Project IMPACT is a fetal and infant mortality review (FIMR) project for Baker, Clay, Duval, Nassau and St. Johns counties. The initiative, which started in 1995, is carried out by the Northeast Florida Healthy Start Coalition with funding from the Florida Department of Health. The goal is to reduce infant mortality by gathering and reviewing detailed information to gain a better understanding of fetal and infant deaths in Northeast Florida. The project examines cases with the worst outcomes to identify gaps in maternal and infant services and to promote future improvements.

Each month, fetal/infant death cases are selected for the project based on specific criteria. In 2015-16, 28 cases were reviewed through this process. Utilizing an approach developed by the American College of Obstetrics and Gynecology (ACOG), information is abstracted from birth, death, medical, hospital, Healthy Start, WIC and autopsy records. In some cases, law enforcement, medical examiner, EMS and child protective services records are included. Efforts are also made to interview the family. No information that identifies the family or medical providers is included on the abstraction form. Case summaries are developed and presented bimonthly to the Case Review Team (CRT). The CRT, a multidisciplinary group of community medical and social service professionals, examines each case to determine medical, social, financial and other issues that may have impacted the poor birth outcome. A Community Action Team (CAT) works to implement the FIMR recommendations.

INFANCY

After remaining stagnant for two years, the infant mortality rate dropped in Northeast Florida from 8 deaths per 1000 live births to 7.1 deaths in 2015. Infant mortality is the death of a baby before his or her first birthday. The regional rate continues to well exceed the state rate of 6.2 deaths per 1000 live births.

INFANT MORTALITY RATE BY COUNTY 2013-2015

<table>
<thead>
<tr>
<th>STATE RATE: 6.2 DEATHS (PER 1000 LIVE BIRTHS)</th>
<th>NEFL RATE: 7.1 DEATHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>2014</td>
</tr>
<tr>
<td>BAKER 14.2</td>
<td>BAKER 5.3</td>
</tr>
<tr>
<td>CLAY 8.8</td>
<td>CLAY 9.2</td>
</tr>
<tr>
<td>ST JOHNS 7</td>
<td>ST JOHNS 6.5</td>
</tr>
<tr>
<td>DUVALL 8.9</td>
<td>DUVALL 8.0</td>
</tr>
<tr>
<td>NASSAU 5.6</td>
<td>NASSAU 5.6</td>
</tr>
</tbody>
</table>

Cumbered:
- Under State Rate
- Close to State Rate
- Above State Rate

Duval County, the population center of the region, drives the region’s rate with 7.9 deaths per 1000 live births. From 2013-2015, Baker County had significant fluctuations, while Clay and St. Johns counties had sizeable decreases. Rates in smaller counties can fluctuate significantly from year to year, as a few additional or less deaths impact the rate much more than larger counties.

While the overall rate has declined, significant racial disparities continue to exist: Black mothers are almost two and half times as likely to experience an infant death (11.1 deaths compared to 4.8 deaths) as white moms. This trend has been consistent over the past five years.

The leading causes of infant death in the region are other perinatal conditions (like chorioamnionitis and non- congenital heart and kidney problems); prematurity/low birth weight and sudden unexpected infant deaths (SUIDs).
INFANT CAUSE OF DEATH, 2015

- Prematurity/LBW, 25.70%
- Congenital Anomalies, 12.90%
- Other Perinatal Conditions, 32.60%
- Sudden Unexpected Infant Deaths, 19.70%
- Other Causes, 3.80%
- Infections, 2.30%
- Injuries, 3%

Duval Infant Mortality Rate by Zip Code

Change in Infant Deaths (2012-2015)

Health Zone 1: -37.5%
32218: +50%
32210: +62%

INFANT MORTALITY IN DUVAL COUNTY

Zip codes 32210 and 32218 lead Duval County for infant deaths for the third year in a row. Nearly one in five deaths (19 percent) in Northeast Florida and one quarter of deaths in Duval County occurred in these two zip codes.

The leading causes of death in these zip codes were prematurity, sudden unexpected infant deaths (SUIDs) and unintentional injuries. Seventy-five percent of the babies that died were black.

