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# Perinatal Health: Part 4

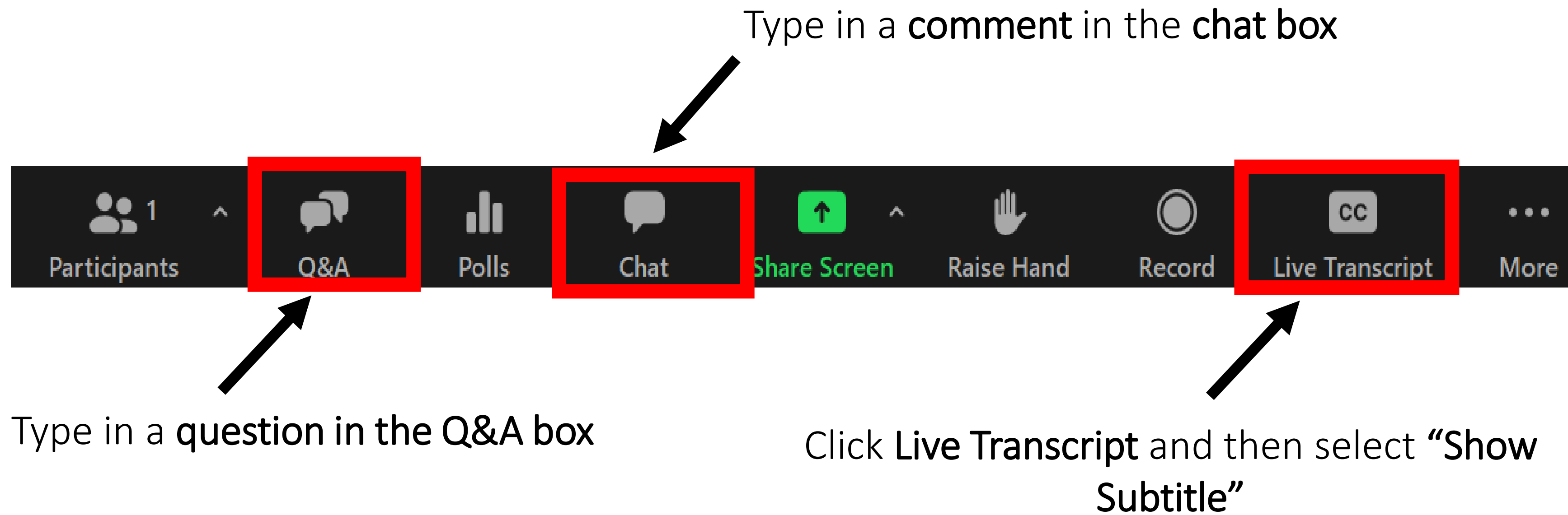
## Addressing Serious Mental Illness

July 21st, 2022
2-3pm EST

**CENTER OF EXCELLENCE** for Integrated Health Solutions

*Funded by Substance Abuse and Mental Health Services Administration and operated by the National Council for Mental Wellbeing*

# Questions, Comments & Closed Captioning

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# Disclaimer

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SAMHSA
Substance Abuse and Mental Health Services Administration

www.samhsa.gov

# Poll #1: What best describes your role?

- Clinician
- Administrator
- Policy Maker
- Payer
- Other (specify in chat box)

# Poll #2: What best describes your organization? (check all that apply)

- Primary Care Provider
- Mental Health Provider
- Substance Use Treatment Provider
- School-Based Health Provider
- Other (specify in chat box)

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# Poll #3: Where is your organization in the process of integration?

- Learning/Exploring
- Beginning Implementation
- Advanced/Full Implementation
- Ongoing Quality Improvement
- Other (specify in chat box)

# Perinatal Integrated Health Webinar Series

| | |
|---|---|
| May 10: 1-2pm ET | The Case for Integration & Continuum of Care: Considerations Across Primary and Specialty Care |
| May 12: 2-3pm ET | Perinatal Behavioral Health Care in a CCBHC |
| June 23: 2-3pm ET | Integrating Services in High Need Settings |
| July 21: 2-3pm ET | Addressing Serious Mental Illness |

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# Speakers

**Riah Patterson, MD**
Assistant Professor
Medical Director, Perinatal Psychiatry In-Patient Unit
University of North Carolina (UNC) Hospitals- Chapel Hill

**Margo Nathan, MD**
Assistant Professor
University of North Carolina (UNC) Hospitals- Chapel Hill

# Learning Objectives

- Understand prevalence of mental illness during the perinatal period.
- Identify considerations for integrating care for people in the perinatal period experiencing mental health crisis.
- Describe the successes and challenges in addressing maternal mental health through supporting providers with the MATTERS psychiatric consultative care model.
- Describe the Perinatal Psychiatry Inpatient Unit model for addressing affective disorders and acute crises and how it is integrated into perinatal care.

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# North Carolina Maternal Mental Health MATTERS: Making Access to Treatment, Evaluation, Resources & Screening Better

**Margo Nathan, MD**

**UNC Women's Mood Disorders Center**

**Consulting Psychiatrist, NC MATTERS**

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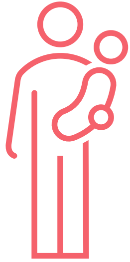
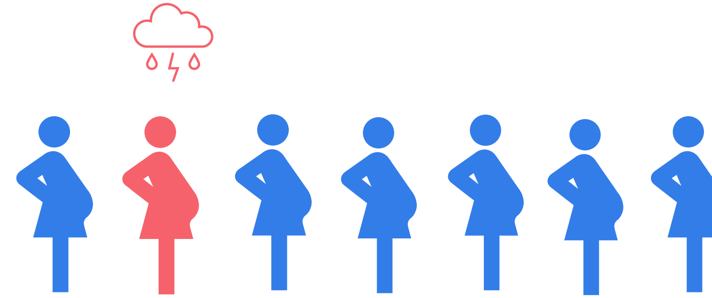
# Perinatal Mood and Anxiety Disorders (PMADs)

- Depression
- Anxiety
- Panic Disorder
- Obsessive Compulsive Disorder
- Post Traumatic Stress Disorder
- Bipolar Disorder
- Postpartum Psychosis

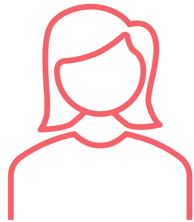
# General PMAD Prevalence



Postpartum depression is the most common complication of childbirth



Up to **1 in 7** women experience PPD, affecting approximately 600,000 women per year in the United States alone



