I am frequently asked how residents of the North Shore use the services of the North Shore Health Department (NSHD). I think about our programs and services as directly and indirectly reaching residents, communities and the overall North Shore population. The NSHD directly serves individuals through our immunization clinics, blood pressure screenings and car seat checks. Our work directly serves the broader community by controlling communicable disease outbreaks, responding to consumer restaurant complaints, or providing health promotion information at farmers’ markets. The NSHD indirectly serves everyone in the North Shore and beyond through initiatives like our beach health monitoring program (where we test area beaches for elevated levels of E. coli), or our mosquito surveillance program (where we monitor for the presence of mosquitoes carrying West Nile and Zika viruses).

This report showcases the many programs and services we provide each day to protect and promote the health and safety of everyone who lives in, works in, or visits the North Shore. Below are several highlights of our work in 2016.

- **Strategic Plan:** The Health Department completed and released our 2016-2019 Strategic Plan (available on the Reports tab of our website). The plan updated the Department’s vision and mission and identified our core values. We identified three strategic priorities including:
  1. Advancing the quality and performance of the NSHD.
  2. Providing high quality public health programs and services.
  3. Engaging community members, leaders and stakeholders to advance health priorities identified in our Community Health Improvement Plan.

- **Grants Awarded:** The NSHD was awarded several grants to support our environmental health work. One grant from the Wisconsin Environmental Public Health Tracking Program provides funding to foster partnerships and raise awareness among health care providers and parents about childhood lead exposure risk factors associated with older homes including lead paint hazards and lead contaminated dust and remnants. Another grant from the National Association of City and County Health Officials allows us to continue addressing the FDA’s Program Standards.

- **Partnerships with Educational Programs:** The NSHD hosted a Master of Public Health student from the University of Wisconsin-Milwaukee’s Zilber School of Public Health for her field placement experience in 2016. The student, Rachel Lecher, initiated development of a Heroin and Prescription Drug Resource Guide (available on our website) and analyzed our childhood lead poisoning data. The Health Department also hosted a cohort of undergraduate nursing students from the UWM School of Nursing in their population health clinical rotation.

While these achievements have been noteworthy, we are excited as we look ahead to the goals and initiatives planned for 2017. We look forward to continuing to partner with our residents, business leaders, elected officials and leaders from our schools, faith communities and community groups. If you have any questions, comments or would like to know more about how you can be involved, feel free to contact me. Thank you for your support.

Sincerely,

Ann Christiansen, MPH-Health Director/Health Officer
The mission of the North Shore Health Department (NSHD) is to work in partnership with the communities we serve to assure, promote and protect the health and safety of the people in the North Shore. The NSHD provides public health services for the seven Wisconsin communities of Bayside, Brown Deer, Fox Point, Glendale, River Hills, Shorewood and Whitefish Bay, with a total population of more than 65,000.

The NSHD has two offices located in Brown Deer and Shorewood. Residents can utilize services at either location, as well as at routinely scheduled community-based clinics. The NSHD is advised by a Board of Health with representatives from each of the seven communities in the North Shore, and a medical advisor. The Village of Brown Deer serves as the fiscal and administrative agent for the NSHD.

The NSHD is guided in its work by the Centers for Disease Control and Prevention’s 10 Essential Public Health Services (see list to the right). These services codify the responsibilities of public health agencies in the United States to promote and protect the health of the public. All NSHD program and service areas incorporate the essential public health services.

The Department is also guided by our Strategic Plan and our Community Health Improvement Plan, available in the Reports section of our website. The Community Health Improvement Plan outlines the health priorities of North Shore residents. The priorities were identified through community listening sessions in 2014 and by reviewing health data from various sources, including a community health survey.

The current health priorities in the North Shore are communicable disease prevention and control, chronic disease prevention and management, physical activity, and mental health.

