



2024

ANNUAL REPORT

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HAMILTON COUNTY HEALTH DEPARTMENT STAFF

Charles Harris, MD	Health Officer
Jason LeMaster, REHS	Administrator
Janice VanMetre, BSN	Director of Nursing
Georgia Roudebush, VRPS	Registrar, Office Manager (retired Dec. 31, 2024)
Amy Ballman, CP-FS	Director of Environmental Health
Christian Walker	Public Health Coordinator
Jennifer Chavez	Public Health Finance Coordinator (started March 9, 2024)
Anita Kumari	Director of Health Information (started March 18, 2024)
Keirsha Davis	Accreditation Coordinator (Part-time, Sept. 9, 2024)

Nursing Staff

Julie Nagel, RN	Nurse- Senior Nurse/Immunization Coordinator
Julie Stonebraker, BSN	Nurse
Beth Garrison, RN, MSN	Nurse
Sara Leap, RN	Nurse
Nancy Shaw, RN	Nurse
Gema Lopez, LPN	School Liaison
Stacy Mattox, RN	Nurse
Molly Thomson	Nurse (Part-time, Jan. 29, 2024)
Emily Snyder	Community Health Social Serv. Coordinator (started Feb. 26, 2024)

Health Education Staff

James Ginder, MS, CHES®, CCHW	Health Education Specialist
Kaylen Underhill, BS	Health Educator

Environmental Health Staff

Amy Ayers	Environmental Health Specialist
Tammy Gleber	Environmental Health Specialist (retired March 29, 2024)
Morgan Bennett	Senior Environmental Health Specialist, Program Coordinator
Alex Davis	Vector Control Specialist
Jessica Haney	Environmental Health Specialist
Mitchell Fry	Environmental Health Specialist
Hunter Paugh	Environmental Health Specialist
Melissa Ackermann REHS CP-FS	Environmental Health Specialist (Part-time)
Alexandria Mahoney, MPH CPH	Environmental Health Specialist
Brenda Martinez	Environmental Health Specialist (transitioned to Full-time April 1, 2024)
Paige Noble	Environmental Health Specialist (Part-time, started April 1, 2024)
Anthony Byrd	Mosquito Control Technician (May-August)
Chase Ramirez	Mosquito Control Technician (May-August)
Ellenor Karst	Water Quality Technician (May-August)
Lauren Pike	Water Quality Technician (May-August)

Public Health Planning

Andrew Hazel	Assistant Coordinator/Medical Reserve Corp Coordinator
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Clerical Staff

Adrienne Maynard	Secretary (started Jan. 2, 2024; resigned May 15, 2024)
Julie Chester	Medical Billing Specialist (started July 22, 2024, resigned Sept 30, 2024)
Susie Swenson	Secretary
Lydia Mounce	Secretary (retired July 19, 2024)
Elizabeth Eros	Secretary (started Aug. 12, 2024)
Jennie Carter	Medical Billing Specialist (started Dec. 9, 2024)
Kathy Johnson	Secretary (Part-time)
Marsha Kerr	Environmental Secretary (Part-time)
Patti Keller	Secretary (Part-time)

Registered Nurse...RN	Registered Environmental Health Specialist...REHS
Bachelor of Science in Nursing...BSN	Certified Health Education Specialist...CHES®
Certified Professional – Food Safety CP-FS	Certified Community Health worker...CCHW
Master of Public Health...MPH	Certified in Public Health...CPH



BOARD OF HEALTH

Charlotte Boden, BSN, Chairman
Ann McNulty
David Dwyer, MD
Renee Dillinger, RN
Naomi Penney, Ph.D., M.P.H.
Tim Fleck, DVM
Bradley Sutter, M.D., F.A.C.P.
John Terry, Board Attorney

POSITION STATEMENT

The Hamilton County Health Department exists to promote the health and wellbeing of our community. We do it by preventing disease, providing education, and protecting our environment. Our service-driven, science-based approach creates the conditions for our citizens to live long, healthy lives.

MISSION STATEMENT

The Hamilton County Health Department is dedicated to the purpose of communicable disease prevention and health promotion for residents of all ages in Hamilton County and protecting the environment in which they live. The department maintains programs of education, regulatory enforcement, and provides health services devoted to the promotion of a healthy environment in Hamilton County.

VISION STATEMENT

A thriving Hamilton County where every resident has equitable access to preventive health care, nutritious food, safe recreational opportunities, and the educational resources they need to live long, healthy lives.



CORE VALUES

Service

Service is our foundational value and North Star. Everything we do, from immunization programs to food inspections, is part of a larger effort to protect and serve the people who live, work, and play in Hamilton County.

Transparency

We demonstrate our commitment to transparency by providing access to information and data, delivering clear and forthright communications, and fostering a culture of openness and accountability.

Compassion

Our work is rooted in compassion for the people of Hamilton County. We seek to reduce health disparities and promote health equity so our community can live fulfilling lives.

Respect

We are accepting of every person regardless of any and all differences as we strive to build diverse relationships of trust, safety, and well-being.

Responsiveness

Our team is committed to responding to emergencies and health crises. Our commitment to preparedness extends to our partners, who value our responsive approach to service and collaboration.

Collaboration

Our work requires strong partnerships with various stakeholders: government departments, healthcare partners, businesses, and citizens. Through unity, we all succeed.

Science

Science and data inform our programs and provide the basis for their continuous evaluation and improvement. As science advances, we will continue to leverage it to optimize health in our community.

Trust

Trust is the bedrock of effective public health. We strive to build trust through the consistent application of our core values, and by serving with integrity and honesty in everything we do.

The staff of the Hamilton County Health Department are devoted to meeting the challenge of public health issues, which arise on a daily basis. The department has balanced itself to provide services to residents ranging from Vital Records, Environmental Health, Health Education and Public Health Nursing.



ADMINISTRATION

2024 Community Health Needs Assessment

To conduct the comprehensive Community Health Needs Assessment (CHNA), the Hamilton County Health Department worked with hospitals and a diverse group of community and academic partners. The health department also collected data gathered from a health survey of community members.

The purpose of the assessment is to identify the significant health needs in the community and gaps that may exist in services provided. It was also developed to provide the community with information to assess essential health care, preventive care, and treatment services. This endeavor represents efforts to share information that can lead to improved core public health services, access to care, and quality of care available to the community, while reinforcing and augmenting the existing infrastructure of services and providers.

This assessment provides a comprehensive overview of the 2024 Community Health Needs Assessment (CHNA) conducted collaboratively by the Hamilton County Health Department. The chapters of this assessment provide an overview of the methods used to conduct the CHNA, summaries of existing health indicator data that was reviewed, primary data that was collected for purposes of the CHNA, and a description of the process and outcomes of a prioritization process to establish the health priorities that will drive the hospital's activities in the subsequent years.

The full PDF version of the health assessment can be found on the Health Department's website at: <https://www.hamiltoncounty.in.gov/2058/Community-Health-Assessment>

Health First Indiana - Health First Hamilton County Program

Health First Indiana transforms public health through a state and local partnership to deliver services at the county level. Senate Enrolled Act 4 (SEA 4), legislation passed by the 2023 Indiana General Assembly, provides Health First funding starting in 2024 so counties can determine the health needs of their communities and implement evidence-based programs focused on prevention. Each individual county decides whether to opt-in to the new funding and to provide the core public health services, including trauma and injury prevention, chronic disease prevention, maternal and child health and more. The goal is to ensure that every Hoosier has access to the core public health services that allow them to achieve their optimal health and well-being. Good health is the foundation of our ability to thrive from schools to the economy.

Resolution 06-26-23-1 adopted by the Hamilton County Board of Commissioners recognizes the importance of public health to support a healthier community and create a better quality of life for its residents. The Board of Commissioners supports initiatives that sustain and maintain core public health services at the county level with local input and flexibility to meet the needs of the community. The Board of Commissioners commits to the County's right to self-direct and acknowledges that by opting-in and annually accepting state allocated public health funds it retains authority and control of the county health department otherwise afforded to it under state law or code pursuant to Indiana Code 16-20-1-12(i).

Hamilton County continues to grow significantly along with the demand for services countywide while the workforce has remained static and slow to adapt to the changes in population served and statutory requirements. From U.S. Census Bureau data and IU population survey data, Hamilton County's total population has grown 12.75% since 2018 with the most significant growth in the 55+ population by 97.4% since 2010. Age-based population growth for 0-19 years of age is 28.10%, adults 20-49 years of age is 39.50% and adults 50+ years of age is 32.40% countywide. Municipal growth ranges from Carmel at 26% to Westfield at 55% (Noblesville 34% and Fishers 30% respectfully) with the Hamilton-Boone county border area increasing by 200% in resident population.

The Hamilton County Health Department intends to meet these changes in populations and provide public health services while addressing the challenges of workforce and service delivery. A restructuring



of the department's organizational program structure is being developed to correspond with the core public health service areas. New specialized staffing positions have been identified as needed in the areas of finance, data/informatics, and social services (behavior health) to provide services internally as well as externally to citizens, health partners and stakeholders.

Although the Robert Wood Johnson Foundation ranks Hamilton County as the #1 healthiest county in Indiana, barriers to public health exist and opportunities for increased services for underserved and underinsured populations continue to grow as illustrated in the IDOH county scorecard. The Hamilton County Health Department is working to transform public health in Indiana. Our focus is to ensure that every Hoosier has access to the core public health services that allows them to achieve their optimal health and well-being. By actively engaging health partners and others, we will reach the goals of Health First Hamilton County.

IDOH County Scoreboard for Hamilton County:



Indiana County At-A-Glance

The dashboard below displays county-level data for all topics. Choose a county from the map to change the data shown.
Dashboard refreshed on 10/4/2024.

