

HOW BREASTFEEDING SUPPORT CAN INTEGRATE SUPPORT MATERNAL MENTAL HEALTH, SLEEP AND FATIGUE MANAGEMENT, AND INFANT OUTCOMES

Jennifer Doering, PhD, RN

Associate Dean for Academic Affairs and Associate Professor

University of Wisconsin-Milwaukee, College of Nursing

doering@uwm.edu, 414-229-5098 (office)

September 26, 2019

Objectives

- Objective 1: Understand the importance of the relationships between mental health, sleep and fatigue as they contribute to the well-being of breastfeeding women, infants, and families.
- Objective 2: Develop confidence within a breastfeeding support role to initiate depression screening, discuss screening results, and refer clients to resources for further evaluation and support in Wisconsin.
- Objective 3: Discuss the challenges of guiding parents with infant safe sleep decision making given the current infant sleep product environment and the breastfeeding mother's sleep and support needs.

Objective 1: Understand the importance of the relationships between mental health, sleep and fatigue as they contribute to the well-being of breastfeeding women, infants, and families.



Why Maternal Mental Health Matters

- By 2020, unipolar depression predicated to be 2nd leading cause of global disability burden (WHO)
- Depression twice as common in women than men
 - *~10-13% clinical depression, up to 50% may have clinically significant symptoms (i.e, screen positive on screening tool)*
 - *Primary cause of disease burden in childbearing women (15-44)*
 - *Mental health disorders are the most common complication of pregnancy*
 - *Suicide is the 2nd leading cause of death among post-partum women*
- Untreated depression challenges maternal and family functioning, & parenting role
- Depression diagnosis and associated outcomes
 - **Chronicity** *believed to be major contributor of long-term adverse outcomes*

Examples of associated outcomes of untreated depression in the research literature

- Pregnant women with depression may be at increased risk for obstetrical and fetal complications
- Infants of depressed mothers may show:
 - Less eye gaze during feeding
 - Make fewer positive facial expressions and vocalizations
 - Appear more fussy, have lower activity levels
 - Show poorer/slower weight gain/failure to thrive
 - Have more feeding and sleeping difficulties
- These outcomes are not inevitable - mediating and moderating factors can buffer or amplify risk

Identification, referral, treatment, and support are critical

Depression in the Perinatal Period

- Remains: Under-recognized Under-diagnosed Under-treated
 - *Depression affects 1 in 7 women*
 - *50% of all cases go undiagnosed and untreated (Ramsey, 1993)*
 - *12-20% of women with maternal depression actually receive treatment (Horowitz, 2006)*
- Episodic, but without treatment can become chronic
 - *Without treatment, symptoms can last a year or longer. When not treated to recovery, then likely to recur and become chronic (Rush et al., 2006)*
 - *Women with untreated postpartum depression that turns chronic are likely to still have depression symptoms at 2 years (Horowitz, 2007, 2009)*
- 50% of "postpartum" depressive episodes actually begin prior to giving birth

Major Depressive Disorder (MDD) (Perinatal Depression)

Diagnostic and Statistical Manual-5(DSM-5) (2013)

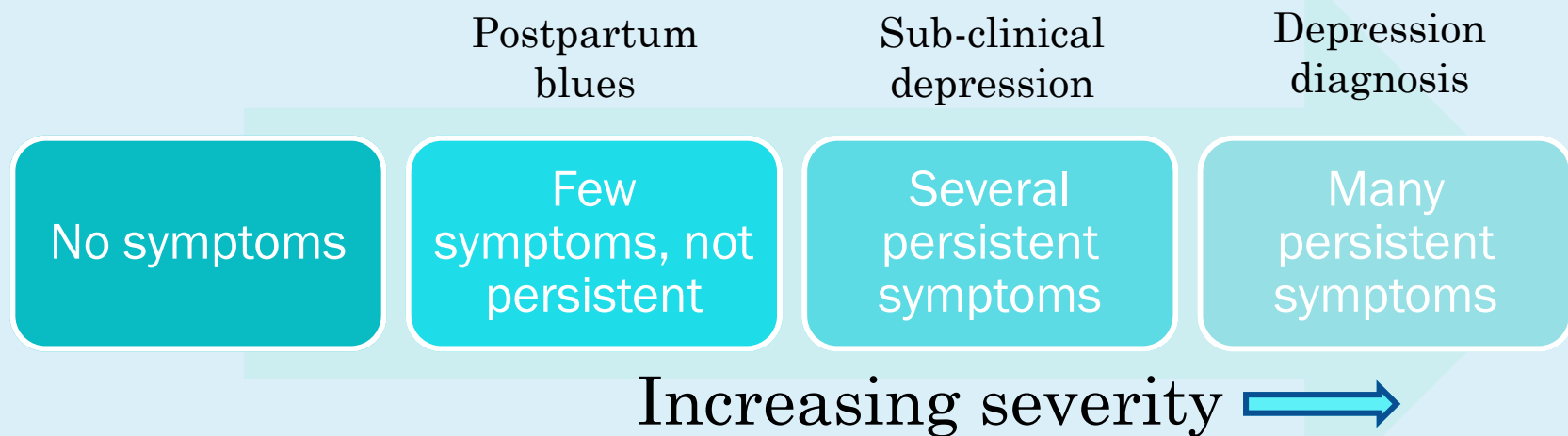
- 5 or more of the following symptoms
 - ***Depressed mood often accompanied by extreme anxiety**
 - ***Markedly diminished interest or pleasure in activities**
 - Appetite disturbance (significant weight gain/loss)
 - Sleep disturbance
 - Physical agitation or psychomotor slowing
 - Fatigue, decreased energy
 - Feelings of worthlessness or inappropriate guilt
 - Decreased concentration or inability to make decisions
 - Recurrent thoughts of death or suicidal ideation
- Symptoms present for most of the day nearly every day for at least 2 weeks

Postpartum: Pile-up of Stressors

How many risk factors are identified in the women you work with?

- ✓ Inadequate social, familial or financial support
- ✓ Minority status
- ✓ History of sensitivity to hormonal shifts
- ✓ Delivery of premature infant
- ✓ History, pregnancy loss, miscarriage or abortion
- ✓ Abrupt weaning
- ✓ Childhood sexual abuse
- ✓ Thyroid dysfunction
- ✓ Controlling or perfectionist personality
- ✓ Single parent
- ✓ Isolation from family
- ✓ Infertility
- ✓ Long, difficult labor
- ✓ Significant loss in life
- ✓ History drug/alcohol abuse
- ✓ Multiples (twins, triplets)

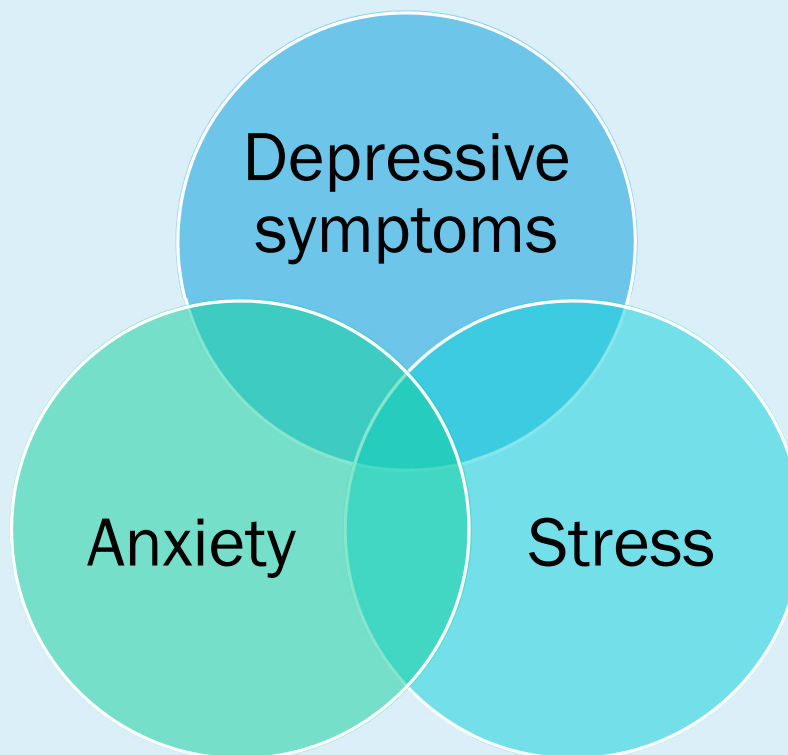
Continuum of Symptoms



The Postpartum 'Blues'

- **Prevalence:** 50-80% of new mothers
- **Onset:** Within hours or days of birth
- **Duration:** 10-14 days
- **Symptoms:** emotional instability (cry at washing machine commercial), anxiety, fatigue, anger, sadness, irritability, insomnia despite feeling exhausted
- **Key feature:** Self-Limiting

Co-occurring phenomena in pregnancy and postpartum



Anxiety

- Nearly as common as depression
- Anxiety often co-occurs with depression
- Prevalence:
 - 6% *pregnancy*
 - 10% *postpartum*
- Onset: Anytime, but history of depression or anxiety increases chance
- Symptoms may include:
 - Persistent and excessive worrying,
 - Inability to relax and/or physiological symptoms like chest pain, dizziness or inability to catch breath
 - Difficulty falling asleep or staying asleep due to thoughts and worry
 - Difficulty concentrating or mind going blank

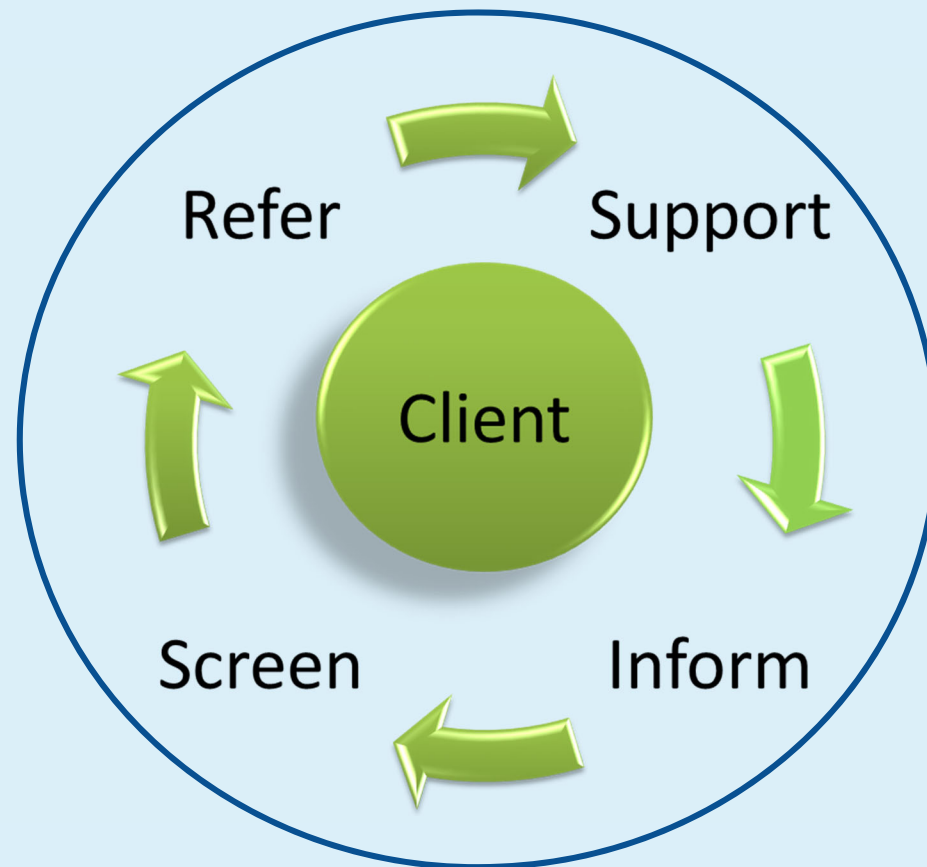
Psychotic Features in Pregnancy and Postpartum

- Prevalence: 0.1% or 1/1000 births
- Onset: Sudden onset in 1st week postpartum, but can take up to 2 months
- Clinical Symptoms:
 - *Hallucinations (e.g., command)*
 - *Delusions (paranoia, grandiosity, deserved punishment, extreme religiosity)*
- Disorganized speech or behavior
- Negative Symptoms (diminished emotional expression)
- Cues:
 - *Severe insomnia*
 - *Extreme agitation*
 - *Disconnection from reality*
 - *Threats of suicide and/or infanticide*
 - *Racing thoughts*
 - *Rapid, pressured speech*
- **This is a Medical Emergency**
 - *Immediate psychiatric evaluation needed*
 - *Call 911 for transport to ER*
 - *Alternative caregiver for infant needed*

Objective 2: Develop confidence within a breastfeeding support role to initiate depression screening, discuss screening results, and refer clients to resources for further evaluation and support in Wisconsin.



Lactation Support Role



Becky's story – One patient's perspective on navigating the healthcare system

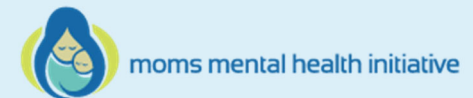


Becky Schroeder, MS Co-Founder MMHI

https://www.youtube.com/watch?time_continue=3&v=1y1xEXp4kDY

As you listen, notice the missed opportunities for connections.

How could you make a difference if Becky presented to your WIC agency?



Several types of referrals

- Primary Care Provider

- *OB/GYN, Family Practice, Internal medicine*
- *MD, DO, CNM, NP – all should be able to initiate medication treatment and/or refer to mental health professional*

- Mental Health Professional

- *Psychiatrist (MD/DO), psychologist (PsyD), counselor (Master's prepared and licensed; may have a variety of backgrounds such as social work, nursing, psychology etc.), Psychiatric Nurse Practitioner (master's or DNP prepared)*
 - All can provide diagnostic evaluation and recommend treatment.
 - Some (not all) can prescribe medications: Psychiatrist and psych NP (if NP is licensed to do so)

- Support groups or organizations – much variation

- *Mom-baby, depression-related groups (or not). Online or face-to-face. English and other languages*

Depression Treatment Options

Important to know options, even if treatment is outside your role



- Depression is highly responsive to treatment – Message of hope
 - *You will feel better in time. Treatment can help you feel better sooner.*
- Most common types of treatment
 - *Psychotherapy*
 - Individual, group, or mother-infant/family
 - *Medications: Antidepressants/SSRIs/mood stabilizers*
 - *Each type of treatment can be effective depending on the woman*
 - Goal: Right treatment for the individual woman's needs, context, and goals

Paradigm shift in the science of perinatal mental health disorders and medications

- The science on medications in pregnancy and lactation has changed the past 5-10 years
- There is consensus that that the risk of untreated depression on the fetus and infant may be greater than the small risk of an adverse effect from a medication
- Not everyone is aware of this change



Medication Database: LACTMED

The screenshot displays the LACTMED database interface. At the top, the NIH U.S. National Library of Medicine TOXNET logo is visible. The search bar contains 'sertraline' and the search button is labeled 'Search'. Below the search bar, the breadcrumb trail reads 'TOXNET Home > LACTMED Home > LACTMED Search Results > Full Record'. The main content area shows 'LACTMED: SERTRALINE' with CASRN: 79617-96-2. A table of contents on the left lists sections like 'Drug Levels and Effects', 'Substance Identification', and 'Administrative Information'. The main text area displays the chemical structure of Sertraline and a section titled 'Drug Levels and Effects: Summary of Use during Lactation:' which discusses the low levels of sertraline in breastmilk and its potential effects on nursing infants.