For ½ of women diagnosed with PPD, this is their first episode of depression

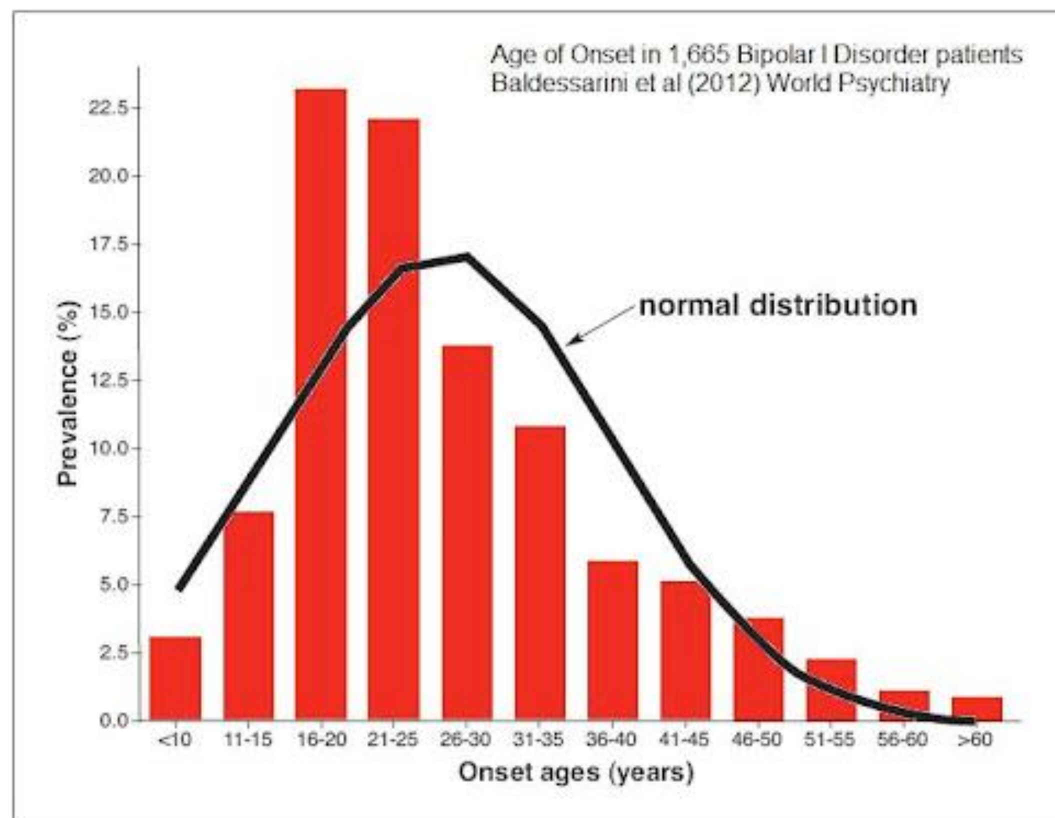
About 1/2 of women who are diagnosed with PPD **experienced symptoms** during pregnancy

Only 15% of women with postpartum depression ever receive professional treatment

Accortt & Wong (2017); Bonacquisti, Cohen, & Schiller (2017); Karras (2020); VanderKruik et al. (2017)

# Perinatal Bipolar Disorder

## Onset of bipolar disorder peaks during reproductive years




Kessler, Journal of affective disorders, 2003; Yonkers et al. AJP 2004; Baldessarini World Psychiatry 2012

# Potential for Psychiatric Emergencies: Postpartum Psychosis

- 1-2/1000 women
- >70% have a diagnosis of bipolar disorder
- Onset 24 hrs – 3 weeks postpartum
- Mood symptoms, psychotic symptoms & disorientation
- R/o medical causes of delirium
- 4% risk of infanticide with postpartum psychosis

Wesseloo et al AJP 2016, Manic Depression Illness, Goodwin and Jamison, 2007

# Potential for Psychiatric Emergencies: Suicide Risk

**Lower Risk** ⟵ Suicide Risk Assessment ⟶ **Higher Risk**

**Lower Risk**

- No prior attempts
- If prior attempts, low lethality & high rescue potential
- No plan
- No intent
- No substance use
- Protective factors
- Hope for improvement

**Higher Risk**

- History of suicide attempts
- High lethality of prior attempts
- Recent attempt
- Current plan
- Current intent
- Substance use
- Lack of protective factors
- Hopelessness

# PMADs Impact Mom, Child & Family

**Pregnancy is not necessarily protective!**

| | | |
|---|---|---|
| Increased impulsivity, substance abuse, poor nutrition and self-care | Increased risk for preeclampsia, pre-term births, low birth weight, IUGR | Congenital defects/ malformations; toxic stress of the newborn |
| Disability depression or anxiety | Suicidality, self-injury | Psychotic symptoms, poor judgment, delusional beliefs |
| | Infanticide | |

Huizink, Psychol Bull, 2004; Ding, J Affect Disord, 2018; Field, Infant Behav Develop, 2005

# The Maternal Mental Health “Treatment Cascade"

**50-70%** of cases go undetected

**85%** of cases go without treatment

**91-93%** of cases are not adequately treated

**95-97%** of cases are without remission of symptoms

Cox et al, J Clin Psychiatry, 2016

# Proactive Perinatal Mental Health Care

Screening

Optimize medication

Promote sleep

Teach stress reduction strategies

Make a mental wellness plan for the postpartum period

Cox et al, J Clin Psychiatry, 2016

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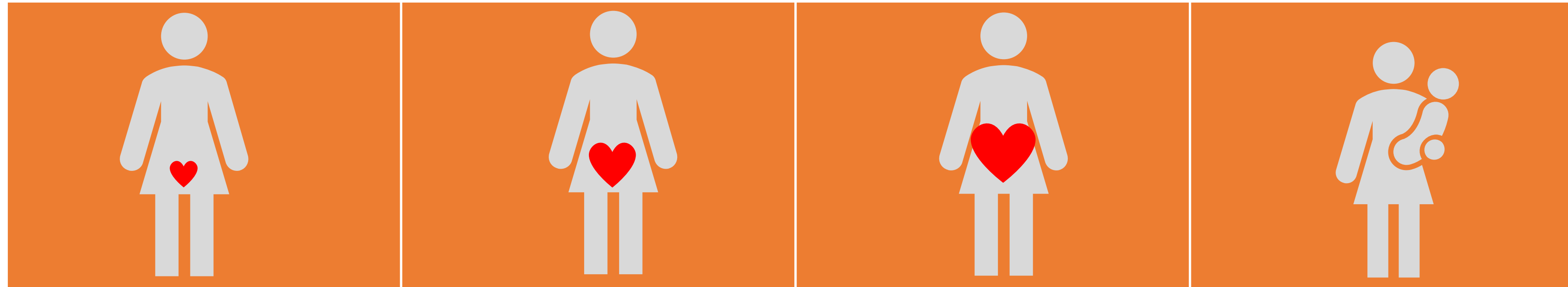
# Integrated Physical and Mental Prenatal Care