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**Centers for Disease Control and Prevention’s Public Health Essential Services for Health Departments**

1. Monitor health status to identify and solve community health problems.
2. Diagnose and investigate health problems and health hazards in the community.
3. Inform, educate and empower people about health issues.
4. Mobilize community partnerships to identify and solve health problems.
5. Develop policies and plans that support individual and community health efforts.
6. Enforce laws and regulations that protect health and ensure safety.
7. Link people to needed personal health services and assure the provision of health care when otherwise unavailable.
8. Assure a competent public and personal healthcare workforce.
9. Evaluate effectiveness, accessibility, and quality of personal and population-based health services.
10. Research for new insights and innovative solutions to health problems.
The NSHD provides a variety of state-mandated, grant-funded and fee-supported public health services. The NSHD is a Level III health department, which is the highest designation in Wisconsin. Level III health departments provide programs and services beyond what are identified as baseline necessities of a Wisconsin local health department as outlined in Wisconsin State Statute 251.05 and Wisconsin Administrative Code 140.06.

The purpose of this annual report is to provide insight into the programs and services of the NSHD in 2016 and to share stories about how we directly and indirectly make a difference in assuring, promoting and protecting the health and safety of the people in the North Shore.

**Communicable Disease Prevention and Control**

A communicable disease, also known as an infectious disease, is an illness transmitted through direct contact with an infected individual or animal – or indirectly through contact with a vector such as a mosquito, tick, or plant, with blood or bodily fluids, or by breathing in an airborne virus or bacteria. As part of Wisconsin State Statute 252-Communicable Diseases, the NSHD is required to follow up and respond to all Category I and II diseases and conditions considered to have significant public health impact. In 2016, the NSHD responded to 565 reportable suspect and probable disease incidents and conditions, a 23% increase from 2015. A total of 421 of these were confirmed disease cases (see Table 1).

**Table 1: Confirmed Communicable Disease Cases in North Shore 2014-2016**

<table>
<thead>
<tr>
<th>Type of Disease</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food/Waterborne</td>
<td>24</td>
<td>33</td>
<td>41</td>
</tr>
<tr>
<td>Hepatitis A, B, C</td>
<td>17</td>
<td>36</td>
<td>28</td>
</tr>
<tr>
<td>Varicella/Chicken Pox</td>
<td>8</td>
<td>0</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Pertussis/Whooping Cough</td>
<td>25</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>Sexually Transmitted Infections</td>
<td>181</td>
<td>235</td>
<td>252</td>
</tr>
<tr>
<td>Tuberculosis (TB), Active</td>
<td>0</td>
<td>&lt;5</td>
<td>&lt;5</td>
</tr>
<tr>
<td>TB, Latent</td>
<td>&lt;5</td>
<td>10</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Mycobacterium (Non-TB)</td>
<td>26</td>
<td>34</td>
<td>23</td>
</tr>
<tr>
<td>Influenza Hospitalizations</td>
<td>64</td>
<td>27</td>
<td>46</td>
</tr>
<tr>
<td>Strep (A,B, Pneumonia)</td>
<td>5</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Vector-borne Mosquito (Ehrlichiosis, West Nile, Zika)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Vector-borne Tick (LYME Disease)</td>
<td>&lt;5</td>
<td>5</td>
<td>&lt;5</td>
</tr>
<tr>
<td>Other</td>
<td>&lt;5</td>
<td>&lt;5</td>
<td>&lt;5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>359</td>
<td>409</td>
<td>421</td>
</tr>
<tr>
<td><strong>Rate per 10,000</strong></td>
<td>55.5</td>
<td>63.2</td>
<td>65.0</td>
</tr>
</tbody>
</table>


provides case management to residents with latent and active TB. In 2016, we completed management of one active case of TB and two latent cases of TB. Additionally, the NSHD provided 90 Mantoux tuberculin skin tests to screen residents for M. tuberculosis infection. This screening test is often required of individuals employed in industries with close contact to vulnerable populations, including those who work in health care and child care settings.
Disease Investigations – Sexually Transmitted Infections

The NSHD conducts disease investigations for certain sexually transmitted infections (STIs). There are five reportable STIs in Wisconsin with chlamydia and gonorrhea being the two most prevalent. NS Public Health Nurses conduct interviews with confirmed cases of reportable STIs to assess if people have been appropriately treated and assure notification has taken place with their partner(s).

