



# Health Commissioner / Medical Director Report

## Public Health - Dayton & Montgomery County

**May 4, 2016**

This report provides a monthly update for the Board of Health, staff and the community. Our key activities are listed for the seven pillars that support our vision for improving the health of our community.

- Prevent the spread of disease
  - Protect against health threats
  - Promote healthy behaviors
  - Reach out to vulnerable populations
  - Mobilize community action through partnerships
  - Prepare for and respond to public health emergencies
  - Serve as a public health information resource
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## Special items

### **Heroin Epidemic Community Conversation**

According to the Drug Enforcement Administration, the number of deaths from drug overdose in the United States has surpassed those from firearms and motor vehicle accidents. Opioids (including prescription opioid pain relievers and heroin) killed more than 28,000 people in 2014, more than any year on record. At least half of all opioid overdose deaths involve prescription opioids. Ohio's drug overdose rates have continued to increase since 2008 with 2,482 in 2014. Montgomery County accounted for 264 deaths in 2014 and 259 deaths in 2015.

We are in the midst of unprecedented epidemic of drug addiction and overdose caused by prescription pain medications and heroin. Opioid drug addiction is associated with high rates of morbidity and mortality. This includes structural and functional changes in the brain and other organs; life threatening bacterial infections of the bloodstream; HIV; hepatitis C and hepatitis B infections and injuries. In pregnant women opioid drug addiction is associated with complications in pregnancy and labor, and babies that are born dependent on opiate drugs suffer from withdrawal.

The epidemic of prescription pain medication and heroin deaths has devastated individuals, families and communities and constitutes a serious and increasing public health problem. Addiction to prescription pain medication and/or heroin is a chronic disease, like cardiovascular disease or diabetes, that is difficult to cure but can be effectively treated. We need to fight this epidemic as we would any other disease outbreak, with a multi-faceted public health approach that involves effective evidence based treatment and prevention strategies; more training and educational resources for health professionals on appropriate prescribing guidelines; increase in the use of naloxone distribution and increase in medication assisted treatment.

Public Health has collaborated with the Montgomery County Drug Free Coalition and its members to offer a Heroin Epidemic Community Conversation on May 21. This event will take place from

8:00 a.m. to 1:00 p.m. at Sinclair Community College. The Heroin Epidemic Community Conversation is scheduled to bring together county citizens to discuss how the opiate epidemic has impacted the nation and specifically Montgomery County. The agenda will include local epidemic impact data, information from law enforcement, judicial system, prevention and treatment providers and from individuals who have been directly impacted by opiate addiction. Vendors will also be available to disseminate community resource information and Project Dawn will be available to train on the use of naloxone.

### **Reibold 3<sup>rd</sup> Floor Clinic Update**

On February 19 a team of Public Health staff members from the Offices of Health Services and Administration and Montgomery County Facilities Management interviewed five Architectural and Engineering firms selected from the potential candidate pool of firms that had responded to the county Request for Proposal for the design and engineering of the Reibold Building 3<sup>rd</sup> Floor clinic.

After discussion and evaluation by the panel, the recommendation to use the services of App Architecture was presented to the county to negotiate contractual terms and scope of work requirements.

On May 3, the Board of County Commissioners is scheduled to approve the terms of the contract and upon the signature of both parties, Public Health and App Architecture will begin work to create a clinic that celebrates who we are and who we serve, be environmentally friendly, and uses technology and functionality to provide the best care possible.

The contract calls for five major milestone meetings between the parties, along with numerous other interactions along the way to design completion. The fifth meeting will be a presentation to the Board of Health to review the completed design, materials, and finishes; as well as a construction budget and completion timetable.

## **Prevent the spread of diseases**

### **Local Investigations**

Public Health has been investigating an ongoing outbreak of mumps at the University of Dayton, with 10 confirmed and 15 probable cases reported in 4 separate dormitories as of May 3. Onset of symptoms ranged from March 30 through April 26. Public Health and UD collaborated in educating students, staff and faculty on the importance of vaccinations and the symptoms of mumps including: fever, headache, fatigue and swelling of the salivary glands. Ill students were instructed not to attend work or school until no longer contagious. Two MMR vaccine clinics were held on campus by Public Health for students, staff and faculty; vaccines were also available for students at the UD Student Health Center. A message via the Ohio Health Alert Network notified healthcare providers, hospitals, EMS and local health departments throughout Ohio regarding this outbreak; and, that the school semester ends on Friday, May 6 when students will be returning to their homes across Ohio and other states. An EPI-X alert was also sent to state and local health departments to alert them about this outbreak and the potential spread.

