Improving Maternity Care for Low Income Women with Diabetes:

A Multidisciplinary Approach

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Objectives:

- Understand the barriers to care faced by poor and minority women during a pregnancy complicated by diabetes.
- Describe a team-based model of collaborative practice to address the needs of this population.
- Outline the roles of different team members providing care for this population.
- Provide an innovative model of care in alignment with the triple aim of low cost, patient satisfaction and improving the health of a population at risk.

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There is a perfect storm occurring in maternity care in 2013 created by Diabetes, Hypertension and Obesity

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Poverty

Inactivity

Poor diet

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Community health strategies AND individual care improvements are needed

Evidence-based care designed for Triple Aim outcomes:

- Improve health of at-risk population
- Reduce the cost-of-care (create sustainable models)
- Improve the experience of care

Project setting: Maternal Care Clinic

- Portland practice with 20 year history and over 7,000 births
- Collaborative CNM/OB/SW model of care
- Mission includes increasing access to maternity care
- Diverse clientele includes low to moderate risk clients

MCC Payer Mix 2012

- 43% of Maternal Care Clinic (MCC) patients are are commercially insured
- 51% covered by Oregon Health Plan
- 6% are self or uninsured

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Existing model

- Low risk clients managed independently by CNMs during pregnancy, labor, and birth
- Moderate risk clients managed collaboratively by CNM and OB
- High risk clients referred to specialty clinic and managed by perinatologist

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Stimulus for change

- Diabetes affected 20% of MCC maternity clients in 2012
- Increasing percentage have Type 2 diabetes (considered high risk)
- Increasing percentage not able to control their blood sugar with diet only (considered moderate risk but these patients were being referred to perinatologist)
- Perinatology clinic not able to absorb all referrals- capacity issue
- Sending 20% of our clients away is not sustainable

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- Most of those affected have barriers to care:
  Transportation, language, cost
- Current model inadequate:
  - Many women don't make it to the specialty clinics (diabetes clinic and high-risk clinic) after referral
  - Many "no-shows" even after initial visit
  - Many women ask to remain in care at MCC
  - The one MCC obstetrician can't cover all their care

Population view: Who is at risk for diabetes?

After adjusting for population age differences, 2007–2009 national survey data for people aged 20 years or older indicate that:

7.1% of non-Hispanic whites,

8.4% of Asian Americans,

11.8% of Hispanics,

12.6% of non-Hispanic blacks and

16.1% of Native Americans had diagnosed diabetes.

CDC 2011

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MCC Patient Population- 2012

- 69% Non- Hispanic white
- 14% Hispanic white
- 6% Asian/Pacific Islander (about half of each)
- 10% Non-Hispanic black
- 1% Native American

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MCC Diabetes Care Re-design Goal:
Reducing health disparities caused by diabetes in pregnancy.

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Plan:

- Allow most diabetics to remain in care at MCC if desired
- Diabetes educator available at MCC ½ day per week
    - Increase consultations
    - Allows co-management with team members together
- Increase flexibility for patients to see RD/CNM/OB as needed
- OB able to cover more patients
- CNM retain focus on pregnancy