Of note, from 2014 to 2016, rates of gonorrhea in the North Shore increased from 2.8 per 10,000 to 7.4 per 10,000. This means that for every 10,000 residents in the North Shore, more than seven had gonorrhea in 2016. While these rates continue to be lower than the national rate of 12.4 per 10,000, the large increase in these cases is of concern because both chlamydia and gonorrhea are major causes of pelvic inflammatory disease and other long-term health and reproductive complications. There is also concern that the bacteria which cause gonorrhea may be becoming resistant to antibiotic treatment.

Disease Investigations – Vaccine-Preventable Diseases

The NSHD is responsible for investigating and controlling the spread of 15 vaccine-preventable diseases, ranging from influenza to mumps. In 2016, 80% of children in the North Shore aged 24 months had all recommended vaccinations and 71% of children aged six had all recommended vaccinations, according to Wisconsin Immunization Registry data. Despite these vaccination rates, NSHD investigated 88 potential cases of vaccine-preventable diseases in 2016 with pertussis (whooping cough) being the most prevalent (see Table 1).

The Health Department works to control the spread of vaccine-preventable diseases by identifying people who have been in close contact infected individuals and determining if those contacts are susceptible to the disease. This investigation includes assessment of the immune status, previous disease exposure, vaccination status, and age of the contacts to determine their risk. Public Health Nurses assess the immune status of those exposed based on criteria such as whether they previously had the disease, whether they have been previously vaccinated, or in some cases their age. If the Public Health Nurse determines someone is not immune and thus susceptible to catching the disease, the individual may be restricted from going to school or work during a potentially infectious period or during the disease incubation period. Isolation can be necessary to prevent further spread of the disease.

Immunization Program

The NSHD maintains an immunization program to prevent and control vaccine-preventable diseases. Under this program, the NSHD provides immunizations to residents without medical insurance, to those with Medicare and to private payers. The NSHD offers five immunization clinics each month for residents. Additionally, the NSHD works with families, schools and daycare providers to ensure enrolled children are up-to-date on their immunizations and compliant with the Wisconsin Student Immunization Law.

As part of our effort to prevent influenza, the NSHD provides flu immunizations through our scheduled flu clinics, for homebound residents and during our regular immunization clinics. In 2016, the NSHD offered 60 immunization clinics and flu clinics, including 13 different walk-in flu clinic opportunities. Seventy-three percent of our total immunizations in 2016 were for influenza. We provided 441 flu immunizations in 2016 compared to 558 flu immunizations in 2015 (see Figure 1).

The Health Department has administered fewer immunizations over the past several years. Reasons for this include: increased insurance coverage due to the Affordable Care Act and, in 2016, lack of flu mist availability because only injectable flu shots were recommended by CDC.
Furthermore, Wisconsin data from the 2016-2017 flu season thus far show lower vaccination rates than during the 2015-2016 season.

**Figure 1: Total Number of Immunizations Provided by North Shore Health Department**

Chronic Disease Prevention and Control
Chronic diseases are illnesses that last three months or longer, are rarely cured, and are often progressive. Common chronic diseases include heart disease, stroke, diabetes, hypertension, cancer, arthritis and osteoporosis. Health behaviors such as tobacco use, lack of physical activity and poor eating habits are leading risk factors for many chronic diseases. In 2016, cancer was the leading cause of death in the North Shore, followed by heart disease (see Table 2).

**Clinical Services**
The NSHD offers opportunities for residents to manage their health through various clinics. The NSHD offers five clinics each month at our Brown Deer and Shorewood offices, the North Shore Library, and the Lydell Community Center in Whitefish Bay. Some clinics provide free blood pressure screenings while others provide affordable adult health screenings, including a blood analysis for cholesterol, glucose, and triglycerides, a weight check, and a nurse consultation. In 2016, we provided 254 blood pressure screenings, a 23% increase from 2015.

