DATA-TO-ACTION:
USING DATA ANALYSIS TO ESTIMATE THE IMPACT OF
STATE FUNDING CUTS TO THE MICHIGAN FAMILY
PLANNING PROGRAM

Patricia McKane, DVM MPH
Michigan Department of Community Health (MDCH)
Annual Conference Council of State and Territorial Epidemiologists
June 5, 2011
ACKNOWLEDGMENTS

Co-Authors
- Amy Zaagman, MPA²;
- Barbara Derman, MSW, ACSW³;
- Cristin Larder, MS¹;
- Jeanette Lightning, MPH³;
- Paulette Dobynes Dunbar, MPH ⁴; and
- Corinne Miller, PhD⁵

- MDCH Division for Vital Records and Health Statistics
- Michigan PRAMS survey team
- Michigan Council for Maternal and Child Health
- Michigan Family Planning program staff, local agency coordinators, health professionals and clerical staff

1 Maternal and Child Health Epidemiology Unit, Division of Genomics, Perinatal and Chronic Disease Epidemiology, Michigan Department of Community Health (MDCH); 2 Michigan Council for Maternal and Child Health, Lansing, MI; 3 Women’s and Reproductive Health Unit, Division of Family and Community Health, MDCH; 4 Women, Infant and Family Section, Division of Family and Community Health, MDCH; 5 Bureau of Disease Control, Prevention and Epidemiology, MDCH
BACKGROUND

THE FAMILY PLANNING ACT OF 1970

- Authorized under Title X of the Public Health Service Act of 1970
- Provides authority funding and support for comprehensive and voluntary family services
- Funding for abortion is expressly prohibited under Title X
- No one is denied services because of an inability to pay
The Michigan Family Planning Program (MI FP) provides reproductive healthcare, counseling and contraceptive services to low income individuals.

MI FP funded 38 local agencies operating 116 clinics in 2009; and 37 agencies operated 116 clinics in 2010.

Local Health Department (LHD) and Planned Parenthood each saw 49% of clients.
BACKGROUND

• Typical client is
  – Female (98%)
  – Age 20-29 years (55.7%)
  – White, non-Hispanic (73%)
  – Income less than 100% of the Federal Poverty Level (70%)
  – Uninsured (66%)
  – Used a contraceptive Method (91%)
    • Oral contraceptives (43%) were the most popular
BACKGROUND

Funding

- Title X and Medicaid are the predominate funding sources.
- From 2006 to 2010, total revenue declined 16.9%.
- For FY 2010, $4 million in state funds were cut from this program and another $1.5 million in cuts were proposed in FY 2011.
BACKGROUND

From 2006 to 2010,
• The number of clients decreased 34%,
• Funding decreased 17%.
• Michigan’s population declined
• Prevalence of poverty increased
Estimate the effect of eliminating state funding on Medicaid pregnancy-related costs to Michigan residents.

- Response to a request from the Michigan Family Planning Advisory Council
- Educate legislators, MDCH Leadership and other stakeholders
- Inform the Michigan Council of Maternal and Child Health and used in the effort to restore funding
METHODS

Based on Guttmacher Institute Methodology

• Independent, non-profit organization
• Provides research, policy analysis and education about reproductive health
• Published methods to calculate cost savings of publicly funded family planning services.¹

To be relevant for Michigan policy makers, Michigan-specific information was needed

METHODS

Data Sources:
• Michigan Family Planning Annual Report (FPAR) 2009-2010
• Michigan Pregnancy Risk Assessment Monitoring System (PRAMS) 2008
• MDCH Vital Records 2009
  – Michigan Resident Live Birth File
  – Files of Induced Abortions Occurring in Michigan
METHODS

We estimated the number of unintended births prevented by accounting for:

- The difference in the number of women who received services between 2009 and 2010 (FPAR)
- Prevalence of pregnancy or seeking pregnancy among MI FP clinic users (FPAR)
- Contraceptive choices (FPAR, PRAMS)
- Contraceptive failure rates\(^2\)
- Prevalence estimate of unintended pregnancy (PRAMS)
- Abortion and miscarriage rates (MDCH Vital Records)
RESULTS

Michigan Family Planning clinic clients, FPAR 2009-2010

<table>
<thead>
<tr>
<th></th>
<th>2009</th>
<th>2010</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Female Clients</td>
<td>120,577</td>
<td>111,123</td>
<td>9,454</td>
</tr>
<tr>
<td>Number pregnant or seeking pregnancy</td>
<td>8,502</td>
<td>7,401</td>
<td>1,101</td>
</tr>
<tr>
<td>Total at risk for pregnancy</td>
<td>112,075</td>
<td>103,722</td>
<td>8,353</td>
</tr>
</tbody>
</table>

Step one: Defining population at risk
## RESULTS

Step Two: Estimating number of unintended pregnancies

Estimated unintended pregnancies, FPAR 2009-2010, PRAMS 2008

<table>
<thead>
<tr>
<th>Estimated number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total at Risk for Pregnancy</strong></td>
</tr>
<tr>
<td>Estimated unintended pregnancy*</td>
</tr>
<tr>
<td>Less estimated pregnancy due to contraceptive failure†</td>
</tr>
<tr>
<td><strong>Total unintended pregnancies</strong></td>
</tr>
</tbody>
</table>

