance abuse Learning disorders

Sources: Canadian Pediatric Society (2009), Oregon Department of Human Services (2010), National Center for Children in Poverty at Columbia University (2008)

A variety of longitudinal studies have confirmed the greater likelihood that children with early childhoods characterized by poverty and associated experiences, including parental depression, will be involved in increasingly costly interventions through their life course. This includes out-of-home placement, welfare, special education, and juvenile justice. A large-scale study of Kaiser Permanente health plan enrollees found that adults who had experienced seven or more adverse childhood experiences were more than three times as likely to develop range of physical health problems, including chronic diseases such as cardiovascular disease, diabetes and cancer.<sup>49</sup>

It is important to note, however, that the research on maternal depression also underscores the importance of considering the financially impoverished circumstances in which many children of depressed parents grow up. Although the relationships between depression and child development, and poverty and child development have been studied, the associations among these factors and their interactions are less well-understood. Research does indicate that some factors can protect children from the potential harmful effects of their parents’ depression. These protective factors include favorable family financial circumstances, exposure to fewer episodes of maternal depression, and being older at the onset of their mothers’ depression.<sup>50</sup>

Because of the role these other factors play in determining the impact of depression on children and families, researchers caution that the effectiveness of treatment for depression may be diminished if parents continue to live in stressful situations, such as poverty, that exacerbate or prolong depression.<sup>51</sup>

Despite the documentation of these problems for children of depressed parents, researchers caution that because maternal depression often occurs in the context of poverty, domestic violence and social isolation, “the relationship between depression and parenting is complex and needs to be considered in the context of a larger set of moderators and mediators, especially including other parental characteristics and the role of stress and social support.”<sup>52</sup>

—National Research Council and Institute of Medicine

## Finding #6

### Effective services view maternal depression through a two-generation, parent-child relationship lens.

Practitioners who work with expectant and new parents report that the birth of a child presents a unique window of opportunity for change. During that time, parents are often highly motivated to accept help for their child's sake.<sup>53</sup> This is encouraging because depression is a "highly treatable disease."<sup>54</sup> Up to 80% of women who receive treatment are helped.<sup>55</sup> Women are most often treated with medication, psychotherapy, support groups or some combination of services.<sup>56</sup> Most of these interventions, however, do not address the adult as a parent and do not actively include strategies to prevent or repair damage to the parent-child relationship. Most interventions also stop far short of addressing the broader circumstances in which families live, and the impact of systems that fail to address or even increase stress on families with few supports.

Treating only the mother often isn't sufficient to help her child. While some studies report substantial improvement in child functioning after mothers are treated, others report many children still exhibiting problem behaviors.<sup>57</sup> If not identified and treated early, negative parent-child patterns of interactions may be established and persist despite the mother's treatment. These "detrimental patterns of parenting and developmental processes" may become increasingly difficult to change as time passes.<sup>58</sup> Negative patterns of interaction may also be carried into interactions with other adults resulting in school behavior problems and difficult relationships in adulthood.

Depression treated in the context of a two-generation model helps parents with their parenting skills and their depression, and also offers enhanced support for the children.<sup>59</sup> Treatment begins by identifying those at risk or already showing its effects. Because ninety-nine percent of babies are born in a health care setting, and 84% of mothers receive some prenatal care, most current efforts to identify depression in mothers or developmental delays in children focus on health care providers as the primary gateway to treatment.<sup>60</sup> (Research also suggests that health care settings-especially well-child visits-may also be an appropriate setting to identify fathers experiencing depression. This is because the majority of fathers in one study had attended a well-child visit and talked with their child's health care provider.<sup>61</sup>)

Studies have determined that standardized screening tools (e.g., self-report questionnaires) are more effective at correctly identifying depression than relying on physician judgment alone. Several scientifically validated screening tools exist although even short questionnaires containing two or three questions have been found to enhance clinicians' ability to recognize depression.<sup>62</sup>

Not all practitioners screen mothers for depression, though, because "the paths to further care [are] not clear and accessible."<sup>63</sup> Furthermore, a connection is often not made between a mother's positive screen for depression and her child's well-being. Similarly, the connection is not often made between developmental delays detected in children and possible depression or other mental health disorders in his or her parent.

"Despite the promise of screening programs, current approaches to parental depression screening have not been integrated with assessment of parental function or child development."<sup>64</sup>

—The National Research Council and Institute of Medicine

Estimates vary, but most parents with depression go untreated. One estimate is that only 15% of depressed mothers obtain professional care.<sup>65</sup> Two-thirds of new mothers in Minnesota reported they did not get counseling or help for a variety of problems they experienced during pregnancy or after birth.<sup>66</sup> A national study looking at mothers in some of the highest risk groups found less than one-

third of severely depressed mothers of nine month olds were seeking mental health treatment.<sup>67</sup>

Reasons for the low rate of women accessing treatment are many. Women or their health practitioner may not recognize their depression. They may not have adequate insurance coverage or they may have difficulty accessing treatment due to the realities of living in poverty (poor transportation, lack of child care to participate in treatment or inadequate local mental health resources) or with domestic violence. Many low-income mothers, especially those from communities of color, distrust the mental health and health care system, and fear that if they are not seen as good parents, “child welfare will come and take their children away.”<sup>68</sup>

Concerns have been raised about the lack of culturally appropriate mental health services for immigrants and people of color, and the stigma that surrounds mental illness that often discourages help-seeking. Although most practitioners believe depressed parents want what is best for their child, the bidirectional effects of poverty and depression often make it difficult for poor parents to take the initiative necessary to obtain care, especially in a system that contains multiple financial, eligibility and cultural barriers to access.

Many professionals working in the field believe it especially important for children of depressed parents to receive stimulation in or outside of their home for a few hours each day so they can interact with adults and other children who are not depressed. These are the children who often show the biggest gains when provided early intervention services and care in high quality child care settings.<sup>69</sup>

Parents with severe mental illness and few resources face substantial challenges and often receive little help with their parenting. As a result, they lose their children to foster care or permanently have their parental rights terminated at a high rate, even when they might have been able to adequately care for their children given sufficient support.<sup>70</sup>

# Part II. Implications of Research for Minnesota Policy

## Implication #1

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**At least twenty-two thousand young children in Minnesota live with a mother who experienced serious symptoms of depression at some point during the critical first three years of life.<sup>71</sup> Even more children are affected when those who are living with fathers or other relatives or receiving child care from depressed adults are considered.**

Most of these families have not received help. In Minnesota, two-thirds of the women who reported they needed counseling for family or personal problems during their pregnancy did not receive it.<sup>72</sup> This has implications for their children's development and future well-being, the state economy and society.

## Implication #2

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**Much current spending can be tracked to public systems' failure to intervene early to prevent adverse early childhood experiences. It is estimated that the yearly two-generation cost to Minnesota's economy of not treating each mother with maternal depression is at least \$23,000.<sup>73</sup>**

The estimated annual cost of not addressing mothers' depression is at least \$7,200, based on lost income and productivity due to their depression. The annual costs of untreated maternal depression per child is \$15,000, based on the quantifiable costs of births to a mother with depression including preterm delivery, lower birth weight, and reduced future income due to delayed brain development, higher risk of death. Although only a small minority of children with adverse childhood experiences ends up in the criminal justice system, they are more likely than other children to do so and those costs are included in this estimate. In addition, the annual lost tax revenues from both mother and child as a result of the effects of depression are estimated at nearly \$400. Some of the effects of maternal depression, including a greater likelihood of needing special education, and chronic health care costs (including depression) in adulthood cannot be quantified, due to lack of data. As a result, cost-benefit analyses using \$23,000 as the cost of untreated maternal depression will underestimate the benefits of treatment.

## Implication #3

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**Much current state spending can be tracked to early childhood experiences. Approximately one-fourth of the state budget is spent on special education, public safety, welfare, county social services and Medical Assistance basic health care for families. Another almost one-fifth of the budget is spent on long term and basic health care for people with disabilities and the elderly, some of which can be tracked to inadequate prenatal care and adverse early childhood experiences.**

Some spending for these services is inevitable (e.g., children born with Down's syndrome), but many of the conditions requiring special education (learning disabilities, speech and language delays, mild hearing loss, and social-emotional and behavioral maladjustment) could have been prevented or ameliorated with early intervention.<sup>74</sup> Even those children born with conditions with very high rates of developmental delays such as Down's Syndrome benefit from early intervention services, and can become more independent and reduce their need for more intense assistance as they age.

Spending on programs affecting children is currently skewed away from prevention and early intervention, going instead for "deep-end" services, provided after problems have developed and worsened. Special education makes up 12% of education spending, for instance, while early childhood programs represent 1% of that budget.<sup>75</sup> Similarly, in the child welfare system, more is spent to care for children removed from their homes than to safely keep families together. Furthermore, prevention-oriented programs are often the first to be cut to balance budgets.

The 2009 State Budget Trends Commission predicted that if spending on health care is not restrained over the next decade, it will use up nearly all of the future projected growth in state revenues, leaving little room to address issues in the rest of the state budget.<sup>76</sup> Although it is not possible to quantify the exact contribution of adverse childhood experiences to projected health care costs, the available research suggests it is a major contributor to current and projected liabilities.<sup>77</sup>

## Implication #4

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**Caregivers in families receiving MFIP, already struggling with incomes far below the poverty line, also have high rates of mental health diagnoses. Both the MFIP and child welfare programs serve many families with young children. This means that many of the children and families who are most likely to benefit from preventive and early intervention could be identified through their participation in public programs.**

Seven out of ten MFIP recipients are children, and children under age three are over-represented in both MFIP and child welfare caseloads. Nearly one-fourth (24%) of children in families receiving MFIP are under age 3.<sup>78</sup> More than one-fourth (28%) of the children reported as maltreated in the child welfare system are under age 3.<sup>79</sup> Nearly half of these children are living with caregivers with serious mental health issues and poverty.

- Forty-four percent of the families receiving MFIP in 2009 had a caregiver who was diagnosed with a serious mental health condition in the prior three year period-four times the rate found in the rest of the Minnesota population.<sup>80</sup> Professionals in the field believe the number is higher but the stigma and difficulty many MFIP recipients experience obtaining care reduces the number actually receiving a diagnosis.
- Fifty-three percent of the caregivers in child-only MFIP<sup>81</sup> cases receiving disability payments (SSI) had a serious mental health diagnosis.<sup>82</sup>

- A large scale pilot project in Minnesota working with families reported to Child Protection but screened out (i.e., not investigated for possible child maltreatment) found a high rate of very poor families—61% had incomes below \$15,000<sup>83</sup>—putting them at high risk for depression.

Data from some state pilot projects and special reports confirm that many of the children in MFIP families are already exhibiting developmental and other delays.

- 61% of the children (3 months to 5 years) screened as part of a pilot project scored positive for possible cognitive, emotional or behavior delays.<sup>84</sup>
- Three times as many children in MFIP child-only relative care as other Minnesota children have social, emotional or behavioral disabilities.<sup>85</sup>
- Thirty-nine percent of children in out-of-home care in 2007 were identified as having a disability. Emotional disturbance and developmental delays are the most common disabilities.<sup>86</sup>

Children screened by home visitors serving low income families (200% FPL or lower) also found high rates of delays.

- One-third of children screened in 2009 were not meeting developmental milestones; 12% were not meeting social-emotional milestones.<sup>87</sup>

## Implication #5

**The state is not taking full advantage of the opportunities suggested by these data to target prevention and early intervention efforts. As a result, thousands of parents and their infants each year are unnecessarily experiencing the avoidable effects of depression.**

Although the occasional studies cited above suggest a high rate of parental mental health concerns and associated low rates of child well-being in families receiving MFIP or involved in the child welfare system, the state does not collect and report these data on a regular basis. Similarly, little is known about these families' involvement in programs intended to prevent or address their risks for developmental delays, e.g., early childhood programs or services, or their "outcomes," such as readiness for kindergarten or graduation from high school.

At an aggregate level, state data confirm that children from high risk groups (i.e., low income) are less ready for kindergarten than other children, and that the gap between them grows as they age.<sup>88</sup> However, this information is not used systematically by state systems at an individual child or family level to develop plans to help families, even though many programs exist in the state with documented effectiveness in preventing or averting developmental delays in children at high risk for poor childhood outcomes. This suggests that thousands of children and their families who are vulnerable to maternal depression and its impact could be identified within the state's database and offered services to improve their child's school readiness.

In addition, there is little information at the policy level to guide legislators and others regarding the effectiveness of the state's efforts or to point to future action.

Minnesota has many resources that could be used to help these children and their families, and avert future public expenditures. However, as discussed more fully in the next section, the state has generally failed to bring its successful pilots to scale or taken full advantage of federal funds. The service system is still highly fragmented and "silo" based (reflected in the administration at the state level), and there is still a general lack of awareness of depression's effects and its treatment among the general populace and many of those working on the front line of the social services, health and

mental health care systems. Minnesota is not moving as fast or as far as some other states have in ensuring that its youngest citizens who are most vulnerable to the negative impact of their mothers' depression receive help early on.

## Implication #6

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**This is a good time to change the trajectory of state spending and prevent or intervene early before problems escalate in families and children's development. The state's budget challenges and the momentum that already exists in Minnesota around these issues can be a springboard for the changes needed to make substantial progress in improving the well-being of children and families.**

A good deal of activity is already underway. This includes health care and other professionals already involved in educating their colleagues on these issues. There is an active and nationally recognized research agenda at the University of Minnesota continuing to study these issues, including the impact of stress on children's brain development and effective approaches to maternal depression in a variety of communities in the state.

