Perinatal Mental Health Overview: *Prevalence, Screening & Diagnosis*

Part 1: Rural Maternal Mental Health Training

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Logistics

- Please enter questions in the Q&A. There will be time reserved at the end for questions.
- For technical support, use Q&A or email Ashley Carroll at: Ashley.Carroll@CHIHealth.com
- Chat has been enabled for this webinar.

Presenters

Ariadna Forray, MD,
Associate Professor of Psychiatry at Yale School of Medicine

Sydnie Carraher, DNP, APRN-NP, NNP-BC,
Program Administrator for the Nebraska Perinatal Quality Improvement Collaborative (NPQIC)

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Overview of Perinatal Mental Health

Ariadna Forray, MD
Associate Professor of Psychiatry
Chief, Section of Psychological Medicine
Yale School of Medicine

Disclosures

Grant Support: NIMHD, PCORI

Learning Objectives

- Describe the common mental health presentations in pregnancy and postpartum
- Describe recommended screening practices for perinatal mental health screening
- Identify evidence-based screening tools
- Describe the benefits of screening during the perinatal period

*Note the following lecture applies to all individuals that were designated female sex at birth and have the ability to become pregnant

Epidemiology

Perinatal depression is the most common complication of pregnancy

http://www.acog.org/Womens-Health/Depression-and-Postpartum-Depression

Depression in Pregnancy

Pregnancy does not protect against mental illness

Antenatal depression frequently precedes postpartum depression

Prevalence by Trimester		
1st: 7.8%	2nd: 12.8%	3rd: 12%

Bennett et al., 2004; Evans et al., 2001

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Risk Factors for Perinatal Depression

- Previous depressive episode
- Lack of social support
- Young maternal age
- Low attained education
- Single marital status
- Low socio-economic status
- Intimate partner violence
- Psychosocial stress
- Chronic illness
- Maternal substance use
- Infant preterm birth/significant medical concerns

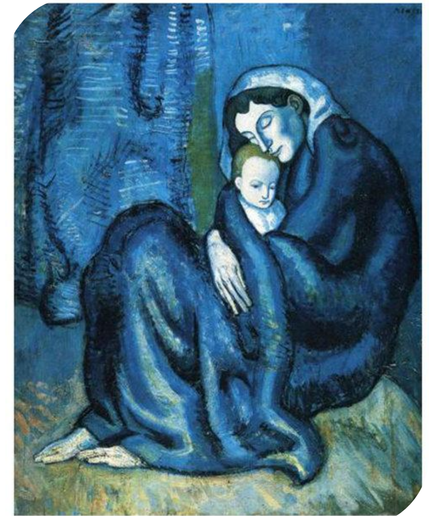
Baby Blues vs. Postpartum Depression

Baby Blues

- Development of mild depressive symptoms, mood swings, weepiness, anxiety, and irritability in the first week to 10 days postpartum
- Transient and self-limited
- Experienced by up to 85% of women

Postpartum Depression

- Depressed mood and associated symptoms lasting at least 2 weeks
- Depression can take a mild clinical course or it leads to functional impairment and suicidal ideation



Postpartum Depression (PPD)