*Prams 2008 unintended pregnancy rate among women using some type of contraceptive = 54%. Estimated unintended pregnancy = 54% * (n\text{users }2009 - n\text{users }2010)

† Based on published contraceptive failure rates² and reported contraceptive use among users 2009-2010. Number of pregnancies due to contraceptive failure = (contraceptive failure rate* (n\text{users }2009 - n\text{users }2010)
RESULTS

Step Three: Estimating number of unintended births

Estimated unintended births, FPAR 2009-2010, MDCH Vital Records 2009

<table>
<thead>
<tr>
<th>Estimated number</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated pregnancies</td>
<td>3,093</td>
</tr>
<tr>
<td>Less estimated miscarriages and abortions($)</td>
<td>890</td>
</tr>
<tr>
<td>Total estimated births</td>
<td>2,203</td>
</tr>
</tbody>
</table>

Based on MDCH vital records data: percentage of pregnancies that ended in abortion 13.2% and stillbirth 15.6%. **Miscarriages** are estimates by MDCH vital records and adapted from a model developed by C. Tietz and J. Bongaarts of the Population Council (20% of the unintended live births and 10% of the abortions).
RESULTS

Assumed uncomplicated labor and delivery cost to Medicaid of $11,000 per live birth.
Estimated number of unintended births among the 8,353 fewer women who did not receive family planning services ranged from 1,485† to 2,203.

Estimated cost of $4 million funding cut: $16.3 to $24.2 million

• † Alternative estimate based on national estimates assumed 40% abortion rate and 20% stillbirth rate. This estimate was 1,485 live births.
• Information was shared with the Michigan Family Planning Program, the Family Planning Advisory Council and other stakeholders.

• Michigan Council for Maternal & Child Health prepared a fact sheet based on these data and advocated for funding restoration.

• Part of a coordinated effort to educate legislators and MDCH leadership about the importance of family planning.
RESULTS

Michigan Council for Maternal and Child Health

DOES PREGNANCY PREVENTION FUNDING WORK?

In October 2009, $4 million was cut from the state pregnancy prevention line to fund services to low-income individuals in the state of Michigan.

Over the next year, clinics saw 9,454 fewer women, of these 1,101 were pregnant or seeking pregnancy, leaving 8,353 at risk for pregnancy.

Using a methodology that predicts “contraceptive failure”, 1,418 of these women would become pregnant regardless.

Studies show that women who are denied services will turn to less reliable methods of birth control as their desire to avoid pregnancy does not go away. From PRAMS the unintended pregnancy rate among women having a live birth and who were using contraception is 54% (note: in PRAMS withdrawal is considered a contraceptive method).

Multiplying 54% by the number of women at risk for becoming pregnant, an estimated 4511 more women had an unintended pregnancy. Subtracting the number that could be due to contraceptive failure (assuming they were using contraception) leaves 3,093 more women (estimated) who had an unintended pregnancy.

Some percentage of the 3,093 will have a miscarriage, the rate can be as high as 20%. Of 3,093 unintended pregnancies 2,475 would remain viable accounting for miscarriages.

Some of the women will choose abortion, the rate can be upwards of 40%. If you use this percentage, 990 of these pregnancies will end in abortion.

A very conservative estimate would be that the $4 million in services cut resulted in 1,485 unintended live births that would not have occurred otherwise. If all of those births were healthy, uncomplicated deliveries (which is not the case), the labor and delivery costs ($11,000) to Medicaid alone would be $16,335,000.

Sources: 2010 Family Planning Annual Report, MDCH
2009 Family Planning Annual Report, MDCH
2008 Pregnancy Risk Assessment Monitoring System, MCDH

Michigan Department of Community Health
Rick Snyder, Governor
Olga Dazzo, Director

221 N. Walnut Street - Lansing, MI 48933
phone 517 482-5807 fax 517 372-3802 http://www.mcmch.org

17
CONCLUSION

• Provided a rationale for funding restoration
  – Financial impact resonated
  – Connected pregnancy prevention to unintended pregnancy and abortion prevention

• For FY 2012 $900 thousand was restored for “Pregnancy Prevention” in Michigan
  – State funds for the MI FP are designated under the “Pregnancy Prevention” line item which also includes funds for teen pregnancy prevention

• Part of a comprehensive presentation to policymakers considering defunding family planning providers

• Improving access to family planning services was recommended as one strategy to reduce infant mortality
Analysis was repeated using FPAR 2011, PRAMS 2009.
  – Provisional results revealed a 14% decrease in the number of women seen at Title X clinics
  – Cumulative costs of unintended births from 2009 to 2011 are estimated to be ~ $48 million
• Refine Analysis
  – Additional analyses estimate the number of women in need of publicly funded contraceptive services
  – Medicaid data as source of pregnancy rate estimates
  – Estimate numbers and costs of complicated deliveries
  – Evaluation of the Family Planning Program
LIMITATIONS

• Pregnancy intention is not asked of family planning clients and is based on PRAMS data
• Pregnancy intention is asked after the infant’s birth and is subject to recall bias.
• Estimate assumes that all births would be covered by Medicaid and that all deliveries were uncomplicated
REFERENCES


THANK YOU