Minnesota is also home to some of the leading experts in the psychiatric treatment of maternal depression as well as several early childhood and child care providers sophisticated in the knowledge of adult mental health and its impact on children. Professionals working at both the state and local level are spearheading efforts to encourage collaborative efforts within government to address maternal and child mental health issues. Postpartum depression support groups are available in some areas of the state, and some providers have joined together to offer specialty support services. A foundation focused on increasing awareness of PPD (Jenny's Light) is headquartered in Minnesota. Maternal depression is receiving more attention in home-visiting programs, and providers have recently formed a coalition to share information and expand awareness of the services they provide.

There is also growing awareness of the importance of early childhood in the administration and state legislature, as well as the child advocacy and child care communities. A coalition of foundations has as its goal that every child be ready for kindergarten by 2020.

“As the magnitude and societal consequences of this problem have been better understood, increasing numbers of clinicians and policymakers have begun to realize that is unacceptable to ignore what science tells us and have made the prevention and treatment of maternal depression an important goal.”<sup>89</sup>

— Center on the Developing Child at Harvard University

# Part III: Minnesota's Current System and Options to Decrease the Prevalence and Impact of Maternal Depression in Minnesota

Many of the actions that are needed to improve outcomes for mothers with depression and their young children do not require immediate changes in policy. In some areas, more study (perhaps facilitated by legislation) is necessary before policies are enacted to ensure they will not have unintended consequences. More can also be learned from prior assessments of the state's early childhood and mental health systems, and relevant pilot projects that have already been conducted and rigorously evaluated. Some of these pilot projects had very positive impacts on children and families but have not been brought to scale or received much attention in the broader policy debate. In some cases, where communities and professionals are already highly involved, policy changes may only be necessary to remove barriers or provide incremental help to leverage substantial private results. More options will also arise from ongoing activity at the state and local agency levels, including the Governor's Early Learning Council (previously the state Advisory Council on Early Education and Care).

Based on the research conducted for this report, the following components are recommended as necessary for a comprehensive response to maternal depression and early childhood:

- Widespread public awareness of maternal depression and its impact on early childhood, with targeted messages to those most at risk, and to people who work with at risk families.
- Effective early screening and referral for further assessment or treatment of both mothers and children at risk for, or already affected by, depression.
- Two-generation focused care, including adult and child mental health services and early childhood programs that address parental depression and related parenting and child development issues, with families most at-risk of experiencing depression assured access to preventive and early intervention services.
- Public policies that reduce financial-related stressors on families.
- A broadly shared statewide vision and plan for improved outcomes for families and children, including school readiness, with sufficient data for policymakers and state administrators to measure progress and compliance with state goals.
- Clear points of responsibility and accountability within state government for achieving these goals, with authority to coordinate efforts across government, reinforced by data and budgeting strategies that encourage effectiveness and efficiencies.

*These components are discussed in more detail below, including descriptions of some of the current policies and practices in each area, examples of relevant pilot projects or policies in other states, and state policy options for continued progress in each area. The state policy options are actions that generally require legislative change or high level administration action. Also presented are options for action by entities outside of government, such as professional associations and community organizations. The information is based on state reports and data, conversations with practitioners and experts in the field and state and local agency staff. These options are built on strong policy footings already in place, thanks to prior reforms and continuing attention by concerned individuals across the state.*

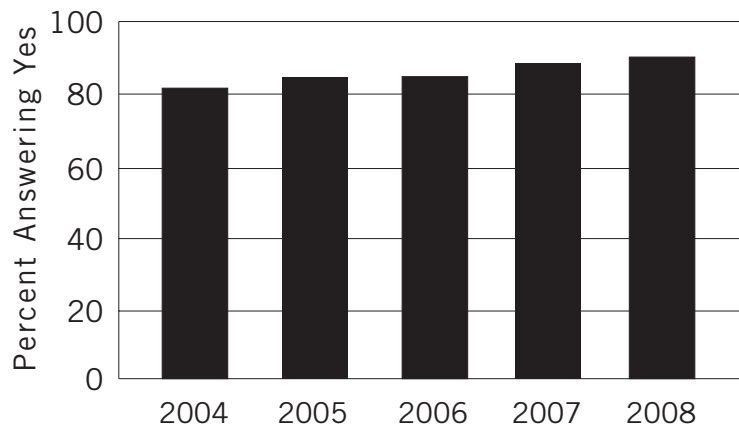
## Public Awareness

**Efforts to address maternal depression will be most effective if they are aimed at promoting the well-being of all mothers and infants in Minnesota. Within an overall effort to optimize children’s health and mental health, information should be tailored and targeted to groups based on their risk or interaction with families most at risk. Messages should be culturally appropriate and support a preventive approach that promotes early intervention at the community and individual levels.**

### BACKGROUND

Since 2005, Minnesota law has required hospitals to provide written information on postpartum depression to new parents before they leave the facility.<sup>90</sup> Physicians and others providing prenatal care must have similar information available for women and their families. The Department of Health is charged with overseeing the policy’s implementation. Data from the annual statewide survey of new mothers (PRAMS) indicate the law has been successful in increasing the rate at which women receive education about postpartum depression: Between 2002 and 2008, the percentage of women reporting they received information about postpartum depression before or after their babies’ birth increased from 77% to 90%. During that period, the percentage of women reporting depressive symptoms decreased. Although it is not possible to determine a causal relationship, it is plausible that the information has had an impact already.

Did a health care worker talk to you about PPD?



Source: Minnesota Pregnancy Risk Assessment Monitoring System, 2004-2008<sup>91</sup>

Although awareness among pregnant and new mothers has increased, women in the demographic groups most at risk for depression are least likely to report receiving the information.

## Women Most and Least Likely to Report No Health Care Provider Talked to Them About Postpartum Depression<sup>92</sup>

<b>Demographic Group</b>	<b>Percent Indicating No Communication Regarding Postpartum Depression</b>
American Indian	16%
Hispanic	13%
Black	13%
Not Married	12%
Less than \$15,000 income	13%
Receiving public insurance	12%

Source: Minnesota Pregnancy Risk Assessment Monitoring System, 2008

Other surveys indicate that much of the public, including parents, are unaware of the impact of their mental health on their children. A national survey found, for instance, that two-thirds of new parents did not realize babies are affected by their parents' moods and that babies experience feelings of sadness and fear.<sup>93</sup>

At the federal level, Congress recently passed the Melanie Blocker Stokes MOTHERS Act, named after a mother who killed her infant daughter and herself. Although no additional money has been appropriated yet, the federal law encourages the federal Department of Health and Human Services to launch educational campaigns aimed at health care professionals and the broader public.

### **OPTIONS TO INCREASE PUBLIC AWARENESS**

#### **1) Develop health promotion messages targeted at all Minnesotans regarding the importance of parental mental health and early environments to children's well-being.**

Locally, a coalition of foundations in Minnesota has pledged financial support for public education regarding the importance of early childhood experience to adult well-being. Ensuring the message includes promoting positive family mental health and supportive communities could increase its impact.<sup>94</sup>

**STATE POLICY:** Support a public awareness campaign that educates the general public about family mental health and its impact on children.

New Jersey and Washington State have statewide public awareness campaigns called “Speak Up When You’re Down” with hotlines and websites providing information and help for women and others concerned about maternal depression.

New Jersey’s website is:

<http://www.nj.gov/health/fhs/postpartumdepression/index.shtml>

Washington’s website is: <http://www.ccf.wa.gov/ppd/home.htm>

All Minnesotans and their communities should be encouraged to reach out and support new parents, especially those most in need. Social isolation is a major factor in maternal depression and is one of the reasons it is so detrimental to young children’s social and emotional development. Remembering that a new parent, especially one that is young, poor or socially isolated from family or friends, or a family without local support, regardless of their income level, might be in need of support and friendship is something all Minnesotans could do.

Churches serving African American families on the North Side of Minneapolis are supporting young parents who are not reached by institutional social service agencies in informal peer-facilitated gatherings and formal weekly parent groups.<sup>95</sup>

**2) Expand and tailor public education efforts to settings outside health care to educate families about the signs of depression, its impact on children and where to go for help by both directly targeting public education campaigns to them as well as to non-health care providers who frequently come in contact with new families in high risk groups.**

Providers who work with mothers who are depressed or in other stressful situations report that many of these women do not seek health care for themselves, especially if they are no longer eligible for health insurance. As a result, they may have only infrequent contact with health care professionals who are trained in identifying depression. According to public health workers, this is especially true of many families utilizing the Women, Infants & Children (WIC) nutrition program. Financial workers in welfare offices also report high rates of depression in the families who they see. Even if these mothers are eligible for Medical Assistance, their depression may be keeping them from making and keeping health care appointments. Other providers who come in contact with mothers at higher risk of depression include staff in early childhood programs such as Head Start and Early Childhood Special Education. Providing staff in non-health care settings with information alerting them to the signs of depression and its impact on children, as well as with information they can provide to women and their families about where to get help, provides another doorway through which to reduce the impact of depression on young families.

**STATE POLICY:** Require a jointly prepared plan from the Department of Health and the Department of Human Services to reduce the disparities in postpartum information dissemination reflected in the PRAMS survey, including determining the desirability of increased outreach in WIC offices. Track the impact through the PRAMS.

### **3) Increase efforts by professional associations and provider groups to educate their members regarding maternal depression and its impact on children.**

The professional associations for pediatrics, family medicine, obstetrics and gynecology, for instance, have established clear statements for their members regarding the importance of screening for depression and its impact on children. Other professional associations, such as nurses and social workers, should examine their policy guidelines to ensure that the two-generation nature of depression is addressed and communicated to their members. These groups could intensify their education and professional technical assistance efforts.

### **4) Incorporate information about child development into high school health curriculum.**

Most high school students will eventually have children of their own, and many will work in jobs where they care directly for children and their families. Introducing young people to even the basic concepts of how children develop, what they can and cannot understand at certain ages, and the importance of parent-child interactions may help improve family relations and decrease child maltreatment.

**STATE POLICY:** Require recommendations from the Department of Education for incorporating more information about child development and parental mental health in middle and/or high school curriculum.

## Effective Screening and Referral to Services

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*Early identification of depression in parents and delays in children's development is key to minimizing and reversing its negative effects. This requires fully implemented policies that result in comprehensive screening and appropriate referral for further assessment and treatment of parents and/or their children, if indicated.*

### **BACKGROUND**

**SCREENING AND REFERRAL IN HEALTH CARE SETTINGS:** Physician offices and clinics are primary sites for the early detection of a variety of health conditions because nearly all new families visit a health care provider in their child's first year of life. Mothers are screened for a number of possible conditions as part of their prenatal and postnatal care, including gestational diabetes or life-threatening toxemia. Children are tested to be sure their growth (height and weight) is on track, and their vision and hearing are functioning as expected.

A major step forward in promoting a two-generation approach to maternal depression in state health care programs was taken in 2010 by the Department of Human Services with its authorization of reimbursement for maternal depression screening as part of infant well-baby check ups (up to age one). The results of each patient's depression screening are kept in their file and not reported to the state. The table below shows the points in care that screening is recommended as good practice<sup>96,97</sup>

## Best Practice Guidelines for Maternal Depression & Early Childhood Screening Guidelines

Type of Screening	When	Primary Patient
Maternal Depression	Prenatal Visits	Mother
Maternal Depression	Postpartum Check-up	Mother
Maternal Depression	Well-Child Check-Up	Infant
Infant Development (social-emotional, mental health, cognitive, speech/language, fine/gross motor)	Well-Child Check-Up	Infant

It is difficult to determine, however, in either the private and public systems the degree to which screenings, further assessment and/or referrals are actually occurring. Most of the information about service provision in health care is collected through the billing process and depression screening (except during a well-child check-up) is not billed for separately. If providers are not required to bill separately for a service or the additional financial reimbursement for filing a claim is not judged by them to be worth the additional paperwork, there are no data to indicate whether or not a service was performed.

The limited data that are available, as well as observations by health and related professionals, indicate that screening and referrals are not occurring at the rate they should, based on the estimated prevalence of depression and childhood developmental delays in the population. Given the high rate of delays found when children in this high-risk group are screened, these low screening rates should be of concern to policymakers.

The information below presents data on screening rates in Minnesota's public health programs for children's developmental and mental health progress.<sup>98</sup> The numbers are only an estimate because

- (1) children can be screened more than once and
- (2) the total number of children used to calculate the rate is based on the total number of children enrolled in the state's public health care programs, although fewer actually see a doctor each year, and
- (3) some providers may be performing the screenings but not submitting claims.

Nevertheless, despite the roughness of these estimates, it is clear that screening is still far from a universal practice in health care providers' offices.

### Developmental and Mental Health Screening Rates 2007—2009-Minnesota Health Care Programs<sup>99</sup>

Year	Number of Social-emotional Screenings	As a % of Eligible Children Enrolled	Number of Developmental Screenings	As a % of Eligible Children Enrolled
2007	598	.2%	56,600	45.2%
2008	2,868	.8%	62,765	38.9%
2009	6,456	1.7%	75,339	44.1%

Many of the barriers to fully implementing effective screening and referral practices relate to clinic procedures and clinician knowledge and practice. Clinic procedures (e.g., ensuring parents fill out forms and that the information is transmitted to clinicians for use during the office visit) may not exist to support effective screening and referral. When potential problems are detected, insurance reimbursement (MHCP and private) may not cover the costs associated with the follow up care coordination with other providers that may be necessary. In addition, many health care providers have only a limited awareness of the adult and child mental health and early childhood services in their communities, and their clinics are not set up to provide the necessary follow-through to help parents act on referrals they receive. Providers report that the lack of feedback about results that often occurs after a referral is made is another barrier to effective practice.

Communication among providers is an important part of early identification of potential risks for poor pregnancy outcomes. Some providers and health plans still use a protocol (Minnesota Pregnancy Assessment Form), previously but no longer required by the state's health care programs, that notifies local public health agency (or, in the past, health care plans) that an enrollee is pregnant and considered at high risk for poor outcomes. This notice sets in motion referrals for other services to improve the chances for a healthy pregnancy and birth. Collocating mental health and primary health care services also facilitates patients' follow-through on referrals.