Physical Health Screening/Tests Timeline

| Initial Prenatal Labs | Anatomy ultrasound | Diabetes Screen and Vaccines | Contraception |
|---|---|---|---|

Mental Health Screening Timeline

| Depression and Anxiety Screen, Substance Use and Interpersonal Violence | Depression and Anxiety Screen, Other Screening as Indicated | Depression and Anxiety Screen, Other Screening as Indicated | Depression and Anxiety Screen, Other Screening as Indicated |
|---|---|---|---|



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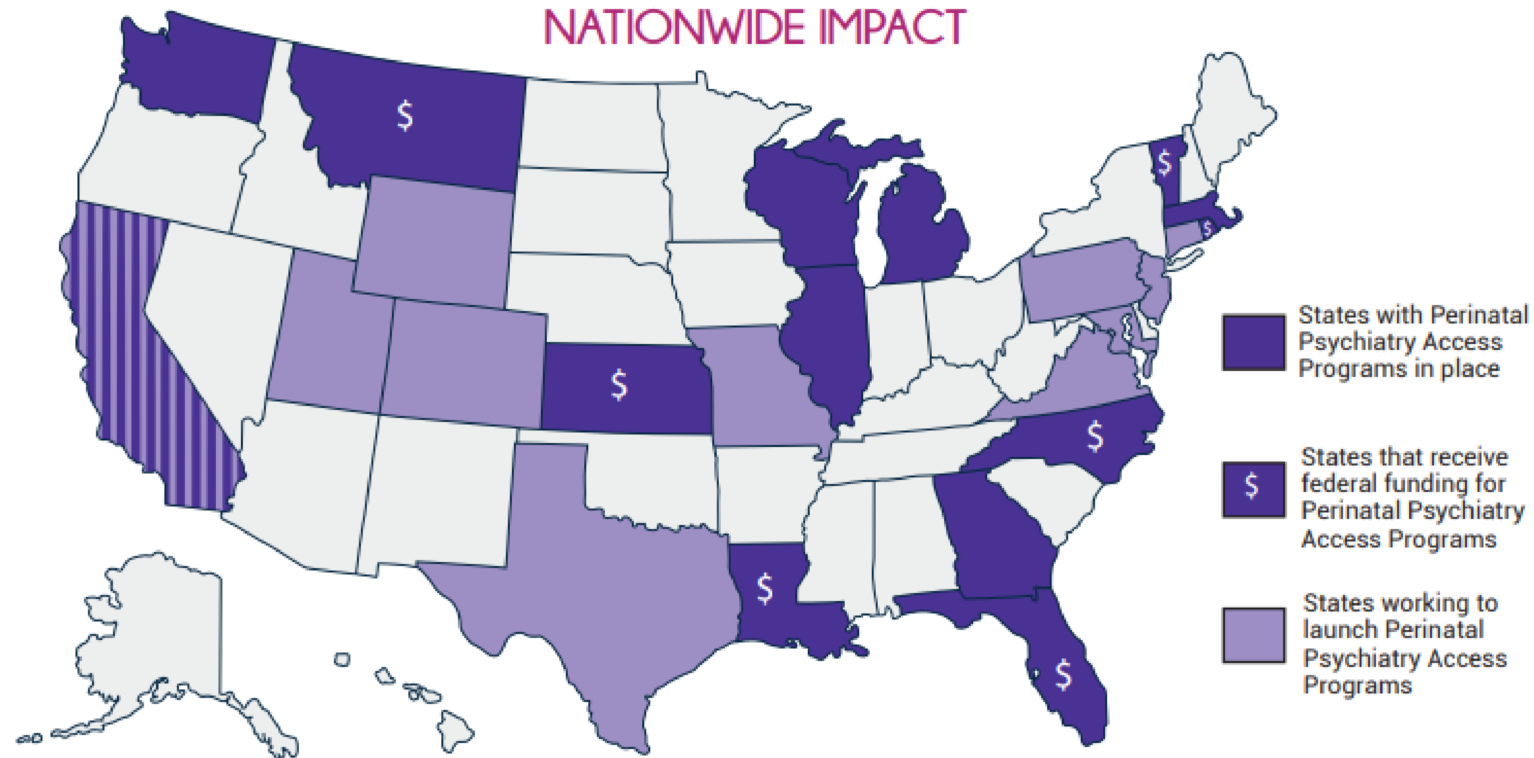
# Gaps in Perinatal Mental Health Care

- Most OB and pediatric practices do not have co-located or integrated behavioral health care
- Many community mental health providers are not comfortable treating pregnant or lactating patients
- Patients want to receive care from providers they know and trust – difficulty with navigating system of mental health outside their medical home

# Perinatal Mental Health Access Programs Support Clinicians Caring for Perinatal Women




**Citations**


1 ACOG Committee Opinion 757 (2018).
2 Gavin (2005). Obstetrics & Gynecology, 106, 1071-83.
3 Fawcett (2019). Journal of Clinical Psychiatry (80)
4 Byatt (2015). Obstetrics & Gynecology, 126(5): 1048-1058.
5 Byatt (2020). Promoting the Health of Mothers & Children

# NC MATTERS: What are our goals?

## Patients

- Are screened during and after pregnancy
- Have timely access to mental health services
- Are able to stay in their medical homes

## Providers

- Feel more confident addressing perinatal mental health and substance use
- Help reduce unnecessary referrals and missed appointments

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# NC MATTERS: What do we do?