U.S. National Library of Medicine TOXNET TOXICOLOGY DATA NETWORK

Mobile | Help | FAQs | TOXNET Fact Sheet | Training Manual & Schedule

TOXNET Home > LACTMED Home > LACTMED Search Results > Full Record

sertraline Search

Search Details | History « Previous Record | Next Record »

LACTMED: SERTRALINE CASRN: 79617-96-2 This record appears in multiple databases.

View record in another database: LACTMED Download this Record Print Select Record My List Permalink

Recent related PubMed toxicology articles

TABLE OF CONTENTS

Show Selected Items Clear Expand all Collapse all

Closest Match to Search Terms

Full Record

Drug Levels and Effects

Substance Identification

Administrative Information

Show Selected Items Clear

CLICK TO HIDE

Sertraline CASRN: 79617-96-2

N[C@@H]1Cc2ccccc2C(c1)C3=CC(=CC=C3Cl)Cl

FULL RECORD DISPLAY

Displays all fields in the record.

For other data, click on the Table of Contents

Drug Levels and Effects:

Summary of Use during Lactation:

Because of the low levels of **sertraline** in breastmilk, amounts ingested by the infant are small and is usually not detected in the serum of the infant, although the weakly active metabolite nortsertraline (desmethylsertraline) is often detectable in low levels in infant serum. Rarely, preterm infants with impaired metabolic activity might accumulate the drug and demonstrate symptoms similar to neonatal abstinence. Most authoritative reviewers consider **sertraline** a preferred antidepressant during breastfeeding [1][2][3][4][5][6][7] Mothers taking an SSRI during pregnancy and postpartum may have more difficulty breastfeeding, although this might be a reflection of their disease state [8] These mothers may need additional breastfeeding support. Breastfed infants exposed to an SSRI during the third trimester of pregnancy have a lower risk of poor neonatal adaptation than formula-fed infants.

- <https://toxnet.nlm.nih.gov/newtoxnet/lactmed.htm>
- “*LactMed, part of the National Library of Medicine's (NLM) Toxicology Data Network (TOXNET®), is a database of drugs and other chemicals to which breastfeeding mothers may be exposed. It includes information on the levels of such substances in breast milk and infant blood, and the possible adverse effects in the nursing infant.*”

Wisconsin State-Supported Resources

Funded in part by MCH Title V Services Block Grant

<https://wellbadger.org/> (formerly www.mch-hotlines.org)



Well Badger Resource Center

You're in the right place!

New home of the Wisconsin MCH Hotlines, Wisconsin First Step, and Wisconsin Informed Consent Help Lines

1-800-642-7837



Health Information and Referrals for Your Family

Website Services

mch-hotlines.org

The hotline website pages provide information on each of the hotlines offered through Public Health Information and Referral Services: The Maternal and Child Health Hotline, Wisconsin First Step and the Services Hotline For Women, Children and Families.

An online resource directory makes the hotline database accessible to all users of the website. Web Category lists provide links to major subject and program areas of interest throughout Wisconsin. Program areas include WIC, BadgerCare Plus, Katie Beckett, Prenatal Care Coordination and Wisconsin Well Woman Program. Subject areas include Financial Assistance, Healthcare Services and Parent Support Groups.

For Service Providers

The Maternal and Child Health Hotline maintains a database of resources providing services for women, children and families. To be listed in the database, call (800) 722-2295 or register at the hotline website — mch-hotlines.org. Service providers listed in the database receive a user ID and password and can update their resource information online at the website at any time.

Wisconsin Maternal and Child Health Hotline is operated by Great Rivers 2-1-1, a community service of Gundersen Lutheran Health System, La Crosse, Wis.

Funded in part by MCH Title V Services Block Grant, Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services and the Wisconsin Birth to 3 Program, U.S. Department of Education.



Wisconsin Maternal and Child Health Hotline
(800) 722-2295

24 hours a day/7 days a week

Language interpretation and TTY services available

Chat online

mch-hotlines.org

WisPubHealth@mch-hotlines.org

1900 South Avenue
La Crosse, WI 54601

1813-8_0616 | GR211

facebook

Wisconsin Maternal and Child Health Hotline

*Have Questions?
We can help!*

(800) 722-2295 Voice/TTY

24 hours a day/7 days a week

Chat online

Monday through Friday, 8 a.m. to 4 p.m.

mch-hotlines.org

WisPubHealth@mch-hotlines.org

facebook

Brochure for the MCH Hotline/Well Badger line posted on a county website

Perinatal Depression and Other Mental Health Issues

Screening and treatment services for depression and other mood disorders for pregnant and postpartum women.

Online: <http://greencountyhealth.org/wp-content/uploads/2017/02/MCH-Hotline-Brochure.pdf>

Wisconsin Department of Health Services

<https://www.dhs.wisconsin.gov/publications/p0/p00242.pdf>

Wisconsin PRAMS

Pregnancy Risk Assessment Monitoring System



Perinatal Depression

April 2019

Perinatal depression, defined as depression during pregnancy, around childbirth, or within the first year postpartum, is common.⁶ At least 13% of women have major depressive symptoms while pregnant and about 14% of women experience postpartum depression in the 12 months after delivery.

However, there may be a significantly greater number of women experiencing perinatal depression both nationally and statewide. Researchers have noted that many cases of perinatal depression remain undiagnosed due to time constraints on the time mothers spend with providers and provider concerns about the social acceptability of screening.¹ Other cases are dismissed as normal mood shifts.



With my first daughter I experienced postpartum [depression] pretty severely. I thought it was the "baby blues" but soon discovered my depression. It lasted for about [one] year. I would like to see more opportunity to help first-time mothers since it can be such a hard, emotional time.

- PRAMS mom

The onset of perinatal depression can occur at any time during pregnancy or in the first 12 months following delivery. It can last for weeks or even months if left untreated by a medical professional.³ Women with perinatal depression experience intense feelings of extreme sadness and anxiety which can interfere with the ability to care for herself, her newborn, and her family.³ There is no single cause of perinatal depression and it can affect all mothers, whether it's their first time giving birth or not.³

Depression Screening

A key component of successful and timely intervention is universal screening using a validated tool. At each visit, providers should engage patients in conversations to know how mom and baby are doing. These conversations help to normalize the screening process and will help foster an environment where the patient feels comfortable talking about her experience.

44% of Wisconsin women are not screened for depression in the year prior to pregnancy.



20% of pregnant women are not screened for depression during their prenatal care visits.



12% of Wisconsin mothers are not screened for postpartum depression after they give birth.



Action Plan for Depression and Anxiety Around Pregnancy

Having a baby brings a mix of emotions, including feeling sad and feeling overwhelmed. Many women experience deeper signs of depression and anxiety before and after birth. Be prepared. **Watch for the signs.**

If you...

- Feel like you just aren't yourself
- Have trouble managing your emotions
- Feel overwhelmed but are still able to care for yourself and your baby

You may be experiencing mood swings that happen to many pregnant women and new moms.

These feelings typically go away after a couple of weeks.

- Take special care of yourself. Get your partner to watch the baby, get a babysitter, or team up with another mom to share child care so that you can rest and exercise.
- Continue to watch for the signs of depression and anxiety in the yellow and red sections below. If things get worse, find someone to talk to. Talk to a health care provider if you feel unsure.

If you...

- Have feelings of intense anxiety that hit with no warning
- Feel foggy and have difficulty completing tasks
- Feel "robotic," like you are just going through the motions
- Have little interest in things that you used to enjoy
- Feel very anxious around the baby and your other children
- Have scary, upsetting thoughts that don't go away
- Feel guilty and feel like you are failing at motherhood

You may be experiencing postpartum depression and anxiety.

These feelings will not go away on their own.

- Get help. Contact your health care provider or visit a clinic.
- Call Postpartum Support International at 1-800-944-4PPD (4773) to speak to a volunteer who can provide support and resources in your area.
- Talk to your partner, family, and friends about these feelings so they can help you.

If you...

- Feel hopeless and total despair
- Feel out of touch with reality (you may see or hear things that other people don't)
- Feel that you may hurt yourself or your baby

Get help now!

- Call 9-1-1 for immediate help.
- Call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255) for free and confidential emotional support—they talk about more than suicide.
- Call the Substance Abuse and Mental Health Services Administration's National Helpline at 1-800-662-HELP (4357) for 24-hour free and confidential mental health information, treatment, and recovery services referral in English and Spanish.

Depression and Anxiety Happen. Getting Help Matters.

To learn more, visit nichd.nih.gov/MaternalMentalHealth.
To find a mental health provider in your area, call 1-800-662-HELP (4357).



Eunice Kennedy Shriver National Institute
of Child Health and Human Development





A **free resource** for health care providers caring for **perinatal women** who are struggling with **mental health** or **substance use disorders**

Providing health care professionals access to:



Real time provider-to-provider psychiatric teleconsultation



Educational presentations and tools



Community resource information

Provider to Provider Teleconsultation

877-296-9049 | theperiscopeproject@mcw.edu

Monday – Friday from 8am to 4pm CST, excluding holidays

Provider is connected with a perinatal psychiatrist within 30 minutes

- E-mails returned within one business day

When to Call

- Psycho-pharmacology or substance use treatment
 - Preconception, during pregnancy, or while breastfeeding
- Diagnostic clarification, screening tools and follow up recommendations
- How to discuss mental health with pregnant & postpartum patients
- General questions on behavioral health during perinatal period

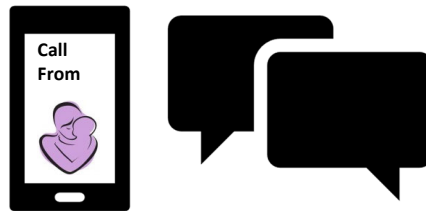
How it Works



Less than
5 mins.



Average
6 mins.



Average 8-10 mins.



Patient typically
remains in the care
of provider

Community Resource Information



Access through Triage Coordinator

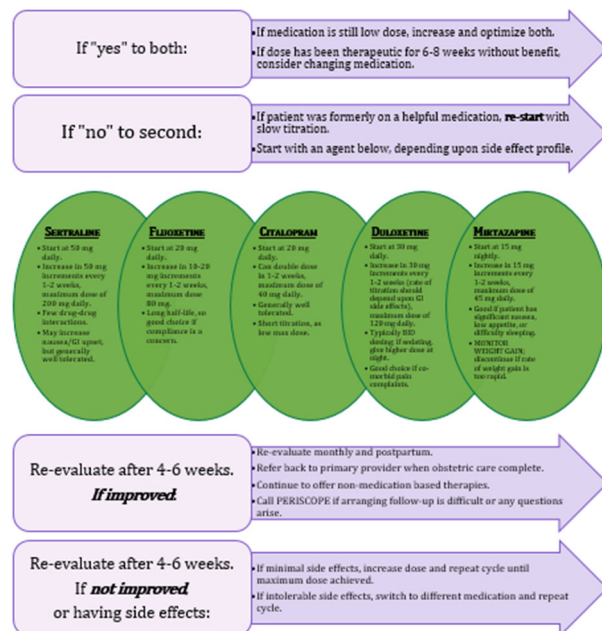
Types of resources

- Psychotherapy providers
- AODA treatment centers
- Peer to peer & community support groups
- Perinatal Psychiatrists

Will provide:

- Resource name & description, location, and best way to establish with resource

Provider Education and Tools



Online | www.the-periscope-project.org

Provider Toolkit

- Free downloadable PDFs
- Evaluation guides, screening tools, treatment algorithms

Modules

- Ex. Antidepressant Use in Pregnancy, Perinatal Psychiatric Disorders, Psychotropic Medication Use in Breast-feeding, Conversation Starters

In-Person

Didactic & Grand Round presentations upon request



Provider Enrollment

Eligibility Requirements:

- Health care provider or professional
- Caring for pregnant or postpartum patients

Online Enrollment Process:

- Individual provider level enrollment
- Agree to terms of participation
- Basic provider information
- Less than 2 minutes to complete

www.the-periscope-project.org/enroll

Program Utilization: July 2017 – June 2019



879

Total service related inquiries to
The Periscope Project



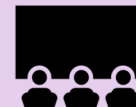
295

Providers given information on
community resources



737

Provider to perinatal
psychiatrist teleconsultations



153

Educational presentations
online and in person

Patient Status at Time of Consult



7%

Preconception or Interconception



62%

Pregnant



26%

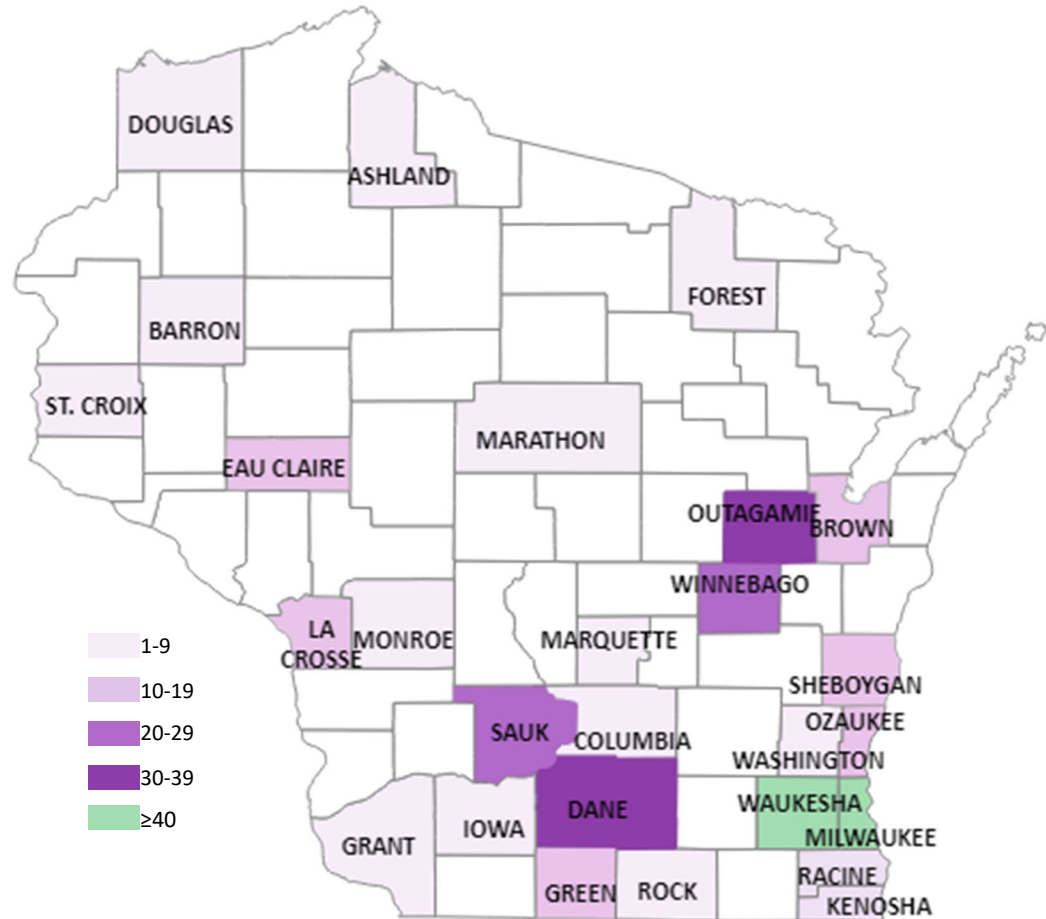
Postpartum

68% Lactating

32% Not Lactating

Statewide Utilization

Number of Encounters by Wisconsin County





- Video overview of this service:

- https://www.youtube.com/watch?time_continue=220&v=kCsUg8E928M

-
- On your own, here is one more video to watch about having difficult conversations about mental health, the importance of communication style. Video focus is on The Periscope Project

- <https://www.youtube.com/watch?v=77gZFEUnb24> (7 minutes)

How TPP Addresses Community Issue

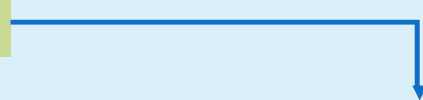
Providers were asked; 'What would you have done if you did not call TPP today?'

