Birth Defects

Assignment Description:

The Texas Birth Defects Registry is one of the largest active surveillance systems of birth defects in the world, with over 100,000 cases collected since its inception in 1994. It is run by the Birth Defects Epidemiology and Surveillance Branch (BDES) which also engages in extensive analysis of data from the Registry, provision of data in response to requests, collaborative research, cluster investigations, referral of affected families into services, and prevention efforts. The BDES also houses one of nine CDC-funded Centers of Excellence for Birth Defects Research and Prevention which conduct the National Birth Defects Prevention Study.

FELLOW'S DAY-TO-DAY ACTIVITIES:
The fellow would be involved in data analysis and report/manuscript-writing activities, both as an analyst and for some projects, as study lead. There may be some data management required in preparation for the data analysis. Attendance would be required at weekly meetings of staff epidemiologists and at ad hoc meetings such as for project-specific planning, cluster investigations or emergency preparedness.

EXAMPLES OF POTENTIAL PROJECTS:
- DATA ANALYSIS: Potential projects include descriptive epidemiology of a selected birth defect (e.g. holoprosencephaly); urban/rural differences in occurrence of selected birth defects; prevalence of maternal diabetes in 49 specific categories of birth defects; the occurrence of birth defects among children in protective custody; etiologic analysis using the National Birth Defects Prevention Study; and risk of birth defects near coal burning plants. Opportunity exists for fellows to suggest their own study proposals.

- OUTBREAK FIELD INVESTIGATIONS: The fellow will assist with the analysis of new or ongoing birth defect cluster investigations and will be asked to examine an area of Texas with historically high rates of oral clefts, and to report conclusions and recommend next steps for this area.

- WORKING ON INTERDISCIPLINARY TEAMS: Depending on the project, the fellow may work with epidemiologists and research collaborators (for data analysis projects, research studies, and cluster investigations), field staff (for projects involving Registry operations), administrative staff (for emergency preparedness planning), and the public (for certain cluster investigations).

PROGRAM/SURVEILLANCE SYSTEM EVALUATION COMPONENT:
A comprehensive evaluation as recently been completed by an EIS officer. However, other opportunities include: determining if the military birth defects registry or birth certificates are a potentially useful case finding source for the Texas registry; assessing whether there are specific data fields currently used that are no longer productive or meaningful for analysis; or determining how we can improve efficiency of selecting Registry records for clinical review.

ROLE OF FELLOW IN STATE EMERGENCY PREPAREDNESS PLAN

BDES Registry is one of the few DSHS programs whose staff visit hospitals and review medical records daily; currently, there is no plan in place to make efficient use of this workforce in a public health emergency. Also, aside from routine data backup, the Registry it does not have an emergency preparedness plan so one could be developed that would include various scenarios that could threaten Registry assets (data, offices) or facility medical records.

Assignment Location:	**Austin, TX**
Primary Mentor:	Peter Langlois, Ph.D., MSc Epidemiologist
Advanced Degrees:	PhD, University of Texas (1988) MSc, University of Toronto (1984)
Secondary Mentor:	Mark Canfield, Ph.D. Branch Manager
Advanced Degrees:	Ph.D., University of Texas (1993) M.S., University of California, Davis (1979)