



The State of Michigan requires each local health department or district to provide, at a minimum, eight mandatory public health services. Six of the required services deal with aspects of infectious and communicable disease. The Communicable Disease (CD) Management Program monitors communicable disease activity within the community. The program provides an integral service in supporting the endeavor of promoting public health through prevention and control of diseases. We achieve this task through prompt and thorough investigation of over 82 reportable illnesses/diseases.

The CD Management Team investigates cases, epidemics, and unusual occurrences of diseases, infections, and situations with a potential for causing diseases. We utilize vital and health statistics to provide epidemiological and other research studies. The data helps to identify emerging trends that will help us prevent diseases, promote healthy behaviors, and protect the environment. Reportable diseases, infections and disabilities designate and classify communicable, serious communicable, chronic, or non-communicable diseases, infections, and disabilities. We maintain, review and revise this least at least annually.

Pat Krehn, RN, BSN  
Nursing Supervisor

### Staff and Roles

Nursing Supervisor  
Pat Krehn, RN, BSN

Public Health Nurses  
Yvonne Atwood, RN, BSN  
Linda Scott, RN, BSN

Departmental Clerk  
Linda Borgerding

### Basis for Program

The CD Management program operates under the authority conferred on the Department of Community Health by section 5111 of Act No. 368 of the Public Acts of 1978, as amended, being 3333.5111 of the Michigan Compiled Laws. Investigations are completed following the Communicable Disease Rules RR.325.171-3225.199.

R 325.1773 outlines reporting and surveillance requirements. It states that physicians, hospitals, and laboratories will report communicable diseases to the local health department. Other health care/service providers such as dentists, veterinarians, pharmacies are also authorized to report designated conditions to the local health department.

Tuberculosis (TB), which is part of the CD Management program, operates under the Public Health Code, Act 368 of 1978, Part 52 (Hazardous Communicable Diseases). This law mandates treatment of individuals with active disease.

### Purpose of the Program

The purpose of the CD Management program is to identify the incidence of and prevent the transmission of serious communicable diseases in the population.

### Community Data

Reportable communicable diseases are reported quarterly and yearly (showing trends) and is available on the PHMC website at [www.muskegonhealth.net](http://www.muskegonhealth.net). Below are examples of some of the diseases that are reported by the Epidemiologist based on case investigations done by the Public Health Nurses. Diseases are grouped by the following categories:

<b>Muskegon County Communicable Disease Data</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>
<b>Foodborne</b>							
Campylobacter	11	9	8	13	9	5	12
Cryptosporidiosis	2	2	4	3	15	15	34
E. Coli	0	0	1	2	0	0	0
Giardiasis	11	11	11	10	4	6	8
Listeriosis	8	16	1	0	0	1	1
Salmonellosis	8	16	17	13	10	12	14
Shigellosis	7	5	1	84	28	1	4
<b>Meningitis</b>							
Meningitis – Aseptic	26	25	14	5	9	9	6
Meningitis – Bac/Other	2	1	5	2	3	4	1
Meningococcal	1	0	0	1	3	0	0
Strep Pneu. Invasive	9	17	17	6	0	12	21
<b>Tuberculosis</b>							
TB	2	4	1	0	1	3	1
<b>Vaccine Preventable</b>							
Pertussis	7	7	2	7	6	26	11
<b>Vectorborne</b>							
Lyme Disease	2	2	0	0	2	1	1
Malaria	1	0	0	1	1	0	1
<b>Other Reportable Illnesses</b>							
Cryptococcosis	0	1	0	0	1	1	1
Histoplasmosis	0	1	4	1	1	0	1
Legionellosis	3	4	0	4	1	2	3
<b>Animal Bites/Exposures</b>							
Animal Bites/Exposures	413	473	518	569	399	439	417

The CD Management program responds to reports of all infectious and communicable diseases. An investigation is done by interviewing patients, and working collaboratively with the laboratory, physician offices, and other ancillary services to collect data specific to each case with intent to find the source of infection. This can facilitate epidemiological research to potentially uncover preventable causes.

Data is entered into the Michigan Disease Surveillance System (MDSS). This allows real-time viewing of the record at the regional or state level at any time, enabling the state to work with the Centers for Disease Control and Prevention (CDC) and/or other states and counties to recommend further investigation as appropriate. During the investigation the nurse will look for links between cases, consulting with the Epidemiologist as appropriate. Education is provided during the investigation to prevent additional illness. The program also takes immediate action in outbreaks, using other resources in the health department to limit the impact on people.

### **Tuberculosis**

A Public Health Nurse (TB Controller) also conducts 12 certification/recertification classes per year on TB awareness and administering and reading TB skin tests. This benefits our community by having more health care professionals certified so positive tests can be identified and referred promptly to us for follow up. In 2010, 68 participants were trained or recertified and 87 participants have been trained or recertified in 2011.

One case of TB has been reported for 2011. TB is a highly contagious disease that requires extensive contact investigation and follow-up. Cases are treated for a minimum of 6 months to sometimes over a year.

Contacts to an active case that develop a positive skin test, referred to as Latent TB Infection (LTBI), also require treatment and follow up. Muskegon County saw an average of 14 LTBI clients per month in 2010 (approximately 168 client visits) and at least 14 clients per month this year (168 visits). Each LTBI client has a 10% chance of contracting TB in their lifetime, without treatment. With a completed treatment program, that percentage is reduced to 1%. Without monitoring and follow up of LTBI clients, the number of people who could convert to Active TB would be a real public health emergency.

### Community Value

The value of the CD Management Program is in the rapid investigation of communicable diseases enabling prompt intervention for protection of the public. One of the well-known documented health issues present in the Muskegon community was the H1N1 outbreak of 2009/2010. The CD Management program worked collaboratively to investigate and provide education and immunizations to the community.

We continue to see cases of Pertussis (Whooping Cough) in our community. In addition to the investigation, the Public Health Nurses provide education on the importance of family/friends receiving the Tdap booster. The Public Health Nurses have ready access to the families, physicians, daycares, and schools (to name a few) to provide information on immunization status and make recommendations based on that information.

### Upcoming Year

To have a healthy community, you need a strong public health system. The CD Management program has a view of the community and presentation of diseases to identify outbreaks. Without this proactive approach, our community would see increased spread of diseases resulting in new threats to the public's well being.

### Fiscal Year 2011 Financial Information (Unaudited)

<b>Revenues:</b>	<b>FY 2011 Actual</b>	<b>FY 2011 Percentage</b>
Intergovernmental Revenue	\$177,195	38.83%
Medicaid	\$0	0.00%
Fees	\$65	0.01%
Access Health	\$0	0.00%
Transfers In	\$279,058	61.16%
<b>Total Revenues</b>	<b>\$456,318</b>	<b>100.00%</b>
<b>Expenditures</b>		
Program Salaries/Fringes	\$352,913	77.34%
Other Program Expenditures	\$103,405	22.66%
<b>Total Expenditures</b>	<b>\$456,318</b>	<b>100.00%</b>