Medication-related adjustment (42%)

Refer patient to another provider (39%)

Do further research (12%)

"I don't know" (2%)

- 
- Most often referral to behavioral health provider
 - Wait times are often months
 - Not all women will make an appointment
 - Not all women will get to the appointment

Results in delays or missed care for the patient!

TPP is a bridge to treatment that minimizes delays in or missed care

Barriers to screening, referral, treatment

- There are 3 levels of Barriers to mental health care use
 - *Patient*
 - *Provider*
 - *Practice/System*
 - *Examples of interventions:*
 - ≤1% health assessment attendance: Clinics providing no services
 - Doubled mental health care use: low-intensity interventions - i.e., addressed 1-2 of the following:
 - *Patient engagement strategies, on-site depression assessments, perinatal care provider training*
 - ↑ mental health care use 72-90%: high-intensity interventions – i.e., addressed 3 levels of barriers
 - *Resources to patients, perinatal care provider training, on-site assessment, access to mental health consultation for perinatal PCPs*

Why screen for Perinatal Depression?

Because you can't tell by looking that someone has depression

- Relying on symptom observation misses more than half of mothers with depression

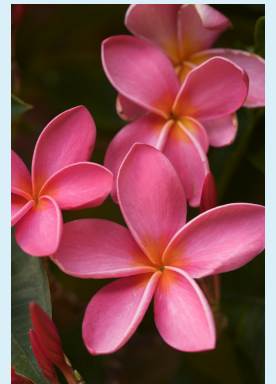
Heneghan, A. M. et al. (2000). Do pediatricians recognize mothers with depressive symptoms? *Pediatrics*, 106(6), 1367-1373



<http://www.postpartumprogress.com/cant-tell-mom-postpartum-depression-looking>

Advantages of Routine Screening for Perinatal Depression

- Reduces the stigma of depression
 - *Helps women feel they are not alone*
 - *Validates the value of mental health – just as important as physical health*
- Health care providers
 - *Increases comfort talking about depressive symptoms and managing complex situations*
- Mothers experience changes frequently in pregnancy and postpartum
 - *Symptoms in pregnancy likely to be highest in the 3rd trimester*
 - *Changes are often concurrent with baby's developmental changes*
- More likely to identify onset of depressive symptoms early



Interactions with Health Care Workers with unaddressed mental health conditions

- Mothers may appear:
 - *Disengaged*
 - *To lack motivation*
 - *Express good intentions, lack follow-through (e.g., prenatal care appointments)*
 - *Angry, feelings of guilt, disappointment in self, baby*
- Reduced memory recall, learning, performance
 - *Slower progress towards goals*
- Symptoms do not indicate quality of care to baby
 - *Many mothers remain sensitive and responsive to baby*



Increasing awareness of depression

A fine line between helping and blaming

- Your good intentions can go awry
- Women with depression symptoms often feel:
 - *Feelings of guilt and shame by not being able to live up to personal and societal expectations of being a ‘good’ mother*
 - *Fear of being judged a bad person*
 - *Fear of baby being taken away*
 - *Being seen as having a weak character*
 - *Fear of being a “Bad” mother*
 - *Risk of suicide is real*

These feelings can be magnified when either dismissed or not acknowledged by professionals as real

Your role is to acknowledge women’s feelings.

“I believe you. What you are feeling is real.”

Foundational Principles for Conducting Depression Screening

- Build trust in a relationship
 - *Facing client, eye contact, don't talk over client*
- Use a valid screening tool
- Normalize mental health and screening
 - *We screen everyone*
- Nonjudgmental tone
 - *Be aware of one's own biases, about the client, population, motherhood, mental health*
- Ask open-ended questions
- Provide referrals and follow-up referral recommendations
 - *Support client's right to decide next steps. Accepting help is a process.*

Patient Health Questionnaire – 2 (PHQ-2)

Over the past 2 weeks, how often have you been bothered by any of the following problems?

Little interest or pleasure in doing things

- Not at all
- several days
- more than half the days
- nearly everyday

Feeling down, depressed, or hopeless

- Not at all
- several days
- more than half the days
- nearly everyday

Scoring: If more than half the days or nearly every day is selected for both, refer for full screening

Discussing Screening Results

Use the results to facilitate conversation

- *Your answers suggest that you have been experiencing some of the symptoms of depression. How does this fit with how you have been feeling?*
- Ask about each question:
 - *You marked x. Can you tell me more about that? Could you tell me about a time you felt that way?*
 - *Ask about past history with mental health issues. Ask about a family history of depression, anxiety, or other mental health issues.*
- Whether or not the woman screens positive, you can ask the question: “How can I help you today?” Is there additional support that could help you?

Key Message: Screening ≠ Diagnosis

Diagnosis determined by a trained mental health professional,
not by screening tools

Only 25-40% positive screenings for depressive symptoms will be diagnosed with depression



Incorrect: “You have depression”



Correct: “You have several of the symptoms of depression. Let’s talk about what this means.”

Key messages to women who are suffering

- You are not alone.
- It's not your fault.
- Perinatal mood and anxiety disorders are common.
- With treatment, you will get better.

Breastfeeding and Postpartum Depression – What do we know?

- Generally, higher depression symptoms -> lower breastfeeding rates (initiation & duration)
 - Woolhouse et al (2016), 1,507 women Australia – of 95% who initiated, at 6 months 61% still breastfeeding, but women with dep sx, rates were 49% vs. 61% in women without symptoms
- Thus far, data do not support that lactation reduces depression symptoms – findings are mixed (Ahn & Corwin, 2015; Chowdhury et al. 2015)
- Breastfeeding thought to support maternal mood. Abrupt weaning can increase symptom intensity.

Objective 3: Discuss the challenges of guiding parents with infant safe sleep decision making given the current infant sleep product environment and the breastfeeding mother's sleep and support needs.



[This Photo](#) by Unknown Author is licensed under [CC BY-SA-NC](#)

One mother's struggle for sleep...

“When I wanna go to sleep, she don't wanna go to sleep, and I gotta fight through the sleep, and try not to fall asleep while I'm feeding her” (Research Participant)



Common
advice:
“Sleep when
the baby
sleeps”

Perinatal Sleep and Depressive Symptoms: Information to Support Sleep Interventions

1. Relationship between sleep and mental health
2. Defining sleep loss and identifying its effects
3. Common sleep disorders, especially in pregnancy
4. Normal sleep in infants, adolescents, adults
5. Sleep changes across the perinatal period

Sleep and Adult Depression

- Sleep abnormalities/complaints
 - *Diagnostic components of depression*
 - Difficulty falling asleep, remaining asleep
 - Feeling unrested upon awakening
 - *Persist beyond remission/treatment of depression*
 - *30% with depression experience hypersomnia (12-14 hrs/night)*
 - *Not everyone with depression only sleeps excessively*



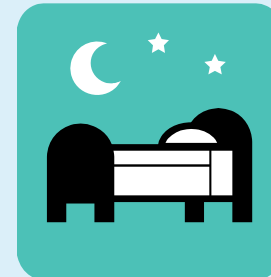
Resource: <http://sleepfoundation.org/ask-the-expert/sleep-hygiene-insomnia-and-mental-health>

Sleep Changes in People with Clinical Depression

- Changes to sleep architecture (polysomnography) include:
 - ↑ *sleep latency (time to initiate sleep)*
 - ↑ *stage 1*
 - ↑ *wakefulness after sleep onset*
 - ↑ *total REM time (rapid eye movement)*
 - *Early onset REM*
 - ↓ *slow wave sleep (healing sleep)*



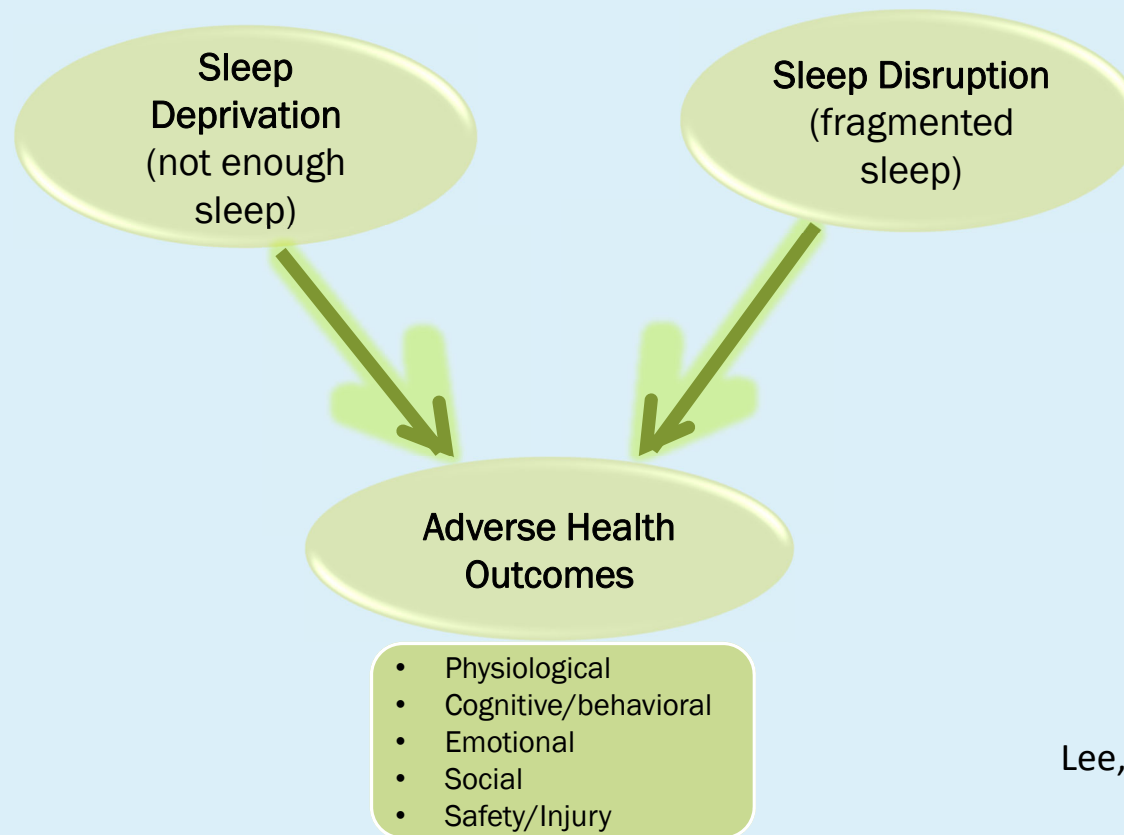
Sleep and Postpartum Depression



- Key symptom
 - *Unable to initiate asleep in 5-30min or return to sleep when awakened*
 - *This is problematic with infant who wakes every 2-3 hours*
- Circular relationship between poor sleep and depression
 - *Consider screening for depression, re-screening, listen*
- Special consideration
 - *Personal or family history of bipolar and sleeping ≤ 3 hour/night could trigger a manic episode. Refer to health care provider immediately.*

I have five kids and it's exhausting and I don't know how to get no sleep at all (Study Participant at 1 month postpartum)

Model of Impaired Sleep



Lee, 2003

Effects of Impaired Sleep on Physical Health

■ Effects on heart

- *Adults >45, sleeping <6 hours/night have double the risk for cardiovascular disease regardless of age, weight, smoking, or exercise*
- *Inadequate sleep affects glucose metabolism, blood pressure & inflammation*

■ Effects on cancer risk

- *Long-term inadequate sleep increases risk for breast, prostate, and other cancers*
 - Most research in shift workers
 - Thought to relate to circadian rhythm function. Many biological functions affected by circadian rhythm (i.e., the body's internal clock) including immune system regulation

■ Effects on weight and diabetes

- *Inadequate sleep ↑ weight gain, risk for obesity & diabetes*
 - Effects being seen in children long-term
 - Poor sleep adolescents – more likely to be obese adult
- *Adequate sleep: promotes weight management*
- *Example: 1 week of severe sleep deprivation (~4 hours/ night) can put a healthy, lean, fit person into pre-diabetic state physiologically*

(Van Cauter et al., 2008)

www.sleepfoundation.org 'Health Impact'

Effects of Impaired Sleep on Mental Health & Performance & Safety

■ Mental Health

- *Compared to people who sleep normally, people with insomnia are 10x more likely to have clinical depression and 17x more likely to have clinical anxiety*

■ Performance: People with excessive sleepiness have greater difficulty:

- *Learning new things, creating new memories, are less productive, less creative, and make more mistakes at school & work*

www.sleepfoundation.org

'Performance' & 'Safety'

■ Safety: When working and driving, sleepiness can cause a person to make more errors, react slower, & use poorer judgment

- *Study of 50,000 Swedish workers – those with sleep problems were twice as likely to die in work-related accidents*

■ Sleepiness had possible role in major industrial accidents:

- *3 Mile Island, Chernobyl, Exxon Valdez oil, Challenger explosion,*

■ Drowsiness while driving – 5,500 fatalities/year

■ Cell phone use while driving – 995 fatalities/year <http://www.autoinsurance.org/driving-hazards/>

Two key sources of sleep loss people come to parenthood with

1) Lifestyle/occupational

- *We are a sleepless society*
 - 24 technology (TV/Internet), lifestyle, pressures/busy, shift work
 - Disrupted circadian rhythms

2) Sleep Disorders

- *50-70 million Americans believed to have a chronic sleep disorder*
- *Over 90 different disorders*
 - Obstructive sleep apnea, insomnias, restless leg syndrome, circadian rhythm disorders...

www.sleepfoundation.org

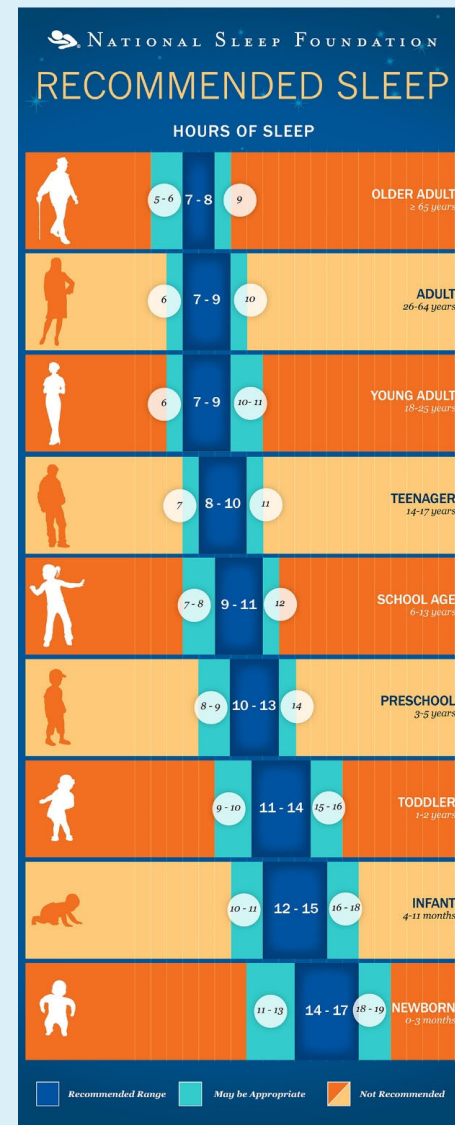


How Much Sleep do we Need every 24 hours for Optimal Health?

