Objectives

- Understand the key elements of a population health management model to improve perinatal care, especially for low-income women in under-resourced communities

- Describe the key elements of two programs designed to integrate care for pregnant women with substance use treatment

- Discuss early results of an initiative to improve birth outcomes in a community
Our Mission:
To improve health and health care worldwide

We will improve the lives of patients, the health of communities, and the joy of the health care workforce.

The IHI Triple Aim

Population Health

Experience of Care  Per Capita Cost
IHI’s work in Maternal and Infant Health

- Maternal, Child, and Newborn Health work in Africa, India, Brazil
- Perinatal Improvement Community- 2004-2015: "Keeping Normal Normal"
- Technical assistance for CMS Strong Start Enhanced Prenatal Care Models

The IHI Triple Aim

IHI Aim for 2015-2016:
Shift focus from perinatal improvement to population maternal health
Maternal and Infant Outcomes

IHI innovation process – 90 day cycle

- Shape a question
- Develop a theory
- Test for face validity
- Prototype test
Promising practices

The One Key Question®

upstream USA

Bedsider

Dartmouth

PRINCETON UNIVERSITY

Promising practices

Camden Coalition of Healthcare Providers

WIN NETWORK

PROJECT NURTURE

Community Care of North Carolina

Start Strong®
Pregnancy intention
Three Elements to Consider for Improving Family Planning and Contraceptive Access

- Systems to assess patient preferences
- Systems to support counseling and shared decision-making
- Systems to support access to contraception (based on women’s preferences)

Scheme of WIN – IHI testing

Phase 1: Small-scale testing with WIN alumni network

Phase 2: Large-scale testing

Intent

Decision

Access

Survey of barriers, behaviors, beliefs

---

Comparison – factorial design

System mapping exercise for access

---

300 WIN outcomes retrospective

~40 Centering outcomes prospective

FYI women outcomes prospective

CHW led Co-design with WIN community
Delivered by high touch, high tech Cultural/racially sensitive educational materials
Trial and error/PDSA
New name/brand
One visit/same day/same visit access
Provider education for non-judgment
Decision-tree option grid
Interested in Learning More?

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**Developing a Population Health Approach to Perinatal Substance Use**

Daisy Goodman, CNM, DNP, MPH
Disclosures

- No conflicts of interest
- Partial salary support from March of Dimes for quality improvement work in the area of perinatal substance use

Objectives

- Describe the rationale behind integrating substance use treatment and maternity care
- Discuss the experience of one health system working towards this goal
IHI’s Population Health Approach to Maternity Care

Goals

- Improve health and health outcomes for women of childbearing age
- Reduce rates of preterm birth
- Decrease per capita costs of care

Key interventions

- Maternity medical home model
- Improving pregnancy intention and increasing access to effective contraception
- Peer support models, including group prenatal care
- Integrating substance use treatment with perinatal care

Context

- Approximately 1/3 occurred to women of childbearing age
- 20.8% of pregnancy associated deaths from 2012-2015 were attributed to unintended overdose
- 7.5% of women admitted to the Mary Hitchcock maternity unit disclose current treatment for opioid use disorders
Correlates of Untreated Perinatal Substance Use

For mother:
- Unstable housing and malnutrition
- Short inter-pregnancy intervals
- Late entry to prenatal care
- Poor weight gain and self-care
  - Concurrent tobacco use disorder
  - Untreated psychiatric disorders
  - Infectious disease
- Trauma
- Overdose

For baby:
- Prolonged hospitalization, NICU care
- Neonatal Abstinence Syndrome
- Low birth weight, prematurity
- Deficits in cognitive performance, attention, emotional regulation; motor skills
- Majority of child abuse cases linked to parental substance use

[(Pinto, 2010; Jones, 2014; Ross, 2015; WHO, 2014)]
World Health Organization Guidelines

“Services for pregnant and breastfeeding women with substance use disorders should have a level of comprehensiveness that matches the complexity and multifaceted nature of substance use disorders and their antecedents.”