County	Topic	Indiana Rate	County Rate	Rank
Hamilton	Adult Obesity	44%	35.0%	#1
	Children < 3 Years Old Completing Recommended Vaccine Series	62.2%	71.2%	#21
	Infant Mortality Rate	6.7	4.48	#11
	Life Expectancy	75.6	81	#1
	Opioid Overdose Rate	25.07	10.6	#22
	Smoking Rate	17.9%	7.3%	#1
	Suicide Rate	15.77	11.3	#6
	Tobacco and Vaping Use During Pregnancy	6.6%	0.6%	#1
	Years of Potential Life Lost Due to Injury (Age-Adjusted)	2527.14	1049.6	#6

Source: Indiana Department of Health County Scorecard <https://www.in.gov/healthfirstindiana/county-health-scorecard/>



HFHC Partners funded in 2024

<i>Partner Type</i>	<i>Partner Name</i>	<i>Program Name</i>	<i>Primary Core Service being addressed</i>
<i>Community Based Organization</i>	<i>Breathe Easy Hamilton County</i>	<i>Best Health for Hamilton Count Youth</i>	<i>School Health Liaison</i>
<i>Community Based Organization</i>	<i>Hamilton County Council on Alcohol and Other Drugs</i>	<i>Hamilton County Suicide and Overdose Fatality</i>	<i>Fatality Review & Prevention</i>
<i>Non-Hospital Clinical Services</i>	<i>Heart and Soul Clinic</i>	<i>Diabetes Care in Action</i>	<i>Chronic Disease Prevention</i>
<i>Non-Hospital Clinical Services</i>	<i>Hope Family Care Center</i>	<i>Access to Healthcare for the Uninsured and Underinsured of Hamilton County</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Other</i>	<i>Noblesville Fire Department</i>	<i>County Mobile Integrated Healthcare Grant</i>	<i>Chronic Disease Prevention</i>
<i>Community Based Organization</i>	<i>Partnership for a Healthy Hamilton County</i>	<i>Bridging the Gap</i>	<i>Maternal and Child Health</i>
<i>Community Based Organization</i>	<i>Prevail, Inc.</i>	<i>Victim Services and School based prevention education</i>	<i>Trauma and Injury Prevention</i>
<i>Community Based Organization</i>	<i>Shepherd's Center of Hamilton County</i>	<i>Senior Services - Reaching Resources program</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Non-Hospital Clinical Services</i>	<i>Trinity Free Clinic</i>	<i>Improving Healthcare Access and Equity for Hamilton County</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Non-Hospital Clinical Services</i>	<i>Trinity Free Clinic</i>	<i>Immunizations & Health Screenings</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Faith Based Organization</i>	<i>YMCA of Greater Indianapolis</i>	<i>The YMCA,s Equitable, Evidence Based Health Programs</i>	<i>Chronic Disease Prevention</i>
<i>Community Based Organization</i>	<i>Breathe Easy Hamilton County</i>	<i>Best Health for Hamilton County Youth</i>	<i>Tobacco Prevention and Cessation</i>
<i>Non-Hospital Clinical Services</i>	<i>Heart & Soul Clinic</i>	<i>Testing, Treatment & Chronic disease clinic</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Non-Hospital Clinical Services</i>	<i>Trinity Free Clinic</i>	<i>Low - income Pediatrics and Women's Health</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Community Based Organization</i>	<i>Shepherds Center of Hamilton County</i>	<i>Senior services</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Community Based Organization</i>	<i>Healthier Hamilton County</i>	<i>Resource website for service connection</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Community Based Organization</i>	<i>Hope Free Clinic</i>	<i>Underserved population clinic services</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Community Based Organization</i>	<i>Indiana Center for Prevention of Youth Abuse and Suicide</i>	<i>Education & Prevention services</i>	<i>Tobacco Prevention and Cessation</i>
<i>Schools</i>	<i>Carmel Education Foundation</i>	<i>Mental Health</i>	<i>School Health Liaison</i>
<i>Schools</i>	<i>Hamilton Heights Education Foundation</i>	<i>Mental Health</i>	<i>School Health Liaison</i>
<i>Schools</i>	<i>Hamilton Southeaster Education Foundation</i>	<i>Mental Health</i>	<i>School Health Liaison</i>
<i>Schools</i>	<i>Noblesville School Education Foundation</i>	<i>Mental Health</i>	<i>School Health Liaison</i>
<i>Schools</i>	<i>Sheridan Schools Education Foundation</i>	<i>Mental Health</i>	<i>School Health Liaison</i>



<i>Schools</i>	<i>Westfield Education Foundation</i>	<i>Mental Health</i>	<i>School Health Liaison</i>
<i>Individual/LLC/Corporation</i>	<i>Crediblemined Inc.</i>	<i>Mental Health</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Individual/LLC/Corporation</i>	<i>PockecTalk</i>	<i>Translation Service Subscription</i>	<i>Access to and Linkage to Clinical Care</i>
<i>Individual/LLC/Corporation</i>	<i>TCI software</i>	<i>Clinic survey software system</i>	<i>Access to and Linkage to Clinical Care</i>



DIVISION OF HEALTH EDUCATION PROGRAMS

The Health Education Division of the Hamilton County Health Department strives to improve attitudes, beliefs, and behaviors in order to enhance the health of the county's residents. The Health Education Division currently employs two Health Education Specialists to provide health education services to the community.

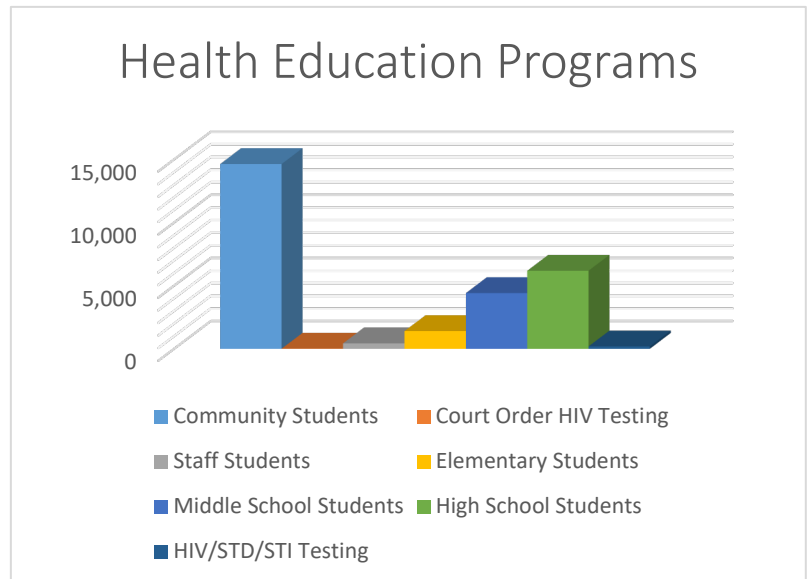
Health Education is a social science that draws from biological, environmental, psychological, physical and medical science to promote and prevent disease, disability and premature death through education-driven, voluntary behavior change activities.

Services & Duties

- Assess individual and community needs
- Conduct research
- Collaborate with other community agencies
- Discuss controversial health topics
- Develop education materials
- Encourage healthy behavior
- Evaluate health education programs
- Identify resources
- Implement health education programs
- Make referrals
- Manage health education programs
- Plan health education programs
- Participate in social marketing
- Provide recourse for various health education needs
- Write grants
- Provide testing:
 - HIV/ Sexually Transmitted Disease and Infection
 - Hepatitis
 - Cholesterol and Glucose
 - Blood Pressure Screenings

The Health Education Division provides various educational presentations and consultations to various groups such as schools (public, private and charter), local groups, community groups/organizations, and professional organizations.

Community Students	14,636
Court Order HIV Testing	8
Staff Students	431
Elementary Students	1,403
Middle School Students	4,415
High School Students	6,182
HIV/STD/STI Testing	187



Overdose Detection Mapping Application Program (ODMAP)

Hamilton County Health Education Division collects overdose information for strategic analysis. The Health Education Division collaborates with local law enforcement, EMS and the Hamilton County Coroner's Office and local hospitals to obtain local data. ODMAP provides near real-time suspected overdose surveillance data across jurisdictions to support public safety and public health efforts to mobilize an immediate response to a sudden increase, or spike in overdose events.

HEALTH EDUCATION:

Health Education Program & ODMAP Report

See Addendum C

DIVISION OF PUBLIC HEALTH NURSING PROGRAMS

Immunizations

Immunizations are provided to infants and children from birth through the age of 18 under the Vaccine for Children program. Immunization clinics are held every Tuesday and Thursday 8:30 AM to 2:30 PM at the Health Department. The Hamilton County Health Department offers all vaccines recommended by the Centers for Disease Control and the Advisory Committee on Immunization Practices (ACIP). The office is a participant of CHIRP (Children and Hoosiers Immunization Registry Program) that shares immunization records throughout the state of Indiana with other registered participants, such as other county health departments, school nurses, and physician offices. An administration fee of \$8.00 per vaccine is charged each visit. Medicaid reimbursement is filed for Medicaid recipients. Hardship forms are available for those who cannot afford the fee, and no one is turned away. The health department became a Medicaid/Medicare provider in 2014. Immunizations are now given to those with insurance through a program called VaxCare. HCHD receives \$14.00 for each vaccine administered and VaxCare does the billing and ordering of vaccine.

Adult Immunizations

Adult immunizations for those 19 years and older are done mostly on Mondays and by appointment. Vaccines are available for uninsured and possibly for underinsured. For those with health insurance and some types of Medicare, VaxCare vaccine can be used.

HIV Counseling:

Hamilton County Health Department staff provides HIV counseling for individuals who have been convicted of a sex or drug crime. These counseling sessions are court ordered. A blood sample is drawn at Riverview Health and sent to the Indiana Department of Health laboratory for analysis. HIV testing for the general public is offered by appointment. Counseling is offered to all those who have the test performed. The HIV test is performed in our office and the results are available while the person is still in the office. Hepatitis C testing is also done at the same visit.

Hepatitis B

Hepatitis B vaccine is offered to all Hamilton County employees at risk of exposure to blood or body fluids as part of their job duties. This is an OSHA requirement and is paid for by Hamilton County. The vaccine is given as a series of three shots that takes six months to complete. Medical records are kept at the Health Department for the county employees currently receiving the vaccine; records of those who have completed the series or refused the vaccine are kept in Human Resources.



Immune Globulin/Hepatitis A New recommendations by the Advisory Committee on Immunizations Practices (ACIP) states that any persons exposed to Hepatitis A and who previously have not received Hepatitis A vaccine be given a single dose of single-antigen Hepatitis A vaccine or immune globulin (IG) as soon as possible. Hepatitis A vaccine is given to healthy individuals between the ages of 12 months to 40 years. All others who have been exposed would receive immune globulin. This prophylaxis would be given to food handlers, day care workers and close household or sexual contacts of persons diagnosed with Hepatitis A. During an investigation of Hepatitis A, the Health Department will administer either Hepatitis A vaccine or IG to those identified to be at risk. The Indiana Department of Health (IDOH) provides these medications for free. Educational materials are also provided.

Influenza Influenza (Flu) vaccine is provided from October until gone. Adult flu vaccine is given to the public at the office of the Health Department. Hamilton County employees were given the flu vaccine at the Government Center and our office; pediatric flu vaccine was given during the regular immunization clinics. The Indiana Department of Health (IDOH) provided flu vaccine for pediatric use under the VFC program. County employee vaccine was reimbursed from the county's insurance fund.

Epidemiology The Health Department investigates reportable communicable diseases in order to protect and maintain the health of the community. Physicians, laboratories, and hospitals report to the local health department these diseases. The investigations require phone calls, letters and educational information be provided to the patient during the course of the investigation. Prompt attention to these reports can prevent outbreaks of disease. The Health Department works closely with the Indiana Department of Health to monitor disease activity in the county and to alert physicians to any unusual activity. School nurses also provide invaluable information regarding an increase in school absenteeism and the presence of disease in the community. The Nursing Division works closely with Environmental Health in investigating food borne illnesses.

