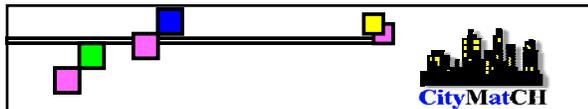


How to Use the **Perinatal Periods Of Risk** Approach



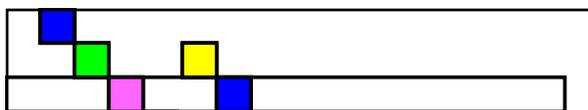
Magda Peck, ScD
Jennifer Skala, MEd
Thursday, November 13, 2003




About **CityMatCH**

- National public health organization
- Since 1990, based at the University of Nebraska Medical Center in Omaha, NE
- Functions: sustain communication and collaboration, build capacity, promote best practices/policies

www.citymatch.org



Our Mission

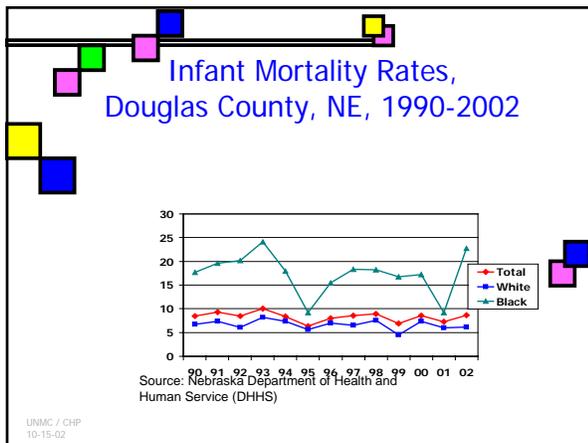
**Improving the health and well-being
of urban women, children and families
by strengthening public health
organizations and leaders
in their communities.**

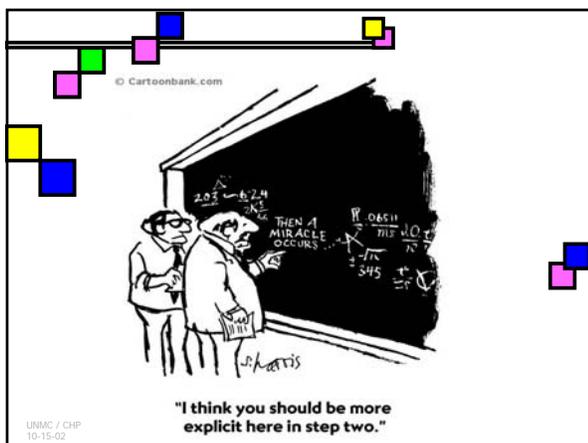


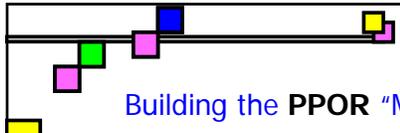
Webcast Overview

- Getting started on How to Use the PPOR approach
- Top 5 things to Remember about using the PPOR approach
- Next steps for PPOR Technical Assistance (Levels 1 and 2)

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Building the PPOR "Map"

- Use *linked* infant birth – death file
- Include fetal deaths
- Examine how much baby weighed and when baby died *at the same time*
- Look at very low birth weight births (less than 1500 grams or 3.3 pounds)

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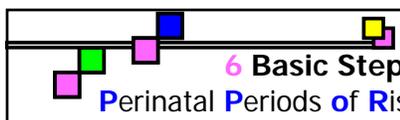


"PPOR" is about:

- Adding and combining **tools** to help solve very old problems
- Translating data into **action**
- **Changing** the way we do business



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6 Basic Steps: Perinatal Periods of Risk Approach

- **Bring community partners together** to build consensus, support, and partnership.

