Maternal depression occurs in many families in the U.S. and Rhode Island. When untreated, it negatively impacts child development and overall well-being of the mother and the family.\textsuperscript{1} Healthy brain development in young children requires consistent, nurturing relationships and frequent, positive interactions with parents and other important caregivers. Maternal depression can interfere with a mother’s capacity to support healthy child development and can have long-lasting, negative effects on children’s health and learning.\textsuperscript{2,3}

In 2017, the World Health Organization identified depression as the leading cause of poor health and disability among people worldwide, citing an overall 18\% increase in prevalence between 2005 and 2015. In the U.S., approximately 5.9\% of people suffer from depression for an estimated 8.4\% of total years lived. Worldwide, depression affects people of all ages and social groups, but it is more common among women and is associated with poverty, unemployment, occurrence of major life events, physical illness, and drug and alcohol abuse.\textsuperscript{4,5}

In the U.S., researchers estimate that 10\% to 20\% of all pregnant or postpartum women experience depression. Rates are significantly higher for mothers with previous histories of depression and those experiencing economic hardship and/or social isolation.\textsuperscript{6}

Maternal Depression by Family Income

![Chart showing maternal depression by family income](chart.png)


Maternal Depression in Rhode Island

In Rhode Island during 2012-2015, 18.1\% of mothers with infants reported that they were diagnosed with depression during and/or after pregnancy, with higher prevalence among mothers in lower-income families, racial minorities, mothers under age 20, and mothers without a high school diploma.\textsuperscript{7}
Depression vs. “The Baby Blues”

A brief period of sadness and anxiety after the birth of a new child is very common. Up to 80% of mothers experience “the baby blues” during the first week after delivery, peaking at three to five days postpartum. Symptoms usually resolve within two weeks postpartum with support from family and social networks. “The baby blues” is not considered a form of maternal depression, but if symptoms continue for more than two weeks, then depression may be present.8

Maternal depression is an overarching term for longer-lasting depression that occurs during pregnancy and/or the first 12 months after the birth of a new child. Approximately 10% to 20% of women experience depression during pregnancy or in the first 12 months postpartum. A history of depression is a significant risk factor for depression both during pregnancy and after the baby is born. Symptoms include: persistent sadness, frequent crying, feelings of worthlessness, fatigue, inability to perform everyday tasks, and recurrent thoughts of death or suicide. Symptoms often interfere with a mother’s ability to care for herself and/or her child.9


Source: Rhode Island Department of Health, PRAMS, 2012-2015. Note: data available on maternal depression among Hispanic mothers (19.0%) show no statistical difference from non-Hispanic mothers (17.7%).

Depression in Fathers and Adoptive Mothers

Expecting and new fathers can also experience depression. Studies show that approximately 6% to 10% of men experience depression either in the prenatal or postnatal periods and that depression in fathers is associated with maternal depression.10,11 Adoptive mothers experience depression at levels similar to mothers who give birth. Sleep deprivation, history of infertility, history of depression or other mental health disorders, and lower marital satisfaction can contribute to depression among adoptive mothers.12
Consequences of Maternal Depression

Impact on Children

- Depression interferes with a person’s ability to develop and sustain healthy relationships and to have positive interactions with others. Healthy brain development in infancy requires a “serve and return” pattern of interactions with parents and other caregivers noticing and responding to the baby’s needs and signals. Babies who do not experience positive, consistent interactions with their parents and other caregivers can experience “toxic stress” that interferes with brain development.13

- Maternal depression is associated with delayed cognitive, language, and social-emotional development, and behavior problems in children. Later childhood health problems such as obesity and asthma are also associated with maternal depression. Untreated maternal depression can place a child at risk for maltreatment and involvement with state child welfare officials as children may not receive adequate attention, food, and medical care, and they may experience unsafe and unsanitary living conditions.14

- Depression is not limited to pregnant women and new mothers. Maternal depression often continues or recurs throughout the child’s youth and results in less consistent and positive parenting practices. A negative reinforcing cycle can develop where parenting practices associated with maternal depression cause child behavior problems which then lead to increased maternal anxiety and depression.15