Tuberculosis Control The Health Department is responsible for investigating and monitoring each case of active Tuberculosis (TB) reported in the county. Directly Observed Therapy (DOT), the standard of care in Indiana for all cases of active TB regardless of site, is when the public health nurse administers each dose of medicine and watches the patient take the pills. DOT is administered daily for 5 or 7 days a week. The nursing division now uses electronic DOT (eDOT) to monitor patients taking TB medication. This is done through an app called Sure Adhere in which the patient videos themselves taking the medication and uploads to the case manager. The TB case manager also monitors for side effects of the medicine, monitors physician's appointments, and observes for any signs of recurrence. Individuals diagnosed with latent TB infection (LTBI) have been exposed to TB at some time in their life and take medicine daily for six months or weekly DOT at our office for 12 weeks to prevent developing active TB. The Indiana Department of Health (IDOH) provides medication for both active and latent cases for free. TB medication, both for disease and LTBI, are now filled by Purdue Pharmacy. Prescriptions are sent directly to Purdue and the medication is shipped to the health department. TB reactors continue to pick up their medication monthly and are monitored for symptoms. Only a thirty-day supply can be picked up at a time.



Tuberculosis Skin Testing

Tuberculosis (TB) Mantoux Skin tests are given at the Health Department every Monday and Tuesday from 9:00 AM to 4:00 PM. Those given a TB test must return on Thursday as instructed by the nurse to have the test read. Copies of the results are given at that time. TB tests are required for certain jobs, including day care workers and health care workers. TB tests are also given to foster parents, college students, immigrants, and refugees, and those at the Hamilton County Community Corrections. Contacts of active cases of pulmonary TB must also have an initial TB skin test and another one in 8 to 10 weeks. Reactors are referred to their physician for a chest x-ray and preventive therapy. The fee for a TB test is \$20.00.

Home Health Visits

Home visits are provided by nursing staff for high-risk infants and to the families who have lost a child to sudden infant death syndrome (SIDS). Referrals are received from hospitals, physicians, social services, the coroner, emergency medical services, fire departments and concerned friends and family members. Follow-up reports are sent to referral agencies. Families are referred to local community agencies, such as WIC, Medicaid, Healthy Families, and Prevail for assistance when indicated.

Lead Screening

Lead screening and testing is provided for children from nine months of age through six years. Parents complete a risk assessment screening form during the regular immunization clinics. As of July 1, 2022 universal lead testing is to be done once from 9 months to 21 months and again after the age of 2. Lead tests are offered during regular immunization clinic hours. A finger stick is done to obtain two drops of blood onto filter paper. The sample is then sent to the lab at IDOH. Results are back in about 1 week and are sent to the child's physician and parents. Counseling regarding lead poisoning is provided during the process, including those who have a high normal value. An environmental investigation is launched on any child with an elevated value. There is no charge to the public for the testing.

Lead Case Management

IDOH lowered the value of lead results to 3.5 to begin an investigation into the results. HCHD is tasked with following up on any lead level that is 3.5 or higher of any child in our jurisdiction. Case management begins at that level and lasts until the blood test is going down. Children having a confirmand level value of 5.0 or greater will have a home visit and investigation by the lead risk assessor.

Fees

Due to the increase cost of supplies, including syringes, Band-Aids, and educational material, a fee ordinance was adopted in June 2005. Fees are now routinely collected for the following services, Immunizations (administrative fee of \$8.00 per vaccine), and TB Mantoux skin tests (\$20.00).



DIVISION OF ENVIRONMENTAL HEALTH

The Division of Environmental Health is charged with providing the citizens of Hamilton County with an environment that will not transmit, generate or promote disease.

- Complaint Investigations** This program investigates a wide variety of environmental complaints that are often filed with the Health Department by citizens concerned for their own or others safety and well-being. Complaints include issues such as housing conditions, failing on-site sewage systems, indoor air pollution, and chemical emergencies.
- On-Site Sewage Program** This program ensures that all homes built without public sanitary sewers have proper on-site sewage systems. This program involves examining the soil characteristics, plan and design review and construction inspections. Many existing homes require on-site sewage system repairs and updates. The Environmental Health staff works closely with homeowners, builders, and excavators to provide a safe means of sewage disposal outside of areas served by sanitary sewer.
- Food Protection Program** This program is responsible for the license and inspection of all facilities in Hamilton County that prepare, serve or sell any food or drink item for human consumption. Trained Environmental Health Specialists inspect the food service facilities in Hamilton County. These inspections evaluate the facility for many items that may affect the safety and quality of food. The staff also investigates any reported foodborne illness and offer many educational opportunities for those in the food service industry. Repeated non-compliance of violations may result in enforcement by use of abatement orders, issuance of civil penalties or administrative hearings if needed.
- Recreational Water Program** This program licenses and inspects public and semi-public swimming pools. Environmental Health Specialists inspect the pools for general sanitation, water quality standards, as well as safety equipment and practices. Additionally, the department samples recreational surface water sites throughout Hamilton County. Thousands of Hamilton County citizens use these recreational waters throughout the year and the Hamilton County Health Department works to ensure that any risks are minimized.
- Water Quality Program** This program is designed to monitor the installation, repair and abandonment of water supply wells in Hamilton County. Clean, sufficient ground water is a valuable natural resource to our citizens. The Environmental Health Specialists work with builders, well drillers and homeowners to approve the placement of water supply wells and to sample the water for bacteriological quality.
- Vector Control Program** The Vector Control Program is responsible for controlling vectors that can transmit disease to the human population. Vectors include mosquitoes, rodents and ticks. The main focus of the Hamilton County Vector Control Program is the control of mosquitoes that can transmit West Nile Virus, St. Louis Encephalitis and other mosquito-borne disease. The Vector Control Program uses an Integrated Pest Management approach to mosquito control utilizing surveillance techniques, health education, control methods and program monitoring.



Lead

This program is responsible for completing risk assessments and lead inspections evaluating the environmental conditions of the home that may be contributing to a child's elevated blood lead level (EBLL). Home visits are scheduled and completed when a child's EBLL is greater than 5 µg/dL or as determined necessary by Environmental and Nursing staff for EBLLs below 5 µg/dL.

Rabies Control

The Hamilton County Health Department is responsible for recording and follow-up of animal bites in Hamilton County. This information is forwarded to the Indiana Department of Health and is used to help monitor rabies in Hamilton County.

VITAL RECORD DIVISION

The Hamilton County Health Department is responsible for recording births and deaths that occur in Hamilton County. This information is recorded here then sent to the Indiana Department of Health. Certified birth and death certificates are issued upon request. The Vital Record Division has recorded births and deaths in Hamilton County from 1882 until present.

The Vital Record Division records and reports animal bites in Hamilton County. All bites and scratches to a person or a domestic or wild animal that break the skin must be reported. The State Board of Animal Health defines which animals must be quarantined after biting. Pets that have bitten must be quarantined for ten (10) days following the bite.



PUBLIC HEALTH EMERGENCY PREPAREDNESS AND RESPONSE (PHEP)

All staff of the Hamilton County Health Department (HCHD) work to provide the county with a high level of public health emergency readiness. The department works as an all-hazards planning partner and incorporates preparedness as a constant responsibility.

Grant Participation

The Department participates in the Center for Disease Control and Prevention's (CDC) Cities Readiness Initiative (CRI) grant to build and maintain all-hazards public health preparedness and response including, medical countermeasures dispensing (MCM) capabilities for 100% of the county population in the time of a public health emergency. The grant year concluded with all requirements met. Total funding for the 2023-2024 grant year (Jul 2023-Jun 2024) was \$149,743. The following is a selection of the projects PHEP was able to complete or enhance utilizing grant funding.

- Juvare EMTrack-patient tracking software
- EMS equipment and supplies
- Fit testing machine-ensures proper fit of respiratory protection
- Outer vests for Carmel Police-ballistic protection for law enforcement officers
- Radiological-Nuclear Detection equipment

The 2023-2024 budget period was the last year of the CDC's grant cycle. Health and Human Services and the CDC continued the CRI and grants program for another five-year period, through the 2028-2029 grant cycle. These items further enhance the county's ability to respond to public health emergencies as well as provide new capabilities for one of the fastest growing counties in the nation.

Emergency Response

HCHD PHEP continued to provide an unprecedented level of services to the community in 2024. Preparedness staff supported two long-term activations of the County's Emergency Operations Center.

- April 2024-Total Solar Eclipse
- November 2024-National Elections

PHEP continued to support department vaccination efforts by providing logistical support within the office as well as in the community.

PHEP still continues to monitor emerging diseases throughout the world and provides risk assessment and subject matter expertise for partner agencies.

Training and Exercise

The Department continued to deploy two state-of-the-art patient simulators. These simulators (adult and pediatric) were used in conjunction with our emergency medical providers to provide realistic training during numerous training and exercise opportunities, including medical skills requalification. PHEP staff also participated in numerous exercises within the county and Central Indiana, including EOC activations, and hospital emergency exercises.

Emergency Planning

As an all-hazards planning partner, the Department participates in a wide range of planning coalitions to include Hamilton County Emergency Support Function 8 (Health and Medical), Indiana Department of Homeland Security District 5 Planning Council and District 5 Health



Department Sub-committee, Indiana State Department of Health Bio-Watch Advisory Council Hamilton County Local Emergency Planning Committee and Hamilton County Emergency Management Advisory Council. The division's capabilities-based planning included Mass Casualty, Mass Fatality, Active Assailant, Medical Countermeasure Dispensing, Information Sharing, Community Preparedness, Safe Schools, Emergency Mental Health, and Comprehensive Emergency Management Plan re-write.



FINANCIAL STATEMENT

January 1, 2024 to December 31, 2024

BALANCE JANUARY 1, 2024 \$3,888,097.73

RECEIPTS	TOTAL	DISBURSEMENTS	
Fed, State, Local		SALARIES	
Training Fees	\$ 15,432.00	Staff	\$ 1,898,055.39
Influenza Vaccinations	\$ -0-	Part-Time	\$ 282,455.47
Birth Certificates	\$ 155,430.00	Social Security	\$ 156,580.93
Birth Cert. Corrections	\$ -0-	Group Insurance	\$ 548,813.30
Death Certificates	\$ 169,671.00	Retirement	\$ 274,505.78
Food Permits and License	\$ 347,232.50	Over Time	\$ 3,758.20
Septic Permits	\$ 15,950.00	Board compensation	\$ 1,725.00
Septic Re-Inspections	\$ -0-	Office Supplies	\$ 4,275.13
Tuberculosis Tests	\$ 19,230.00	Operating Supplies	\$ 24,711.72
Septic Installer Registration	\$ 1,250.00	Repairs & Maintenance	\$ 894.12
Swimming Pool Permits	\$ 41,325.00	Professional Services	\$ 88,689.17
Well Permits	\$ 8,250.00	Comm. And Transportation	\$ 6,195.66
Pump Permits	\$ 3,570.00	Insurance	\$ 50.00
Immunization Fee	\$ 47,230.06	Printing and Advertising	\$ 13.35
Civil Penalties	\$ 3,750.00	Outsourced Repairs & Maint.	\$ 11,477.78
Property Tax	\$2,799,381.20	Machinery and Equip.	\$ 1,746.01
Excise tax	\$ 902,008.52	Interfund Transfer	\$ -0-
Financial Institution Tax	\$ 2,887.46	Refunds	\$ 324.00
Commercial Vehicle Tax	\$ -688,474.41	TOTAL OF DISBURSEMENTS	\$ 3,304,271.01
Other Receipts*	\$ 8,116.96	DEC. 31, 2023 BALANCE	\$ 4,436,067.01
Transfer	\$ -0--		
TOTAL RECEIPTS	\$3,852,240.29		

*Other Receipts is a summary of non-ordinance or re-imbusement based revenues such as: inter fund transfers, grants reimbursements & other misc. reimbursements (i.e., Insurance administration fees - COVID, employee flu, bad check reimbursement) that are deposited and disbursed via the County Health Fund per Indiana State Board of Accounts and Department of Local Government Finance.



