



Manitowoc County Health Department

Mission: To Protect and Promote the Health of Manitowoc County in Partnership with our Community

Amy Wergin, Health Officer

Environmental Health • Public Health Nursing • W.I.C. Program

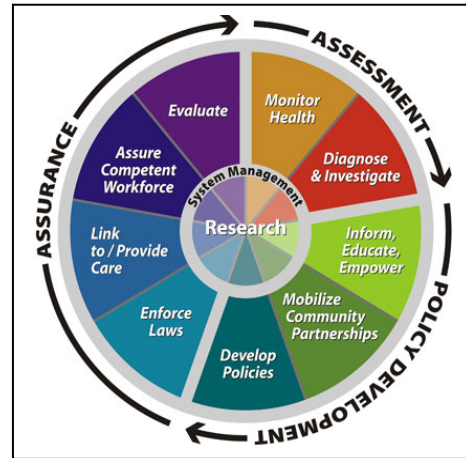
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2017 Annual Report

The Manitowoc County Health Department Annual Report provides a snapshot of the Health Status of our community and the work we do to improve the overall health of Manitowoc County. Our work is done in partnership with individuals, families, organizations, and the public focusing on all factors that affect health: Health Behaviors, Social and Economic factors, Clinical Care and Physical Environment. The Core Functions of Public Health and the Ten Essential Public Health Services provide structure to our mission.



Manitowoc County is well served by the Health Department employees who work every day to Protect and Promote the Health of our residents. During 2017, three long time employees were able to retire and move on to their next adventure. I thank Pat, Lynne and Jean for their years of service to Manitowoc County. Moving forward, it was decided to add different expertise to serve Manitowoc County and have added the expertise of a Health Educator and an additional bi-lingual health aide as part of the Health Department Team.

Communicable Disease Control is the primary responsibility of the Health Department. We began the year investigating a case of Seoul Hanta Virus Hemorrhagic Fever, an illness transmitted to humans by Norway rats and rarely found in the US. The patient owned and operated an in-home rattery, or rat-breeding facility, with approximately 100 Norway rats, primarily bred as pets. A family member developed similar symptoms 4 weeks later, but was not hospitalized. In January 2017, CDC confirmed recent, acute Seoul virus infection in both patients. An investigation was conducted to identify additional human and rat infections and prevent further transmission. Ultimately, the investigation identified 31 facilities in 11 states with human and/or rat Seoul virus infections; six facilities also reported exchanging rats with Canadian ratteries. To prevent continued spread of the virus, Manitowoc County ordered the depopulation of the Manitowoc County rattery.

The Environmental Health Program completed their transition to Health Space, using it for all licensing and inspection documentation.

Thank you to our partners in both the private and public sector who support the work we do. In cooperation with our partners of the Healthiest Manitowoc County Fall Prevention Coalition, we reduced deaths from falls to 19/100,000; and changed our rank in the state from the highest rate to 32nd. Healthiest Manitowoc County Steering Committee spent 2017 identifying the root cause of our increased rate of premature death and will unveil the plan to address this important issue in 2018.

Yours in Good Health

Amy Wergin
Health Officer

COUNTY of MANITOWOC

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County Executive**

**Jim Brey
Chairperson of the County Board**

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HEALTH OFFICER

Amy Wergin R.N., B.S.N.

ENVIRONMENTAL DIVISION

Jessica Wanserski, R.S., M.S., Environmental Health Manager
Sarah Chase, R.S., B.S. **Diane Mittnacht, L.P.N.**

PUBLIC HEALTH NURSING DIVISION

Mary Halada, R.N., B.S.N., Public Health Nurse Manager
Ellen Christel, R.N., B.S.N. **Nancy Cohen, R.N., B.S.N.**
Carrie Redo, R.N., B.S.N. **Pang Lee, R.N., B.S.N.**
Julie Reimer, R.N., B.S.N. ***Lynne Kaminski, R.N., B.S.N.**
***Patricia Sampe, R.N., B.S.N.**
Alicia Lang, Health Educator **Kelley Czechanski, R.N., B.S.N.**

W.I.C. DIVISION

Paulette Mach, R.D., C.D. WIC Program Director
Laura Zimbal, R.D., C.D. **Theresa Reimer, B.S.**
Juli Novak, R.N., B.S.N., M.S. **Terri Riemer-Ubersox, IBCLC, B.S.**
Shaunda Stuart, WIC Administrative Assistant

ADMINISTRATIVE SERVICES

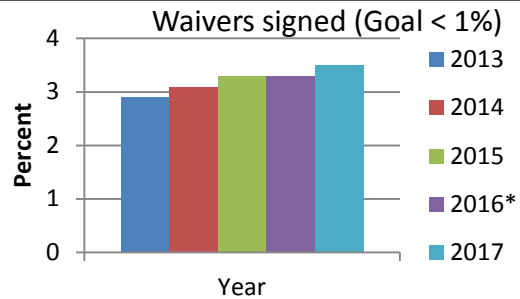
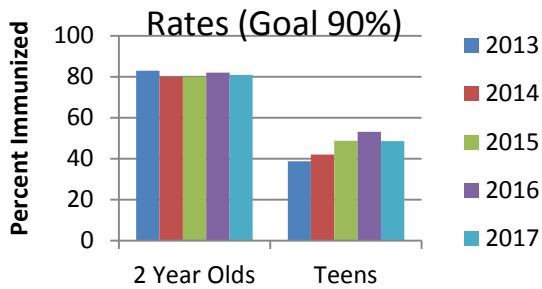
Annette Ziemer ***Jean Welnicke**
Norma Medrano, Bi-lingual Health Aide **Yer Kue, Bi-lingual Health Aide**
Gabriella Najera, Bilingual Health Aide