## Education

- Training for providers and staff
- Screening and treatment algorithms

## Consultation

- Real-time psychiatric consultation for health care professionals

## Telepsychiatry

- One-time psychiatric assessments for perinatal patients at no cost

## Resource & Referral

- Linkages with community-based mental health resources

# What Happens When I Call?

Provider receives assistance in identifying & securing appropriate resources & referrals for patient

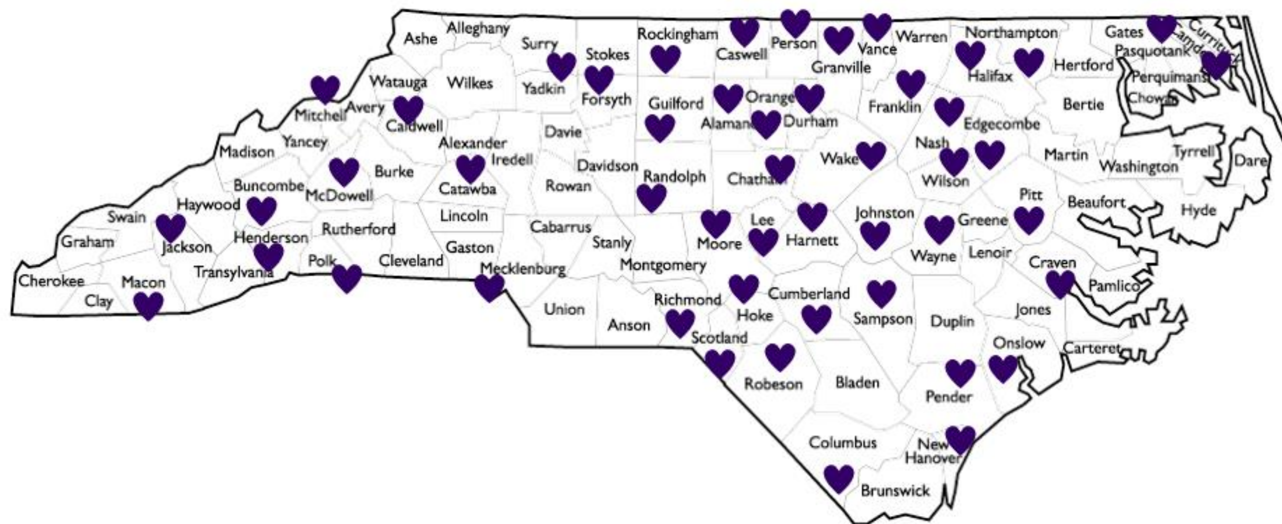
Provider receives consultation related to diagnostic & treatment questions

Provider's patient is identified for telepsychiatry assessment and/or care at UNC or Duke

# Outreach to a Variety of Professionals

- Courses for CME through various regional AHECs
- Joint newsletter with NC-PAL
- Attachment Network of NC
- Psychiatry resident didactics with Eastern Carolina University
- Trainings and presentations by request
- Support County Health Departments
- Participation in Maternal Health Task Force and Perinatal Health Equity Collective
- Participation in Lifeline4Moms perinatal psychiatric access network

# Accomplishments So Far




1,025 calls to the consult line

Patients from 55+ NC counties served

827 enrolled providers

1,900+ health care professionals trained

# Accomplishments So Far

| Depressed mood | 166 |
|---|---|
| Anxiety | 130 |
| Postpartum (Adjustment) | 102 |
| Stress | 79 |
| Pregnancy | 66 |
| Medication(s) | 61 |
| Grief | 33 |
| Other | 33 |
| Trauma/PTSD | 29 |
| Sleep problems | 29 |
| Suicidal ideation | 27 |
| Irritability | 25 |
| Bipolar disorder | 22 |
| Family relationship problems | 22 |
| Substance use | 17 |
| Mood swings | 15 |
| Miscarriage/stillborn | 14 |
| Loss of energy/fatigue | 12 |
| Panic attacks | 10 |
| Physical health problem(s) | 9 |

**33%**

**of calls are about anxiety or depression**

**12%**

**of calls involve substance use**

# NC Maternal Mental Health MATTERS

## NC Maternal Mental Health MATTERS

We help health care providers support the behavioral health needs of their pregnant and postpartum patients.
Have a question? Call our consult line!

**(919) 681-2909**
ext. 2

**Please have on hand:**

- Patient Name
- Patient DOB
- Patient Zip Code
- Patient Insurance

ncmatters.org

Visit us online:
NCMatters.org

Sign up for our monthly newsletter:
http://eepurl.com/hblN7z

Send us an email:
ncmatters@unc.edu

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# Introduction to UNC's Perinatal Psychiatry Inpatient Unit

**Riah Patterson, MD**
**Assistant Professor**
**Medical Director, UNC PPIU**

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# Perinatal Psychiatry Inpatient Unit

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**ESTABLISHED:** June 2011 and is the first of its kind in the United States. It includes 5 patient beds (private and semi-private). Infants are encouraged to visit for as long as possible, but may not stay overnight.

**MISSION:** To provide specialized ***multidisciplinary care*** to assist in the recovery of perinatal (pregnant and postpartum) women from psychiatric illness requiring inpatient care

**VISION:** A world that understands and provides for the unique mental health ***needs of women and their families during the critical perinatal period***

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Arch Womens Ment Health (2004) 7:53–58
DOI 10.1007/s00737-003-0046-0

Archives of Women's Mental Health
Printed in Austria

*Special topic*

**The History of Mother-Baby Units (MBUs) in France and Belgium and of the French version of the Marcé checklist***

**O. Cazas**[1] and **N. M.-C. Glangeaud-Freudenthal**[2]

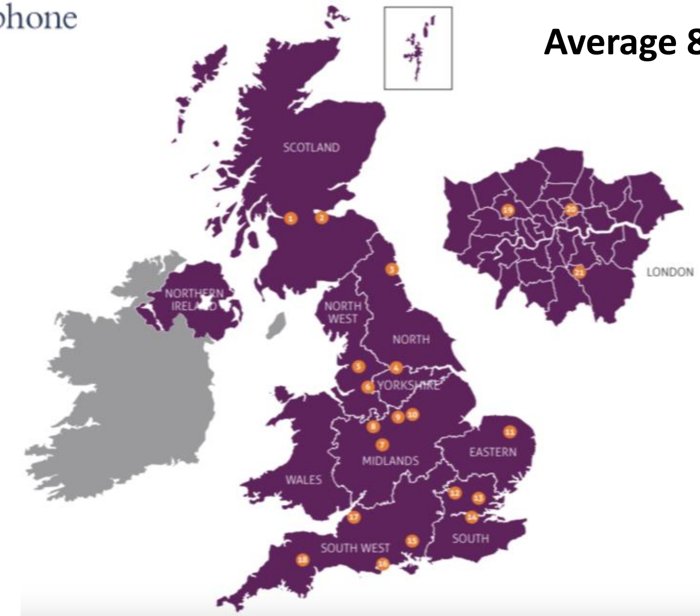
MATERNAL MENTAL HEALTH ALLIANCE
Awareness Education Action

La Société Marcé Francophone

**21 Mother Baby Units (MBUs)**

**Ranging 4 to 13 beds**

**Average 8 beds**




Connellan K, Bartholomaeus C, Due C, Riggs DW. A systematic review of research on psychiatric mother-baby units. Arch Womens Ment Health. 2017 Jun;20(3):373-388. doi: 10.1007/s00737-017-0718-9. Epub 2017 Mar 22. PMID: 28332002.