DSM-5: major depression occurring within 4 weeks after birth

Clinically: Depression occurring within 6 months of childbirth

IF later, may be linked to weaning and initiation of menses

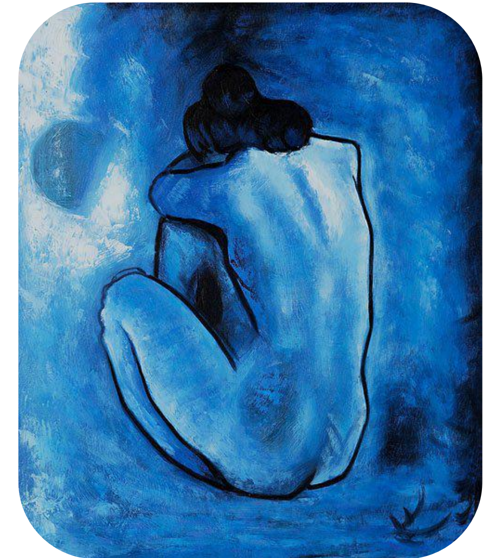
Prevalence rate 10-20%

Mean prevalence rate of 13%

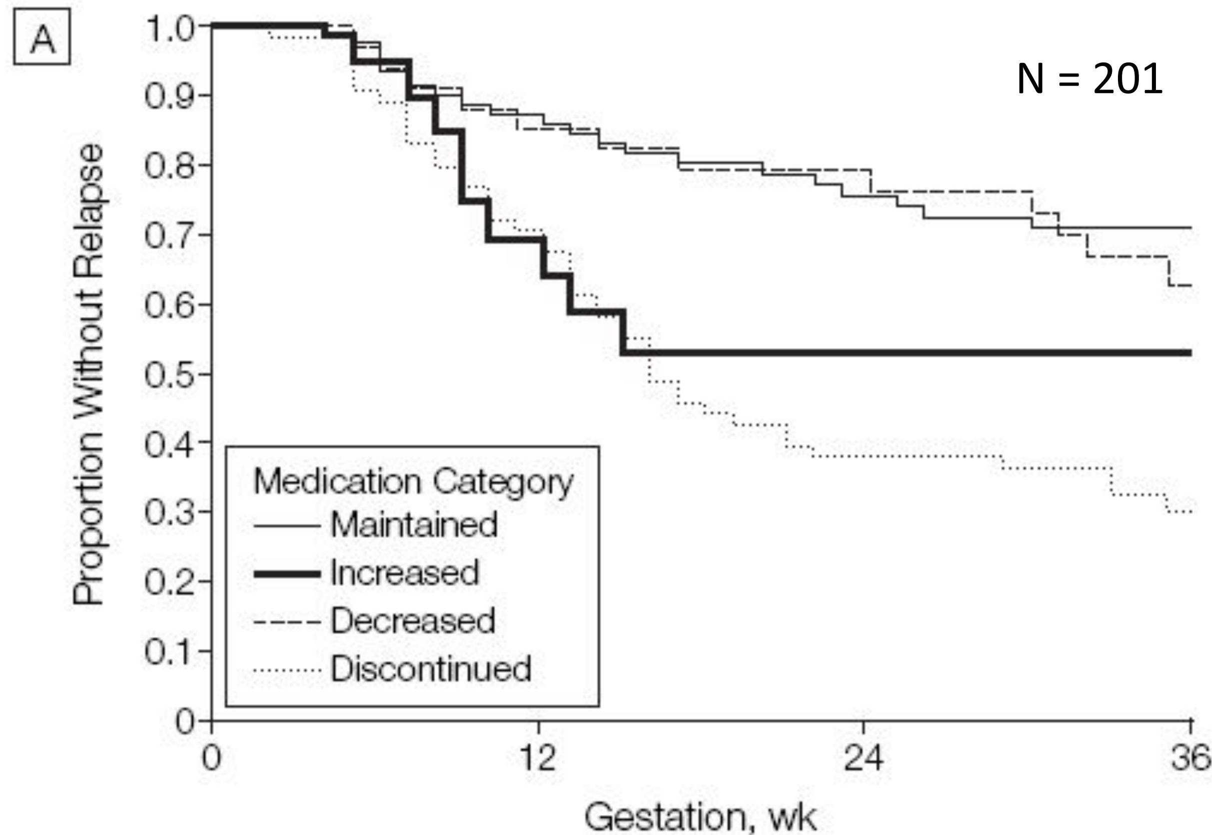
Stewart DE, Vigod S. NEJM. 2016;375(22): 2177-86.
American Psychiatric Association, DSM-5

DSM 5 Criteria for Major Depression

- Depressed mood
- Decreased interest/pleasure
  - Disturbance of sleep
  - Weight loss/gain, change in appetite
  - Decreased energy
- Overly guilty (bad mother syndrome)
- Impaired concentration/decision making
- Thoughts of death/suicidal ideation
- Psychomotor agitation/retardation



Likelihood of Relapse in Women with Severe Recurrent Major Depressive Disorder



N = 201

26% of women maintained on medication relapsed

68% of the women who discontinued medication relapsed

Cohen et al, JAMA, 2006

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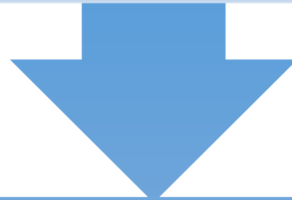
Anxiety in Pregnancy

Prevalence of anxiety disorders in pregnancy		
Panic Disorder: 5%	Generalize Anxiety Disorder: 10%	Posttraumatic Stress Disorder (PTSD): 8%



Anxiety frequently co-occurs with depression and may lead to worse pregnancy outcomes

Yonkers et al., JAMA Psych. 2017; 74(11):1145-52
Loveland et al., Obstet Gynecol. 2004; 103(4):710-17

Risk Factors for Perinatal Anxiety

- Personal history of anxiety
- Family history of anxiety
- Life changes
- Lack of support
- Health challenges (e.g., difficult pregnancy, birth, health issues for mom or baby)
- Prior pregnancy loss
- Adverse childhood experiences (ACEs)

Posttraumatic Stress Disorder (PTSD)

- Prevalence in pregnancy 8%
- Prevalence after childbirth 2-9%

Symptom categories:

- Intrusion
- Avoidance
- Hyperarousal
- Negative view of the world

Risk Factors for PTSD

- Pregnancy or delivery complication
- Prior trauma or sexual abuse
- Lack of partner support
- History of ACEs

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Bipolar Disorder in the Perinatal Period

57% of women with Bipolar I had mood episode in pregnancy

62% of women with Bipolar II had a mood episode in pregnancy

40–50% of women experience any mood episode in the postpartum period

1 in 5 risk of suffering a postpartum psychotic episode

Perry A et al., J Affect Disord. 2021;294:714-722
Florio et al, JAMA Psychiatry. 2013;70(2):168-17
Wesseloo et al., Am J Psychiatry. 2016 Feb 1;173(2):117-27

