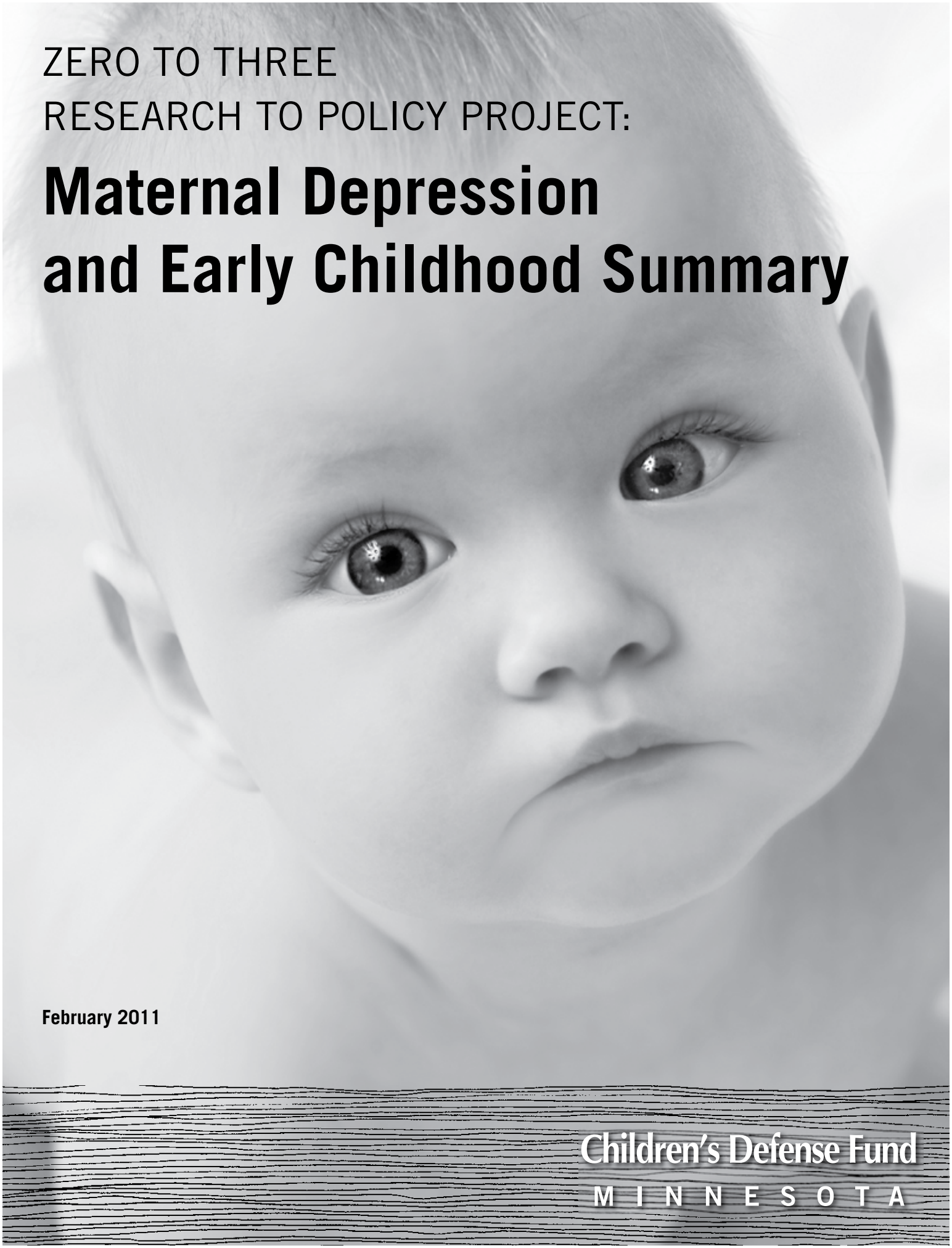


ZERO TO THREE
RESEARCH TO POLICY PROJECT:

# Maternal Depression and Early Childhood Summary

**February 2011**

Children's Defense Fund
MINNESOTA

Minnesota's future is being determined now. The workforce and parents of tomorrow are experiencing the world for the first time today. Born with brains primed to learn and relate to others, newborns are actively building the neural circuitry of their brains in a step-by-step process beginning before birth.