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Community Readiness: *From Concepts to Tools*

**RAISING THE ROOF FOR PPOR:
What Shape Is Your Tent?**

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Community Readiness: *From Concepts to Tools*

**RAISING THE ROOF FOR PPOR:
What Shape Is Your Tent?**

- ◆ Tool for engaging partners
- ◆ Tool for reaching consensus
- ◆ Tool for identifying joint assets
- ◆ Tool for revealing critical gaps
- ◆ Tool for developing strategy

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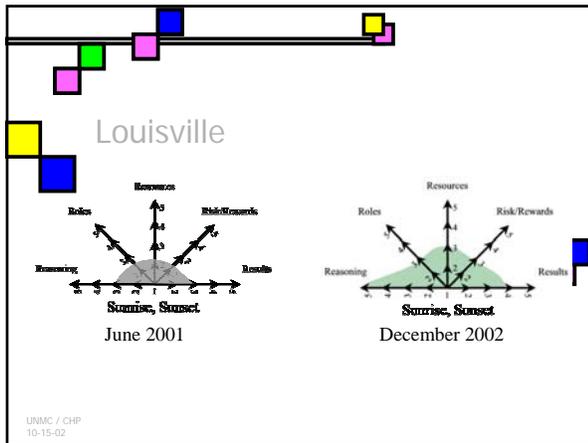
**RAISING THE ROOF FOR PPOR:
What Shape Is Your Tent?**

Resources

Roles **Risk/Rewards**

Reasoning **Results**

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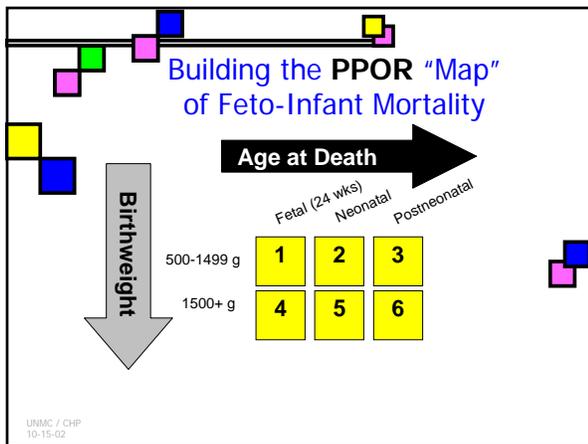


6 Basic Steps:
Perinatal Periods of Risk Approach

- **Bring community partners together** to build consensus, support, and partnership.

2) "Map" fetal & infant deaths by birth weight & age at death.

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Map of Feto-Infant Mortality:
What events are missing in the 6 Cells?

- Fetal deaths are restricted to ≥ 24 wks
- Live births are restricted to ≥ 500 g
- Spontaneous abortions are not included
- Induced abortions are not included

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PPOR Map of Feto-Infant Mortality

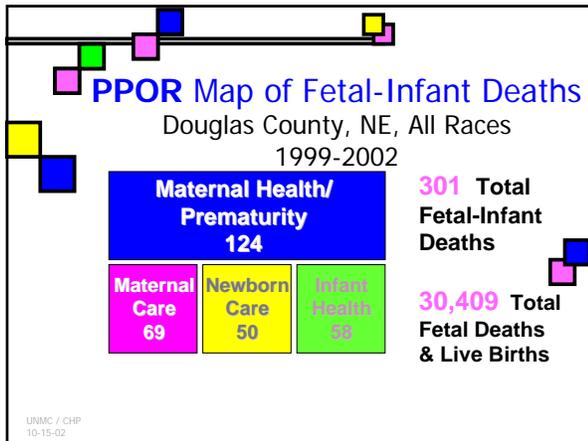
	Fetal Death	Neonatal	Post-neonatal
500-1499 g	Maternal Health/ Prematurity		
1500+ g	Maternal Care	Newborn Care	Infant Health