- Newborn – 3 months: 14-18 hours
- Infants 4-11 months: 12-15 hours
- 1-2 year olds: 11-14 hours
- 3-5 year olds: 10-13 hours
- 6-13 year olds: 9-11 hours
- Adolescents: 8-10 hours
- Adults (18-64 years): 7-9 hours

www.sleepfoundation.org

<https://sleepfoundation.org/how-sleep-works/how-much-sleep-do-we-really-need> (graphic)



Healthy Adult Sleep Parameters and Definitions

- 2/3 of population sleep 7 - 8.5 hours/night
 - *Very few sleep less (4-5 hrs) w/o impairments*
- Time to fall asleep (sleep latency)
 - *Normal = 5 - 10 min*
 - *< 2 minutes = sleep deprivation*
 - *> 30 min = initiation insomnia*
- Sleep efficiency (time asleep / time in bed) $\geq 85\%$
- Wake after sleep onset > 30 min = maintenance insomnia (plus other criteria)

Morin, 1993



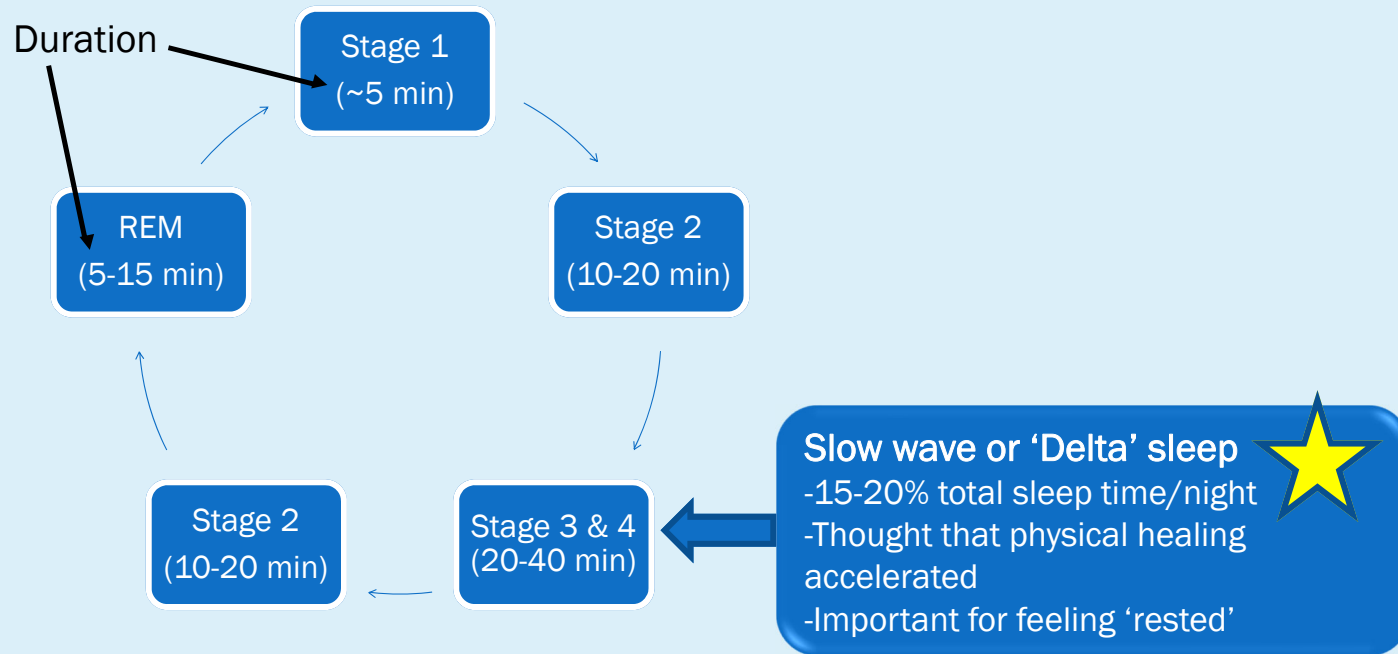
Adolescent Sleep

- National Sleep Foundation 2005 national phone survey of 1,602 adolescents
 - 45% *got insufficient sleep on school nights (<8 hrs)*
 - 21% in grades 6-8, 62% in grades 9-12
 - 20% of all adolescents got 'optimal' amounts of sleep
 - Time to bed became later as adolescent got older
 - Weekend schedules
 - Middle school: 10:30-11:30pm, waking at 9am
 - High school: Midnight or later, waking at 10am
 - 75% report drinking caffeinated beverages (31% report 2+ beverages/day)

http://sleepfoundation.org/sites/default/files/2006_summary_of_findings.pdf

A Sleep Cycle Lasts ~90 minutes

Repeats ~5x/8 hour night



Perinatal Sleep

- Sleep during pregnancy
- Sleep leading up to labor and during labor
- Postpartum sleep
- Newborn and infant sleep
- Sleep in each period has unique characteristics, challenges, and intervention opportunities



Sleep During Pregnancy

- Overall
 - *Sleep efficiency in pregnancy stable at 90% (<85% = poor efficiency)*
- 1st trimester
 - *↑ daytime sleepiness and total sleep time*
 - *10-15% report disturbed sleep due to nausea, vomiting, backaches, nocturia*
- 2nd trimester
 - *Fetal movements, heartburn, nocturia*
- 3rd trimester
 - *Physical changes can interfere with ability to fall asleep and maintain sleep*
 - *Self-report average 2.6 awakenings/night, 7.5 hrs sleep*
 - *Sleep quality decreases as labor approaches*

O'Keeffe & St-Onge, 2013, *Intl J of Obesity*
Little, 2014, ACOG



Common Sleep Disorders



- Can layered on top of perinatal sleep difficulties (either parent)
- Frequently undiagnosed
- Can adversely affect fetal, maternal, and birth outcomes (Nodine & Matthews, 2013)
 - *Breathing- Related Sleep Disorder – e.g., Obstructive Sleep Apnea*
 - Repeated breathing interruptions during sleep. Snoring, long pause, gasping
 - Associated with gestational hypertension, preeclampsia and low birth weight
 - *Restless Legs Syndrome (RLS) – Affects 26% pregnant women*
 - Creeping sensation in the legs relieved by movement
 - *Insomnia - 80% pregnant women may suffer from limited insomnia symptoms during pregnancy*
 - Problems initiating or maintaining sleep

http://www.cdc.gov/sleep/about_sleep/key_disorders.htm

<http://sleepfoundation.org/sleep-topics/pregnancy-and-sleep>

Insomnia

- Several types
 - *Acute (<14 days)*
 - *Chronic (lasting >2-4 weeks)*
- Causes
 - *Psychiatric conditions*
 - *Medical conditions*
 - *Medications*
 - *Unhealthy sleep habits*

<http://sleepfoundation.org/insomnia/content/what-causes-insomnia>

Nodine & Matthews, 2013

Sleep During Labor and Birth (intrapartum)

- Women who sleep < 6hrs/night for a few weeks leading up to birth have
 - *Average 12 hours longer labor*
 - *4.5x more likely to have c-section than women who sleep >7hrs*
- Sleep loss in labor associated with early postpartum emotional distress

<http://sleepfoundation.org/sleep-topics/pregnancy-and-sleep/page/0/1>

Lee, 2003

Postpartum Sleep

How sleep changes

- Sleep efficiency drops from 90% in 3rd trimester to:
 - *77% in first-time mothers in 1st month*
 - *84% in mothers having 2+ child*
- In all mothers, ↑slow wave sleep, ↓ stages 1 and 2
- Sleep fragmentation (waking 2+ times/night)
- Sleep is most disrupted in first 3 months in:

First-time moms

C-section

Postpartum Sleep

What is normal?

- First-time and experience mothers (n = 50) followed 2 to 16 weeks postpartum
 - *On avg were 27 years, college educated, middle-class, white*
 - *Total night sleep average: 7.2 (± 0.95) hours/night over 4 months*

Montgomery-Downs et al. 2010

In comparison: My study results of 118 low-income women in Milwaukee at 4 and 8 weeks postpartum, 72% African-American, 12% Hispanic

- *Spent 8 hours in bed/night*
- *5.4 hours asleep/night*
- *Length of sleep did not improve from 4 to 8 weeks*

To know how a mother sleeps, look to how her newborn sleeps

- Newborns sleep 70% of every 24 hours (16-18 hours)
 - *Have 3 sleep states: active sleep (REM), quiet sleep (NREM) and indeterminate sleep (non-REM or NREM)*
 - *Sleep in periods of 2-4 hours*
- 10-12 weeks is a period of re-organization
 - *Sleep behavior and physiology matures*
- Total sleep time (TST) in a 24 hour period
 - *Birth = 16-17 hours*
 - *16 weeks = 14-15 hours*
 - *6-8 months = 13-14 hours*



Newborn and Infant Sleep

- At 3 weeks, the average length of longest sleep is 3.5 hrs
 - *6 months = 6 hrs*
- Sleep periods lengthen between 3 and 6 weeks
- By 6 wks, longest sleep period occurs at night
 - *Instead of randomly distributed during the day*
- Sleep is the primary activity of the brain during early development
 - *Teach parents importance of sleep for newborn and children as they grow*

Interventions to Support Sleep

1. Mobilizing social support to increase sleep
2. Nutrition to promote sleep
3. Lifestyle changes to promote sleep
4. Environmental interventions
5. Infant sleep and infant interventions

As you listen....

Consider how you will **adapt and tailor** the following interventions to your **client's individual and family contexts:**

- *Socioeconomic*
- *Cultural*
- *Geographic*
- *Work and lifestyle*

Sleep Promoting Social Support Strategies

- Common strategies women describe:
 - *Wake up early, send kids off to school, return to bed to sleep later into morning*
 - *Weekend sleep - send kids off to a relative and sleep uninterrupted*
- Key Point
 - *5 hours uninterrupted sleep is important physiologically*
 - *Creatively work with clients to figure out how to get 5 hours 'straight' sleep*

Sleep Promoting Social Support Strategies

- Maximizing sleep of two caregivers (e.g., mom & dad)
- Strategy “Splitting the night”
 - *One partner wakes with baby for a 6 hour period*
 - For example: (8p-2a, 2a-8a) or (9p-3a, 3a-9a) or (10p-4a, 4a-10a)
 - Allows for 5-straight hours of sleep (with time to fall asleep).
 - Some ‘straight sleep’ better than no straight sleep
 - Setting Attainable Goals: twice/week?
 - *Alternate nights so 1 partner gets 5 straight hours of sleep each night?*
 - Preference is for pregnant/postpartum client to sleep first
 - *Promote postpartum healing by maximizing slow wave sleep, which occurs earlier part of the night, especially in postpartum women*

Sleep Promoting Nutrition & Diet Strategies

- Caffeine (recommend none after 2p)
- Limit Alcohol
 - *Suppresses REM and slow wave sleep*
 - *Helps you fall asleep, but then wakes you up*
- Fluid intake 2-3 hours before bed (prevent nocturia)
 - *Helps limit unnecessary nighttime interruptions*
 - *Overall diet quality & portion control*
 - Refer to www.myfoodplate.gov



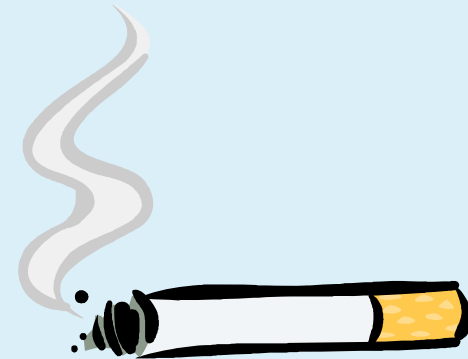
Sleep Promoting Nutrition Strategies



- Small protein snack before bed
 - *Protein increases ability to make protein-based hormones like melatonin to regulate circadian rhythms*
- Consider screen for Iron-deficiency Anemia
 - *Low hemoglobin can predict depression symptoms*
- Resources about food and sleep
 - *<http://www.sleepfoundation.org/article/sleep-topics/food-and-sleep>*

Smoking and Sleep

- Nicotine (stimulant)
 - *Increase time to fall asleep*
 - *Spend less time in deep sleep (nicotine withdrawal may be mechanism)*
 - *Feel less rested than non-smokers*
- Support cessation and relapse prevention
 - *80% who quit smoking in pregnancy relapse postpartum (stress thought to be a key factor)*



Cannabis (Marijuana) and Sleep Pregnancy and Lactation



- Sleep disturbance with marijuana use dependent on:
 - *Level of intoxication (all-day vs. single dose use)*
 - *Level of dependence & state of withdrawal*
- Pregnancy and Lactation Outcomes
 - *Children with in-utero exposure*
 - *ACOG recommendation is no exposure until further studies conducted*
- Ingestion routes – smoking, vaporizing, food, topical, tinctures

Conroy, D. A. & Arnedt, J. T. (2014). Sleep and substance use disorders: An update. *Current Psychiatry Reports*, 16, 487-496.