Important lessons for improving screening and referral rates may emerge from a pilot project currently underway in the state. The Department of Human Services has been involved in the Assuring Better Child Health and Development (ABCD) project funded by the Commonwealth Fund and administered by the National Association of State Health Programs since 2003. In the current phase of the project, four clinics in different parts of the state (Anoka, Olmsted, Ramsey and St. Louis counties) are changing their clinic processes and expanding their relationships with other providers in their communities to improve their screening and referrals rates. Wilder Research is evaluating the effort. Results so far have been promising and participants express particular appreciation for the development of provider networks in their community. The project will end in 2012.

**SCREENING & REFERRAL OUTSIDE OF HEALTH CARE SETTINGS:** Screenings for maternal depression and early childhood development also occurs outside of health care provider offices. A major public health effort administered through local public health departments is called the "Follow Along Program." Parents use a self-scoring tool to assess their child's development from infancy through age 3. If they choose, they can send the results to their county public health department. If delays are detected, public health nurses contact the family to offer additional assistance, which may include offering to assess caregivers' mental health.

The Follow Along Program reports a high degree of satisfaction by parents and has also successfully identified many children who could benefit from early intervention services. Currently, 12% of children birth to age three have families participating in the Follow Along Program, with wide ranges of participation by region. Some counties send information to all families. Others only send information to families identified as high-risk. Although the cost is minimal (\$42 per child on average), continued local government aid cuts threaten the viability of the program in some counties.<sup>100</sup>

"Sarah failed the 8-month ASQ [developmental screening] and James failed the 18-month ASQ in the Communication domain. The PHN [Public Health Nurse] made a home visit and discovered a severely depressed mother who was pregnant with her 3rd child. Mom stated that she did not enjoy being a mom anymore...The PHN called the physician who had no idea that this mother was severely depressed. Mom saw the physician and is under treatment. These children's [poor] scores are probably due to mom's depression."  
—Follow Along Program Case Story<sup>101</sup>

Other screening occurs in programs primarily serving low income families only. Family home visitors and Early Head Start programs, for example, screen for maternal depression and early childhood delays. Child protection and early childhood special education also screen children for developmental and other delays. All of these settings offer the opportunity to utilize a two-generation approach to screening and referral since they see both mother and child. However, the little data that are available indicate referrals for additional assessment or treatment are lower than expected from these sources as well as from health care providers, and referrals are also often not timely.

WIC (Women, Infants & Children) clinics see many young families (50% of all births in the state) but are not funded to conduct screenings or otherwise provide information on maternal depression or early childhood development to families.

Churches serving primarily African-American families on the North Side of Minneapolis are helping families track their own children's development by training lay-people in early childhood screening.<sup>102</sup>

Some of the children most in need of mental health services are those that have been removed from their homes due to trauma, neglect, abuse or witnessing violence. Yet, only a little over half (55%) of these children received the required mental health screening in 2009.<sup>103</sup>

## **OPTIONS TO IMPROVE SCREENING AND REFERRAL RATES FOR MATERNAL DEPRESSION AND EARLY CHILDHOOD DEVELOPMENT**

### **1) Support providers in their understanding of current policies and procedures through increased technical assistance and guidance.**

Although training and informational materials are available through the Departments of Human Services, Health and Education, the need for more technical assistance has been identified by health care providers and plans. Some providers-especially pediatricians-express discomfort discussing possible depressive symptoms with their patients' mothers. Others are reluctant to discuss mental health related issues with patients in general, given concerns about stigma or labeling associated with cognitive, behavioral or emotional delays in children. Some providers are concerned about legal liability issues associated with screening. Making providers more aware of some of the resources provided by their colleagues would be helpful. Awareness of adult and children's mental health resources to which primary care providers can refer patients is also critical.

Hennepin County Medical Center's Women's Mental Health Program provides support for other health care providers serving women with reproductive-related psychiatric conditions. Currently provided free of charge through grants from Jenny's' Light and Hennepin Health Foundation, its provider "warm line" offers web-based, phone-based and on site support to help clinics and health care providers set up screening, assessment and treatment programs.<sup>104</sup>

**STATE POLICY:** Provide the Department of Human Services with additional resources and/or the flexibility to contract with a non-profit organization(s) to increase screening and referral rates in primary health care settings, including culturally competent effective practice and administrative issues such as billing and record-keeping.

**STATE POLICY:** Track and report on the impact of policies on maternal depression rates through the PRAMS and child development through available measures, including the School Readiness report card currently under development through the Department of Education.

## **2) Ensure sufficient resources are available for providers to coordinate care for mothers and children who need additional assessment and referral.**

Families with caregivers experiencing serious mental health disorders may especially need additional assistance to follow through on referrals.

In Douglas County, staff from health care clinics, a local health plan, the school district and county mental health services collaborated when they saw their costs for “deep end” care for children in psychiatric and residential settings increasing rapidly. With a small amount of seed money from the Robert Wood Johnson Foundation and the Department of Health, and some technical assistance from the University of Minnesota, they determined how best to fit screening for children’s social-emotional development into the primary care settings. The health plan (Prime West) pays for a health care coordinator at the Alexandria Clinic. Clinic procedures have been modified to support screening and referrals, and a network of providers has been established and strengthened. Since the effort began, the use of more costly and deep end services has been reduced and providers believe children and their families are being better served overall.<sup>105</sup>

## **3) Assure health care providers that the patients they have screened and identified as needing additional assessment and/or treatment can receive that care.**

Currently, Medical Assistance coverage for new mothers’ postpartum care ends at six weeks. This was identified as a barrier by many providers who expressed concern about the implications of identifying a medical condition such as depression that could not be treated due to lack of insurance coverage. This recommendation is also included in the next section.

**STATE POLICY:** Extend MA postpartum care for two years after a child’s birth.

## **4) Address effective screening and referral for maternal depression and early childhood in the practice and information systems changes accompanying federal health care reform.**

This includes making sure models for health care homes and electronic record keeping practices include provisions that strengthen screening and referrals for mental health disorders. For instance, cues to prompt providers to screen for maternal depression could be embedded in the electronic medical records of infants.

**STATE POLICY:** Provide and enhance financial incentives to increase screening rates until they reach acceptable levels. Require the use of standardized screening tools for reimbursement and ensure the record-keeping requirements established through health care reform support systematic screening.<sup>106</sup>

Minnesota successfully increased its public health care programs’ child & teen check-up rates with fiscal incentives and its lead level screenings after it began withholding payments for providers not meeting state standards.<sup>107</sup>

## **5) Help families navigate the mental health and health care system.**

Figuring out where to go for help and for which programs they may be eligible, as well as correctly filling out the required paperwork, is a major task for most people utilizing the current health care system. This is truer for families if the primary caregiver is depressed, with few resources and for

whom English is not the primary language. Community Health Workers represent a relatively new way to help these families.<sup>108</sup> These workers come from the communities in which they serve and help to form a bridge between their communities and systems of care. Already working with mental health providers in some areas of the state, this model has the potential to assist families whose caregiver needs additional assistance finding appropriate providers and following through on referrals and treatment. The Follow Along Program, administered by the Department of Health and operated by local health departments is another doorway into the health care system for some families.

**STATE POLICY:** Continue to support Community Health Workers and provide additional training and technical assistance to increase their use in mental health settings.

**STATE POLICY:** Ensure stable funding for the Follow Along Program by providing state funds. Provide fiscal incentives to encourage every county to reach out to all families.

## **6) Integrate maternal depression into the general depression screening protocol supported by many private insurers and clinics in the state.**

Since 2008, many providers and health plans have been participating in an effort to address depression in their adult patient population in general. DIAMOND (Depression Improvement Across Minnesota, Offering New Direction), initiated by the Institute for Clinical Systems Improvement (ICSI), has developed protocol, redesigned payments and educated providers on effective treatment for depression.<sup>109</sup> Currently, the system does not specifically address maternal depression.

According to health plan representatives, providers generally find it easier to use the same protocols for all of their patients. Therefore adoption of best practices in public mental health program policies is likely to be replicated in practices affecting patients covered by private insurance as well.

New Jersey requires health care providers to screen all women who have recently given birth for depression. In addition, providers are required to ask all pregnant women about their history of depression. The law was accompanied by a public awareness campaign “Speak Up When You’re Down.”<sup>110</sup>

## **7) Across all settings, determine the extent to which appropriate screenings and referrals for mental health services are occurring in health care and non-health care settings, and implement measures to improve screening and referral rates to their expected levels.**

Current data sources provide little insight regarding the extent to which referrals are made and followed up on, or the reasons why referrals are not occurring when they should. Hypotheses include a lack of awareness on the part of providers regarding community resources, or reluctance in some professions to refer to the mental health system due to concerns about stigmatizing children or their families, and lack of resources to follow-through on referrals. Given the importance of this step to mothers and children needing mental health services, a cross-disciplinary in-depth look at the issues may be necessary to begin to determine both the actual scope of the problem and possible solutions.

**STATE POLICY:** Convene task forces to study (1) the feasibility and desirability of expanding and/or formalizing screening in non-health care settings, (2) the desirability of mandatory screening for depression, and (3) issues in referrals for adult and child mental health services including a review of a sample of cases tracking the path from screening to referral, services and outcomes by diagnosis and provider type (e.g., public health agencies, pediatricians, etc) and by county, race and ethnicity to detect practice disparities.

# Family-Focused Two-Generation Programs

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*Mothers needing mental health services should receive culturally appropriate treatment that both addresses their depression and helps them with parenting. Their children need stimulating environments and experiences that mitigate the negative effects of their primary caregivers' depression and help promote positive parent-child attachment.*

## **BACKGROUND**

Little is known about the parenting status of most of the adults receiving mental health services in the state. This information is rarely collected at intake for clients in either public or private mental health systems, and is often not part of treatment plans, or considered when discharge plans are being made for parents who have been hospitalized.<sup>111</sup> Minnesota's current adult mental health system also does not have provisions specifically intended to help adults parenting their children. Professionals in the field observe that referrals to children's mental health services from adult mental health and public health services are lower than expected, indicating that many children who are vulnerable to being affected by the parents' mental illness are not being flagged by the systems serving their parents.

Minnesota does have several providers who can provide two-generation, family-based care. In addition, an effort is currently underway to expand the use of a diagnostic tool (DC 0-3) that focuses on the parent-child relationship. Medical Assistance reimbursement is available for services to children and families needing therapy identified through their child's social or emotional delays. Still, most children who are at risk for, or already experiencing, delays due to their parents' untreated depression do not receive services. Reasons include their mothers' lack of health care coverage, undetected social-emotional or other delays, lack of mental health providers who could address both mother and child issues or lack of awareness of available resources by referring providers, and inaccessible early childhood care or programs, described more fully below. In addition, there is a wide range of use of mental health services by race and ethnicity.<sup>112</sup>

Given our current understanding of the importance of early brain development and the effects of excess early adversity, it is imperative to find ways to improve collaboration and communication between the various providers, services, and programs in the children's and adult mental health systems. Otherwise, we waste golden opportunities to potentially prevent or reduce risk for the onset or worsening of mental health problems.<sup>113</sup>

Minnesota State Advisory Council on Mental Health

## **OPTIONS TO EXPAND A TWO-GENERATION APPROACH TO EARLY CHILDHOOD AND MATERNAL DEPRESSION**

### **1) Encourage providers to inquire about patients' parental status and the well-being of their children.**

Mental health intake and other processes should include questions to determine if adults have children, and provide opportunities for parents to seek help or have questions answered regarding their child's well-being. This includes opportunities to have children assessed to determine if they would benefit from preventive or early intervention services. Inquiries should also routinely be made to determine if a family was able to follow-through on referrals or needs additional assistance to do so.

## **2) Ensure mothers who are diagnosed as depressed or experiencing other mental health disorders can participate in treatment.**

The current Medical Assistance eligibility limit for postpartum care at six weeks is a major obstacle to many new mothers obtaining care to address their depression since approximately one-third of Minnesota births are paid for through public health programs. These families are also in groups at highest risk for experiencing maternal depression. Starting after major budget cuts were enacted in 2003, new mothers lose their MA coverage at six weeks postpartum and must re-apply. They will only be approved if their income is at or below the poverty level. Maternal depression is often not detected or manifested during that short time period, and the average depressive episode lasts six months. Because many mothers may not seek health care for themselves, especially those who are experiencing depression, the currently required reapplication for infants' coverage at age one also likely acts as a barrier to more women receiving care for depression.

**STATE POLICY:** Extend postpartum MA coverage to two years and allow infants continuous coverage to age two.

## **3) Develop child care options so that low income mothers needing mental health treatment can be assured their children are supervised for the brief time periods they may need to be away from home.**

Few child care providers can care for children for just a few hours a week while parents engage in short-term mental health treatment. There are anecdotal reports of child protection being called when children have been left unattended in therapists' offices.

Before budget cuts, Hennepin County was able to regularly use some of its funds to cover the short-term child care expenses of mothers with serious mental illness whose children needed care while they received treatment. The county believes this was cost-effective, saving the state and county substantial child protection expenditures.<sup>114</sup>

**STATE POLICY:** Develop a funding mechanism that allows counties to provide access to short-term child care so that mothers can pursue treatment.

## **4) Add a parenting component to programs that serve adults with severe mental illness.**

More than one-third of the young adults with serious mental illness seen in a Duluth pilot project were pregnant or had children younger than age five. Adding parenting skills and other supports could reduce the rate of child removal from families experiencing serious maternal depression or other mental disorders.