World Health Organization Guidelines

Rationale for Integrated Care

“[Integrated care]...the systematic linkage of services accomplished through co-location and other means of enhancing interprofessional collaboration for the management of chronic illness”

(Institute of Medicine, 2006)

Treatment that addresses the full range of a woman’s needs is associated with

- Increased abstinence
- Improvement in parenting skills
- Improvement in overall emotional health

Elements which facilitate this linkage include

- Co-location
- Integrated Practice
- Team-based care
- Shared vision across disciplines

(Center for Substance Abuse Treatment, 2007; Rand, 2014; WHO, 2014)
Moms in Recovery: The Dartmouth-Hitchcock Perinatal Addiction Treatment Program

Context
- Regional referral center, affiliated network cares for >30% of births in NH
- Collaborative program launched in 2013 to address an urgent need for access to treatment
- Continues to expand to meet needs
- Moving towards system-level integration with enhanced post-natal, parenting, and pediatric,
- Expanding core services regionally

Perinatal Program
- Integrated care model
- Universal screening using an SBIRT framework
- Co-located behavioral health in obstetric context
- Substance use treatment
- Co-located maternity care in treatment context

SBIRT: A Population Health Approach to Substance Use and Substance Use Disorders in the Prenatal Setting

<table>
<thead>
<tr>
<th>Disease Severity</th>
<th>Referral</th>
</tr>
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<tbody>
<tr>
<td>Primary</td>
<td>No SUD</td>
</tr>
<tr>
<td></td>
<td>Screening only</td>
</tr>
<tr>
<td></td>
<td>Prevent onset of disease</td>
</tr>
<tr>
<td></td>
<td>Education</td>
</tr>
<tr>
<td>Secondary</td>
<td>Behavioral Health</td>
</tr>
<tr>
<td></td>
<td>Brief intervention</td>
</tr>
<tr>
<td></td>
<td>Brief treatment</td>
</tr>
<tr>
<td></td>
<td>Prevent disease Progression</td>
</tr>
<tr>
<td>Tertiary</td>
<td>Mod/Severe SUD</td>
</tr>
<tr>
<td></td>
<td>Refer to treatment</td>
</tr>
<tr>
<td></td>
<td>Prevent morbidity &amp; mortality</td>
</tr>
</tbody>
</table>

Screening

Primary
- No SUD
- Screening only
- Prevent onset of disease
- Education

Secondary
- Behavioral Health
- Brief intervention
- Brief treatment
- Prevent disease Progression

Tertiary
- Mod/Severe SUD
- Refer to treatment
- Prevent morbidity & mortality
Outcomes

Programmatic
- Universal screening and intervention at first encounter, repeated in third trimester
- Group care increases treatment engagement and retention
- Co-located midwifery increases prenatal care attendance
- Prenatal education prepares women for hospital stay

Maternal
- Prenatal care attendance at HP2020 target
- Maternal weight gain in recommended range
- Average EGA at delivery: > 38 weeks
- > 50% treated for co-occuring psychiatric diagnoses

Neonatal
- Mean birth weight in normal range
- Transitioned from nursery-based care to “rooming in” with parents
- < 25% treated for Neonatal Abstinence
- Reduced length of stay when neonates do require treatment
- > 50% initiate breastfeeding
Future Directions for program

**Successes**
- Effective use of technology for self-screening
- Participant-driven design of treatment program
- Successful integration of behavioral health, substance use treatment, and maternity care
- Positive outcomes

**Opportunities**
- High tobacco use rate requires developing new approaches
- Inconsistent use of contraception postpartum, although repeat pregnancy is not desired
- Need to develop pediatric component for program
- Recent national and state legislation requires increased engagement with state policymakers
- Alignment with national efforts to improve care for this population

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Moving Towards System-level Integration:

Perinatal Care for Women with Substance Use Disorders

- **Screening in obstetric context**
- **Co-located care**
- **Medical Home**
- **System level Integration**

- Universal Screening (SBIRT)
- Maternity Care and MAT
- Integrated: OB/Psych/BH
- Fully Integrated: OB/Psych/SUD/Pediatrics Regional approach
What about Patient Experience?

We must transform this...

