# PSI Project Description
## Air Dispersion in Allegheny County

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Environmental Health</th>
<th>Department</th>
<th>Air Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Practicum Location</td>
<td>3901 Penn Avenue (Lawrenceville)</td>
<td>Number of students needed for this project</td>
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</tbody>
</table>

## Project Description

At least twice a day, the National Weather Service (NWS) launches sounding equipment to quantify conditions in the upper atmosphere. In the Pittsburgh area, the soundings are initiated at about 7 a.m. EST and 7 p.m. EST. Records of the data collected are available in tabular and graphical form.

The goal of this project is to analyze the data to characterize diurnal air dispersion potential in Allegheny County and to determine the spatial and temporal representativeness of the NWS sounding data.

## Primary Activities

The intern will examine meteorological sounding and related data from at least the past five years to determine atmospheric dispersion potential by day/night, month, season, and or other pertinent time period.

## Project Deliverables

Analysis report including, as appropriate, detailed tables, graphs, figures, and textual description of dispersion conditions in Allegheny County.

## Specific Qualifications

Previous work with large data sets and statistical analysis skills would be helpful. Academic coursework (undergraduate or graduate) in environmental science or engineering preferred.
Pittsburgh Summer Institute  
Animal Bite Surveillance

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Community Health Promotion and Disease Prevention</th>
<th>Department</th>
<th>Infectious Diseases</th>
</tr>
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<tbody>
<tr>
<td>Practicum Location</td>
<td>425 First Avenue (Downtown)</td>
<td>Number of students needed for this project</td>
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</table>

**Project Description**

This is a surveillance project within the Infectious Disease Program focused on surveillance and follow-up of reported animal bites in Allegheny County. All animal bites are exposures and investigated and recommendations are made for follow-up care and/or prophylaxis if needed. The student will have the opportunity to develop important communication and data management skills, as well as interact with a variety of community partners and other governmental agencies.

**Primary Activities**

1. Follow up on reported animal bites (primarily conducted via telephone with clients).
2. Help oversee follow-up care and prophylaxis, if needed.
3. Work with Animal Control and other community partners to ensure that testing is done in a timely and efficient manner.
4. Review the animal bite database and make recommendations (and, possibly make changes) to improve usability and efficiency.
5. Other duties, as necessary.

**Project Deliverables**

1. The student will be expected to conduct timely follow-up calls for reported animal bites and oversee any follow-up treatment that may be necessary based on the information obtained from the report and interview with the client. This will be documented and added into a database.
2. The student will be expected to prepare a report on possible improvements to the functionality of the animal bite database.
3. If available, the student should plan to participate in the annual Raccoon Rabies Oral Vaccination program, usually conducted during the second week of August.

**Specific Qualifications**

- An interest in learning about rabies and its impact on public health.
- Good oral communication skills and comfort talking to the public via telephone.
PSI Project Description
Annual Raccoon Oral Rabies Vaccination Program

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Environmental Health</th>
<th>Department</th>
<th>Housing and Community Environment</th>
</tr>
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<tr>
<td>Practicum Location</td>
<td>3190 Sassafras Way, Pittsburgh (Strip District)</td>
<td>Number of students needed for this project</td>
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Project Description

Annually, the Health Department collaborates with the United States Department of Agriculture’s Wildlife Services (USDA WS) to perform the Raccoon Oral Rabies Vaccination (ORV) Baiting Program. The program is part of a multi-state effort to eradicate terrestrial rabies in the contiguous United States. With the number of rabid raccoons steadily declining over the 15 years since the program began, we have already significantly reduced the risk of this deadly disease to humans and pets. The program is beginning Phase II of its operations (the last 15 years have been part of Phase I), in which we are beginning to push the westward boundary of the raccoon variant of rabies eastward, hopefully until it has effectively been eliminated. Allegheny County plays a huge role in that goal as Pittsburgh is the only major metropolitan area along the westward boundary of the terrestrial rabies spread, and will be the model by which the other large cities along the eastern seaboard can begin eliminating terrestrial raccoons.