Adult mental health care managers and children's mental health staff work jointly with parents who have severe mental illness at the Human Development center in Duluth. The program has successfully improved parenting and improved the capacity of parents to safely care for their children. Among the program's components are adult case managers who pay attention to the relationship between their client and child and who are aware of what a healthy and secure attachment between child and parent should look like.<sup>115</sup>

**STATE POLICY:** Add parenting skills to the services reimbursable through Adult Rehabilitative Mental Health Services (AHRMS). AHRMS are provided to adults with mental illness or other conditions that result in substantial disability or functional impairment to help them live more independently in the community.

**5) Provide early intervention services to children whose mothers have a diagnosis of depression or other serious mental health disorders.**

Early Intervention services (also known as Part C or “Help Me Grow”) are provided to families, regardless of their income, if their children are already exhibiting developmental delays or they have conditions with a high probability of delay (e.g., Down’s syndrome, cerebral palsy, etc.). Services include physical and speech therapy, nutrition, and respite care. Experience indicates that intervening early reduces the number of children requiring care in later childhood. Many of the Minnesota children who receive early intervention services during their infancy or toddlerhood are able to “graduate” from Early Intervention (Part C) and do not need to continue on to Part B (early intervention services for 3–5 year olds).

Although tied to federal funds, states have some leeway in defining eligibility for the program. Minnesota’s current eligibility standards excludes those children who research has shown a high probability of falling behind due to environmental factors known to hinder normal development, including living with a parent with depression. Minnesota ranks below half the other states in the percent of the child population it serves in its Early Intervention program. In 2008, approximately 4,600 children (2.1% of the 0–2 population) were served. Nearly three times as many 3–5 year olds were identified as needing Early Intervention services than 0–2 year olds, suggesting that many of these children might have been identified and served more effectively earlier.<sup>116</sup>

Some states provide early intervention services to children living in environments that put them at high risk of developmental delay. Hawaii provides services to children at risk due to their parents’ psychiatric disability. Massachusetts includes family characteristics in its list of risk factors for eligibility, including teenage parenthood, parental disability affecting care giving ability and family lacking social support, or having inadequate food, clothing or shelter, substance abuse and violence in the home. New Mexico serves at risk children including those exposed to environmental risks such as a parent’s substance abuse or psychiatric disability, or domestic violence.<sup>117</sup>

Early intervention services also provide another venue for offering mothers screening and information about maternal depression.

A 2009 study at the University of Minnesota found that one-third of the children who were provided early intervention services as infants or toddlers did not need special education services by second or third grade. Many of these children were involved in the child welfare system.<sup>118</sup>

**STATE POLICY:** Add maternal depression to the list of conditions that make children eligible for Early Intervention services. Ensure early intervention staff receives training in addressing social-emotional issues in children.

**6) Ensure children of depressed mothers experience stimulating environments on a regular basis and recognize the role stable child care can play in providing consistency in young children’s lives.**

Many families with depressed parents are socially isolated. Because Minnesota's child care assistance policies generally link child care eligibility to parents' working status, many families in which parents are not working due to debilitating depression have no early learning or child care opportunities for their children. Minnesota does have, however, many high quality early childhood programs with high returns on investment that could serve these children. None exist on the scale necessary to serve all who need their services.

**EARLY HEAD START** (EHS) employs a two-generation approach, supports parents in a number of areas (including self-sufficiency) and addresses child development. EHS families receive limited in-home visits or center-based services (four to five days/week for generally four hours) to enhance their children's physical, social, emotional and intellectual developmental. Services can begin prenatally. Program evaluations consistently find positive results in terms of both children's cognitive, language and social-emotional development as well as parents' capacity to relate to their children positively and help them learn.<sup>119</sup>

EHS services are limited in their capacity to address the needs of families with serious mental health disorders, however, because of the limited time services can be provided. Some providers have been able to access other funding to help these families.

The Arrowhead EHS program used federal stimulus funding for its Project COPE (Conquering Obstacles to Parent Empowerment). Project COPE is designed for EHS mothers struggling with mental health issues and consists of weekly joint home visits from an EHS Home Visitor and locally contracted mental health professional. During these visits the mental health professional helps the mother with her own mental health issues while the EHS home visitor assesses the child's development and well being. The joint visits include a coaching component where the mother and child work on bonding and attachment through playful interactions and activities. Staff in the program believe the arrangement has worked well with the increasing numbers of parents with severe mental illness enrolling in the program. In 2009, although more than 15% of Minnesota's infants and toddlers lived in poverty, limited funding for EHS meant less than 1% (2,220) of them were served.<sup>121</sup>

**THE SCHOOL READINESS CONNECTIONS PILOT PROJECT** modifies the state's Child Care Assistance Program (CCAP) requirements to allow children to remain with a provider even if their parents' working hours or job changes, allowing for more consistency in care. It also helps parents and providers (both center and family based care) assess children's development, and improves providers capacity to refer families on for additional help, if needed. Evaluation results so far have shown positive outcomes. Although targeted to programs serving a large proportion of MFIP families, other children in the programs who were not in MFIP families also benefited from the enriched school readiness programming.<sup>122</sup>

**OTHER INNOVATIVE CHILD CARE AND EARLY CHILDHOOD PROVIDERS** in the state have secured private funds to supplement public funds to provide high-quality early childhood programming for families with children at high risk of developmental delays due to their parents' mental illness or other challenges. These programs have demonstrated the cost-effectiveness of providing enriched early childhood experiences to at-risk children.

Baby Space, operating across the street from the local Little Earth of United Tribes housing development in Minneapolis, uses blended funding to provide a holistic and research-based approach to improving outcomes for young children and families. Providing services from prenatal through 3rd grade, the full-spectrum approach includes full-year education, parent

engagement activities including home visiting and parent education, and on-site mental health services. The program has received national attention.<sup>123</sup>

Strong Beginnings, a large scale pilot project in Hennepin County, improves children's readiness for kindergarten, engages parents, and identifies and addresses the developmental concerns of children living in low-income high risk inner-city neighborhoods in Minneapolis. Providers are eligible for an enhanced child care rate if at least 65% of the children they serve are low income and special needs. After participating in the program, 83% of the children are ready for kindergarten compared to 66% of all entering kindergartners.<sup>124</sup>

**STATE POLICY:** Increase the number of Early Head Start slots. Provide additional support to increase access to services to ensure children of parents with mental illness receive regular stimulating experiences with peers and teachers in or outside the home. Help programs access mental health services for parents and provide additional training and resources for EHS staff regarding maternal depression screening and referrals.

**STATE POLICY:** Support enhanced funding to encourage services to child care providers demonstrating the capacity to increase the school readiness of children in high risk groups, as demonstrated in the School Readiness Connections pilot project.

### **7) Ensure child care policies do not put providers serving children from high-risk groups in financial jeopardy.**

Providers, such as Early Head Start and child care who work with mothers who are severely depressed and also lacking financial resources or other support, report high rates of mobility and inconsistent attendance by some children. Some of these parents have jobs with irregular and unpredictable hours, including short periods without work. Or parents may lose a job and experience a short period of unemployment before finding the next job. Current child care assistance policies may result in families becoming ineligible for assistance before they or their providers are aware, resulting in lost revenue. More study is needed on ways to ensure that funding policies do not unfairly harm children or providers' financial well-being. The School Readiness Connections pilot (described above) offers examples of flexibility in programming that help families and providers, rather than penalizing those who serve families facing more challenges. The Child Care Advisory Task Force recommended implementing improvements in this area.<sup>125</sup>

**STATE POLICY:** Continue and expand the School Readiness Connections pilot project and/or adopt some of the policy changes utilized in the project that increase attention to children's developmental progress toward kindergarten, including basing continued eligibility on maintaining an average number of attendance hours per week and increasing the length of time for which care is authorized.

### **8) Provide consultation to providers who are serving children who have already begun exhibiting behavioral or emotional problems.**

Young children who exhibit behavior problems in child care and preschool receive less positive feedback and less instruction and, as a result, "like school less, learn less, and attend less."<sup>126</sup> Many of these children have parents with mental health disorders. It is critically important to intervene as early as possible if children are already struggling to control their behavior to ensure they do not jeopardize their future education.<sup>127</sup> Providing mental health consultation in child care and Head Start settings has reduced the rates of expulsion of young children.<sup>128</sup> However, a stable funding stream is necessary to ensure consultation is available to child care providers to avert children's

expulsion or other negative experiences with child care.

**STATE POLICY:** Provide funds for children’s mental health consultation for child care and other providers serving children already exhibiting behavior or emotional problems.

**9) Ensure children who are not insured or are underinsured receive help with their social and emotional development, if necessary.**

Data gathered as part of the Early Childhood Mental Health grant program, authorized in 2009, indicates the grants have successfully expanded the children’s mental health infrastructure in the state.<sup>129</sup> Department of Human Services’ staff is now working to ensure children ages 0-3 without adequate insurance needing services are identified and receive priority. Providing targeted grants to providers who can serve these children is an effective alternative until all children at high risk of developing social-emotional delays have adequate insurance coverage.

**STATE POLICY:** Expand funding for Early Childhood Mental Health grants.

**10) Offer family home visiting services to all families with newborns, and provide more intensive services to families already experiencing or at high risk of developing, maternal depression.**

“Home visiting” refers to a service delivery strategy used by a variety of systems, including child protection, early intervention and public health. Home visitors usually provide in-home services and connect families to other resources in the community.

Home visiting programs vary considerably in the intensity with which services are delivered, the training of the home visitor and the population served. Some home visiting models only serve first time parents who enroll in the program while they are pregnant or within the child’s first three months of life. This is done because experience indicates that home visiting is likely to have the greatest impact on new families. Research also indicates that home visiting is more likely to be effective for families with infants and toddlers when it is intense (i.e., four or more visits per month are provided for at least one year) and uses therapists, counselors or social workers that specifically teach parenting skills to families.<sup>130</sup>

Federal funds, combined with local funds, are provided to local public health departments in Minnesota to provide home visiting. The goals of the Department of Health family home visiting program are state-mandated, but “at the local level, family home visiting can look very different in terms of who is served and how.”<sup>131</sup> Among the 91 local health departments, 15 different curricula are used, nine documents systems are employed and at least 6 different funding sources are used. Twenty-eight local health departments use a nationally recognized family home visiting model with 63 using other types of programming, according to the Department of Health. An evaluation of the program found many positive outcomes for participating families, including lower rates of child maltreatment, higher rates of preventive care use and few women having another baby within 24 months.<sup>132</sup>

Families participating in another home visiting program that was the precursor to the Metro Alliance for Healthy Families (MAHF) also had positive results, including experiencing less than half the rate of reported child maltreatment than comparable families. An evaluation also showed it is cost-effective. The cost of providing home visits for the families in 2005 was \$6,000 compared to \$26,000 to investigate and prosecute a single case of abuse, and far less than the estimated costs (up to \$80,000 or more) of caring for a child removed from his or her family.<sup>133</sup>

Data from the state home visiting report also confirm a high need for services to address early childhood developmental delays and maternal depression in the home visiting population. Of the

infants and toddlers screened by home visitors, almost one in five failed to meet developmental milestones and one in 10 failed to meet social—emotional milestones. At intake, more than half of the mothers MAHF sees are depressed and frequently report high rates of adverse experiences in their own childhoods.

Not all of the children in the home visiting programs included in the state’s home visiting program report were screened, however.<sup>134</sup> Thirty-two percent were not screened for developmental progress and 62% were not screened for social and emotional growth. Also, most but not all of the children were referred or received follow-up services by the home visitor. Referrals to mental health services for mothers in some home visiting programs are also lower than expected. Mental health experts caution (and research supports) that only working on parenting “skills” with these families may not be sufficient. If the mothers’ underlying depression is not addressed it may still affect her capacity to nurture and otherwise care of her child.<sup>135</sup> These data suggest both a need for improving screening rates, as well as the value of home visiting as a tool for early identification of children who may be at risk of falling farther behind.

Home visiting offers one of the best models for addressing maternal depression and early childhood. It begins early, serves new mothers and children where they live, eliminating the logistics of transportation and child care that services outside the home may require, and can link both parent and child to other resources. Home visiting can help ensure mothers who in treatment for their depression take their medication or follow-through on other treatment. It is also cost-effective, in both the short and long term. There are several issues that should be addressed to further strengthen home visiting’s effectiveness, including some programmatic issues such as ensuring continuity of services and adequate levels of intensity. Current funding levels are inadequate to meet demand and families are often unable to access effective mental health treatment, due in part to the six week limit on Medical Assistance for women postpartum. Children in families receiving home visiting are also highly likely to need access to services outside their home to ensure they receive adequate levels of cognitive and emotional stimulation.

Ninety-five percent of the children in families participating in the Metro Alliance for Healthy Families (MAHF) were within the average range for behavioral-emotional development, and 85% within the average range for cognitive and physical growth.<sup>136</sup>

**STATE POLICY:** Add families with a parent with a serious mental health disorder, including maternal depression, to the list of families targeted for home visiting programs in state statute.

**STATE POLICY:** Develop practice standards for home visiting that include screening of all mothers for depression and a common set of outcomes for home visiting programs relating to maternal mental health and developmental outcomes. The Department of Health should work with the Home Visiting Coalition to develop a data tracking system that provides information about effectiveness.

**STATE POLICY:** Secure a stable funding base for home visiting that allows services to match the varying needs of families in high risk conditions, i.e., some may primarily need health care, others may primarily need social services or assistance towards financial self-sufficiency.

## **11) Increase the number of providers who deliver culturally-relevant developmentally-sensitive services.**

The higher rates of depression in families of color and the realistic concerns families of color have regarding the higher rates of child protection in their families mandates attention to the cultural appropriateness of mental health services.<sup>137</sup> Professional preparation frequently lacks adequate education regarding normal child development and cultural competence.

**STATE POLICY:** Convene a task force to make recommendations to ensure culturally competent, training and education in maternal depression and early childhood as part of the licensure or continuing education requirements for health, social work, and educational professionals.

