Supporting Vaginal Births & Reducing Cesarean Deliveries for “Low-Risk” Pregnancies in Michigan Hospitals

MiAIM Webinar

Utilizing OBI Obstetric Reports to Identify Opportunities for Improvement

Daniel M. Morgan, MD OBI Program Director

June 26, 2018
Objectives

• Understand the definitions of low risk for cesarean delivery
• Access the OBI reports for hospitals in the Michigan Value Collaborative
• Welcome your review and feedback regarding the OBI reports
OBI Obstetric Reports:

- Risk assessment for Cesarean Delivery
  - Inclusion, Exclusion criteria
- Navigating the Reports
  - Access
  - Filters
  - Patients (e.g. numerator and denominator)
- Outcomes
  - Delivery Rates
  - Morbidity (Maternal)
  - Utilization
Cesarean Delivery risk:

- “Low risk” vs “Non low risk”
  - Society for Maternal Fetal Medicine (SMFM) Low Risk
  - Nulliparous Term Singleton Vertex (NTSV)

<table>
<thead>
<tr>
<th>Outcomes (Events)</th>
<th>Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Birth Rates</td>
<td>• Transfusion</td>
</tr>
<tr>
<td>o Cesarean Delivery</td>
<td>• Embolization</td>
</tr>
<tr>
<td>o Vaginal Delivery</td>
<td>• Hysterectomy</td>
</tr>
<tr>
<td>o Vaginal Birth After Cesarean (VBAC)</td>
<td>• Length of Stay</td>
</tr>
<tr>
<td>• Maternal Morbidity</td>
<td>• ICU Admission</td>
</tr>
<tr>
<td>o Severe Maternal Morbidity (SMM)</td>
<td>• Readmission</td>
</tr>
<tr>
<td>o Non severe maternal morbidity</td>
<td>• Payments</td>
</tr>
</tbody>
</table>
Focusing on “Low-Risk” Delivery

- Singleton
- Full-term
- Livebirth
- Vertex

OBI Reports

Claims Data

Coordinating Center

OBI Registry

ArborMetrix

MDHHS

Vital Statistics

Analytic Framework
Low-risk vs. Non low-risk

Online Reports
Low-risk vs. Non low-risk
Maternal morbidity
<table>
<thead>
<tr>
<th><strong>SMFM Low-Risk</strong></th>
<th><strong>NTSV</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SOURCE</strong></td>
<td>Society for Maternal-Fetal Medicine (SMFM)</td>
</tr>
<tr>
<td><strong>PARITY</strong></td>
<td>Nulliparas &amp; Multiparas</td>
</tr>
<tr>
<td><strong>TERM</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>SINGLETON</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>VERTEX</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>EXCLUSIONS</strong></td>
<td>History of CD, Cord prolapse, Placenta Previa, Severe pre-eclampsia, Stillborn, HIV</td>
</tr>
<tr>
<td><strong>PERCENT EXCLUDED (MICHIGAN)</strong></td>
<td>28.9%</td>
</tr>
<tr>
<td><strong>OBI REPORTS DATA SOURCE</strong></td>
<td>Blue Cross Blue Shield PPO Claims Data</td>
</tr>
<tr>
<td></td>
<td>Blue Cross Blue Shield Claims Data</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td><strong>Years</strong></td>
<td>2012-2017</td>
</tr>
<tr>
<td><strong>Maternity Hospitals</strong></td>
<td>66</td>
</tr>
<tr>
<td><strong>Singleton Deliveries</strong></td>
<td>94,139</td>
</tr>
<tr>
<td><strong>Low Risk (Primary) CD, VD rates</strong></td>
<td>Available</td>
</tr>
<tr>
<td><strong>NTSV CD rate</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Comorbidities</strong></td>
<td>Fall 2018</td>
</tr>
<tr>
<td><strong>Maternal Utilization &amp; Outcomes</strong></td>
<td>Available</td>
</tr>
<tr>
<td><strong>Neonatal Utilization &amp; Outcomes</strong></td>
<td>Fall 2018</td>
</tr>
</tbody>
</table>
Low-risk Cesarean Delivery Rates

Healthy People 2020 Goal: 23.9%, Maternal Infant Child Health, Objective 7.1

Source: MVC Data I MDHHS
OBI Obstetric Reports:

- Risk assessment for Cesarean Delivery
  - Inclusion, Exclusion criteria

- Navigating the Reports
  - Access
  - Filters
  - Patients (e.g. numerator and denominator)

- Outcomes
  - Delivery Rates
  - Morbidity (Maternal)
  - Utilization
Program Overview

The goal of the Michigan Value Collaborative (MVC) is to help Michigan hospitals achieve their best possible patient outcomes at the lowest reasonable cost. It is a partnership between Michigan hospitals and Blue Cross and Blue Shield of Michigan/Blue Care Network. Working in conjunction with many specialty-specific Collaborative Quality Improvement (CQI) programs in BCBSM’s Value Partnership Program, MVC aims to understand variation in healthcare use, identify best practices, and lead interventions for improving care before, during, and after hospitalization. The program improves healthcare quality across Michigan through rigorous performance feedback, empirical identification of best practices, and collaborative learning.

Coordinating Center

MVC is coordinated out of the University of Michigan and includes 75 participating acute care hospitals throughout the state of Michigan.
Introducing the MVC Blog

Visit the new MVC blog! You can learn more about MVC, find details on upcoming events, get answers to your questions through the Q&A section, and stay up-to-date with all of the MVC posts.

