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 2016-17, 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.

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Infant mortality in Northeast Florida increased in 2016, after a decline in 2015. In 2016, 139 babies died before their first birthday, the equivalent of eight classes of kindergarteners. With a rate of 7.4 deaths per 1000 live births, the region remains higher than the state (6.1 deaths) and nation (5.8 deaths).

Duval County, the population center of the region, continues to drive the region’s infant mortality rate with 8.4 deaths per 1000 live births. Counties with smaller populations like Baker, Clay and St. Johns saw fluctuations from year-to-year, as a few additional or less deaths impact the rate much more than larger counties.

Black babies are still dying at more than twice the rate of white babies. Black moms are nearly 2.5 times as likely to experience an infant death as white moms (11.9 deaths per 1000 live births, compared to 4.9 deaths). This trend has been consistent over the past five years. National trends show that racial disparities persist despite education level or socioeconomic status. Achieving health equity among the different racial groups is key to reducing the number of babies that die each year.

The leading causes of infant death in the region are other perinatal conditions (like chorioamnionitis and respiratory complications); prematurity/low birth weight and sudden unexpected infant deaths (SUIDs).
One in five infant deaths was due to Sudden Unexpected Infant Deaths (SUIDs) in Northeast Florida in 2016, most of which were sleep-related. SUIDs are one of the top causes of infant death and the leading cause of postneonatal deaths (29 to 364 days of age).

SUIDs declined significantly in the 1990s and 2000s in part due to new recommendations from the American Academy of Pediatrics (AAP) and the nationwide Back to Sleep campaign, but have steadily increased since 2012 (up 42 percent in Northeast Florida). These deaths are largely preventable, and are taking up a bigger proportion of infant deaths.

Bedsharing is a leading factor identified in sleep-related deaths. Causes of death and contributing factors include:

- Suffocation and strangulation (often associated with bedsharing)
- Unsafe sleep environments (adult bed, couch or chair, soft items like bedding, blankets and stuffed animals)
- Position (stomach instead of back)

The AAP recommends that infants sleep alone, on their back and in a crib, bassinet or pack-n-play for both naps and nighttime sleep.
AZALEA PROJECT
The Azalea Project, the Coalition’s long-running special initiative to address substance-using pregnant and parenting women, is in the forefront of the substance-exposed newborn epidemic. The Azalea Healthy Start component, which serves pregnant women, received additional funds in 2017 to hire an additional part-time case manager to address the high need for intensive case management services in zip code 32210, which has the highest number of infant deaths and a high rate of opioid overdoses. The Coalition also received funding from the U.S. Department of Health and Human Services Office on Women’s Health to add a prevention component in all five counties. The Azalea prevention director will provide primary prevention education workshops to health consumers and train health providers on an evidence-based tool to screen women for substance use prior to pregnancy. Certified Recovery Peer Specialists will also be utilized through the grant.

SAFE SLEEP MARKETING CAMPAIGN
In 2016, the Coalition implemented a safe sleep survey for parents/caregivers on reasons for bedsharing and utilized the results to develop a marketing campaign to provide important messages and education to targeted audiences. The campaign covers key areas identified through the survey, including putting babies to sleep in a safe place while napping; breastfeeding and putting the baby back in a safe place to sleep; and preparing while pregnant – making sure both parents AND any caregivers have a safe place for baby to sleep.

SUBSTANCE-EXPOSED NEWBORNS A GROWING PROBLEM
As the opioid epidemic explodes across the region, state and nation, there has been a dramatic rise in the rate of substance-exposed newborns. Data from 2016 shows that more than 700 babies with NAS were born in facilities in Northeast Florida.

Three counties in Northeast Florida (Baker, Clay and Duval) were listed in the top 10 counties in the state for substance-exposed newborns, according to a March 2015 report from the Florida Department of Health.

Babies diagnosed with Neonatal Abstinence Syndrome are primarily born to moms who were addicted to opioids and experience irritability, breathing and feeding problems, in addition to a myriad of lifelong issues that often are not realized until the child is older.

The Coalition’s Substance-Exposed Newborn Task Force is working with community partners and county workgroups to develop strategies to tackle this issue.

Substance use (other than tobacco) was a contributing factor in 43 percent of FIMR cases.
A woman’s health prior to pregnancy has the largest impact on birth outcomes. Many women in Northeast Florida enter into pregnancy with high BMIs, too soon after their last pregnancy, smoking or with STDs.

