Controlled Trial of a Preterm Labor Detection Program: Efficacy and Costs

DENISE M. MAIN, MD, DOUGLAS K. RICHARDSON, MD, MBA, CAROLYN B. HADLEY, MD, AND STEVEN G. GABBE, MD

The results of this investigation are clearly disappointing. It is becoming increasingly apparent that a variety of different medical and sociodemographic causes contribute to preterm birth. Singly focused approaches, such as this one designed to improve preterm birth rates through early diagnosis of preterm labor, may be effective for only a small segment of inner-city women at high risk for early delivery.
I have no conflicts of interest to report
What is Where, Why There, and Why Care?

*Charles F. Gritzner*

- **What**: Phenomenological—physical and human features (nature and culture)
- **Where**: Spatial—location, distribution, pattern
- **Why There**: Analytical—agents, processes, interrelationships
- **Why Care**: Implicational—importance, relevance, action/reaction

*Journal of Geography 2002;101:38-90*
Overview: Lots of maps

- Reproductive cancers
- Sexually transmitted infections
- Teen births
- Infant mortality
- Maternal mortality
- Geography as a complex construct
  - It’s more than the dirt
- Resources
Breast Cancer Incidence, 2009

per 100,000; age adjusted

http://www.cdc.gov/cancer/breast/statistics/state.htm
Breast Cancer Deaths, 2009

http://www.cdc.gov/cancer/breast/statistics/state.htm

per 100,000; age adjusted
Ovarian Cancer, 2009

Incidence

Deaths

http://www.cdc.gov/cancer/ovarian/statistics/state.htm
Chlamydia—Rates by State, United States and Outlying Areas, 2011 (per 100,000)

NOTE: The total rate of chlamydia for the United States and outlying areas (Guam, Puerto Rico, and Virgin Islands) was 454.1 per 100,000 population.

http://www.cdc.gov/std/stats11/slides.htm
Chlamydia—Rates by County, United States, 2011

Rate per 100,000 population

- \( \leq 300.0 \) (n=1,837)
- 300.1–400.0 (n=428)
- >400.0 (n=877)

http://www.cdc.gov/std/stats11/slides.htm
NOTE: In 2011, 2,154 (68.5%) of 3,142 counties in the United States reported no cases of primary and secondary syphilis.
In 2010, in the 46 states and Puerto Rico with confidential name-based HIV infection reporting since at least January 2007, the estimated rate of diagnoses of HIV infection in MSAs with over 500,000 population was 20.2 per 100,000 population. The estimated rates of diagnoses of HIV infection ranged from 1.4 per 100,000 population in the Provo-Orem, UT MSA to 49.7 per 100,000 population in the Miami, FL MSA.

Total IMR 2007-09

OH: 7.7
GA: 7.8
CA: 5.1
MO: 7.2
MA: 5.0
MS: 10.0

http://wonder.cdc.gov/lbd.html
IMR at 20-27 weeks, 2007-09

Deaths per 1,000 births

<table>
<thead>
<tr>
<th>State</th>
<th>Black</th>
<th>White</th>
</tr>
</thead>
<tbody>
<tr>
<td>OH</td>
<td>390</td>
<td>385</td>
</tr>
<tr>
<td>GA</td>
<td>375</td>
<td>380</td>
</tr>
<tr>
<td>CA</td>
<td>370</td>
<td>375</td>
</tr>
<tr>
<td>MO</td>
<td>365</td>
<td>370</td>
</tr>
<tr>
<td>MA</td>
<td>360</td>
<td>365</td>
</tr>
<tr>
<td>MS</td>
<td>355</td>
<td>360</td>
</tr>
</tbody>
</table>

http://wonder.cdc.gov/lbd.html
IMR at 28-31 weeks, 2007-09

Deaths per 1,000 births

http://wonder.cdc.gov/lbd.html
IMR at 32-33 weeks, 2007-09

Deaths per 1,000 births

http://wonder.cdc.gov/lbd.html
IMR at 34-36 weeks, 2007-09

Deaths per 1,000 births

- **OH**: Black 9, White 8
- **GA**: Black 9, White 8
- **CA**: Black 9, White 6
- **MO**: Black 10, White 8
- **MA**: Black 8, White 6
- **MS**: Black 9, White 9

http://wonder.cdc.gov/lbd.html
IMR at 37-38 weeks, 2007-09

Deaths per 1,000 births

http://wonder.cdc.gov/lbd.html
IMR at 39+ weeks, 2007-09

Deaths per 1,000 births

http://wonder.cdc.gov/lbd.html
$R^2 = 0.6875$

Infant mortality rate vs. Very preterm birth (<32 wks) rate

http://wonder.cdc.gov/
Very Preterm Birth (<32 wks) Rate by MSA and Race/Ethnicity, 2002-2004

Maternal Mortality Rate, 1999-2010

http://wonder.cdc.gov/
“Where you grow up matters,” said Nathaniel Hendren, a Harvard economist and one of the study's authors. “There is tremendous variation across the U.S. in the extent to which kids can rise out of poverty.”
Upward Mobility in the 50 Biggest Cities: The Top 10 and Bottom 10

