## 2020 Model Practices

### Applicant Information

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### Size

Select a size: *

- [ ] Small (0-50,000)
- [ ] Medium (50,000-499,999)
- [x] Large (500,000+)

### Application Information

**Local Health Department/Organization Name:** *

Jefferson County Department of Health

**Title of Practice:** *

Jefferson County Department of Health From Day One Program

**Submitter Name:** *

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**Submitter Title:** *

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Jefferson County Department of Health (JCDH) is located in Central Alabama and serves the residents of the most populated county within the state of Alabama. Jefferson County has an estimated 659,546 residents with a growth rate of -0.12% in the past year according to the most recent United States Census data. Jefferson County residents are 52.09% Caucasian, 42.58% African American, 1.54% Asian, 24% American Indian/Alaska Native, 0.03% Native Hawaiian/Other Pacific Islander, and 1.57% who are 2 or more races, 1.96% other race per the 2019 U.S. Census Bureau. JCDH has 3 locations within Jefferson County, Alabama strategically located in the Eastern, Western and Central areas of the county. JCDH provides adult primary care, pediatric primary care, family planning, international travel vaccinations, tuberculosis treatment, and adult immunization and STI/STD services to the community.

Quality primary health care has been shown to have a direct impact on maternal and infant health. The lack of access to early and adequate prenatal care is an established problem in Jefferson County with 16% of women not having prenatal care in the first trimester and 19% of women receiving inadequate care in 2013. In 2010, the infant mortality rate (IMR) in Jefferson County was higher than the state and national rates. More concerning, is the fact that the IMR for Non-Hispanic blacks in the same year was 16.1/1,000 live births versus 6.4/1,000 live births for Non-Hispanic whites. The IMR is an important marker of maternal and child health, and has also been linked to quality of care and access to care. The JCDH implemented a program to address these issues with the goal of improving access to prenatal care and reducing the IMR in Jefferson County.

The program was implemented through various activities such as community outreach, providing information on prenatal care, and partnering with local organizations to increase awareness of the importance of prenatal care. The results of the program showed a significant increase in the number of women receiving prenatal care in the first trimester, from 16% to 80%. The IMR for Non-Hispanic blacks also decreased from 16.1/1,000 live births to 8.0/1,000 live births. The program was successful in meeting its objectives and had a positive impact on the health of mothers and their infants.

The program had a significant impact on the community's health, and has helped to improve access to care for pregnant women. It serves as a model for other counties looking to improve access to prenatal care and reduce the IMR.
A Model Practice must be responsive to a particular local public health problem or concern. An innovative practice must be -

1. new to the field of public health (and not just new to your health department) OR
2. a creative use of an existing tool or practice, including but not limited to use of an Advanced Practice Centers (APC) development...
Quality primary health care has been shown to have a direct impact on maternal and infant health. The lack of access to early and adequate prenatal care is an established problem in Jefferson County with 16% of women not having prenatal care in the first trimester and 19% of women receiving inadequate care in 2013. In 2010, the infant mortality rate (IMR) in Jefferson County was higher than the state and national rates. More concerning, is the fact that the IMR for Non-Hispanic blacks in the same year was 16.1/1,000 live births versus 6.4/1,000 live births for Non-Hispanic whites. The IMR is an important marker of maternal and child health, and has also been called the most sensitive indicator of overall societal health. The Alabama Department of Public Health announced on December 11, 2019 that the state’s IMR rate was the lowest in Alabama history at a rate of 7.0 deaths per 1,000 live births in 2018. The 2018 was an improvement over the state’s previous decreasing rate in 2017 at 7.4 and 2016 rate of 9.1. A total of 405 infants born in Alabama died before reaching 1 year of age in 2018; 435 infants died in 2017 and 537 infants died in 2016. Alabama’s overall rate remains higher than the U.S. 2018 provisional rate of 5.7. The infant mortality rate for black infants declined to 11.0 in 2018, and the infant mortality rate for white infants decreased to 5.1. Alabama is making improvements with increased funding and programming throughout the state but still has a state average that is about the national average. Nevertheless, a longstanding disparity between birth outcomes for black and white infants remain in Alabama. An estimated 26,710 women between the ages of 15-44 years with an income at or below the Federal Poverty Level who reside with in Jefferson County, Alabama. With an average pregnancy rate of 91.7 per 1,000 women ages 15-44, the estimated number of pregnant women living in poverty in the county is 2,455 women. Even though prior to 2018 Medicaid services were available for pregnant women in Jefferson County, Alabama, there were limited known single coordinated efforts that established rapport with expectant mothers early in pregnancy linking them to resources beyond delivery and through their child’s first year of life. It is expected that tailoring intervention to meet identified needs will have a greater impact on the population served.