Public Health has been in communication with the Ohio Department of Health, as well as the Centers for Disease Control and Prevention regarding their recommendations. All except one of the

cases was fully vaccinated against the mumps (2 MMR vaccines after 12 months of age). Outbreaks can still occur in highly vaccinated populations here in the U.S., particularly in close-contact settings such as in colleges, where close, prolonged contact with someone with the mumps can occur. However, high vaccination coverage helps limit the size, duration, and spread of mumps outbreaks.

## Protect against health threats

### 2016 PHDMC Mosquito Control Program - West Nile Virus & Zika Response Plan Highlights

#### West Nile Virus

There are no planned changes to our mosquito surveillance and control with regards to West Nile Virus. Public Health will set 9 gravid traps nightly, Monday through Thursday in public areas throughout Montgomery County. These locations will vary through the summer. However, in the jurisdictions which contract with Public Health for mosquito control services (Dayton, Vandalia, Five Rivers Metro Parks) trapping will be done at the same locations on a weekly basis. Mosquito catches are sent to the Ohio Department of Health for West Nile Virus testing. Larval surveys are conducted at sites where there is historical standing water issues or by citizen complaint.

Mosquito larvaciding is done when and where the standing water cannot be eliminated and larva are present. Typically this is in abandoned swimming pools at vacant homes and large swampy areas such as the Wet Woods at Wegerzyn Garden Center which cannot be drained.

Mosquito adultciding is done, within contract areas, when a Positive West Nile Virus is reported by ODH. The adultciding is done by Public Health staff licensed by the Ohio Department of Agriculture. The pesticide application is made with a truck mounted Ultra Low Volume (ULV) sprayer typically between the hours of 10 p.m. to midnight.

#### Zika

The *Aedes* mosquito identified as the primary vector in the transmission of Zika is different from the *Culex* mosquito which transmits West Nile Virus. The mosquitoes have different peak feeding times, egg laying, and flight behaviors. Thus, a different approach to surveillance and control is necessary.

Since the *Aedes* mosquito is not attracted to the gravid traps used for West Nile surveillance, Ohio Department of Health will provide Public Health with 4-5 BG Sentinel traps which are specifically designed for attracting and collecting the *Aedes* mosquito. The traps will be placed throughout Montgomery County for 24 hour periods to identify the general locations and population sizes of the *Aedes* mosquito. Ovi-position traps will be used to collect the *Aedes* mosquito eggs.

The traps will also be used for surveillance around the home of a patient with a confirmed diagnosis of Zika. Larval surveillance would be done concurrently to identify sources of standing water for breeding. Containers would be emptied or larvacide applied. Some larva will be collected and reared to adulthood for species identification.

If adult *Aedes* mosquitoes are collected from the positive Zika patient's home, adultciding the area within 150-200 yards of the residence would be done. This distance is related to the flight range of the *Aedes* mosquito. Since the *Aedes* mosquito is not active during the hours of our "normal" West Nile ULV applications, applications would be made at dusk. The area would be sprayed twice at an interval of 30-60 minutes with a new pesticide product that will "agitate" the resting *Aedes*

mosquitoes and expose them to the pesticide fog. Follow-up trapping would be done to ensure that the mosquito population was controlled.

Educational information will be distributed to the residences in the area to advise them on the need to eliminate standing water and to take personal protection against mosquito bites.

### **Lead Contamination Found in Public Park**

In early February, the Ohio EPA alerted Public Health that soil samples collected in 2013 at Layer Park in Miami Township were contaminated with elevated lead levels. The lead originated from a skeet shooting range which operated in the 1940s and 50s. Additional sampling was conducted by Ohio EPA to confirm the original finding. The park had been officially closed for the season in December. Winter weather resulted in decreased park usage and minimized the existing potential for lead exposure. However, pedestrians could still access the park. The township was advised to keep the park closed until the new lead sample results were available.

