

Maternal and Child Health

Assignment Description:

The CSTE fellow will be located within the FHSD and become involved in multiple programs at both the division and the branch level. The Fellowship will involve learning about the structure and function of the DOH; gaining experience with public health surveillance systems; attending meetings and trainings appropriate to learning; and increasing skills in data analyses, presentations, and publications. This will be accomplished through collaboration with the primary mentor and research statisticians throughout the department, as well as working with partners at the School of Medicine and the Office of Public Health Studies. The assignment will allow the fellow to refine and build analytic skills in complex survey design, use of Geographical Information Software (GIS) to assess important maternal and child health issues, and collaborating with internal and external partners in the State. We are looking to obtain a CSTE fellow who will be able to take the lead and develop projects around topics of interest.

Day-to-Day Activities:

CSTE Fellow is expected to work on primary projects, fulfill other CSTE objectives, participate on workgroups, review and develop survey questions, and additional analyses or projects as identified.

Potential Projects:

1. Prematurity is the leading cause of neonatal deaths and often associated with birth defects and long term health problems. Reduction in preterm delivery holds great promise for overall reduction in infant illness, disability, and death. Premature delivery is an area of growing concern in Hawaii and is a major priority for the State. A recent data brief from the National Centers for Health Statistics highlighted Hawaii as the only state with a significant increase in rates of prematurity from 2006 to 2008. During the course of the fellowship, the fellow will be expected to review the work done around prematurity in the state, conduct additional analyses on existing data systems, translate the analytic data into reports, help develop a State Plan to reduce both prematurity and infant mortality, and work with community groups and providers. Additionally, there is potential to assist in the development of legislation and other initiatives to decrease the burden of prematurity in the state. Products anticipated include the development of reports to key stakeholders, abstracts, and manuscripts.
2. The Hawaii DOH, WIC branch has an extensive database, which includes encounters among mother in the prenatal time period, postpartum, and the interconception period for those that remain on WIC, and information on their children participating in WIC. We have been successful in linking the WIC data to several other data sets: the newborn birth certificate, the newborn metabolic, and the newborn hearing screening databases. We would like to obtain a CSTE Fellow to look at these linked data sets and develop various research projects such as ensuring that anemic infants identified by newborn screening receive appropriate nutritional counseling when seen in WIC. Other potential analyses with this linked data include assessing birthweight and longitudinal outcomes in children, assessing growth among WIC children identified with newborn metabolic conditions, assessments of prenatal characteristics captured in WIC and predictors of hearing loss. Products anticipated include the development of reports to key stakeholders, abstracts, and manuscripts.
3. In Hawaii as across the nation, mothers are increasingly delaying child birth to later years and this has been reflected by the increases in mean age of births. Concurrently there has been a substantial increase in risk factors for as well as the development of chronic disease such as

obesity, hypertension, diabetes, and cancer. This increase in disease can influence maternal and child health outcomes. Further, about half of all pregnancies are unintended so it is important to emphasize clinical and public health programs to promote healthy pregnancies in those contemplating a pregnancy as well as those not currently anticipating one. Studies are needed to determine relationships between chronic disease, medication use, advancing maternal age, pregnancy intendedness, family planning, and receipt of appropriate clinical care. It is expected that these analyses will highlight the increasing importance of preconception and inter-conception care for women of reproductive age. The analysis of multiple data set allows exploration of several of these indicators so studies can be done to see how they relate to preconception and inter-conception care, particularly among Hawaii's unique Asian and Pacific Islander populations. This practicum will occur in a broader context to utilize current data and drive the development of and use of various data sets to inform the Department of Health and Maternal and Child Health stakeholders in Hawaii. This may include meeting with various clinical providers, medical training programs, and the Hawaii Medical Association. Products anticipated from this practicum include the development of abstracts, manuscripts, and helping to frame the issue in Hawaii.

4. Hawaii is a very unique and diverse population with 1/3 of mothers and 1/3 of fathers with a live birth being of multiple race. The impact of this heterogeneity on outcomes is not known as traditional approaches have been to categorize individuals to a single race group for ease of reporting. Efforts have been made in the State to collect multiple race/ethnicity data across several programs and surveys. The CSTE Fellow could evaluate the reporting across various data sets (e.g., BRFSS, YRBS, WIC, Perinatal Support, Family Planning Data) and help develop standard methodology to report on the multi-ethnic race in Hawaii. For example, WIC data is linked to the birth certificate file so birth outcomes such as Preterm delivery and Low birthweight with a particular interest in changes depending on classification based on reported child's and mother's race. Another example could be using Program data to evaluate disparities among different measures such as use of services or family planning methods. This work will help inform the department on the use of race/ethnicity data for program purposes and develop guidelines around how multiple race and ethnicities could be classified. Products anticipated from this practicum include the development of reports, presentations, abstracts, and manuscripts.

Preparedness Role

The CSTE Fellow will be expected to learn about activities of the DOH and its role in emergency preparedness, complete trainings, and be available for emergency preparedness activities for the State of Hawaii.

Assignment Location: Honolulu, HI

Primary Mentor: Donald Hayes, MD, MPH
CDC Assigned Epidemiologist
Hawaii Department of Health

Secondary Mentor: Ann Pobutsky, PhD
Research Analyst/Epidemiologist
Hawaii Department of Health