**Elder Referral Program**
NSHD staff follow up on referrals we receive regarding health issues of older adults. The NSHD works in partnership with the Milwaukee County Department on Aging and/or North Shore Fire/Rescue to conduct home visits. These referrals often result in linking older adult residents to other resources in the area to

**Table 2: Top 10 Leading Causes of Death in North Shore 2014-2016**

<table>
<thead>
<tr>
<th>Disease</th>
<th>2014 rate per 10,000</th>
<th>2015 rate per 10,000</th>
<th>2016 rate per 10,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Disease</td>
<td>17.6</td>
<td>18.1</td>
<td>15.9</td>
</tr>
<tr>
<td>Cancer</td>
<td>18.8</td>
<td>16.1</td>
<td>19.0</td>
</tr>
<tr>
<td>Other causes of death</td>
<td>14.8</td>
<td>14.5</td>
<td>19.2</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>4.5</td>
<td>5.1</td>
<td>5.3</td>
</tr>
<tr>
<td>Respiratory Diseases</td>
<td>4.3</td>
<td>4.3</td>
<td>3.9</td>
</tr>
<tr>
<td>Cerebrovascular/Stroke</td>
<td>4.2</td>
<td>4.6</td>
<td>4.2</td>
</tr>
<tr>
<td>Alzheimer’s Disease</td>
<td>3.6</td>
<td>4.0</td>
<td>3.1</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>1.9</td>
<td>2.6</td>
<td>2.0</td>
</tr>
<tr>
<td>Influenza and Pneumonia</td>
<td>1.4</td>
<td>1.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Parkinson’s Disease</td>
<td>1.2</td>
<td>0.9</td>
<td>0.9</td>
</tr>
</tbody>
</table>

maximize their independence and protect their health and safety. In 2016, Public Health Nurses responded to 24 elder referrals from the Department on Aging, North Shore Fire/Rescue, police departments and concerned residents.

Community Events
The NSHD participates in various community events in the North Shore. We have focused our health promotion and outreach efforts on topics including medication poisoning, lead poisoning, nutrition, and pedestrian and bicycle safety. In 2016, we participated in National Night Outs in Brown Deer, Glendale and Shorewood; Farmers’ Markets in Brown Deer, Fox Point, Shorewood, and Whitefish Bay; and were present at other events like the Safe Kids Car Seat Recycle Day, Whitefish Bay’s Green Day in the Bay, Shorewood’s First Ride, the Bayside Picnic, Bayshore Safety Day, and Bike Rodeos at Stormonth Elementary School, Maple Dale Middle School and Atwater Elementary School.

Environmental Health
The NSHD’s environmental health program focuses on the assessment, management, control and prevention of environmental factors that may adversely affect the health, comfort, safety or well-being of our residents. The NSHD provides these services as part of Wisconsin State Statute Chapter 254-Environmental Health.

In 2016, the North Shore Health Department launched its Breastfeeding Friendly Workplace Recognition Program (more information available on our website). Funded by a Maternal Child Health grant from the Wisconsin Department of Health Services, we recognized our first workplace at the Silver award level. We will continue working with North Shore businesses to educate, support, and honor those who provide outstanding support for their breastfeeding employees. Workplaces can be nominated at nshealthdept.org/Breastfeeding.aspx

ELDER REFERRAL LEADS TO QUALITY OF LIFE SUPPORT
In July, 2016, North Shore Fire/Rescue (NSFR) received a call about an older adult, Herb*, who had fallen. NSFR transported Herb to the hospital, where he was treated and released because he had no significant injuries or acute medical conditions needing to be addressed. NSFR contacted the Health Department to join them on a home safety assessment visit. The Public Health Nurse assessed both Herb and his wife Helen* for fall risks, including history of any previous falls, medical conditions that might make them susceptible to a fall, medications, gait and mobility problems, and hypotension (low blood pressure). The PH Nurse discussed the results of the assessment and taught several recommended strength and balance exercises to them both. The PH Nurse also provided information on available homecare services and a list of care management companies to help Herb and Helen with their growing need for personal care support, as well as respite for Helen.

To date, the NSFR has not received any further calls from their address for fall assistance or injuries needing transport to a hospital; however, Helen has contacted the NSHD to request additional information on other available services. The NSHD continues to serve as an ongoing resource to the family as they age and their health status changes.