Half of women who give birth in Northeast Florida are overweight (25%) or obese (25%) 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. Bacterial STDs among women 15-34 are particularly high in Duval County. The county ranks third in the state and has a rate 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. About 39 percent of women in Northeast Florida had an interval of less than 18 months between 2014 and 2016, compared to 34.8 percent statewide. Baker (43%) and St. Johns (42%) counties had the highest percentages.
ADOLESCENT REPRODUCTIVE HEALTH

Adolescent reproductive health impacts birth outcomes for youth who are pregnant and teens as they grow into adults and have children. Overall, teen birth rates have reached historic lows nationwide and in Florida. Teen parents make up a smaller portion of new mothers and fewer teen moms are experiencing repeat births before leaving their teens. Locally, many youth are still at risk, including those in minority and rural communities and among certain high risk populations like those in the juvenile justice and foster care systems. Baker County’s rates have fluctuated but remain significantly higher than the region, state and nation. Nassau County has also seen a steady increase since 2014. 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 26 percent higher than the state rate, while Duval County’s rate is 55 percent higher.

BACTERIAL STD RATES, 2016

STATE RATE: 2895.9  NEFL RATE: 3653.7
(Per 100,000 Females Ages 15-24)

BRDSNBZ

The BrdsNBz and XsN0s text message warmlines provide confidential, factually accurate sexual health information to teens and young adults in Northeast Florida. The Coalition has offered BrdsNBz NE Florida since 2013, and expanded in 2017 with XsN0s NE Florida, through funding from Baptist Health. The services are free, anonymous and provide real-time responses from certified health educators. Questions received address topics like healthy relationships, contraception, development, STDs and more.

FATHERHOOD PR.I.D.E.

Fathers play a pivotal part in a child’s development. New evidence shows that children with early father involvement are more likely to be and stay healthy. The Coalition’s Fatherhood PRIDE program works to keep fathers in Northeast Florida engaged, present and accounted for so their children survive and thrive. The Fatherhood PRIDE program works to get fathers involved with their children during pregnancy. The program offers a Boot Camp for New Dads course that prepares new fathers to take care of a baby. Dads-to-be learn from dads who have successfully transitioned into fatherhood. Other courses offered include 24/7 Dad, Inside Out Dad and Mom as Gateway. Fatherhood PRIDE also works with dads to help them find employment, further their education, understand how to manage their finances and much more.
UNINTENTIONAL INJURIES

Each year, unintentional injuries lead to serious injuries and death for children under age one.

From 2014-16, 238 children under the age of one were injured or killed in motor vehicle crashes in Northeast Florida. Children properly restrained in child safety seats are much less likely to experience an injury or die than those who are not properly restrained. Over the past decade, resources for low- or no-cost child safety seats have declined considerably, leaving many families unable to afford a safe place for their child to ride in a vehicle.

Drowning also impacts children under age one. Babies and toddlers can drown in an inch of water. Children should always be supervised when around any amount of water—even small sources. Three children less than age one died from drowning in Northeast Florida from 2014-2016—two in Clay and one in Duval.

Other causes of unintentional injuries include respiratory obstruction/choking and smoke inhalation. Childproofing is important once a child becomes mobile and should be completed before a baby can crawl or walk.

CRIME AND VIOLENCE IMPACT INFANT MORTALITY

To make sure every baby has a healthy start, there are underlying societal & structural root causes of infant mortality that must be addressed. Crime and violence in particular play a major role in stressing a community and impacting birth outcomes.

In 2015, Duval County ranked 5th in the state for crime. Jacksonville is well known within the state for a high rate of domestic violence and murder. Zip code 32209 in particular has one of the highest crime and homicide rates in the county—and also ranks in the top five zip codes for infant deaths.

From 2014-16, seven babies died from homicide in Northeast Florida, including from gunshots and neglect/maltreatment.

Toxic stress from unsafe environments can also have an impact on birth outcomes, leading to premature birth or other complications.

A 2016 survey of parents and caregivers by the Coalition found that parents in high-crime areas bedshare with their infants to keep their children safe from violence.

HEALTHY START SCREENING: GATEWAY TO SERVICES

The Healthy Start screening process is the gateway to important health and social services for families in the region. These services can have a positive impact on pregnancy, linking moms and their families with support and education to mitigate risk factors for poor birth outcomes.

While, 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, not all women are offered the screen, complete the screen or are referred.