The Raccoon ORV Baiting Program culminates in a week long effort in early August when ACHD employees and community partners distribute approximately 300,000 baits by hand in all 130 municipalities on foot and from vehicles. Coordinating this effort is a complicated and tricky endeavor- there are many moving cogs that need to be put into place. The primary focus of this project will be to manage the Raccoon ORV Baiting Program from start to finish, performing follow-up afterwards in order to suggest improvements to the program for next year.

Primary Activities

1. Organizing and facilitating recruitment of program volunteers.
2. Scheduling and coordinating volunteers.
3. Following up with volunteers.
4. Managing the daily activities of the baiting program and troubleshooting during baiting week.
5. Taking calls from the public.
6. Assisting in management the whole of baiting week- this could mean 10-12 hour days during that week.
7. Performing baiting and any other needed tasks during baiting week.
8. Providing recommendations for improved program efficiency, to include performing a survey of volunteers.
9. Assisting with follow-up calls for both the baiting program and animal bite complaints.
10. Other duties, as needed.

Project Deliverables

1. Results and analysis from volunteer survey to include recommendations for improving the program.
2. Documentation during baiting week to include compilation and recording of the daily work report sheets and adjustments to the schedule to ensure work is completed.
3. Documentation from any follow-up calls related to baiting and/or animal bites.

Specific Qualifications

You must be available for the Raccoon ORV Baiting Week, which is typically conducted over the course of 5 days in early-mid August. The exact dates will be determined in the spring/summer.

Experience with ArcGIS is a definite plus- we will ideally be tweaking all of the maps produced for baiting week in the ArcGIS program.
# PSI Project Description

## Annual School Vaccination Report

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Assessment, Statistics, and Epidemiology</th>
<th>Department</th>
<th>Epidemiology</th>
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<tbody>
<tr>
<td>Practicum Location</td>
<td>542 Fourth Avenue (Downtown)</td>
<td>Number of students needed for this project</td>
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### Project Description

Prepare annual school vaccination summary report that is distributed all school districts and posted on the ACHD website and customized vaccination summary for each school (~400 in Allegheny County) that will be distributed via e-mail to school nurses and administrators.

### Primary Activities

- **School vaccination data (3/4 time)**
  - Review school vaccination submission process for county and state
  - Orientation of Excel database of school vaccinations
  - Analyze school data for the past school year and prepare summary w/ charts and tables
    - Orient data via person, place, and time
    - Vaccination levels by grade level (person)
    - Vaccination levels by school district and school (place)
    - Vaccination levels by fall and spring (time)
  - Questions to answer:
    - Are there any unique characteristics to districts/schools/grade levels with low vaccination rates (<90%)?
      - Same school districts?
      - Are certain grade levels more likely to have lower vaccination rates?
      - Are there certain “hotspots” of low vaccination rates? Suburban? Urban? Rural?
      - Are there certain types of schools that have low vaccination rates? Public? Private? Special Education?
- **PA-NEDSS (1/4 time)**
  - Assist with data entry and case investigation of vaccine-preventable diseases

### Project Deliverables

- A brief (<10 pages) report summarizing findings following a pre-existing template.
- Customized letters (using mail merge)

### Specific Qualifications

- Familiarity with MS Excel, including Pivot Tables (training by OEB staff will be provided if needed)
- Working knowledge of MS Word, including editing, formatting, inserting tables/charts, mail merges
This practicum opportunity is with ACHD’s Mosquito-borne Disease Control Program. The majority of the experience will be spent in the field collecting mosquito eggs with oviposition traps to survey for the Asian Tiger Mosquito (*Aedes albopictus*). This mosquito is a newly invasive species to the county and a potential vector of Zika virus and other arboviruses. **The intern must complete 200 hours from the beginning of June 2017 to August 18, 2017 (approximately 15 hours per week). This means that there will be a delayed start for this project.** If the intern chooses, the project may be continued until the end of October. A personal vehicle for field work and a valid driver’s license are a requirement.