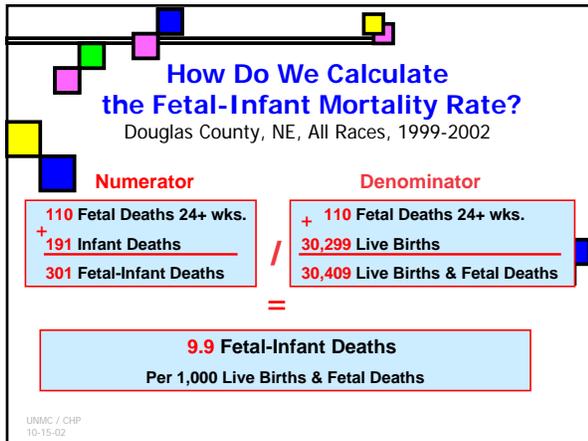
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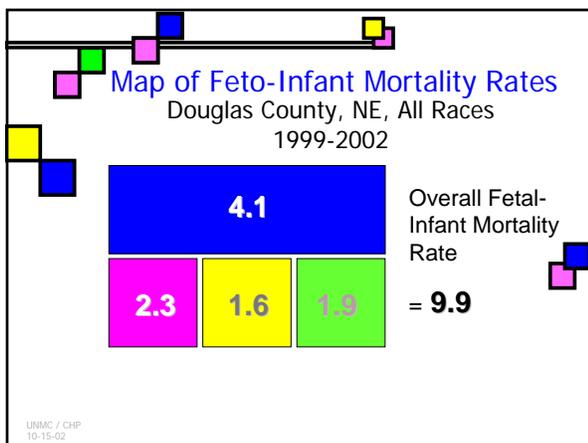
From Data to Potential Action

Maternal Health/ Prematurity	Preconceptional Health Health Behaviors Perinatal Care
Maternal Care	Prenatal Care High Risk Referral Obstetric Care
Newborn Care	Perinatal Management Neonatal Care Pediatric Surgery
Infant Health	Sleep Position Breast Feeding Injury Prevention

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6 Basic Steps: Perinatal Periods of Risk Approach

- Bring community partners together to build consensus, support, and partnership.
- "Map" fetal & infant deaths by birth weight & age at death.
- Focus on understanding the *overall* fetal-infant death **rate**.

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PPOR Map of Feto-Infant Mortality Douglas County, Nebraska All Races, 1991-2002

Fetal-Infant Rate=11.7

Period	MH	MC	NC	IH
1991-1994	4.1	2.4	1.6	3.7
1995-1998	4.1	2.5	1.7	1.9
1999-2002	4.1	2.3	1.6	1.9