Neuroscience tells us that the brain development of babies and toddlers is greatly affected by their environments. Even in the first few hours after birth, babies are processing their experiences, reaching out to their caregivers and building the foundation on which all of their development will occur. If the adults in their lives respond in a nurturing way, take care of their daily needs and ensure they are safe, they are on the path to productive and fulfilling adulthoods.

Not all babies experience a positive response from the world into which they are born, however. Many infants and toddlers experience toxic levels of stress in their brains and bodies —sometimes beginning before they are born–making it difficult or even impossible for them to grow to their full potential. Research is documenting that there are many adverse experiences in early childhood that can have lifelong negative consequences. This paper focuses on one of the most harmful–maternal depression.

Now is an exciting time in early childhood. Research from a variety of disciplines is helping to solve the mystery of why many programs and policies that do not start until later childhood are less successful than hoped. Research is showing the pathways through which healthy and unhealthy growth occurs and ways to send more children down the route that will ultimately benefit all Minnesotans. If addressed early and holistically, maternal depression and its negative effects can be mitigated and even prevented.

## Key Minnesota Facts

1. **One in 10 new mothers** in Minnesota report serious depressive symptoms, such as feeling down and hopeless most or all of the time after their baby's birth.

   This represented almost 15,000 babies and mothers in 2008.

   Mothers with low-incomes (below $15,000/year) are more than three times as likely to report feeling this way more than mothers in families with higher incomes (over $50,000/year).

2. **Nearly half of families receiving assistance** through the Minnesota Family Investment Program (MFIP) in 2009 had a caregiver who was diagnosed with a serious mental health condition in the prior three-year period.

   Most MFIP recipients are children and one-fourth (more than 20,000) are under age three.

3. **Every untreated case of maternal depression** in Minnesota is estimated to cost society at a minimum $23,000 per year in terms of lost productivity for both mother and child.

**Maternal depression is not the "baby blues," which affect up to 80% of new mothers. The blues, characterized by feeling overwhelmed with extreme fatigue, usually lift within two weeks. Maternal depression, in contrast, lasts much longer and is more severe. Severe anxiety and other mental health disorders can also occur after a baby's birth. Postpartum depression refers to maternal depression that occurs during the postpartum period—often defined as the first year after the baby's birth.**

**Fathers and child care providers also get depressed, with negative implications for the children in their care.**

**Babies of depressed mothers are four times as likely to be born at low birth weight, and more likely to have significant problems growing up, including poorer school outcomes.**

**The presence of buffering factors in a child's life, such as living in a household that is financially secure, having a father who is not depressed and who is involved in the family, and being older when a mother's depression first occurs, can help to mitigate the negative effects of maternal depression.**

**Research has demonstrated that maternal depression is treatable and its harmful impact on children preventable.**

**POTENTIAL IMPACT OF MATERNAL DEPRESSION ON A CHILD'S DEVELOPMENT**

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

"Adversity is not destiny. Rather, adversity creates risk."

Robert Anda, M.D., Centers for Disease Control and Prevention, January 2011

## Key Research Findings

1. Depression makes it hard for parents to provide the kind of care that helps children develop**.** Depression can affect a mother's ability to parent in different ways:

   **Capacity to nurture.** Mothers who are depressed have a harder time responding to their infants in a nurturing manner. They may withdraw emotionally from their infants and not respond to their baby's cries and smiles with facial expressions or verbalizations. They may fail to return their newborn's gazes and take little pleasure in their babies. Some depressed mothers respond in a harsh manner to their children, perceiving infant cries as anger directed at them. Animal studies have demonstrated that infants across species react similarly to 'indifferent' mothers. Young animals first try to engage the parent through increased activity and vocalization. When unsuccessful, they appear to despair and give up trying to get a response. If parental indifference continues, they become detached from parents and peers. In adulthood, they exhibit profound abnormalities in their social interactions with others.