### Primary Activities

**PRIMARY ACTIVITIES**

- **Mosquito egg surveillance** *(collecting mosquito eggs in field using oviposition traps)*
- **Mosquito rearing in lab** *(rearing mosquito eggs to larval stage at ACHD Housing office by flooding eggs in water until they hatch. Larvae need fed/maintained on a daily basis until they are large enough to identify to species.)*
- Learning to use mosquito species identification keys by looking at larvae under microscope
- Maintaining an Excel spreadsheet of surveillance results

**POTENTIAL SECONDARY ACTIVITIES**

- **Public education** *(e.g. door-to-door neighborhood outreach, responding to mosquito complaint calls, neighborhood clean-up activities, etc.)*
- **Revising/creating vector control pamphlets & educational material**
- Any other mosquito study that the intern would like to use for graduate thesis/essay material

### Project Deliverables

The intern will be required to keep all surveillance data in an organized fashion in an Excel spreadsheet. They will also be required to compile the current data with historical data to communicate and visualize the spread of *Aedes albopictus* in Allegheny County.

### Specific Qualifications

The intern will learn how to identify potential trapping locations of *Aedes albopictus* from the preceptor for the first few weeks, and then trap on their own for the remainder of the summer. Trap sites are located in urban, densely populated neighborhoods. A valid driver’s license and personal vehicle are mandatory to transport mosquito egg traps to and from the field. Time will be spent in the field therefore the student must be physically able to conduct such work for the duration of the summer. A personal GPS device would be helpful when driving around to record trap sites. Some skill with ArcGIS software would be useful to create maps to communicate the spread of this invasive mosquito. When interacting with the public, the intern must be able to represent the Vector Control Program with professionalism and provide information about the roles and responsibilities of the program.
**PSI Project Description**

**Evaluation of Public Health Nursing Programs**

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<tr>
<th>Bureau</th>
<th>Community Health Promotion and Disease Prevention</th>
<th>Department</th>
<th>Infectious Diseases</th>
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<tr>
<td>Practicum Location</td>
<td>425 First Avenue (Downtown)</td>
<td>Number of students needed for this project</td>
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**Project Description**

This is a cross-cutting evaluation project looking at various aspects of clinical nursing activities at the Allegheny County Health Department. Public Health Nurses mainly work in four programs at ACHD: Maternal and Child Health, Immunization, Tuberculosis, and Sexually Transmitted Diseases/HIV. Nurses are involved in both direct, clinical care, as well as public health activities such as outbreak investigations, health promotion and education, and other community health initiatives. The student will be expected to assist with a mixed-methods evaluation of the nursing programs at ACHD in order to enhance employee recruitment and retention strategies. The student would also be expected to conduct a thorough review of public health nursing around the USA and research best practices to be implemented at ACHD. The Public Health Nurses Supervisor in the Infectious Diseases/Immunization program will be leading this project.

**Primary Activities**

- Contribute to the development of an evaluation plan for nursing at ACHD, including quantitative and qualitative tools.
- Help conduct the evaluation and provide a report regarding changes and improvements that can be made to improve nursing activities at ACHD.
- Research public health nursing throughout the country and identify best practices.
- Other duties, as assigned, to support nursing activities throughout ACHD.

**Project Deliverables**

The student will be expected to produce a summary report of the findings of the evaluation, including key recommendations to be implemented.

**Specific Qualifications**

ACHD has many sites throughout Allegheny County. The student will need to travel to different ACHD locations. Most are accessible by bus.
**PSI Project Description**

**Exactly How Well Are We Living in Allegheny County?: A Program Evaluation**

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Community Health Promotion and Disease Prevention</th>
<th>Department</th>
<th>Chronic Disease</th>
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<tr>
<td>Practicum Location</td>
<td>807 Wallace Avenue (Wilkinsburg)</td>
<td>Number of students needed for this project</td>
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**Project Description**

The Allegheny County Health Department (ACHD) continues to serve as a platform in reducing the burden of chronic diseases in Allegheny County, Pennsylvania. Our increased efforts are being made to strengthen our support to stakeholders and partners in identifying and implementing evidence-based interventions that successfully reduce disease risk, improve access to affordable health care, and create sustainable health-promotion programs that ultimately improve health indicators and quality of life of all residents in Allegheny County.