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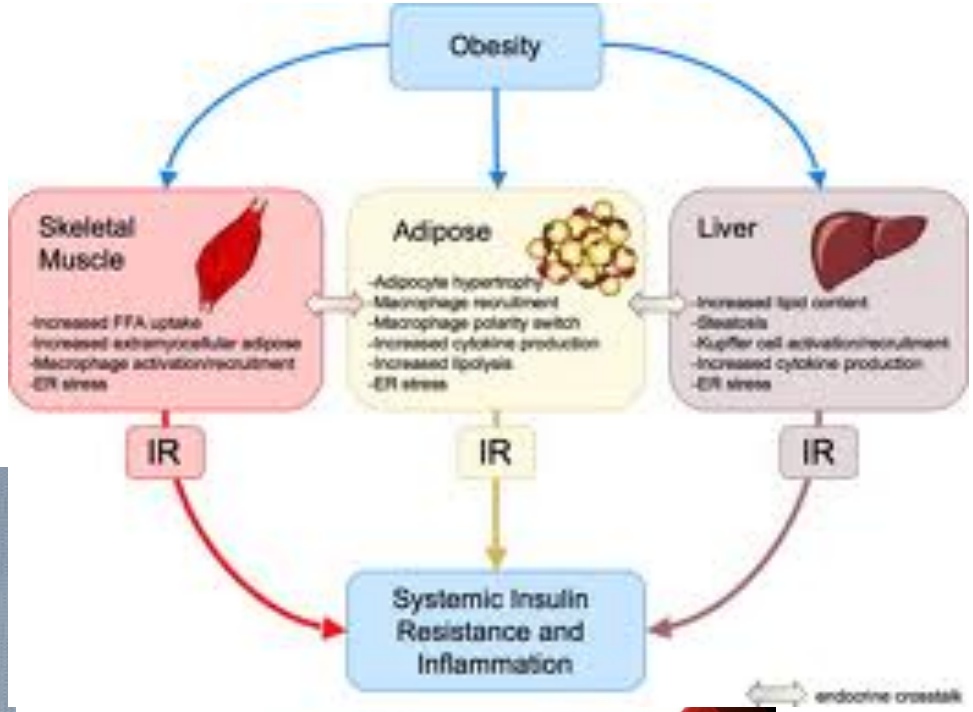
- Make fetal surveillance more available at patient visits (more convenient and less costly than at hospital)
- Address CNM resistance
- Develop a CPG for use by the team: Evidence based
  - Team-based
  - Primary Care as model
  - Based on ADA Guidelines vs. OB
  - Understand the physiology- helps understand the co-morbidities

How are these connected physiologically? Via insulin resistance and the mechanisms that cause it.



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- What are the real risks of diabetes in pregnancy?
  Hypertensive disorders vs. complicated delivery
- Change view from “pregnancy induced diabetes” to insulin resistance- begins before pregnancy and continues afterward.
- Benefits of treatment:
  - Lower birthweight- long term benefit
  - Prevent epigenetic changes
  - Impact maternal diabetes and hypertension; improve health of family; reduce health disparities

Delivering Cost Effective Care

Feature	Cost Benefit
Integrated care team OB, CNM, RD (Diabetes Educator)	• Reduced cost per hour of patient care • All care team members operate at top of license • Evidence supports collaborative care
CNM as primary maternity care provider	• CNM salary 66% less than OB* • Community obstetrician salary less than perinatologist • OB available for consultation and collaboration as needed
Care provided in lowest cost location	• Community clinic vs. specialty clinic • Clinic vs. hospital

*2011 PNW MGMA salary survey

Delivering More Effective Care

Feature	Benefit
Improved “patient compliance”	• More completed referrals • Fewer “no shows” • Better adherence to recommended treatment
Care matches ADA recommendations	• Elements of diabetes care model are well researched
Prenatal group visits	• Reduced 1:1 visits • Evidence shows effectiveness of group visits • Social support is beneficial • Can reduce language and cultural barriers

Delivering More Patient-Centered Care

Feature	Benefit
"One-stop shopping"	• Fewer appointments, reduces time and transportation barriers • Better communication with and between care team members • Familiar location and providers • Providers develop expertise caring for these women
More holistic care	• **CNMs keep focus on normal aspects of pregnancy** • **Include family in visits and in diet planning** • **Teach a wellness model that includes diet and exercise for whole family** • **Anticipate future health implications for entire family** • **Consider cultural aspects of care**

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Affordability

- Reduce Average Cost of Care

Population Health

- Improve outcomes of care:
- Reduce rate of cesarean delivery
- Increase rate of post-partum diabetes testing
- Maintain low rate of adverse obstetrical outcomes associated with diabetes

Patient Experience

- General patient satisfaction relative to new model (survey)
- Improve attendance at visits

Metrics for Evaluation

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Challenges:

- Current change fatigue affecting staff at all levels
- Little CNM education on diabetic pregnancies, as this has not been generally seen as within scope of practice
- Fee-for-service/Cost center thinking limits vision for reducing overall cost-of-care
- Very limited data on actual cost-of-care vs. charges and reimbursement
- Population health outcomes difficult to measure due to rarity of adverse obstetrical outcomes and complexity of and timeline of long-term consequences of diabetes

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Preliminary conclusions:

- Preliminary data show clinical outcomes remain excellent
- CPG has improved CNM comfort with care of diabetics
- Model has increased system capacity for care

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- Patient feedback has been positive
- Very limited data on actual cost-of-care vs. charges and reimbursement has been problematic, but the data “are in the mail” due to a related project
- We hope that 2014 and CCOs will help with Fee-for-service/Cost center thinking!