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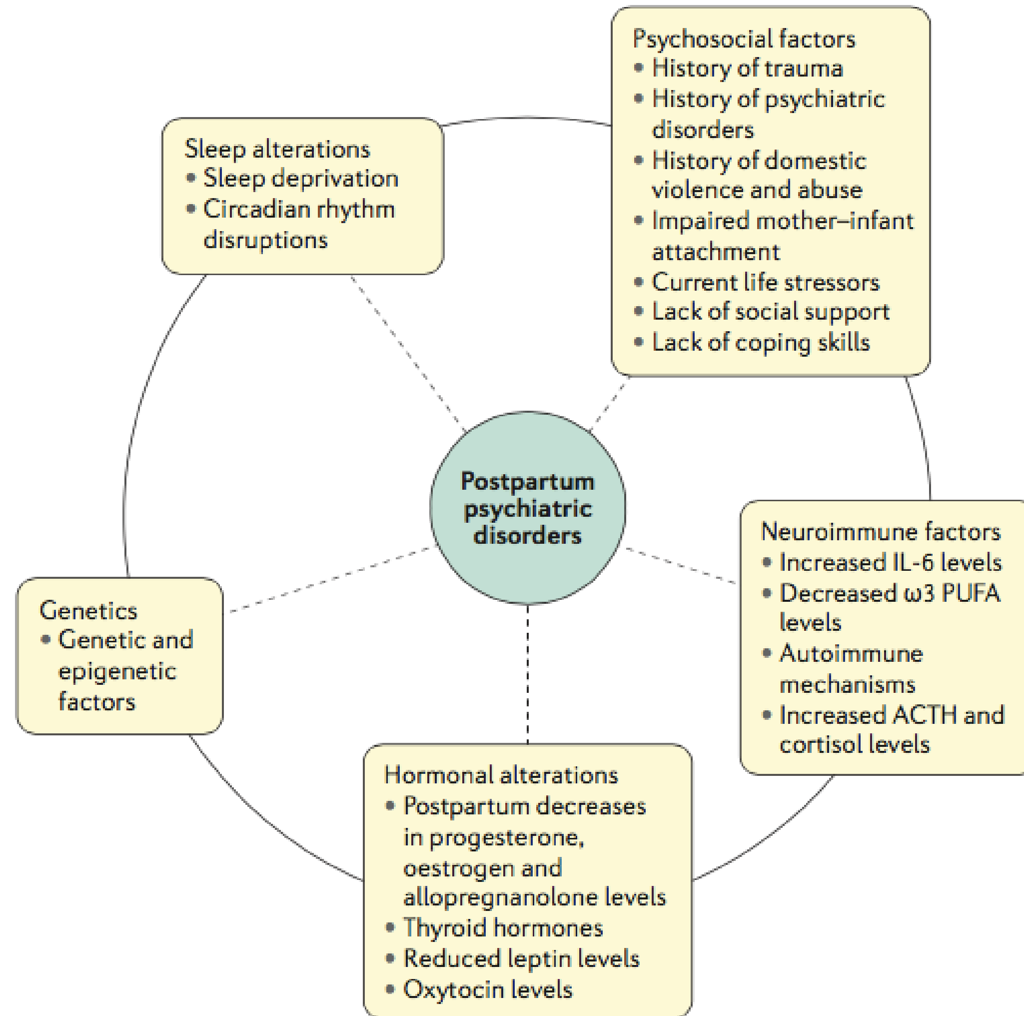
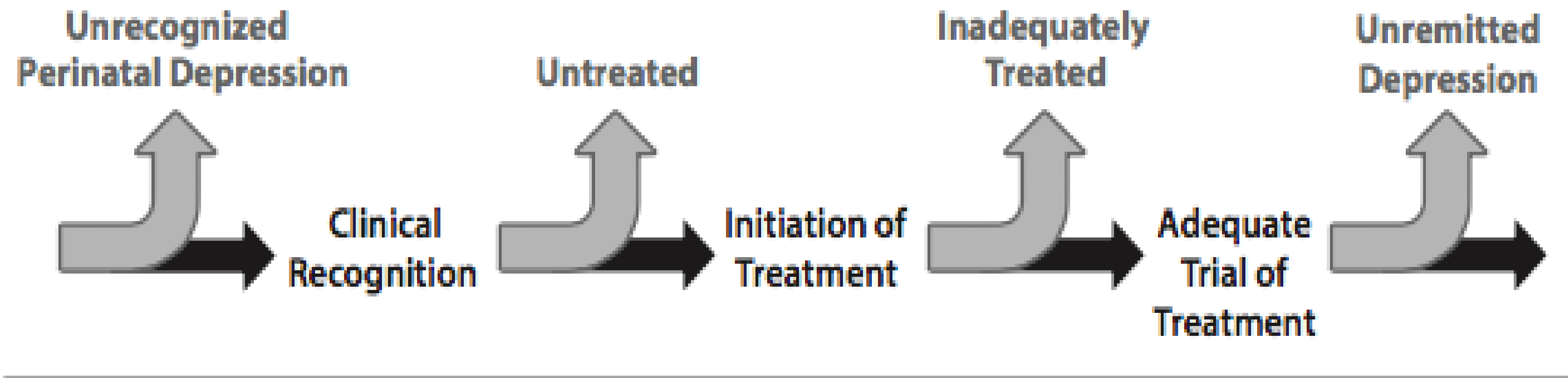



Figure 1 | **Mechanisms of PPDs.** Several factors have been implicated in the aetiology of postpartum psychiatric disorders (PPDs), including both postpartum depression and postpartum psychosis. These factors include psychosocial factors and biological factors that are specific for pregnancy and the postpartum period, such as drastic alterations in gonadal sex steroids and impaired mother–infant interactions. Whether the aetiology of psychiatric disorders occurring prenatally, during pregnancy or during the postpartum period is different requires future study. ACTH, adrenocorticotropic hormone; PUFA, polyunsaturated fatty acid.

Meltzer-Brody S, Howard LM, Bergink V, Vigod S, Jones I, Munk-Olsen T, Honikman S, Milgrom J. Postpartum psychiatric disorders. Nat Rev Dis Primers. 2018 Apr 26;4:18022. doi: 10.1038/nrdp.2018.22. PMID: 29695824.

# The Perinatal Depression Treatment Cascade




95%-97% of women with perinatal depression are not successfully treated


Cox EQ, Sowa NA, Meltzer-Brody SE, Gaynes BN. The Perinatal Depression Treatment Cascade: Baby Steps Toward Improving Outcomes. J Clin Psychiatry. 2016;77(9):1189-200.

