

# Identifying and Eliminating Barriers to Effective Monitoring Efforts for the Onsite Program in Ottawa County

2010 - 2011

## Environmental Public Health Leadership Institute Fellow:

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## **Acknowledgements:**

### **Adam London, RS, MPA**

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## **EXECUTIVE SUMMARY:**

Ottawa County's Onsite program has been reactionary. The focus is on the completion of tasks and requested applications. Little time is devoted to collection and interpretation of data. Currently, Onsite staff has been struggling to complete daily tasks due to limited staffing and increased workload. Like many Environmental Health departments, resources have decreased in recent years. Often there is pressure to complete the daily applications that are received, leaving no time available to analyze the current system and implement changes.

This problem was reflected in the self assessment of the Ten Essential Services, in which monitoring was an identified weakness. Historically the Onsite program has failed to monitor; emphasis is on completion of daily tasks through handwritten documents. Databases are not utilized to store and analyze information. Each application is treated as a separate and unique function to be completed and filed away for future reference.

Successfully managing a large change initiative may prove difficult as employee buy-in is important. However, the majority of staff recognizes the need for change and is supportive of a change initiative.

In order to address the monitoring issues faced by our department, changes in technology and data management were examined. After discussion with administration, the Onsite budget was approved for upgrades and improvements to technology. In early 2011 new tablet PCs will be purchased. These will have GIS and wireless cellular capabilities. Also, through a partnership with the Emergency Preparedness Program, Onsite was approved for handheld GPS units. A partnership between Environmental Health, IT services, and the GIS department will result in a system that utilizes these technologies to ease the burdens of staff while providing increased capabilities for data management. These capabilities will allow management to improve efficiencies and increased monitoring of staff and program performance.

## **INTRODUCTION/BACKGROUND:**

The Ottawa County Health Department (OCHD) was established in 1931. The OCHD serves the entire population of Ottawa County which is located in the center of one of the fastest growing areas in the state of Michigan. The Ottawa County Health Department is responsible for continually assessing the health of the community and ensuring that appropriate services are made available and easily accessible for all of its citizens.

Ottawa County Environmental Health Services operates as part of the Health Department. Historically Environmental Health has been responsible for food service inspections, sewage disposal permits, well permits, real estate transfer evaluations, and hazardous waste collection. The Onsite Services section oversees sewage disposal systems, water supply systems, real estate evaluations, and various other programs. For a number of years this program has been a reactionary one. Often the focus was on the completion of tasks and requested applications.

Very little time has been devoted to creating data systems to accurately collect and analyze data. Little is known about the effectiveness of current programs, and much of the data available is limited. This history was highlighted with the 10 Essential Environmental Public Health Services self assessment. In this assessment, Monitoring was markedly low. In particular, there was very little storage collection, management, and interpretation of data. Until recently, many of the key stakeholders were unaware that there was a problem.