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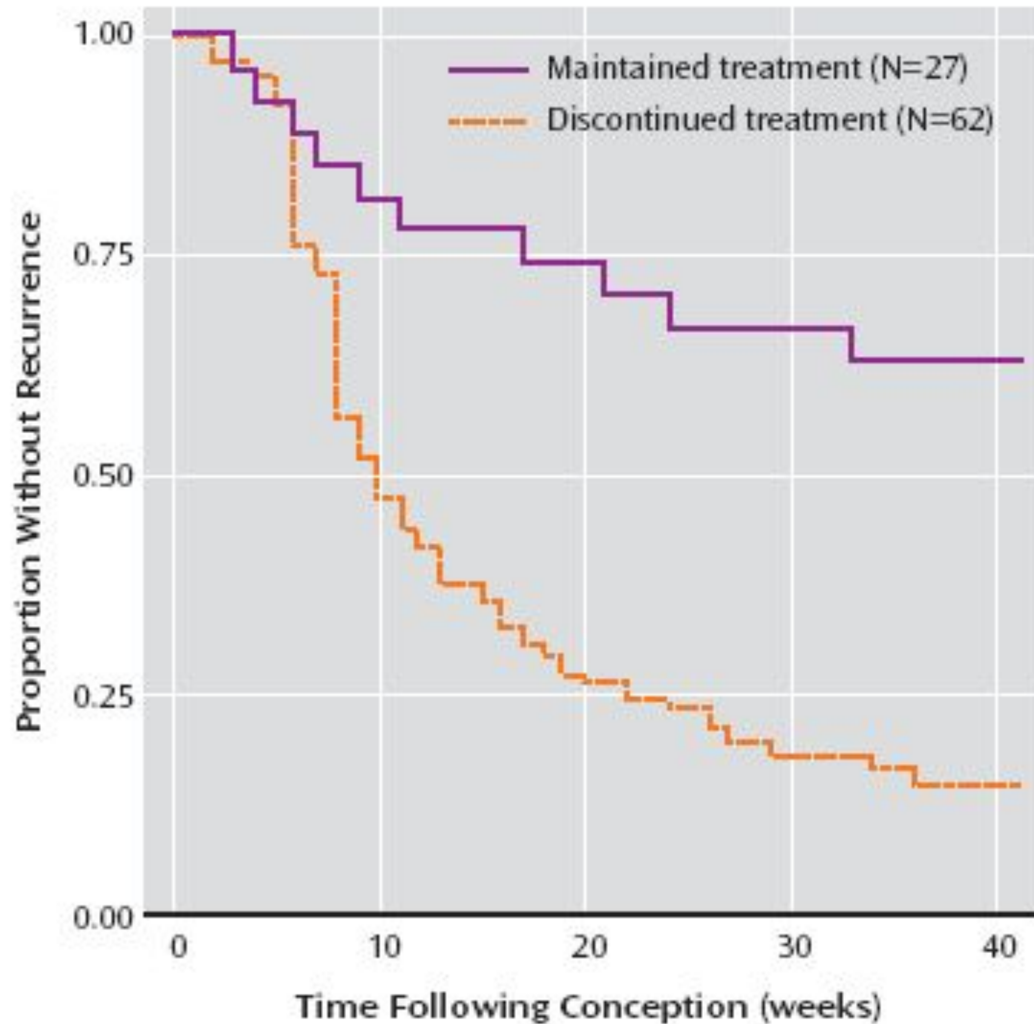
Relapse Among Women with Bipolar Disorder Who Maintain or Discontinue Medication



Viguera et al., AJP 2007;164:1817-24

These findings were replicated in more recent meta-analysis:

- 66% of women who discontinued medications had a relapse

vs.

- 23% of women who remained on medications had a relapse

Wesseloo et al., AJP 2016; 173:117-127

Postpartum Psychosis

- 1-2 out of 1000 women
- 70-80% due to bipolar disorder
- Develops 24h - 3 weeks postpartum
- Must rule out delirium
- **Psychiatric emergency**
- 5% risk of suicide
- 4% risk of infanticide

- Mood symptoms
  - Mood lability
  - Irritability
  - hyperactivity/restlessness
  - Insomnia/decreased need for sleep
- Psychotic symptoms
  - Delusions
  - Paranoia
  - Hallucinations