# Levels of Care

**Outpatient Psychiatry**

**Outpatient Therapy**

**Intensive Outpatient Therapy**

**Partial Hospitalization Programs**

**General Psychiatric Inpatient Unit**

- Locked Unit
- Safety & Stabilization
- Mixed genders
- Mixed pathology
- Substance Use
- Psychotic, Crisis, EDU, Geriatric, Child & Adolescent

# Unique Features of PPIU

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- Private, dedicated perinatal space
- Protected sleep times
- Extended visitation hours to maximize mother-baby interactions
- Lactation consultants, gliders, fridge, hospital grade pump
- Mother-infant attachment therapy
- Family and partner psychotherapy
- Therapeutic yoga
- OB-GYN consultation
- Chaplain support
- RT/OT with perinatal psychiatry focus

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# PPIU Needs

- Staffing: 1 nurse + 1 Medical Assistant : 5 Patients
- Patients (voluntary and involuntary) admitted from:
  - Emergency Room
  - Transfer from other hospitals (oft OB units or ERs)
  - Direct with help from Admissions Coordinator
    - UNC outpatient clinics
    - In-state and Out-of-state provider referral
    - Self-referral (with clinical sent from provider)
- Review of clinical for appropriateness (e.g., behavioral disturbances that may require seclusion go to other unit, substance use must have mood/anxiety components)
- Overflow patients (often beds full of perinatal patients, waiting list)
  - Reproductive age with mood disorder/anxiety, preferable with children

# Typical Admission

Day of Admission

Diagnostic Assessment with Psychiatrist

Medication regimen

Tailored therapies, RT/OT

Safety plans

Outpatient follow-up plans

Discharge

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<table>
<tr><th></th><th>Monday</th><th>Tuesday</th><th>Wednesday</th><th>Thursday</th><th>Friday</th><th>Saturday</th><th>Sunday</th></tr>
<tr><td>8:00 am</td><td>Breakfast</td><td>Breakfast</td><td>Breakfast</td><td>Breakfast</td><td>Breakfast</td><td>Breakfast</td><td>Breakfast</td></tr>
<tr><td>9:00 am</td><td>MD Rounds</td><td>MD Rounds</td><td>MD Rounds</td><td>MD Rounds</td><td>MD Rounds</td><td>MD Rounds</td><td>MD Rounds</td></tr>
<tr><td>10:00 am</td><td>RT Therapy</td><td>MD Rounds/Flex Time</td><td>MD Rounds/Flex Time</td><td>MD Rounds/Flex Time</td><td>MD Rounds/Flex Time</td><td rowspan="2">Painting</td><td rowspan="2">Flex Time</td></tr>
<tr><td>11:00 am</td><td>OT Therapy</td><td>OT Therapy</td><td>OT Therapy</td><td>OT Therapy</td><td>OT Therapy</td></tr>
<tr><td>12:00 pm</td><td>Lunch</td><td>Lunch</td><td>Lunch</td><td>Lunch</td><td>Lunch</td><td>Lunch</td><td>Lunch</td></tr>
<tr><td>1:00 pm</td><td rowspan="2">Psychotherapy</td><td>RT<br>Therapy</td><td>RT Therapy</td><td>RT Therapy</td><td>RT Therapy</td><td rowspan="6">Flex Time</td><td rowspan="3">Flex Time</td></tr>
<tr><td>2:00 pm</td><td rowspan="2">Spirituality</td><td rowspan="2">Psychotherapy</td><td rowspan="2">Spirituality</td><td>Flex Time</td></tr>
<tr><td>2:30 pm</td><td rowspan="2">Yoga<br>(Crisis)</td><td rowspan="2">Yoga<br>(Crisis)</td></tr>
<tr><td>3:00 pm</td><td rowspan="3">Flex Time</td><td rowspan="3">Yoga</td><td rowspan="3">Flex time</td><td rowspan="3">Music Therapy</td></tr>
<tr><td>3:30 pm</td><td rowspan="2">Flex Time</td><td rowspan="2">Flex Time</td></tr>
<tr><td>4:00 pm</td></tr>
<tr><td>5:00 pm</td><td>Dinner</td><td>Dinner</td><td>Dinner</td><td>Dinner</td><td>Dinner</td><td>Dinner</td><td>Dinner</td></tr>
<tr><td>6:00pm</td><td>Music Therapy</td><td>Activity Therapy</td><td>Free Time</td><td>Activity Therapy</td><td>Free Time</td><td>Free Time</td><td>Free Time</td></tr>
<tr><td>11:00 pm</td><td>Dayroom Closes</td><td>Dayroom Closes</td><td>Dayroom Closes</td><td>Dayroom Closes</td><td>Dayroom Closes</td><td>Dayroom Closes</td><td>Dayroom Closes</td></tr>
<tr><td>Visiting Hours</td><td colspan="5">12:00 pm – 1:00 pm<br>4:30 pm – 8:30pm</td><td colspan="2">12:00 pm – 8:30pm</td></tr>
<tr><td>Flex Time</td><td colspan="7">Flex time represents a timeframe during which various activities can occur, including but not limited to arts, crafts, community, nurse-led groups, and individual assessments</td></tr>
</table>

Published in final edited form as:
*Arch Womens Ment Health*. 2014 April ; 17(2): 107–113. doi:10.1007/s00737-013-0390-7.

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# Evaluating the Clinical Effectiveness of a Specialized Perinatal Psychiatry Inpatient Unit

**Samantha Meltzer-Brody, MD**, **Anna R. Brandon, PhD**, **Brenda Pearson, MSW**, **Lynne Burns, RN**, **Christena Raines, NP**, **Elizabeth Bullard, MD**, and **David Rubinow, MD**
UNC Center for Women's Mood Disorders, Department of Psychiatry, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599-7160

| Psychiatric diagnosis at discharge | % ($n$=91) |
|---|---|
| Unipolar depression without psychosis | 60.43 % (55) |
| Major depression with psychosis | 5.50 % (5) |
| Mood disorder NOS | 8.79 % (8) |
| Bipolar disorder | 6.59 % (6) |
| Schizophrenia/schizoaffective/psychotic disorder NOS | 6.59 % (6) |
| Anxiety disorder | 7.69 % (7) |
| Substance-induced mood disorder | 4.40 % (4) |
| Types of comorbid psychiatric illness | |
| Anxiety disorder NOS | 13.19 (12) |
| PTSD | 4.40 (4) |
| OCD | 2.10 (2) |
| GAD | 2.10 (2) |
| Primary comorbid psychiatric diagnosis made | 40.65 % (54) |
| Report of suicidal ideation on admission assessment [a] | 86.49 % (64) |

[a] Item 10 of the EPDS scale

Meltzer-Brody S, Brandon AR, Pearson B, Burns L, Raines C, Bullard E, Rubinow D. Evaluating the clinical effectiveness of a specialized perinatal psychiatry inpatient unit. Arch Womens Ment Health. 2014 Apr;17(2):107-13. doi: 10.1007/s00737-013-0390-7. Epub 2013 Nov 8. PMID: 24201978; PMCID: PMC3961543.