The American College of Obstetricians and Gynecologists. (2017). Committee Opinion No. 722: Marijuana Use During Pregnancy and Lactation. <https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Marijuana-Use-During-Pregnancy-and-Lactation?IsMobileSet=false>.

Sleep Environment Interventions

- Decrease exposure to nocturnal light
 - *TV, Computer, Cell phone, alarm clock*
 - *If light needed, use indirect light (not visible to client in bed)*
 - Foot of bed, low to ground
- Reduce environmental noises
 - *White noise (fan, white noise machine) can reduce awakenings*
- Quality of sleeping surface
 - *Mattress, pillow, couch*
- Temperature – too hot or too cold (65-72F recommended)



Environmental Interventions



- Early morning natural light
 - *Open curtains, walk outside (weather permitting)*
 - *Helps client through melatonin regulation and can help baby to develop day/night cycles through same mechanism*

Resources for last several slides

- “Sleep Hygiene” <http://www.sleepfoundation.org/article/ask-the-expert/sleep-hygiene>
- http://www.cdc.gov/sleep/about_sleep/sleep_hygiene.htm

Insomnia & Cognitive-Based Therapy- Insomnia (CBT-I)

- Negative bedroom associations
 - *In the bedroom: Sleep and Sex. Nothing else.*
- Attempt sleep x 10 min, then out of bed, low-light/low-level activity (e.g., reading) until sleepy. Repeat.

<http://sleepfoundation.org/sleep-news/what-are-different-types-insomnia>

<http://sleepfoundation.org/insomnia/content/insomnia-women>

Lifestyle Interventions

- Exercise
 - *Morning/early afternoon exercise ↑ body temperature, regulates circadian rhythm*
 - *Exercise in evening – heats core body temp – may inhibit sleep initiation*
 - *Exercise is the most effective non-pharmacologic intervention for depression, mood-regulator*



Sleep Promoting Lifestyle Strategies

- Establish sleep routine
 - *Important for client AND baby sleep (often overlooked)*
 - *Listen to body- when tired and sleepy*
 - Short-term focused coping: Try to 'forget about the fatigue' or treating the symptom (i.e., caffeine) vs...
 - Long-term focused coping: Treating the problem (e.g., getting more/better sleep), asking for help, delaying housekeeping in favor of sleep
 - *Go to bed about same time each night*
 - *Don't delay sleep late into night if possible*
 - Early sleep is more healing/restful
 - *Partners: Does a partner have a sleep disorder or need a sleep study?*
 - *Pet considerations – can be major source of sleep fragmentation*



Sleep Promoting Interventions for Infants

- Recognize infant sleep cues
- Infants must be taught how to calm down and fall asleep
 - *Comforted by someone else until they learn to self-comfort*
- Comfort, put down to sleep when sleepy, before completely asleep
 - *Allow baby to cry few minutes and self-settle before picking up*
- Respecting family and cultural values



Infant Interventions

- No evening TV/computer screen exposure
- Dim or no light in sleeping place
- Establish a bedtime routine
 - *Cues baby into sleep time*
- Daytime light exposure
- No more than dim light for night feedings
- Make night feeding procedural, not playtime
- White noise



Setting Realistic Expectations Infant and Maternal Sleep

- Refer to normal sleep patterns in pregnant & postpartum women and infants
- Ask: “What does it mean to you to ‘sleep through the night?’”
- Help parents realize that improving sleep is a process, good nights, bad nights, it will get better

“Rest When the Baby Sleeps”

- This advice perceived as unhelpful
 - *Provide concrete practical strategies of how to do this.*
- Instead, ask “Can you sleep when the baby sleeps?”
 - *This can start to get at any problems with falling asleep or maintaining sleep. May hint at struggles with anxiety or depressive symptoms*
- Changing the language to Rest when the Baby Rests

Napping

- Common in pregnancy and postpartum
 - *Accelerated growth and healing demands on body*
- Morning naps may be better than afternoon naps
 - *May not matter if evening sleep not negatively affected*
- 20-30 minute naps may be most effective
 - *Longer naps can impact later sleep*

Sleep and Medications

- Sleepiness as a medication side effect
 - *Over-the-counter medications*
 - *Prescription medications*
- Medications to promote sleep
 - *Initiate sleep*
 - *Maintain sleep*
- Management of medications with a baby can be complex – seek assistance of health care provider



<https://sleepfoundation.org/excessivesleepiness/content/sleepiness-medication-drugs-why-your-otc-medications-and-prescription-drugs-might-make-you>

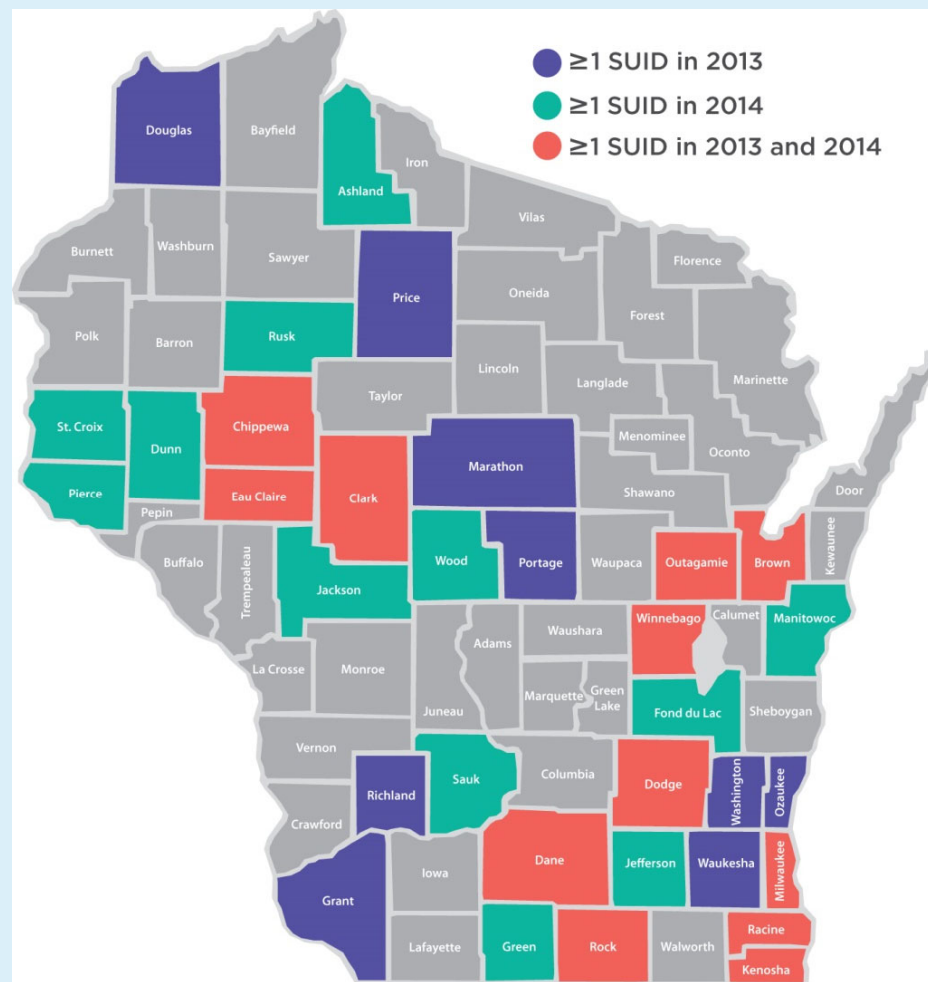
Creating a Client Plan

- Set Goals (e.g., 1 mom, 1 baby goal)
 - *Measurable*
 - *Able to accomplish in reasonable timeframe*
 - *Realistic*
 - Consider feelings of guilt, identity, teething, growth spurts
- Create actions to achieve goals
- Evaluate plan next visit
 - *Advance goal, change goal, continue working on it*

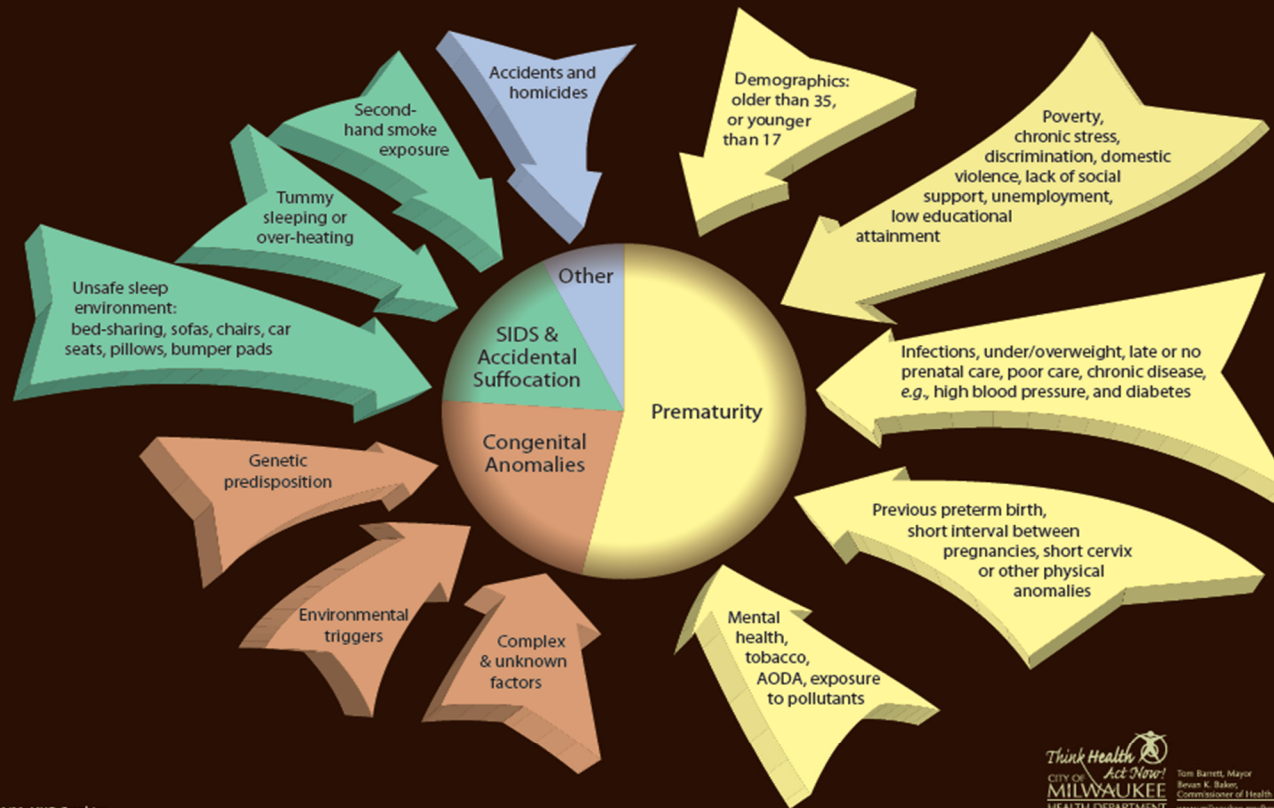
Infant Sleep Safety

Harm Reduction Model

Infant sleep-related deaths



Factors which Influence Infant Mortality



11/11 MHD Graphics

Think Health. Act Now!
CITY OF MILWAUKEE
HEALTH DEPARTMENT
Tom Barnett, Mayor
Baron K. Baker, Commissioner of Health
www.milwaukee.gov/health

Definitions

- Sudden Unexpected Infant Death (SUID)
 - *Infant who dies suddenly and unexpectedly (~3,500/year)*
- 3 types of SUID
 - *Sudden Infant Death Syndrome (SIDS) (~1,500/yr)*
 - SIDS is defined as the sudden death of an infant less than 1 year of age that cannot be explained after a thorough investigation is conducted, including a complete autopsy, examination of the death scene, and a review of the clinical history.
 - *Unknown cause*
 - Unexplained and doesn't meet definition for SIDS
 - *Accidental suffocation or strangulation in bed (~600-700/yr)*
 - Mechanisms: Suffocation, overlay, wedging/entrapment, strangulation
- Key point: If you know the cause of death, it's not SIDS

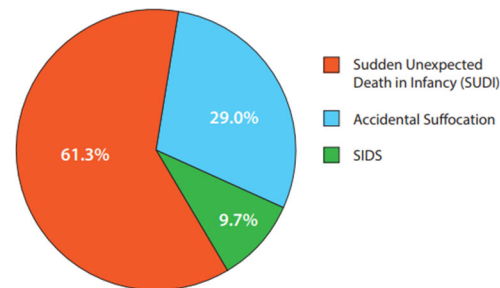
<http://www.cdc.gov/sids/aboutsuidandsids.htm>

SLEEP ENVIRONMENT

Sleep Environment

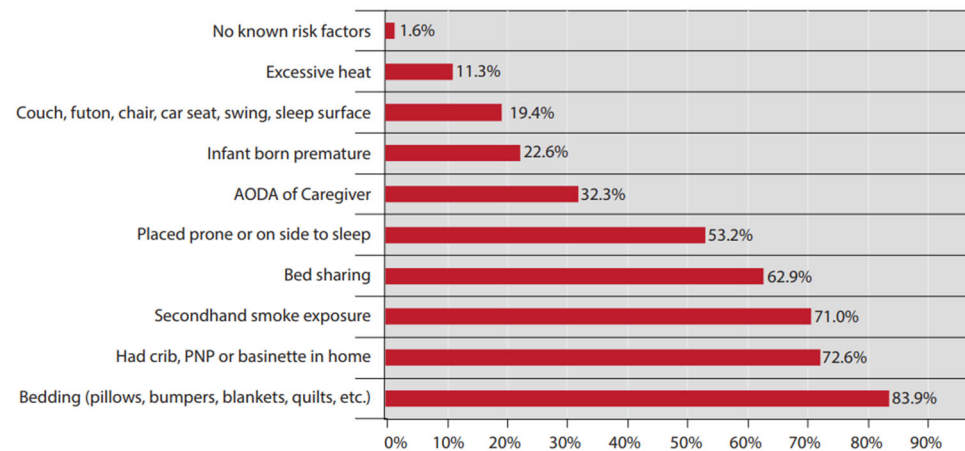
Sleep-related deaths are the third leading cause of infant death in Milwaukee. Sleep related deaths, which include Sudden Infant Death Syndrome (SIDS), Sudden Unexpected Death in Infancy (SUDI) and Accidental Suffocation, accounted for 15.9% of all 2012-2015 infant deaths (Figure 14).

Figure 14. Subcategories of Sleep-Related Deaths



The underlying risk factors associated with sleep-related deaths are often seen in combination and are not mutually exclusive in Figure 15.