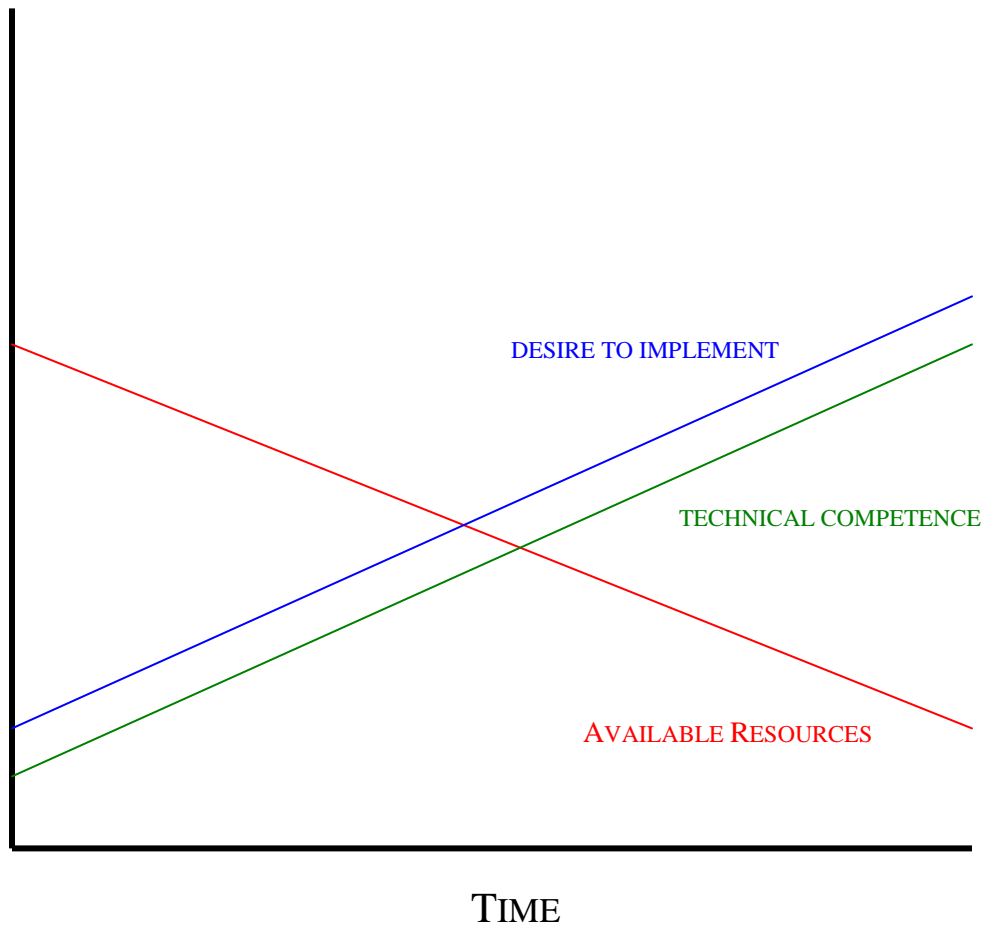
Recent budget pressures faced within the State and County organizations has highlighted the need for accurate data collection and analysis for programs. As funding pressure increases, so too does the need to illustrate program effectiveness and positive impacts to the community. In order to meet this need, changes to the existing system are required that allow for more developed data storage and programs for analysis and evaluation of programs.

This project aims to identify existing barriers to implementation and develop a plan of action to address this need.