...into something like this

daisy.j.goodman@hitchcock.org
(603)653-9303
References

- Center for Disease Control, 2013: http://www.cdc.gov/vitalsigns/prescriptionpainkillерoverdoses/infographic.html
- Corse, et al Enhancing provider effectiveness in treating women with addictions. JSAT 1995
- Lefebvre, L, Midmer, D, Boyd, J et al. Participant perception of an integrated program for substance abuse in pregnancy. JOGNN 2010; 39:46-52
Interested in Learning More?

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**Integrating Behavioral Health Into Maternity Care: A population approach**

*By Helen K. Bellanca, MD, MPH*

Session Code: C26

This presenter has nothing to disclose

Dec 6, 2016
1:30-2:45 pm

#IHIFORUM
Session Objectives

- Describe the importance of behavioral health concerns and social complexity in maternity care and their significance
- Examine the Oregon Family Well-Being Assessment as one model of screening for behavioral health needs
- Identify key strategies to integrate behavioral health in maternity care

Tori

27 year old woman, pregnant with her third child
married, she and husband work low-wage jobs
chronic depression
4 year old child with special needs
occasional tobacco use
lacks social supports
intended pregnancies, but feels overwhelmed
Miranda

34 year old woman, pregnant with 4th child
other 3 children in foster care
heroin use disorder
abusive relationship
housing instability
difficulty accessing services

personal history of child abuse and neglect
no treatment for her own trauma
pregnancies are unintended

What this is about

- Getting mental health services, substance use treatment, and social supports to women who only access care through the maternity system

- Interrupting the intergenerational stress and trauma that can lead to child abuse and neglect (preventing ACEs)

- Supporting healthy attachment between a child and his or her caregivers, which is crucial for lifelong physical and mental health
Oregon Family Well-Being Assessment

Oregon Perinatal Collaborative identified behavioral health as a major unmet need in maternity care

Subcommittee worked on issue for 2 years, chose to develop a new comprehensive screening tool with two purposes:
- Connect pregnant women with needed care and services when they identified mental health, substance use, or basic resource needs
- Create a source of data that can be aggregated by clinic and clinical system so that we can better understand the population and make rational decisions about where to invest limited resources

New screening tool for pregnant women, available anywhere around the state

Compilation of other validated tools covering:
- Depression and other mental health
- SUD (5Ps)
- Intimate partner violence
- Food insecurity

Also asks about:
- Pregnancy intentions
- Social supports/parenting support
- Housing, transportation, child care, financial stress
- Other kids and adults in home
- Need for connection to primary care, dental, WIC, other services

67 questions, all with multiple choice answers, 10 min to complete
OREGON FAMILY WELL-BEING ASSESSMENT

PREGNANCY

1. Pregnancy Intentions

14. When you got pregnant with this current pregnancy, were you trying to get pregnant?
   - Yes
   - No

15. Does your partner agree with you about whether or not to continue the pregnancy?
   - Yes
   - No

16. How would you describe the involvement of the father of the baby?
   - Very involved
   - Somewhat involved
   - Not involved, but I have another adult who is committed to parenting
   - Not involved and no other adult is involved

17. Do you feel that you have the social and emotional support you need for pregnancy and parenting?
   - Yes
   - Unsure

18. Do you have a doctor or midwife who will take care of you during pregnancy?
   - Yes
   - No

19. Have you had a visit with a doctor or midwife to check your pregnancy?
   - Yes
   - No, just today or never
   - No, I don’t have one scheduled

20. Is this your first parenting experience?
   - Yes
   - No

21. Have you chosen a doctor for your baby?
   - Yes
   - No

22. Do you intend to breastfeed?
   - Yes
   - No
   - Unsure

23. Do you have, at least one person you can count on if things become too difficult for you to handle alone?
   - Yes
   - No
   - Unsure

24. Do you know where to turn if you need help with managing your feelings or getting other types of support?
   - Yes
   - No
   - Unsure

25. Are you interested in parenting education or parenting support groups?
   - Yes
   - No
   - Unsure

Basic demographics and wellness

2. Your DOB: ______/_____/______
   Age 17 or less? Yes

3. In which language do you want us to communicate with you?
   - Yes
   - No

4. Any recent job or volunteer experience?
   - Yes
   - No

5. What is the highest level of school you completed?
   - Less than high school
   - High school graduate/GED
   - College
   - Graduate school