## Family Strengthening and Support Policies

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*State policies should reflect what is known about the role of economic stress in triggering maternal depression and its association with poor child outcomes.*

### **BACKGROUND**

The model guiding much of Minnesota's early childhood work (BUILD) recognizes the importance of family financial stability for young children's development. One of four components of the model is family support, i.e., "economic and parenting supports to ensure children have nurturing and stable relationships with caring adults."<sup>138</sup> In Minnesota, approximately 175,000 children are being raised in families below the poverty level. Families with young children have the highest poverty rates. Many of these families have at least one working parent. Working full-time does not ensure financial stability. A full-time worker with a family of three earning minimum wage has an annual income below the poverty level (70%).

Even working families with earnings above minimum wage are financially stressed. It is estimated that a wage earner needs to earn triple the minimum wage rate (currently \$6.15/hour for employees in large firms, \$5.25/hour for people working for small employers) to meet basic needs for a family of three. Four times the minimum wage is needed if their employer does not provide health insurance.

To help the poorest families who are raising children, the state provides cash assistance through its version of the federal Temporary Assistance to Needy Families (TANF) program.<sup>139</sup> The Minnesota Family Investment Program (MFIP) provides up to five years cash and food assistance to families below the poverty line who cooperate with the program's work requirements. In December 2009, 82,000 children and 33,000 adults received assistance through the program, including the Diversionary Work Program portion of MFIP. Half of the families receiving MFIP had at least one parent employed in the same quarter in which they applied for aid, often in either the retail, hospitality (restaurants and hotels), temporary help or health care industries. The average MFIP payment per person is \$271 per month.<sup>140</sup>

Since the 1996 welfare reform changes, which significantly reduced the number of families receiving cash assistance, the needs of the recipients who have a difficult time moving off the program have become clearer. Serious mental health issues, as well as low cognitive ability or a child with a chronic health condition, are among the employment barriers experienced by many longer term MFIP recipients. Results from pilot projects initiated to address some of these issues have also illuminated the harmful effects of poverty and some welfare policies on children. They have underscored that basic needs, such as shelter and food, must be addressed before children and parents can successfully take advantage of other services. Providers who work with recipients not making progress toward self-sufficiency report that mothers are often too overwhelmed by their depression and daily survival struggles to comply with the complicated program requirements necessary to obtain services for their children.

Minnesota also provides help with child care expenses through its Child Care Assistance Program (CCAP). Due to their very low incomes, CCAP is available to families who are working and receiving MFIP. Families with incomes below the state median are also eligible for some assistance

but must contribute to the cost on a sliding fee. Research has shown that CCAP allows low income families to access better quality care than they could if paying for it on their own.<sup>141</sup> However, major budget cuts since 2003 have significantly reduced both the number of children receiving care, and the number of providers providing child care through the program. As a result, the role that quality child care can play in supporting the healthy development of low income children has been reduced. In December 2008, there were almost 8,000 families on the waiting list for the Basic Sliding Fee Scale program. That number had dropped to a little over 4,000 by January 2011 as families stopped entering their names as the likelihood of ever receiving assistance continues to decline.

The high rate of maternal depression in caregivers of children receiving MFIP, as well as the higher incidence of depression among all low income women in the state shows the importance of addressing economic issues to a comprehensive approach to reducing its incidence.

## **OPTIONS TO REDUCE FINANCIAL STRESS ON LOW INCOME FAMILIES**

### **1) Improve the incomes of low income working families and increase their access to the same employment-related benefits as higher earning families.**

Many low-wage jobs do not provide sick leave and have irregular and unpredictable hours, making families ineligible for unemployment insurance in the event a job is lost. High housing costs, lack of affordable child care and access to health care are also cited by low wage earning families as major stressors. Few Minnesota families, regardless of income level, have access to paid parental leave to help them with the financial and physical strain that occurs after a child's birth, which can contribute to postpartum depression in some families. Low-income parents (less than 200% of the poverty level) are half as likely as higher income parents to take parental leave.<sup>142</sup>

Longer-term solutions include providing more options for continuing education and effective job training for livable wage jobs. Ultimately, addressing the growing inequality of income and wealth need to be addressed to ensure children do not start life already behind their peers.

**STATE POLICY:** Increase the minimum wage.

**STATE POLICY:** Provide job training and educational benefits that lead to higher paying jobs.

**STATE POLICY:** Enhance low wage earnings by increasing the Child Care and Working Family Credits.

**STATE POLICY:** Establish paid sick leave and short-term income support programs for low income workers who lose their jobs (fashioned after the Unemployment Insurance).

**STATE POLICY:** Eliminate the child care assistance waiting list for low income working families by fully funding basic sliding fee scale child care assistance.

**STATE POLICY:** Simplify application for health care and child care programs.

**STATE POLICY:** Encourage paid parental leave through employer tax credits or other public policies.

### **2) Stop pushing families with newborns deeper into poverty by eliminating the MFIP “family cap.”**

Generally, the MFIP grant amount is based on family size. However, beginning in 2004, no adjustment is made for the additional costs of a newborn if the family was receiving MFIP at the time of the baby's conception. Although the policy was intended to discourage additional births, it

has had no effect on the proportion of the caseload with an infant. The lack of funds has, however, further financially strained the approximately one out of every seven families on MFIP with a newborn. The current MFIP grant (food and cash) leaves a family of three at 66% of the Federal Poverty Guidelines (FPG). If an additional child is born, their income is reduced to 55% of poverty. This is “deep” poverty and is highly correlated with poor child outcomes, and later increased government expense and lower productivity in adulthood.

**STATE POLICY:** Eliminate the freeze on MFIP assistance to families with a newborn.

### **3) Reverse the effects of the last 25 years’ policy that leaves MFIP families deeper in poverty each year due to the failure to adjust the grant for inflation.**

The basic cash assistance cash portion of the grant (e.g., \$532 for a family of three)<sup>143</sup> has not been increased since 1986, unlike other income-related programs such as Social Security and income tax dependent deductions.

**STATE POLICY:** Increase the MFIP grant and add an automatic cost-of-living adjustment.

### **4) Ensure MFIP policies help parents care for their children, rather than erecting additional barriers. Modify policies so that parents can access early childhood and mental health services.**

Mothers are who already struggling with depression and the stressors of poverty (unsafe neighborhoods, overcrowded housing-or no housing, etc.) and who lack a supportive social network often have a difficult time managing the logistics of meeting work activity or search requirements, traveling to mental health and other services. Job counselors working with families who are making inadequate progress toward self-sufficiency (often due to mental illness or cognitive challenges) in the Family Stabilization Services program may authorize limited child care assistance so caregivers can attend therapy and group sessions. However, staff reports problems finding child care providers that can serve families on such a limited basis in addition to the logistical problems these families face trying to get their children to care. Work activity plans can be written to facilitate child care and structured activities and support for families, but there are indications that these provisions are inconsistently administered across counties.

The MFIP Children’s Mental Health pilot successfully helped parents get their children screened for developmental delays and follow through on referrals by giving them the flexibility within their MFIP work requirements. One participant at the Lifetrack Resources pilot site stated, “I’ve been having a really hard time with my daughter and I don’t know what I would have done without it.”<sup>144</sup>

**STATE POLICY:** Provide adequate funds for counties to fully implement the provisions of the Family Stabilization Services program intended to help families access mental health and other services. Provide state technical assistance and guidance to counties regarding ways to help families access child care when parents have a serious mental illness.

### **5) Increase attention to the well-being of children in families receiving MFIP- including those in child-only cases.**

More than 80,000 children were recipients of MFIP last year. The proportion of MFIP cases that are child-only (meaning their caregivers do not receive MFIP) has increased from 19% in 1999 to 32% in 2008. Many of the caregivers of these children are ineligible for MFIP because they are disabled often due to mental illness. Because they do not work, they are ineligible for regular ongoing child care assistance. As a result, many of the poorest children living with a severely depressed parent have

very limited access to early learning or other enriching experiences in or outside the home. At least one home visit by a public health nurse is available in many, but not all, counties.

**STATE POLICY:** Use the MFIP eligibility system to ensure children in child-only cases receive appropriate screenings and referrals if necessary for early intervention.

**STATE POLICY:** Make all children in child-only cases eligible for early intervention services (Part C) and Early Head Start.

**STATE POLICY:** Require public health departments to offer semiannual home visits to all families with a child receiving assistance through MFIP-Child Only program and provide sufficient funding to allow counties to offer home visits to all MFIP families with a newborn.

**STATE POLICY:** Include more information about children in the annual state MFIP reports. For instance, in addition to the number of cases sanctioned, include the age and number of children in families affected by the sanctions.

## **6) Strengthen fathers' involvement and increase family income through state child support policies.**

Unlike some other states, Minnesota no longer passes through a portion of the child support payments made by parents of families on MFIP. Research shows that allowing families to receive some portion of the monthly child support payment made by the noncustodial parent helps strengthen that parent's bond (usually a father) with the children and improves families' financial well-being.<sup>145</sup>

**STATE POLICY:** Reinstate the child support pass-through disregard for MFIP families so that children can benefit from continued financial involvement by their noncustodial parent.

## **7) Recognize the unique child care needs of MFIP families with parents who are severely depressed and may be working only sporadically.**

In recent years, several requirements have been added to the child care assistance program (CCAP) that have resulted in many child care providers' inadvertently losing funds as families' eligibility varies. The absent day policy, for instance, that limits reimbursement for care provided when a child is not present to 10 days would be hard for most providers to enforce with families not receiving MFIP, much less for those families working in low wage jobs with irregular hours and struggling with depression. Related to the earlier suggestions to allow more consistent care for children, simplifying the program will also help providers.

The legislatively mandated report on child care (January, 2010) recommended several provisions intended to simplify and increase consistency across programs and recommended that child care assistance eligibility be tied to the child, not the parent.<sup>146</sup>

**STATE POLICY:** Make child care assistance for low income working parents more predictable and easier to manage, and increase the consistency of care provided to their children.

**STATE POLICY:** Modify child care assistance policies to allow more consistency in care for children, allowing children to remain in child care as their parents receive mental health services. Adopt the provisions in the School Readiness Connections pilot that stabilize child care for these most vulnerable children.

## **8) Require and support greater collaboration among agencies and programs serving longer-term MFIP recipients who have the greatest challenges, including severe depression.**

Accumulating evidence shows that most long-term MFIP recipients face multiple challenges to employment, including serious mental and physical health problems, and/or low cognitive functioning.<sup>147</sup> The services that might help them become more self-sufficient (e.g., vocational rehabilitation or developmental disabilities) do not address the needs of their children. To adequately assess the impact their mental health is having on their capacity to work as well as assist their children, these families need an assessment that cuts across these service silos to develop an efficient plan that avoids gaps or duplication of services.

A Ramsey County pilot project discontinued due to lack of funding conducted psychological assessments to help identify recipients who needed intensive services. To better serve these families, the county linked disability services and MFIP, and assigned case managers small caseloads so they could provide individualized services, including obtaining stimulating early childhood experiences for the children in long-term MFIP families.<sup>148</sup>

**STATE POLICY:** Require and support closer linkages between MFIP, vocational rehabilitation, mental health and early childhood programs in counties to assess and provide case management if indicated for mothers as soon as they are diagnosed with depression and for those nearing their time limit or who have been repeatedly sanctioned, and their children's cognitive, social-emotional and developmental functioning.

**STATE POLICY:** Suspend sanctioning of families when the caregiver has a diagnosis of severe depression or other mental illness.

## Shared Vision and Plan

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*To effectively guide state efforts, a broadly shared two-generation vision of improved outcomes for families and children that addresses maternal mental health and children's growth and development is necessary. To support the vision, a strategic plan with benchmarks reflecting its principles should be developed and regular progress reports published.*

### **BACKGROUND**

To substantially reduce the prevalence and impact of maternal depression on families and its associated personal and public costs, state efforts will have to cross traditional silos of policy and practice. This will require changing the rules and incentives governing systems primarily dealing with adults so that parenting status and the impact of parents' mental health on children is also considered. Similarly, it will require systems that primarily serve children to expand their focus to the context within which children are being raised. Some programs in the state are already operating this way, but usually only on a small scale and outside stable funding streams.

### **OPTIONS TO ENCOURAGE DEVELOPMENT OF A SHARED VISION AND PLAN TO IMPROVE OUTCOMES FOR FAMILIES**

**Pull together a broad range of people representing a variety of interests to develop**

**common goals and a strategic plan to achieve those goals, with responsibility and authority for carrying out the plan jointly shared across state agencies. A guiding principle for the group should be the development of policies and practice that incorporate a two-generation perspective.**

A strategic planning process involving a wide range of interests could identify the changes in policy program operations necessary to expand this philosophy statewide. Once finalized, the plan should be linked to a revised administrative structure and budgeting process, discussed in a later section. The results of this effort should be incorporated into the strategic planning and development of visions that already exist or are currently underway in other areas, including adult mental health, children's mental health, health care reform and county service design.

**STATE POLICY:** Require the commissioners of health, human services and education, with consultation as necessary from other state agencies, to develop a state plan to reduce the prevalence of maternal depression and its impact on children. The plan should establish goals with measurable outcomes, recommendations for explicit linkages among state agency programs, shared definitions, a timeline to accomplish the goals with responsibility for specific duties within the plan assigned to specific agencies. To coordinate the planning effort and submit the final plan, sufficient funding and authority should be granted to an already existing state agency coordinating entity, such as the Minnesota Early Childhood Comprehensive System (currently situated in the Department of Health). The plan should identify where maternal mental health/early childhood concerns can be integrated into other ongoing state plans and reports.

Before the commissioners begin their work, a task force should be established, made up of composed of consumers, advocates, researchers, health care practitioners, and local and state agency staff representing areas relevant to maternal mental health and early childhood, including public health and health care programs, adult mental health, children's mental health, income support, child care, public health and early childhood education. The task force should identify the necessary elements of a strategic plan, provide recommendations on an appropriate administrative structure to accomplish the goals in the plan, and identify the information needed to monitor progress and ensure accountability.