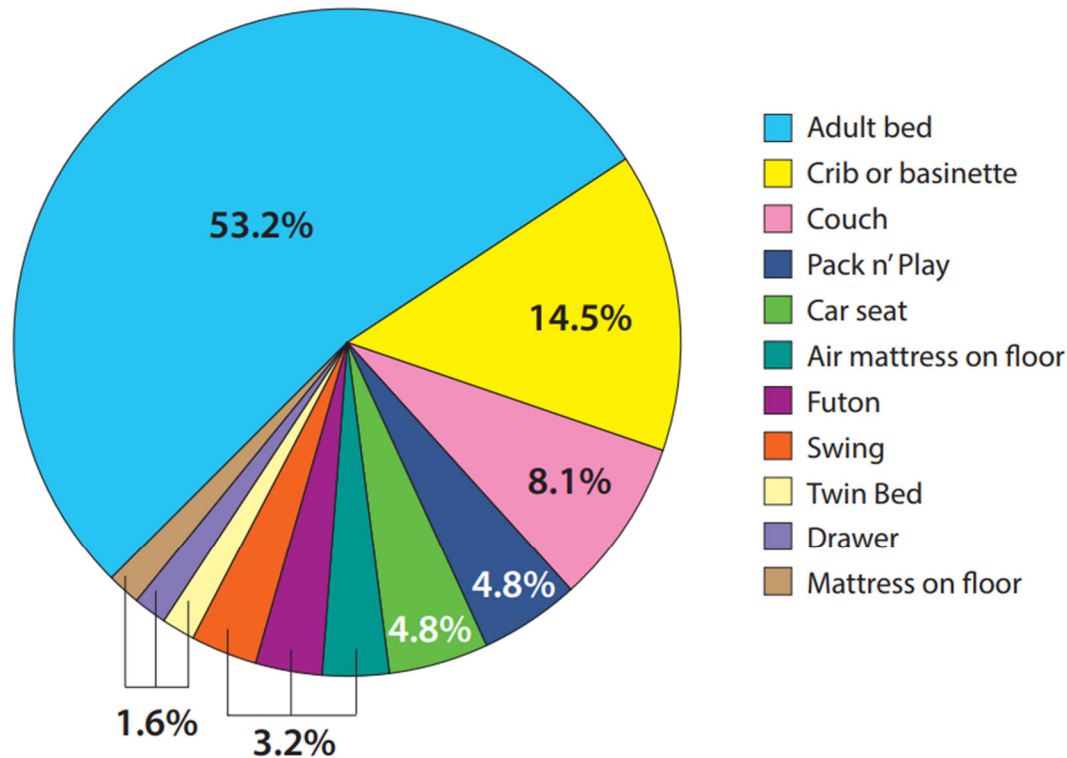
Figure 15. Risk Factors reported in 2012-2015 Sleep-related Deaths (n=62)*



SLEEP ENVIRONMENT

Figure 16: Places Babies Slept When They Died

Sleep environment is a complex issue when infants die at home while asleep. All information on safe sleep is abstracted from the death scene investigative report. The American Academy of Pediatrics (AAP)³⁰ and the City of Milwaukee Health Department recommend all parents and caregivers share a room, not a bed with their babies.



Simple as “A,B,C’S”

Babies need to sleep:

- A – Alone
- B – on their Back
- C – in a Crib
- S – in Smoke Free air





- Back to sleep for every sleep
- Use a firm sleep surface – a firm mattress is recommended
- Encourage “tummy time” and limiting time in bouncers, car seats and carriers



UNITED KINGDOM



THE BABY
FRIENDLY
INITIATIVE

RESEARCH ON BED SHARING, INFANT SLEEP AND SIDS

Home > Infant Health Research > Research on Bed Sharing, Infant Sleep and SIDS

The latest bed-sharing research is outlined here. For guidance on discussing co-sleeping with parents, read our Co-Sleeping and SIDS: A Guide for Health Professionals leaflet.

<https://www.unicef.org.uk/babyfriendly/news-and-research/baby-friendly-research/infant-health-research/infant-health-research-bed-sharing-infant-sleep-and-sids/>

IN 2016, 219 BABIES DIED OF SIDS IN THE UK: 0.03% OF ALL BIRTHS⁷

Previous UK data suggests:

- around half of SIDS babies die while sleeping in a cot or Moses basket.
- around half of SIDS babies die while co-sleeping. **However, 90% of these babies died in hazardous situations which are largely preventable.**^{#,8}

	1 IN 3,180	The risk of SIDS for all babies in England & Wales ¹
	1 IN 174	The risk of SIDS while co-sleeping on a sofa ^{1,9}
	1 IN 174	The risk of SIDS while co-sleeping after consuming alcohol or drugs ^{1,9}
	1 IN 787	The risk of SIDS while co-sleeping with a regular smoker ^{1,9}

IF NO BABY CO-SLEPT IN HAZARDOUS SITUATIONS, WE COULD POTENTIALLY REDUCE CO-SLEEPING SIDS DEATHS BY NEARLY 90%⁸

[unicef.uk/safesleeping](https://www.unicef.uk/safesleeping)

^{*}Co-sleeping: an adult and a baby sleeping together on any surface (such as a bed, chair or sofa).

[◊] Bed-sharing: sharing a bed with one or both parents while baby and parent(s) are asleep.

[#] Using SIDS by sleeping environment from the latest case-control study conducted in England.

CO-SLEEPING AND SIDS: A guide for health professionals

As a health professional tasked with discussing co-sleeping and Sudden Infant Death Syndrome (SIDS) with parents (as recommended by NICE (2014) CG37),¹⁰ it is easy to feel overwhelmed.

The messages can seem complex, controversial and at odds with the reality of parents' lives. You may also fear getting it wrong, as this could result in the loss of a baby's life and/or serious consequences for your career. It can, therefore, feel safest to either simply tell all parents to never co-sleep or just to say nothing at all.

Unfortunately, this approach is not safe. It can increase the risks to babies because:

- Young babies wake frequently at night and need to be fed and cared for somewhere. In most homes this will be in bed or on a sofa or armchair, simply because there is no other comfortable place. Parents can easily choose the more dangerous sofa over the less dangerous bed because they are trying to follow advice to never bed-share.
- Mothers can try and sit up rather than lay in bed to breastfeed in order to stop themselves falling asleep. As most babies breastfeed frequently, mothers risk falling asleep in a more dangerous position than if they had been lying down. Many abandon breastfeeding altogether as they are so exhausted, thereby depriving themselves and their baby of all the benefits that breastfeeding brings.
- Babies thrive on closeness and comfort. Many parents end up co-sleeping, whether they intended to or not, as it settles their baby and so enables everyone to sleep.

- While some young babies settle easily in a cot or Moses basket between feeds, others do not. Some parents who choose not to co-sleep may decide to encourage their baby to learn to sleep independently using the controlled crying method, which is not recommended. This approach can be distressing for the parents and their baby, be detrimental to the baby's growth and development and can undermine breastfeeding.

So what to do?

SIDS is very rare (0.03% of all births) and it will never be possible to eliminate all risk. However, with sensible, parent-centred communication, we could potentially reduce co-sleeping SIDS deaths by nearly 90%.

Remember that it isn't helpful to tell parents what they must or mustn't do; instead, listen carefully and offer information appropriate to their needs. You may find the Unicef UK 'Having meaningful conversations with mothers' guide helpful (available at [unicef.uk/safesleeping](https://www.unicef.org.uk/safesleeping)).

Acknowledge that young babies wake and feed frequently in the night and that this is normal and not modifiable, as young babies are not capable of 'learning' to defer their needs. Accepting this reality can be helpful, as parents are reassured that their baby is normal and they aren't doing anything wrong. It can also relieve the pressure to find 'solutions'.

<https://www.unicef.org.uk/babyfriendly/wp-content/uploads/sites/2/2016/07/Co-sleeping-and-SIDS-A-Guide-for-Health-Professionals.pdf>

CO-SLEEPING AND SIDS: A guide for health professionals

Give parents (or talk through with parents) the Unicef UK leaflet 'Caring for your baby at night', which covers all the safety issues and offers practical tips (available at unicef.uk/safesleeping). Durham University's [Baby Sleep Information Source website](#) can also be suggested. It is most important to **explain** that around half of all parents will sleep with their baby at some point, be this planned or unplanned, and, although SIDS is very rare, it is much more likely to happen in certain circumstances.

Therefore:

- Sleeping on a sofa or chair with a baby is very dangerous⁹ and should always be avoided. If parents fall asleep with their baby they are much safer in a bed than on a sofa or chair.*
- SIDS is more likely if parents co-sleep after drinking or taking drugs;⁹ having an open conversation can help them to understand why they should be very careful not to fall asleep with their baby after drinking or taking drugs. Drink and drugs also affect normal functioning and decision-making. Discuss the importance of planning care for their baby at such times, for example by asking a sober adult to help.
- Co-sleeping is much more dangerous when parents smoke or have smoked during pregnancy;⁹ help parents understand this and offer every support

for them to cut down or stop, especially in pregnancy.

- SIDS is more common in babies who were born low birthweight or premature; therefore parents of these babies should avoid co-sleeping especially in early infancy.⁹

Try and take time to discuss the issues with these parents and to help them look for practical solutions to issues that are affecting them such as lack of a cot, bed or space for sleeping. Breaks in routine, such as visiting friends and family overnight or going on holiday can also present an extra risk to babies. Suggesting that parents think about what they are going to do at such times can therefore be helpful.

Remember, shocking messages that imply that all/any co-sleeping leads to death are not helpful. They do not reflect the evidence, and they frighten parents and staff, induce guilt and close down honest conversations.

*Adult beds are not designed to keep babies safe – parents must keep babies safe. Please refer to Unicef UK's 'Caring for your baby at night' booklet and health professionals' guide for more information.

Please turn over for references.

UNICEF.UK/SAFESLEEPING

PUTTING YOUR BABY DOWN TO SLEEP

To keep your baby safe and to reduce the risk of sudden infant death (sometimes called cot death) always make sure:

- You put your baby down on her back to sleep, never on her front or side.
- The cot is beside the parents' bed for at least the first six months.
- The mattress is firm and flat – soft beds, bean bags and sagging mattresses are not suitable.
- Your baby is not overdressed or covered with too much bedding (no more than you would use yourself).
- The bedding must not be able to cover the baby's head.
- The room is not too hot (16-20°C is ideal).
- The room where your baby sleeps is a smoke-free zone.



Download the health professionals' guide to this leaflet at unicef.uk/caringatnight

Sleep: Bedshare

Share this page



PRINT

SHOULD I SLEEP WITH MY BABY?

It can be hard to continue your breastfeeding relationship if you are told you are not safe for your baby for a full third of the day! LLL believes there are many safe sleep options available to parents with infants. Education and accurate information are the keys to unlocking Sweet Sleep solutions!

Ten Minutes to safe sleep *tonight*:

You need to be:

- A nonsmoker
- Sober (no drugs, alcohol, or medications that make you drowsy)
- Breastfeeding

Your baby needs to be:

- Full-term and healthy
- Kept on his back when he is not nursing
- Unswaddled, in a onesie or light pajamas

You both need to be:

- On a safe surface

<https://www.llli.org/breastfeeding-info/sleep-bedshare/>



➤ Safe Sleep and Breastfeeding Babies

ORDER YOUR COPY OF SWEET SLEEP TODAY, NORTH AMERICAN EDITION



Sweet Sleep: Nighttime and Naptime Strategies for the Breastfeeding Family

by La Leche League International, Diane Wiessinger, Diana West, Linda J. Smith, Teresa Pitman

★★★★★ 3 Customer Reviews | Editorial Reviews

Paperback

\$19.06 ~~\$20.00~~ | Save 5%

Paperback
\$19.06

NOOK Book
\$13.99

[View All Available Formats & Editions](#)

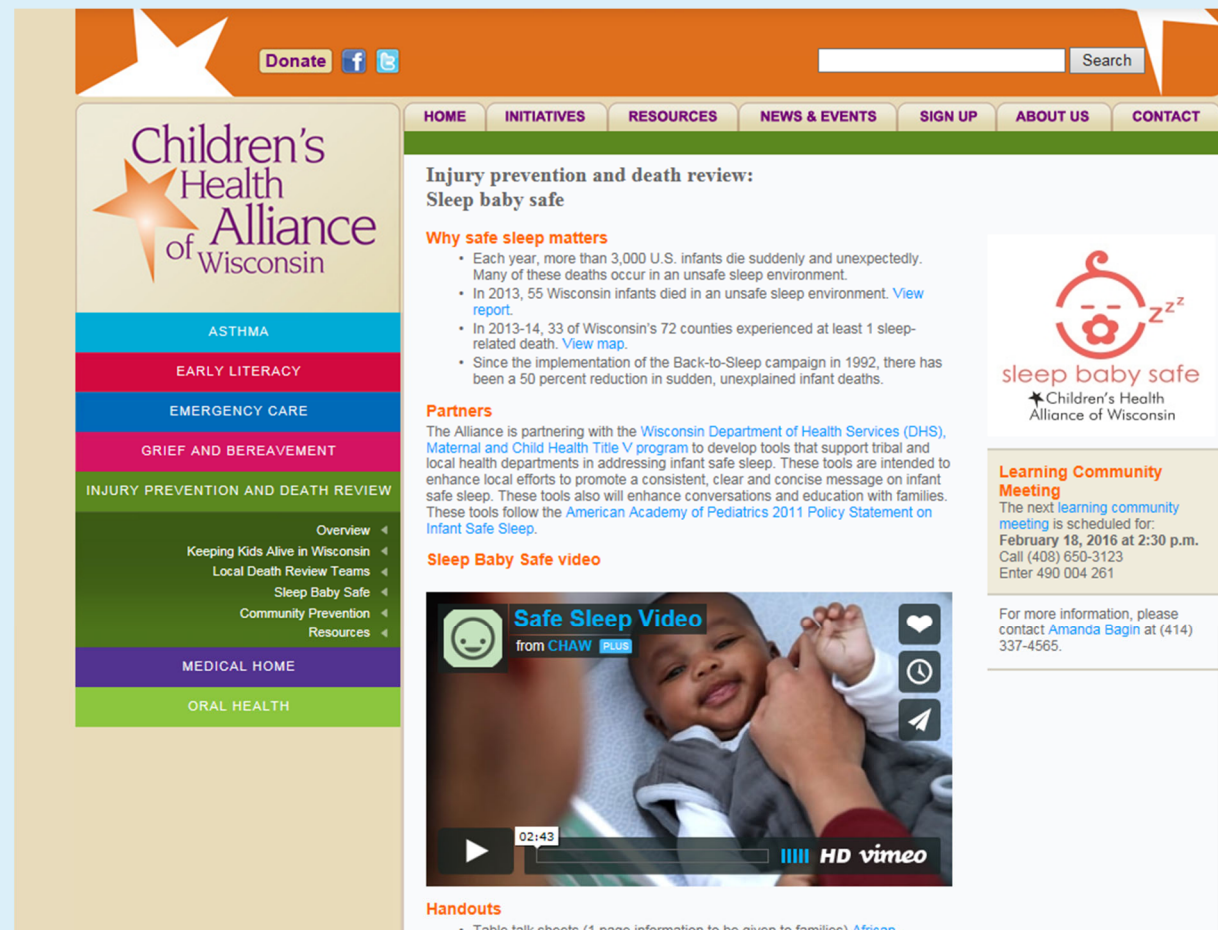
☒ Ship This Item — Qualifies for Free Shipping ⓘ

☐ Unavailable for pickup at B&N Bayshore Mall ⓘ
[Check Availability at Nearby Stores](#)

Your knowledge & confidence

- What do you know about alternative sleep environments?
- Are you confident in your conversations with families about the sleep environment?
- What are your personal feelings about how and where an infant should sleep?