Psychotic Disorders

Schizophrenia 1% of the general population

Schizoaffective Disorder 0.5% of the general population

Both conditions are lifelong and can be well-managed

Perinatal Mental Health in Nebraska

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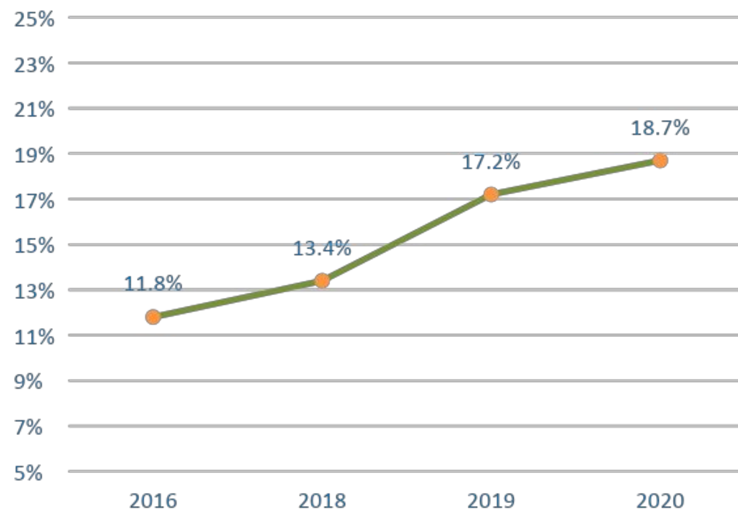
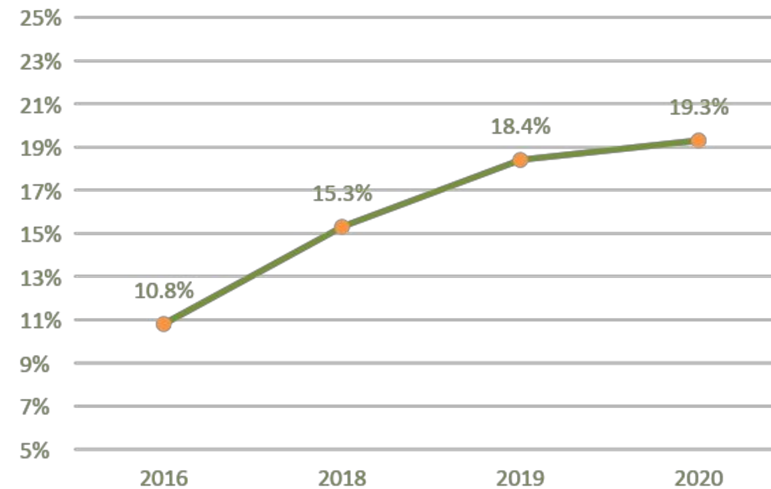
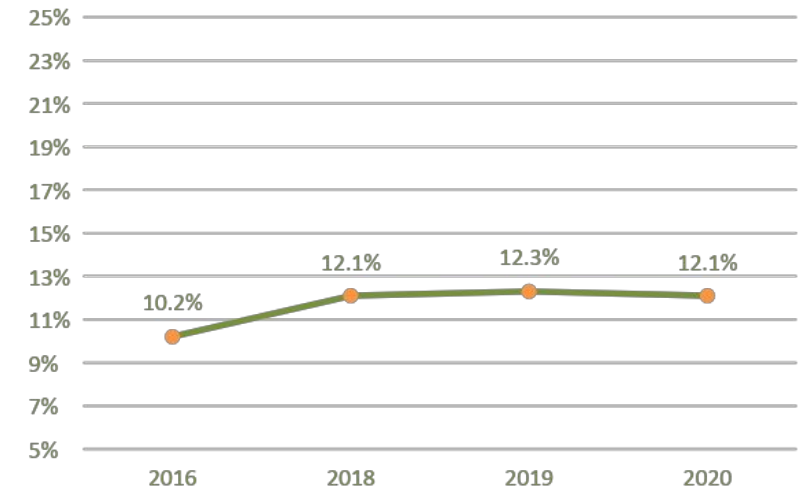
Prevalence in Nebraska







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Disparities in Nebraska

- 13.7% rural vs 11.2% urban
- Blacks 17.3%, Native Americans 17.2%, Hispanics 12.2%, Whites 11.2%

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Impact in Nebraska

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- ~5,000 new babies per year live in an environment that predisposes them to health issues, cognitive impairment, developmental delays, and behavioral problems as a result of undiagnosed and untreated parental depression

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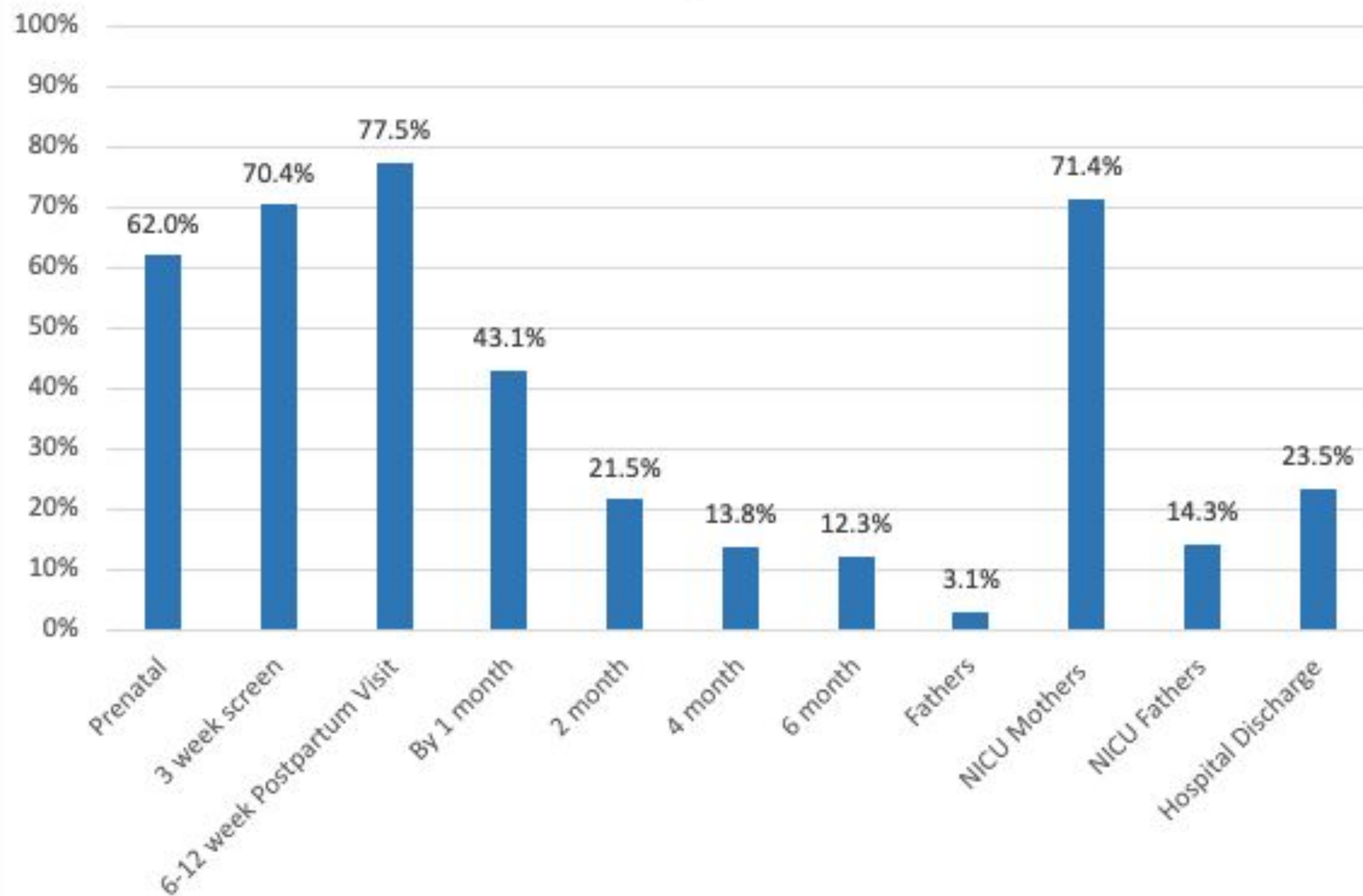
Impact in Nebraska