Impact on Mother

- In most cases, depression is a chronic, recurring disease. Adults with depression experience an average of five episodes of depression across their lifetime. Risk for depression peaks during the reproductive years. Depression severely impacts a person’s quality of life, creating economic and social disadvantages, interfering with relationships, and leading to social isolation. Depression is associated with chronic disease risk factors such as obesity, smoking, and substance abuse, and contributes to several medical and psychiatric disorders.16

Public Sector Systems & Maternal Depression

- **Public Assistance**: Depression is associated with unemployment and underemployment and is likely bidirectional: unemployment leads to depression and depression leads to unemployment. Depressed mothers may have difficulty getting and keeping jobs, leading to lower income and a greater need for public assistance.17

- **Health & Public Health**: Children of depressed mothers are more likely to be born premature, at low birth weight, stay in the NICU, have asthma, and experience infant hospitalization. Women who are depressed are more likely to have cardio-vascular disease, stroke, and type-2 diabetes.18

- **Early Learning & Public Education**: Infants and young children of depressed mothers are more likely to have early childhood developmental delays and need Early Intervention (IDEA Part C Services) services. Children of depressed mothers are less likely to enter school with the necessary skills and knowledge to be successful, leading to poor school performance and increased need for special education services.19

- **Child Welfare**: Almost one in four custodial caregivers investigated for child maltreatment has experienced depression. Depressed mothers are two- to three-times more likely to physically abuse, emotionally abuse, or neglect the medical needs of their children than mothers who are not depressed. Maternal depression and intimate partner violence frequently co-occur, and both increase the risk for child maltreatment.20
Maternal depression often goes undetected, undiagnosed, and untreated. Screening is the first step in identifying women who may suffer from maternal depression. Brief, accurate, and evidence-based questionnaires are available and can be used in a variety of settings with pregnant and parenting women. Positive screens should be followed up with further evaluation by professionals to determine if depression is present.\textsuperscript{21,22}

The U.S. Prevention Services Task Force has endorsed the 10-question Edinburgh Postnatal Depression Scale as a valid and reliable tool to identify maternal depression as well as two simple questions to screen for depression in the general population.\textsuperscript{23}

Because prenatal care visits occur frequently and almost all pregnant women receive some prenatal care, obstetric practices are important settings to screen for maternal depression, refer for evaluation and treatment, and follow-up with patients who are depressed. The American College of Obstetricians and Gynecologists recommends routine, universal screening for depression at least once during pregnancy or in the postpartum period using a standardized and validated tool coupled with follow-up evaluation and treatment for patients who screen positive.\textsuperscript{24}

Pediatric health care providers are an equally important setting for maternal depression screening since they have frequent contact with almost all new mothers during infant well visits. Even though pediatricians are not trained to diagnose and treat maternal depression, the majority of providers agree that screening for maternal depression is important for maternal, infant, and child health. The American Academy of Pediatrics recommends routine, universal screening for maternal depression during well-baby visits in infancy at one, two, four, and six months of age.\textsuperscript{25,26}

As of 2017, there are seven pediatric practices in Rhode Island participating in a learning collaborative focused on postpartum depression screening through the Patient-Centered Medical Home Initiative (PCMH-Kids).\textsuperscript{27}

A national study of pediatricians found that screening rates have increased over the last decade, but overall, only about one-quarter of pediatricians reported routinely screening for maternal depression. Studies have shown that screening for maternal depression during well-baby visits leads to significantly higher detection of the condition. When screening is combined with enhanced care, depression symptoms improve.\textsuperscript{28,29}

In Rhode Island, the First Connections program provides voluntary, short-term home visits and developmental screenings to families with children under age three. Families with risk factors for poor outcomes are routinely referred to First Connections. In 2014, 90\% of the 3,267 families who received a First Connections home visit were screened for maternal depression.\textsuperscript{30,31}

Longer-term, comprehensive, evidence-based home visiting programs in Rhode Island (Healthy Families America, Nurse-Family Partnership, and Parents as Teachers) also screen women for depression. In 2016-2017, 90\% of newly enrolled participants were screened, and 7\% of those screened and not already in treatment had elevated screens.\textsuperscript{32}

Detecting possible maternal depression is only the beginning. Women who screen positive for maternal depression should receive follow-up evaluation, diagnosis, and treatment. National data indicate that nearly 60% of all women with depressive symptoms do not receive a clinical diagnosis, and 50% of all women with a depression diagnosis do not receive any treatment. A study of low-income mothers with major depressive symptoms found that more than one-third received no treatment at all.33,34