Fetal-Infant Rate=10.2

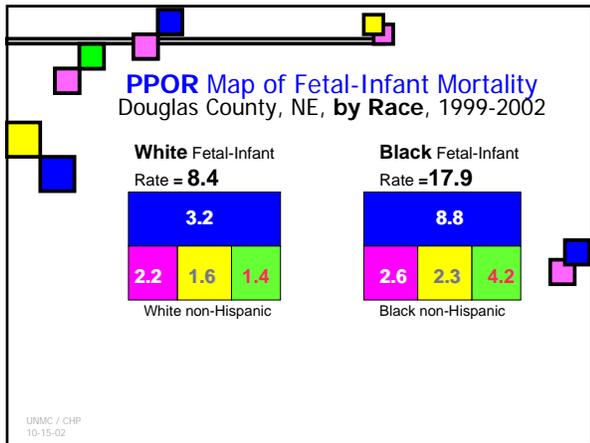
Fetal-Infant Rate= 9.9

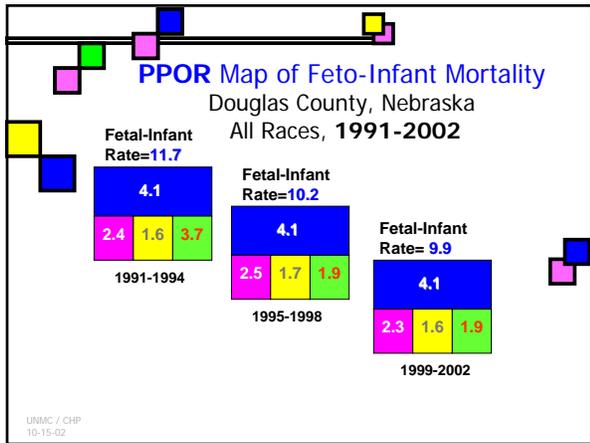
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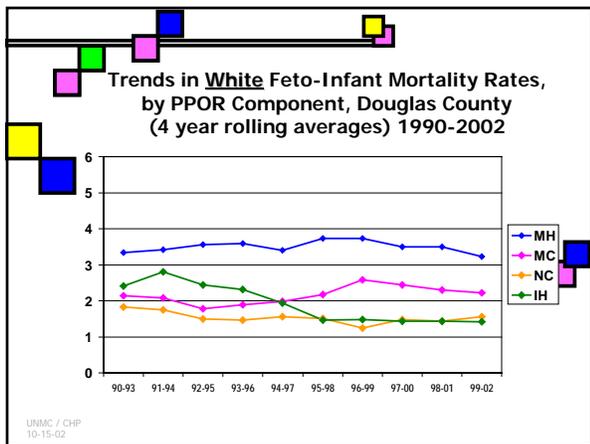
Douglas County Feto-Infant Mortality Rates by PPOR Component, 1990-2002

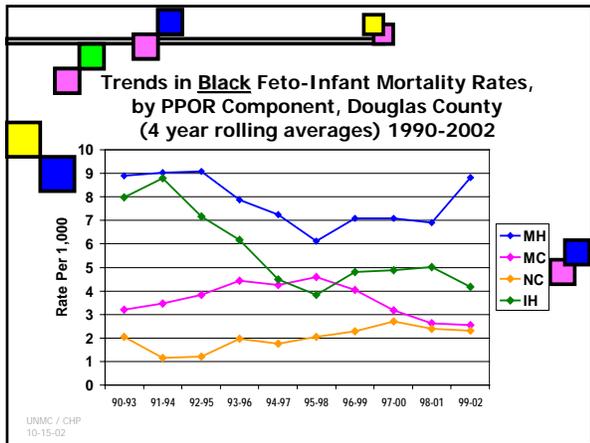
Year	MH	MC	NC	IH
90-93	4.1	2.4	1.6	3.7
91-94	4.1	2.5	1.7	1.9
92-95	4.1	2.3	1.6	1.9
93-96	4.1	2.3	1.6	1.9
94-97	4.1	2.3	1.6	1.9
95-98	4.1	2.3	1.6	1.9
96-99	4.1	2.3	1.6	1.9
97-00	4.1	2.3	1.6	1.9
98-01	4.1	2.3	1.6	1.9
99-02	4.1	2.3	1.6	1.9

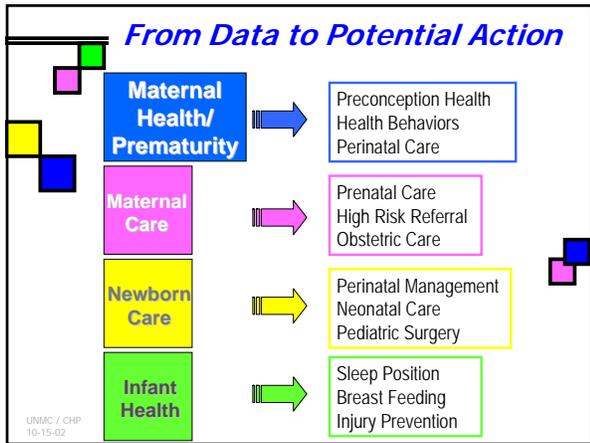
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Questions? Comments? Observations?

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6 Basic Steps: Perinatal Periods of Risk Approach

- **Bring community partners together** to build consensus, support, and partnership.
- **"Map" fetal & infant deaths** by birth weight & age at death.
- **Focus on understanding the overall fetal-infant death rate.**
- **Find gaps: estimate "excess deaths"** by comparing with groups who already do better

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Comparison Group:

- **ASK:** Which women/infants have the **"best"** outcomes?
- **ASSUME:** all infants can have similar "best" outcomes
- **CHOOSE:** a **comparison group(s)** (reference group) who already has achieved "best" outcomes
- **COMPARE:** fetal-infant mortality rates in your **target** group with those of the comparison group(s)
- **CALCULATE:** **excess** deaths (= target – comparison groups). This is your community's **"Opportunity Gap."**

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Remember PPOR Rates in Douglas County, NE, All Races 1999-2002

4.1			Overall Fetal-Infant Mortality Rate = 9.9
2.3	1.6	1.9	

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Ask! Strategic **Joint** Decision...