The top five zip codes for infant deaths in Duval County for 2015 are:

- 32210: 13
- 32218: 12
- 32277: 8
- 32209: 6
- 32257: 7

Jacksonville’s Health Zone 1, in the city’s urban core, previously accounted for the highest numbers of infant deaths in Duval County. Infant deaths are down 37 percent in the area, although 32209 ranked in the top five zip codes for infant deaths again in 2015. Half of the infant deaths in 32209 were sleep-related. Zip code 32209 also has one of the highest crime and homicide rates in the county.

SLEEP-RELATED DEATHS

Sleep-related deaths continue to be one of the leading causes of infant death in Northeast Florida and the top cause of postneonatal deaths (from 28 to 364 days of age).

The total number of Sudden Unexpected Infant Deaths (SUIDs) increased from 24 to 26 deaths in 2015. Of those 26 deaths, 14 died while bedsharing with an adult, five babies died in an unsafe sleep environment (adult bed, on his or her stomach, with soft items like blankets or bedding) and two died while in a prone position (lying face down).

PERCENTAGE OF DEATHS ATTRIBUTED TO SUIDS

- 2011: 12.9%
- 2012: 16.5%
- 2013: 18.4%
- 2014: 16.8%
- 2015: 19.7%
For the first time in eight years, FIMR abstracted details on sleep-related deaths. Nine deaths were reviewed. The abstracts revealed that the majority of the deaths took place at home (78%), while the baby slept with others (55%), in an unsafe sleep location (an adult bed 55%, couch or chair 22%), on soft bedding (89%) and with unsafe items in the bed (89%).

The caregivers tested positive for substances at the time of the infant death in 56 percent of the cases reviewed. The substances identified through testing were alcohol, marijuana and the opioid pain medications oxycodone and hydromorphone. In the cases where the infant was in the care of a sitter, alcohol and other substances were involved.

But there were numerous geographical breakdowns that painted a clearer picture:

In Baker, Clay and Nassau counties, more than one in five identified a caregiver/babysitter’s arms while reclining in a chair as safe sleep for naps.

In Jacksonville’s Health Zone 1, one in 10 parents listed crime as a reason for bedsharing.

In 32209, 17 percent said they bedshare because they have no other place for baby to sleep.

In 32210, one-third of caregivers/babysitters don’t have crib, pack-n-play or bassinet for baby to sleep in.

Parents and caregivers responded to a questionnaire, distributed both online and by community partners, about their knowledge of safe sleep practices, why they may bedshare with their infant and caregivers’ access to a safe place for babies to sleep. The survey was piloted at the Magnolia Project and expanded as part of the NEFL Fetal & Infant Mortality Review. The March of Dimes Florida Chapter funded the project.

**SURVEY REVEALS NORTHEAST FLORIDA PARENTS, CAREGIVERS’ INFANT SLEEP PRACTICES**

Despite more than 20 years of “back to sleep” and “safe to sleep” campaigns promoting safe infant sleep practices, many parents still don’t follow these guidelines. The upward trend in sleep-related deaths led the Northeast Florida Healthy Start Coalition to ask one question: Why?

The answer — from more than 600 parents and caregivers in Northeast Florida — is complex. Breastfeeding was the leading cause overall for bedsharing, followed by feeling close to baby and feeling safer with the baby in bed. Some identified sleeping in bed with a parent, caregiver or sibling as safe, while others thought napping with a baby on the chest in a recliner was safe.

### WHY DO PARENTS/CAREGIVERS BEDSHARE?

<table>
<thead>
<tr>
<th>Breastfeeding</th>
<th>Feeling close to baby</th>
<th>Feel safer</th>
<th>Tired</th>
</tr>
</thead>
<tbody>
<tr>
<td>33%</td>
<td>29%</td>
<td>24%</td>
<td>9%</td>
</tr>
</tbody>
</table>

- No other place for baby to sleep
- Family, friends or I say it’s ok
- Only room with A/C or fan
- Too cold/no heat

<table>
<thead>
<tr>
<th>Family</th>
<th>Friends</th>
<th>I say it’s ok</th>
<th>Only room with A/C or fan</th>
<th>Too cold/no heat</th>
</tr>
</thead>
<tbody>
<tr>
<td>6%</td>
<td>4%</td>
<td>3%</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>

**SAFE SLEEP MARKETING CAMPAIGN**

Utilizing the results from the Safe Sleep Survey, the Coalition has developed a marketing campaign to provide important messages and education to parents and caregivers. The campaign covers key areas identified through the survey, including putting babies to sleep in a safe place while napping; breastfeeding and returning the baby to a safe place to sleep; and preparing while pregnant - making sure both parents AND any caregivers have a safe place for baby to sleep.
TEEN BIRTH RATES CONTINUE HISTORIC DROP
STDS REMAIN HIGH

Teen birth rates have reached historic lows in Northeast Florida. Teen parents make up a smaller portion of new mothers and fewer teen moms are experiencing repeat births before leaving their teens.