In Rhode Island during 2012-2015, 71.3% of women diagnosed with depression during pregnancy reported receiving treatment (counseling and/or prescription medication). Women with education levels beyond high school were more likely to receive treatment than those with a high school diploma or less.35

**Psychotherapy:** Both Cognitive Behavioral Therapy and Interpersonal Therapy have been shown to reduce depressive symptoms during the postpartum period. Both treatment strategies involve talking one-on-one with a licensed mental health professional (e.g., therapist, psychologist, psychiatrist, or social worker). Psychotherapy can be used in combination with antidepressant medication.36

**Medication:** Prescribed antidepressant medications are highly effective at reducing depression. Although no definitive study has been conducted, antidepressants are generally considered to be safe during both the prenatal and postpartum periods, but may be a second choice option during pregnancy. Antidepressant medication is often combined with psychotherapy.37

**Mother-Infant Psychotherapy (Two-Generation):** Mother-infant therapy, also known as dyadic treatment, is designed to improve the mother-infant relationship by improving mother-infant interactions. Research indicates that focusing only on reducing the mother’s depression does not lead automatically to improvements in parent-child relationships and children’s development. In order to improve child well-being, experts recommend treating maternal depression while also providing interventions to improve parenting and mother-child interactions.38

**Peer Support:** Led by a peer support specialist, parent support groups for new mothers and/or mothers who have experienced depression help them navigate the health care system, access mental health services, and reduce depression.39

**The Day Hospital at Women & Infants**

Launched in 2000, the Day Hospital at Women & Infants was the nation’s first partial hospital program treating pregnant women and new mothers with depression in a warm, nurturing setting where babies can remain with their mothers. The concept of keeping mothers and babies together during treatment in a hospital-based program has received national recognition. Treatment includes group, individual, and family therapy, support to promote bonding and attachment between mother and baby, lactation consultation, and medication assessment.40
Health Insurance & Maternal Depression

◆ The latest data show that 97.8% of Rhode Island’s children have health insurance coverage either through RIte Care/Medicaid or through private health insurance. In 2016, 50% of births and approximately 58% of infants under age one were covered through RIte Care/Medicaid health insurance. RIte Care is the state’s Medicaid managed care program for eligible children, their parents, and pregnant women.41,42

◆ Because the income limit for RIte Care/Medicaid health insurance is higher for pregnant women (258% FPL) than it is for parents (141% FPL), some women who are eligible for coverage during pregnancy lose RIte Care/Medicaid coverage at 60 days postpartum which can interrupt needed health and mental health care. While the baby may be eligible for RIte Care/Medicaid (as long as family income is below 266% FPL), the new mother loses her RIte Care/Medicaid coverage (other than family planning coverage for two years postpartum) if her income is above the parent limit. Most mothers who lose coverage at 60 days postpartum are eligible to purchase a health insurance plan through HealthSource RI with tax credits to help pay for their health insurance coverage.43

◆ In 2016, the federal Centers for Medicare and Medicaid Services issued an informational bulletin on maternal depression, screening, and treatment. The bulletin clarified that state Medicaid agencies are authorized to cover maternal depression screening as part of a well-child visit under the Early Periodic Screening Diagnosis and Treatment (EPSDT) provision.44

◆ States must affirmatively act to implement this coverage and instruct pediatric health care providers on how to bill for maternal depression screening. As of March 2017, there were 11 state Medicaid programs that provide coverage for maternal depression screening during well-child visits through the child’s Medicaid insurance. Most of the states that cover maternal depression screening at well-child visits also cover screening in nonmedical settings, including at home visits, in community-based settings like WIC offices, or through Early Intervention.45,46

◆ Under EPSDT, Medicaid covers medically necessary treatment for the child, including treatment resulting from the impacts of maternal depression. Specifically, treatment that includes both the child and the parent (e.g., parent-child psychotherapy or mother-infant interaction therapy) can be billed through the child’s Medicaid insurance. Diagnostic and individual treatment services for the mother (e.g. medication and individual psychotherapy treatments) are covered under Medicaid only if she is Medicaid eligible.47