**STATE POLICY:** Require jointly prepared biennial follow-up reports from the commissioners of human services, education and health on the well-being of young children tied to progress toward the plan's goals. Data should be reported by race, geography and income to allow disparities to be identified and compared to the distribution of, and access to, relevant resources.

To improve birth outcomes in its Medicaid program, the Illinois Legislature required its Department of Public Aid to prepare a strategic plan to improve prenatal and perinatal health care, with follow-up reports every two years on the effectiveness of the services. The Department submitted a strategic plan to the Legislature in 2004 and has reported back every two years since then on progress made and next steps to continue improving birth outcomes.<sup>149</sup>

**STATE POLICY:** Require an annual "State of the Family" report that provides information on the age distribution of participants in programs that serve families, data on what is known about their well-being and involvement in related supportive services and recommendations for linking data or additional information needed to provide a comprehensive picture of the well-being of the state's youngest children. The report should be jointly prepared and presented by the commissioners of health, human services and education.

*To determine how well policies are working and how efficiently public dollars are being spent, Minnesota should have an effective system that tracks families' experiences and outcomes with public systems intended to reduce the incidence and impacts of maternal depression. This includes information for caseworkers, policymakers and state agency program managers that can be linked to state goals and budgeting decisions. To carry out these functions, clear points of responsibility and authority in state government should be identified.*

## BACKGROUND

Responsibility for services relating to maternal depression and early childhood at the state agency level is found in a variety of places. The departments of human services, health and education are primarily responsible for overseeing most of the programs.

## Major Programs Related to Maternal Depression and Early Childhood by State Agency

Department of Human Services	Department of Health	Department of Education
Prenatal and Well-child Health Care (Health Care Division; Health Care Performance Measure & Quality Initiative)	Family Home Visiting	Early Head Start
Children's mental health services (Chemical & Mental Health Div)	Follow Along Program	Early Intervention (Part C/ Help Me Grow)
Adult Mental Health Services (Chemical & Mental Health Div) Div)	Provider screening information and training	Preschool Screening (age 3)
Child Care Assistance & Quality Assurance (Children & Family Services)	Maternal Depression public information	Early Special Education
Income Support-MFIP (Children & Family Services)	Minnesota Early Childhood Comprehensive System grant	Early Learning Council,* Interagency Coordinating Council
Child welfare/child protection (Children & Family Services)		
State Mental Health Council		

\* Previously known as the State Advisory Council on Early Childhood Education and Care

Although state agencies administer the programs, the programs are generally delivered through local units of governments, including school districts, county public health and social services agencies, or through negotiated contracts with providers such as hospitals and physicians. State agencies provide technical assistance, allocate funds (often according to a formula), determine reporting requirements (if not in statute), publish results, propose legislation and budgets, and interpret and implement adopted legislation.

Generally, a good deal of discretion exists at the local level for determining service priorities and programming. For instance, each local public health department determines the professional requirements for their home visiting staff, the curriculum they use in working with families, some eligibility limits and whether or not they screen for depression. As a result, there is often a good deal of inconsistency across jurisdictions in the experiences of families interacting with these programs.

The scattering of early childhood programming across state agencies is not unique to Minnesota-or the federal government. In recognition of this fragmentation, the federal government requires and supports state collaborative efforts through three major efforts-Early Childhood Comprehensive System (ECCS) grants, Early Learning Councils (previously the State Advisory Council on Early Childhood Education and Care in Minnesota), and Interagency Coordinating Councils (ICC).<sup>150</sup>

The Minnesota ECCS (MECCS) is staffed by one person at the Department of Health and supported by a time-limited federal grant. Among its current activities is developing a strategic plan for state agency early childhood efforts to increase collaboration and develop a shared vision at the state agency level. The Minnesota Early Learning Council, staffed by the Department of Education, includes legislators, community members and commissioners' representatives. Added to the Council's responsibilities by the 2010 Legislature was studying and making recommendations on how to "coordinate or collocate early childhood and child care programs in one state Office of Early Learning." The Interagency Coordinating Council (ICC) includes parents of children with disabilities, policymakers, early intervention service providers and others to "ensure a comprehensive and coordinated system" for children under age 5 with disabilities.

At the local level, Interagency Early Intervention Committees (IEICs) coordinate services for children ages 0-5 years of age who need early intervention or other services. Their duties include public awareness, outreach, assuring the development of service plans for children and their families, assuring cooperation among agencies participating in the plans developed for children.

Although a good deal of data already exist that could give some idea of the well-being of, and services received by, mothers with depression and their children, the data are not accessed or published on a regular basis and it is hard to connect services to outcomes. This is a good time to attend to these issues, however, as the state is in the process of reviewing some of its major information systems to meet changing federal requirements, as well as engaging in the ongoing reconsideration of information it collects.<sup>151</sup>

Important information is also available from population level indicators collected through the census and other survey data that relate to child and family well-being, including poverty, children's health status, and insured rates.

An effort is currently underway through the Early Learning Council to pull together some of this information to provide an early childhood report card (required by the 2010 Legislature). Included in the recommendations for the report card is a "dashboard" to allow the public and policymakers a quick picture of how well children and state systems are progressing toward the goal of all children being ready for kindergarten by 2010.

## OPTIONS TO INCREASE ACCOUNTABILITY

### **(1) Link information across systems to (a) improve services to children, (b) learn more about the implementation of current policies and (c) monitor the well-being of children participating in state programs.**

Many provisions already exist in federal and state law intended to improve the well-being of some of the state's most vulnerable children. For instance, federal law requires children in the child welfare system be referred for Early Intervention services, and all children in out-of-home placement are eligible for Early Head Start. But current child welfare information systems provide little information at the state level regarding the extent to which these high-risk children are actually referred to or receiving services. The data that can be accessed suggest low rates of involvement. For example, Head Start data show only 362 children in foster care placement were served in Head Start or Early Head Start in 2009,<sup>152</sup> or about 10% of the children ages 0–5 in out-of-home placement.

Even less is known about the children whose families are receiving MFIP. At the state level, their involvement in early intervention and prevention programs is not tracked, nor is their readiness for kindergarten, enrollment in special education or high school graduation. In addition, nearly all of the data in the MFIP annual report relates to adults (although the Department has produced some valuable special reports regarding children-e.g., its recent report on child-only cases<sup>153</sup>). When the data have been collected (e.g., for a pilot project), it is clear that many children are at high risk of not being ready for school unless they are enrolled in early education services. Without the routine collection and reporting of this kind of data, the state cannot know the extent to which this is happening or when and how to intervene.<sup>154</sup>

**STATE POLICY:** Require a jointly prepared report from the departments of education, human services, health and corrections regarding ways to enhance information about child well-being to improve services at the child level and assess policies and programs at the administrative level.

### **(2) Monitor children's progress through early education, elementary and secondary education.**

Many researchers and others concerned about program effectiveness have urged the state to assign at birth the school identifier currently assigned to children at their preschool screening (or in school) at birth. The system used by schools (Minnesota Automated Reporting Student System—MARRS) could provide more information about children's experience and the impact of early of early childhood services on later school achievement. In 2001, the Legislative Auditor recommended that the Department of Education report "as soon as possible on steps that would be required to track the K–12 school success of children who once participated in state-funded early childhood programs."<sup>155</sup>

**STATE POLICY:** Assign student identification numbers when a child is born (allowing parents to opt out).

### **(3) Connect state goals to program strategies and state agency performance measures as part of the budget process.**

Currently, few connections are made between:

- progress made toward state goals (such as the Minnesota Milestones' goal that "all children will be healthy and start school ready to learn")<sup>156</sup>,
- strategies the state is using to reach those goals (e.g., early childhood programs, income support, health care),
- state agency performance implementing those strategies, and
- resources the state puts toward implementing the strategies its chosen to reach state goals.

Explicitly connecting these elements would give the public a more coherent picture of what state policies are intended to do, how well the state and its partners are doing in implementing the policies and some explanation of why overall goals are being met or not being met.

The state of Washington structures its budget so that the end goals of its investments are clear (including the values those goals represent) as well as the strategies and budget items chosen to achieve those goals.<sup>157</sup>

As part of this effort, cross-silo accountability can be encouraged through joint performance measures shared by state agencies. These performance measures, which may emerge through the data linking recommended above, will encourage higher levels of collaboration and will clarify the multiple partnerships needed to implement policies that cut across agency silos. Most the data to accomplish this recommendation exists, but additional resources may be necessary for state agencies to enact some of the systems changes required by the higher degree of collaboration this approach would require.

Current law requires state agencies to include performance measures and identify the impact of their budget recommendations on progress toward Minnesota Milestone or other goals they identify in the biennial budget books. Although some important information has been produced by state agencies and included in the budget documents submitted to the governor's office and the state legislature, it generally receives little attention in legislative discussions. State agency staff indicates that the lack of attention by policymakers is a major obstacle to improving performance reporting efforts.

**STATE POLICY:** Review state budget and other documents to determine the extent to which they facilitate legislative oversight and public education, especially regarding state goals, strategies and performance toward reducing the incidence and impact of maternal depression. Engage legislators in the review.

#### **(4) Explicitly identify the entity (or entities) with primary responsibility for overseeing progress on reducing the incidence of maternal depression and its impact on children.**

Clear points of responsibility at the state level for administering efforts to reduce the incidence and impact of maternal depression will facilitate public and legislative oversight. A potential model would be to assign one agency or division (e.g., the Department of Human Services' mental health unit) responsibility for overseeing implementation of the strategic plan recommended earlier. The unit would have authority for requiring collaboration among state partners, and reporting on progress to accomplish the plan's goals. An existing entity already charged with collaboration, such as the MECCS, could provide support to the mental health unit in developing recommendations on the following components of a coordinated response:

- Development of joint performance measures across state agencies;
- Connections to other state reports (e.g., the Early Childhood Report Card)
- Ways to integrate maternal depression and early childhood into other state agency planning efforts, reports and needs assessments;
- Defining the roles and responsibilities collaborating agencies and divisions have in the plan.

Once the initial strategic planning process is completed, ongoing program plans and monitoring systems relevant to maternal depression should be incorporated into existing reports in other early childhood areas (e.g., school readiness), rather than requiring additional separate reports. This will hopefully continue to foster the collaborative approach required to improve outcomes in this area.

As part of their coordinating responsibilities, state agency managers should review the quality and quantity of technical assistance provided by state agencies to counties and providers. The need for additional assistance was expressed by several entities.

**STATE POLICY:** Identify a lead agency and/or division in state statute charged with ultimate responsibility for submitting a plan by 2012 to reduce the incidence and impact of maternal depression.

# Conclusion

Research has contributed greatly to our understanding of the causes and dynamics of depressed parenting and its potentially life-long effects on children's development, especially when it occurs in early childhood. Research has also provided important information on ways to prevent, treat and reduce the incidence of maternal depression and its impact on children.

Public policy has a clear role to play in facilitating the two-generation perspective necessary to make programs most responsive to the types of issues families experiencing depression face. Adopting a two-generation focus requires changes in the way the state and local agencies approach the administration of their programs and the way the Legislature oversees their work. A two-generation approach provides an organizing principle for policies and programs, and requires them to reach outside their "target" populations to consider the impact (intended and unintended) on other family members. It requires working across "silos" while establishing clear lines of authority and responsibility so that the public and policymakers know where to go for help and who to hold accountable for results. Ensuring children of parents experiencing depression receive early intervention and prevention services is critical to reducing avoidable deep-end expenditures later in their lives.

Health and mental health practitioners must also adopt and implement practices that support a two-generation approach. Practice should recognize that many adults struggling with mental health concerns are also raising children, and many of the children falling behind their peers are being raised by parents challenged by mental health and associated issues. Practitioners should also consider their clients holistically and appropriately refer and follow-up with those families needing additional assessment or services. The impact of paternal depression, which is only relatively recently beginning to be understood, should also be considered in two-generation, holistic approaches to ensuring children's well-being.

A truly effective response to maternal depression extends beyond individuals, families and government. Communities also have an important role in increasing the presence of "buffering" factors that can reduce the negative impact on children. Reducing social isolation and offering informal assistance can help strengthen new families. Reducing the stigma associated with mental

*Public policy has a clear role to play in facilitating the two-generation perspective necessary to make programs most responsive to the types of issues families experiencing depression face.*

illness and making it easier for parents to ask for help can reduce the number of families that go untreated. Taking steps to make sure parents are not “blamed or shamed” for their mental illness is critical.

The broader context in which families live today cannot be ignored for its impact on children, either. The financial and other strains families experience as wages have failed to keep pace with the cost of living, the widening gap between the rich and the rest of America, the erosion of benefits, and the racism and discrimination that many families of color experience every day have a major impact on the well-being of parents and children that shows up in mental and physical health problems.

The policy options presented in this report provide several opportunities to reduce the prevalence of maternal depression and its impact on children. They build on the momentum that already exists in Minnesota to improve the current and future well-being of our youngest residents. While the task may seem large, it can be broken down into doable activities implemented over time. Ultimately, all Minnesotans will benefit from progress made toward ensuring children are born to healthy mothers in strong families living in vibrant communities able to help them on their path to well-being in adulthood.