Local Health Maintenance Fund (LHMF)

JANUARY 1, 2023, BALANCE \$ 89,447.14

RECEIPTS FROM IDOH

Allotment	\$	-0--
	\$	-0--
TOTAL	\$	-0--

Disbursements

Office Supplies	\$	196.80
Operating Supplies	\$	1,518.37
Communication/Transportation	\$	722.92
Outsourced Repairs/Maint.	\$	350.00
Machinery/Equipment	\$	7,417.58
Capital Outlay	\$	75,937.14
Total Disbursements	\$	86,142.81

DEC. 31, 2024 BALANCE \$ 3,304.33

Indiana Local Health Department Trust Account (ILHDTA)

(Master Tobacco Settlement)

JANUARY 1, 2023 BALANCE \$ 118,781.11

Revenue

2024 Settlement	\$	-0--
Total	\$	-0--

Expenditures

Machinery & Equipment	\$	118,781.11
Total	\$	118,781.11

DECEMBER 2024 BALANCE \$ -0--

The Local Health Maintenance Fund (LHMF) and Indiana Local Health Department Trust Account (ILHDTA) grants are legislatively granted funds for the sole purpose of supporting Indiana's Local Health Departments per Indiana Code (IC 16-46-10 and IC 4-12-7). In 2024 the LHMF and ILHDTA became legacy funds and were replaced by the Local Health Fund.



Local Health Fund (LHF)

Total Revenues (2,514,915.28)

Ledger Account	Disbursements
1401 - Social Security	21,058.67
1402 - Group Insurance	83,037.75
1501 - Retirement	39,712.07
1010 - PAT A	63,396.83
1011 - PAT B	163,438.79
1012 - PAT C	59,895.39
1200 - OVERTIME	612.72
1302 - PAT B PT	10,957.76
2100 Office Supplies	27.99
2200 Operating Supplies	38,396.68
2300 Repairs and Maintenance	1,309.17
3001 Professional Services	1,208,778.23
3100 Communication/Transportation	9,196.55
3200 Printing and Advertising	0.00
3500 Outsourced Repairs and Maintenance	5,425.00
3500-00 Outsourced Repairs and Maintenance	5,425.00
3600 Rentals	0.00
4500 Machinery and Equipment	46,137.09
Total Expenditures	1,751,380.69
Balance Dec 31, 2024	(763,534.59)



DIVISION PROGRAM STATISTICS

PUBLIC HEALTH NURSING:

Immunization Program

Number of Patients seen:

Year	VFC (Medicaid)	317 (Adults No Ins)	Employees	VaxCare	Total
2023	1067	196	246	569	2,078
2024	1134	231	212	722	2,299
% Change	5.91%	15.15%	-16.04%	21.19%	9.61%

Number of Vaccines administered:

Year	VFC (Medicaid)	317 (Adults No Ins)	Employees	VaxCare	Total
2023	2641	356	250	960	4,207
2024	3019	450	224	1428	5,121
% Change	12.52%	20.89%	-11.61%	32.77%	17.85%

- New pre-registrations (records created, and IM's reviewed) in 2024: 1,127

Tuberculosis Program

TB Mantoux tests administered:

Year	HCCC*	Day Care	HCHD	Jail	Medical employment	Nursing Home	Other	Refugee/ Immigrant	TB Contact	Total
2023	329	48	14	0	7	2	312	12	2	726
2024	361	84	4	1	17	9	408	14	0	898

Reactors:

Year	HCCC*	Day Care	HCHD	Jail	Medical Employment	Nursing Home	Other	Refugee/ Immigrant	TB Contact	Total
2023	5	0	0	0	0	0	6	1	0	12
2024	0	3	0	0	0	0	7	4	0	14

*Hamilton County Community Corrections

- Latent TB patients provided medication: 27
- Class B Immigrants investigated: 33
- Active TB disease patients provided medications: Suppressed <5
- Directly Observed Therapy (DOT) patient visits: 470

Lead Testing Program-

- Children Tested HCHD: 81
- Elevated Blood Lead Levels (Case Management) referrals: 160
- Home visits: 1
- Children screened with risk factors, but testing refused: 80



Epidemiology Program

- Communicable Disease Reports investigated: 396
- Monthly average: 33
- Outbreak investigated: None

Hepatitis B

- Vaccine administered (County employees): 66
- Hepatitis B (Perinatal) Family member exposed: 0

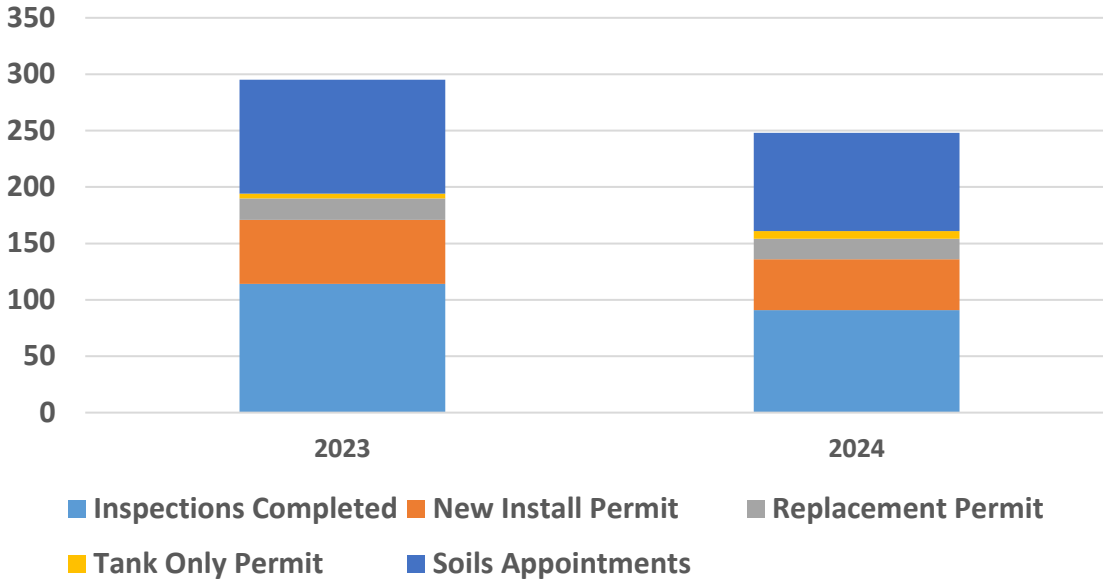


ENVIRONMENTAL HEALTH DIVISION:

On-Site Sewage System Program

The On-Site Sewage System Program operates on standards established in the Residential On-Site Sewage Systems Rule 410 IAC 6-8.3, Commercial On-Site Sewage Systems Rule 410 IAC 6-10.1, and Hamilton County Ordinance 06-24-24-C. These documents establish the parameters to which we issue requirements, permit, and inspect on-site sewage systems. Below you will find numbers reflecting data from 2023 and 2024 along with the percent (%) change between the 2 years.

On-Site Sewage System Program, 2023 & 2024



Process Type	2024	2023	% Change
Inspections Completed	91	114	-20.18%
New Install Permit	45	57	-21.05%
Replacement Permit	18	19	-5.26%
Tank Only Permit	7	4	75.00%
Soils Appointments	87	101	-13.86%

Clarification for the On-Site Sewage System table can be found below:

Final Inspection: Inspection completed when the entire on-site sewage system is installed.

Partial Inspection: Inspection completed when only a portion of the on-site sewage system is installed due to site conditions or availability of supplies.

New Installation: Installation of an on-site sewage system for a new residential or new commercial use property.

Replacement: Installation of an on-site sewage system to replace an existing system.

Tank Only: Installation of a septic tank or dosing tank only.

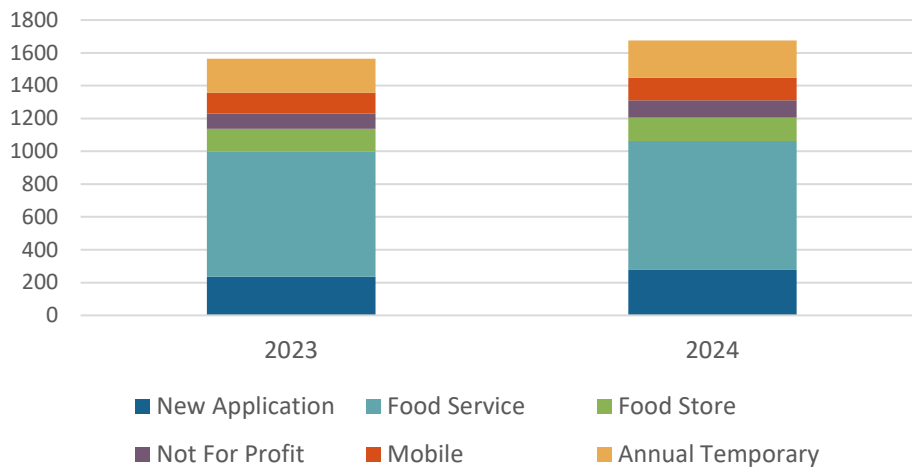
Soil Appointment: The first required step to be completed in the septic permit process. The soils report provides our office with necessary information to issue the Minimum Requirements Letter for the proposed home or commercial facility.



Food Protection Program

The Food Protection Program operates on standards established by the Retail Food Establishment Sanitation Requirements Title 410 IAC 7-24, Indiana State Department of Health Rule 410 IAC 7-15.5 Bed & Breakfast Establishments, and Hamilton County Ordinance 10-23-06-A. These rules establish the standards to which we issue permits and complete inspections for food safety. Below you will find numbers reflecting data from 2023 and 2024 along with the percent (%) change between the 2 years. Twenty-one (21) new food facilities made application using the new online portal that launched in mid-2024.

Food Permits, 2023 & 2024



Permit Type	2023	2024	% Change
New Application	236	278	17.80%
Food Service	763	785	2.88%
Food Store	138	142	2.90%
Not For Profit	93	106	13.98%
Mobile	128	139	8.59%
Annual Temporary	206	225	9.22%
Total	1564	1675	7.10%

Clarification for Permit Types can be found below:

New Application: Retail food application received for a new Food Service, Food Store, Not For Profit, or Annual Temporary establishment.

Food Service: Retail food establishment providing prepared foods (Ex. fast food or full-service restaurants).