***Problem Statement:***

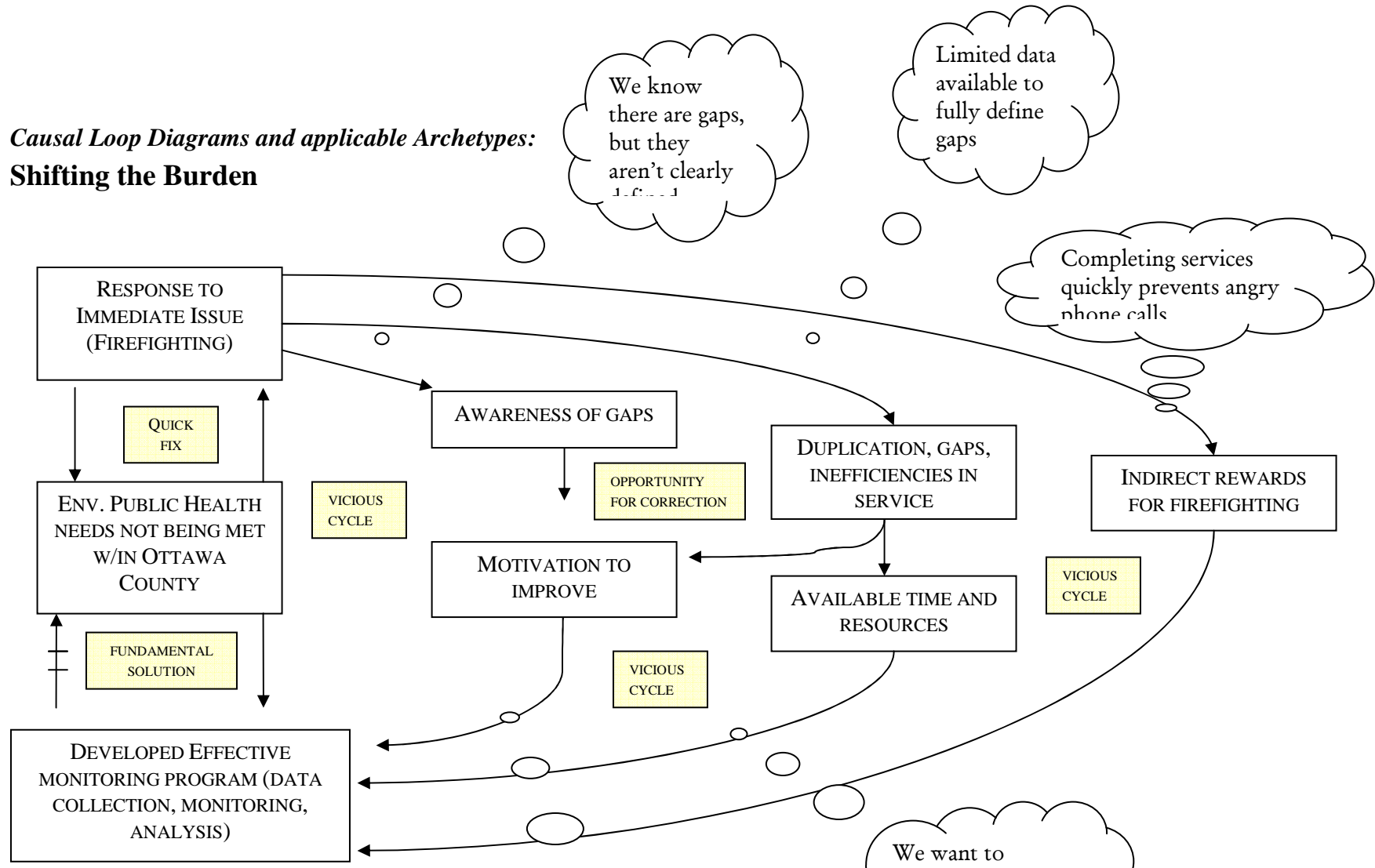
Why have we not been able to create an effective monitoring program for Environmental Health On-site services within Ottawa County?

***Behavior Over Time Graph:***



**Figure 1. Key variables affecting implementation of an effective monitoring program for Environmental Health Onsite Services within Ottawa County.**

**Causal Loop Diagrams and applicable Archetypes:  
Shifting the Burden**



Establishing a vision that makes the long-term solution desirable and natural is an important part of a Shifting the Burden intervention. It will be important to create employee buy in by contrasting the weaknesses of the current system with the benefits of a future system.

**10 Essential Environmental Health Services:**

Describe how your project seeks to enhance or fulfill one or more of the 10 Essential Environmental Health Services and/or the three (3) functions described in the IOM report: assessment, policy development and assurance.

This project will have a direct impact on several Essential Environmental Health Services. Most directly it will impact monitoring and evaluation. Through increased data collection and analysis the effectiveness of programs will be increased. This increased data and information will lead to the development of better policies which more accurately meet the needs of the public.