Newborn Nest Program – (Milwaukee)



The screenshot shows the website of the Children's Health Alliance of Wisconsin. The header includes a 'Donate' button, social media icons for Facebook and Twitter, and a search bar. The main navigation menu consists of links for HOME, INITIATIVES, RESOURCES, NEWS & EVENTS, SIGN UP, ABOUT US, and CONTACT. The left sidebar features the organization's logo and a list of program areas: ASTHMA, EARLY LITERACY, EMERGENCY CARE, GRIEF AND BEREAVEMENT, INJURY PREVENTION AND DEATH REVIEW (highlighted), MEDICAL HOME, and ORAL HEALTH. The 'INJURY PREVENTION AND DEATH REVIEW' section has a sub-menu with links to Overview, Keeping Kids Alive in Wisconsin, Local Death Review Teams, Sleep Baby Safe, Community Prevention, and Resources. The main content area is titled 'Injury prevention and death review: Sleep baby safe'. It includes a section 'Why safe sleep matters' with bullet points about infant deaths and links to a report and map. Below this is a 'Partners' section describing the alliance's partnership with the Wisconsin Department of Health Services. A 'Sleep Baby Safe video' section features a video player for a 'Safe Sleep Video' from CHAW. To the right of the video is a 'Learning Community Meeting' announcement for February 18, 2016, and contact information for Amanda Bagin. At the bottom, a 'Handouts' section lists table talk sheets for African-.

Children's Health Alliance of Wisconsin

ASTHMA

EARLY LITERACY

EMERGENCY CARE

GRIEF AND BEREAVEMENT

INJURY PREVENTION AND DEATH REVIEW

MEDICAL HOME

ORAL HEALTH

Overview

Keeping Kids Alive in Wisconsin

Local Death Review Teams

Sleep Baby Safe

Community Prevention

Resources

HOME INITIATIVES RESOURCES NEWS & EVENTS SIGN UP ABOUT US CONTACT

Injury prevention and death review:
Sleep baby safe

Why safe sleep matters

- Each year, more than 3,000 U.S. infants die suddenly and unexpectedly. Many of these deaths occur in an unsafe sleep environment.
- In 2013, 55 Wisconsin infants died in an unsafe sleep environment. [View report.](#)
- In 2013-14, 33 of Wisconsin's 72 counties experienced at least 1 sleep-related death. [View map.](#)
- Since the implementation of the Back-to-Sleep campaign in 1992, there has been a 50 percent reduction in sudden, unexplained infant deaths.

Partners

The Alliance is partnering with the Wisconsin Department of Health Services (DHS), Maternal and Child Health Title V program to develop tools that support tribal and local health departments in addressing infant safe sleep. These tools are intended to enhance local efforts to promote a consistent, clear and concise message on infant safe sleep. These tools also will enhance conversations and education with families. These tools follow the American Academy of Pediatrics 2011 Policy Statement on Infant Safe Sleep.

Sleep Baby Safe video

Safe Sleep Video
from CHAW

Learning Community Meeting
The next learning community meeting is scheduled for:
February 18, 2016 at 2:30 p.m.
Call (408) 650-3123
Enter 490 004 261

For more information, please contact [Amanda Bagin](#) at (414) 337-4565.

Handouts

- Table talk sheets (1 page information to be given to families) [African-](#)

Alternative sleep surfaces



Basket



Box or carton



Drawer



Washtub

The Baby Box (aka Newborn Nest)



- Complies with AAP recommendations
- Promotes room-sharing and breastfeeding
- Portable
- Space saving

Is this ok? Why or why not?



Inflatable Mattresses and Infants



Feb 16, 2016

MILWAUKEE NEWS

Baby girl sleeping on air mattress found dead in Milwaukee

By David Paulsen of the Journal Sentinel

A 1-year-old baby girl was found dead in Milwaukee in a possible co-sleeping death, the Milwaukee County medical examiner's office said Tuesday.

Authorities responded to the 3700 block of N. 15th St., and the baby, identified as a 12-month-old, was pronounced dead at 7:20 a.m. Tuesday, the medical examiner's office said.

"Initial reports indicate the infant was sleeping with two adults on a partially inflated air mattress," the office said in an email to news organizations.

An autopsy was scheduled for Wednesday.

YOU LOVE
HE LOVES S
HAPPY FATHER
Pick'n Sc

Ne

- 2005-2014 – National Center for Child Death Review found 108 cases of death on an air bed – 24 states reporting
- Not recommended for kids <15 months

Issues of bed bugs, poverty, design and marketing

The Interface Among Poverty, Air Mattress Industry Trends, Policy, and Infant Safety

Infants can suffocate on air mattresses, even when the *Jennifer J. Doering, RN, PhD, and Trina C. Salm Ward, PhD, MSW*

Abstract

Infants can suffocate on air mattresses, even when the mattress is fully inflated. The interfacing issues of poverty, the bedbug epidemic, and changes in the design and marketing of air mattresses may be increasing consumer use of air mattresses as primary sleep environments and thus increasing the potential for infant death. Despite recent changes to improve air mattress safety labeling, the National Child Death Review Case Reporting System found that between 2004 and 2015 across 24 states, an air mattress was the incident sleep place for 108 infants whose deaths were either during sleep or in a sleep environment. At the same time, design components such as inflatable headboards and memory foam pillow tops potentially increase the hazard to infants, and marketing changes represent air mattresses as a preferred low-cost primary sleep environment. Analysis of current data surveillance systems, published position statements, and consumer materials from national organizations and federal agencies reveal opportunities for changing policy to better protect infants from this hazard.

[American Journal of Public Health](#). 2017 Jun;107(6):945-949. doi: 10.2105/AJPH.2017.303709. Epub 2017 Apr 20.

Having a conversation

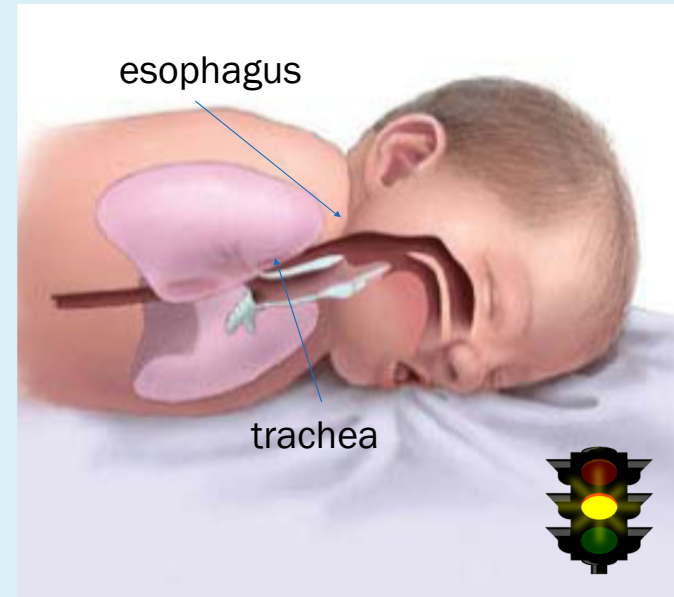
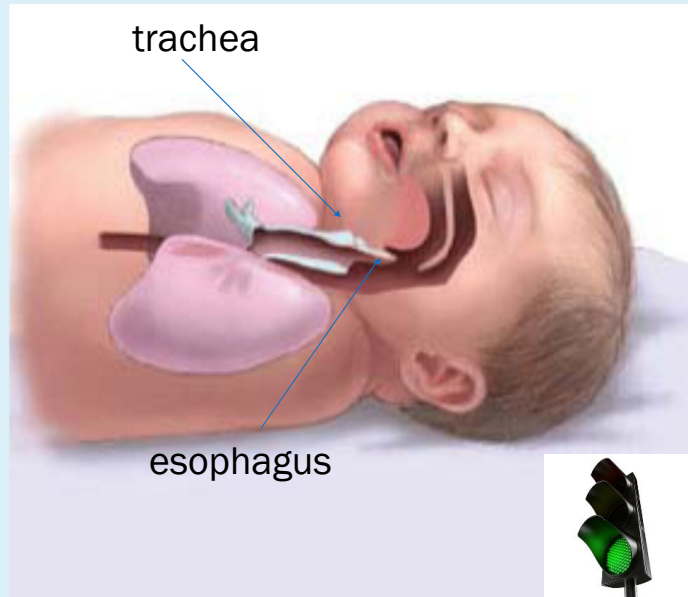
- What do parents care about most when it comes to baby and sleep?
 - Closeness, comfort, monitoring, does baby like it
- What are key things to communicate verbally and non-verbally talking about infant sleep places?
 - Generally, avoid shaming or implying parents are 'bad' for their choices

Why ask these questions?

- *Tell me everywhere you took baby yesterday?*
- *Tell me all the places baby has slept in the last 24 hours?*
 - Ask about all products
 - *Laying flat on back is recommended until baby can hold head up*
- *Tell me about a time you found one of your children in an unsafe sleep environment?*
- *Where is baby going to sleep while at grandma's (and any other caregiver) house?*

But my baby is more likely to choke sleeping on his back.....

Anatomy demonstrates this is a myth

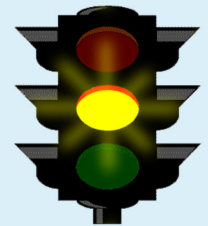
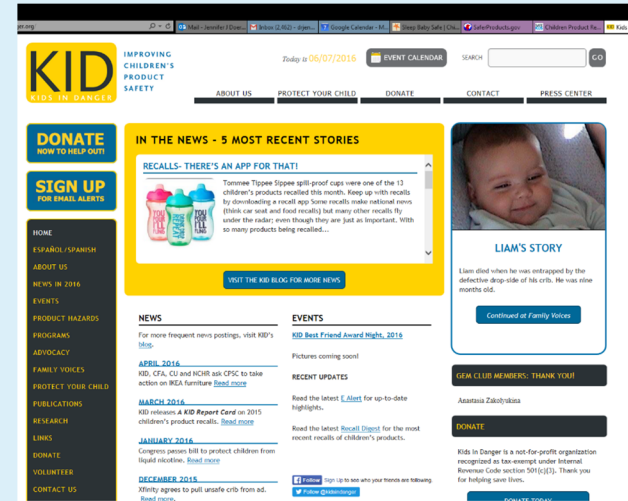
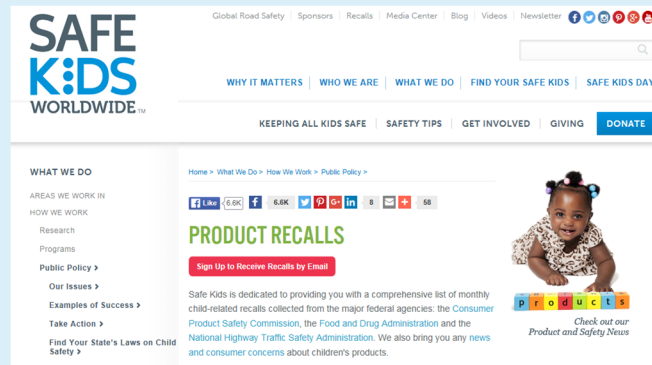


Product Recalls - Kids

<http://www.kidsindanger.org/>

<http://www.safekids.org/product-recalls>

<http://www.saferproducts.gov/Default.aspx>



What are the 2 of the most dangerous products to children?



Window blind cords

CPSC Warns Consumers of Suffocation Danger Associated with Children's Balloons

The U.S. Consumer Product Safety Commission (CPSC) warns parents and caregivers of young children about the suffocation hazard presented by uninflated toy balloons and pieces of broken balloons.

If all children's products, balloons are the leading cause of suffocation death, according to CPSC injury data. Accidents involving balloons tend to occur in two ways. Some children have sucked uninflated balloons into their mouths, often while attempting to inflate them. This can occur when a child who is blowing up the balloon inhales or takes a breath to prepare for the next blow, and draws the balloon back into the mouth and throat. Some deaths may have resulted when children swallowed uninflated balloons they were sucking or chewing on. The CPSC knows of one case in which a child was chewing on an uninflated balloon when she fell from a swing. The child hit the ground and, in a reflex action, inhaled sharply. She suffocated on the balloon.



Balloons (kids <8 at greatest risk)



What is this?



This is a green-turned-red light infant mortality issue

Product safety – cribs and play yards

- Good design considers foreseeable use and misuse
- Cribs and play yards get recalled too



2.1 million Stork Craft drop side cribs recalled



400,000 Simplicity cribs recalled for this



What can YOU do about this when in homes?

Fisher-Price Recalls Rock 'n Play Sleepers Due to Reports of Deaths

 En Español



Recalled Fisher-Price Rock 'n Play sleeper

Name of product:

All Models of Rock 'n Play Sleeper

Hazard:

Infant fatalities have occurred in Rock 'n Play Sleepers, after the infants rolled from their back to their stomach or side while unrestrained, or under other circumstances.

Remedy:

Refund

Recall date:

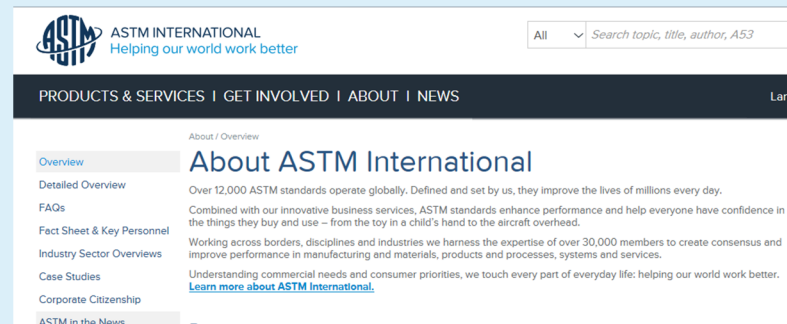
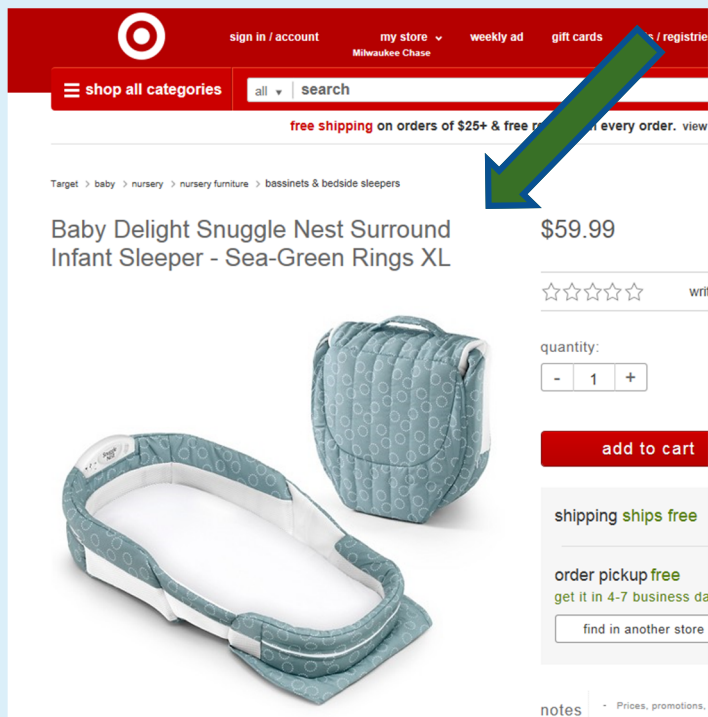
April 12, 2019

Units:

About 4.7 million products

Product Safety Standards

- To be on store shelves, what safety standards does this product adhere to?