**retired in 2017*

COMMUNICABLE DISEASE

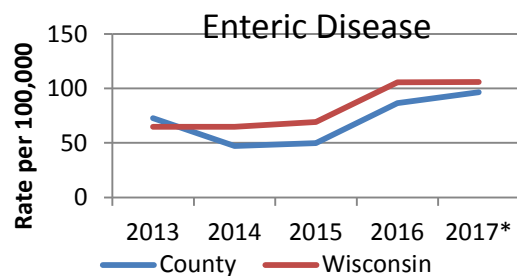
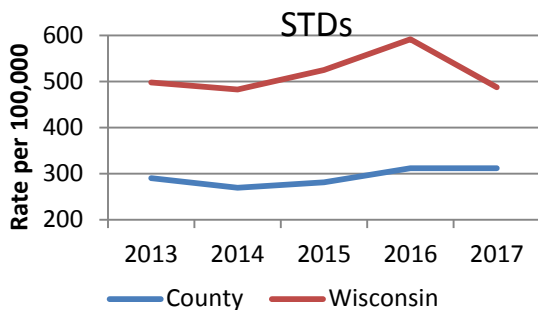
Statutorily required program prevent, suppress and control the spread of communicable disease through immunizations, reporting, contact follow up, and assurance of appropriate treatment and community interventions through department surveillance

The goal of immunizing 90% of children is to protect a critical portion of the community against a contagious disease resulting in less opportunity for an outbreak. The Department sends reminder recall notices to children under 3 years of age to increase immunization compliance. In the past, teen vaccination efforts consisted of school mass clinics which included HPV, Tdap and meningitis vaccinations. Since October, 2017 the state has limited the vaccine that can be offered to Tdap.

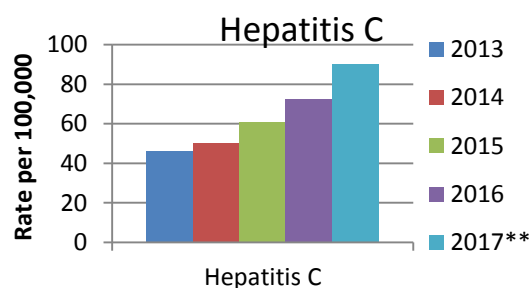


Sexually Transmitted Disease (STD) rates for Manitowoc County have remained stable in the past 5 years; however, the number of cases of Gonorrhea in Manitowoc County has risen. Follow up on STDs include contacting high risk individuals to assure proper treatment and education as well as obtaining the names of partners to prevent spread.

The rates of enteric diseases such as Salmonella and E. coli increased in 2017; however, laboratories have added different and additional tests which may have accounted for some of the increase. In addition to the individual cases reported, 4 enteric outbreaks were reported and after investigation, follow up and testing, 2 were identified as Norovirus and 2 not identified. Follow up on individual cases includes a source investigation and education to prevent the spread.



The Hepatitis C rates have increased steadily over the past 5 years. Surveillance efforts continue in the jail setting on a voluntary basis. An effort is made to obtain risk factors and identify any partners to prevent further spread. Follow up also includes re-testing if necessary and education as well as referral to treatment.



Respiratory Diseases such as Tuberculosis (TB) and Blastomycosis are reported to the health department and the cases are investigated and followed up as necessary. The majority of the reported contagious bacterial respiratory diseases are suspect TB. There were no cases of active TB reported in 2017 and 7 individuals were treated with medication to prevent active TB.

Another common respiratory illness is Influenza of which is only reportable when there is an outbreak, pediatric death or hospitalization identified. There were 10 respiratory outbreaks in long term care facilities reported that were confirmed for Influenza or Parainfluenza.

*Preliminary Data

**In 2017, the Hepatitis C case definition changed and therefore, in order to make a true comparison to previous years, the 2017 rate includes all Hepatitis C cases reported and investigated but do not necessarily meet the case criteria.

PUBLIC HEALTH INTERVENTIONS

Public health nurses use their extensive knowledge of the community to organize community resources to collaboratively meet the health needs of families and individuals.

Interventions are the core of public health nurse activities which nurses carry out on behalf of individuals, families, systems, and communities to improve or protect health status.

Interventions	No. of Clients	Activities
Referral and Follow Up	150	204
Health Teaching	204	241
Case Management	140	398
Delegated Functions	60	71
Screening	17	28

The goal of individual and family interventions is to change the knowledge, attitudes, beliefs, practices, and behaviors of individuals. The public health nurses served 436 individuals and/or families with various interventions. The most common 5 interventions utilized are listed on the table along with the number of clients and activities.

Referral & Follow Up

Referral Type	Clients	# of Activities
BadgerCare	54	63
Medical Provider	31	33
Tobacco Addiction	17	18
WIC	42	43
Oral Health	23	24

Public health nurses determine the most appropriate referral based on the need and the availability of effective strategies and resources in the community. Most of the referrals were made to BadgerCare and medical providers.

