



**KENT COUNTY HEALTH DEPARTMENT
ACADEMIC HEALTH DEPARTMENT
PROJECT DESCRIPTION**

PROJECT NAME: Mosquito and Tick Surveillance and Community Outreach
SEMESTER: Spring/Summer 2019
PRECEPTOR: Brendan Earl
Number of internships available: 3

DESCRIPTION: The Mosquito and Tick Surveillance Program consists of trapping and testing mosquito and tick populations. It includes sorting and testing mosquitoes for West Nile Virus (WNV) and identifying non-native species that could potentially carry the Zika Virus. Starting in 2019, the Kent County Health Department (KCHD) will also be collecting and identifying tick species that could potentially be infected with Lyme Disease or other vector-borne illnesses. Besides fieldwork and laboratory activities, this internship will include attending public events to participate in educational and outreach opportunities. The main responsibilities of the intern will include identifying and sorting mosquito and tick species, create and update databases, data analysis and interpretation, public outreach and education, and to provide administrative preparation and field support for seasonal programming.

IMPORTANCE TO PUBLIC HEALTH: In 2012, Kent County had the second highest number of WNV cases in the State of Michigan. Since 2013, the Kent County Health Department has monitored the Grand Rapids area for the presence of WNV. In 2018, KCHD had a record number of mosquitoes captured and tested with the highest WNV infection rate on record. With a milder winters and dry summers, urban areas in Kent County will provide an ideal environment to breed mosquitoes. In a continued effort to protect our community from contracting West Nile Virus, Zika, and Lyme Disease, our department has will carry out a mosquito and tick surveillance program and educated the public concerning mosquito control and arboviruses.

APPLICABLE ESSENTIAL PUBLIC HEALTH SERVICES:

- Diagnose and investigate
- Inform, educate, and empower
- Mobilize community partnerships
- Link people to health services
- Assure a competent workforce
- Evaluate effectiveness
- Research for new insights

PROJECT DELIVERABLES:

- Creation of a database compiling mosquito and tick surveillance results
- Statistical analysis of collected data with graphic presentation
- Attending educational and public outreach events
- Presentation for Student Research Day

MINIMUM QUALIFICATIONS: Students applying for this internship must be enrolled in a bachelor's or master's degree program. Computer proficiency and familiarity with Excel required.

SKILLS: The student selected for this internship opportunity should expect to develop public health skills and competencies in the following categories:

- Experience working with vector-borne diseases in a public health atmosphere
- Knowledge of the biology and lifecycle of mosquito and tick species
- Mosquito and tick species identification
- Networking with local and state agencies
- Participating in public outreach events