We embrace all of our programs to generally improve population health. More specifically, we vigorously promote our Live Well Allegheny (LWA) campaign, launched in 2014, as a strategic method of improving health indicators in Allegheny County. More specifically, LWA has been a successful campaign used to advance the goals of the Plan for a Healthier Allegheny (PHA), the Health Department’s community health improvement plan which was released in May 2015. Specifically, Live Well Allegheny addresses the priority area of reducing chronic disease risk behaviors. Through collective action with school districts, restaurants, workplaces and municipalities to promote the health and well-being of Allegheny County residents, ACHD encourages entities to adopt practices that reduce chronic disease. These entities support economic activity, facilitate physical activity, create access to healthcare and other services, and promote healthy eating, among many other benefits.

ACHD has already collaborated with 33 municipalities, 7 school districts and 1 charter school with 11 locations, 5 workplaces and 33 restaurants through letter of commitments and resolutions. This project will be used to develop an evaluation plan that will examine how effective each participant is in maintaining their resolutions and ways to support the Live Well Allegheny campaign moving forward. Additionally, this project will identify capacity needs and training opportunities for Live Well Allegheny staff to support participating entities.

**Primary Activities**

The student will identify gaps and develop support structures for ACHD to collaborate with school district, community, restaurant and workplace entities and other community partners like the American Heart Association on strategies promoting access and utilizing high quality health care, affordable healthy food, tobacco cessation and other health resources, as well as continue to identify effective trainings to support the ongoing implementation of LWA health-related projects.

The student will conduct telephone and face to face interviews with Live Well Allegheny staff, as well as program participants such as workplaces, restaurants, communities and school districts. Additionally, the student will enter and analyze qualitative data as part of a process evaluation of a capacity-building program for Live Well Allegheny campaign. Based on the interviews completed with Live Well Allegheny participants, the student will identify needs voiced by communities, school districts, restaurants, workplaces, and community partners.

**Project Deliverables**

The deliverables will be a program evaluation plan for Live Well Allegheny, (including a problem statement, program activities, target population, evaluation questions, methodology, outcomes, work plan, and budget) and report from participant interviews. The report will include focus areas where ACHD staff can train and provide information sessions to Live Well Allegheny participating entities.

**Specific Qualifications**

Effective coordination and interpersonal skills, quantitative and/or qualitative evaluation skills and use of Microsoft Office (Excel, Word and Power point). Suggested coursework: Health Program Evaluation and/or Program Planning.
This practicum opportunity is with ACHD’s Mosquito-borne Disease Control Program. The majority of the experience will be spent in the field trapping adult mosquitoes in Allegheny County to be tested for viruses such as West Nile, Zika, etc. For more information about mosquito surveillance in Pennsylvania, visit www.westnile.state.pa.us. The intern must be available to work from May 17 – September 29, 2017 on Monday through Thursday for approximately 20-30 hours per week. There is a need for the intern to work until the end of September therefore flexibility will be given around class schedule. A personal vehicle for field work and a valid driver’s license are a requirement. After the initial 200 hours worked as required by PSI, the intern will be paid $9.50/hour.

Primary Activities

**PRIMARY ACTIVITIES**
- Mosquito surveillance (*using traps to collect adult mosquitoes; minimum of 15 traps/week must be set once trapping locations are learned*)
- Sorting and preparing mosquitoes to be shipped for laboratory testing
- Database entry of surveillance results

**POTENTIAL SECONDARY ACTIVITIES**
- Mosquito larvicide treatments in wetlands (*student may participate if available to work in April 2017 when treatments take place*)
- Mosquito adulticide treatments (*assisting during potential late-evening treatments*)
- WNV Catch Basin Program (*student may participate in one un-paid evening of this program for extra exposure to mosquito control activities*)
- Public education (*e.g. door-to-door neighborhood outreach, responding to mosquito complaint calls, neighborhood clean-up activities, etc.*)
- Revising/creating vector control pamphlets & educational material
- Any other mosquito study that the intern would like to use for graduate thesis/essay material

Project Deliverables

The intern will learn trapping locations from the preceptor for the first few weeks, and then trap on their own for the remainder of the summer. The intern will assist the preceptor in meeting a weekly trap minimum as set in the 2017 Mosquito-borne Disease Control Grant provided by the PA Department of Environmental Protection to ACHD. All surveillance data will be entered into a database within one day of field work.