Health Teaching

Topic	Clients	# of Activities
Breastfeeding Promotion	44	45
Brain Development	47	47
Infant Care	42	46
Safe Sleep Practices	60	60
Pregnancy	45	47

Health Teaching was the most utilized intervention in 2017. The public health nurses are strong advocates for individuals and families and provide health education, disease prevention and health promotion to improve outcomes.

Pregnancy, safe sleep and brain development were the most common health teaching topics. Home visits are offered based on referrals received from doctors, hospitals, birth certificate reviews, social workers and other agencies.

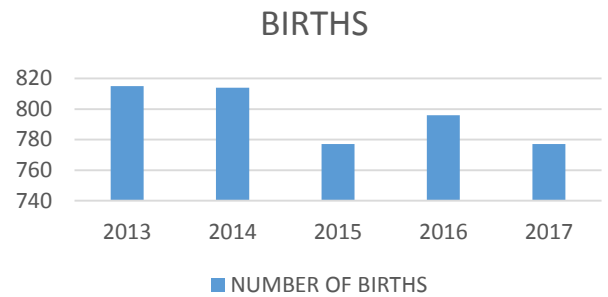
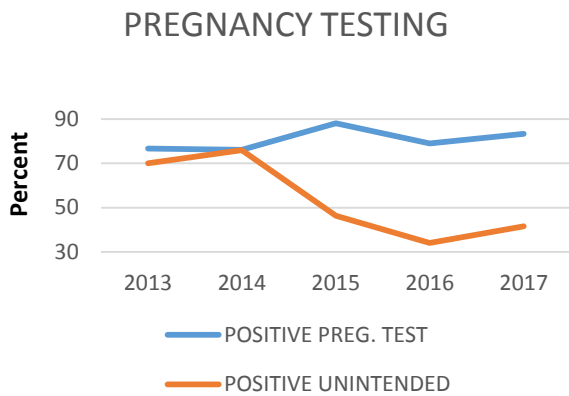
MATERNAL AND CHILD HEALTH

Healthy birth outcomes and early identification and treatment of health conditions among infants can prevent death or disability and enable children to reach their full potential.

The screenings offered that effect the maternal and child health populations are pregnancy testing and child blood lead testing. These screenings contribute to healthy birth and early childhood development outcomes.

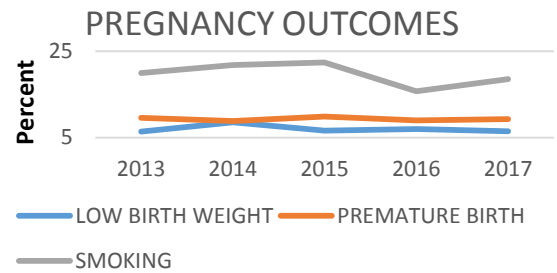
Free pregnancy tests and referral to appropriate services are provided early in pregnancy to assure healthy outcomes. Follow up includes case management for referral to medical and social services along with health education and counseling. In 2016 & 2017, the number of positive unintended pregnancies has remained low and the number of positive pregnancy tests remained stable.

Healthy outcomes will be increased by providing parents of all children born in Manitowoc County with age appropriate information. Public Health Nurses provide home visits based on birth certificate review and referrals.

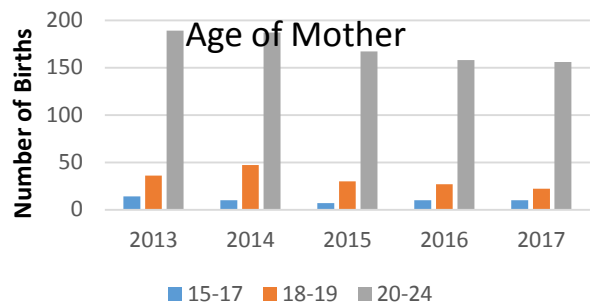
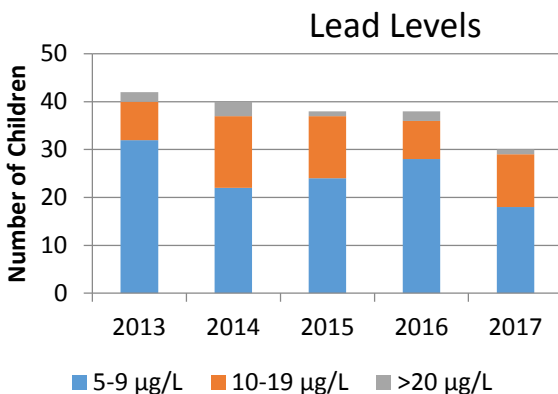


Smoking rates negatively impact premature birth and low birth weight. The number of women who smoked during pregnancy continues to remain steady but is higher than the state average. Nurses offer referral to tobacco cessation resources as well as the WIC and PNCC programs.

No safe blood lead level in children has been identified. Because lead exposure often occurs with no obvious symptoms, it frequently goes unrecognized and can effect neurological development of the child. Lead screening is provided along with follow up and case management in children with blood lead levels ≥ 5 $\mu\text{g}/\text{dL}$ with intensive services in children that have levels ≥ 20 $\mu\text{g}/\text{dL}$. About 10% of all lead screening in the county for 2017 was provided through the health department. The total number of all provider screenings per year ranges from 1100 to 1300.