Locally, though, many youth are still at-risk, including those in minority communities and among certain high-risk populations like those in the juvenile justice and foster care systems. The disparity gap has closed somewhat since 2011, but still exists. Black teens continue to give birth at a much higher rate than white teens – in 2015, the rate was 40 percent higher.

TEEN BIRTH RATE BY COUNTY

STATE RATE: 29.3 BIRTHS  NEFL RATE: 22.6 BIRTHS
(PER 1000 FEMALES AGES 15-19)

2013 2014 2015

Black
White
Total

Locally, Baker and Duval counties consistently have the highest teen birth rates in the region.

The regional rate of sexually transmitted diseases among youth and young adults far exceeds the state rate. Northeast Florida’s rate for ages 15-24 is 25 percent higher than the state rate, while Duval County’s rate is 57 percent higher. Duval County had the second highest rate of STDs among this population in the state.

The Northeast Florida Teen Reproductive Health Task Force, a collaboration of more than 30 diverse community partners, has been working to improve teen pregnancy and adolescent health outcomes since 2010. Activities include:

- Gathering information, data and best practices
- Listening tours to hear the voices of youth and parents
- Releasing community action plans in 2011 & 2015
- Implementing strategies through mini-grants from local foundations and larger federal grants
- Community dialogues on priorities and solutions
- Involvement in the Clinton Health Matters Initiative
- Two sub-committees (public policy and the social determinants of health)

STD RATES, 2015

STATE RATE: 2815.54  NEFL RATE: 3500.57
(PER 100,000 FEMALES AGES 15-24)
WOMEN’S HEALTH PRIOR TO PREGNANCY HAS BIGGEST IMPACT ON BIRTH OUTCOMES

A woman’s health prior to pregnancy has the largest impact on birth outcomes in Northeast Florida. Many women in the region enter into pregnancy with chronic or unmanaged diseases; high BMIs; too soon after their last pregnancy; or with sexually transmitted diseases.

Poor preconception health is typically a major contributing factor in the FIMR cases reviewed each year. In 2015-16, maternal medical conditions prior to pregnancy – like hypertension and diabetes – were a contributing factor in more than two-thirds of the cases (68 percent), while obesity was prevalent in 40 percent of cases and STDs in one quarter of the cases.

Half of women who give birth in Northeast Florida are overweight (25 percent) or obese (25 percent) at the time they get pregnant. Being overweight or obese during pregnancy can lead to high blood pressure, preeclampsia, blood-clotting problems and other issues.

Sexually transmitted diseases and infections can lead to miscarriage or pre-term delivery in pregnant women, or transmission to the baby with HIV and herpes. Duval County has a high rate of HIV infections and STDs. The 2013-15 county rate of 32.2 HIV infections per 100,000 total population well exceeds the state rate of 23.6. Bacterial STDs among women 15-34 are also particularly high – 45 percent higher than the state rate.

More than a third of women have an inter-pregnancy interval of less than 18 months, the optimal interval for mom and baby’s health. Birth spacing allows a woman’s body to heal from pregnancy; conceiving too soon can lead to delayed prenatal care, preterm birth and low birth weight. About 39 percent of women in Northeast Florida had an interval of less than 18 months between 2013 and 2015, compared to 34.4 percent statewide. Baker (42 percent) and St. Johns (41.1 percent) counties had the highest percentages.