# Endnotes

- 1 Researchers and practitioners are identifying other mental health conditions such as severe anxiety that can occur when women are pregnant or after birth that have serious consequences for children's development. This paper most frequently refers to maternal depression, because most of the research to date has been done on maternal depression. Many of the findings and recommendations for these other perinatal mood disorders are similar to those of maternal depression.
- 2 National Research Council and Institute of Medicine. 2009. *Depression in Parents, Parenting, and Children. Opportunities to Improve Identification, Treatment, and Prevention*. Committee on Depression, Parenting Practices, and the Healthy Development of Children. Board on Children, Youth, and Families. Division of Behavioral and Social Science and Education. Washington, D.C. The National Academies Press, page 16.
- 3 Center on the Developing Child at Harvard University. 2007. *A Science-Based Framework for Early Childhood Policy: Using Evidence to Improve Outcomes in Learning, Behavior, and Health for Vulnerable Children*. Cambridge, MA: Harvard University, page 3. <http://developingchild.harvard.edu/>
- 4 New York State Department of Health and Office of Mental Health. 2005. Understanding Maternal Depression: A Fact Sheet for Care Providers. Accessed April 2011 from [http://www.health.state.ny.us/community/pregnancy/health\\_care/perinatal/maternal\\_factsheet.htm](http://www.health.state.ny.us/community/pregnancy/health_care/perinatal/maternal_factsheet.htm)
- 5 National Center for Children in Poverty at Columbia University. 2008. *Reducing Maternal Depression and Its Impact on Young Children: Toward a Responsive Early Childhood Policy Framework*. Project Thrive Issue Brief No. 2. NY: Columbia University, page 1. [http://www.nccp.org/publications/pdf/text\\_791.pdf](http://www.nccp.org/publications/pdf/text_791.pdf)
- 6 National Institute for Health Care Management. 2010. *Identifying and treating Maternal Depression: Strategies and Considerations for Health Plans*. Washington, D.C. [http://nihcm.org/pdf/FINAL\\_MaternalDepression6-7.pdf](http://nihcm.org/pdf/FINAL_MaternalDepression6-7.pdf)
- 7 The Pregnancy Risk Assessment Monitoring System (PRAMS) annually surveys new mothers using a systematic, stratified sample; results are weighted to account for survey design. The survey is administered through the Minnesota Department of Health, and is part of the federal Centers for Disease Control surveillance efforts. These estimates are based on the 2008 results, Barbara Frohnert, personal communication, Minnesota Department of Health, July 26, 2010.
- 8 Kim, Helen. "Overview of Perinatal Psychiatric Illness." Minnesota. *Beyond the Baby Blues*. St. Paul, Minnesota. June 22, 2010.
- 9 Gaynes, B.N., Gavin, N., Meltzer-Brody, S., Lohr, K.N., Swinson, T., Gartlehner, G., Brody, S., Miller, W.C. 2005. *Perinatal depression: Prevalence, Screening Accuracy, and Screening Outcomes*. Evidence report/Technology assessment No. 119. Prepared by the RTI-University of North Carolina Evidence-based Practice Center, under contract No 290-02-0016.) AHRQ Publication No. 05-E006-2. Rockville, MD: Agency for Healthcare Research and Quality, page 88.

- 10 Paulson, J.F. and Bazemore, S.D. 2010. Prenatal and Postpartum Depression in Fathers and Its Association with Maternal Depression. *Journal of the American Medical Association* Vol. 303, no. 19. <http://jama.ama-assn.org/content/303/19/1961.full.pdf+html>
- 11 National Research Council and Institute of Medicine, op. cit.
- 12 Ibid.
- 13 <http://www.nj.gov/health/fhs/postpartumdepression/index.shtml>
- 14 Kim, Helen. op. cit.
- 15 National Center for Children in Poverty at Columbia University, op. cit.
- 16 Patel, Vikram. 2004. "Is Depression a Disease of Poverty?" *World Health Organization: Regional Health Forum Southeast Asia Region* (Volume 5, No 1).
- 17 Center on the Developing Child at Harvard. 2010. *The Foundations of Lifelong Health are Built in Early Childhood*. Cambridge, MA: Harvard University. <http://developingchild.harvard.edu/>
- 18 National Research Council and Institute of Medicine, op. cit., page 87.
- 19 Ibid., page 88.
- 20 Ibid.
- 21 National Center for Children in Poverty, op. cit., page 6.
- 22 Based on the 2008 Minnesota Pregnancy Risk Assessment Monitoring System, Barbara Frohnert, personal communication, Department of Health, July 26, 2010.
- 23 Providers who work with Latina mothers report high rates of stress however among these mothers, especially those who do not have access to health insurance. Helen Kim, M.D., Hennepin County Medical Center, personal communication, March 23, 2011.
- 24 Ibid.
- 25 Patel, Vikram, op. cit., page 6.
- 26 Ibid.
- 27 Knitzer, J and Perry, D. 2009. Poverty and Infant and Toddler Development: Facing the Complex Challenges. In Zeanah, C. (ed.) *Handbook of Infant Mental Health 3rd Edition*. New York: Guilford Press.
- 28 Center on the Developing Child at Harvard University. 2009. *Maternal Depression Can Undermine the Development of Young Children: Working Paper No. 8*. Cambridge, MA: Harvard University. <http://developingchild.harvard.edu/>
- 29 Goodman, S. and Brand, S. 2009. Infants of Depressed Mothers: Vulnerabilities, Risk Factors, and Protective Factors in the Later Development of Psychopathology. In Zeanah, C. (ed.) *Handbook of Infant Mental Health 3rd Edition*. New York: Guilford Press.
- 30 Wulczyn, Fred. 2009. Epidemiological Perspectives on Maltreatment Prevention. In *The Future of Children*. Vol. 19 No. 2 Brookings Institute: Princeton.
- 31 National Survey of Child and Adolescent Well-being. *Depression Among Caregivers of Young Children Reported for Child Maltreatment*. Accessed June 2010 from the National Data Archive on Child Abuse and Neglect [http://www.acf.hhs.gov/programs/opre/abuse\\_neglect/nscaw/reports/depression\\_caregivers/depression\\_caregivers.pdf](http://www.acf.hhs.gov/programs/opre/abuse_neglect/nscaw/reports/depression_caregivers/depression_caregivers.pdf)
- 32 Davis, R.N., Davis, M.M., Freed, G.L., and Clark, S.J. 2011. Fathers' Depression Related to Positive and Negative Parenting Behavior with 1-Year-Old Children. *Pediatrics*, (doi:10.1542/peds.2010-1779). <http://pediatrics.aappublications.org/cgi/reprint/peds.2010-1779v1>
- 33 National Research Council and Institute of Medicine, op. cit.

- 34 Center on the Developing Child at Harvard University. In Brief: The Science of Early Development. A series of brief summaries of the scientific presentations at the National Symposium on Early Childhood Science and Policy. Accessed December 2010. [http://developingchild.harvard.edu/initiatives/state\\_policy\\_partnership/symposium/](http://developingchild.harvard.edu/initiatives/state_policy_partnership/symposium/)
- 35 National Center for Children in Poverty, op. cit.
- 36 Oregon Department of Human Services. 2010. *House Bill 2666: Maternal Mental Health Work Group Report*. [www.oregon.gov/dhs/ph/ch/maternal\\_mental\\_health.shtml](http://www.oregon.gov/dhs/ph/ch/maternal_mental_health.shtml)
- 37 Kim, Helen, op. cit.
- 38 National Survey of Child and Adolescent Well-being, op. cit., page 4.
- 39 Canadian Pediatric Society. 2009. Maternal Depression and Child Development Position Statement. <http://www.cps.ca/english/statements/pp/pp04-03.htm>
- 40 Gearity, Anne. "The Importance of Attachment Between Mothers and Infants." Minnesota. *Beyond the Baby Blues*. St. Paul, Minnesota. June 22, 2010.
- 41 Luby, J. Depression. (2009). In Zeanah, C. (ed.) *Handbook of Infant Mental Health 3rd Edition*. New York: Guilford Press.
- 42 National Research Council and Institute of Medicine, op. cit., page 102.
- 43 National Survey of Child and Adolescent Well-Being, op. cit., page 1.
- 44 National Research Council and Institute of Medicine, op. cit.
- 45 Center on the Developing Child at Harvard University, 2009, op. cit.
- 46 Canadian Pediatric Society, op. cit.
- 47 Oregon Department of Human Services, op. cit.
- 48 National Center for Children in Poverty at Columbia University, op. cit.
- 49 Center for the Developing Child at Harvard University. 2007. *A Science-Based Framework for Early Childhood Policy: Using Evidence to Improve Outcomes in Learning, Behavior, and Health for Vulnerable Children*, op. cit.
- 50 NYU Child Study Center Letter. 2003. *Mother Blues-Child Blues: How Maternal Depression Affects Children*. New York: New York University School of Medicine. Vol. 7 (3). [http://www.aboutourkids.org/files/articles/jan\\_feb\\_1.pdf](http://www.aboutourkids.org/files/articles/jan_feb_1.pdf)
- 51 National Research Council and Institute of Medicine, op. cit.
- 52 National Research Council and Institute of Medicine, op. cit., page 131.
- 53 Helen Kim, M.D. Hennepin Women's Mental Health Program, personal communication, April 2010.
- 54 Center for the Children in Poverty at Columbia University, op. cit., page 4.
- 55 Ibid.
- 56 While research continues on the effects of antidepressants on the developing fetus, most practitioners recommend that mothers at risk for developing postpartum depression receive or stay on their antidepressants. See for example Massachusetts General Hospital (MGH) Center for Women's Health. February 2007. Depression during pregnancy is often not treated. <http://www.womensmentalhealth.org>
- 57 Goodman, S. and Brand, S., op. cit.
- 58 Center on the Developing Child at Harvard University, 2009, op. cit., page 8.
- 59 National Research Council and Institute of Medicine, op. cit., page 345.
- 60 Center for Disease Control. (2008). Nonfatal Maltreatment of Infants-United States (October 2006–September 2006). 57 (13) 336-339. <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5713a2.htm>

- 61 Davis, op. cit.
- 62 The two questions are similar to those used in the PRAMS survey asking how often in the prior two weeks mothers felt down, depressed or hopeless and/or a loss of interest or pleasure in doing things. See Harlow, Bernard. Minnesota. "Maternal mental health during pregnancy and the postpartum." St. Paul, MN: The National Children's Study Speakers' Series, June 2010.
- 63 National Research Council and Institute of Medicine. op. cit., page 199.
- 64 Ibid., page 199.
- 65 Center on the Developing Child at Harvard University, 2009, op. cit., page 2.
- 66 Minnesota PRAMS (Pregnancy Risk Assessment Monitoring System) Summary Book: 2002-2003. 2006. St Paul, MN: Department of Health. [http://www.health.state.mn.us/divs/cfh/prams/mnprams2002\\_2003sb.pdf](http://www.health.state.mn.us/divs/cfh/prams/mnprams2002_2003sb.pdf)
- 67 Vericker, T, Macomber, J and Golden, O. 2010. *Infants of Depressed Mothers Living in Poverty: Opportunities to Identify and Serve*. Brief 1. Washington, D.C.: The Urban Institute. <http://www.urban.org/uploadedpdf/412199-infants-of-depressed.pdf>
- 68 Center for the Children in Poverty at Columbia University, op. cit., page 5.
- 69 See for example, Reynolds, A.J., Rolnick, A.J., Englund, M., and Temple, J. 2010. *Childhood programs and practices in the first decade of life*. New York: Cambridge University Press.
- 70 M. Casey Ladd, Duluth Human Development Center, Department of Human Services Great Start Steering Committee, February 9, 2011.
- 71 Based on PRAMS (2008) data.
- 72 Minnesota Department of Health. 2006. *Pregnancy Risk Assessment Monitoring System: Summary Book 2002-2003*. St. Paul, MN: Department of Health Division of Community and Family Health. [http://www.health.state.mn.us/divs/cfh/prams/mnprams2002\\_2003sb.pdf](http://www.health.state.mn.us/divs/cfh/prams/mnprams2002_2003sb.pdf)
- 73 Diaz, J & Chase, R. 2010. *The Cost of Untreated Maternal Depression*. Research Brief. St. Paul, Minnesota: Wilder Research. <http://www.wilder.org/download.0.html?report=2348>
- 74 Chase, R., Anton, P., Diaz, J., Martin-Rogers, N., & Rausch, E. 2009. *Cost Savings Analysis of School Readiness in Michigan*. St. Paul, Minnesota: Wilder Research. <http://www.wilder.org/download.0.html?report=2267>
- 75 Minnesota Senate Fiscal Staff. 2009. Leadership Summit Briefing Materials: K-12 Education Supplement. <http://www.senate.leg.state.mn.us/departments/fiscalpol/reports/2009/Leadership%20Summit%20-%20K-12%20Education%20Supplement.pdf>
- 76 Budget Trends Study Commission. 2009. St. Paul, Minnesota: Department of Management and Budget. <http://www.mmb.state.mn.us/doc/budget/trends/report-09.pdf>
- 77 See the work of Robert Anda (Centers for Disease Control and Prevention) on Adverse Childhood Experiences, (ACEs) at <http://www.acestudy.org/>.
- 78 DeMaster, Dana. 2010. *Minnesota Family Investment Program and the Diversionary Work Program: Characteristics of December 2009 cases and eligible adults*. St. Paul, Minnesota: Department of Human Services. <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-4219L-ENG>
- 79 Minnesota Department of Human Services. 2010. *Minnesota's Child Welfare Report*. St Paul, Minnesota. <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-5408B-ENG>  
[https://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-5965-ENGstate report](https://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-5965-ENGstate%20report)
- 80 DeMaster, Dana. 2010. *Minnesota Family Investment Program and the Diversionary Work Program: Characteristics of December 2009 cases and eligible adults*, op. cit.
- 81 MFIP child-only cases are those in which the caregiver is ineligible for MFIP, usually because he or she is receiving Supplemental Security Income (SSI) often due to a disability such as serious mental illness.