◆ As of December 2017, Rhode Island has not yet issued guidance or billing instructions for maternal depression screening or treating children exposed to maternal depression. The state is in the process of updating the EPSDT schedule to include maternal depression screening.48

Early Intervention & Maternal Depression

◆ Early Intervention (EI) is a program authorized under the federal Individuals with Disabilities Education Act (IDEA), Part C and overseen by the U.S. Department of Education. States are required to identify and provide appropriate EI services to children under age three who are developmentally delayed or have a diagnosed condition associated with a developmental delay (e.g. Down Syndrome). States may also choose to provide EI services to children who are at risk for developmental delays even if they don’t currently have a delay. In Rhode Island, the Executive Office of Health and Human Services implements EI and serves over 4,000 infants and toddlers per year.49,50

◆ National research has shown that maternal depression is common among families receiving EI services, with 23% of mothers whose children became eligible as infants and 58% of mothers whose children became eligible as toddlers having symptoms of depression. Because of links between maternal depression and child developmental delays, experts call for increased integration of maternal mental health and well-being services within EI.51,52
**Recommendations**

**Health Insurance Coverage:** Continue RIte Care coverage at current income limits for pregnant women, children, and parents. EOHHS/DHS/HealthSource RI should ensure that new mothers whose RIte Care coverage ends at 60 days postpartum have uninterrupted health insurance coverage either through RIte Care/Medicaid (if she is eligible as a low-income parent), or through purchasing a plan through HealthSource RI. Expedite process of updating the EPSDT schedule to include maternal depression screening and promptly issue billing instructions once the schedule is finalized. Ensure mental health parity provisions are strongly enforced among public and private health plans and adequate systems are in place to support screening, diagnosis, and treatment of maternal depression.

**Universal, Routine Screening for Maternal Depression:** Ensure that prenatal and pediatric health care providers deliver universal, routine maternal depression screening using a valid and reliable tool at recommended intervals.

- Adopt RIte Care/Medicaid policies and develop guidance to promote maternal depression screening at pediatric well-child visits billable through the child’s health insurance so that more new mothers with depression can be identified.
- Continue to provide maternal depression screenings through Rhode Island home visiting programs, including First Connections, Early Head Start, Healthy Families America, Nurse-Family Partnership, and Parents as Teachers.
- Consider implementing strategies to screen for maternal depression in other large programs serving vulnerable families with new babies and young children, including WIC and EI.

**Prompt Referral and Treatment:** Refer all pregnant and parenting mothers who screen positive for depression for further evaluation, diagnosis, and treatment. Adopt RIte Care/Medicaid policies and develop guidance allowing for dyadic mother-child psychotherapy to be billed under the child’s health insurance.

**Early Intervention (EI):** Adopt the “at risk” provision to determine eligibility for EI in Rhode Island. Ensure that maternal depression continues to be used as an indicator for eligibility. Consider implementing regular maternal depression screening for families participating in EI and providing professional development for EI providers to address maternal depression effects on children within EI.

**Family Home Visiting:** Build on the existing infrastructure of home visiting services by providing supplemental screening for maternal depression to vulnerable families (recognizing that the primary screening should be delivered by prenatal and pediatric health care providers) and integrate strategies to address maternal depression within comprehensive, evidence-based models.

**Professional Development:** Provide high-quality professional development on maternal depression to health care providers and other professionals who work with pregnant and parenting mothers. Promote Infant and Early Childhood Mental Health competency endorsement to build skills and knowledge across service sectors.

**Public Awareness Campaign:** Develop and implement a statewide campaign to build awareness of maternal depression and the availability of effective treatments and services for both the mother and child. The campaign should be culturally sensitive and aim to reduce stigma.

**Reduction of Risk Factors Contributing to Depression:** Reduce risk factors that contribute to maternal depression, including untreated mental health problems across the lifespan, poverty and economic insecurity, inadequate housing, domestic violence, and unintended pregnancy.

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**First 1,000 Days of RIte Care:**

Consider implementing a **First 1,000 Days of RIte Care Initiative** modeled on the effort in New York State to improve health and developmental outcomes for infants and toddlers in low-income families. The initiative could include strategies to promote and track routine screening for maternal depression, developmental delays in young children, and elevated blood lead levels as well as follow-up and treatment.
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