There were 3,918 births in Jefferson County to women on Medicaid representing, 43.9% of all Jefferson County births in 2014. Of the 3,918 Jefferson County Medicaid births, 1,156 infants (29.5%) were evaluated in the Pediatric Clinics of the Jefferson County Department of Health (JCDH) with in the neonatal period. During the twelve months of gathering information, JCDH had 142 patients with its Family Planning, Adult Health and Child Health clinics with a positive pregnancy test. The Jefferson County Supplemental Nutrition Program for Women, Infants and Children (WIC) enrolled an average of 1,462 prenatal participants in a month with about 10%, 146 women, entering the program in the prenatal participants’ first trimester each month. The UAB Maternity Clinic enrolled 2,509 new obstetrical patients during the past year, the majority of whom are Medicaid eligible, with approximately 75% entering care with the first trimester of pregnancy.

Jefferson County Department of Health used the data referenced above to create the From Day One model. To estimate the number of Medicaid eligible pregnant women in Jefferson County, US Census Population estimates for 2014 were used to determine the number of women age 15 – 44 in Jefferson County. Using Small Area Income and Poverty Estimates, the 2014 poverty rate, the most recent rate available, was applied to the number of Jefferson County women ages 15-44 to estimate the number of women living in poverty 2,455. As pregnant women are eligible for Medicaid at 130% of the Federal Poverty Level, the calculated number was an underestimate of the number of women of childbearing age eligible for Medicaid within Jefferson County. The pregnancy rate for women living in poverty was estimated using the 2014 pregnancy rate for Jefferson County, which is calculated by the Alabama Department of Public Health. The number of positive pregnancy tests and number of patients for each health center associated with this project were obtained using the electronic health records of the Jefferson County Department of Health and from partner organizations. As the demand increases, the capacity for enrollment is easily scalable by adding additional Community Health Workers.

Jefferson County Department of Health (JCDH) established its “From Day One” (FDO) Program in 2018 to make a direct impact in Jefferson County as it relates to improving birth outcomes and decreasing infant mortality through evidence based, methods of intervention. FDO is a comprehensive patient centered program designed to educate and support expectant mothers from the first trimester of pregnancy through their child’s first year of life. FDO works specifically with pregnant mothers who are expecting at least their second child, who received prenatal care at UAB Maternity Clinics and deliver at University of Alabama Women and Infant Center. The target population served by FDO consists of pregnant women, fathers of the baby, and their infants with an emphasis on low resource, low income, underinsured, uninsured and minority patient populations.

The FDO program goal is to positively impact maternal and infant health outcomes in Jefferson County. The objectives of the FDO Program are: 1) Improve pregnancy and birth outcomes for women and infants in Jefferson County; 2) Improve access to and care coordination of health services; 3) Decrease the infant mortality rate 4) Provide strategic interventions throughout pregnancy and infancy; 5) Identify and address barriers to health and safety. These goal are being accomplished by intervention strategies for identifying barriers, improving access to care, providing continuous education, enhancing support networks and empowering women to set and meet good preventative health goals. FDO target measures include increasing the percentage of deliveries receiving a prenatal care visit in the first trimester or within 42 days of enrollment by 16% to make an impact on public health by reducing the rate of infant mortality towards the national average of 6 per 1,000 live births in Jefferson County and increasing the rate of early entrance into prenatal care by year five. FDO goals and objectives coincides with some of the Healthy People 2020 goals which are to reduce the rate of fetal and
LHD and Community Collaboration

The LHD should have a role in the practice’s development and/or implementation. Additionally, the practice should demonstrate broadbased involvement and participation of community partners (e.g., government, local residents, business, healthcare, and academia). If the practice is internal to the LHD, it should demonstrate cooperation and participation within the agency (i.e., other LHD staff) and other outside entities, if relevant. An effective implementation strategy includes outlined, actionable steps that are taken to complete the goals and objectives and put the practice into action within the community.