Young pregnant women are at a much higher risk of having serious medical complications. Nurses refer sexually active women to providers to prevent unplanned pregnancies and refer high risk pregnant individuals for appropriate case management to resources such as WIC and PNCC. The number of young women delivering babies continues to decline.

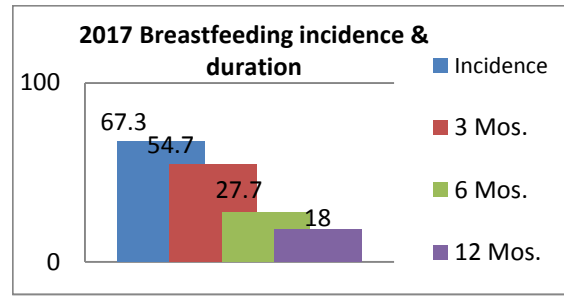
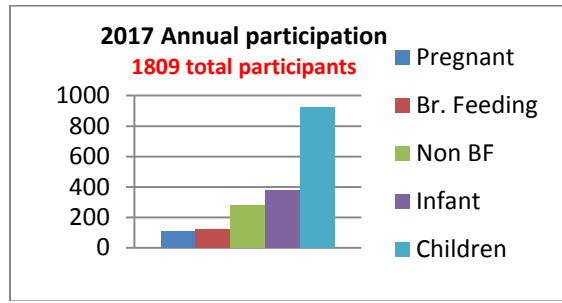


Women, Infants and Children

Women, Infants and Children (WIC) and Prenatal Care Coordination (PNCC) are the public health cornerstone for building healthier women, infants, children, families and communities.

Goal: To improve the health of pregnant, postpartum, and breastfeeding Women, Infants and Children up to age 5

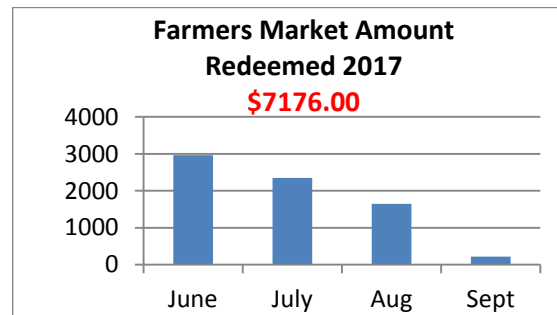
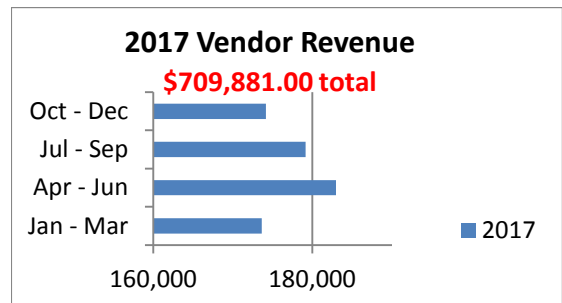
Goal: greater than 72.8% OF BABIES START OUT BREASTFEEDING



WIC and PNCC provide support for breastfeeding mothers with a team of nutritionists and nurses who both prenatally and post-delivery provide breastfeeding education and support.

WIC approved vendors are located throughout Manitowoc County. There are eleven WIC approved locations at grocery stores and pharmacies available to our participants.

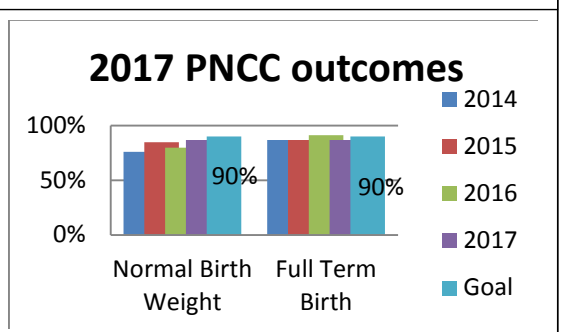
The WIC Farmers Market program offers eligible WIC families checks to buy fresh produce from June through October at approved locations.



Prenatal Care Coordination Outcomes

Prenatal Care Coordination is a Medicaid benefit that helps pregnant women get the support and services they need to have a healthy baby. In 2017, 66 women received PNCC services.

The WIC Program provides supplemental nutritious foods, nutrition and breastfeeding information, and referrals to other health services. Breastfeeding education includes how to breastfeed, tools to help return to work or school and continue breastfeeding, and how to obtain and use a breast pump.

