Still under discussion…

- Whether reports will be produced under IRB
  - If not produced in the context of research, reports are subject to public disclosure
  - CA Maternal Quality Care Collaborative is submitting IRB application to WA for birth certificate data
- Determination of which measures are suitable for comparison between hospitals
- Validation of measures

Presented at Washington State Hospital Association Safe Table, Sept. 4, 2014
WA State DOH reports

- Will include labor and delivery indicators in WSHA Roadmap
  - All non-military delivery hospitals (N= 61)
  - ~81,000 births/year occur in these hospitals (92% of all WA state births)
- Full year 2012 and 2013 data reports available in the next few months
- Ongoing reports will be prepared quarterly and will be produced ~6 weeks after CHARS data are finalized
  - Only ~50% of CHARS data is currently submitted on time
  - Currently, 11 month lag between close of year and report availability

Presented at Washington State Hospital Association Safe Table, Sept. 4, 2014
DOH Reports - Data Sources

- Comprehensive Hospital Abstract Reporting System (CHARS)
  - Discharge records for inpatient and observation visits; revenue codes for those visits
  - Provides outcome information

- Birth certificates (BC)
  - Used to identify births and assign deliveries to hospitals
  - Limited information taken from BC (gestational age, Apgar scores, parity, birth weight)
Data Considerations

• Rich, comprehensive data sources
• Indicators depend heavily on CHARS data
  ▫ CHARS was not originally intended for QI activities
• Reports depend on linkage between BC and CHARS records for both mother and baby
• Hospitals with few deliveries and/or poor match rates will have unstable, unreliable indicators
• Variation in quality of reporting
  ▫ Opportunity to improve data quality through validation
• If non-research activity → subject to public disclosure
Advantages and value of DOH reports

- No extra work for hospitals
- Free and readily available
- Allow for statewide measurement
- Hospitals can monitor trends in their labor/delivery outcomes

Presented at Washington State Hospital Association Safe Table, Sept. 4, 2014
<table>
<thead>
<tr>
<th>Measure</th>
<th>Nulliparous Term C-section rate (NTS)</th>
<th>Singleton Vortex C-section rate (TSV)</th>
<th>Primary Term C-section rate for labor in nulliparous women &gt; 39 weeks gestation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explanation</td>
<td>NTSV pregnancies are low risk, first time births, and best practice aims to minimize C-sections for women who can avoid them. This measure reports the number of cesarean deliveries among nulliparous women whose labor was induced at &gt; 39 weeks gestation.</td>
<td>TSV pregnancies are low-risk, first time births, and best practice aims to minimize C-sections for women who can avoid them. This measure reports the number of cesarean deliveries among nulliparous women whose labor was induced at &gt; 39 weeks gestation.</td>
<td>Best practice aims to minimize C-sections for women who can avoid them. This measure reports the number of cesarean deliveries among nulliparous women whose labor was induced at &gt; 39 weeks gestation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>This Hospital</th>
<th>All WA Hospitals</th>
<th>Top 10%</th>
<th>All Level X Hospitals</th>
<th>Top 10%</th>
<th>This Hospital Historical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Birth Certificates</td>
<td>Mom only</td>
<td>Infant only</td>
<td>Mom and Infant Match</td>
<td></td>
<td></td>
</tr>
<tr>
<td>This Report</td>
<td>Sample Report</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Results for this hospital are available at [http://hospi.csbb.org](http://hospi.csbb.org).*

For more information on LOC, please refer to:

[http://hospi.csbb.org](http://hospi.csbb.org)

This is the average result for all Washington State hospitals, non-military hospitals that have the same Washington State Perinatal and Neonatal Level of Care (LOC) rating. For more information on LOC, please refer to:

[http://hospi.csbb.org](http://hospi.csbb.org)
Preliminary data – 2013
Match Rates

75% of facilities have a match rate ≥90%

75,535 birth certificates matched to both mom and infant hospitalization record
## Number of Mother-Infant Matches by Facility

<table>
<thead>
<tr>
<th>Number of matches</th>
<th>Number of Facilities</th>
<th>Size Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;25</td>
<td>29</td>
<td>N/A</td>
</tr>
<tr>
<td>25 – 99</td>
<td>8</td>
<td>Small (N=8)</td>
</tr>
<tr>
<td>100 – 249</td>
<td>6</td>
<td>Medium (N=15)</td>
</tr>
<tr>
<td>250 – 499</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>500 – 999</td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>1000 – 1999</td>
<td>13</td>
<td>Large (N=38)</td>
</tr>
<tr>
<td>2000 – 3499</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>&gt;=3500</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

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Box and Whisker Plots

- Maximum observation
- Upper fence (not drawn)
- 1.5(IQR) above 75th percentile
- Maximum observation below upper fence
- 75th percentile (upper quartile)
- Mean
- Median
- 25th percentile (lower quartile)
- Minimum observation
- Lower fence (not drawn)
- 1.5(IQR) below 25th percentile

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Nulliparous Term Singleton Vertex (NTSV) C-Section Rates by Hospital Size

State average = 24.1%

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C-Section Rate for Term Inductions in Nulliparous Women

State average = 34.1%

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2/2 (100%) of women with recorded preeclampsia diagnosis

State average = 11.5%
Summary

- DOH will work with WSHA and WA hospitals to ensure that reports are as timely, accurate and useful as possible
- Matched datasets are being finalized now
- Discussion:
  - Validation and determination of which measures are comparable
  - Patient confidentiality and data reliability
  - Data suppression standards?
  - Research vs. non-research determination

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We want to hear from you!

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