   **Caretaking.** Depressed mothers often find it harder to manage the daily responsibilities of parenting. Mothers depressed during pregnancy may fail to care for themselves as well as they should. After birth, depressed and overwhelmed mothers are less likely to breastfeed, follow safety practices such as putting children in safety seats, or manage their children's health conditions such as asthma.

   **Physiologically.** Depression is associated with heightened levels of the stress hormone cortisol. In addition to affecting the mother's health, her heightened stress hormone levels can pass through to babies before they are born and remain higher throughout childhood. These heightened stress levels make babies more difficult to console, further complicating their relationship to an already stressed mother, and affecting their growth, temperament and even capacity to absorb nutrients.

Children of depressed parents are at "great risk for depression and maladjustment in academic, social and intimate roles …"

National Research Council and Institute of Medicine, 2009, p. 102

The effects of maternal depression on children can start before birth and continue throughout childhood. Maternal depression affects children differently depending on when it occurs in a parent's life. Its consequences are most serious for infants and toddlers because of the rapid brain growth that occurs during this developmental period and the near-total dependence young children have on their caregivers. Children of depressed parents may exhibit depressive symptoms as young as age 3, reflected in withdrawn behavior and flat emotional responses.

"Maternal depression and anxiety is a stronger risk factor for child behavior problems than smoking, binge drinking and emotional or physical domestic violence." National Center for Children in Poverty, 2008

2. Women at all income levels, and of all races and ethnicities, experience maternal depression, but some are at substantially more risk than others due to history and additional stressors in their lives. Women who have a history of depression or other mental health concerns, especially while pregnant, or who have had an earlier episode of postpartum depression are at higher risk for experiencing depression after the birth of a baby. New mothers who are living in poverty, young, and single also experience postpartum depression at high rates.

3. Unaddressed, maternal depression exacts high personal and public costs. Longitudinal studies have linked poor health in adulthood, including increased risk for heart disease, to adverse childhood experiences, such as parental mental health disorders. On a public level, one-fourth of Minnesota's budget has its roots in early childhood including special education, juvenile justice and adult corrections, social services and public health care programs. Another one-fifth of the budget goes for long-term health care, some of which can be traced to adverse early childhood experiences. Wilder Research estimates the annual costs of not treating one mother with maternal depression at $23,000, due primarily to lost productivity and high medical costs. Most women who need help do not receive it, for a variety of reasons, including insurance coverage and access to care.