FIMR CASE CONTRIBUTING FACTORS

<table>
<thead>
<tr>
<th>Condition</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-existing medical conditions</td>
<td>68%</td>
</tr>
<tr>
<td>Obesity</td>
<td>39%</td>
</tr>
<tr>
<td>Inadequate nutrition</td>
<td>29%</td>
</tr>
<tr>
<td>STD during pregnancy</td>
<td>25%</td>
</tr>
</tbody>
</table>

[Charts: Pre-existing medical conditions, Obesity, Inadequate nutrition, STD during pregnancy]

SUBSTANCE USE AND PRECONCEPTION HEALTH

Both illegal and prescription drug abuse have increased significantly over the last five years and have had a particular impact on women of childbearing age.

Women who are planning a pregnancy should stop drinking alcohol, smoking and using street drugs. They should also discuss any prescription medications they are taking, especially opioid medications, with their doctor.

Whether a woman is planning on getting pregnant or not, the pre- and interconception periods are ideal times for doctors, including primary care physicians, and all health care providers (nurse practitioners, physician assistants) to discuss substance use with women.

Substance abuse was a contributing factor in 36 percent of the FIMR cases reviewed.

Three Northeast Florida counties (Baker, Clay, Nassau) are in the top 10 counties in the state for infants born substance-exposed (Neonatal Abstinence Syndrome), according to a March 2015 report from the Florida Department of Health. Duval County had the highest number of NAS births (450) in the state. NAS is a drug withdrawal syndrome that occurs primarily in opioid-exposed infants shortly after birth and is characterized by irritability, breathing and feeding issues.
MAGNOLIA PROJECT OPENS NEW PRIMARY CARE CLINIC FOR WOMEN

Primary care has a new face in the Jacksonville urban core. The Magnolia Project OASIS, an initiative of the Coalition, opened in August 2016 in Pearl Plaza to provide holistic primary care services to women of childbearing age living in Health Zone 1. The new initiative was developed to address issues like obesity and chronic health conditions that affect preconception health and potentially lead to poor birth outcomes.

The new OASIS clinic will provide primary care services through a partnership with AGAPE Community Health Centers, Inc., the local Federally Qualified Health Center. Primary care offers opportunities to improve women’s health prior to pregnancy. By asking women, “Would you like to become pregnant in the next year?”, primary care clinicians can more fully support women’s preventive reproductive health needs. OASIS comes equipped with a juice bar, a yoga room, a kid zone and digital screens in each examining room and will mainly focus on primary care medical services for women of childbearing age, including disease management and prevention. The primary care lobby will be used to provide nutrition education/counseling and a weight loss program. These activities will address the obesity, inadequate nutrition and toxic stress that are contributing factors to infant deaths.

The OASIS clinic is located in Jacksonville’s Health Zone 1, the urban core of the city. The health of a mother prior to pregnancy has the most significant impact on birth outcomes in Jacksonville, and specifically the six-zip code area served by the Magnolia Project. Health Zone 1 is disproportionately impacted by economic, health and social disparities.

PREGNANCY & CHILDBIRTH

Social services like Healthy Start can have a positive impact on pregnancy, linking moms and their families with support and education to mitigate risk factors for poor birth outcomes. The majority of women and infants are enrolled in Healthy Start by completing a screen at their first prenatal appointment or after delivery at the hospital.

While the Healthy Start screen assesses their risk and provides a means for referral for both Healthy Start and Healthy Families, not all women are offered the screen, complete the screen or are referred.

Seventy percent of women were offered the prenatal Healthy Start screen in Northeast Florida in 2015-2016, compared to 76 percent statewide. Of the women who were offered, 82 percent completed the risk assessment screen. Eighty-seven percent of infants were screened after delivery, compared to 93 percent statewide.

The Coalition has developed and implemented a screening education tool for the doctors’ offices that administer the

PERCENTAGE OF WOMEN SCREENED FOR HEALTHY START

<table>
<thead>
<tr>
<th>Year</th>
<th>State</th>
<th>NEFPHC</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>82.82%</td>
<td>75.20%</td>
</tr>
<tr>
<td>2014</td>
<td>80.91%</td>
<td>72.41%</td>
</tr>
<tr>
<td>2015</td>
<td>76.26%</td>
<td>70.21%</td>
</tr>
</tbody>
</table>
Healthy Start screen. The tool conveys the importance of filling out the screen, but more importantly, what benefits Healthy Start can offer providers and families. A recent survey of prenatal health care providers indicated that their clients often need or request breastfeeding education, childbirth education, parenting education, depression screening, smoking cessation, emotional support and the Ages and Stages developmental assessment. Healthy Start can provide all of those benefits to moms and families.