- Goal(s) and objectives of practice
- What did you do to achieve the goals and objectives?
  - Steps taken to implement the program
- Any criteria for who was selected to receive the practice (if applicable)?
- What was the timeframe for the practice were other stakeholders involved?
- What was their role in the planning and implementation process?
  - What does the LHD do to foster collaboration with community stakeholders? Describe the relationship(s) and how it furthers the practice goal(s)
- Any start up or in-kind costs and funding services associated with this practice? Please provide actual data, if possible. Otherwise, provide an estimate of start-up costs/ budget breakdown.

infant deaths, reduce the rates of infant deaths from Sudden Unexpected Infant Deaths (SIDS, Unknown Cause, Accidental Suffocation and Strangulation in Bed), reduce the rate of mortality deaths, increase the proportion of pregnant women who receive early and adequate prenatal care and increase the proportion of infants who are put to sleep on their backs and to improve access to care.

Essential to the design of the program was cost-effectiveness and scalability. The JCDH team tasked with creating the From Day One program spent many months researching different models of effective community education and care. Despite being shown as a successful model in numerous states, the Community Health Worker model in Alabama has not been widely used and is not currently reimbursable by Alabama Medicaid. Molina Health care in New Mexico reports a $4 return on every $1 invested in Community Health Worker services. Pennsylvania, New York, Minnesota and Washington State all have successful Community Health Worker programs operating in their states. JCDH felt that it had a unique opportunity in Alabama to build a new innovative program using Community Health Workers with a goal of showing cost-effectiveness and improve outcomes.
Enter the LHD and Community Collaboration related to your practice:

From Day One (FDO) works with expectant mothers and maternal partners to address factors related to improving birth outcomes and improving maternal and child health in an effort to reduce the infant mortality rate in Jefferson County. Factors addressed are tobacco usage, alcohol and drug usage, maternal education level, domestic violence, paternal involvement, healthy diet and regular exercise during pregnancy. The program is designed to directly impact the number of low birth weight babies born in the state of Alabama. FDO educates parents on infant home and car seat safety as well as child health and development with a goal of decreasing infant morbidity and mortality. Through educational enrichment, parents are empowered to provide excellent infant care in a safe home environment.

In July of 2016, Jefferson County Department of Health (JCDH) identified the lack of access to early and adequate prenatal care was a problem in Jefferson County, Alabama. More concerning, was the fact that the Infant Mortality Rate (IMR) in Jefferson County was higher than state and national rates. Also, Non-Hispanic blacks IMR (16.1/1,000 live births) were much higher than the Non-Hispanic whites (6.4/1,000 live births). This data led the Jefferson County Department of Health to add improving birth outcomes to the organization’s five year strategic plan in 2017. JCDH created a strategic plan team that begin intensive research and a cost analysis of the current national programs. The strategic planning team requested funding to support a community based project utilizing community health workers tasked with improving birth outcomes, reducing infant mortality rate and increasing early access to prenatal care for targeted individuals in Jefferson County. Meetings were held with University of Alabama Maternity Clinic, JCDH WIC (Women, Infant and Children) Nutrition Program, Connection Health, a non-profit agency, regarding this project. Jefferson County Department of Health (JCDH) contracted with Connection Health to implement a Community Health Worker (CHW) model to address the high rates of infant mortality.

The Community Health Worker Model provides trained “lay people” from the community to work with the From Day One program participants. The Community Health Workers live in the community in which the clients reside. JCDH also hired a nurse (BSN) as an Assistant Director of Clinical Services-Infant Mortality to oversee the day-to-day activities of FDO Program. This person is held accountable based on organizational policies and program protocols under the direction of the board of health. The Assistant Director of Clinical Services-Infant Mortality has an extensive medical background in the maternal and pediatric area. The Community Health Workers provides direct services, including baseline client assessments, infant safety, home environmental assessments, medical adherence evaluations, health goal monitoring, primary health care visit appointment reminders, postpartum depression screenings, food insecurity screenings and health education to mothers living in poverty. Each worker has had greater than 80 hours of training in these areas. During the initial stage (first trimester) of the program, women are assessed for needs and referred for prenatal care. Program participants are referred to From Day One by Jefferson County Department of Health WIC (Women, Infant, and Children) program and University of Alabama Maternity Clinics.