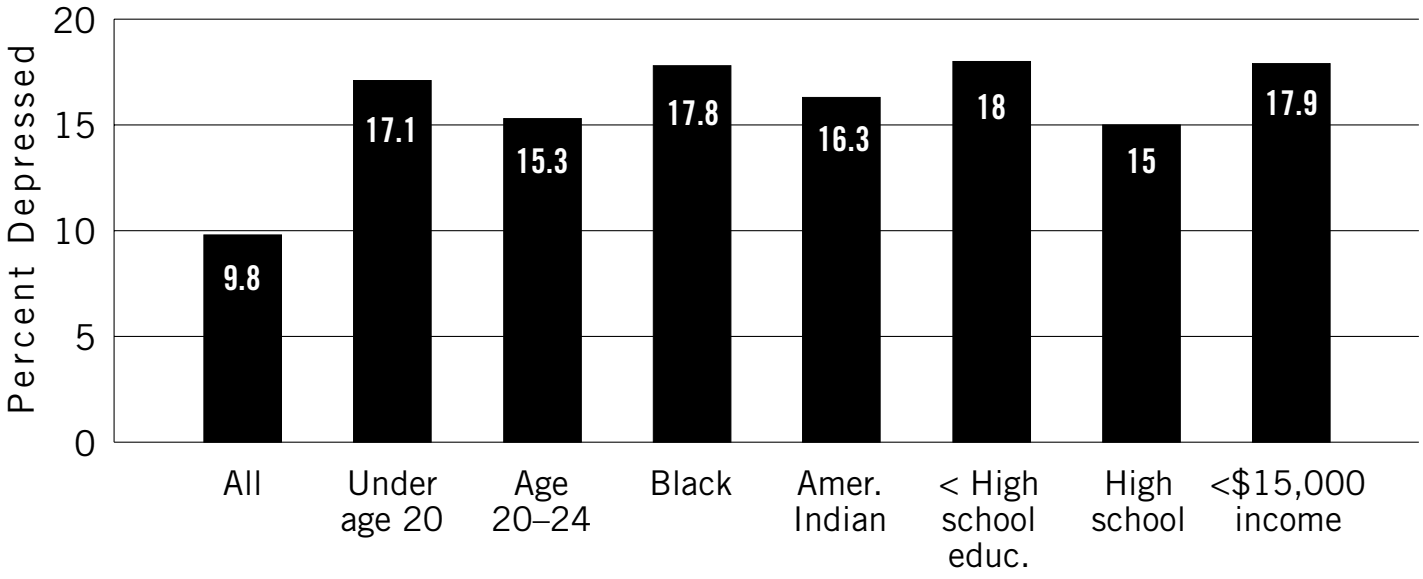
**RISK OF DEVELOPING POSTPARTUM DEPRESSION OR OTHER MOOD DISORDERS**

| | |
|---|---|
| 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 | 25–60% |
| Teen parenthood | 40–60% |

4. The public is still largely unaware of the impact of parents' mental health. Those most at risk are the least likely to report receiving information about postpartum depression from their providers.

   In a 2009 national survey, two-thirds of new parents did not realize babies are affected by their parents' moods or that infants experience feelings of sadness and fear. In Minnesota, American Indians, Hispanics, Blacks, and women in families with less than $15,000 annual income or receiving public insurance were most likely to report that no health care provider talked to them about postpartum depression.

**GROUPS WITH THE HIGHEST RATES OF POSTPARTUM DEPRESSION MINNESOTA 2008**



Many low-income women view depressive feelings as just "part of everyday life."

—National Center for Children in Poverty, 2008, page 6

Maternal depression and its impact on children can be ameliorated or even prevented if identified and addressed early.

Practitioners who work with expectant and new parents report that the birth of a child presents a unique window of opportunity for change. Parents are often highly motivated to accept help for their child's sake. This is encouraging because depression is a "highly treatable disease." Up to 80% of women who receive treatment are helped. In addition to treating the mother's depression, her relationship with her child and her parenting must also be addressed if the children are to benefit. A child may need individual help if his or her social-emotional or other development has been affected. Children of depressed parents also need stimulating experiences outside their home with nondepressed caregivers, such as in quality child care settings, Early Head Start and other early childhood programs.

## Components of an Effective Response to Maternal Depression and Its Impact on Early Childhood

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.

A clear point of responsibility and **accountability** within state government for achieving these goals, with authority to coordinate efforts across state and local government, reinforced by data and budgeting strategies that encourage effectiveness and efficiencies.

Widespread **public awareness** of maternal depression and its impact on early childhood, with targeted messages to those most at risk and people who work with at risk families.

Effective **early screening and referral** for further assessment or treatment of both mothers and children at risk of, or already affected by, depression.

**Two-generation** focused care, including mental health treatment 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** and their impact on family well-being.

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."

National Research Council and Institute of Medicine, 2009, p. 16

## Minnesota's Strengths

Minnesota already has a good deal of the infrastructure necessary to respond effectively to maternal depression. Below are some of its strengths, followed by an example.

1. Knowledgeable and committed individuals at all levels and in all sectors.

   › The Institute for Child Development at the University of Minnesota is one of the leading research centers on the impact of stress on young children.

2. Successful pilot projects and local efforts, many with documented effectiveness.

   › The Duluth Human Development Center works with young adults with serious mental health illness to help them be more successful parents. Center staff determined that one-third of the young adults they serve were pregnant or had children.

3. Professionals educating and supporting their colleagues

   › Hennepin County Medical Center's Women's Mental

Health Program staff provide support for other health care providers serving women with maternal depression including a provider "warm line."

4. Evidence-based and cost-effective state policies and programs.

   › Pediatricians can bill Minnesota Public Health Care Programs (MHCP) for maternal depression screenings as part of a well-child infant check-up to age one. › Many young children who receive early intervention services through Help Me Grow (sometimes referred to as Part C) have been able to 'graduate,' no longer needing special services.

