Improving Maternity Care for Low Income Women with Diabetes:
A Multidisciplinary Approach

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Improving Maternity Care for Low Income Women with Diabetes

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.
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
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 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-customer 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
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

<table>
<thead>
<tr>
<th>Feature</th>
<th>Cost Benefit</th>
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</table>
| 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

<table>
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<tr>
<th>Feature</th>
<th>Benefit</th>
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<tbody>
<tr>
<td>Improved “patient compliance”</td>
<td>• More completed referrals</td>
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<tr>
<td></td>
<td>• Fewer “no shows”</td>
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<tr>
<td></td>
<td>• Better adherence to recommended treatment</td>
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<tr>
<td>Care matches ADA recommendations</td>
<td>• Elements of diabetes care model are well researched</td>
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<tr>
<td>Prenatal group visits</td>
<td>• Reduced 1:1 visits</td>
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<tr>
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<td>• Evidence shows effectiveness of group visits</td>
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<td></td>
<td>• Social support is beneficial</td>
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<td>• Can reduce language and cultural barriers</td>
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## Delivering More Patient-Centered Care

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