Food Store: Retail store selling mainly prepackaged foods (Ex. grocery and convenience stores)

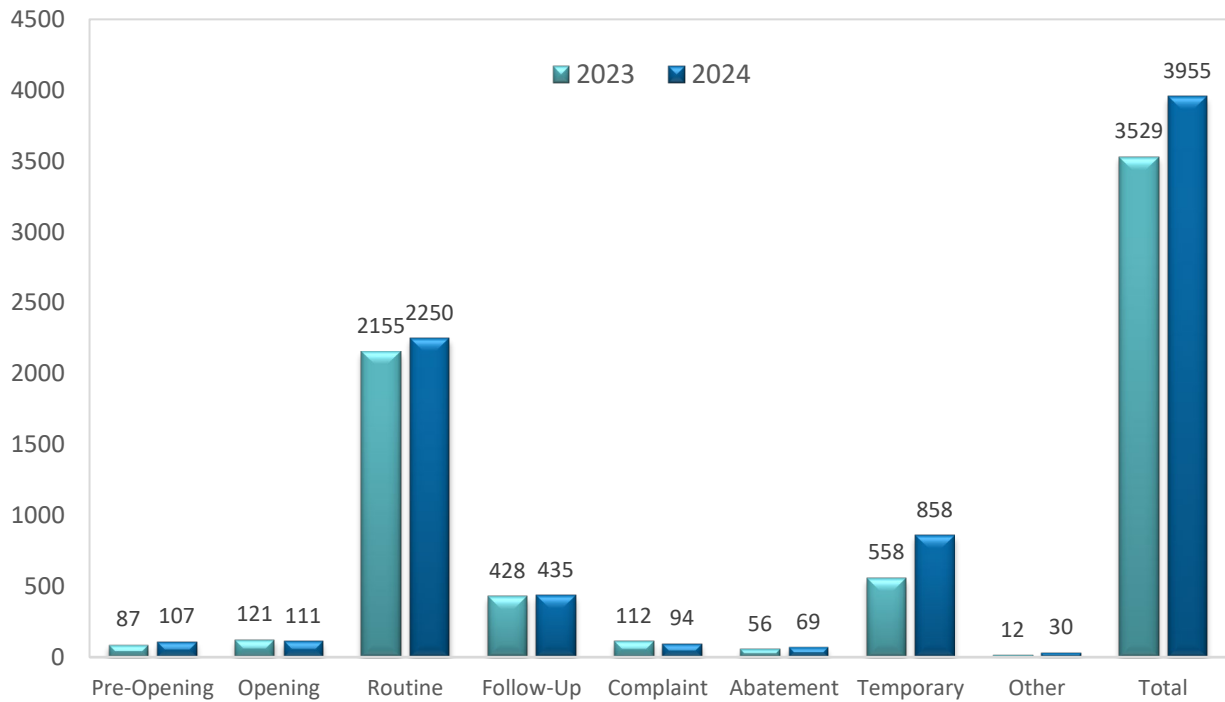
Not For Profit: Establishments operating as or under a 501c3 tax exemption(Ex. Schools, churches)

Mobile: Retail food establishment that is wheeled, on skids, mounted on a vehicle, a marine vessel, or otherwise readily moveable.

Annual Temporary: Temporary retail food establishment that operates in conjunction with an event or celebration.



Food Inspections by Type, 2023 & 2024



Inspection Type	2023	2024	% Change
Pre-Opening	87	107	22.99%
Opening	121	111	-8.26%
Routine	2155	2250	4.41%
Follow-up	428	435	1.64%
Complaint	112	94	-16.07%
Abatement	56	69	23.21%
Temporary	558	858	53.76%
Other	12	30	150%
Total	3529	3955	12.07%

Clarification for Inspection Type can be found below:

Pre-Opening: Inspection completed to verify construction is complete, equipment is operating as required, and the facility is clean and ready to receive food.

Opening: Inspection completed immediately prior to issuance of the permit.

Routine: Inspection completed on a regular basis (Ex. 2 times per year).

Complaint: Inspection completed in response to a complaint received about the facility.

Abatement: Inspection completed after an abatement order has been issued to correct unresolved violations.

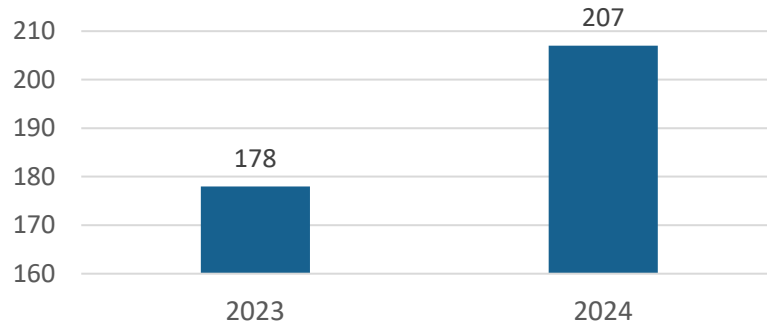
Follow-up: Inspection completed to ensure compliance with the previous inspection.

Temporary: Inspection completed at an event or celebration in conjunction with a Temporary Food Permit.

Other: An inspection not meeting the above listed criteria. (Ex: an inspection in response to a fire at a facility.)



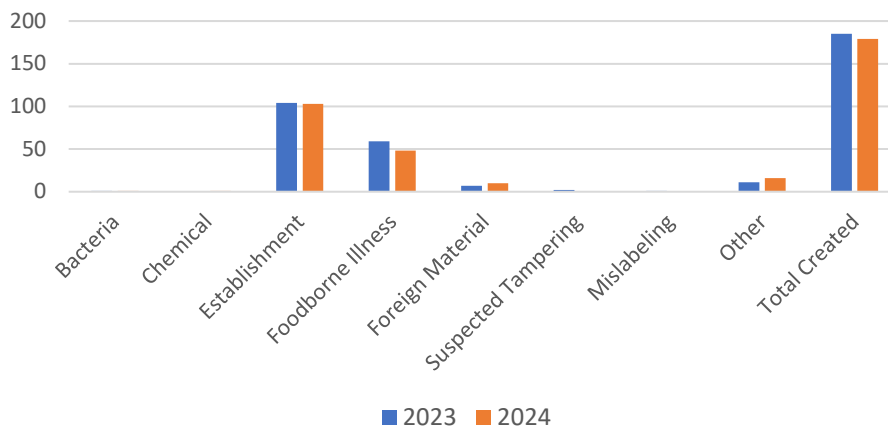
Temporary Events



Year	Temporary Events
2023	178
2024	207
% Change	16.29%

Temporary Food Events are events that have registered with our department as having food vendors on-site preparing and serving food. It is important to note the increase we are seeing in temporary food events. These events keep our inspectors extremely busy in the evening and weekends as the majority of these events take place outside of the normal business hours of the Health Department. Seventy-nine (79) temporary permits were issued using the online portal that launched mid-2024.

Food Safety Complaints, 2023 & 2024



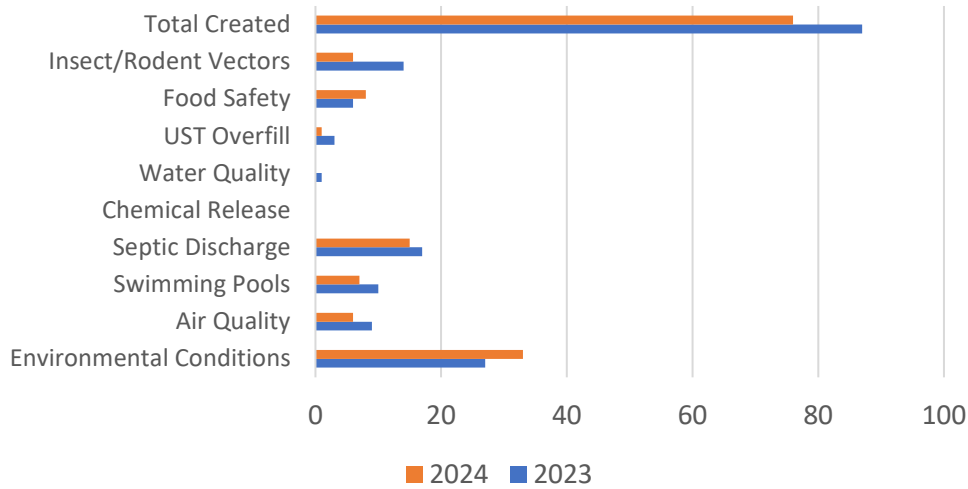
Complaint Type	2023	2024	% Change
Bacteria	1	1	0.00%
Chemical	0	1	100.00%
Establishment	104	103	-0.96%
Foodborne Illness	59	48	-18.64%
Foreign Material	7	10	42.86%
Suspected Tampering	2	0	-100.00%
Mislabeling	1	0	-100.00%
Other	11	16	45.45%
Total Created	185	179	-3.24%



Complaint Investigations

The Environmental Division investigates a variety of complaints as they pertain to the appropriate state rule, county ordinance, or Indiana Code. The numbers provided below reflect the complaint types investigated in 2023 and 2024 with the percent (%) change between the 2 years. The food safety complaints in this section are not associated with a permitted food facility. Some examples of Food Safety complaints below may be food facilities operating without a permit or suspected illness after eating at an unregistered temporary event.

Environmental Complaints, 2023 & 2024



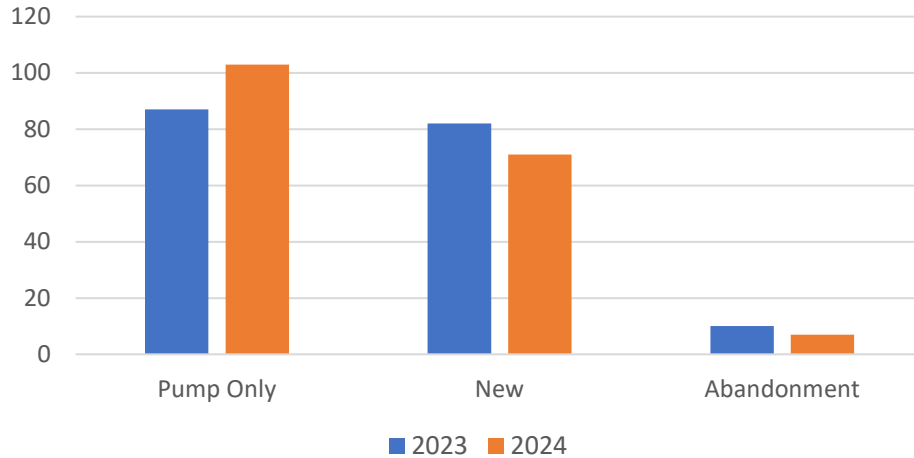
Complaint Type	2023	2024	% Change
Environmental Conditions	27	33	22.22%
Air Quality	9	6	-33.33%
Swimming Pools	10	7	-30.00%
Septic Discharge	17	15	-11.76%
Chemical Release	0	0	0%
Water Quality	1	0	-100.00%
UST Overfill	3	1	-66.67%
Food Safety	6	8	33.33%
Insect/Rodent Vectors	14	6	-57.14%
Total Created	87	76	-12.64%



Water Quality Program

The Water Quality Program consists of 2 key areas: private water wells and public and semi-public swimming pools. Well permits are issued based on the requirements established by the Department of Natural Resource and Hamilton County Ordinance. The pool program is based on a variety of design, operational and water quality standards established by the Indiana Public and Semi-Public Pools Rule 410 IAC 6-2.1 and Swimming Pool Construction Code 675 IAC 20. These rules clearly state water quality standards, operational requirements, sampling requirements, safety requirements and general pool conditions. In this section you will be able to see comparisons between 2023 and 2024 data along with the percent (%) change between the 2 years for both areas of the water quality program.

