The Mississippi State Department of Health first piloted the Perinatal High Risk Management/Infant Services System program in 1988 in order to address the high rates of negative birth outcomes plaguing the state.\[1\] While Mississippi has historically reported high rates of negative birth outcomes, including pre-term births, low birth weight, and infant mortality, compared to other states,\[2-3\] the prevalence of these issues in the United States as a whole has been a widely recognized on-going public health concern.\[3-6\] In response to the high rates of negative birth outcomes nationwide, state agencies and other organizations began implementing programming to address known causes of these outcomes in the 1980s and 1990s.\[7-10\] Thus, Mississippi’s Perinatal High Risk Management/Infant Services System (PHRM/ISS) program was established.

**Birth Weight of PHRM/ISS Infant Participants Entering Program Compared to All Live Births in Mississippi: 2017**

Mississippi’s PHRM/ISS is a family-centered case management program created to reduce the infant morbidity and mortality rates in the state by addressing known contributing factors to such outcomes including: low birth weight, pre-term births, infant suffocations, and infant roll-over deaths.

PHRM/ISS aims
1. to ensure healthy pregnancy outcomes for high-risk mothers and infants
2. to promote a healthy first year of life for the infant through addressing individual maternal/infant and family needs.

PHRM/ISS provides integrated health services and multidisciplinary interventions such as health education and home visiting for eligible mothers and infants in order to promote maternal self-sufficiency. The voluntary program strives to provide timely access to medical, nutritional, and psychosocial services for participants.

Pregnant women presenting eligible risk factors may be screened onto the maternal PHRM portion of the program, which provides services up to 60 days postpartum. Infants presenting with separate eligible risk factors may be screened onto the ISS portion of the program at any point following birth. Services for infants are provided until the infant’s first birthday.
**PHRM/ISS services include:**

1. Five (5) individual and family needs assessments used to identify individual needs of participants and to develop a personalized plan of care
2. Implementation of a personalized plan of care including one-on-one health education and home visiting components
3. Monitoring, follow-up, and reassessments for risk (as needed)
4. Coordinated care services and communication across all providers serving the participant
5. Access to current resources for subsequent programming designed to assist high risk mothers and infants upon exiting the PHRM/ISS program

**Characteristics of Pregnant Women Receiving PHRM Services**

### Pregnant Women Enrolled in PHRM/ISS by Race: 2017

- **Black:** 63%
- **White:** 36%
- **Other:** 1%

Source: Mississippi State Department of Health

### Pregnant Women Enrolled in PHRM/ISS by Age: 2017

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-17</td>
<td>9%</td>
</tr>
<tr>
<td>18-20</td>
<td>11%</td>
</tr>
<tr>
<td>21-24</td>
<td>33%</td>
</tr>
<tr>
<td>25-29</td>
<td>25%</td>
</tr>
<tr>
<td>30-34</td>
<td>13%</td>
</tr>
<tr>
<td>&gt;34</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Mississippi State Department of Health

### Pregnant Women Enrolled in PHRM/ISS by Gestational Age (Weeks): 2017

- **First Trimester:** Weeks 0-12
  - 0-4: 4%
  - 5-9: 33%
  - 10-14: 22%
  - 15-19: 16%
  - 20-24: 12%
  - 25-29: 9%
  - >29: 6%

- **Second Trimester:** Weeks 13-26
  - 0-4: 4%
  - 5-9: 33%
  - 10-14: 22%
  - 15-19: 16%
  - 20-24: 12%
  - 25-29: 9%
  - >29: 6%

- **Third Trimester:** Weeks 27-End
  - 0-4: 4%
  - 5-9: 33%
  - 10-14: 22%
  - 15-19: 16%
  - 20-24: 12%
  - 25-29: 9%
  - >29: 6%

Source: Mississippi State Department of Health

In 2017, a total of 1,796 pregnant women received PHRM/ISS services in Mississippi. Of these women, the majority (63%) were black. About half the women served by the program were under age 25 (53%). Most of the women served by the program enrolled within their first trimester of pregnancy.
Characteristics of Infants Receiving PHRM/ISS Services

Of the infants screened onto the ISS portion of the program in 2017, over a quarter (27%) had mothers who had participated in the maternal PHRM portion of the program prior to the infant’s birth.

This chart shows the age at which infants were enrolled in the PHRM/ISS program. Approximately half of infants (52%) were enrolled within their first month of birth. Most of the remaining infants were enrolled by their first or second month.

Percentage of Infants with a Mother Enrolled in Program Prior to Birth: 2017

Of the infants screened onto the ISS portion of the program in 2017, over a quarter (27%) had mothers who had participated in the maternal PHRM portion of the program prior to the infant’s birth.

Source: Mississippi State Department of Health
The PHRM/ISS program monitors for adverse outcomes among program enrollees. This chart shows the percentage of women with an adverse outcome during their participation in the program. Overall, 30% of women had no adverse outcome and 16% had one or more adverse outcomes. The most frequent adverse outcome reported was preterm births (7% of women) followed by low birth weight (5%). For approximately half of women who were enrolled in the program (54%), no outcome could be determined due to participant exiting the program prior to giving birth.

References

1. Interview with Mississippi State Department of Health (MSDH) representatives.