- Nebraska Vital Statistics
  - 1 completed suicide annually for women that were pregnant or were pregnant within the last year
- Nebraska Foster Care Review Office
  - In 2021, 315 children <1 year of age were removed
    - 77 cases reviewed
      - 16% maternal mental health
      - 58% substance use
- # 1 Recommendation of Nebraska Maternal Mortality Review Committee
  - "Peripartum implementation of mental health & substance use screening, assessment, and referral"


Baseline Screening in Nebraska 2021
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
62.0%
70.4%
77.5%
43.1%
21.5%
13.8%
12.3%
3.1%
71.4%
14.3%
23.5%
Prenatal
3 week screen
6-12 week Postpartum Visit
By 1 month
2 month
4 month
6 month
Fathers
NICU Mothers
NICU Fathers
Hospital Discharge

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Consequences of Untreated Perinatal Depression

- Poor adherence to medical care and increased healthcare costs
- Higher rates of preterm birth, low birth weight, pre-eclampsia, and spontaneous abortion
- Smoking and substance use
- Loss of financial resources
- Family dysfunction and increased risk of abuse and neglect
- Impaired parent-child interaction- bonding and attachment issues
- Discontinuation of breastfeeding
- Failure to thrive and colic
- Infantile sleep disorders
- Delays in motor, cognitive, and language development
- Emotional and behavioral disorders that persist into adolescence

(ACOG, 2018a & 2018b; Earls et al., 2019; Walsh, 2020; Wisner et al., 2013)

Societal Cost of Untreated Depression

- Luca et al. (2020)
  - Developed a mathematical model to estimate economic burden of untreated perinatal mood and anxiety disorders.
  - Birth statistics from 2017
  - Total societal cost estimate of NOT treating perinatal mental health conditions is $14.2 billion or $32,000 per mother-infant pair from conception through 5 years of age.
- Nebraska
  - 24,681 births in 2021
  - 4,936 women and families impacted by perinatal mental health conditions
  - The cost to our state each year in not addressing PMH conditions is ~ $158 million

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(Luca et al., 2020)

Screening is Key

- Effective, free, and validated screening tools exist to identify mothers and fathers at risk for perinatal depression
- Treatment is available and can have a significant impact on outcomes

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Universal Screening Recommendations

Legislation

- NE Statute 38.204.01
  - Effective July 21st, 2022
  - Calls for the provision of education and universal screening for mothers during and after pregnancy
  - Authorizes the Board of Medicine and Surgery to work with accredited hospitals and licensed healthcare professionals to create policies to facilitate perinatal mental health screening

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Who and When to Screen?

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- Mothers
  - **At least once prenatally**
  - During birth hospitalization
  - **At comprehensive postpartum visit**
  - **At baby's 1, 2, 4, and 6 month well child visits**
- Fathers or Non-Delivering Partner
  - **At least once within the first 6 months of birth**
- NICU parents
  - At 7-14 and 30 days postpartum and then every 30 days thereafter