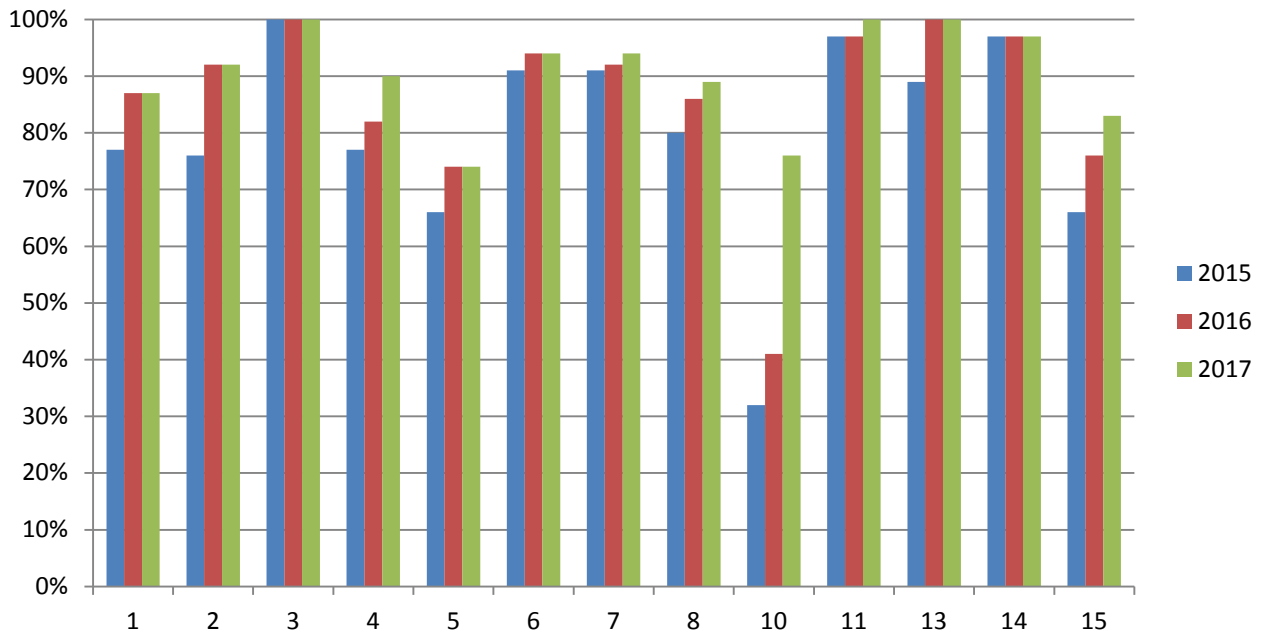


In 2017 WIC participants were introduced to an enhancement with the Wisconsin MyWIC App. This smartphone tool works in conjunction with their eWIC card. The app can be used to search for WIC approved foods, view their benefit balance, find WIC stores, and they can now see when their next appointment is scheduled. The eWIC card is the term used for WIC Electronic Benefits Transfer. The WIC family's monthly food benefits are loaded on the eWIC card at the WIC office while the family participates in their education session.

Public Health Emergency Preparedness

Manitowoc County is prepared to respond to all emergencies with a detailed plan of action and a system of communication with community responders. This response includes **detecting** disease outbreaks; **investigating** to determine what the risks are to the public and who may have been exposed; **informing** the public and professionals of the specific disease threats and how to protect themselves and others; **managing** infected persons; **isolating or quarantining** affected individuals as appropriate; **providing medications or vaccinations** to people at risk in the population. At the end of the 5 year planning period, we met the goal of closing 90% of the gaps for 8 capabilities; Community Recovery, Emergency Operations Coordination, Emergency Public Information & Warning, Information Sharing, Mass Care, Non-Pharmaceutical Interventions, Public Health Surveillance & Epidemiological Investigation, and Responder Safety and Health. We closed over 80% of the gaps for Community Preparedness, Medical Countermeasure Dispensing and Volunteer Management. The remaining two competencies, Medical Surge and Fatality Management, are outside the scope of the Health Department. We worked with our acute care partners and the Coroner's office to close 75% of those gaps. The new 5 year grant period began in July 2017. In the first year, we are focusing on Community Resilience Domain: Community Preparedness and Recovery.

PHEP Capabilities % Complete



2012-13 Year 1	2013-14 Year 2	2014-15 Year 3	2015-16 Year 4	2016-17 Year 5
Emergency Operations Coordination (3)	Community Preparedness (1)	Community Recovery (2)	Medical Surge (10)	
Emergency Public Information and Warning (4)	Responder Safety and Health (14)	Mass Care (7)		
Information Sharing (6)	Fatality Management (5)		Volunteer Management (15)	
Medical Countermeasure Dispensing (8)				
Public Health Surveillance and Epidemiological Investigation (13)				

Environmental Health

Environmental Health focuses on the protection and promotion of a healthy environment by preventing, assessing, correcting and controlling agents in the environment which could have adverse effects on the health and well-being of individuals and communities of Manitowoc County.

Inspections and Licensing

The Environmental Health Section of the Manitowoc County Health Department licenses and inspects the following facilities within Manitowoc County through contracts with the following Wisconsin agencies: DATCP and DSPS:

Manitowoc County Licensed Establishments	License Year 2016-2017
Restaurant and Retail Food Facilities	408
School Food Service (non-licensed)	19
Lodging	54
Campgrounds	15
Recreation and Educational Camps	7
Body Art	8
Vending Machines	249
Vending Machine Storage	3
Swimming Pools, Whirlpools and Therapy Pools	33
Mobile Home Parks	13
Non-Profit Food Stand Permits	154
Temporary Restaurants	70
Total	1,033

Radon Information Center

Environmental Health staff provides radon information and outreach for Brown, Door, Kewaunee, Manitowoc and Calumet Counties in Northeastern Wisconsin through a grant from the State of Wisconsin and EPA.

