

## Maternal and Child Health

### Assignment Description

The Division of Family Health in the New York State Department of Health promotes the health of families by assessing needs, conducting population surveillance, promoting healthy behaviors and providing services to support families. Within the Division of Family Health, under the supervision of Dr. Marilyn Kacica, is the Office of the Medical Director which provides medical and epidemiologic leadership support to all division programs. The Office also supports policy development, programmatic initiatives, and quality improvement initiatives. Division programs include the Bureau of Maternal and Child Health that includes a variety of programs that focus on the prevention of adverse health conditions and promotion of health and wellness in women, children and youth; the Bureau of Early Intervention that focuses on young children with, or who may be at risk for, physical and cognitive disabilities; and the Bureau of Dental Health that implements and monitors a broad range of statewide dental health programs to prevent, control and reduce dental diseases and other oral health conditions, while also promoting healthy behaviors. The fellow would be under the direct supervision of Dr. Kacica. Dr. Glen Johnson will be the secondary mentor for the CSTE Applied Epidemiology Fellow, whose specialty is in biostatistics and spatial statistics.

### Day-to- Day Activities

The fellow will typically be working with data, using SAS, EXCEL, ACCESS and possibly other database software, while also participating in meetings from day to day. Most work would be in the main office. However, attendance at meetings when applicable throughout the state would be possible. The fellow would meet weekly with the mentors to discuss ongoing projects and progress. The fellow will have opportunities to participate in national or statewide calls, seminars, conferences and meetings to broaden the experience. It is expected that the fellow will present their work within the health department as well as at meetings with the ultimate goal of publication to enhance writing and presentation skills.

### Potential Projects

A priority project for the fellow is to research trends, risk factors and infant health outcomes of late preterm births. Overall preterm births have risen over 30% nationally in the past two decades, being driven mostly by late preterm births (37+ weeks gestation), which also constitute over 70% of the cases. Recent evidence about health impacts have further raised concern about babies born between 37-38 weeks, with the “new” definition of full term becoming 39+ weeks of gestation. Initially, the fellow will evaluate the trend of late preterm deliveries in New York State over the past two decades. Trend analysis would be done for all preterms and for those that appear to be from elective delivery. The fellow would then evaluate health outcomes of infants born during the following stages of gestation: 34-36 weeks, 37-38 weeks and 39+ weeks.

After initial descriptive analysis, the fellow would work closely with research staff to develop appropriate statistical models to quantify risk factors associated with late preterm births, as defined by the different gestational ages discussed above. In addition to statistical analyses, the fellow will have the opportunity to gain a broader public health experience through involvement in specific state and national projects to address issues related to disparities, late preterm births and poor birth outcomes.

The Division of Family Health (DFH) currently has an active role in the national March of Dimes Big 5 project that includes five states with the highest number of births (California, Illinois, Florida, Texas and New York). The focus of the Big 5 is currently to decrease late preterm births. Through periodic calls and discussions, the fellow will have an opportunity to gain a better understanding of the approaches and methods that states use to improve birth outcomes.

Through the Division's quality improvement project with the National Initiative for Children's Healthcare Quality (NICHQ), the fellow will gain an understanding of the use of data to identify strategies and opportunities for improvement, and the use of data to evaluate outcomes. Webinars and televised programs are offered within the department on a variety of related public health topics. The fellow will be provided the opportunity to attend these programs when related to the focus area. While the fellow would focus on the study introduced above, they would also learn about other priority projects engaged in by the Division of Family Health. A "sample" includes: evaluating the effect on birth outcomes of home visiting programs or organizational changes like perinatal regionalization of hospitals; developing a surveillance system for maternal mortality to help improve the safety and quality of care in birthing hospitals; developing a statewide child mortality review system that requires periodic collection and analysis of data from review teams combined with vital statistics to evaluate trends in child death patterns.

#### Preparedness Role

Dr. Kacica is the lead from the Division of Family Health for Pediatric and Obstetric Emergency Preparedness. She has led the development of an upstate Pediatric and Obstetric Emergency Preparedness Toolkit and the evaluation of hospitals for the review and implementation of it. Dr. Kacica works closely with Preparedness representing the needs of women and children including those with special needs. These populations are now a priority and many opportunities exist in addressing the needs of these populations as well as evaluation of efforts.

Assignment Location: Albany, New York State

Primary Mentor: Marilyn Kacica, MD, MPH  
Medical Director, Division of Family Health  
NYS Department of Health

Secondary Mentor: Glen Johnson, PhD, MS, MA  
Research Scientist IV  
NYS Department of Health