* We have changed the names for privacy.
Food Safety and Recreational Licensing
The NSHD oversees the North Shore Environmental Health Consortium (NSEHC), which serves as an agent of the Wisconsin Department of Agriculture, Trade and Consumer Protection. The NSEHC protects the public’s health through enforcement of sanitary regulations and fostering sanitary practices in certain public establishments. In 2016, the NSEHC provided licensing and inspection services for restaurants, pools and hotels in the communities of Bayside, Brown Deer, Fox Point, River Hills, Shorewood and Whitefish Bay. In 2016, the NSEHC issued the licenses listed below in Table 3, and inspected 97% of the licensed facilities. In 2016, we also responded to food and sanitary complaints in 14 food establishments, one hotel and one pool. This program is supported by license and inspection fees.

Table 3: Food Safety and Recreational Licensing by North Shore Environmental Health Consortium 2014-2016

<table>
<thead>
<tr>
<th>Item</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Restaurant Licenses Issued</td>
<td>117</td>
<td>111</td>
<td>102</td>
</tr>
<tr>
<td>Retail Food Establishment Licenses Issued</td>
<td>84</td>
<td>84</td>
<td>69</td>
</tr>
<tr>
<td>Farmers Markets and Temporary Event Licenses</td>
<td>86</td>
<td>104</td>
<td>71</td>
</tr>
<tr>
<td>Pool Licenses</td>
<td>49</td>
<td>50</td>
<td>49</td>
</tr>
<tr>
<td>Hotel Licenses</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Re-inspections</td>
<td>129</td>
<td>74</td>
<td>96</td>
</tr>
<tr>
<td>Complaints</td>
<td>8</td>
<td>8</td>
<td>16</td>
</tr>
</tbody>
</table>

Source: NSEHC

Toxic Substances – Lead Hazard Control
The NSHD’s lead hazard control program prevents and reduces the impact of lead poisoning among children in the North Shore. The NSHD receives test results from the State of Wisconsin for all children tested for the presence of lead who reside in any of the seven North Shore communities. A Public Health Nurse reviews test results and contacts families with children whose initial blood lead level result is greater than or equal to 5µg/dL.

For children with a confirmed elevated blood lead level, the nurse will initiate an investigation, which may include a visit to inspect the home for the presence of environmental conditions that might be contributing to the lead poisoning. The NSHD receives a small grant from the Wisconsin Department of Health Services for lead hazard control.

Table 4 shows the number of initial cases of blood lead levels that have been ≥ 5µg/dL for the past three years. After confirmatory testing, some cases did not meet the criteria for elevated blood lead levels and thus, no further investigation was warranted. The Health Department saw a 32% increase in the number of blood lead level tests done in 2016 due to increased awareness among providers and families on the importance of screening. The NSHD recommends parents request that their child is screened for elevated blood lead levels at or around their first, second and third birthdays.

Through a grant received from the Wisconsin Department of Health Services’ Environmental Public Health Tracking Program, we have been working with physician groups

Table 4: Blood Lead Level Results in the North Shore 2014-2016

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blood lead level results received</td>
<td>658</td>
<td>405</td>
<td>534</td>
</tr>
<tr>
<td>Initial Elevated Blood Lead Levels ≥ 5 µg/dL (% of tests)</td>
<td>17</td>
<td>17</td>
<td>19</td>
</tr>
<tr>
<td></td>
<td>(2.6%)</td>
<td>(4.2%)</td>
<td>(3.6%)</td>
</tr>
<tr>
<td>Home visits made by nurse following confirmed elevated levels</td>
<td>5</td>
<td>3</td>
<td>5</td>
</tr>
</tbody>
</table>

Source: STELLAR, State of Wisconsin and NSHD
to raise awareness of the prevalence of lead poisoning and to assess providers’ lead screening policies and procedures. Our work has identified inconsistencies in clinic and provider processes. One example is that, based on surveillance data from the State, we initially believed only half of Medicaid-eligible children were being tested for lead poisoning, although Wisconsin requires all children who receive Medicaid to be tested. In working with a clinic, we learned that some of the missing data was due to providers not regularly submitting their test results to the State for entry into the surveillance system. Based on this initial discovery, the clinic and their broader medical group created a policy and procedure for lead testing and reporting and distributed this to their other primary care clinics in the region.