Specific Qualifications

A valid driver’s license and personal vehicle are mandatory to transport mosquito traps to and from the field. Mileage will be reimbursed at the Pennsylvania Mileage Reimbursement Rate (currently $0.54/mile). The intern must be able to lift 50 pounds and be willing to haul traps in their personal vehicle that may get dirty and have an odor from the bait used to lure mosquitoes. The majority of time will be spent in the field therefore the intern must be physically able to conduct such work for the duration of the summer. A personal GPS device would be helpful when driving around to locate trap sites. When interacting with the public, the intern must be able to represent the Vector Control Program with professionalism and provide information about the roles and responsibilities of the program.
**PSI Project Description**  
**Responder Safety and Health**

<table>
<thead>
<tr>
<th>Bureau</th>
<th>Public Policy and Community Relations</th>
<th>Department</th>
<th>Emergency Preparedness</th>
</tr>
</thead>
</table>

### Practicum Location
Various ACHD locations

### Number of students needed for this project
1

### Project Description
The Preparedness Program at ACHD is responsible for All-Hazards Planning for emergency situations that pose a threat to public health (for example, infectious disease outbreaks, chemical releases, extreme weather, flooding, power outages, radiological exposures). A large part of ACHD’s preparedness program focuses on responder safety and health (CDC Preparedness Capability 14). This involves identifying responder health and safety risks, identifying personal protective needs, coordinating with partners to facilitate risk-specific safety and health training, and monitoring responder safety and health actions.

The student will play an important role in implementing responder safety trainings at ACHD, including CPR, First Aid, Respirator Fit Testing, and HAZMAT operations. The student will also be involved in various preparedness activities, such as tabletop exercises focused on anticipated or emerging health threats, as well as some planning work with community partners involved in response activities.

Please note that this practicum will require traveling to various health department locations throughout the county. All locations are easily accessible by bus. The student may also have to complete some work independently at home.

### Primary Activities
- Assist with implementing responder safety trainings for all ACHD staff.
- Play a key role in the training process from start to finish – including planning, registration, tracking, certification, and evaluation.
- Ensure that all ACHD staff members are up-to-date with required preparedness trainings.
- Assist with running the ACHD Safety Committee meetings.
- Help plan preparedness drills, exercises, and other fun activities.

### Project Deliverables
The deliverables of this project will be met by assisting with the implementation of all responder safety trainings planned during the course of the Pittsburgh Summer Institute. A significant outcome will also be to take on an active role in planning for 2017 trainings.

### Specific Qualifications
- Strong organizational skills; Comfort with public speaking in a small classroom setting; An interest in learning about public health preparedness.
# Tobacco Sales and Municipal Policy in Allegheny County

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<thead>
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<th>Bureau</th>
<th>Public Policy and Community Relations</th>
<th>Department</th>
<th>Policy</th>
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<td>Number of students needed for this project</td>
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## Project Description

### Overview
ACHD has identified chronic disease health risk behaviors, including tobacco use, as a priority area to be addressed in the next 3-5 years. In Allegheny County, 23% of adults smoke, and nearly 40% of 18- and 19-year-olds have tried cigarettes or other tobacco products. Tobacco companies spend the vast majority of their advertising and promotional dollars at the point of sale: an estimated $454.2 million annually in PA alone. Residents, including children, are exposed to tobacco advertising every time they enter or walk by one of 1,200 stores that sell tobacco in Allegheny County. Youth are twice as sensitive to tobacco advertising than adults and are more likely to be influenced to smoke by cigarette marketing than by peer pressure. One-third of underage experimentation with smoking is attributable to tobacco company advertising.