Well Permits

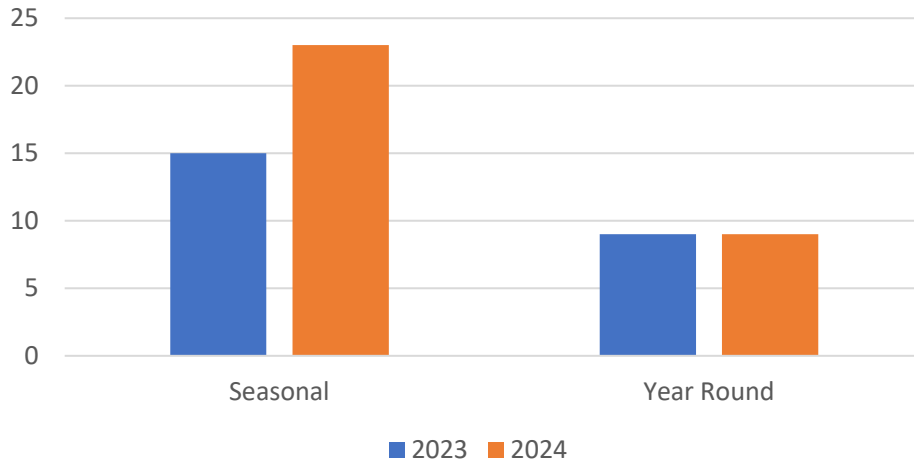


Permit Type	2023	2024	% Change
Pump Only	87	103	18.39%
New	82	71	-13.41%
Abandonment	10	7	-30.00%
Total	179	181	1.12%



The data immediately below reflects the number of pool applications we have received for new pools. You can see there is an increase in the number of new pool applications staff is receiving, reviewing, and permitting. Fun fact: Every pool (body of water) is required to have weekly bacteriological water samples taken and submitted to a certified lab. The results are reported to our office and are entered into our database. A total of 8,471 water samples were entered for public and semi-public pools and spas in 2024. You can see how the addition of the new pools adds to our weekly work! This also makes us appreciate our seasonal, Part Time Water Quality Technicians even more.

New Pool Permit Applications, 2023 & 2024

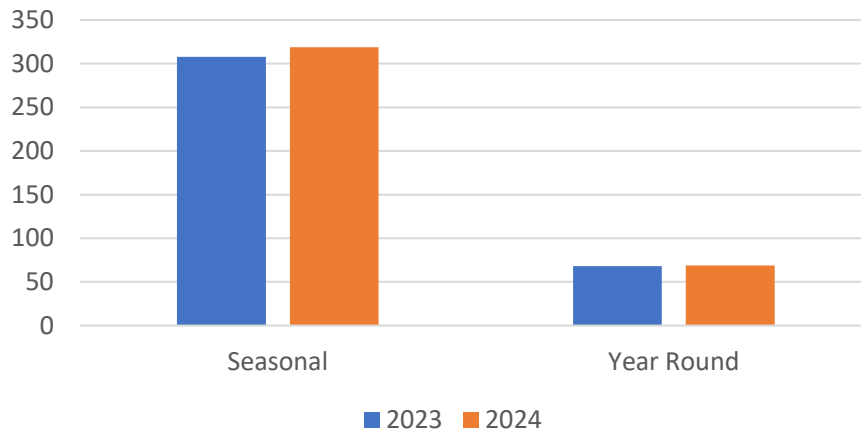


New Pool Permit Applications	2023	2024	% Change
Seasonal	15	23	53.33%
Year Round	9	9	0.00%
Total	24	32	33.33%



The following graph depicts the number of permit renewals that are being issued annually by permit type. Seasonal permits are issued to the summer-time pools that generally operate from May-September.

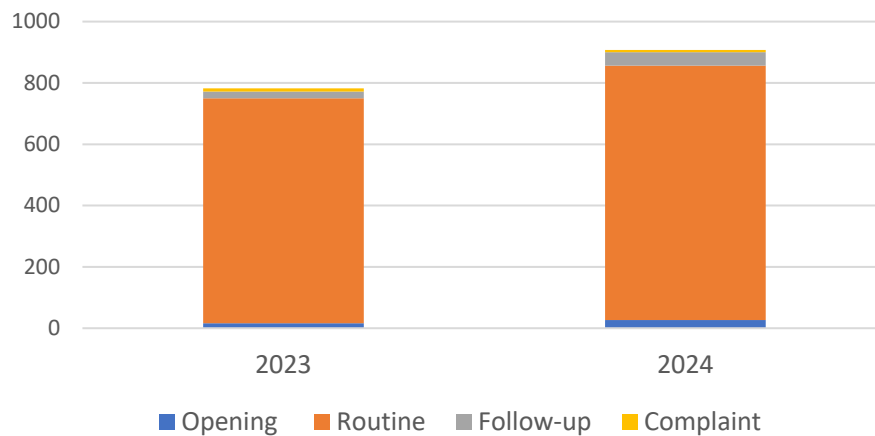
Pool Permit Renewal Type, 2023 & 2024



Pool Permit Renewal Type	2023	2024	% Change
Seasonal	308	319	3.57%
Year Round	68	69	1.47%
Total	375	388	3.47%

The inspection goal for 2024 was to inspect all seasonal facilities twice and all year-round facilities three times each. Our inspectors performed a total of 907 pool inspections in 2024. Below you will see the number and types of inspections performed as well as a comparison of 2023 to 2024 data.

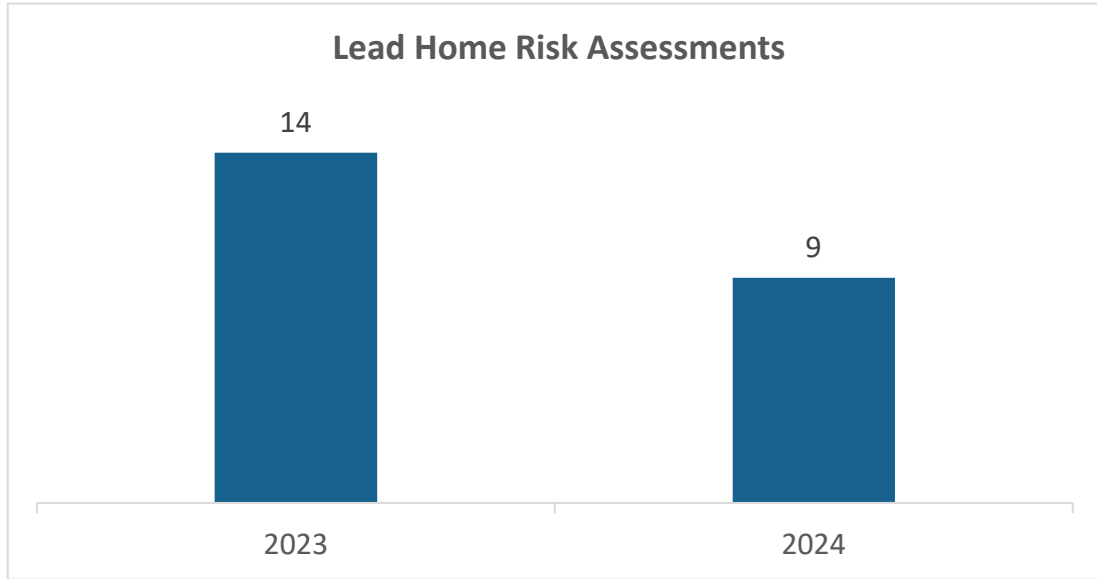
Pool Inspections by Type, 2023 & 2024



Inspection Type	2023	2024	% Change
Opening	16	27	68.75%
Routine	734	829	12.94%
Follow-up	22	44	100.00%
Complaint	10	7	-30.00%
Total	779	907	16.43%



Lead Program



Year	Lead Home Risk Assessments
2023	14
2024	9
% Change	-35.71%

*Elevated Blood Lead Level

It is required that a home inspection and lead risk assessment be completed for every child with a confirmed EBLL >5 μ /dl. The Hamilton County Health Department has developed an internal policy to complete the home inspection and risk assessment for any child with an EBLL > 3.5 μ /dl.

Recreational Water Monitoring Report

See Addendum A

Vector Control Program Report

See Addendum B



VITAL RECORD DIVISION:

Animal Bite Reported 2024

Number of Animal Bites Recorded: 228

Bite Circumstances Confined Animal: 82 Stray Animal: 35

Quarantine Action Taken: 124

Animal Gender Male: 92 Female: 45

Biting Animal Dog: 190 Cat: 30 Other: 7

Bites by species

Chipmunk: 0 Gerbil: 0 Rabbit: 0 Other: 1
Cat: 29 Fox: 0 Mouse: 0 Squirrel: 1
Cattle: 0 Ferret: 0 Horse: 0 Rat: 1
Bat: 3 Dog: 182 Hamster: 0 Raccoon: 1

Bites by Breed, if known

West Highland Terrier: 0 Weimereiner: 0 Terrier: 1 Springer Spaniel: 0
Siberian Husky: 0 Shihtzu: 0 Sharpei: 1 Schnauzer: 0
Rottweiler: 0 Pug: 0 Poodle: 2 Pit Bull: 5
Pekingese: 0 Other: 0 Newfoundland: 1 Mastiff: 2
Malamute: 1 Lhasa Apso: 0 Labrador: 4 Jack Russell: 2
Great Pyrenees: 0 Great Dane: 3 Golden Retriever: 4 German Shepard: 10
English Springer: 0 Doberman Pinscher: 2 Dachshund: 2 Coonhound: 0
Collie: 1 Chow Chow: 0 Cocker Spaniel: 0 Chihuahua: 2
Bull Dog: 2 Boxer: 3 Blue Heeler: 3 Bichon: 0
Bernese Mountain: 0 Beagle: 1 Basset Hound: 0 Australian Shepard: 1

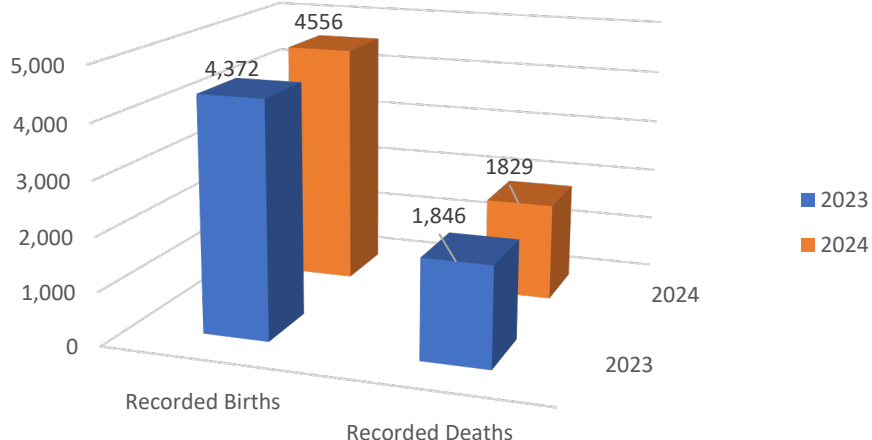
Vital Records Annual Summary

	2023	2024	% Change
Recorded Births	4,372	4556	4.04%
Recorded Deaths	1,846	1829	-0.93%
Birth Certificates Issued	10,765	10374	-3.77%
Death Certificates Issued	11,433	11702	2.30%
Vital Direct/Permitium Online request - Birth		5,902	
Vital Direct/Permitium Online request – Death		272	