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Paternal Depression

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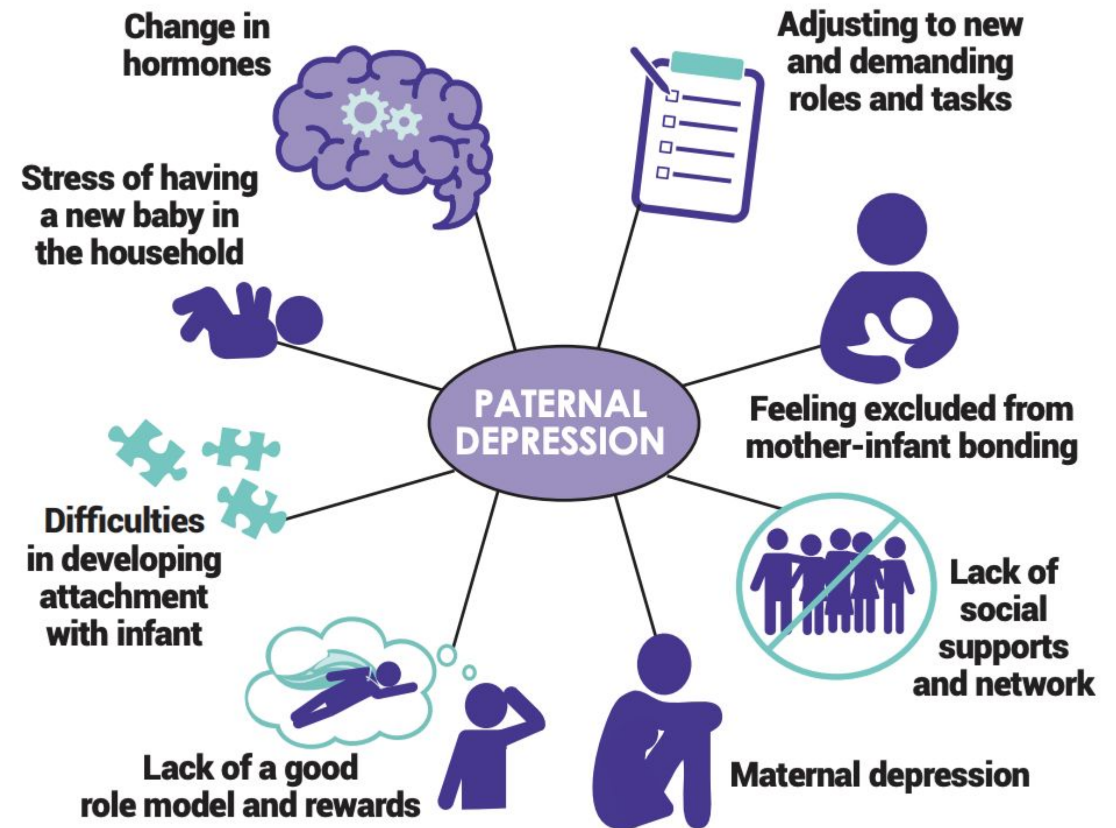
- 1 in 10 fathers
- Highly correlated with maternal depression
- Develops gradually
- Peak incidence is 3-6 months
- Higher levels of irritability, anger, and substance use
- Reduced engagement, warmth, and sensitivity
- Increased negative parenting, couple conflict, and child behavior issues
- Less likely to seek help for depression



(MMHLA,2021, Walsh et al., 2020)

Which Screening Tool to Use?

- Edinburgh Postnatal Depression Scale (EPDS)
  - Edinburgh Postnatal Depression Anxiety Subscale (EPDS-3A)
- Patient Health Questionnaire-9 (PHQ-9)
  - Generalized Anxiety Disorder Screener (GAD-7)
- Postpartum Depression Screening Scale
- Beck Depression Inventory
- Beck Depression Inventory-II
- Center for Epidemiologic Studies Depression Scale
- Zung Self-Rating Depression Scale

(ACOG, 2018b; Earls et al., Walsh et al., 2019; Siu et al., 2016)

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Edinburgh Postnatal Depression Scale (EPDS)

- 10-question self-administered scale
  - Includes 2 questions regarding anxiety
- Takes less than 5 minutes to complete
- Designed and validated with postpartum women
- Has since been validated for new fathers
- Available in the electronic medical record (EMR) and multiple languages

(Cox et al., 1987)

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EPDS

- Max score of 30
- Risk of depression and/or anxiety
  - ≥ 10 at risk
  - ≥ 13 high risk
- Score of > 0 on #10 indicates risk of harm to self or others

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As you are pregnant or have recently had a baby, we would like to know how you are feeling. Please check the answer that comes closest to how you have felt **IN THE PAST 7 DAYS**, not just how you feel today.

Here is an example, already completed.

I have felt happy:

- ☐ Yes, all the time
- ☒ Yes, most of the time — This would mean: "I have felt happy most of the time" during the past week.
- ☐ No, not very often — Please complete the other questions in the same way.
- ☐ No, not at all

In the past 7 days:

1. I have been able to laugh and see the funny side of things
   - ☐ As much as I always could
   - ☐ Not quite so much now
   - ☐ Definitely not so much now
   - ☐ Not at all

2. I have looked forward with enjoyment to things
   - ☐ As much as I ever did
   - ☐ Rather less than I used to
   - ☐ Definitely less than I used to
   - ☐ Hardly at all

*3. I have blamed myself unnecessarily when things went wrong
   - ☐ Yes, most of the time
   - ☐ Yes, some of the time
   - ☐ Not very often
   - ☐ No, never

*6. Things have been getting on top of me
   - ☐ Yes, most of the time I haven't been able to cope at all
   - ☐ Yes, sometimes I haven't been coping as well as usual
   - ☐ No, most of the time I have coped quite well
   - ☐ No, I have been coping as well as ever