<table>
<thead>
<tr>
<th>Rank</th>
<th>City, State</th>
<th>Odds of Reaching Top Fifth Starting from Bottom Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Salt Lake City, UT</td>
<td>11.5%</td>
</tr>
<tr>
<td>2</td>
<td>San Jose, CA</td>
<td>11.2%</td>
</tr>
<tr>
<td>3</td>
<td>San Francisco, CA</td>
<td>11.2%</td>
</tr>
<tr>
<td>4</td>
<td>Seattle, WA</td>
<td>10.4%</td>
</tr>
<tr>
<td>5</td>
<td>San Diego, CA</td>
<td>10.4%</td>
</tr>
<tr>
<td>6</td>
<td>Pittsburgh, PA</td>
<td>10.3%</td>
</tr>
<tr>
<td>7</td>
<td>Sacramento, CA</td>
<td>10.3%</td>
</tr>
<tr>
<td>8</td>
<td>Manchester, NH</td>
<td>9.9%</td>
</tr>
<tr>
<td>9</td>
<td>Boston, MA</td>
<td>9.8%</td>
</tr>
<tr>
<td>10</td>
<td>New York, NY</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rank</th>
<th>City, State</th>
<th>Odds of Reaching Top Fifth Starting from Bottom Fifth</th>
</tr>
</thead>
<tbody>
<tr>
<td>41</td>
<td>Milwaukee, WI</td>
<td>6.6%</td>
</tr>
<tr>
<td>42</td>
<td>Cincinnati, OH</td>
<td>6.5%</td>
</tr>
<tr>
<td>43</td>
<td>Jacksonville, FL</td>
<td>5.3%</td>
</tr>
<tr>
<td>44</td>
<td>Raleigh, NC</td>
<td>5.2%</td>
</tr>
<tr>
<td>45</td>
<td>Cleveland, OH</td>
<td>5.2%</td>
</tr>
<tr>
<td>46</td>
<td>Columbus, OH</td>
<td>5.1%</td>
</tr>
<tr>
<td>47</td>
<td>Detroit, MI</td>
<td>5.1%</td>
</tr>
<tr>
<td>48</td>
<td>Indianapolis, IN</td>
<td>4.8%</td>
</tr>
<tr>
<td>49</td>
<td>Charlotte, NC</td>
<td>4.3%</td>
</tr>
<tr>
<td>50</td>
<td>Atlanta, GA</td>
<td>4.0%</td>
</tr>
</tbody>
</table>

Lighter colors represent areas where children from low-income families are more likely to move up in the income distribution. To look up statistics for your own city, use the interactive version of this map created by the New York Times.

http://www.equality-of-opportunity.org/
Healthy Life Expectancy at 65

MMWR July 19, 2013 / 62(28);561-566
Geography

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Charles F. Gritzner

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It’s more than the dirt!

Journal of Geography 2002;101:38-90
Thank You
wgc0@cdc.gov

For more information please contact Centers for Disease Control and Prevention

1600 Clifton Road NE, Atlanta, GA 30333
Telephone, 1-800-CDC-INFO (232-4636)/TTY: 1-888-232-6348
E-mail: cdcinfo@cdc.gov     Web: www.cdc.gov

The findings and conclusions in this report are those of the author and do not necessarily represent the official position of the Centers for Disease Control and Prevention.
Resources

- The **County Health Rankings & Roadmaps** program is a collaboration between the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute. [http://www.countyhealthrankings.org/#app/massachusetts/2012/measures/factors/14/map](http://www.countyhealthrankings.org/#app/massachusetts/2012/measures/factors/14/map)

- **Measure of America** provides easy-to-use yet methodologically sound tools for understanding the distribution of well-being and opportunity in America and stimulating fact-based dialogue about issues we all care about: health, education, and living standards. [www.measureofamerica.org](http://www.measureofamerica.org)

- **CDC WONDER** online databases utilize a rich ad-hoc query system for the analysis of public health data. Reports and other query systems are also available. [http://wonder.cdc.gov/](http://wonder.cdc.gov/)
Sortable Stats is an interactive data set comprised of behavioral risk factors and health indicators. This data set compiles state level data for the 50 states, DC, and the U.S. territories from various published CDC and federal sources into a format that allows users to view, sort, and analyze data at state, regional, and national levels. http://wwwn.cdc.gov/sortablestats/

Cancer Rates by State U.S. states are divided into groups based on the rates at which people developed or died from cancer in 2009, which is the most recent year with numbers available. The rates are the numbers out of 100,000 people who developed or died from cancer each year. http://www.cdc.gov/cancer/dcpc/data/state.htm

Resources

- *The Joint Center for Political and Economic Studies* works to inform and illuminate the nation's major public policy debates through research, analysis, and information dissemination. [http://www.jointcenter.org/](http://www.jointcenter.org/) *PLACE MATTERS* is a national initiative of the Joint Center for Political & Economic Studies designed to build the capacity of local leaders around the country to identify and improve social, economic, and environmental conditions that shape health. [http://www.jointcenter.org/hpi/pages/place-matters](http://www.jointcenter.org/hpi/pages/place-matters)