- Internal vs External Reference Group?
- Which External Reference Group?
- Which Internal Reference Group?

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National **PPOR** Initiative
"External" Reference Group

- Defined by maternal characteristics
 - 20 or more years of age
 - 13 or more years of education
 - Non-Hispanic white women
- Includes all U.S. resident mothers with these characteristics

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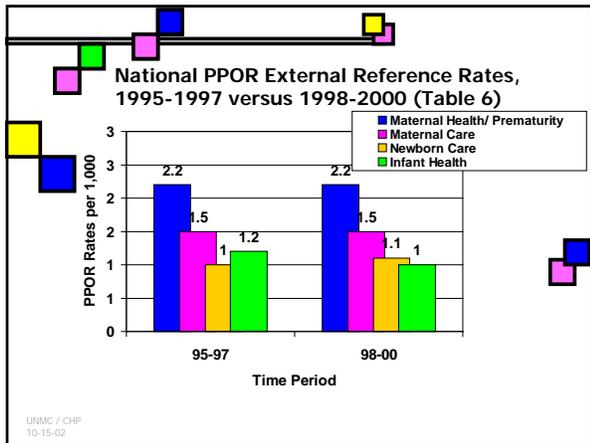
National **External** Comparison Group's
Fetal-Infant Mortality Rates

2.2	1.5	1.1	1.0
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Total Fetal-Infant Mortality Rate= 5.9

Source: NCHS Data, 1998-2000
Calculations by CityMatch

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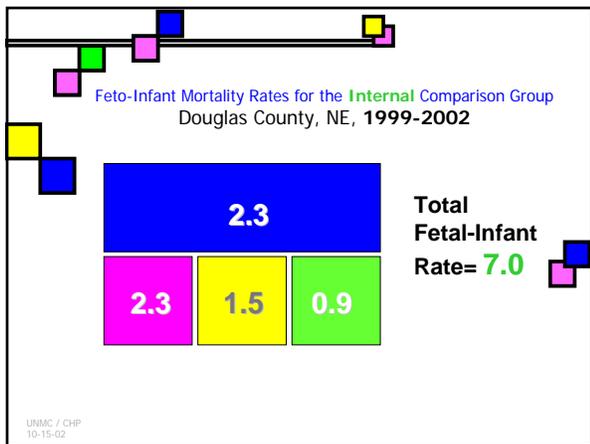


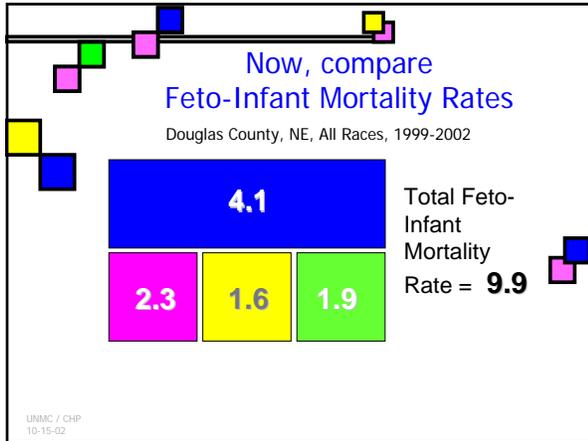
What if we used an **Internal** "Reference Group" from within our community to make comparisons?