# So, what qualifies as a serious mental illness in the perinatal period?

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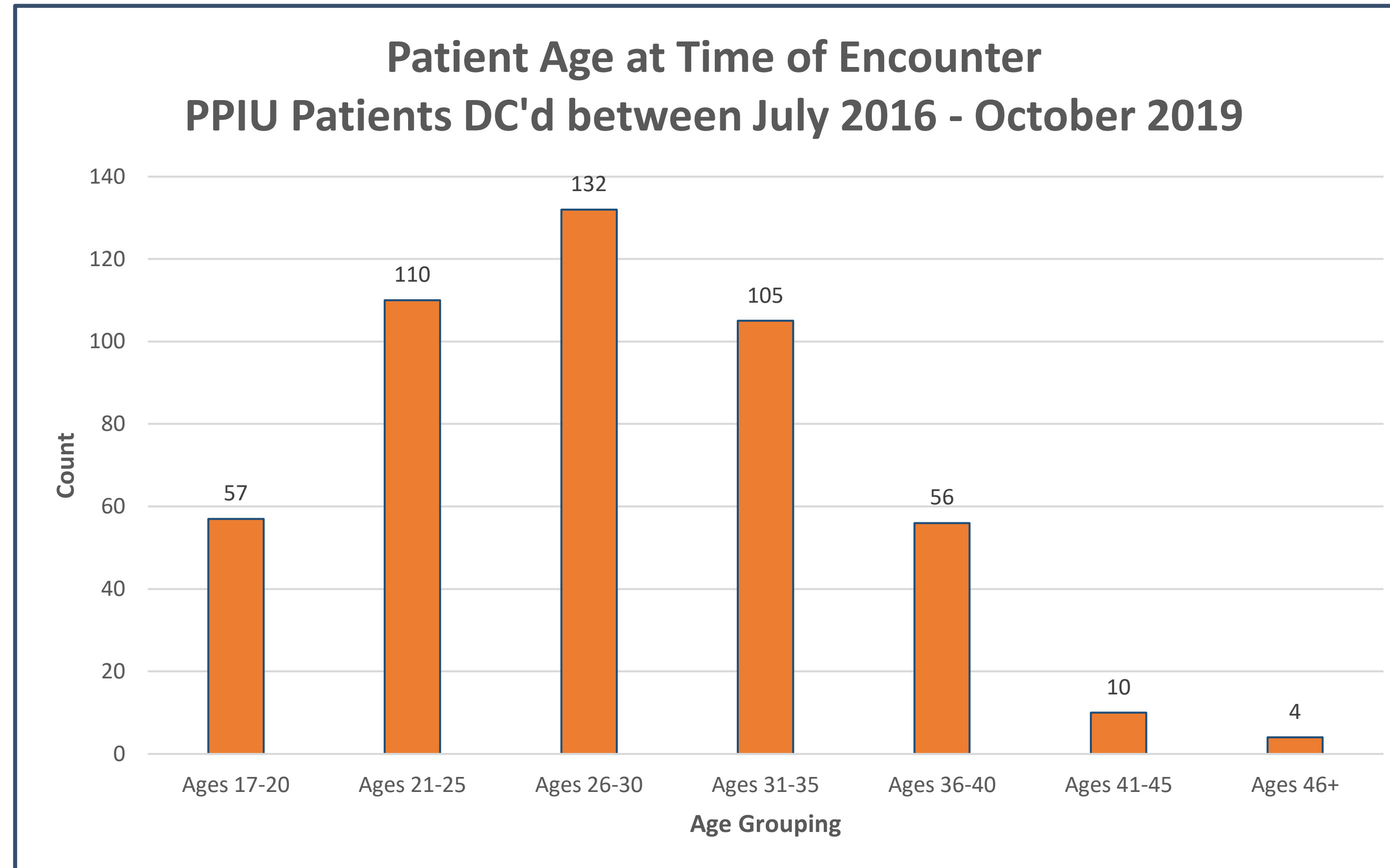
- No single answer
- Assess for safety, imminent dangerousness
- Consider current symptoms and psychiatric history
- Psychosis, suicidality, poor functioning, poor attachment
- Severe PPD, PPP, OCD, anxiety/trauma, substance use

- Consider NC MATTERS
- Consider hospitalization

# Patient Age by Grouping*




*Ages 46+ includes patients who were ages 46, 50, 51 & 57 at time of encounter

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# Patient State of Residence

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**Count of State of Residence***
**PPIU Patients DC'd between July 2016 - October 2019**

| State of Residence | Count | Cumulative % |
|---|---|---|
| NC | 382 | 80.6% |
| VA | 20 | 84.8% |
| GA | 17 | 88.4% |
| FL | 8 | 90.1% |
| TN | 6 | 91.4% |
| SC | 6 | 92.6% |
| PA | 5 | 93.7% |
| MD | 5 | 94.7% |
| IN | 4 | 95.6% |
| Other | 21 | |

*State listed in patient's home address in Epic

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# Patient County of Residence

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**Count of County of Residence (NC Residents Only)***
**PPIU Patients DC'd between July 2016 - October 2019**

| County of Residence (NC Residents Only) | Count | Cumulative % |
|---|---|---|
| WAKE | 97 | 25.5% |
| ORANGE | 54 | 39.7% |
| DURHAM | 47 | 52.1% |
| ALAMANCE | 28 | 59.5% |
| LEE | 13 | 62.9% |
| GUILFORD | 12 | 66.1% |
| CHATHAM | 8 | 68.2% |
| GASTON | 8 | 70.3% |
| JOHNSTON | 8 | 72.4% |
| Other | 105 | |

Count: 0, 50, 100, 150, 200, 250, 300, 350
0.0%, 10.0%, 20.0%, 30.0%, 40.0%, 50.0%, 60.0%, 70.0%, 80.0%, 90.0%, 100.0%