Radon is a naturally occurring radiological gas that has been linked to lung cancer. We provide information and test kits to citizens. Short term and long term test kits were offered for sale at cost from the Manitowoc County Health Department.

Test Kits Distributed	2009	2010	2011	2012	2013	2014	2015	2016	2017
Short Term Test Kits	277	460	320	144	170	161	175	160	189
Long Term Test Kits	35	34	12	4	13	19	22	14	28

Radiation Protection

Through a contract with the State of Wisconsin, environmental health staff collects environmental samples, such as air, milk, and water, around the area of the nuclear plants. Three staff members serve on the State Emergency Response Team which train yearly. We participate in the nuclear exercises with a field team, in the EOC and nurses staffing the congregate care facilities.

Safe Drinking Water

The Manitowoc County Health Department is involved in 2 aspects of monitoring and testing drinking water in Manitowoc County.

Transient Non-Community Well Program: The Environmental Health Section has a contract with the Wisconsin DNR for the purpose of assuring compliance with the Safe Drinking Water code as it applies to public transient non-community water systems. TNC water systems include rural churches, restaurants, parks and taverns and other businesses that serve over 25 different people 60 days or more per year. Work includes collecting drinking water samples, issuing all required enforcement letters and inspecting each well system every 5 years.

Number of TNC Systems tested for bacteria and nitrates and inspected annually	98
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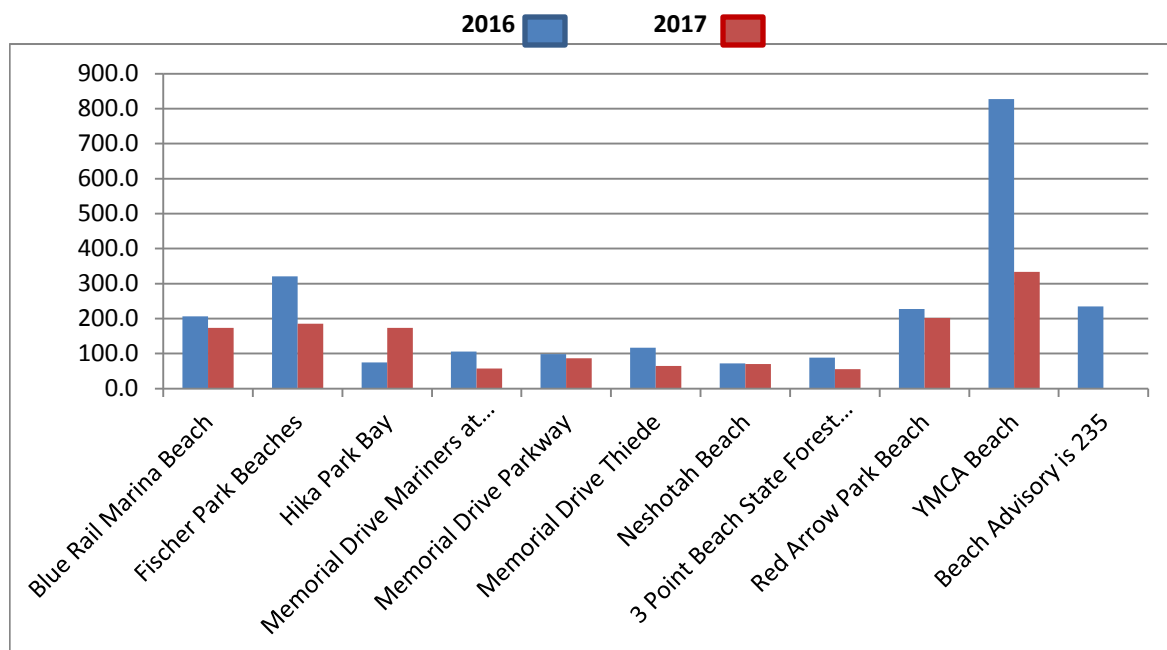
Free Well Water Testing for Houses with Pregnant Women and Infants

Manitowoc County Health Department provides free well water testing for coliform bacteria, nitrates, fluoride and metals for households with pregnant women and infants (up to 12 months old). The information provides information on the general drinking water quality from a metals perspective. Wells with abnormal results were retested after discussing possible parameters that may have contributed to the unsafe reading.

Wells tested	14
Unsafe coliform test	1
Elevated nitrate test	1

Beach Water Monitoring Program

During 2017, a total of 12 Manitowoc County beaches on Lake Michigan were monitored according to EPA standards for water quality and safety. Beach water samples are routinely collected and analyzed total and fecal coliform bacteria. The beach monitoring program was performed through a cooperative effort between by UW-Oshkosh, the Manitowoc County Health Department, the City of Manitowoc, the City of Two Rivers and the Wisconsin DNR. This program was funded through an EPA grant administered by the DNR. Results were posted both to the Wisconsin Beach Health website and signage was provided at the beaches indicating to the public the most current available water conditions and any risks associated with swimming in contaminated surface water. Any level over 235 is an advisory, over 1000—closure. The average E.coli concentration was much lower in 2017 than 2016.



Safe Housing, Indoor Air and Human Health Hazards

The Environmental Health Section receives complaints regarding poor plumbing, insects, indoor air, toxic chemicals, garbage and refuse, mold, health hazards, lack of heat, and generally unfit dwellings. State Statute requires that the local health officer orders the abatement or removal of human health hazards and if the order is not complied with, arranges for the hazard to be abated. We also work with local building inspectors, police, Planning and Zoning, Aging Resource Center and Human Services Departments to identify and correct poor living conditions.