### Objective
Further ACHD’s reduction efforts, including developing a community-specific evidence base of tobacco exposure and “norming” of tobacco use by capitalizing on the Health Department’s Live Well Allegheny campaign’s existing network of partners, and communicating results to stakeholders.

### Description
The student will work with a national expert on tobacco policy to implement a municipal-level pilot collecting and analyzing data about tobacco retailers in select communities in Allegheny County. Before the PSI student arrives, ACHD will have trained and deployed high school students and mentors to spend time in retail locations where tobacco is sold along with other products (in other words, where kids may go to purchase other things in their communities), collecting data about what products are sold, where they are located in stores, and how they are advertised. Students will use a digital application to collect that data and compare it with other retail locations. The PSI student will support analysis of data that has been collected by high school students and their mentors, disseminate that data through multi-media issue briefs, and discuss preliminary results with participating partners and other stakeholders in efforts to curb tobacco use in the county. He or she will be working on the front lines of tobacco control, at the intersection of policy and practice in their most localized forms.

### Primary Activities
- Qualitative and quantitative data analysis
- Production of briefing materials for a variety of audiences on tobacco sales in Allegheny County communities, including elected officials, anti-tobacco advocates, ACHD employees, and potentially store owners. These materials must be understandable by and useful to individuals without a public health background
- Potentially support fundraising for replication or expansion of pilot program
- Potential recruiting of additional high school student researchers

### Project Deliverables
- Compelling materials for distribution in a variety of forms (on and offline, for discussion and reading) summarizing and analyzing project outcomes, documenting narratives with photograph and student participant “verbatim” as much as quantitative analysis.
- Planning of at least one dissemination event for community-level stakeholders, an advocate briefing, and a briefing for ACHD Chronic Disease staff

### Specific Qualifications
Experience with qualitative analysis and some quantitative analysis; passion for chronic disease prevention; experience in tobacco control and/or policy analysis and implementation is valuable but not required.
PSI Project Description
Workforce Development and Training

<table>
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<th>Bureau</th>
<th>Administration</th>
<th>Department</th>
<th>Human Resources</th>
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<td>Practicum Location</td>
<td>542 Fourth Avenue (Downtown)</td>
<td>Number of students needed for this project</td>
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**Project Description**

Workforce development at the Allegheny County Health Department is focused on increasing access to and providing quality training for all staff members. The training program utilizes the Core Competencies for Public Health Professionals as a platform for delivering the Ten Essential Services of Public Health. This internship will provide an opportunity to work on innovative training initiatives that support staff across all programs and bureaus within the department.

The primary objective of this internship will be to develop a comprehensive, competency-based database to capture all types of training activities that occur at ACHD. The student will work with both the Human Resources and Emergency Preparedness teams to organize training records in a meaningful and accessible way for both administrative staff and the employees themselves. In addition, the student will help implement and evaluate the 2017 Workforce Development Plan and start identifying training needs for 2018. Through a variety of activities, the student will be able to develop important assessment, data analysis, and program planning and implementation skills, as well as interact with a significant number of program areas within the department. This is a true interdisciplinary project with an opportunity to learn more about the administrative side of public health practice!

**Primary Activities**

- Develop a comprehensive, competency-based training database to incorporate all training records at ACHD in a meaningful way;
- Participate in and help deliver trainings planned for summer 2017;
- Conduct interviews with deputy directors and key program managers to identify training needs for the 2018 Workforce Development Plan; and
- Support Workforce Development in additional ways, as needed.

**Project Deliverables**

The student will be expected to produce a database for ACHD training records that suits the needs of both the Human Resources and Emergency Preparedness Programs. In addition, the student will be expected to participate in and/or assist in the delivery and/or evaluation of any trainings that are scheduled during the course of the practicum. Some work may need to be completed off-site.

**Specific Qualifications**

- An interest in learning about the administrative aspects of public health practice
- Experience working with databases in either Excel or Access preferred, but not required. However, the student must have a good working knowledge of Excel.
- Comfortable interacting with health department managers and leadership.