*County listed in patient's home address in Epic

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# Payor

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**Count of Payor**
**PPIU Patients DC'd between July 2016 - October 2019**

| Payor | Count | Cumulative % |
|---|---|---|
| MEDICAID | 142 | 30.0% |
| COMMERCIAL | 122 | 55.7% |
| BLUE CROSS BLUE SHIELD | 114 | 79.7% |
| SELF-PAY | 30 | 86.1% |
| STATE HEALTH PLAN | 28 | 92.0% |
| TRICARE | 17 | 95.6% |
| MEDICARE | 10 | 97.7% |
| AGENCY | 9 | 99.6% |
| MEDICARE ADVANTAGE | 1 | 99.8% |
| MEDICAID PENDING | 1 | |

Count: 0, 50, 100, 150, 200, 250, 300, 350, 400, 450
Percent axis: 0.0%, 10.0%, 20.0%, 30.0%, 40.0%, 50.0%, 60.0%, 70.0%, 80.0%, 90.0%, 100.0%
Payor

# PPIU LOS FY18 – FYTD20

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**PPIU Average LOS by Discharge Month**
**FY18 - FYTD20**

FY18: 11.54 Days

FY19: 12.68 Days

FYTD20: 9.85 Days

Average Inpatient LOS in Days: 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

Count of Monthly Discharges: 0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24

2017: Jul, Aug, Sep, Oct, Nov, Dec
2018: Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec
2019: Jan, Feb, Mar, Apr, May, Jun, Jul, Aug, Sep, Oct, Nov, Dec
2020: Jan

**Month of Discharge**

Count of Discharge Date/Time
Average of Length Of Stay Days (Actual)

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# Frequently Asked Questions

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- **Can I get medical care while on the unit**? *Patients have access to OB consultants, lactation consultants, and other hospital specialties as they are available and indicated.*
- **How long is a typical admission?** *This varies by patient, but on average 7-10 days. The admission may be longer if the patient starts ECT or has been ill for many months.*
- **What are the visitation policies?** *Visitation is currently allowed from 3p-7p. Each patient can have 2 adult visitors and the infant. We also allow frequent facetime/virtual interactions between patients and their family.*
- **Can I breastfeed when my baby visits**? *Absolutely. We have 3 private rooms which are prioritized for lactating women. Women will have access to hospital grade breast pumps and breastmilk storage.*
- **What are your covid policies?** *Patients and staff follow hospital covid protocols, wear masks, try to socially distance, and we require covid pcr testing with 48 hours prior to admission and 5 days into the admission.*

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# Finance FAQs

- Initial funds were provided by the hospital and the psychiatry department in renovating the space

- Regular inpatient unit at Academic Medical Center
  - Accept all types of insurance including Medicaid
  - Those without insurance meet with hospital staff to enroll in Medicaid when possible

- Staff that run groups are funded as on any other psychiatric unit

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# Education & Research

## Trainees:

- Psychiatry Residents: 4 week rotations
- Medical Students: 4 week ”Acting Intern” opportunities
- Psychology Interns: Opportunities to provide therapy
- Nursing Students: Opportunity to spend a day on the PPIU
- Pharmacist Students
- OT and RT Students
- Chaplain Students
- OB/GYN Residents: Exposure from consultations

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SHORT COMMUNICATION

# Open-label, proof-of-concept study of brexanolone in the treatment of severe postpartum depression

Stephen J. Kanes[1] | Helen Colquhoun[1] | James Doherty[1] | Shane Raines[2] | Ethan Hoffmann[1] | David R. Rubinow[3] | Samantha Meltzer-Brody[3]

[1] Sage Therapeutics, Inc., Cambridge, MA, USA
[2] 2b Analytics, Wallingford, PA, USA
[3] Department of Psychiatry, University of North Carolina, Chapel Hill, NC, USA

**Correspondence**
Samantha Meltzer-Brody, Campus Box #7160, Department of Psychiatry, University of North Carolina, Chapel Hill, NC 27599, USA.
Email: samantha_meltzer-brody@med.unc.edu

## Abstract

**Objective** Preclinical evidence indicates that rapid changes in levels of allopregnanolone, the predominant metabolite of progesterone, confer dramatic behavioral changes and may trigger postpartum depression (PPD) in some women. Considering the pathophysiology of PPD (i.e., triggered by reproductive steroids), the need for fast-acting, efficacious treatments and the negative consequences of untreated PPD, there is an increasing focus on developing PPD therapies. Brexanolone (USAN; formerly SAGE-547 Injection), a proprietary injectable allopregnanolone formulation, was evaluated as a treatment for severe PPD in a proof-of-concept, open-label study.

Kanes SJ, Colquhoun H, Doherty J, Raines S, Hoffmann E, Rubinow DR, Meltzer-Brody S. Open-label, proof-of-concept study of brexanolone in the treatment of severe postpartum depression. Hum Psychopharmacol. 2017 Mar;32(2):e2576. doi: 10.1002/hup.2576. PMID: 28370307; PMCID: PMC5396368.

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# Questions, Comments?

# Tools & Resources

- Perinatal Health Part 1: The Case for Integration & Considerations Across the Continuum of Care
- Perinatal Health Part 2: Perinatal Behavioral Health Care in a CCBHC
- Perinatal Health Part 3: Integrating Services for Pregnant and Postpartum People in High Need Settings
- **NCMatters.org**
- https://ncsacw.samhsa.gov/resources/opioid-use-disorders-and-medication-assisted-treatment/treatment-of-opioid-use-disorders-in-pregnancy.aspx
- https://store.samhsa.gov/product/Opioid-Use-Disorder-and-Pregnancy/sma18-5071fs1
- 24 hour MAT
- NAS/ NOWS & Navigating the system

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# Tools & Resources

- Care Plus NJ
- Centers for Medicare and Medicaid Services – Improving Maternal Health and Extending Postpartum Coverage in Medicaid and the Children's Health Insurance Program (CHIP)
- Fetal Alcohol Spectrum Disorders Research Briefs
- Integrating Substance Use Disorder and OB/GYN Care Brief
- Maternal, Infant, and Child Health – Healthy People 2020
- Perinatal Mental Health Alliance for People of color
- Perinatal Depression: Preventive Interventions
- WNY Postpartum Connection Inc: Directory of Mental Health and Support Services for Pregnant and Post Partum People of Color
- HRSA Maternal & Child Health - Maternal and Child Health Bureau
- California Maternal Quality Care Collaborative (CMQCC) - Toolkits
- Alliance for Innovation on Maternal Health
- American Academy of Pediatrics
- American Hospital Association – Better Health for Mothers and Babies
- Women's Health Journal Article: Improving Latinas' Perinatal Mental Health During COVID-19 Crisis

# Upcoming CoE Events

CoE-IHS Webinar: CHI Part 4- Payment Models for Comprehensive Health Integration
Register for the webinar on Wednesday, July 27th at 1-2pm EST

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# Thank you!

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