Douglas County infants with the "best" outcomes have mothers who are:

- 20 or more years of age
- have 13 or more years of education
- non-Hispanic white women

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**Excess Feto-Infant Mortality Rates,
Internal vs. External Comparison Groups**
Douglas County, NE, 1999-2002

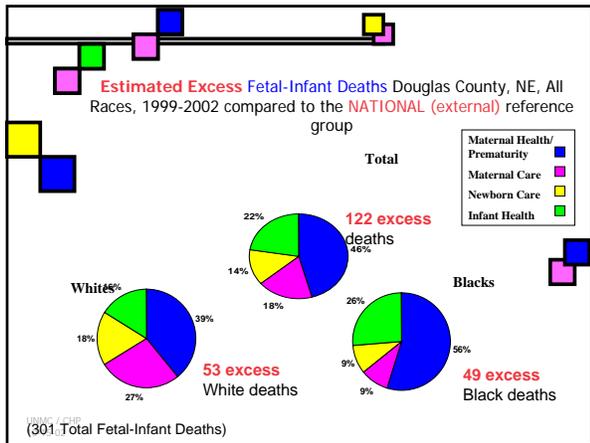
Groups	Maternal Health/ Prematurity	Maternal Care	Newborn Care	Infant Health	Fetal-Infant Mortality
Total	4.1	2.3	1.6	1.9	9.9
Internal Comp'son	2.3	2.3	1.5	0.9	7.0
External Comp'son	2.2	1.5	1.1	1.0	5.9
Excess Internal	1.8	0.0	0.1	1.0	2.9
Excess External	1.9	0.8	0.5	0.9	4.0

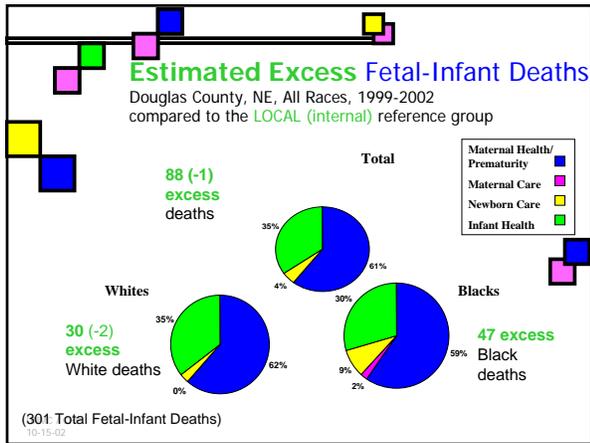
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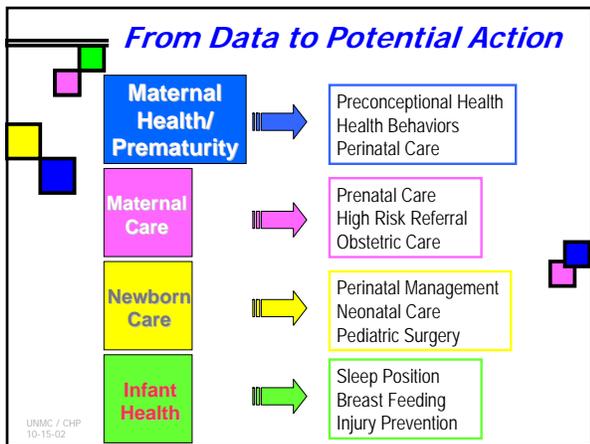
Excess Fetal-Infant Deaths, Internal vs. External Comparison Groups
Douglas County, NE, 1999-2002

Groups	Maternal Health/ Prematurity	Maternal Care	Newborn Care	Infant Health	Fetal-Infant Mortality
Total	124	69	50	58	301
Internal Comp'son	70	70	46	27	213
External Comp'son	67	46	33	30	179
Excess Internal	54	-1	4	31	88
Excess External	57	23	17	28	122

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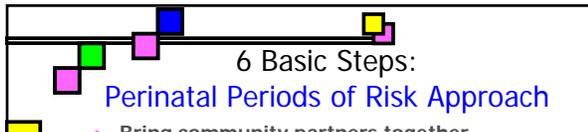






**Questions? Comments?
Observations?**

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**6 Basic Steps:
Perinatal Periods of Risk Approach**

- **Bring community partners together** to build consensus, support, and partnership.
- **"Map" fetal & infant deaths** by birth weight & age at death.
- **Focus on understanding the overall fetal-infant death rate.**
- **Estimate "excess deaths"** – how many fewer deaths if the best outcomes for some were achieved by all
- **Target further investigations and actions** on the gaps.