The From Day One program started with 4 CHW’s in February 2018 and has increased to 6 CHWs, 2 of which are bilingual. Of the 250 referrals from UAB Maternity Clinics that have been received, there are 154 patients who participate in the From Day One Program. Each CHW is allowed a maximum caseload of 25 program participants. As of November 3, 2019, there have been 32 clients to graduate from the program.

FDO maintains the following partnerships, all which support and promote excellent maternal and infant care: Cribs 4 Kids - provide safe sleep, shaken baby syndrome education and a Pack-n-Play Graco Crib as an “In-Kind” gift to the clients in the program at the baby safety Shower; Bundles of Hope - provide diapers monthly to clients who indicate they have a need for help with diapers; St. Vincent’s Maternity Department – provide breastfeeding/childbirth classes (specifically for Latina clients); Highland United Methodist Church Project ID – help clients obtain a driver’s license/State ID without cost; Birmingham Housing, Children’s Car Seat Program, King’s Ranch for domestic violence, Kid One Transport, Diabetes Association, United Way 211, clothing closets, food pantries, and local educational organizations providing GED completion service; JCDH Dental Clinics – provide dental screenings/care to maternity clients who do not have a dental home with the cost of the care offered on a sliding scale according to the patient’s income. Currently 54 clients have been referred for dental care since the start of the program began offering dental services in April 2019.

The participants in the FDO Program receive a Baby Safety Shower in their third trimester of pregnancy. This is an opportunity for participants to be educated on safety as it pertains to maternal and infant health. A From Day One Baby Safety Shower is held quarterly. A total of 6 baby safety showers have been held which served a total of 90 maternity participants and 128 family members. The program participants and their families receive a lunch and family picture at the Baby Safety Shower. Written information in Spanish, along with simultaneous interpretation is provided by Spanish speaking interpreters throughout the entire baby safety shower for the limited English proficiency participants.

FDO collaborates with various professional organizations to provide information on safety /childhood injury prevention issues through videos, brief lectures, power points, brochures/pamphlets, and demonstrations. The Collaboration is with the Birmingham Fire, Birmingham Police, Cooper Green-Mercy Hospital, Childcare Resources, JCDH Dental Services, Children’s Hospital Car Seat Safety/Installation Program; IMPACT Family Counseling and WIC. Each client/family members are allowed time to ask questions during the shower. A pre-test is done to evaluate each client’s knowledge level as it related to infant safety and a post-test is done by the Community Health Worker one month post shower to evaluate retained safety knowledge. Each shower participant receives a-Pack-n-Play, safety infant baby tub, infant safety kit, safety locks and diapers at the shower. Most of the shower incentives are in-kind donations from participating organizations.

The first year start-up cost for the From Day One program was approximately $150,000. This amount included the salaries for the Community Health Workers, supplies, communication equipment, educational/technical supplies, consulting and legal fees, transportation, safety shower, administrative cost and program incentives. (This does not include the In-Kind gifts for the Baby Safety Shower.)
Evaluation

Evaluation assesses the value of the practice and the potential worth it has to other LHDs and the populations they serve. It is also an effective means to assess the credibility of the practice. Evaluation helps public health practice maintain standards and improve practice. Two types of evaluation are process and outcome. Process evaluation assesses the effectiveness of the steps taken to achieve the desired practice outcomes. Outcome evaluation summarizes the results of the practice efforts. Results may be long-term, such as an improvement in health status, or short-term, such as an improvement in knowledge awareness, a policy change, an increase in numbers reached, etc. Results may be quantitative (empirical data such as percentages or numerical counts) and/or qualitative (e.g., focus group results, in-depth interviews, or anecdotal evidence).

