Objectives

1. Describe the collaborative journey of a shared laborist/midwife model in a community hospital

2. Share the results of a dedicated QI effort to improve vaginal birth rates in a cohort of hospitals

3. Discuss an emerging, community-based model to improve the experience, cost, and outcome of birth
Building a Midwife-Obstetrician Collaborative program: Promise and Challenges

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Building a Midwife-OB collaborative program

MARIN’S JOURNEY:

* Turning challenge into opportunity

* Strategies and building blocks

* Potential for scalability?
Marin General Hospital

* Independent community hospital with ~1400 births per year
  * Privately insured patients (~800 births/year): Private OBs
  * Publicly insured patients (~600 births/year): County program

Birth statistics from 2010

Two Models

<table>
<thead>
<tr>
<th>INSURANCE</th>
<th>HOSPITAL MODEL OF CARE</th>
<th>FINANCING</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRIVATELY INSURED</td>
<td>“Traditional” private practice model:</td>
<td>Group revenue</td>
</tr>
<tr>
<td></td>
<td>Mainly OBs</td>
<td></td>
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<tr>
<td></td>
<td>Independent or group practice</td>
<td></td>
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<tr>
<td></td>
<td>No in-house requirement</td>
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<tr>
<td>PUBLICLY INSURED</td>
<td>CNM/OB hospitalist program:</td>
<td>County: 100% CNM shifts</td>
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<td></td>
<td>CNMs primary provider</td>
<td>40% OB hospitalist shifts</td>
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<tr>
<td></td>
<td>OB involvement based on risk factors (~10% fully OB</td>
<td>Hospital: 60% OB</td>
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<tr>
<td></td>
<td>managed)</td>
<td>hospitalist shifts</td>
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THREAT!

In 2010, County of Marin announced closure of County OB program:
* Local FQHC (Marin Community Clinics) could take over Prenatal care for Medicaid patients ....

* But County’s withdrawal had major implications for HOSPITAL CARE system:
  * Withdrew its funding 24-7 in-hospital CNM (100%)
  * Withdrew its funding for OB hospitalist program (40%)

What now?

* Who would care for publicly insured?
* What system of care would be put in place for underinsured?
  * still 24-7 in-house coverage?
  * still CNMs?
* How would system be funded?
Other Challenges…

- **Private Practice:**
  - Difficult to stay profitable due to decreasing reimbursements
  - Life-work balance:
    - Office responsibilities while taking call
    - Difficult call schedules for small groups
  - High intervention rates (Induction, CD, etc)
  - May not be adequately meeting the needs of women (“provider centered” rather than “patient centered”)

Opportunity for a new maternity program?

- Serve all patients
- Improve Care
- Solve challenges in both the private and public care systems
Promising Practice Model

Solution?

Benefits for Private community:

- In-house “hospitalist” team would:
  - Improve efficiency/productivity for inpatient care (one team to care for all in-house patients)
  - Avoid challenge of balancing L&D & outpatient responsibilities
  - Potentially decrease intervention while maintaining good outcomes (associated with midwifery care)
  - Improve “patient centeredness” by introducing providers with different focus, expertise and training.
Solution?

* **Benefits for Public community:**
  * **Partnership with Private community would provide needed resources** (funding/manpower) following County closure
  * **Continue successful model of care** that had been in place for 20 years

Community Partnership!

* **Partnership between public and private clinicians**
  * 9 OBs had recently joined multi-specialty medical group
  * Group expanded to take on the “County” CNMs and OBs
  * This group provided 24-7 “CNM-OB hospitalist” service

* **Financial support from multiple stakeholders**
  * Private multi-specialty medical group
  * Hospital
  * Community clinic (FQHC)*
  * County HHS
Old system (prior to 2011)

$ Medicaid billings (FFS)
$ Hospital stipend
$ County HHS funding

CNM Hospitalist → OB Hospitalist → L&D Nurse

"UNASSIGNED" patients → "County"/FQHC patients → EMERGENCIES (All patients) → Private group patients

New CNM-OB Hospitalist program (2011)

$ Medicaid billings (FFS)
$ Hospital stipend
$ Private OB group revenue

$ County/FQHC support (temporary)

CNM Hospitalist → OB Hospitalist → L&D Nurse

"UNASSIGNED" patients → "County"/FQHC patients → EMERGENCIES (All patients) → Private group patients
New CNM-OB hospitalist program

- Provided all L&D management of 80% of patients (private group, publicly-insured & unassigned)
  - All patients had access to midwifery care
  - Managing clinicians in-hospital at all times

- Continuity of care between outpatient centers & hospital
  - CNM & OB Hospitalists also providing care in outpatient offices (private) and community clinic

Outcomes (first 2-3 years)

- High Provider and L&D nurse satisfaction with new model
  - Detailed questionnaires administered at 24 months post-implementation (22 providers, 24 RNs)