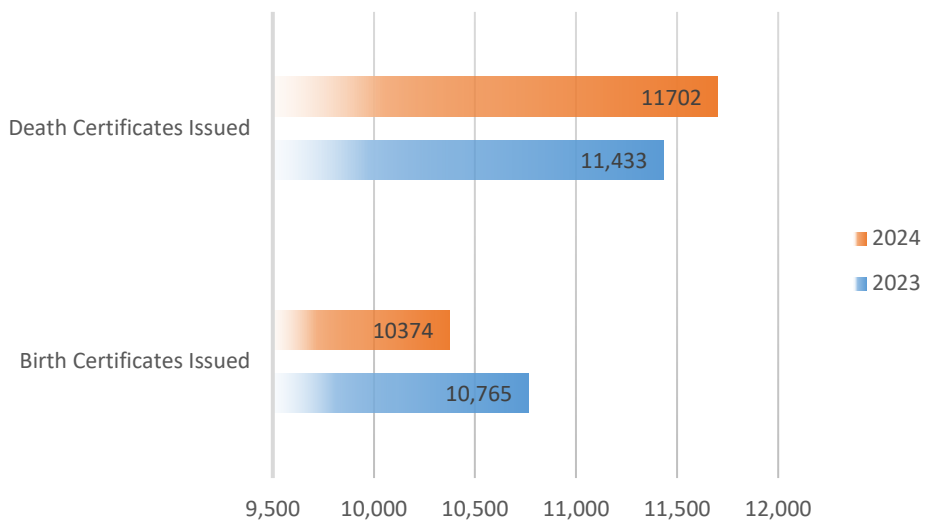
Recorded Births increased and recorded Death decreased slightly in 2024. Hamilton County has the highest life expectancy of all Indiana counties of 81 years of age while the statewide life expectancy of 75.6 years.



Recorded Birth and Death Records

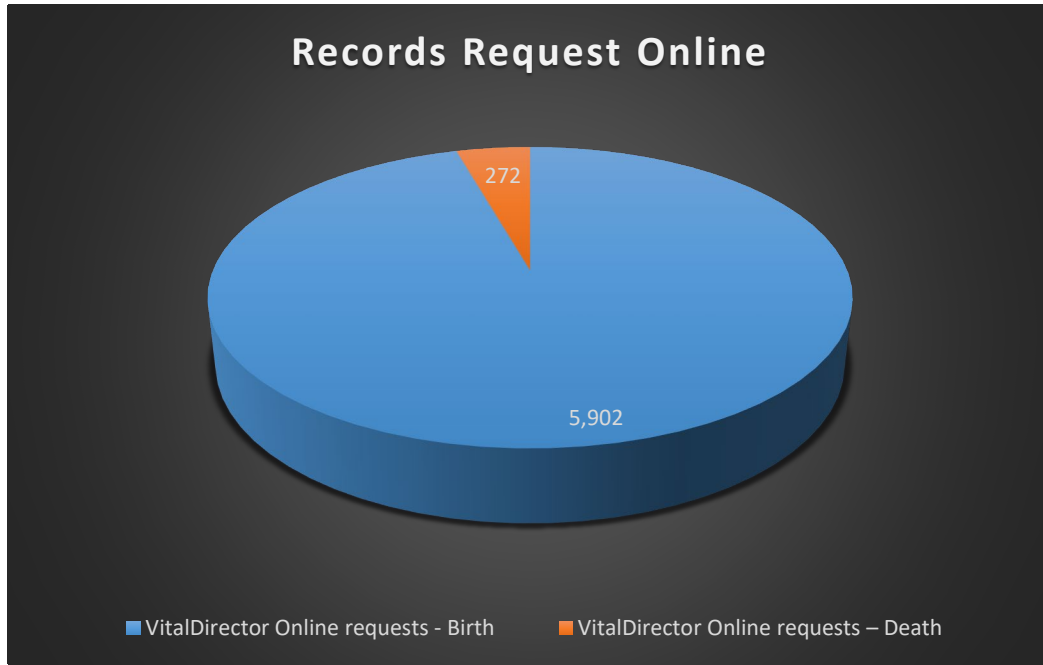


VITAL RECORDS ISSUED



Vital Director Online Applications for Vital Records

The Health Department implemented the ability to request vital record certificates of Birth and Death in March 2024 via an online application service called Vital Director®. The program has been highly successful in reducing office visits and expediting the return service which has greatly increased customer access. Record applications are available to order 24/7 and orders are reviewed and completed in less than two business days for existing records.

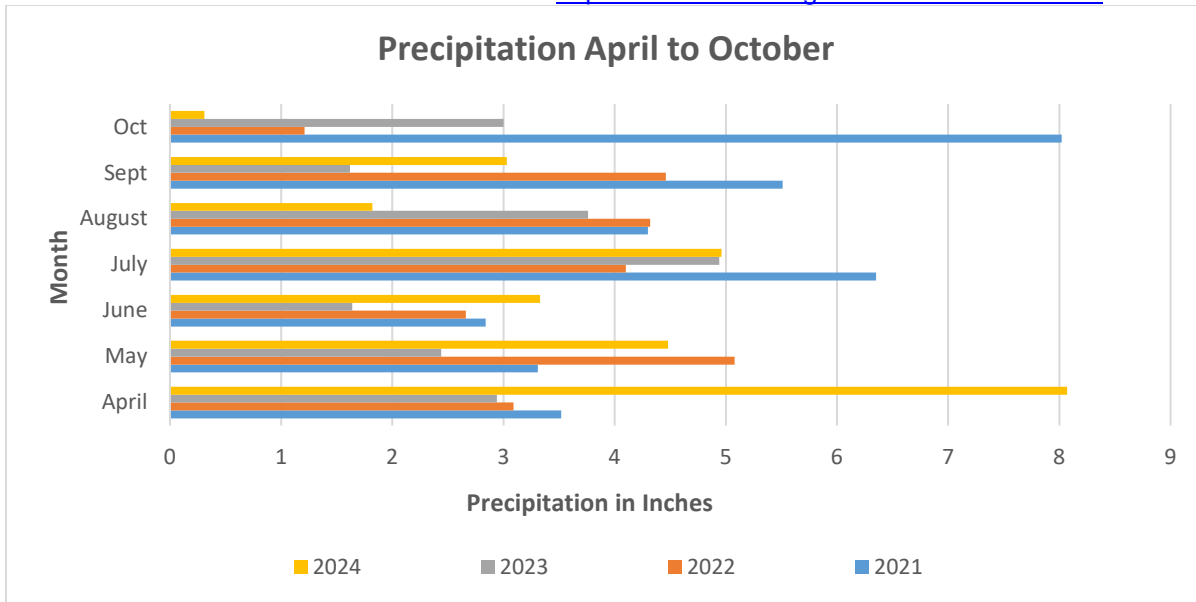


ADDENDUM “A”

RECREATIONAL WATER QUALITY PROGRAM REPORT

Recreational Waterway Sampling

Sampling various recreational waterways, places where citizens boat, swim, or fish for example, is an effective way to monitor overall water quality. Hamilton County Health Department (HCHD) samples 18 sites once per month from April to October. This is the period that the Indiana Department of Environmental Management (IDEM) considers recreational season. The bacteria samples are taken and submitted to the Indiana Department of Health Laboratory for testing using bottles they provide. The water temperature and dissolved oxygen (DO) readings are taken with our calibrated YSI meters. The precipitation data is from the National Oceanic & Atmospheric Administration (NOAA) website. We utilize the Carmel 3 E data set. Here is the website link for more information: <https://www.weather.gov/wrh/Climatete?wfo=ind>

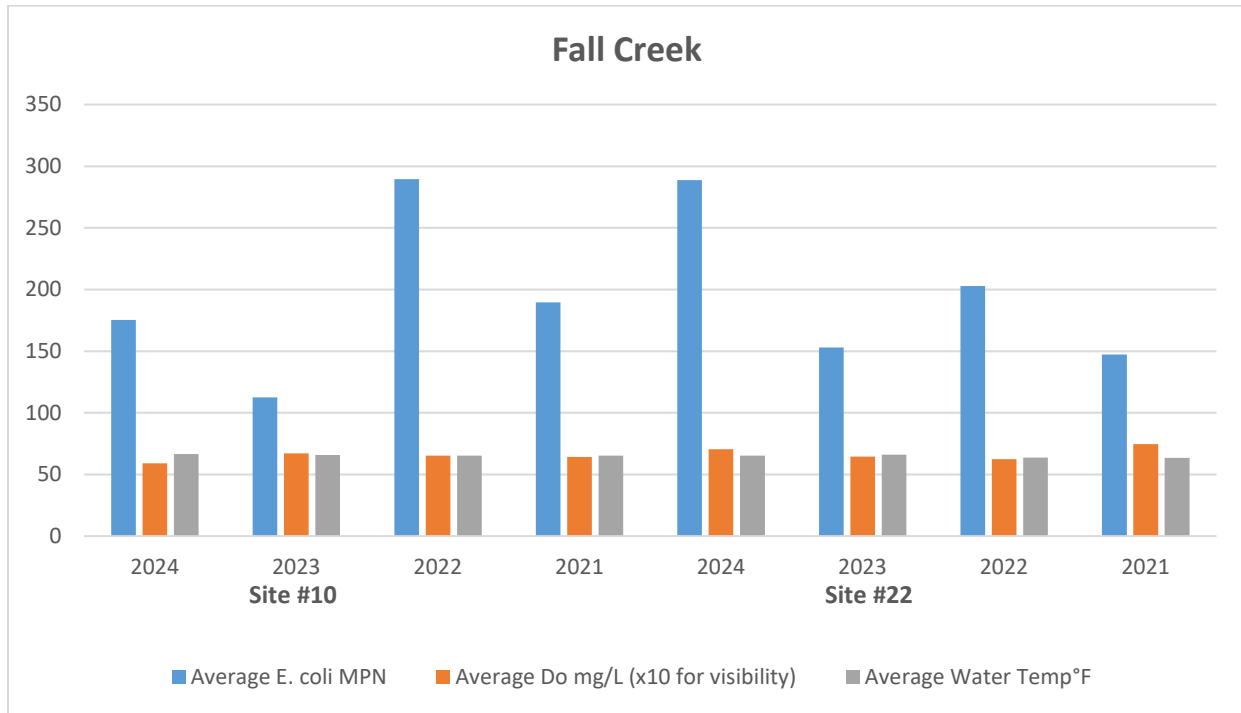


E. coli is a naturally occurring bacteria that is found in the intestines of warm-blooded animals. High precipitation events cause higher levels of *E. coli* and lower levels of dissolved oxygen. Runoff from agriculture, stormwater, failing onsite sewage systems, pavement in urban areas, lawn treatments and construction sites throughout our watershed eventually end up in our rivers and lakes, thus directly affecting our water quality. Monitoring multiple parameters like DO, water temperature, pH, specific conductivity, nitrate loads, and *E. coli* in these waterways allows us to see trends that may be out of the seasonal norms. Our office purchased one new multi-parameter water meter in 2022 to allow testing for pH, nitrate, and specific conductivity along with DO and water temperature. Once more data has been collected with this meter, we can compare these other factors as well. Per IDEM, the typical range for *E. coli* levels is 2-1204 MPN/100mL, but the Indiana average is 210 MPN/100mL. The state standard for surface water quality for full body contact is <235 MPN/100mL.