- 82 DeMaster, Dana. 2010. *Minnesota Family Investment Program Child-Only Cases, Caregivers, and Children*. St Paul, MN: Program Assessment and Integrity Division, Minnesota Department of Human Services. <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-6193-ENG>
- 83 Loman, T., Shannon, C., Sapokaite, L., & Siegel, G. 2009. *Minnesota Parent Support Outreach Program Evaluation: Final report*. St. Louis, Missouri: Institute of Applied Research. <http://iarstl.org/papers/PSOPFinalReport.pdf>
- 84 Martin, Erika. 2010. *Minnesota Family Investment Program and Children's Mental Health Pilot Evaluation*. St Paul, MN: Program Assessment and Integrity Division, Minnesota Department of Human Services. <http://www.leg.state.mn.us/docs/2010/mandated/100374.pdf>
- 85 DeMaster, Dana, 2010, *Minnesota Family Investment Program Child-Only Cases, Caregivers and Children*, op. cit.
- 86 Minnesota Department of Human Services. 2009. *Children with disabilities involved in the child welfare continuum*. St. Paul, Minnesota: Children and Families Services Division. <https://edocs.dhs.state.mn.us/lfserver/Legacy/DHS-5965-ENG>
- 87 Minnesota Department of Health. 2010. *Family Home Visiting Program: Report to the Minnesota Legislature 2010*. St. Paul, Minnesota: Community and Family Health Division <http://www.health.state.mn.us/divs/fh/mch/fhv/documents/2010FHVlegreportprint.pdf>
- 88 Minnesota Departments of Education & Human Services. (2004). Developmental Assessment at Kindergarten Entrance. Retrieved February 2011 from <http://education.state.mn.us/mdeprod/groups/EarlyLearning/documents/Presentation/011264.pdf>
- 89 Center on the Developing Child at Harvard University, 2009, op. cit., page 3.
- 90 See M.S. 145.906.
- 91 Barbara Frohnert, Minnesota Department of Health, personal communication, July 26, 2010.
- 92 Ibid.
- 93 Hart Research Associates. 2009. *Parenting Infants and Toddlers Today: Based on a Survey Among Parents of Children Ages Birth to Three Years Old*. Washington D.C. [http://www.zerotothree.org/about-us/funded-projects/parenting-resources/final\\_survey\\_report\\_3-11-2010.pdf](http://www.zerotothree.org/about-us/funded-projects/parenting-resources/final_survey_report_3-11-2010.pdf)
- 94 Miles, J., Espiritu, R.C. Horen, N., Sebian, J., & Waetzig, E. op. cit.
- 95 Duke, Andre and White, LaDonna, Department of Human Services Great Start Steering Committee Presentation, July 14, 2010.
- 96 The American College of Obstetricians and Gynecologists. Committee Opinion No. 453: Screening for depression during and after pregnancy. Retrieved February 2011 from [http://journals.lww.com/greenjournal/Citation/2010/02000/Committee\\_Opinion\\_No\\_\\_453\\_\\_Screening\\_for.34.aspx](http://journals.lww.com/greenjournal/Citation/2010/02000/Committee_Opinion_No__453__Screening_for.34.aspx)
- 97 Minnesota Council of Health Plans representatives meeting, personal communication, November 1, 2010.
- 98 Mental health is often referred to as social and emotional development when referring to children.
- 99 Robert Lloyd, Minnesota Department of Human Services, personal communication, December 3, 2010.
- 100 Half of the funding for the Follow Along Program comes from local county funds; the balance is from federal funds, local public health grants and private funds.
- 101 Minnesota Department of Health, *Follow Along Program 2008 Report*, St. Paul, Minnesota: Community and Family Health Division. <http://www.health.state.mn.us/divs/fh/mcshn/pdfdocs/faprpt08.pdf>
- 102 White, LaDonna, Department of Human Services Great Start Steering Committee Presentation, July 14, 2010.

- 103 Minnesota Department of Human Services. 2010. *Children and Community Services Act (CCSA) Annual Performance Report: Calendar Year 2009 Data*. St. Paul, Minnesota. <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-6241-ENG>
- 104 See Hennepin Women's Mental Health Program <http://www.hcmc.org/depts/psych/mentalhealth.htm>.
- 105 Minnesota Department of Human Services, Great Start Steering Committee Presentation, May 12, 2010.
- 106 Current DHS guidelines give health care professionals flexibility in the screening tools they use.
- 107 Vicki Kunerth, Minnesota Department of Human Services, personal communication, September, 13, 2010.
- 108 See Minnesota Community Health Worker Project, Minnesota Department of Health website <http://www.health.state.mn.us/ommh/projects/chw.html> Accessed February 17, 2011.
- 109 Institute for Clinical Systems Improvement. 2008. The DIAMOND initiative. Bloomington, Minnesota. [http://www.icsi.org/diamond\\_white\\_paper\\_/diamond\\_white\\_paper\\_28676.html](http://www.icsi.org/diamond_white_paper_/diamond_white_paper_28676.html)
- 110 See the State of New Jersey website <http://www.nj.gov/health/fhs/postpartumdepression/index.shtml>
- 111 Susan Abderholden, National Alliance on Mental Illness Minnesota, personal communication, September 2010.
- 112 Moore, C., Chase, R., Waltz, N., Nicholie, Z., and Then, A. 2008. *Early Childhood in Minnesota: Indicators and Strategies for Minnesota's Early Childhood System, a Joint Report of Minnesota Build and Minnesota Early Childhood Comprehensive Systems*. St. Paul, MN: Wilder Research. <http://www.wilder.org/download.0.html?report=2173>
- 113 Minnesota State Advisory Council on Mental Health. 2010. *2010 report to the Governor and Legislature*. St. Paul, Minnesota. <https://edocs.dhs.state.mn.us/lfserver/Public/DHS-4278-ENG>
- 114 Carol Miller, Hennepin County, personal communication, March, 2011.
- 115 Casey Ladd, op. cit.
- 116 U.S. Office of Special Education Programs. Table C-13. Number and percentage of infants and toddlers receiving early intervention services under IDEA Part C by age and state. Fall 2008. <https://www.ideadata.org/PopulationData.asp>
- 117 Shackelford, J. 2006. *State and Jurisdictional Eligibility Definitions for Infants and Toddlers with Disabilities Under IDEA*. NECTAC Notes Issue No. 21. National Early Childhood TA Center. Chapel Hill: University of North Carolina.
- 118 Larson, A. and Stewart, D.J. 2009. The child protection and special education outcomes of Part C participants. Minn-Link Child Welfare Special Topic Report No. 5. St. Paul, MN: University of Minnesota. [http://www.cehd.umn.edu/ssw/cascw/attributes/PDF/minnlink/ReportNo5\\_PartC.pdf](http://www.cehd.umn.edu/ssw/cascw/attributes/PDF/minnlink/ReportNo5_PartC.pdf)
- During the period in which these children were enrolled in Part C services, Minnesota limited services to children already exhibiting development delays. The federal government subsequently required the state to expand its criteria.
- 119 U.S. Department of Health and Human Services Administration for Children and Families. 2006. *Early Head Start Benefits Children and Families: Early Head Start Research and Evaluation Project*. [http://www.acf.hhs.gov/programs/opre/ehs/ehs\\_resrch/reports/dissemination/research\\_briefs/research\\_brief\\_overall.pdf](http://www.acf.hhs.gov/programs/opre/ehs/ehs_resrch/reports/dissemination/research_briefs/research_brief_overall.pdf)
- 120 Gayle Kelly, Head Start Association, personal communication, November, 2010.
- 121 Minnesota Head Start Fact Sheet. Accessed February 2011 from <http://www.mnheadstart.org/facts.html>.

- 122 SRI International, 2009. *Evaluation of Minnesota's School Readiness Connections pilot project*. Summary Issue Brief 1. [http://www.dhs.state.mn.us/main/groups/children/documents/pub/dhs16\\_147886.pdf](http://www.dhs.state.mn.us/main/groups/children/documents/pub/dhs16_147886.pdf)
- 123 For more information, see <http://www.babyspace.org/>
- 124 Hennepin County, Minnesota. 2009. Strong beginnings child care. [Summary sheet] [http://www.co.hennepin.mn.us/files/HennepinUS/Public%20Affairs/Newsroom/StrongBeginnings\\_2009.pdf](http://www.co.hennepin.mn.us/files/HennepinUS/Public%20Affairs/Newsroom/StrongBeginnings_2009.pdf)
- 125 Minnesota Department of Human Services. 2010. *Child Care Advisory Task Force Recommendations*. St. Paul, MN. <http://www.house.leg.state.mn.us/comm/docs/ChildCareAdvisoryTaskForceReport.pdf>
- 126 Miles, J., Espiritu, R.C. Horen, N., Sebian, J., & Waetzig, E. 2010. *A Public Health Approach to Children's Mental Health: A Conceptual Framework*. Washington, D.C.: Georgetown University Center for Child and Human Development, National Technical Assistance Center for Children's Mental Health. (put full reference at 88 and op cit here)
- 127 Inability to regulate their emotions (and therefore their behavior) is a major reason young children fail to succeed in kindergarten (Greg Duncan, University of California, personal communication, October 2010).
- 128 Minnesota Department of Human Services Great Start Steering Committee meeting, April 14, 2010.
- 129 Catherine Wright, Department of Human Services Great Start Steering Committee meeting, March 9, 2011.
- 130 Kahn, J. and Moore, K. A. 2010. *What Works for Home Visiting Programs: Lessons from Experimental Evaluations of Programs and Interventions: Fact Sheet*. Washington, D.C.: Child Trends. [http://www.childtrends.org/Files/Child\\_Trends-2010\\_7\\_1\\_FS\\_WWHomeVisitpdf.pdf](http://www.childtrends.org/Files/Child_Trends-2010_7_1_FS_WWHomeVisitpdf.pdf)
- 131 Minnesota Department of Health, Home Visiting website. Accessed Fall 2010. <http://www.health.state.mn.us/divs/fh/mch/fhv/background.html>
- 132 Minnesota Department of Health. 2010. *Family Home Visiting: Report to the Minnesota Legislature 2010*. St. Paul, Minnesota. <http://www.health.state.mn.us/divs/fh/mch/fhv/documents/2010FHVlegreportprint.pdf>
- 133 Bakken, Gaye. 2007. *Home Visiting At Risk Families: The Dakota Healthy Families Program*. University of Minnesota: Center for Urban and Rural Affairs. <http://www.co.dakota.mn.us/NR/rdonlyres/000011c2/uqqioyewpwtirngqwtlthwbdznolaezp/CURAreporterarticle.pdf>
- 134 Minnesota Department of Health. 2010. *Family Home Visiting: Report to the Minnesota Legislature 2010*, op. cit.
- 135 Center on the Developing Child at Harvard University, 2009, op. cit.
- 136 Bakken, Gaye, op. cit.
- 137 National Center for Children in Poverty at Columbia University, op. cit.
- 138 Chase, R., Dillon, K., and Valrose, J. 2008. *Early Care and Education in Minnesota: Asset Review and Status Report*. St. Paul, MN: Wilder Research. <http://www.health.state.mn.us/divs/cfh/meccs/earlycareasset.pdf>
- 139 Until recently, the program's name over time has reflected its primary role of supporting families to care for their children (e.g., Aid to Families With Dependent Children). It originated as "Mothers' Pensions" early in the twentieth century.
- 140 The Minnesota Family Investment Program (MFIP) has not been a major cost driver in the state budget. Total costs have decreased over time as caseloads have decreased. MFIP's total cost remains less than 1% of the total state budget.

- 141 Wilder Research, 2006. *Fundamental Facts from the 2004 Child Care Survey: Child Care Assistance and Child Care Use*. St. Paul, MN. Accessed March 2011 from <http://www.wilder.org/download.0.html?report=1925>
- 142 Moore, C., Chase, R., Waltz, N., Nicholie, Z., and Then, A. op. cit.
- 143 To help families move toward self-sufficiency without financially penalizing them, MFIP allows employed families to keep a portion of their wages until their income and the cash assistance total 115% of the Federal Poverty Level (FPL).
- 144 Martin, Erika. 2010. *Minnesota Family Investment Program and children's mental health pilot evaluation*, op. cit.
- 145 Turetsky, V. 2000. *Realistic Child Support Policies for Low Income Fathers*. Washington, D.C.: Center for Law and Social Policy. <http://www.clasp.org/admin/site/publications/files/PassThroughFinal061209.pdf>
- 146 Minnesota Department of Human Services. 2010. *Child care advisory task force recommendations*.
- 147 Pavetti, L. and Kauf, J. 2006. *When Five Years is Not Enough: Identifying and Addressing the Needs of Families Nearing the TANF Time limit in Ramsey County, Minnesota*. Washington, D.C.: Mathematica Policy Research, Inc. [www.mathematica-mpr.com](http://www.mathematica-mpr.com)
- 148 Ibid.
- 149 Illinois Public Act 93-0536.
- 150 The current federal administration has begun efforts to increase its collaborative efforts at the federal level.
- 151 For instance, the Minnesota Department of Health seeks public input regarding the questions asked in the Pregnancy Risk Assessment Monitoring Survey (PRAMS).
- 152 Mary Vanderwert, Minnesota Department of Education, personal communication, November 2010.
- 153 DeMaster, Dana. 2010. Minnesota Family Investment Program Child-Only Cases, Caregivers and Children, op. cit.
- 154 Little is known about the children of parents in the state's corrections systems, also.
- 155 Office of the Legislative Auditor. 2001. Program Evaluation Report: Early Childhood Education Programs. St. Paul, MN: State of Minnesota. <http://www.auditor.leg.state.mn.us/ped/pedrep/0101all.pdf>
- 156 See Minnesota Milestones (Minnesota Department of Administration) <http://www.mnplan.state.mn.us/mm/goal.html#People>
- 157 See for example "Transforming Washington's Budget: Statewide POG [Priorities of Government] Strategies." [http://www.governor.wa.gov/priorities/budget/statewide\\_pog\\_strategies.pdf](http://www.governor.wa.gov/priorities/budget/statewide_pog_strategies.pdf)