- High Patient satisfaction under new model
  - Detailed questionnaires administered at 18-24 months post-implementation (153 private, 150 public)
  - Included questions regarding communication between providers & RNs, if felt that “too many providers” were involved with care & impact of meeting provider for first time on L&D (rather than during prenatal care)
  - Patient choice for CNM care on L+D increased from 16->60% from 2011->2014
Outcomes

Change of model associated with:

- NTSV cesarean rates in private group decreased from 32.2% to 25.0% (aOR=0.61)
- Increased VBAC rates in private group (aOR 1.94)
- No increase in cesarean rates in publicly insured group
- No statistically significant increase in neonatal morbidity

The Association of Expanded Access to a Collaborative Midwifery and Laborist Model With Cesarean Delivery Rates.
Rosenstein, Melissa G, MD; Mas; Nijagal, Malini MD; Nakagawa, Sanae MS; Gregorich, Steven E. PhD; Kuppermann, Minam PhD, MPH

Building a Midwife-OB collaborative program

- Turning challenge into opportunity
- Strategies and building blocks
- Ongoing challenges
Building a Midwife-OB collaborative program

Establishing urgency for needed change:

Concerns of HOSPITAL

- Under EMTALA (Emergency Medical Treatment and Active Labor Act), hospital is responsible for providing L&D care to “unassigned” patients → how to provide?
- Gaining market share → what do patient’s want?
- How to maximize patient safety (& mitigate risk of litigation?)
- How to achieve optimal maternal and neonatal outcomes? (Perinatal measures now in Joint Commission Core Set)
Establishing urgency for needed change:

Concerns of PRIVATE PROVIDERS:

* Challenges with balancing office/L+D responsibilities, potential burnout from frequent call → any solution?
* Gaining market share → what do patient’s want?
* How to maximize patient safety?
* How to achieve optimal maternal & neonatal outcomes?

Concerns of COMMUNITY CLINIC (& community at large):

* Needs of publically insured patients → how to ensure culturally competent and patient centered care?
* How to ensure good communication between clinic & hospital during pregnancy and postpartum period?
* How to continue optimal maternal & neonatal outcomes?
Building a Midwife-OB collaborative program

Vision

CNM-OB hospitalist program will:

- **Continue successful model** of caring for publicly insured women
- **Maximize patient safety** by having 24-7 in-house care team
- **Improve “patient-centeredness”** by providing new option of midwifery care
- **Maintain outpatient-inpatient care continuity and communication** for vulnerable population
- Potentially **improve outcomes** and associated costs (lower intervention rate associated with CNM care)
- **Decrease provider redundancy** (thereby reduce costs) by having one care team for >80% of patients
Building a Midwife-OB collaborative program

Key pieces to achieving success

- **Collaboration:**
  - CNMs, OBs, RNs all involved with design, planning and implementation

- **Leadership:**
  - Transition/Operations committee of OB, CNM and RN Leaders working in the system

- **Setting the stage for “team” culture:**
  - What does CNM-OB-RN “collaboration” mean?
  - What are roles and expertise of different providers?
  - Midwives as collaborators, not physician extenders!

- **Clear expectations:**
  - Rules about patient management/assignment
  - Expectations (documentation, communication, professionalism)
  - Communication with patients about benefits of model and who is on care team
CNM Scope of Practice