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**NEXT: Target Investigations
& Prevention Efforts on the Gaps**

- **Shift effort** and attention to the group(s) that contributes most to the **gap**.
- **Conduct further studies or mortality reviews** on the group(s) that contribute(s) to the **gap**.
- **Examine current prevention efforts** on the group(s) that contribute(s) to the **gap** - policy/program reviews.

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Preliminary Analyses

- **Causes of Death: Newborn Care and Infant Health**
- **Multiple Gestation: How big is its effect on fetal-infant mortality?**
- **Birthweight Distribution vs. Birthweight-specific Mortality: How much mortality is from the number of very small babies vs. how many babies die at a given birth weight? (“Kitagawa Analysis”)**

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Two Components of Maternal Health/ Prematurity Mortality

Maternal Health/
Prematurity

Birthweight
Distribution

Birthweight-
Specific
Mortality

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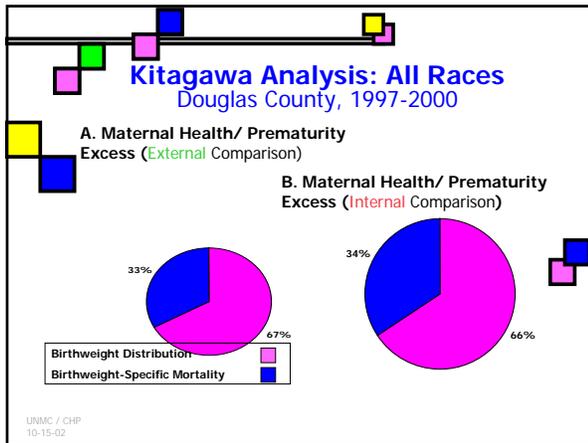
Two Parts “Blue” Area Fetal and Infant Deaths

Maternal Health/
Prematurity

Too many premature babies
being born - overload

Survival of tiniest babies

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So what have we learned?

- Maternal Health/Prematurity (Very Low Birth Weight, <1500 g. or under 3.3 pounds) is the biggest part of fetio-infant mortality for *all* Douglas County women and infants
- Higher proportion of "excess" VLBW fetio-infant deaths are due to "birthweight-specific mortality" – survival once tiniest babies are born.
- Larger stillborns (Maternal Care - fetal deaths >1500 g) is a larger component of white fetio-infant mortality and deserves further study.
- The rate of infants born weighing >1500 g who die after the first month of life (Infant Health) is 4 times higher for Blacks than for whites. SIDS and other causes play a major role.

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Perinatal Periods Of Risk Approach

...not just data.

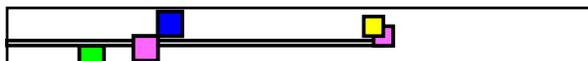
- **Bring community partners together** to build consensus, support, and partnership.
- **"Map" fetal & infant deaths** by birth weight & age at death.
- **Focus on understanding the overall fetal-infant death rate.**
- **Look for "opportunity gaps"** between different groups.
- **Target further investigations and actions** on the gaps.
- **Mobilize** for sustainable **systems change.**

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Questions? Comments? Observations?

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Webcast Overview

- **Getting started on How to Use the PPOR approach**
- **Top 5 things to Remember about using the PPOR approach**
- **Next steps for PPOR Technical Assistance (Levels 1 and 2)**

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1) PPOR is a **comprehensive approach** used to address feto-infant mortality



PPOR analysis is the *starting point* not the ending point

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2) It allows a Community to move toward **ACTION!**

Maternal Health/ Prematurity	➔	Preconceptional Health Health Behaviors Perinatal Care
Maternal Care	➔	Prenatal Care High Risk Referral Obstetric Care
Newborn Care	➔	Perinatal Management Neonatal Care Pediatric Surgery
Infant Health	➔	Sleep Position Breast Feeding Injury Prevention