**Radon Outreach and Testing Program**

The NSHD continued to provide radon outreach and testing kits in 2016. Staff followed up with residents who had high radon levels and provided additional education and information on mitigation options. The NSHD also provided information to the community on the health risks associated with radon through our newsletter and library display boards. Of 129 radon testing kits sold, we received results on 80 individual homes. Twenty-three percent of those homes had initial elevated levels of radon (≥4pCi/L).

**Animal Bite and Rabies Control**

The NSHD works with police departments in the North Shore to promptly investigate animal bites for potential rabies exposure. The Health Department is responsible for ensuring that the biting animal is appropriately and legally isolated, observed and tested for rabies. The NSHD conducted 38 animal bite investigations in 2016, an 18% increase from 2015. None of these investigations resulted in a rabies case. In addition, the NSHD assists with testing of wild animals, such as bats, that may have come in contact with humans. The NSHD tested three bats in 2016, none of which were positive for rabies.

**Arbovirus Surveillance – West Nile Virus and Zika**

Each year the NSHD collects water samples in summer from local sewer basins to monitor for the presence of Culex mosquito larva. Culex mosquitoes are known carriers of West Nile virus. Once the Health Department has confirmed the presence of Culex mosquito larva, we alert the participating communities. Municipal leaders determine if they want to treat breeding habitats with larvicide to reduce the spread of these mosquitoes.

Additionally, the NSHD participates in the State’s Dead Bird Reporting program that monitors for the presence of West Nile virus in corvids (birds such as crows, ravens and blue jays). The NSHD monitors dead corvids as an early warning sign that the virus may be present in the area. In September 2016, the NSHD reported the first bird testing positive for West Nile in Milwaukee County. While human cases of West Nile were identified in Milwaukee County, none were confirmed in the North Shore.

During the summer of 2016, the NSHD was one of three health departments in Milwaukee County to partner with UW-Madison and the Wisconsin Department of Health Services to monitor for mosquito species suspected of carrying the Zika virus. These mosquito types are generally found in warmer climates, but national surveillance has shown their territory expanding north. Health Department staff set 10 traps around the North Shore with each trap monitored weekly for mosquito eggs. Eggs were sent to the University of Wisconsin Medical Entomology Laboratory where they were hatched and identified. None of the hatched mosquitoes tested were identified as a suspect mosquito species.

Participation in this type of surveillance is essential for monitoring the geographic range for disease-carrying mosquitoes so we can be prepared to respond if and when emerging diseases such as Zika are found in the
North Shore. The costs for this program are partially supported by our Public Health Emergency Preparedness funding from the Wisconsin Department of Health Services and the Centers for Disease Control and Prevention.

Human Health Hazard and Public Health Nuisance Investigations
Per Wisconsin State Statute 254.59, local health departments are required to respond to the presence of human health hazards. Human health hazards are substances, activities, or conditions that are known to have the potential to cause acute or chronic illness, injury, or death if exposure is not stopped. Local municipal ordinances also give the NSHD authority to investigate and respond to public health nuisance complaints. In 2016, the NSHD responded to seven complaints regarding air quality and 57 other human health hazard or public health nuisance investigations. Investigations centered on issues such as sanitary conditions, solid waste, animal waste, noxious odors, garbage and refuse, and stagnant water.

Beach Water Testing and Monitoring
The NSHD monitors recreational water conditions at Atwater, Klode and Doctors Park beaches by routinely testing water for harmful levels of bacteria and posting signs to communicate water safety to the public during the summer swimming season. The NSHD works with the Shorewood Department of Public Works to test the water at each of these beaches at least twice a week from Memorial Day through Labor Day. Sampling results are provided to the Wisconsin Department of Natural Resources and are posted on wibeaches.us.

In 2016, we collected 93 beach water test samples and issued two cautionary advisories due to bacteria counts elevated above the EPA standard level. Both advisories were issued at Atwater beach. None of the beaches were closed for unsafe conditions in 2016. The costs for monitoring the status of our three beaches is partially covered by a Wisconsin Department of Natural Resources grant.