Public Health was provided the new soil sampling results in late March. Upon reviewing the results and finding them to be in excess of health based standards, Public Health advised the property owners, Montgomery County Board of Commissioners and Miami Township, that the park would be ordered closed. Miami Township erected construction fencing across the entrance to the park eliminating all access. On April 4, 2016, Public Health posted a “Warning” at the entrance of the park advising the public of lead hazards on the property. The Health Assessment Section at Ohio Department of Health concurred with Public Health’s actions.

The Ohio EPA requested assistance from the U.S. EPA to affect a clean-up of the lead contaminated soil. Clean-up strategies are currently being studied by the U.S. EPA On-Scene Coordinator from Region 5 in Chicago. The adjoining residential properties’ rear yards are being sampled for lead. If hazardous lead levels are found on the residential properties, the residential clean-up would be conducted before the park clean-up.

On April 12, Public Health attended a public meeting at Miami Township offices to answer questions from the public regarding the lead contamination at Layer Park. Officials from Ohio EPA, U.S. EPA, Miami Township, and Montgomery County were also present for the panel discussion and Q&A. Going forward through the clean-up phase, Public Health will continue to provide input and guidance on acceptable clean-up levels for lead in soil and answer questions relating to the health effects of lead exposure.

### **Hazards Contained at Vacant Property in Source Water Protection Area**

Staff from Environmental Health’s Source Water Protection Program participated in some basic hazard reduction at a vacant property in the Source Water Protection Area of Harrison Township. A vacant commercial property at 2850 Ome Avenue had been a source of concern since a historic vehicle warehouse next door burned in November of 2015. Fire officials suspected the fire may have been related to vandalism at the property. The business at 2850 Ome had ceased operation and the operator had left some drums and buckets of regulated chemicals in a yard area to the rear of a locked building. Activity at the business had ceased and the yard area was not secured or monitored.

Program staff has been in communication with the ex-spouse to discuss options for permanent removal of the chemical inventory. They also put the ex-spouse’s realtor in contact with the owner of a thriving adjacent business who had expressed interest in the vacant building. Until a more

permanent resolution can be arranged, the potential for a chemical release to groundwater through spillage, fire or vandalism has been greatly reduced.

### **Ozone Season Begins in the Miami Valley**

The 2016 ozone pollution season began on April 1. Ozone is formed when pollution from cars, trucks, and factories mix in the sky on hot sunny days. The Regional Air Pollution Agency (RAPCA) measures ozone in Clark, Greene, Miami, Montgomery and Preble County. RAPCA also provides daily ozone forecasts and issues Air Pollution Advisories (APA) when ozone is expected to be at unhealthy levels. RAPCA anticipates calling more APA's in 2016 due to U.S. EPA strengthening of the ozone air quality standard, which lowered the standard from 75 parts per billion (ppb) to 70 ppb. In previous years, RAPCA called APA's when ozone levels were expected to be above 75 ppb, now they will be called when they are expected to be above 70 ppb.

People affected can include children, elderly, and people with asthma or lung disease. Ozone pollution can worsen the effects of asthma and lung disease, causing more medicine to be used and more emergency room visits, and it can lead to respiratory infections. Anyone who is outside should limit outdoor activities when ozone pollution is expected to be high.

There are actions people can take to reduce ozone. These include waiting until after 6 p.m. to refuel vehicles and mow lawns, using electric lawn equipment, carpooling, using public transportation, combining errands to avoid extra driving, and keeping vehicles tuned up.

There are several ways to get up-to-date air quality conditions and air quality forecasts: visit the RAPCA website at [www.rapca.org](http://www.rapca.org), sign up for daily forecasts via email or text messaging at [www.enviroflash.info](http://www.enviroflash.info), or download the U.S. EPA AirNow app in the Apple App Store or Google Play store.

### **Spring Allergies**

In early spring, the Regional Air Pollution Agency (RAPCA) began measuring high levels of tree pollen. These high pollen levels can trigger allergies, and if not properly treated, can lead to other chronic conditions such as asthma. RAPCA recommends working with a doctor who can conduct tests to determine exactly what is triggering your symptoms. The doctor will then develop a management plan, which may include medication and certain environmental controls, such as avoiding the pollen and mold that make you sneeze and wheeze.

Daily pollen and mold readings are available on the RAPCA's website at [www.rapca.org](http://www.rapca.org) or by calling the AirLine at (937) 223-3222.