5. Public education efforts requiring health care providers to give all new families information about postpartum depression before they leave the hospital.

   › The proportion of new mothers reporting they received information about postpartum depression has increased to 90%.

6. Targeted, evidence-based, cost-effective prevention-oriented services.

   › Home visiting programs, operating in several counties, have decreased child maltreatment rates and improved maternal and child health outcomes, saving government $20,000 for each potential child maltreatment investigation not required, and up to $80,000 for each child not removed from their home due to maltreatment.

7. Low-cost programs that help families help themselves.

   › The Follow-Along Program (FAP), administered through local public health agencies, allows parents to score their children's development. If they send the results to the county and delays are noted, they are offered assistance. Parents report a high degree of satisfaction with FAP and the program has identified many children who could benefit from early intervention services. FAP costs $42 per child on average statewide.

8. Innovative communities and providers.

   › Baby Space, operating in the local Little Earth Indian reservation in Minneapolis, uses a variety of funding sources to assist families struggling with many challenges to support their infant's development, including child care, monthly home visiting, parent education, adult mental health care and temporary help with financial crises. The program has received national recognition.

   › Churches in North Minneapolis are training lay people in developmental screening and educating parishioners about the importance of early childhood experiences.

9. Foundation support and policymaker interest in early childhood.

   › The School Readiness Funders Coalition has as its goal that every child be ready for kindergarten by 2020.

## Minnesota's Shortcomings

Despite these strengths, there are shortcomings in Minnesota's systems that make its current response inadequate to substantially reducing the incidence and impact of maternal depression. Some of these shortcomings are described below with examples.

1. Effective pilots and major portions of the early childhood system have not been brought to scale or fully funded.

   › Child care assistance, one of the largest early childhood programs, has experienced major reductions in prior years.

   › Early Head Start, which has shown positive results serving low-income families with young children, serves fewer than 10% of the state's zero to three year-olds living in poverty.

   › Minnesota ranks below more than half the other states in the proportion of children receiving Early Intervention services.

2. Data on the implementation of current laws to determine the effectiveness of current policies or the well-being of children are unavailable or difficult to access in many systems.

   › Information is not available on how many children in high risk groups such as MFIP or child welfare are referred for or receiving prevention or early intervention services (required by federal law for children who have been maltreated).

3. State policies do not take maximum advantage of cost-effective targeting opportunities for prevention and early intervention efforts.

   › Many of the children at highest risk of developmental delay and many of the women at highest risk of maternal depression receive MFIP, but state law does not require attention to these issues and outcomes.

4. Many cost-effective prevention programs are not

consistently administered across the state.

› Only 12% of children birth to age three are in families participating in the Follow-Along Program (FAP).

› Public health family home visiting programs vary widely across the state. According to the Department of Health, "Among the 91 local health departments there are 15 different curricula used, nine documentation systems employed and at least six different funding sources. Twenty-eight local health departments use a nationally recognized family home visiting model while 63 use other types of programming."

**PERCENTAGE OF CHILDREN BIRTH TO THREE ACTIVE IN THE FOLLOW-ALONG PROGRAM (2008)**

| | |
|---|---|
| Metro | 4% |
| Northwest | 25% |
| Northeast | 20% |
| Southeast | 22% |
| Southwest | 29% |
| West Central | 26% |
| Statewide | 12% |

5. Policies are not fully implemented.

› In 2009, fewer than 2% of children enrolled in the state's public health care programs were screened by their primary health care provider for social and emotional delays, even though data from home visitors' screening of a similar population found more than one in ten were not meeting social and emotional milestones.

6. Available federal funds are not fully utilized.

› New mothers on Medical Assistance (which is matched 50% by the federal government) are only eligible for up to six weeks postpartum care even though depression frequently does not appear and usually cannot be fully treated within that time frame.

7. Some policies contribute to the development or maintenance of depression by increasing the financial and social strains already facing many families.