PERCENTAGE OF WOMEN SCREENED FOR HEALTHY START

In 2016, the Coalition was one of 10 healthy start coalitions statewide to participate in a Coordinated Intake & Referral learning collaborative and pilot using the universal Healthy Start prenatal and infant screening process to enroll families in home visiting programs. Locally, Coordinated Intake & Referral has fully launched in Duval County, providing a community-based system for identifying at-risk families and connecting them to services that best meet their preferences and needs. The local C&R system includes the Florida Department of Health Duval County and UF Health Jacksonville Healthy Start program, Healthy Families Jacksonville, Early Head Start, Early Steps, Nurse-Family Partnership, the Magnolia Project, and the Azalea Project. Over the next nine months, the local C&R team will help mentor other coalitions as they develop their programs and expand the program locally to Baker, Clay, Nassau and St. Johns counties.
Jersey College School of Nursing partnered with the Coalition’s federal Healthy Start initiative, the Magnolia Project, to help nursing students understand the impact of social determinants of health and their role as health care providers in advocating for positive birth outcomes in the community.

Through this three-month pilot project, 30 RN students who participated in a 28-hour clinical practicum enhanced their understanding of maternal child health issues in the community. The innovative community-based clinical experience included a virtual case scenario of a high-risk maternity client and the result of collective impact partnerships with one agenda in addressing the needs of this client. The community-based clinical experience was implemented in four sessions that addressed topics like toxic stress; racial and place-based health inequities; and the life course theory.

Prenatal screening rates are on the rise. Seventy-three percent of women were offered the prenatal Healthy Start screen in Northeast Florida in 2016-2017, an increase of three percentage points from the previous year but still below the statewide rate of 76.2 percent. 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.

Prenatal care providers receive an annual visit and as-needed training on completing the screen and the benefits participants can receive from the program.

**SOCIAL DETERMINANTS OF HEALTH AND INFANT MORTALITY**

Infant mortality disproportionately impacts communities with high rates of poverty, crime, drug use and other social determinants of health. Jacksonville’s Health Zone 1 increased in 2016 from 8.8 deaths per 1000 live births to 16.8, well above the county, regional, state and national rates. Health Zone 1, which encompasses the city’s urban core, is disproportionately impacted by economic, health and social disparities. Health Zone 1 also has the largest proportion of non-white residents, the lowest median income, highest rates of total and childhood poverty and lowest education attainment of the six city Health Zones. The area is served by Healthy Start and Healthy Families but is the main focus of the Coalition’s special initiatives, the Magnolia and Azalea projects.

The Jacksonville zip codes with the highest number of infant deaths are 32208 (10 — 100% increase from previous year), 32209 (10 — 40% increase from previous year) and 32210 (15 — 15% increase from previous year).
**FIMR CASES**

**CONTRIBUTING FACTORS**

- **39%** Pre-term Labor
- **57%** No Healthy Start screen
- **54%** Obesity
- **43%** Maternal infection other than STD
- **43%** Substance use (other than tobacco)

**SOCIOECONOMIC OR LIFE COURSE ISSUES DURING PREGNANCY**

- **61%** Life course risk factors
- **61%** Poverty
- **29%** Emotional stressors
- **21%** Maternal age <21 or >35

**STRENGTHS**

- **93%** Father of baby involved
- **89%** Family support
- **85%** Payment for Care
- **43%** Healthy Start screen
- **39%** Quality prenatal care
- **29%** Social Service involvement

Source: July 2016-June 2017 FIMR Case Reviews. N=28. *Multiple factors may be present in individual cases

**CASE REVIEW TEAM RECOMMENDATIONS**

1. In most FIMR cases, prenatal and/or infant screen (RAI) is lacking, recognized as a conduit to an enormity of services that could have impacted the outcome. Although the ultimate responsibility for screening lies with the Healthy Start Coalition, it is recognized that anyone who “touches” a pregnant woman or infant can inform them about the benefits of the screen or referral. We plan to train hospital staff including case managers, social workers, nurses and birth recorders about the benefits of Healthy Start services.

2. Continuing our efforts on safe sleep and SUID death prevention, we will begin standardizing our terminology and recommendations across multiple agencies, including DCF, CPS, school systems, fire rescue, medical examiner and law enforcement. In addition, we will include the community and faith-based organizations. Our plan is to create a curriculum around safe sleep, water safety and selecting an appropriate caregiver for a child. These were selected in collaboration with the members of FIMR and Child Death Review as persistent issues in infant and child death. The proposed curriculum will include a track for “provider” and a track for parents/caregivers that outlines child/infant safety. This is a long-term activity.

3. To continue with SUIDs prevention, an immediate response to the increase in sleep related deaths is required. We will start a very simple grass roots campaign to show the number of deaths in previously healthy infants in our area.