If you have any questions about pollen and mold please contact RAPCA at (937) 225-4435.

## **Promote healthy behaviors**

### **CDC Recognizes Public Health's National Diabetes Prevention Program**

Public Health's National Diabetes Prevention Program has received full recognition status from the Centers for Disease Control and Prevention (CDC). Becoming one of three recognized programs in the state of Ohio means that Public Health has met all of the requirements described in the CDC

Standards for Recognition during the first 24 months of delivery of the National Diabetes Prevention Lifestyle Change Program. The CDC Division of Diabetes Translation established the recognition program to assure that the lifestyle change program is delivered effectively and consistently across all participating sites.

Public Health offers the program free-of-charge in the community as an evidence-based lifestyle change program that is proven to prevent Type 2 Diabetes. Program participants at high risk for developing Type 2 Diabetes attend group meetings with a skilled Lifestyle Coach to learn ways to incorporate healthy eating and moderate physical activity into their daily lives. During the year-long program, participants work with the Lifestyle Coach and group to identify ways to overcome barriers and make modest lifestyle changes.

Participants in the program often share about family members who have suffered with diabetes and how they want their lives to be different. Many people have trouble managing their weight and getting enough exercise. Public Health's program provides lifestyle coaching and the support they need to take control of their health and prevent the devastating effects of diabetes.

To learn more about the National Diabetes Prevention Program and to find out if you have pre-diabetes visit [www.doihaveprediabetes.org](http://www.doihaveprediabetes.org) or visit [www.phdmc.org/diabetes](http://www.phdmc.org/diabetes) to take the risk test. If you are interested in participating in an upcoming session, contact Jennifer Boyd at (937) 225-5878.

## Mobilize community action through partnerships

### **Partners Working Together to Reduce the Impact of Drug Addiction in Our Community**

An opiate and heroin epidemic is gripping our nation and, on average, four Ohioans die every day from drug overdose. A special joint work session of the Dayton City Commission and the Montgomery County Commission was held on April 27 at 12:00 p.m. at Sinclair Community College. The city and county commissioners, as well as additional community stakeholders were invited to attend presentations from Jeff Cooper, Health Commissioner for Public Health; Helen Jones-Kelley, Director for the Alcohol Drug and Mental Health Services Board for Montgomery County and Jim Dare, Court Administrator, Montgomery County Common Pleas Court. The presenters were able to share local data and the impact of the opiate epidemic on our community as well as information on treatment options, and specialized court docket services. The commissioners were thankful for the presentation and value the role of each organization in working towards reducing and eliminating drug addiction in our community.

### **Pastors Lunch and Learn Held to Discuss High Infant Mortality Rates**

Our Ohio Equity Institute Team (OEI) hosted a Pastors Lunch and Learn "How Does Your Zip Code Measure Up?" on April 20. Churches located within the zip code areas with the highest infant mortality rates were contacted to join us and not only learn about the disparity, but to partner with us on getting the message out to the community.

There were approximately 30 attendees including clergy, professionals and interested citizens who work or live in the targeted zip code areas. A clip of the documentary "Unnatural Causes – When the Bough Breaks" was shown as a precursor to the session, with presentations by our

Director of Nursing and Supervisor of Healthy Mommy-Healthy Baby, an infant mortality reduction initiative.

The discussion focused on current work being done in the community and ways in which we could build upon those strategies, as well as suggestions on how Public Health could engage the community more effectively. The participants have asked for continued dialogue and to reconvene and discuss implementation of the strategies suggested. This collaborative effort was sponsored by CareSource® and proved to be extremely beneficial in enhancing our OEI efforts to engage the community.

### **WIC Recognizes Child Abuse Prevention Month with the Montgomery County Prosecutor's Office**

The WIC program was honored to participate in the launch of Child Abuse Prevention Month at the Care House on April 1. WIC joined several community agencies with Montgomery County Children Services Division, Matt Heck, Prosecuting Attorney and Care House to bring awareness to the troubling statistics of child abuse in our community. Nationally, a report of child abuse is made every 10 seconds. This year, nearly 1,700 children will die as a direct result of abuse or neglect with 80% of those children under the age of four. WIC received bibs and snack cups with the message “Hug Me, Don't Hurt Me” printed on them to give to participants and stress the importance of protecting our most vulnerable – our children.