New Details on Your SNFs

The new SNF Report page allows you to discover the utilization of specific SNFs from patients discharged from your institution. This report provides information on individually listed SNFs - with their corresponding NPIs - comparing their costs to other utilized SNFs within MVC.

Discover Your MVC Ranking

How do we as an institution compare to our MVC peer group? The table provides unadjusted and adjusted values for key Episode costs - Facility, Professional, Post-Discharge, and Readmission - also contains ranking information as a means of highlighting your strength and improvement.
Navigating to the Obstetrics Reports

Service Lines with Lowest Episode Cost ($)

Pay-for-Performance Conditions (30-day)
Hospital Summary Report: Cesarean Delivery – All births

<table>
<thead>
<tr>
<th>Obstetrics Report</th>
<th>Total Births (Denominator)</th>
<th>Hospital X-Unadj.</th>
<th>MVC All - Unadj</th>
<th>P Value (Unadj)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gestational Age</td>
<td>3584</td>
<td>31.8%</td>
<td>34.2%</td>
<td>0.0019</td>
</tr>
<tr>
<td>Birth Weight</td>
<td>3584</td>
<td>51.8%</td>
<td>34.2%</td>
<td>0.0019</td>
</tr>
<tr>
<td>History of Cesarean Delivery</td>
<td>423</td>
<td>76.8%</td>
<td>88.5%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Malpresentation</td>
<td>337</td>
<td>77.2%</td>
<td>88.7%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Fetal Factors</td>
<td>31</td>
<td>71%</td>
<td>53.5%</td>
<td>0.013</td>
</tr>
<tr>
<td>Maternal Factors</td>
<td>76</td>
<td>39.5%</td>
<td>49.5%</td>
<td>0.052</td>
</tr>
<tr>
<td>Stillborn</td>
<td>27</td>
<td>11.1%</td>
<td>20.2%</td>
<td>0</td>
</tr>
<tr>
<td>Uterine/Placental Factors</td>
<td>726</td>
<td>74.4%</td>
<td>87.2%</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>Conduct of Labor</td>
<td>84</td>
<td>59.5%</td>
<td>48%</td>
<td>0.019</td>
</tr>
</tbody>
</table>
Hospital Summary Report: Cesarean Delivery – Low Risk

Low Risk defined by Society of Maternal Fetal Medicine
https://www.obstetricsinitiative.org/obstetrics-reports/
Hospital Summary Report: Caterpillar – CD, Low risk

Low Risk defined by Society of Maternal Fetal Medicine
https://www.obstetricsinitiative.org/obstetrics-reports/
Navigating to the Obstetrics Reports

Dashboard
- Payment By Condition
- Payment By Hospital
- Comorbidities

Key Insights
- Key Insights Summary
- Key Insights Episode Cost Table ($) (%)
- Key Insights Readmissions Table

Service Type: Overall
- Summary
- Rankings
- Trends

Service Type: Inpatient
- Summary
- Rankings
- Trends

Service Type: Post-Discharge
- Post-Discharge Payment Drill Down
- Post-Discharge Rates Drill Down

Service Type: SNF
- SNF Report

Professional
- Drill Down

Volume
- Case Volume Drill Down

Obstetrics
- Hospital Summary Report
- Maternal Outcomes
- Maternal Utilization

Pay-for-Performance Conditions (30-day)
Severe Maternal Morbidity defined by NIH
https://www.obstetricsinitiative.org/obstetrics-reports
Maternal Outcomes Report: Low risk births, morbidity
Numerator, Denominator
Navigating to the Obstetrics Reports

- Service Lines with Lowest Episode Cost Table
- Summary
- Rankings
- Trends
- Obstetrics
  - Hospital Summary Report
  - Maternal Outcomes
  - Maternal Utilization
Maternal Utilization Report: All births

To be added:
- ED visits
- Readmission
- Transfer to ICU
Maternal Utilization Report: Low risk births
OBI Reports

Claims Data

Blue Cross Blue Shield Blue Care Network of Michigan

Vital Statistics

MDHHS

Analytic Framework
Low-risk vs. Non low-risk

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NTSV Report

Average Michigan NTSV Rate = 27.9%

Data Source: Michigan Department of Health & Human Services Vital Statistics Data, 1/1/2016-12/31/2016

Coming soon to www.obstetricsinitiative.org
### Obstetric Reports

<table>
<thead>
<tr>
<th></th>
<th>Blue Cross Blue Shield Claims Data</th>
<th>Michigan Department of Health &amp; Human Services Birth Certificate Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years</td>
<td>2012-2017</td>
<td>2012-2017</td>
</tr>
<tr>
<td>Maternity Hospitals</td>
<td>66</td>
<td>83</td>
</tr>
<tr>
<td>Singleton Deliveries</td>
<td>94,139</td>
<td>249,075</td>
</tr>
<tr>
<td>Low Risk (Primary)</td>
<td>Available</td>
<td>-</td>
</tr>
<tr>
<td>CD, VD rates</td>
<td></td>
<td>Coming soon</td>
</tr>
<tr>
<td>NTSV CD rate</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Comorbidities</td>
<td>Fall 2018</td>
<td>2019 (DUA in Progress)</td>
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• Resources and contact information are available on the OBI website
  • https://www.obstetricsinitiative.org/
  • Email: npbo@med.umich.edu

• Thank you for attending!
Obstetrics Initiative

Safe Births. Healthy Moms & Babies.

OBI supports vaginal births and *safely* reducing cesarean deliveries for “low-risk” pregnancies in Michigan hospitals.