	2014	2015	2016	2017
Total number of complaints received	69	85	65	25

Rabies Control

Wisconsin law requires that all dogs and cats, without current rabies vaccine, that bite or scratch a human must be impounded for 10 days under surveillance of a veterinarian. Domestic animals with current rabies vaccinations are required to be home quarantined for 10 days and observed by a veterinarian 3 times throughout the quarantine. Quarantine orders are issued by local law enforcement officials and the Manitowoc County Health Department. The Manitowoc County Health Department also serves as the primary source of rabies information for local physicians, law enforcement officials and veterinarians. Domestic animals that have been exposed to wild animals that have tested positive for rabies or that are not available for testing requires a special quarantine. These quarantine orders are issued by the Manitowoc County Health Department.

Animal Bites Reported	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Dog	131	149	170	136	150	140	137	144	131	145
Cat	42	44	70	44	43	57	57	52	47	49
Wild Animal (always tested for rabies)	14	10	12	12	10	18	11	9	15	7
Other Domestic Animal	3	1	2	0	1	1	2	1	1	2
Animal Bites (total)	190	204	254	192	204	216	207	206	194	203
WSLH Rabies Tests										
Dogs	9	9	12	11	7	10	5	9	6	10
Cats	16	33	14	13	10	8	10	10	6	5
Wild Animals and Other Domestic Animals			12	12	10	18	14	11	16	9
Total Animals Tested	42	52	40	36	27	36	29	30	28	24
Quarantine Order for Domestic Animals			4	3	3	5	8	2	4	1

Healthiest Manitowoc County

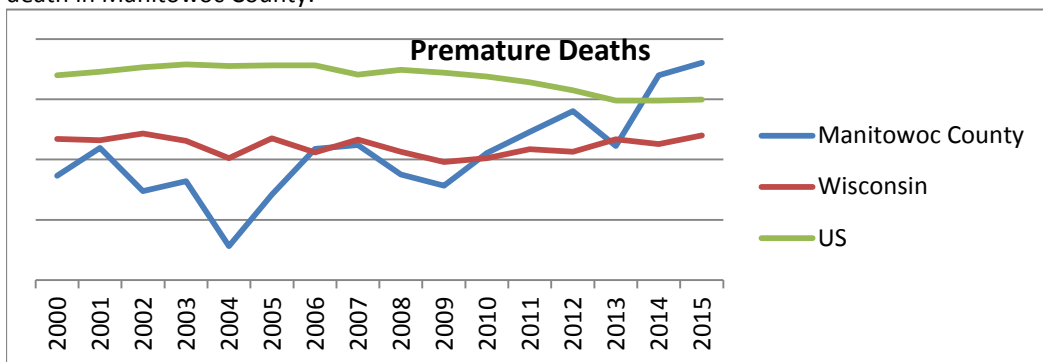
2017 Report on Progress

A Community Collaboration dedicated to improving the health of all who live, work and play in Manitowoc County

Coalitions

Early Growth & Development, Injury Prevention, Mental Wellness and Substance Abuse Prevention

The Health Department works in partnership with other organizations and community members on identified Health Priorities to improve the overall health of Manitowoc County. We can do more to improve health in collaboration than alone. Each of the coalitions, under the guidance of the steering committee, identify measures of improvement and implement community health improvement processes to meet their target. During 2016, Healthiest Manitowoc County assisted Holy Family Memorial and Aurora Medical Center Manitowoc County in the completion of their required community health needs assessment and improvement plan. During 2017, four existing coalitions continued their work and the reports of their activities are found on the next two pages of this report. The Healthiest Manitowoc County Steering Committee used the year to complete our Community Health Assessment and Health Improvement Planning Process. HMC decided to implement Collective Impact as we addressed the issue of increased premature death in Manitowoc County.



As we dug deeper into the health status of our community, we identified 3 underlying causes of the premature deaths: Adverse Childhood Experiences, addiction and inadequately treated mental health problems. We determined to plan around two large goals: Achieve Healthy 25 and Achieve Healthy 75.

Achieve Healthy 25

Focus on Children and Families

- Prepare children for independent, successful adulthood
- Strengthen Families
- Prevent Adverse Childhood Experiences
- Assure Graduation from High School

How:

- Implement local systemic changes that
- Build capacity to reduce adverse childhood experiences,
- Increase resilience and
- Promote healthy child development.

Achieve Healthy 75

Focus on Adult Health and Wellness

- Target Addiction and Mental Health
- Increase Resilience and Strengthen Families

How:

- Implement local systemic changes that
- Impact Socio-economic factors,
- Improve Health Behaviors and
- Impact Clinical Care

Healthiest Manitowoc County

2017 Report on Progress

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Healthy Growth & Development “Investing Early”

Investing Early is working to build an integrated system that promotes optimal physical, social-emotional, and developmental health of children and their families. The goal of Investing Early is that children will enter school ready to learn.