The Coalition and its partners dedicated a week in January 2016 to support and celebrate the efforts of health care providers to screen women. Staff and partners visited all prenatal care providers to give the offices information on the correct way to complete the screen, educate them on ways to increase their screening rate and assist with any questions or additional information they may need. In addition to key information on the screen, each office also received Healthy Start clipboards, posters, pens and notepads.

**FETAL DEATHS DECLINE IN 2015**

The number of fetal deaths or stillbirths dropped in Northeast Florida in 2015. Fetal mortality includes deaths that occur before birth following at least 20 weeks gestation. The greatest number of black and white fetal deaths occurred between 21 and 23 weeks.

The fetal mortality rate for the five-county area was 7.1 deaths per 1000 live births in 2015, a decrease of 16 percent from the previous year. Like infant mortality, black moms are more likely to experience fetal deaths. The rate for blacks and other nonwhite was twice as high as the white rate – 10.2 deaths per 1000 live births, compared to 5.4 deaths for white moms.

Compared to the state, Northeast Florida is slightly higher in fetal deaths for whites and slightly lower for blacks and other non-whites.

In most cases, the fetal cause of death is unknown. In Duval County, though, the most common cause of death in the black and other non-white mothers is “fetus affected by maternal hypertensive disorders.”

**NORTHEAST FLORIDA FETAL DEATH RATE**

![Graph showing fetal death rate in Northeast Florida from 2011 to 2015]

**COALITION, PARTNERS IMPLEMENT PILOT TO INCREASE POSTPARTUM LARC ACCESS**

Several local and state partners are working together to increase access to long acting reversible contraception (LARC) for women on Medicaid.

The Coalition’s LARC Discussion Group, which was developed out of the 2014-15 FIMR recommendation to increase LARC access and efforts by the Magnolia Project to reduce access barriers, is currently implementing a pilot that will allow women delivering at UF Health Jacksonville to receive immediate postpartum insertion of an intrauterine device (IUD) or contraceptive implant.

Partners include the Florida Agency for Health Care Administration, which administers the state Medicaid program; UF Health Jacksonville, the local safety net hospital; and United HealthCare, one of the largest Medicaid managed care organizations in Florida. The pilot’s activities include working to modify Medicaid policy to allow for payment; adding the LARC options to the hospital formulary and stocking them on site; training hospital staff on immediate postpartum insertion; properly coding and paying for the services; and educating patients on the new options.

The goal of the pilot is to successfully work through the challenges and develop recommendations to allow for statewide implementation.
FIMR CASES

CONTRIBUTING FACTORS

- 46% Pre-term Labor
- 46% No Healthy Start screen
- 39% Maternal infection other than STD
- 32% History of fetal or infant loss

SOCIOECONOMIC OR LIFE COURSE ISSUES DURING PREGNANCY

- 54% Life course risk factors
- 46% Poverty
- 39% Emotional stressors
- 21% Maternal age <21 or >35

STRENGTHS

- 96% Family support
- 82% Father of baby involved
- 79% Payment for Care
- 54% Healthy Start screen

CASE REVIEW TEAM RECOMMENDATIONS:

The 2015-2016 Fetal and Infant Mortality Review (FIMR) Case Review Team (CRT) reviewed 19 infant death and 9 fetal death cases. Aggregated summary data and additional data from Florida CHARTS was given to the CRT for review. After much thoughtful discussion, the following recommendations for action were made:

1. Safe sleep education will continue to be a recommendation. More specifically, a Public Service Announcement to include information about bedding, bedsharing and additional teaching regarding skin-to-skin contact while “alert and awake.” We will collaborate with a number of local agencies who partake in the Child Abuse Death Review team.

2. Address late entry or second trimester entry into care. Referral time for women on Medicaid from the assigned medical home to the obstetrician is causing women to enter into prenatal care late. Work with the four managed care organizations in the region to smooth this transition and avoid causing late entry to OB while the pregnant woman waits for a referral from her medical home, whom she may never visited before.

3. Centralized location for all obstetrician-related activities in Northeast Florida. Possibly Facebook, but a website is preferred. Links to classes, connections to resources, fast facts, service announcements.

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