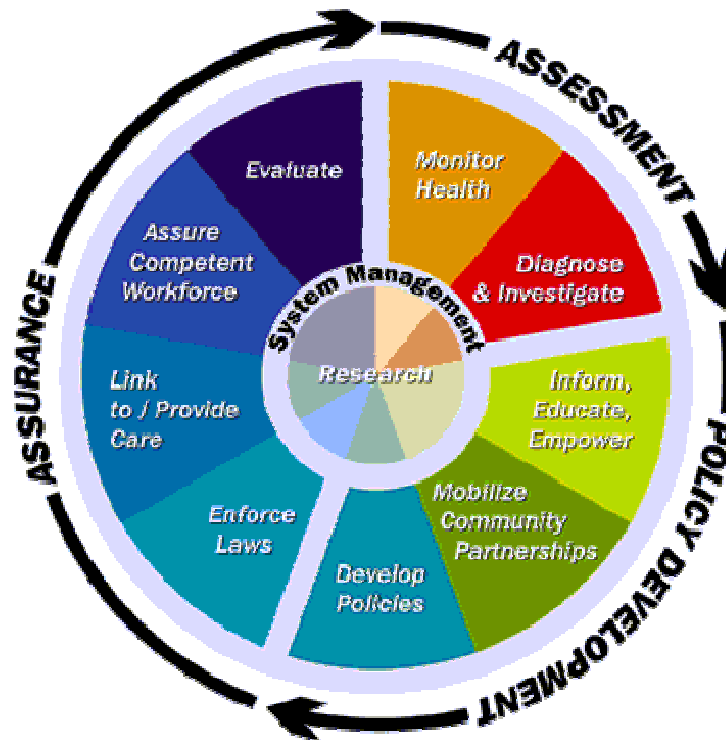


Figure 2: Ten Essential Environmental Public Health Services

**National Goals Supported**

1. Describe how your project seeks to support one or more of the CDC Health Protection Goals <http://www.cdc.gov/about/goals/default.htm> or meets one or more of the Healthy People 2010 Objectives <http://www.cdc.gov/nchs/about/otheract/hpdata2010/abouthp.htm> .

By increasing data collection and analysis, the following objectives are supported through this initiative:

- Increase the proportion of Leading Health Indicators, Health Status Indicators, and Priority Data Needs for which data-especially for select populations-are available at the Tribal, State and local levels. ([Objective 23-05](#))
- Increase the proportion of Federal, Tribal, State, and local public health agencies that provide continuing education to develop competency in essential public health services for their employees. ([Objective 23-10](#))
- Increase the proportion of State and local public health agencies that meet national performance standards for essential public health services. ([Objective 23-11](#))
- Increase the proportion of Federal, Tribal, State, and local public health agencies that gather accurate data on public health expenditures, categorized by essential public health service. ([Objective 23-16](#))

2. Describe how your project supports any or all of these national goals or initiatives.

National Strategy to Revitalize Environmental Public Health Services

<http://www.cdc.gov/nceh/ehs/Docs/nationalstrategy2003.pdf>

The main goal supported through this project is Goal II: Supporting Research. Increased monitoring will allow for better and more efficient analysis of emerging public health threats and improved response to those threats.

3. Environmental Health Competency Project: Recommendation for Core Competencies for Local Environmental Health Practitioners

<http://www.apha.org/programs/standards/healthcompproject/corenontechicalcompetencies.htm>

The competency directly impacted through this project is Assessment: Research, Data Analysis & Interpretation, and Evaluation. An improved monitoring effort will allow for research, data analysis and evaluation to occur where it is currently limited. Many of the services currently being conducted exist because they always have. This project will allow for direct assessment of current systems as well as examination of unmet needs.

***Project Logic Model:***

GOAL: To have a successful monitoring program for Environmental Health On-site Services within Ottawa County of Ottawa