Evidence based projects of Investing Early include:

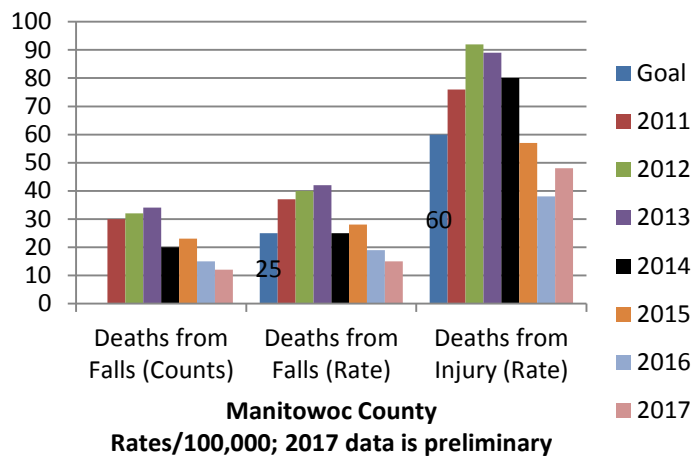
- Universal Developmental Screening
- Reach out and Read
- Home Visitation
- Breastfeeding Education & Support
- Parent Cafés

Injury Prevention (Falls)

Manitowoc County’s death rate from falls in recent years has been at least twice as high as the state average. The Falls Prevention Coalition has implemented the following evidenced based projects:

- Fall Risk Assessment & Individual Plans
- Chronic Disease self-management programs
- Stepping on
- Multi-component Fall Prevention Interventions
- Activity Programs for older adults including Tai Chi

We are making progress on meeting our goals related to preventing deaths from falls and injuries, while the death rate from falls continues to decline, the rate from injuries overall increased. The increase in injury deaths in 2017 is due to motor vehicle accidents and accidental overdoses.



In 2003, Manitowoc County had the highest death rate from falls in the State of Wisconsin. For the aggregated years of 2014-16, Manitowoc County’s death rate from falls was ranked – 32nd, a vast improvement!

Healthiest Manitowoc County

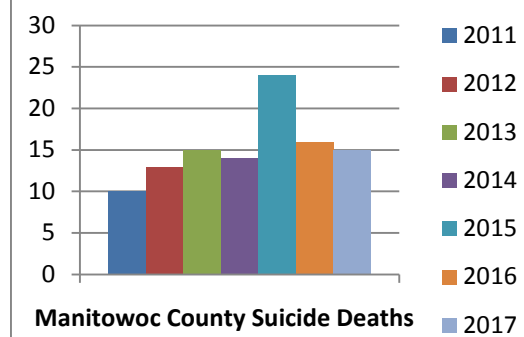
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Mental Wellness

The Mental Wellness Coalition's current goal is to decrease suicide rates in Manitowoc County by 10% by 2020. We are working to achieve this goal by addressing mental wellness in three main areas: Access, Education, and Advocacy. Evidence based projects being implemented includes:

- Peer Counsellors
- Cell phone based support programs (Text: Hope-line)
- Medically Assisted Therapy Treatment for addiction
- Services Gap Analysis



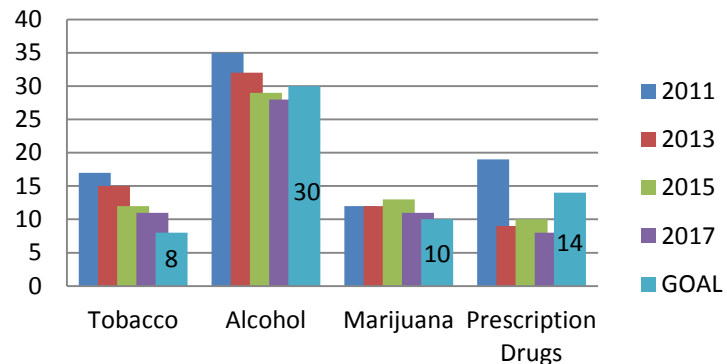
Substance Abuse Prevention

SAP focuses on preventing the use of addictive substances including Alcohol, Opiates, Marijuana, and Tobacco; focusing the majority of their efforts on youth prevention.

Evidence Based efforts of the SAP Coalition include:

- Enhanced Enforcement of Laws prohibiting alcohol sales to minors
- Prescription Drug Monitoring Program (PDMP)
- Proper Drug Disposal program
- Social Host Ordinances
- Universal School based programs: alcohol misuse & impaired driving
- Dose of Reality
- Youth Leadership

Youth Substance Use (%)



Leading up to 2015, Healthiest Manitowoc County, along with many others in our community identified addiction as a rapidly emerging health priority in our community. Updated information in 2016 included:

- Adult Binge Drinking increased to 40%; up from 23% in 2010
- Overdose Deaths were 5 or less each year between 2000 and 2004; in 2015 there were 15 deaths.
- Manitowoc County was identified as having the 5th highest rate of babies born addicted to narcotics
- During 2016, Manitowoc County is in the top 15 counties for controlled substances doses dispensed according to PDMP. In the 4th Quarter of 2017, the doses dispensed per capita declined from 26.8 to 22.2 and our ranking fell from the top 15 to 24th.

Evidence-based efforts to reduce and treat addiction in Manitowoc County include:

- Increase access to Medical Assisted Therapy (Vivitrol, Suboxone or Methadone)
- The Criminal Justice Coordinating Council implemented a drug court in 2017.
- Services Gap Analysis