› MFIP payment levels are frozen for families with newborns. This has not reduced the proportion of MFIP family with a newborn but has put families with an infant further into deep poverty (e.g., 55% of the Federal Poverty Level for a family of three).

8. Programs are often uncoordinated at the delivery and administrative levels.

› Families with multiple issues, such as child welfare involvement and MFIP, must work with many providers from different agencies that have multiple goals and sometimes conflicting requirements, increasing the chances for failure.

9. Few programs have a two- (or multi-) generation focus.

› Little is known about the parenting status of the more than 100,000 adults receiving public mental health services in the state nor is this information available from private health plans. Even when adults get access to mental health services, they may not be able to obtain child care to use the services.

10. Programs and policies have failed to reduce the disproportional rate of poverty and depression experienced by families of color.

› African American and American Indian mothers report postpartum depression at more than twice the rate of white mothers.

## Addressing Minnesota's Shortcomings

These shortcomings can be addressed through changes in public policy, administration and practice. Many of the recommendations for improving the state's response to maternal depression require an investment of public funds, difficult in the current budget crisis. However, continuing to put off these investments will result in escalating costs (personal and public) in the future. Below are some recommendations to continue the momentum that exists in Minnesota to improve early childhood outcomes. They have little or no cost but will ready the state for effective expansion of its prevention efforts in the future. Other states are already implementing similar efforts.

1. Develop a cross-silo strategic plan to reduce the incidence of maternal depression and its impact on children. The plan should cut across public agencies and professional disciplines to further a holistic, two-generation (or multi-generational) approach that can be monitored for progress. A two-generation approach to services should be incorporated on an ongoing basis into other existing plans.

› 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 thereafter on the effectiveness of the services.

2. Begin redesigning data and reports to provide better information about the well-being of children in the state, the effectiveness of policies and programs, and progress toward overall state goals. Use the process to increase collaboration.

› The State of Washington structures its budget so that the end goals of its investments are clear as well as the strategies chosen to achieve those goals.

3. Expand public awareness efforts and target groups most at risk and those who serve them with messages tailored to their circumstances. Include information about the importance of early childhood and parental mental health in training for all professionals working with children and adults. Encourage communities to reach out to young families in need of support.

   › New Jersey and Washington have launched major public awareness campaigns to educate families about maternal depression and how to get help.

4. Ultimately, to substantially reduce the incidence of maternal depression and its impact on children, families must have access to health and mental health care. Children whose mothers have been determined to be depressed should be eligible for and receive early childhood services, and the financial strains and social isolation low income families experience must be reduced. Incorporating a two-generation approach in all of the programs and policies that touch children or adults should be a high priority.

   › Hawaii, Massachusetts and New Mexico provide early intervention services to children whose mothers have psychiatric disabilities.

**These options are developed in more detail with research references, Minnesota statistics and policy options in the full report "Zero to Three Research to Policy: Maternal Depression and Early Childhood" at www.cdf-mn.org.**

## Resources for More Information


Center on the Developing Child at Harvard University (2009). Maternal Depression Can Undermine the Development of Young Children: Working Paper No. 8. www.developingchild.harvard.edu

Center on the Developing Child at Harvard University (2010). The Foundations of Lifelong Health Are Built in Early Childhood. www.developingchild.harvard.edu

Minnesota Department of Health. Follow Along Program 2008 Report. Accessed February 2011. www.health.state.mn.us/divs/fh/mcshn/pdfdocs/faprpt08.pdf

Minnesota Department of Health. Postpartum Education Materials. www.health.state.mn.us/divs/fh/mch/fhv/strategies/ppd/ppdpolicy.html Accessed December, 2010.

Minnesota Department of Health. Minnesota Pregnancy Risk Assessment Monitoring System (PRAMS). www.health.state.mn.us/divs/cfh/prams/ Accessed December, 2010.

National Center for Children in Poverty 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*. www.nccp.org

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 on Behavioral and Social Sciences and Education*. Washington, D.C.: The National Academies Press.

Zeanah, Charles H. Jr Ed. (2009). *Handbook of Infant Mental Health* Third Edition New York: The Guildford Press.


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

Harvard University, Center on the Developing Child, 2009, p. 3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