- What did you find out? To what extent were your objectives achieved? Please re-state your objectives.
- Did you evaluate your practice?
  - List any primary data sources, who collected the data, and how? (if applicable)
  - List any secondary data sources used. (if applicable)
  - List performance measures used. Include process and outcome measures as appropriate.
  - Describe how results were analyzed.
  - Were any modifications made to the practice as a result of the data findings?

Please enter the evaluation results of your practice:

From Day One collects data on each program participant in accordance with the program metrics. The data is assessed and reported quarterly. Also, a twelve month graduation survey and an eighteen month survey is given to the mother to evaluate if she has retained and utilized the education and incentives that she received throughout her pregnancy and her child’s first year of life. A three year pilot program full data evaluation will take place in 2020. The three year goal is: to provide evidence based service options for high risk pregnant women in Jefferson County and their children, through age one, to improve their overall health, safety and wellbeing; increase early entrance to prenatal care by 16% from baseline 64% and to decrease Jefferson County infant mortality rate to align with Alabama state level and hopefully the national level. Implementation and analysis of data will occur quarterly throughout the program from JCDH, Connection Health, Alabama State Public Health and CDC. Quarterly meetings, reports and audits are being done to evaluate the From Day One Program. Jefferson County Department of Health Assistant Director of Clinical Services-Infant Mortality (nurse) performs randomized community worker patient care audits to ensure optimal program utilization. Data collected includes how many clients had prenatal care (prenatal visits made vs. missed), early access to care, barriers, miscarriages, live births, types of births, preterm vs. term delivery, CHW referrals made to various agencies, home visits, face to face contact by the Community Health Worker (CHW), smoking status and cessation, depression screening, breastfeeding rates and immunization rates of infants. As of November 2019, 73% were term deliveries; 100% smoking cessation rate, 35% of participants were noted to have food insecurities and referred to local resources for assistance, 67% breastfeeding initiation rate. Weekly planning and training sessions occur with the community health workers, Connection Health administration and the JCDH nurse in order to staff cases, address concerns and educate on new or changing community resources. Quarterly meetings take place with stakeholders to offer general oversight, provide and obtain feedback and discuss evaluative measures.

Sustainability

Sustainability is determined by the availability of adequate resources. In addition, the practice should be designed so that the stakeholders are invested in its maintenance and to ensure it is sustained after initial development (NACCHO acknowledges that fiscal challenges may limit the feasibility of a practice’s continuation.)

- Lessons learned in relation to practice.
- Lessons learned in relation to partner collaboration. (if applicable)
- Did you do a cost/benefit analysis? If so, describe.
- Is there sufficient stakeholder commitment to sustain the practice?
  - Describe sustainability plans.
Funding for this program is provided by Alabama Department of Health (ADPH) Maternal and Child Health Block Grant. These funds are awarded yearly to fund maternal and child health related public health programming. In 2017, improving birth outcomes was added to the Jefferson County Department of Health’s five year strategic planning which called for a 3 year pilot program to evaluate the effectiveness of the Community Health Worker Model in Jefferson County, Alabama. Infant mortality has also been made a priority issue by our local Health Action Partnership which brings together community partners to improve health and quality of life outcomes in Jefferson County. Jefferson County Department of Health (JCDH) is one of three anchor organization for the Health Action Partnership. In 2019, From Day One leadership was invited by the ADPH State Perinatal Director and ADPH Region IV Perinatal Coordinator to present the From Day One program and data at the state and regional meetings respectively in an effort to demonstrate innovative programming in Alabama. An ongoing cost analysis is being done regarding the Community Worker Model vs. other nurse led models. Based on the data for FDO, the CHW model is proving to be a cost-effective model for services in Jefferson County, Alabama.

Additional Information

How did you hear about the Model Practices Program?: *
- [ ] I am a previous Model Practices applicant
- [ ] At a NACCHO conference
- [x] Colleague in my LHD
- [ ] Colleague from another public health agency
- [ ] E-Mail from NACCHO
- [ ] NACCHO Publication (Connect, Exchange, Public Health Dispatch)
- [ ] NACCHO Website

Have you applied for Model Practices before?: *
- [x] No, this is my first time applying.
- [ ] Yes, I have applied in the past.

If you answered yes to the question above, please let us know the year and award type.: 