<b>RESOURCES</b>	<b>ACTIVITIES</b>	<b>OUTPUTS SHORT</b>	<b>SHORT &amp; LONG-TERM OUTCOMES</b>	<b>IMPACT</b>
In order to accomplish our set of activities we will need the following:	In order to address our problem or asset we will accomplish the following activities:	We expect that once accomplished these activities will produce the following evidence or service delivery:	We expect that if accomplished these activities will lead to the following changes in 1-3 then 4-6 years:	We expect that if accomplished these activities will lead to the following changes in 7-10 years:
<p><b>Staff</b>—time &amp; energy</p> <p><b>Leadership support</b>—commissioners/upper mgmt</p> <p><b>Funding</b>—increased staffing or technology to free up existing staffs time</p> <p><b>Partners</b>—CDC, other Health Dept. leaders, EPHLI cohorts</p>	<p>Conduct PACE EH assessment</p> <p>Develop clear objectives, goals, values for department to move towards</p> <p>Educate staff and leadership on the essential services and importance of monitoring</p> <p>Host trainings and brainstorm sessions with staff to develop methods to better meet essential service #1</p>	<p>Areas being met and areas of need defined</p> <p>Clear direction of where we are headed and better idea of how to get there</p> <p>Increased support which in turn could increase productivity (staff) or funding (leadership)</p>	<p>Increased awareness of Env. Public health issues</p> <p>Leading to more effective programs</p> <p>Culling of those services that are not meeting an actual need</p> <p>Addition of services to meet needs that were previously not being met</p>	<p>More effective response to public health threats</p> <p>Overall increase in program effectiveness and increased compliance with other Env. PH Performance Standards</p> <p>Decreases in health problems in populace served</p>

## **PROJECT OBJECTIVES/DESCRIPTION/DELIVERABLES:**

**Program Goal:** To have a successful monitoring program for Environmental Health On-site Services within Ottawa County.

**Health Problem:** The extent of needs not being met is currently unknown due to lack of data. There have been potential health threats that have been accidentally discovered. Being in compliance with this performance standard would allow for greater knowledge and more orchestrated investigation.

**Outcome Objective:** By April 1, 2011 increase monitoring in On-site programs so that 50% of current programs are being monitored (2010, only approx.10% of On-site programs are being monitored).

**Determinant:** The number of public health needs that go unmet per year.

**Impact Objective:** By December 31, 2011 100% of the on-site staff shall be aware of Environmental Public Health Standards, and clearly understand monitoring and the overall goals of the department.

### **Contributing Factors:**

1. Lack of staff awareness on the importance of effective monitoring efforts in the prevention and investigation of public health threats.
2. Inability of staff to make time to adequately complete this task.
3. Lack of support of upper management and county leaders of programs that are funded through the general fund.

## **METHODOLOGY:**

### **Process Objectives:**

1. By December 31, 2011, 100% of the on-site staff shall demonstrate an awareness of the importance and public health benefits of an effective monitoring plan.  
**Event:** Staff Meetings/Staff education implemented  
**Activities:**  
Develop clear guidelines of what an effective monitoring program looks like (this can be developed together).  
Conduct monthly staff meetings to discuss progress, problems, suggestions, etc.  
Conduct training on the Environmental Public Health Performance Standards.
2. By December 31, 2011, all on-site staff will work a small portion of his/her time on monitoring efforts.  
**Event:** Staff time/work load restructuring implemented.  
**Activities:**  
Examine current work loads and required needs.

Spread the increased work needed for monitoring effort fairly among staff, or campaign for new staff to be added.  
Increase use of technology to streamline workloads in order to free up time for monitoring efforts.

3. By December 31, 2011, 50% of county commissioners will gain increased awareness of Environmental Public Health Performance Standards and the importance of an effective monitoring plan.

**Event:** Cooperative plan implemented.

**Activities:**

Present information to various commissioners to highlight the need and importance of supporting such a program.

Highlight those needs being met due to such efforts, as well as those that are not due to lack of complete program.

Develop a clear plan to present to commissioners to increase buy-in.

