

Applied Statistics, Evaluation and Technical Services (ASETS) serves as the internal information center for the Bureau of Family and Community Health, Center for Community Health, of the Massachusetts Department of Public Health (MDPH). ASETS is interested in having a CSTE fellow participate in a variety of activities in perinatal, maternal and child health. Potential investigation activities include, but are not limited to the following:

- Perform community-level analysis of racial/ethnic disparities in perinatal outcomes and participate in the state's formulation of a strategic plan for reduction of disparities in high-risk communities.
- Analyze variations of fetal and infant mortality rates by geographic regions using perinatal periods of risk assessment (PPOR).
- Assist in the development of a health literacy campaign for the improvement of maternal health and prevention of preterm births
- Participate in quality improvement activities among Massachusetts neonatal intensive care units by providing guidance on reporting of specific fetal and infant conditions.
- Monitor maternal morbidity/mortality and identify factors that contribute to racial disparities, to include women's preconceptional health, maternal injuries and chronic disease.
- Evaluate the impact of reproductive technologies on maternal and infant outcomes including, antenatal hospitalizations, multiple births, hospital costs/resource use, and childhood outcomes (Early Intervention)
- Evaluate the impact of Early Intervention among Massachusetts children age 0-3
- Evaluate parental satisfaction and outcomes related to Children with Special Health Needs programs
- Assist the state in preparing a competitive request for application (RFA) to the FY2005 Pregnancy Risk Assessment Monitoring System (PRAMS).
- Examine inter-pregnancy intervals for annual MCH surveillance and target high risk communities for family planning needs assessment. Assess the influences of health care and insurance status on inter-pregnancy intervals.

ASETS has multiple tools to conduct these activities in data collection, analyses, program evaluation, and surveillance. The Pregnancy to Early Life Longitudinal Data Set (PELL) is one of the few maternally-linked longitudinal databases in the country created to utilize a broad range of public health datasets to examine the impact of the prenatal environment and experiences on postnatal child and maternal health. The Fellow would conduct research using PELL, and many other datasets, to assess factors influencing the incidence of maternal morbidity, fetal/infant deaths, infant morbidity, and evaluate MCH programs linked to this population-based resource.

There are also opportunities to conduct cross-cutting research with other bureaus within the Center for Community Health (HIV/AIDS, Substance Abuse, etc.) as well as with other bureaus (Vital Statistics, Communicable Disease Control). Boston also offers opportunity for collaboration with academic institutions such as Harvard School of Public Health and Boston University School of Public Health. The fellow would have the opportunity to present their work to programs within MDPH, in national meetings, and peer-reviewed journals.

The fellow would evaluate at least one existing surveillance system using evaluation guidelines developed by the CDC (2002). Potential systems to be evaluated include Birth Defects Surveillance, WIC, Fetal death reporting, Early Intervention, Healthy Start Initiatives. Opportunities are available to work with the Center for Biopreparedness at Childrens Hospital to improve syndromic surveillance among the special population of pregnant women, infants, and children.

Assignment Location: Boston, MA

Primary Mentor: Wanda Barfield, MD, MPH
MCH Epidemiologist (2003-present)

Advanced Degrees: MD, Harvard Medical School (1990)
MPH, Harvard School of Public Health (1990)

Secondary Mentor: Nancy Wilber, EdD
Director, Applied Statistics, Evaluation, and Technical Services (ASETS)
(2000-present)

Advanced Degree: EdD, Harvard School of Graduate Education (1987)