Infant Mortality
A Community Perspective

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How Do We Define Infant Mortality?

It is the number of infants who die per year prior to their first birthday (12 months of life) per 1,000 live births.
IM Rate As A Health Indicator

- Insight into the value a nation places on health
- Reflects the priorities given to health care
- Sensitive measure of quality and access to medical care, maternal health, socioeconomic conditions and public health practices
Overall U.S. Infant Mortality Rate

<table>
<thead>
<tr>
<th>Year</th>
<th>Rate</th>
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<tbody>
<tr>
<td>2000</td>
<td>6.89</td>
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<tr>
<td>2001</td>
<td>6.84</td>
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<tr>
<td>2002</td>
<td>6.95</td>
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<td>2003</td>
<td>6.84</td>
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<td>2004</td>
<td>6.78</td>
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<tr>
<td>2005</td>
<td>6.86</td>
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<td>2006</td>
<td>6.71</td>
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Delaware’s National Ranking

- 1. District of Columbia 12.3
- 2. Mississippi 10.4
- 3. Alabama 9.6
- 4. Louisiana 9.5
- 5. South Carolina 9.3
- 6. Delaware 9.1

1998-2002
U.S. Worldwide Ranking

- 27th - 29th
- Relative ranking has continued to decline
  - 12th in 1960
  - 23rd in 1990
  - 29th in 2004
- Highest among developed countries
- Currently tied with Poland and Slovakia
Factors Associated With Infant Mortality

- Maternal Age
- Overall Health and Chronic Illness
- Multiple Gestation
- Birth Defects
- Pregnancy Interval
- Nutrition
- Stress
- Substance Abuse/Use
- Preterm Births
Racial Disparities in IM Rates

- Non-Hispanic black
- Puerto Rican
- American Indian or Alaska Native
- Total
- Non-Hispanic white
- Mexican
- Asian/Pacific Islander
- Central & South American
- Cuban

Comparing 2000 and 2005 data.
Healthy People 2010 Target Goal

- Infant mortality rate of 4.5 deaths per 1,000 live births
- The U.S. will need to see a 50% decrease in its current rate
Disturbing Trends

- 1. Racial Disparity
- 2. Despite dramatic decrease in U.S. rate in the 20th century, it has leveled off during first few years of 21st century
- 3. Decreasing international ranking for the U.S.
NICU Costs

- **Level 1** $1120/day  Healthy newborn with low risk for complications
- **Level 2** $2250/day  Step down, requires oxygen, IV, thermoregulation
- **Level 3** $2780/day  Intensive care, chest tube, intubated, medication drips
Monthly Analysis of NICU Admissions

- January, 2008
  Admissions: 72 babies
  GA: 24-41 weeks (avg 36.6 wks)
  Weight: 505-4070 gms (avg 2418)
  Mother’s Age: 16-37 (avg 27.7 yrs)
  LOS: 1 day-41 days (avg 12 days)
  Total days in NICU (all babies): 870

Cost for Level 1  $1120/day X 870 = $974,000
Cost for Level 2  $2250/day X 870 = $1,97,500
February, 2008

Admissions: 80
Total days spent: 999
Avg LOS: 12.5 days

Cost Level 1   $1,118,800
Cost Level 2   $2,247,750
March, 2008

Admissions: 73 babies

Avg LOS: 16.8 days

Total Days: 1229

Cost Level 1: $1,376,480

Cost Level 2: $2,765,250
April, 2008

Admissions:  95 babies
Avg LOS:  19.27 days
Total Days:  1831

Cost Level 1:  $2,050,720
Cost Level 2:  $4,119,750
May, 2008

Admissions: 79 babies
Avg LOS: 15 days
Total Days: 1190

Cost Level 1: $1,332,800
Cost Level 2: $2,677,500
June, 2008

Admissions: 77 babies
Avg LOS: 13.73 days
Total Days: 1057

Cost Level 1: $1,183,840
Cost Level 2: $2,378,250
NICU Costs for 6 Months

- Admissions: 476 babies
- Avg LOS: 14.9 days
- Total Days: 7,176

- Cost Level 1: $8,037,120
- Cost Level 2: $16,146,000
Prenatal Care Costs in Delaware

- Estimated annual births: 12,000
- Generous Prenatal Package: $4,000 per
- Total Cost: $48,000,000
Cost Comparison NICU vs Prenatal Care

- NICU Costs: 32 Million Dollars for 950 babies
- Total Prenatal Care for every pregnancy in Delaware: 48 Million Dollars
- OR use 32 Million to provide care for 8,000 women in our State
Private Practice Model

- Limitations for successful reduction in IM

  Patient’s access to services
  Lack of adequate office services
  Lack of full understanding of patient’s needs
  Poor coordination of referral services
FQHC and Clinic Model

- Limitations

  - Patient access
  - Sometimes impersonal
  - Potential lack of confidentiality
  - Lack of continuity of care at times
Solutions

- Targeted Population
- Team Approach
- More Effective Use of Limited Resources
- Collaboration - Private and Public Effort
- Multidisciplinary Strategies