Nap Nanny



Daydream Sleeper

Current product on market

<http://www.daydreamersleeper.com/>

<https://www.youtube.com/watch?v=bEiqgWhbNNI&feature=youtu.be>



The safety concerns addressed in the DayDreamer include:

- **Higher walls:** The Nap Nanny's low side walls made it easy for babies to accidentally roll out. The DayDreamer's nine inch sidewalls are nearly three times higher, making it impossible for the child to roll out.
- **Safety buckle:** The Nap Nanny buckles were fastened to sleeper's removable cover, making it easy for baby to wiggle out. The DayDreamer Sleeper is secured to the sleeper's solid core and easily adjusts to a snug fit to keep baby safe and secure.
- **Warning Label:** Due to inadequate instruction labels on the Nap Nanny, many parents and caregivers used the sleeper inappropriately. The DayDreamer Sleeper has prominently-placed, easy-to-understand instructions which cannot be removed.

More information on the differences between the DayDreamer Sleeper and the Nap Nanny are available on the [DayDreamer Sleeper website](#).

In addition to its safety features, the DayDreamer Sleeper is doctor-endorsed and features a 28 degree incline that help baby to sleep better for longer. It's a removable, washable cover is made with the softest and most comfortable materials. It also has a waterproof seating area to contain spills or diaper leaks. It is available in three colors: Sage, Blue and Pink. Every DayDreamer Sleeper is sold with a lifetime guarantee. DayDreamer Sleepers can be purchased for \$129.99 exclusively at [Babies 'R' Us](#).



kab7117

Posted 05/05/2014

I have the day dreamer and we LOVE IT!!!! my LO does not have reflux but I bought it to help her sleep, she hates laying flat on her back to sleep. It is expensive but totally worth it IMO. I used a 20% off coupon and got it at babies r us. The first night we got it she slept 5 hours straight and has ever since. The incline is such that they can not roll but have plenty of room to stretch out unlike a swing or car seat. The sides are really tall so no way they could roll off. Here's a pic of my little one asleep in her crib in it!



Reply

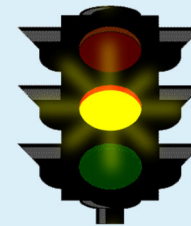
3



END OF COMMENTS



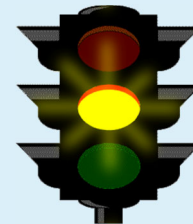
Keep me updated with new comments



http://community.babycenter.com/post/a49586191/dex_daydreamer_any_one_have_this_reflux_moms...

Some parent quotes. What's your response?

- “My baby sleeps in a Pack ‘n Play.” (It’s evident that it is used as a storage bin).
- “I know they say to not sleep with your baby, but I really want to because he just sleeps better with me.”
- “I don’t want my baby sleeping alone in a bed that has nothing in it.”

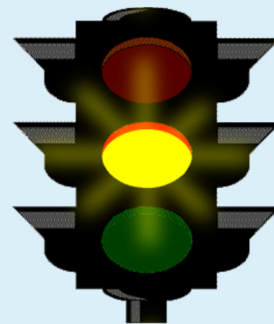


What's your response?

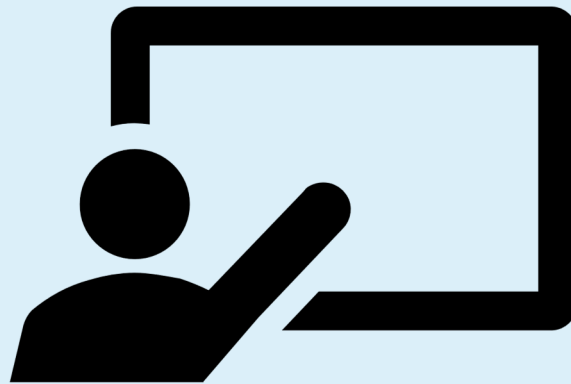
- “We don’t have room for another bed in our bedroom/sleeping area.”
- “I am careful and don’t move around when I sleep.”
- “Nothing happened to me as a baby, so why would something happen to my baby.”
- “It doesn’t matter what you say, I am going to sleep with my baby.”

Potential responses

- *“I cannot tell you how to sleep with your baby safely because there truly is no way that is 100% safe. But let’s talk about how you can **reduce the risk** of anything happening.*
- Rather than saying you know how a baby should NOT sleep, consider focusing more on reducing risk.
- What about using red/yellow/green light for baby sleep environments?



Additional Resources to Support your Practice



Reference to Share with Families

www.sleepfoundation.org

- *Can search by topic*
- *Information created by sleep scientists and clinicians*



More info about the PHQ-2

STABLE RESOURCE TOOLKIT

The Patient Health Questionnaire-2 (PHQ-2)

Patient Name _____ Date of Visit _____

Over the past 2 weeks, how often have you been bothered by any of the following problems?

	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

http://www.cqaimh.org/pdf/tool_phq2.pdf

STABLE RESOURCE TOOLKIT

The Patient Health Questionnaire-2 (PHQ-2) - Overview

The PHQ-2 inquires about the frequency of depressed mood and anhedonia over the past two weeks. The PHQ-2 includes the first two items of the PHQ-9.

- The purpose of the PHQ-2 is not to establish final a diagnosis or to monitor depression severity, but rather to screen for depression in a “first step” approach.
- Patients who screen positive should be further evaluated with the PHQ-9 to determine whether they meet criteria for a depressive disorder.

Clinical Utility

Reducing depression evaluation to two screening questions enhances routine inquiry about the most prevalent and treatable mental disorder in primary care.

Scoring

A PHQ-2 score ranges from 0-6. The authors¹ identified a PHQ-2 cutoff score of 3 as the optimal cut point for screening purposes and stated that a cut point of 2 would enhance sensitivity, whereas a cut point of 4 would improve specificity.

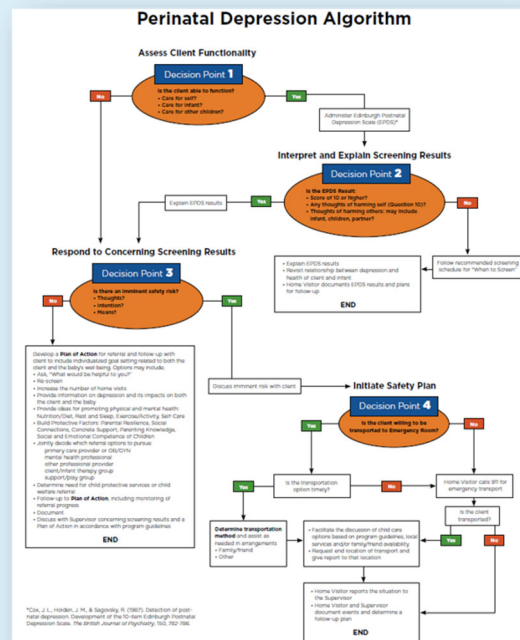
Psychometric Properties¹

Major Depressive Disorder (7% prevalence)				Any Depressive Disorder (18% prevalence)			
PHQ-2 Score	Sensitivity	Specificity	Positive Predictive Value (PPV*)	PHQ-2 Score	Sensitivity	Specificity	Positive Predictive Value (PPV*)
1	97.6	59.2	15.4	1	90.6	65.4	36.9
2	92.7	73.7	21.1	2	82.1	80.4	48.3
3	82.9	90.0	38.4	3	62.3	95.4	75.0
4	73.2	93.3	45.5	4	50.9	97.9	81.2
5	53.7	96.8	56.4	5	31.1	98.7	84.6
6	26.8	99.4	78.6	6	12.3	99.8	92.9

* Because the PPV varies with the prevalence of depression, the PPV will be higher in settings with a higher prevalence of depression and lower in settings with a lower prevalence.

Perinatal Depression Algorithm

Creation of algorithm and related training disseminated statewide & nationally



Perinatal Depression Algorithm
A Home Visitor step-by-step guide for advanced management of perinatal depressive symptoms

Setting the Stage for Screening

- Utilize reflective supervision.
- Ensure staff safety.
- Develop rapport/trusting relationship based on the stage of the developing relationship.
- Ensure privacy and confidentiality appropriate for the client's situation. For example, the client may complete the screen without vocalizing the response.
- Prepare Home Visitors with training on the Edinburgh Postnatal Depression Scale (EPDS) administration and follow-up steps.
- Normalize the screening process.
- Provide the client with information on how perinatal depression impacts her ability to function.
- Offer the EPDS and follow-up conversation in the client's primary language when possible.

Who to Screen: All clients

When to Screen

Prenatally

- Ideally once per trimester, at least once prenatally.
- When there is a concern about the client's ability to function by the home visitor or the family.
- When there is a subsequent pregnancy before 12 months postnatal, screen at least once per trimester.

Postpartum

- Between 2-4 weeks postpartum.
- Between 8-12 weeks postpartum.
- Between 9-12 months postpartum.
- Rescreen at any time there is a concern about the client's ability to function by the client, family or home visitor.

Laszewski, A., Wichman, C. L., Doering, J. J., Maletta, K., & Hammel, J. (March, 2016). Perinatal depression algorithm: A home visitor step by step guide for advanced management of perinatal depressive symptoms. *Zero to Three Journal* 2-9.

Perinatal Mental Health (PNCC) Training Modules









- Resource for PNCC and other health care providers
- Modules 15-30” in length, organized by topic
 - Basic overview of perinatal mental health, depression screening, safety concerns, non-pharmacologic interventions, other disorders, case studies, plans of action and more....
- Contributors:
 - Roseanne Clark, PhD, Jen Perfetti, MA, LPC & Jennifer Doering, PhD, RN

<https://www.dhs.wisconsin.gov/mch/pncc.htm>

Training Opportunities

Training opportunities that may be of benefit to PNCC providers.

Perinatal Mental Health Training Modules

1. **Series Introduction**  (Adobe Connect, [help](#) )
2. **Overview of Perinatal Mental Health: Module 1**  (Adobe Connect, [help](#) )
3. **Introduction to Screening: Module 2**  (Adobe Connect, [help](#) )
4. **The Screening Conversation: Module 3**  (Adobe Connect, [help](#) )
 - Practice Case #1 referenced in Module 3.
 - Edinburgh Prenatal Depression Scale referenced by Practice Case #1 in Module 3.
 - Practice Case #2 references in Module 3.
 - Edinburgh Prenatal Depression Scale referenced by Practice Case #2 in Module 3.

<https://www.dhs.wisconsin.gov/mch/pncc.htm>

Training opportunities continued

5. Addressing Safety Concerns: Module 4 ▶
6. Information to Support Sleep Interventions: Module 5 ▶
7. Interventions to Support Sleep: Module 6 ▶
8. Psychosocial Stages of Pregnancy: Module 7 ▶
9. Tale of Twos: Module 8 ▶
10. Medication and Breastfeeding: Module 9 ▶
11. Developing an Action Plan: Module 10 ▶
12. Beyond Depression Part 1: Module 11 ▶
13. Beyond Depression Part 2: Module 12 ▶
 - ▣ Case Studies for Modules 11 & 12
14. Mother-Infant Relationships: Module 13 ▶
15. Supportive Interventions: Module 14 ▶
16. Cultural Considerations: Module 15 ▶

Perinatal Mental Health Training Modules Resources

<https://www.dhs.wisconsin.gov/mch/pncc.htm>

A community resource – home visitation

- Home visitation is a benefit and is effective in reducing infant mortality
- Strengthen community partnerships for increased referrals
- Refer pregnant women and expectant fathers

414-286-8620

<http://city.milwaukee.gov/Nurse-Home-Visits>



Additional resources

- [https://mchb.hrsa.gov/sites/default/files/mchb/MaternalChildHealthTopics/maternal-womens-health/Depression During and After Pregnancy ENGLISH.pdf](https://mchb.hrsa.gov/sites/default/files/mchb/MaternalChildHealthTopics/maternal-womens-health/Depression%20During%20and%20After%20Pregnancy%20ENGLISH.pdf)
- <https://the-periscope-project.org/>
- <http://www.postpartum.net/>
- <http://www.postpartumprogress.com/>

Select References

American Academy of Sleep Medicine

Academic site: <http://www.aasmnet.org/>

Consumer website:

<http://www.sleepeducation.com/>

Health Sleep Tips by the National Sleep Foundation

<http://sleepfoundation.org/sleep-tools-tips/healthy-sleep-tips>

Lee, K. A. (2003). Impaired sleep. In: Carrieri-Kohlman, V., Linsey, A. M. & West, C. M. *Pathophysiological phenomena in nursing* (3rd ed.). St. Louis, MO: Saunders.

Lee, K. A.. Lecture 1 hour 20 min on “Sleep in women across the lifespan”

– <http://www.uctv.tv/shows/Women-and-Sleep-From-Stressful-to-Restful-24632>

Little, S. E. (2014). Sleep change in normal pregnancy. *Obstetrics & Gynecology* 123(Suppl1), 153S.

Montgomery-Downs, H. E. et al. (2010). Normative longitudinal maternal sleep: The first 4 postpartum months. *American Journal of Obstetrics & Gynecology*, 203(465), e1-e7.

Morin, C. M. (1993). *Insomnia: Psychological Assessment and Management*. NY: The Guilford Press.

Nodine, P. M. & Matthews, E. E. (2013). Common sleep disorders: Management strategies and pregnancy outcomes. *Journal of Midwifery & Women's Health*, 58, 367-377.

O'Keeffe, M. & St-Onge, M-P. (2013). Sleep duration and disorders in pregnancy: Implications for glucose metabolism and pregnancy outcomes. *International Journal of Obesity*, 37, 765-770.

Van Cauter, E. et al. (2008). Metabolic consequences of sleep and sleep loss. *Sleep Medicine*, 9(suppl 1), S23-S28.