<table>
<thead>
<tr>
<th>CNM Management (Independent)</th>
<th>CNM Management with MD Consultation</th>
<th>CNM/MD Co-Management (MD note and/or exam required*)</th>
<th>MD Management (Referral/transfer to)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Gestational Diabetes, diet controlled</td>
<td>1 AP testing with abnormal finding</td>
<td>1 New diagnosis of OR exacerbation of medical condition requiring change in medication*</td>
<td>1 Pyelonephritis</td>
</tr>
<tr>
<td>2 Internal and external fetal monitoring</td>
<td>2 Anemia &lt; 30%, Hgb &lt; 9.5</td>
<td>2 IDDM</td>
<td>2 Severe Preeclampsia</td>
</tr>
<tr>
<td>3 Meconium with Category I electronic fetal heart rate pattern</td>
<td>3 Suspected fetal weight &gt;4500 grams</td>
<td>3 IUOR</td>
<td>3 Poorly controlled GDM</td>
</tr>
<tr>
<td>4 GBS prophylaxis according to protocols</td>
<td>4 Pregnancy &gt;/=42 weeks</td>
<td>3 Excessive bleeding in labes*</td>
<td>3 Multiple gestation</td>
</tr>
<tr>
<td>5 ULT, diagnosis and treatment</td>
<td>5 Pregnancy between 35 and &lt;36 weeks</td>
<td>4 Mal-presentation</td>
<td>4 Breech</td>
</tr>
<tr>
<td>6 Therapeutic rest</td>
<td>6 Labor Induction</td>
<td>5 &gt;30 minute 3rd stage or Retained placenta*</td>
<td>5 Failure to descend</td>
</tr>
<tr>
<td>7 Initiation of anesthesia requests for NSVD</td>
<td>7 Pincin Augmentation</td>
<td>5 Anticipated shoulder dystocia</td>
<td>5 Vacuum or forceps</td>
</tr>
<tr>
<td>8 ROM without labor for &lt; 48 hours and no other risk factors</td>
<td>8 Temperature in labor &gt; 100.5</td>
<td>5 34-35 week gestation delivery with Peds present</td>
<td>5 Medical condition requiring MD care</td>
</tr>
<tr>
<td>9 Aminioinfusion</td>
<td>9 Mild preeclampsia of T10/90 with normal labs</td>
<td>6 Severely contracted pelvis*</td>
<td>5 Fetal distress requiring immediate operative delivery</td>
</tr>
<tr>
<td>10 IUPC</td>
<td>10 Meconium stained fluid</td>
<td>6 Excessive uterine tenderness or rigidity*</td>
<td>6 Seizure and sequelae</td>
</tr>
<tr>
<td>11 &gt;36 weeks gestation</td>
<td>11 Patient requiring Peds</td>
<td>7 Suppression of pre-term contractions</td>
<td>6 Placenta accreta</td>
</tr>
<tr>
<td>12 First surgical assist for C/S</td>
<td>12 Regional anesthesia</td>
<td>7 Active herpes genitalis (vaginal or vulvar)*</td>
<td>6 HELLP syndrome</td>
</tr>
<tr>
<td>13 Category II electronic fetal monitoring pattern</td>
<td>13 MD evaluated stable, medical condition</td>
<td>8 Chorioamnionitis</td>
<td>6 Cervical lacerations</td>
</tr>
<tr>
<td>14 Active maternal substance use</td>
<td>14 Arrest of labor/prolonged 2nd stage &gt;/=2 hours or &gt;/=3 hours with epidural</td>
<td>8 Other situations increasing risk to mother and fetus</td>
<td>6 Prolapsed cord</td>
</tr>
<tr>
<td>15 ROM &gt;/= 48 hours without risk factors</td>
<td>15 ROM &gt;/= 48 hours without risk factors</td>
<td>9 Severe Preeclampsia</td>
<td>6 Active third trimester vaginal bleeding, not in labor</td>
</tr>
</tbody>
</table>

Realizing the full potential

* Increased efficiency & revenues by Obstetricians focusing on complex care while…

* Midwife focuses on routine & low risk *(NOTE: billing rules vary by state)*

* First Assistant on C/S
* Triage visits (including Biophysical Profiles)
* Circumcisions (?)
* Postpartum rounds and education
* Triage visits
Building a Midwife-OB collaborative program

MARIN'S JOURNEY:

* Turning challenge into opportunity
* Strategies and building blocks
* Potential for scalability?

The Right Care at the Right time?

* Specific factors led to the extension of the CNM-OB collaborative model to Marin’s “private practice” community
* Marin’s success raises question about if this model could provide benefit in other communities as well.
* Is the CNM-OB collaborative model a way to achieve “The Right care at the Right Time”?
The Right Care at the Right time

What are we trying to achieve with pregnancy care?

- “Patient Centered Care”: that respects individual needs and preferences
- “Right time”: Care that can respond to changes in the needs of a woman during her pregnancy & delivery course
- “Good outcomes”: usually think of as health of mother and baby, but also think about patient experience & presence or absence of unwanted intervention

Quality Care

The Right Care at the Right Time

Optimal care is effective care with the least potential harm

- Most childbearing women are healthy and have no reason to expect complications from childbirth
- Optimal care should therefore:
  - Promote physiological process
  - Avoid intervention (potentially harmful) unless needed to achieve safe outcome
The Right Care at the Right time

- What are current barriers to achieving these goals?
  - **Patient centered care:**
    - Without providers of different backgrounds, philosophies and skills, it is more difficult to meet individualized needs of patients
  - **Right time:**
    - Without collaborative practices, providers are experts only in low risk birth or complicated births, not both
  - **Good outcomes:**
    - Obstetrical care has become increasingly interventional with no shown benefit

The Right Care at the Right time

- **Midwife-OB collaboration: Combining expertise to achieve a common goal for women**
  - Midwifes and obstetricians have different philosophies, training and expertise: working together allows team to meet patient’s individual needs
  - With varied expertise, team can more safely & efficiently take care of both low and high risk women together
  - True collaboration results in focusing on needs of patients (individual, medical) rather than needs of providers (not wanting to turn patients away even if not ideally suited)
Challenges