Injury Prevention
Unintentional and intentional injuries are a leading cause of emergency department visits, hospital inpatient admissions and fatalities in Wisconsin and the North Shore.

Childhood Injury Prevention
The NSHD partners with North Shore Fire/Rescue to support child passenger safety through our car seat inspection and installation program. In 2016, an additional NSHD staff person completed the training requirements to become a Certified Child Passenger Safety Technician, raising the number of CPS technicians to three in the NSHD. The NSHD also partnered with Children's Hospital of Wisconsin to establish a permanent car seat fitting station at North Shore Fire/Rescue Station 81 in Brown Deer. Clinics are held the second Wednesday of each month. People can book appointments for this clinic through the Children's Hospital of Wisconsin appointment line (414.231.4896).

In 2016, the NSHD completed 142 child passenger safety inspections (Figure 2). The majority of the inspections were for initial installations or already installed infant carriers. For car seats already installed prior to the inspection, 81% of those were incorrectly installed and needed to be re-installed. This program is partially funded through the donations we receive from the families who use these services.

The NSHD partnered with Safe Kids Southeast Wisconsin and the Village of Shorewood on a grant application in 2016 through Safe Kids Worldwide and program sponsor FedEx to improve the walking environments in and around schools in Shorewood. The project was awarded $30,000 in funding in early January 2017 and will begin work this spring.

While not specific to childhood injury prevention, one of the maternal and child health services the NSHD provides is a newborn home visit by a Public Health nurse. This program expanded in 2016 to include breastfeeding support services offered by a Certified
Lactation Counselor. During this visit a nurse discusses topics such as home safety, immunizations, nutrition, and healthy growth and development. Home visits provide the chance for new parents to ask questions and discuss newborn health and development. NSHD staff visited 12 families in 2016.

**Figure 2: Child Passenger Safety Inspections by NSHD 2016**

![Pie chart showing percentages of child passenger safety inspections by type of restraint.]

*Source: NSHD data, n=142*

“It was really helpful that they came to my home, and that they brought a scale to weigh my newborn. Fantastic service!”

— A parent who received a home visit in 2016

**Older Adult Fall and Injury Prevention**

In 2016, the NSHD began conducting individual fall risk assessments for older adults living in the North Shore based on guidelines from the Centers for Disease Control and Prevention. NSHD offered risk assessments at the Spring 2016 Shorewood Senior Health Fair and at specialized clinics around Fall Prevention Awareness Day in September 2016. We regularly partner with North Shore Fire/Rescue (NSFR) on in-home fall risk assessments for individuals.

The NSHD and NSFR also continue to jointly offer the Remembering When program for senior groups. This program was developed by the Centers for Disease Control and Prevention and the National Fire Protection Association to help older adults live safely at home by addressing both fire and fall prevention. In 2016, the NSHD and NSFR presented the Remembering When program to seven senior groups in the area, reaching 46 older adults.

NSHD staff also developed a First Aid for Older Adults program to help older adults understand specific concerns in regards to wound healing, unintentional poisonings from taking too much of a medication or ingesting a poisonous substance, unregulated insulin levels for those with diabetic conditions, and other situations specific to older adults. NSHD offered this presentation five times in 2016, reaching more than 60 older adults.

**Mental Health and Resiliency**

The NSHD is an active member of REDgen, a North Shore coalition dedicated to promoting balance and resiliency for children and teenagers. The NSHD established and continues to lead their Community Health subcommittee linking parents, teachers and other community members with suicide prevention programs, and raising awareness in the community to help people struggling with mental health issues.

Through the NSHD’s Maternal Child Health grant from the Wisconsin Department of Health Services, we offer training for individuals in the Question, Persuade, and Refer (QPR) program to teachers, students, and parents. QPR helps individuals recognize the warning signs of suicide crisis and teaches skills in how to question, persuade, and refer someone to help. To date, 350 people in the North Shore have received QPR training.
Public Health Emergency Preparedness

Health threats from infectious disease outbreaks, bioterrorism events and natural disaster events require a coordinated response from multiple government agencies to save lives. Local health departments, including the NSHD, are recognized as essential partners in emergency response situations because of their capacity to identify, communicate and respond to everyday public health threats such as communicable diseases and human health hazards.