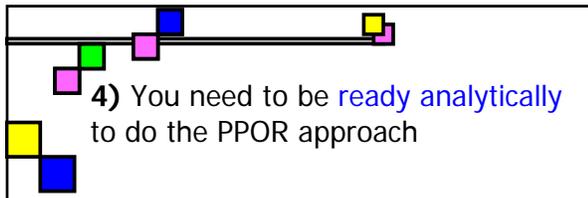
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3) PPOR Fosters *integration* with other key efforts

Perinatal Periods of Risk
Fetal and Infant Mortality Reviews
Local Health Action Plan

“Paint the faces behind the numbers”

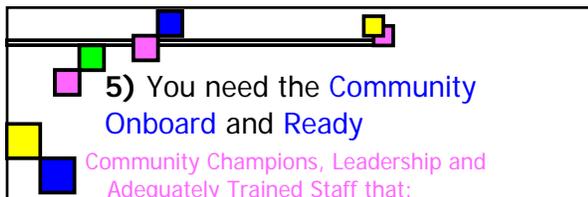
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4) You need to be **ready analytically** to do the PPOR approach

- Fetal death files (no gest. age restrictions)
- Linked birth—infant death certificate files
- Unlinked infant death certificate files
- Key data items missing or poor quality

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5) You need the **Community Onboard and Ready**

Community Champions, Leadership and Adequately Trained Staff that:

- Understand the feto-infant mortality problem
- Understand the work plan
- Commit to providing resources for the investigation
- Commit to providing resources for community collaboration
- Give priority and champions the initiative

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PPOR is about **impact** and **results**:

- Builds data and epi *capacity*
- Promotes effective data *use*
- Strengthens essential *partnerships*
- Fosters *integration* with other key efforts
- Encourages *evidence-based* interventions
- Helps *leverage resources*
- Enables *systems change* for perinatal health

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Webcast Overview

- Getting started on How to Use the PPOR approach
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- Next steps for PPOR Technical Assistance (Levels 1 and 2)

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PPOR Technical Assistance

Level 1 TA:

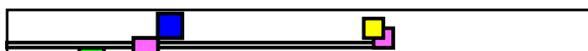
"General Communications" is for individuals who want to stay informed and gain additional information about the PPOR approach. Members will have access to:

- Best practices and general information
- Peer exchange via electronic communication
- Web-based information

Level 1 TA Projects:

➤ Des Moines, IA	➤ 14 County Project, NC	➤ Denmark, SC
➤ Wichita, KS	➤ Trenton, NJ	➤ Florence, SC
➤ Monroe, LA	➤ New York Project	➤ Houston, TX
➤ Worcester, MA	➤ Portland, OR	
➤ Itta Bena, MS	➤ Chester, PA	

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PPOR Technical Assistance

Level 2 TA:

The "Learning Network" is for those communities using or planning to use the PPOR approach. Members will have access to:

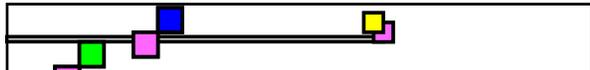
- Emerging promising and best practices
- Regular E-communications
- Peer exchange
- Technical assistance
- Topical conference calls/webcast seminars
- "How to Do" workshops

Level 2 TA Projects:

➤ Mobile, AL	➤ Syracuse, NY	➤ Ft. Lauderdale, FL*
➤ Oakland, CA	➤ Tulsa, OK	➤ Miami, FL*
➤ Augusta, GA	➤ Memphis, TN	➤ Palm Beach, FL*
➤ Indianapolis, IN	➤ San Antonio, TX	➤ Tampa, FL*
➤ Louisville, KY	➤ Washington, DC	➤ Kansas City, MO*
➤ Detroit, MI		➤ Pittsburgh, PA*

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*Already involved in CityMailCH Level 2



**The Level 2
"How to Do" PPOR
Workshop
Dec 12 and 13**
In conjunction with MCH EPI
Conference in **Tempe, AZ**





Perinatal Periods of Risk:
For More Information: www.citymatch.org

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Questions and Answers

Please visit mchcom.com for an archive of
this event and others.

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