## **Prepare for and respond to PH emergencies**

### **Influenza Activity**

The Centers for Disease Control and Prevention's (CDC) Influenza Division collects and analyzes surveillance data year-round and produces a weekly report on U.S. influenza activity from October through May. During April, overall influenza decreased and pneumonia and influenza mortality was below the epidemic threshold. For week 15 (ending April 16), Puerto Rico and 14 states (including Ohio) reported widespread influenza activity; Guam and 19 states reported regional influenza activity; 13 states reported local spread of influenza; and 4 states reported sporadic activity. Regionally (Auglaize, Champaign, Clark, Darke, Greene, Miami, Montgomery, Preble, Shelby, and Warren counties), there were 180 cases of influenza A and 114 cases of influenza B from March 27 through April 16, with 48 influenza-related hospitalizations.

### **Zika Activity**

In May 2015, the World Health Organization reported the first local transmission of Zika virus in the Western Hemisphere (in Brazil). In November, a possible association between Zika and microcephaly was reported. On January 15, 2016 the CDC began requesting providers report suspected Zika virus disease. Since then, there have been 388 travel-associated cases reported in the U.S. (10 in Ohio) and no locally acquired vector-borne cases reported. Among the reported cases, 33 were in pregnant women. In response to concerns about the potential for Zika virus infection during pregnancy to cause microcephaly and other severe fetal brain defects, the CDC has established a Zika Pregnancy Registry. In addition to concerns about Zika virus infection during pregnancy, there have been a higher than expected number of people who have had Zika virus infection and subsequent Guillain-Barré syndrome (GBS). GBS is an uncommon disease which involves the

nervous system leading to muscle weakness and potentially to paralysis. GBS is seen after a variety of infections, and often without any definite cause. The CDC is gathering data to further investigate the possible link between Zika virus and GBS.

## Serve as a public health information resource

### **Suicide Rate Increasing in the United States**

The U.S. suicide rate has increased sharply since the turn of the century, led by an even greater rise among middle-aged white people, particularly women, according to federal data released April 22. Last decade's severe recession, more drug addiction, and social media may have contributed to the growth in suicide, according to a variety of people who study the issue. The data showed a 1% annual increase in suicide between 1999 and 2006 and a 2% yearly increase after that, as the economy deteriorated, unemployment rose and millions lost their homes.

Suicide remains one of the 10 leading causes of death for Americans. There are now more than two suicides for every homicide. Among whites, there are more than seven suicides for every homicide. Along with opioid abuse and alcoholism, suicide has been one of the main causes of a surprising increase in mortality for white men and women since the turn of the last century, especially for those ages 45 to 54. People living in rural areas appear to be more severely affected.

Overall, the new data show that the age-adjusted suicide rate in the U.S. jumped 24 percent between 1999 and 2014, from 10.5 per 100,000 people to 13 per 100,000 people. The rate increased for both sexes and in all age groups from 10 to 74. More men than women complete suicides because they tend to use more lethal methods (such as guns and jumping from buildings), but women attempt suicide in much greater numbers. Data is from the National Center for Health Statistics, an agency in the Centers for Disease Control and Prevention.

### **Mass Media Interactions**

During the past few weeks, we have had numerous contacts with TV, radio, and print.

The following are a few examples:

- Interview with Channel 2 about CarePoint
- Multiple interviews with Channels 2, 7, 22/45, and DDN about lead found at Layer Park
- WHIO Reports on lead hazards
- WHIO Reports on Zika / mosquito control
- Coverage from Channels 2, 7, 22/45, and DDN on Layer Park public meeting
- Interview with DDN about illegal dump site cleanup in West Carrollton
- Interview with DDN and WYSO about life expectancies
- Interview with WKRC about HIV
- Multiple interviews with DDN about Zika
- Interviews with DDN, Channels 7 and 22/45 about lead
- Interview with WDAO about Minority Health Month
- Interviews with DDN, Channel 7, 22/45 about mumps outbreak at University of Dayton
- News Release on the closing of Layer Park

- News Release on Public Health clinic for mumps outbreak at University of Dayton
- Coverage from Channel 7 on mumps vaccination clinic at University of Dayton
- Interview with WYSO about mumps
- Interview with the Epoch Times about mumps

Jeff Cooper and Tom Herchline, M.D.