*7 I have been so unhappy that I have had difficulty sleeping
   - ☐ Yes, most of the time
   - ☐ Yes, sometimes
   - ☐ Not very often
   - ☐ No, not at all

*8 I have felt sad or miserable
   - ☐ Yes, most of the time
   - ☐ Yes, quite often
   - ☐ Not very often
   - ☐ No, not at all

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Edinburgh Postnatal Depression Anxiety Subscale (EPDS-3A)

- Used to calculate a specific anxiety score
- Items 3, 4, and 5 of the EPDS are totaled
- Cut off of ≥ 6 warrants further evaluation for anxiety

TABLE 1

EPDS-3A subscale: Questions 3-5 from the Edinburgh Postnatal Depression Scale[23]

I have blamed myself unnecessarily when things went wrong.
☐ Yes, most of the time
☐ Yes, some of the time
☐ Not very often
☐ No, never
I have been anxious or worried for no good reason.
☐ No, not at all
☐ Hardly ever
☐ Yes, sometimes
☐ Yes, very often
I have felt scared or panicky for no very good reason.
☐ Yes, quite a lot
☐ Yes, sometimes
☐ No, not much
☐ No, not at all

Answers to each of the 3 items are scored from 0 (least severe) to 3 (most severe).

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Patient Health Questionnaire 9 (PHQ-9)

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- 9-question self-administered scale
  - Does not screen for anxiety
- Takes less than 5 minutes to complete
- Used in screening for adult depression
  - Not specific to pregnancy or postpartum
- Available in EMR and multiple languages

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PHQ-9

- Max score of 27
- Depression scores:
  - 5-9 mild
  - 10-14 moderate
  - 15-19 moderate/ severe
  - 20-27 severe
- Score of >0 on #9 indicates risk of harm to self or others

Over the last *2 weeks*, how often have you been bothered by any of the following problems? *(use "✓" to indicate your answer)*	Not at all	Several days	More than half the days	Nearly every day
1. Little interest or pleasure in doing things	0	1	2	3
2. Feeling down, depressed, or hopeless	0	1	2	3
3. Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4. Feeling tired or having little energy	0	1	2	3
5. Poor appetite or overeating	0	1	2	3
6. Feeling bad about yourself—or that you are a failure or have let yourself or your family down	0	1	2	3

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General Anxiety Disorder (GAD-7)

- Should be utilized with the PHQ-9 to screen for possible anxiety
- 7-question self-administered scale
- Takes 3 minutes or less to complete
- Used in screening for adult anxiety
  - Not specific to pregnancy or postpartum
- Available in multiple languages

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GAD-7

- Max score of 21
- Anxiety cutoffs:
  - 5 mild
  - 10 moderate
  - 15 severe

Over the last 2 weeks, how often have you been bothered by the following problems? (Use "✔" to indicate your answer)	Not at all	Several days	More than half the days	Nearly every day
1. Feeling nervous, anxious or on edge	0	1	2	3
2. Not being able to stop or control worrying	0	1	2	3
3. Worrying too much about different things	0	1	2	3
4. Trouble relaxing	0	1	2	3
5. Being so restless that it is hard to sit still	0	1	2	3
6. Becoming easily annoyed or irritable	0	1	2	3
7. Feeling afraid as if something awful might happen	0	1	2	3

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Getting Started

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Perinatal Family Mental Health Initiative

- Launched Fall 2020
- Three-year statewide depression screening and referral project
- Funded by the Pritzker Foundation through a sub-award from First Five Nebraska

Toolkit

- Why Screen for Perinatal Depression
- **Who and When to Screen**
- **Which Screening Tool to Use**
  - Edinburgh Postnatal Depression Scale (EPDS)
  - Edinburgh Postnatal Depression Scale Anxiety Subscale (EPDS-3A)
  - Patient Health Questionnaire-9 (PHQ-9)
  - Generalized Anxiety Disorder Screener (GAD-7)
- Sample Screening Algorithm for EPDS and PHQ-9
- **Sample Action Crisis Plan**
- **Key Clinical Considerations**
- **Perinatal Mental Health Resources**
- Medication Therapy and Lactation
- Lactation Resources
- **Resources for Families**
- **Patient Handouts and Education**
- Appendix A-G:
  - Summary of Mood and Anxiety Disorders
  - EPDS, PHQ-9, and GAD-7 Tools (English/Spanish) and Scoring Instructions
  - **Sample Scripts for Screening and Referral**
  - **Local Resources Template**
  - **Behavioral Health System of Care Regions**