In June 2016, the NSHD partnered with the City of Milwaukee Health Department and UW-Milwaukee to participate in the second largest full-scale bioterrorism exercise in the nation. This exercise practiced delivering preventative antibiotics to our population in the event of an aerosolized Anthrax attack.

In May 2016, the Health Department also partnered with North Shore Fire/Rescue and area police departments on an awarded grant from the Southeastern Wisconsin Healthcare Emergency Readiness Coalition to exercise an Active Shooter situation. The NSHD staff assisted in providing volunteers in the weeklong exercise, and helped fire and police personnel practice their response in these situations. The Health Department examined its role in these emergencies including assisting with organizations like the American Red Cross to support family reunifications centers and IMPACT-211 to support emergency communications.

In Summary

The NSHD has both directly and indirectly reached all who live in, work in and visit the North Shore through our many programs and services. We are committed to continuously improving our communities’ health, preventing disease and injury, minimizing the health impact of emergencies, and safeguarding the environment. This is done through an organized, collaborative process that includes assessment, policy development and assurance.

To learn more about what we are doing in 2017, sign up to receive our monthly newsletter, visit us on Facebook and Twitter, or explore our redesigned website at nshealthdept.org.
## FINANCIAL UPDATE 2016*

### REVENUES

- **Grants** ................................................. $169,815
- DHS Maternal/Child Health Block ........................ $17,601
- DHS Prevention Block ..................................... $5,640
- DHS Preparedness/PHP .................................. $75,833
- DHS Cities Readiness Initiative ......................... $10,814
- DHS Ebola Preparedness ................................. $22,084
- DHS Lead ...................................................... $3,343
- DHS Adult Immunization ................................ $2,145
- DHS Immunization ........................................ $14,214
- DHS Environmental Health Tracking Program .... $2,177
- DNR Beach Testing ........................................ $4,000
- NACCHO: FDA Program Standards .................. $11,964
- **Permits** .................................................. $107,103
- **Clinical Fees** .......................................... $18,902
- **Community Contributions** ................. $456,538
  - Bayside ....................................................... $26,753
  - Brown Deer ................................................ $128,470
  - Fox Point .................................................... $27,757
  - Glendale ...................................................... $65,833
  - River Hills .................................................. $9,405
  - Shorewood .................................................. $130,981
  - Whitefish Bay ............................................. $67,339
- **Other Revenues** ..................................... $16,009
- **TOTAL REVENUES** ............................... $768,367

### EXPENDITURES

- Salary and Wages ........................................... $429,256
- Fringe Benefits ........................................... $136,020
- Supplies, Travel & Other Expenses .................. $53,987
- Administrative Charges ................................ $80,486
- Reserves ...................................................... $68,618
- **TOTAL EXPENDITURES** ......................... $768,367

*Preliminary*
Serving the communities of Bayside, Brown Deer, Fox Point, Glendale, River Hills, Shorewood and Whitefish Bay

STAFF
The Health Department employs a health officer, nurse supervisor, Public Health manager, administrative assistant, three Public Health nurses, a sanitarian and a medical advisor, totaling 7.2 full-time equivalents.

BOARD OF HEALTH
The Board, with representatives from each of the seven communities, helps direct the Health Department’s activities. In addition, a medical advisor serves on the Board of Health.

Jennifer Evertsen, MS-Bayside
Barbara Bechtel, RN, BSN-Brown Deer
William Warner-Fox Point
Debesh Mazumdar, MD-Glendale
Claudia Altman, MD-River Hills
Mary Jo Baisch, PhD, RN-Shorewood
Christopher Simenz, PhD-Whitefish Bay
Gary Lewis, MD-Medical Advisor/Chair

TWO LOCATIONS
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Shorewood Office
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Hours: Monday-Friday 8 a.m.-4:30 p.m.
NORTH SHORE
HEALTH DEPARTMENT

SERVING THE COMMUNITIES OF BAYSIDE,
BROWN DEER, FOX POINT, GLENDALE,
RIVER HILLS, SHOREWOOD AND
WHITEFISH BAY, WISCONSIN

nshealthdept.org