## **RESULTS:**

This project is currently in progress, and will likely take some time to achieve results. However, through luck of timing, significant progress was made to reduce the gap between available resources and desire to implement. The following actions have been completed:

1. Gained support of County Leadership for change initiative

Recently Ottawa County has made a strong push towards measurable outcomes. As part of this initiative the Health Department has looked to align more with the Public Health Performance Standards. Ottawa County Health Department created a guidance document for staff; the following is an excerpt from that document:

*The 2010 Ottawa County Health Department Strategic Planning process will be to align public health program specific goals and objectives with public health competencies as defined in the Essential Public Health Services. In doing so we hope to determine the strengths and weaknesses of the organizational capacities that are necessary for our department to be a high performing agency and system.*

As the Environmental Health Essential Services are directly aligned with the Public Health Essential Services, leadership within the health department is extremely supportive of a change initiative that supports these goals.

2. Funding for new technology purchases was approved, and purchases are scheduled for early 2011

Recently the Onsite budget was approved for much needed upgrades and improvements to the technology the staff uses. In the early part of FY2011 new tablet PCs will be purchased for use by Onsite staff. These will have cellular wireless capabilities and GIS capabilities. Also, through a partnership with our Emergency Preparedness Coordinator, the Onsite department was approved for four hand held GPS units. A partnership between Environmental Health, IT services, and the GIS department will hopefully result in a system that utilizes these technologies to ease the burdens of staff while, at the same time, providing increased capabilities for data management and monitoring within the program.

## **NEXT STEPS:**

Due to buy in from key stakeholders and purchases of new technology, the ground work has been laid for building a successful monitoring program within the Onsite program.

The immediate next steps will be partnering with Information Technology (IT) and GIS departments to develop a user friendly, step-by-step protocol to utilize the technology. Currently work flow diagrams are being developed for IT and GIS. IT is reviewing these flow diagrams in order to create databases for data storage. GIS is reviewing these flow diagrams in order to create a work plan that will allow for the utilization of the tablets and GPS units to streamline work flows.

These processes will be worked on with the Onsite Supervisor and IT/GIS staff. Once a rough draft protocol is established it will be provided to staff for review. This will help to eliminate excess burden on Onsite staff.

Maintaining user buy in and implementing change initiatives to make transitions more palatable will be vital moving forward. The workload of the staff does act to limit the time available for implementation of a data management system, and the initial change is likely to be more time consuming than current familiar methods. The staff, however, is eager for improvements to the program and excited at the ability to utilize more technology. Maintaining this excitement moving forward is vital to the success of implementation and various culture and systems change initiatives are being considered to help ease the transition and maintain momentum.

## **LEADERSHIP DEVELOPMENT OPPORTUNITIES:**

### ***Adeline Hambley, REHS, MBA***

Being a part of the Environmental Public Health Leadership Institute has been an amazing growth experience. The Institute has provided the skills necessary to become a great leader in Environmental Health. By discussing what makes a great leader as well as

systems thinking, the program provides a comprehensive approach to effectively creating change. It allows the fellow to recognize weaknesses in himself as well as in the systems in which he operates, and provides the tools necessary to improve.

I feel this program has allowed me to grow in remarkable ways, and the amount of personal growth that takes place over a year is astounding. The skills taught to be a better leader, to understand and utilize systems thinking, and the professional friendships made, have all come together to make me a much more effective change agent. I am excited at the possibilities ahead, and cannot thank the Institute enough for the opportunity to participate.

### **ABOUT THE EPHLI FELLOW**

Adeline Hambley was recently made Environmental Health Manager with the Ottawa County Health Department in Southwest Michigan. In this position she oversees Onsite Services, Food Services, and Hazardous Waste/Resource Recovery. Upon entering the EPHLI, she served as the Onsite Supervisor at the Ottawa County Health Department. As supervisor she oversaw the onsite sewage disposal program, water well program, public swimming pools, campgrounds, and various other programs.

In 2009 Adeline was presented with the David H. MacMullen Young Professional of the Year Award which is given for outstanding accomplishments in the environmental health profession within the first five years of employment. Beyond her duties at Ottawa County, Adeline currently serves as Secretary of Michigan Environmental Health Association (MEHA) board. When the term ends in March, she will be running for the position of President-Elect of the Association.

## REFERENCES

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