Clinical Guidelines for Implementing Universal Perinatal Depression Screening

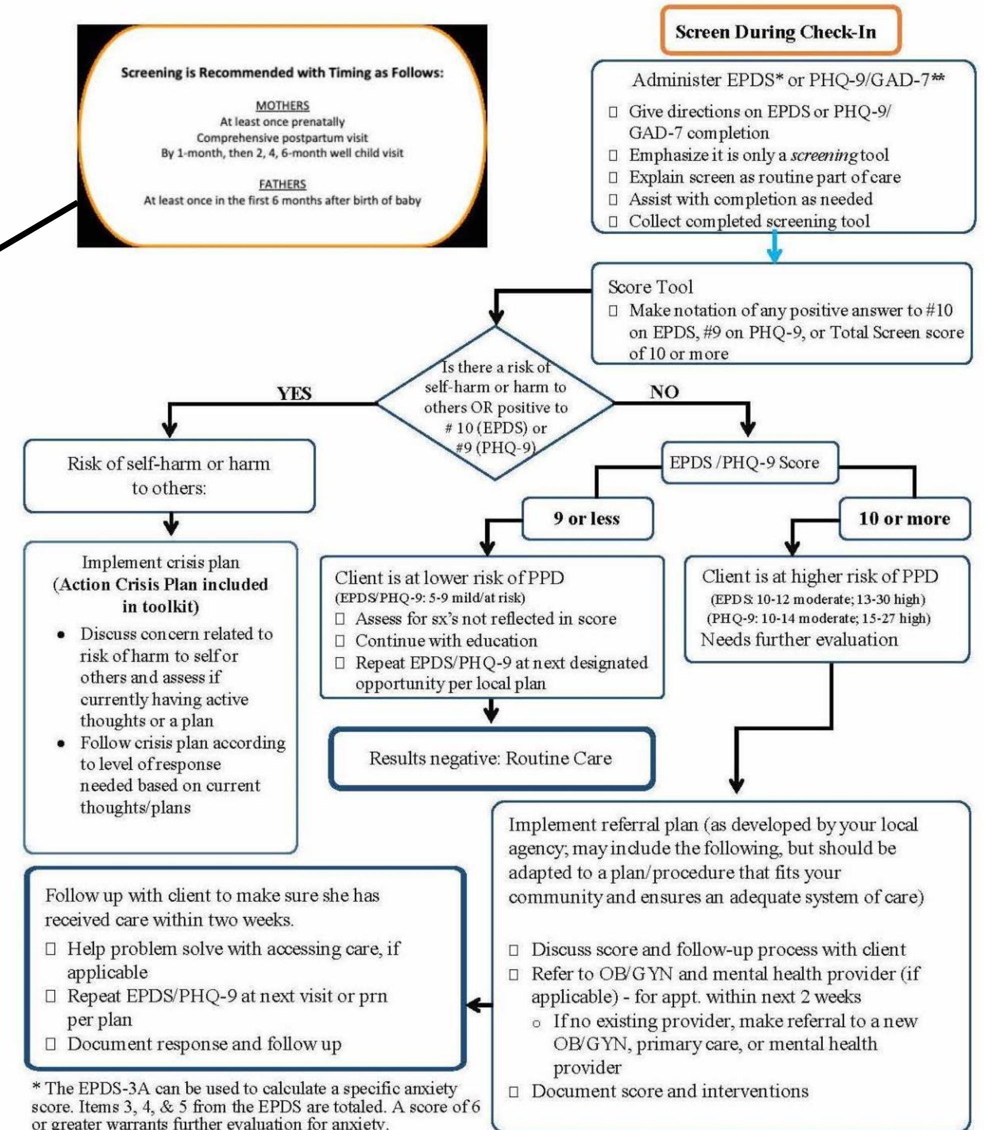
Nebraska Perinatal Quality Improvement Collaborative
www.npqic.org
3/2021

Sample Workflow

Screening is Recommended with Timing as Follows:

MOTHERS
At least once prenatally
Comprehensive postpartum visit
By 1-month, then 2, 4, 6-month well child visit

FATHERS
At least once in the first 6 months after birth of baby



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Introducing the Screen to Patients

- “We ask all patients these questions because mood changes, anxiety, and worry are very common during pregnancy or after giving birth. They can affect your health and the health of the baby.”

- Provide education on perinatal mental health

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Introducing the Screen to Patients

- Prenatally Visit
  - “I’d like to check in to understand how you feel since you’ve become pregnant.”
- Postpartum
  - ” Now that you have had your baby. I would like to know how you are feeling and how you have been coping lately.”
- NICU Parents
  - “Having a baby, especially one in the NICU, is a big adjustment and can be stressful for moms and dads. I would like to know how you are feeling and how you have been coping lately.”
- Well Child Visit
  - “As your child’s provider, I’m concerned about your child's wellbeing, and so I’m also concerned about the wellbeing of the people who care for your child. I’d like to know how you are feeling and how you have been coping.”

Response to Screening

- Negative Screenings
  - Highlight behaviors and strategies for maintaining wellness.
- Suggested Script for Discussing Positive Screenings
  - “Thank you for filling out this screening. It seems like you’ve been experiencing low mood and stress and may be depressed. Depression and anxiety during pregnancy are common. You and your baby deserve to be well. There are many effective support options available. Would it be ok if we discussed those?”

Next Steps

- Communication and demystification
- Support
- Identification of community and family resources
- Referrals as indicated

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Questions?

Part II

May 2nd from 12:00- 1:00pm CT

Management and Treatment of Mental Health Presentations in Pregnancy and Postpartum

Presenters: Ariadna Forray, MD and Kenneth McCartney, MHAL

Approved for 1 hour of CE

Ariadna Forray, MD, Associate Professor of Psychiatry at Yale School of Medicine

Ken McCartney, MHAL, Division Director for Behavioral Ambulatory Services at CHI Health Midwest Division

Continuing Education

Both trainings (4/18 and 5/2) are approved for 1 hour CME/ CE each

Physicians, Physician Assistants, Advanced Practice Registered Nurses, Nurses, Residents & Fellows

Please complete your evaluation

Thank You

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