



## Implementing a Software System in Northern Michigan

**Location:** Alpena, Michigan

**Interviewee:** Scott Smith, Environmental Health Director

**Health Department:** District Health Department Number 4

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### Background:

District Health Department Number 4 is a four-county jurisdiction in Michigan with offices in Alpena, Cheboygan, Montmorency, and Presque Isle. The department serves a population of approximately 76,000 people over a geographic area of 2,600 square miles that is mostly rural. Scott Smith is the environmental health director of the department and has been in his role for over 25 years. About a year ago, Smith's division implemented a software system to begin tracking permits, inspections, and employee time. Since then, they have been working to better understand their new software system and its potential uses.

### Activities and Accomplishments:

#### Choosing to Adopt a System

The choice to adopt a software system was a team effort and was driven by computer-savvy staff. Before implementing a software system, staff spent a lot of time recording and tracking applications, licenses, and permits on paper and creating specific reports by using Excel. While moving through the accreditation process with the Michigan Public Health Institute, staff suggested that they switch to a software system. Due to funding from the Food and Drug Administration, through the Association of Food and Drug Officials, the organization received grant funding for computers and other hardware. A local foundation provided grant funding for the software purchase to transition from a paper to digital system.

#### Choosing a System

After making the decision to adopt a software system, Smith explored software vendors that he had heard about from his colleagues and that had contacted him. He pulled together a team of four staff members to help choose a system, including a clerical member, a sanitarian in the food program, a sanitarian in the water program, and a member from the information technology (IT) division.

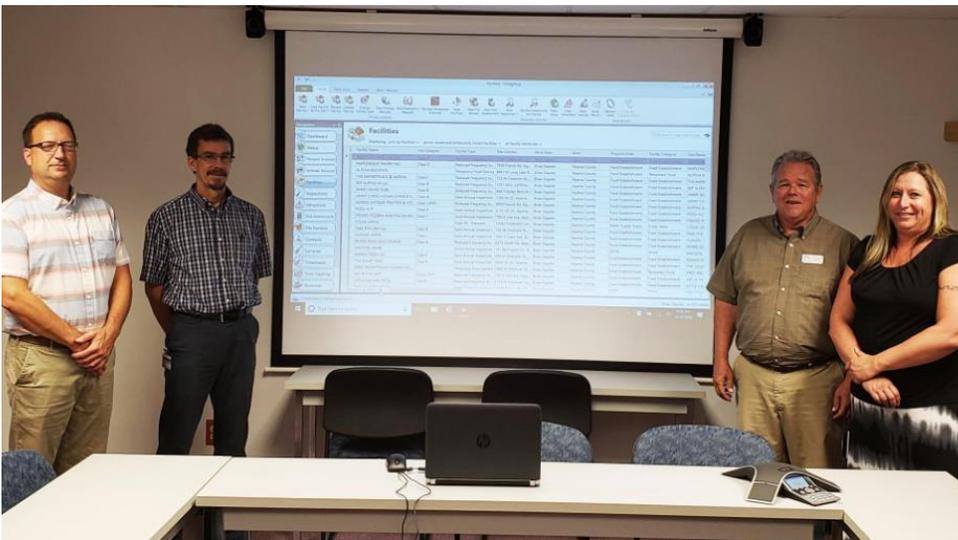
The team identified their software needs, which included meeting accreditation standards, the ability to identify risk factors in their programs, and the ability to identify where the bulk of work is to better focus field staff time. Their division also enters and pushes out a lot of data—to the state on a quarterly basis, to politicians annually, through the accreditation cycle



every 3 years, to the board of health, and to the community—so it was important to have data analysis and reporting capabilities.

## Successes

The system they adopted has led to improvements such as an increased capability to do data analysis. The division, including IT, clerical, and field staff, is working together to learn about the system and how to make it work best for them. The system is being implemented in stages, with different parts and functions being introduced gradually, which makes the transition less daunting. Currently, they are working to get the software up and running and address any issues, which will enable them to utilize more of the system features and provide staff with additional training and education.



*Staff from the environmental health division.*

By implementing the new system, District Health Department Number 4 has become a resource for other health departments. They are asked how the system is being used for specific functions, like correcting outstanding violations, and how the process is working. Smith interacts with a monthly Michigan forum and environmental health directors group in northern Michigan and has been asked to present and share with the group.

Through the process, the division has identified certain staff as “super users.” A super user is a staff member that is leading the charge for the system change and serves as a go-to for all software questions. This transition has created an opportunity for staff to emerge as leaders and experts in this field.



## Challenges:

### Learning Curve

Though there are great benefits to having a software system, such as easier data entry and analysis, there are also challenges and a learning curve. When the decision to change to a software system was made, the largest obstacle to implementation was overcoming a fear of losing data. With the transition, all data have become cloud-based, meaning that all routers were replaced and data are stored on multiple secure servers. This change is something the staff is still working on to overcome.

With the change from paper to electronic data collection, time is needed to completely transition from the old processes. Some data are still in paper form, while other data have been integrated into the system. Laptops are now also used for doing inspections, but sometimes inspections are still conducted using paper. Staff also have varying levels of computer literacy.

As the transition continues, the learning curve will likely be addressed through additional training and increased time of use. Smith is sure that once confidence is built in the system they now use, there will be a greater transition to digital and a waning of paper.

### Knowing What Data to Analyze

Learning the many functions of a system and opportunities for data analysis takes time, especially when there is limited staff and time to delve into exploring the system. The division has ideas for how they would like to use its data. For example, the creation of digital maps of facility locations and identifying hotspots of customers and inspection frequency can enable staff to help staff to make more efficient use of time and mileage, which is important in their large rural geographic area. They also want to track and analyze numbers for rabies cases, failed septic systems, contaminated water supplies, restaurants with high risk inspections, and public health interventions that have addressed these issues. Another goal is to connect their current system with payroll. They know they have the data and functions to implement these ideas but aren't sure where to start or how to give their data added meaning.

### Resources

Due to the size of the health department, staff availability and time is crucial, and they can't afford to make mistakes. The district usually waits for larger health departments to implement initiatives, referring to those departments with questions when creating a similar model. There is an opportunity to learn from existing successes through quarterly statewide and regional meetings.

## Perspectives/Next Steps:



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Currently, it is important for the group to fully implement their existing system and then learn how they can build on it and expand their activities. Once they master using current data, they will be able to collect and analyze new data and engage new partners. They also plan to meet with their software provider to learn about additional opportunities, as well as identify what other health departments are doing on a national basis that can be of help.