* Requires CHANGE in how midwives and MDs practice:
  * Creating a new “home” for both groups of providers
  * Establishing practice guidelines that all can agree to
  * Collaboration over hierarchy: vive la difference!
    * Communication and ongoing practice development are critical
    * Collaboration does not mean becoming the same
    * Collaboration means knowing when to turn the patient’s care over to another provider with a different skill set

Challenges

* Financial Barriers
  * Can be difficult to “prove” that an OB hospitalist program is financially self-sustainable
  * Compensation models for different providers (RVUs vs salaried)
  * State legislation: in CA, CNMs require "supervision"
    * limits scheduling
    * limits reimbursement
    * maintains hierarchy
Challenges

- **Multiple stakeholders:**
  - Different institutional cultures/philosophies/missions
  - Different budgets/bottom lines
  - Different EMRs!
  - multiple logins, passwords and user proficiencies
  - no cross communication between systems

It’s complicated to do the “Right Thing”

- medical group (for profit):
  - private OB/GYNs
  - OB hospitalists

- medical foundation (nonprofit):
  - CNMS

- PSA for CNM services and supervising OB/GYNs
- CNM dedication to underserved population

- hospital: only maternity ward in county
- hospital is obligated to provide maternity services
- PSA for 24/7 OB hospitalists and CNMs
Thank you!

- Providers, nurses & administrators of Marin General Hospital, Prima Medical Group & Marin Community Clinics
- Prima Medical Foundation
- UCSF
  - OB/GYN Dept: Miriam Kupperman and Melissa Rosenstein
  - Dept. of Family & Community Medicine: Jennifer Reinks

Extra Slides

- Provider Satisfaction
- Nurse Satisfaction
- Patient Satisfaction
- CNM expansion
<table>
<thead>
<tr>
<th>Provider perspective (n=22; 24 months post implementation)</th>
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</thead>
<tbody>
<tr>
<td><strong>1 = Positive       3 = Neutral       5 = Negative</strong></td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>Private OBs (7)</td>
</tr>
<tr>
<td>Working with both publically and privately insured women as part of my job</td>
</tr>
<tr>
<td>The new model of staffing for inpatient care (CNM/MD hospitalist team in house, on-call/backup MD at home)</td>
</tr>
<tr>
<td>The quality of care my patients are receiving</td>
</tr>
<tr>
<td>The satisfaction/experience of my patients during their L&amp;D Care</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Provider perspective (n=22; 24 months post implementation)</th>
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<tr>
<td><strong>1 = Positive       3 = Neutral       5 = Negative</strong></td>
</tr>
<tr>
<td>---------------</td>
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<tr>
<td>Private OBs (7)</td>
</tr>
<tr>
<td>Working within a larger system with more people sharing in the care of my patients</td>
</tr>
<tr>
<td>All OBs in system being required to take hospitalist shifts</td>
</tr>
<tr>
<td>Priv. OBs caring for publically insured patients while working as hospitalists</td>
</tr>
<tr>
<td>OB Hospitalists caring for privately insured patients in hospital</td>
</tr>
</tbody>
</table>
Nurses perspective
(n=24; 24 months post implementation)

1 = Agree    2 = Somewhat agree    3 = Neutral    4 = Somewhat disagree

MEAN = <2 (AGREE)

New system of care for the private/public groups is safe
New system of care is safer for the private patients than the previous system where the managing clinician was not in hospital at all times.
New system of care allows for more direct contact with clinicians than prior system
Publicly insured patients feel that they are getting well taken care of
Private patients feel that they are getting well taken care of
Publicly insured patients are overall happy with their care
Private patients are overall happy with their care
I prefer the new system to the old

Nurses perspective
(n=24; 24 months post implementation)

MEAN 2-3 (NEUTRAL-SOMEWHAT AGREE)

Public patients get assessed on L+D in a more timely fashion than previously
Private patients get assessed on L+D in a more timely fashion than previously
There are enough midwives or physicians available if the unit is very busy or there are emergency situations
### Patient Satisfaction

<table>
<thead>
<tr>
<th>SCALE (adjusted to 10 point scale)</th>
<th>PRIMA N=153</th>
<th>MCC N=150</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall rating of experience</td>
<td>8.3</td>
<td>8.4</td>
</tr>
<tr>
<td>Composite Satisfaction L+D care</td>
<td>9.1</td>
<td>8.9</td>
</tr>
<tr>
<td>Composite Satisfaction “hospitalist system”</td>
<td>8.7</td>
<td>8.1</td>
</tr>
<tr>
<td>My doctors, nurses, and midwives communicated well with each other.</td>
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<tr>
<td>My doctors and midwives were available when I needed them on L&amp;D</td>
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<td></td>
</tr>
<tr>
<td>There were too many doctors and midwives involved in my L&amp;D</td>
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<tr>
<td>My doctor or midwife spent enough time with me during my L&amp;D</td>
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</table>

Patient Satisfaction: Based on when first met L+D provider