6. How would you describe your current relationship?
   - Single (married/copied/divorced, widowed)
   - Long-term partner
   - Married

7. How would you describe your current job?
   - Full time (30 hours a week or more)
   - Part-time
   - Seasonal work
   - Unemployed and not looking for work
   - Unemployed but looking for work

8. How would you describe your spouse’s or partner’s job?
   - Full-time (30 hours or more)
   - Part-time
   - Seasonal work
   - Unemployed and looking for work
   - Unemployed and not looking for work
   - No spouse or partner

9. Do you have a regular doctor who does check-ups and sees you when you are sick?
   - Yes
   - No

10. Do you have a dentist?
    - Yes
    - No

11. Have you had a dental check-up in the past year?
    - Yes
    - No

12. Do you get at least 7 hours of sleep each night?
    - Yes, usually
    - Sometimes
    - Almost never

13. Do you walk at least 30 minutes or do other forms of exercise at least 5 days a week?
    - Yes, usually
    - Sometimes
    - Almost never

Support

11/30/2016

22
The page contains a form labeled "Interviewer Guide" which includes questions about ACEs (Adverse Childhood Experiences) and basic resources. It outlines programs already connected to individuals and suggests resources for housing, mental health, substance use, etc. The form is designed to help clinic staff provide community-specific resources for positive answers. The text is in red font to indicate instructions that help clinic staff know what to do. The form is modified by the clinic system to provide community-specific resources for various needs. The page also includes a "211" information service with contact details for additional support.
Interviewer guide responses (red font) can be personalized to the community or organization

Interviewer guide has same questions, with red font to advise on what to do with these answers

Data

- Most clinics using a cloud-based app for questionnaire, patients fill it out online before appointment or on a tablet in the waiting room
- Data is reviewed at clinic and relevant issues noted in electronic health record
- Data will eventually be sent to Oregon Maternal Data Center (statewide maternity quality and reporting system) where it can be aggregated and reported back by clinic, system or community level

http://www.q-corp.org/reports/omdc
Goals

- All pregnant women are screened for behavioral health and social complexity
  - Clinics will have a non-biased way of understanding the needs of their maternity population

- Clinical systems will have population data ("32% of our pregnant women have depression") and can use it to make rational decisions on additional staff for maternity care teams
  - Social worker, mental health provider, community navigator, substance use program, etc

- Clinical systems can approach payers with data-driven requests for alternative payment strategies to support the needs of their population
  - PMPM payment for pregnant women that supports screening all women plus funding an LCSW full time
  - Episode payment for Project Nurture, an integrated model of maternity care and substance use treatment that includes case management and peer support.

Tori

27 year old woman, pregnant with her third child
- married, she and husband work low-wage jobs
- chronic depression
- 4 year old child with special needs
- occasional tobacco use
- lacks social supports
- intended pregnancies, but feels overwhelmed

NOW
- On-site social worker using talk therapy for depression, helped with smoking cessation
- Nurse home visitor helping with her child with special needs and provides parenting support
- Maternity clinician asks about her life in a way that conveys empathy and support
Miranda

34 year old woman, pregnant with 4th child
- other 3 children in foster care
- heroin use disorder
- abusive relationship
- housing instability
- difficulty accessing services
- she was abused and neglected in her childhood, no treatment for her own trauma
- pregnancies are unintended

NOW
- Referred to Project Nurture (integrated substance use treatment and maternity care)
- Once in recovery, able to find clean and sober housing and end abusive relationship
- IUD placed after birth
- With ongoing support, she is able to parent her infant for the first time

Addressing women’s need for behavioral health and social support during pregnancy is crucial not only for her health and well-being, but also because of her role as a parent, guiding the health and well-being of her children.

Very few things we do can have as much impact on the next generation as supporting the well-being of women
Thank you!

Helen K. Bellanca, MD, MPH
Associate Medical Director
Health Share of Oregon
helen@healthshareoregon.org
503-416-4983

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