Dissolved Oxygen (DO) is the amount of oxygen available to living aquatic organisms in surface waters. Bacteria in surface waters, like *E. coli*, can consume the available oxygen creating eutrophic conditions where organisms begin to die-off, especially in warmer summer months. Water temperature can fluctuate throughout the day in bodies of water. However, when the warmer weather creates warmer water temperatures, dissolved oxygen is decreased. So, in the warmer months both an increase in water temperature and bacteria levels directly affect DO levels. This in turn creates a fluctuation in the numbers of aquatic organisms. Occasionally DO levels can get so low that algal blooms can form and can cause what is commonly referred to as fish kills. These algal blooms can appear to be an oily sheen on top of the water causing concern with local citizens. These algal blooms are naturally occurring but are directly affected by runoff from the surrounding watershed. Per IDEM, the typical range for DO is 1.2-22.3 mg/L. The Indiana average is 9.6 mg/L. The state surface water quality standard is 4.0-12.0 mg/L.

HCHD began this sampling program in 2006. For this report, we are comparing *E. coli* levels, DO and water temperature for the last four (4) years. Please note that on 7/18/2024 there was a DO meter malfunction and readings were not taken for some sites. Something else to consider is the differences in the types of waterways sampled. Reservoirs are different types of water bodies than rivers and streams. Rivers are constantly flowing waterways; reservoirs are generally deeper and have less flow. Flowing waters can absorb atmospheric oxygen, which becomes dissolved oxygen. Lakes, ponds, and reservoirs often cannot replace lost dissolved oxygen as easily as rivers and streams, especially with high atmospheric and water temperatures. Our data shows that the average water temperature and DO in the reservoir samples is higher than in the river/stream samples. The following graphs and charts compare data from each water body.





Site #	Site Name	City
10	Geist Park- Fall Creek	Fishers
22	Southeastern Pkwy Bridge- Fall Creek	Fortville

Actual Site Data from Fall Creek 2024

SITE #10

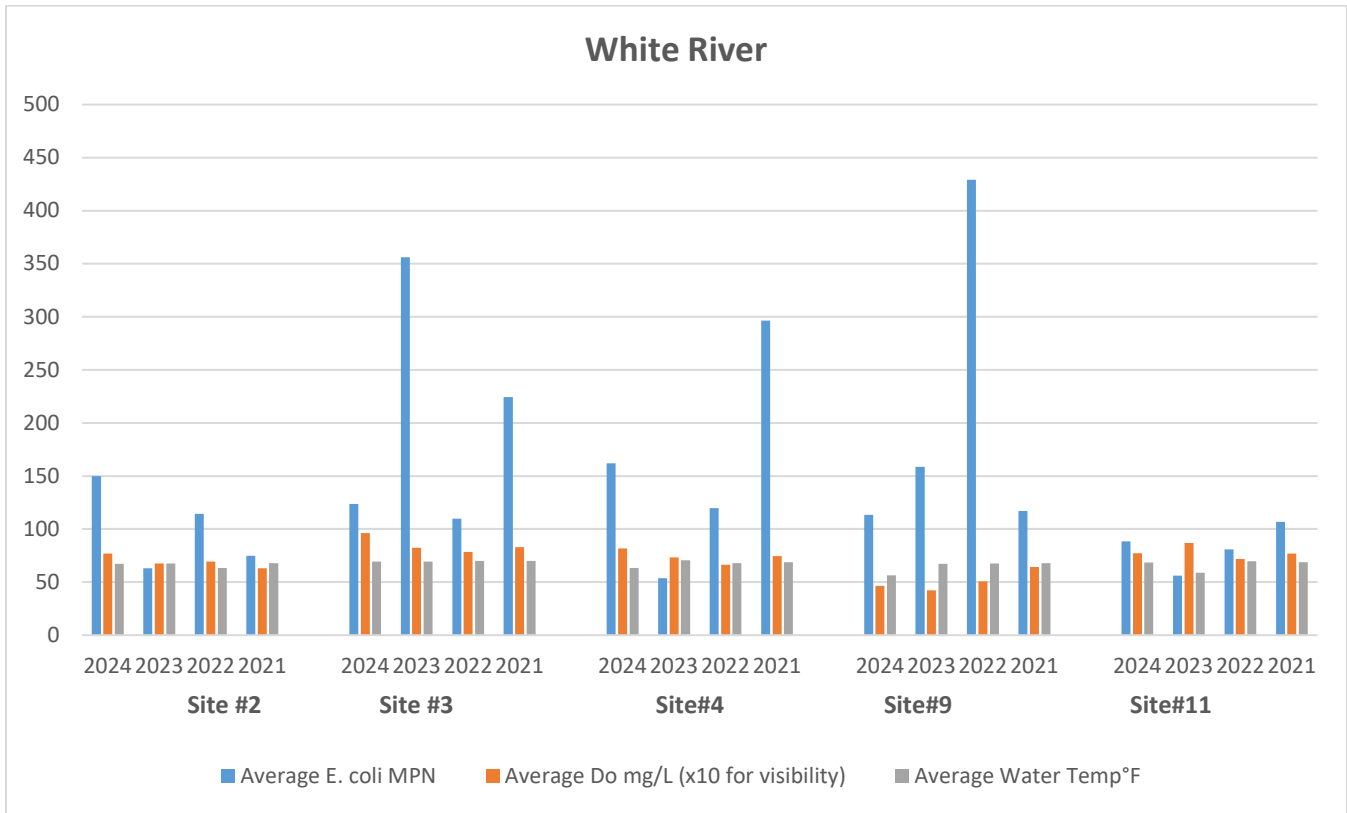
DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	101.9	55	12
5/23/2024	143.9	70.5	6.7
6/27/2024	410.6	70.5	6.9
7/18/2024	178.5	74.3	4.7
8/15/2024	178.9	72.1	5.2
9/12/2024	198.9	67.2	6.4
10/24/2024	150	56	7.2

SITE #22

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	161.6	54.5	12.6
5/23/2024	110	69.7	7.9
6/27/2024	686.7	69.5	6.9
7/18/2024	135.4	72.8	5.8
8/15/2024	344.8	71	4.8
9/12/2024	410.6	66.3	6.5
10/24/2024	172.3	54	4.8

The Fall Creek sites are located at the eastern side of the county. Site # 22 is sampled where Fall Creek enters Hamilton County. Pendleton is the next town to the east of the sampling point. This section is mostly rural. However, there is a sand and gravel mining operation located along this section of Fall Creek between Pendleton and the county line that has NPDES permits with IDEM. Site #10 is located at Geist Park. Between the county line and the park is a small unincorporated neighborhood that lies within the floodplain along the creek. The homes in this neighborhood are connected to onsite sewage systems (OSS). These factors, along with precipitation quantities, can contribute to the seasonal fluctuations in water quality data.





Site #	Site Name	City
2	White River Campground	Cicero
3	DNR Boat Ramp on White River	Noblesville
4	Potter's Bridge	Noblesville
9	Koteewi Park	Noblesville
11	226th St Bridge on White River	Carmel



Actual Site Data from White River 2024

SITE #2

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	129.6	55.7	9.79
5/23/2024	71.7	71.7	7.9
6/27/2024	547.6	72	7.51
7/18/2024	107.6	75	NONE
8/15/2024	111.9	73.9	4.9
9/12/2024	57.3	67.4	6.2
10/24/2024	24	54.2	9.8

SITE #9

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	146.7	55.8	7.75
5/23/2024	60.5	71.8	1.88
6/27/2024	248.1	72.1	6.63
7/18/2024	114.5	74.5	NONE
8/15/2024	72.7	73.3	2.1
9/12/2024	131.4	65.1	3.7
10/24/2024	20.3	53.3	7.7

SITE #3

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	150	56.2	11.59
5/23/2024	146.7	74.3	9.4
6/27/2024	156.5	75.9	9.56
7/18/2024	261.3	78.6	NONE
8/15/2024	105.3	74.4	5.9
9/12/2024	19.9	70.9	8.4
10/24/2024	26.2	56.1	12.9

SITE #11

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	116.9	56.2	12.1
5/23/2024	60.2	72.4	7.8
6/27/2024	204.6	74.1	6.8
7/18/2024	68.9	77.4	5
8/15/2024	93.4	75.1	6.2
9/12/2024	49.5	69	7.4
10/24/2024	24.1	55.3	8.8

SITE #4

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	325.5	57	9.08
5/23/2024	260.3	73.1	7.6
6/27/2024	198.9	73.4	7
7/18/2024	84.2	76	NONE
8/15/2024	90.6	73.4	5.2
9/12/2024	42.6	66.7	7.4
10/24/2024	131.4	53.2	12.7

The White River is the largest river that flows through Hamilton County. The five sampling sites are stretched from the northeast to the south-central part of Hamilton County. The northeast section is mostly rural and dominated by agricultural activities. The rural areas have more homes connected to private OSS's of various ages and types and farms that contribute to more runoff. The central to south section is mostly urban where runoff from lawn care applications, stormwater from pavement and construction sites, to name a few, make their way to the river. There are several NPDES permits issued to various cities, towns, corporations, and private individuals that allow for various types of discharges to flow into the White River. Some of these include power plants, combined sewer overflows (CSO), sand and gravel operations to name a few. A full list can be found on IDEM's website here: <https://www.in.gov/idem/cleanwater/wastewater-permitting/> These factors, along with precipitation quantities, can contribute to the seasonal fluctuations in water quality data.





Site #	Site Name	City
1	South Harbour Clubhouse	Noblesville
5	Red Bridge Park	Cicero
7	209th St Bridge	Noblesville
8	Morse Beach Park	Noblesville



Actual Site Data from Morse Reservoir 2024

SITE #1

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	2	57.4	11.42
5/23/2024	1	73	12.5
6/27/2024	5.2	78.9	9.93
7/18/2024	2	80.3	NONE
8/15/2024	2	79.1	5.6
9/12/2024	4.1	75.9	6.8
10/24/2024	1	62.4	6

SITE #7

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	8.6	58.8	9.34
5/23/2024	3	73.6	11.7
6/27/2024	49.6	79.4	8.49
7/18/2024	1	80.4	NONE
8/15/2024	2	79	7.2
9/12/2024	2	73.7	4.7
10/24/2024	3.1	62	6.2

SITE #5

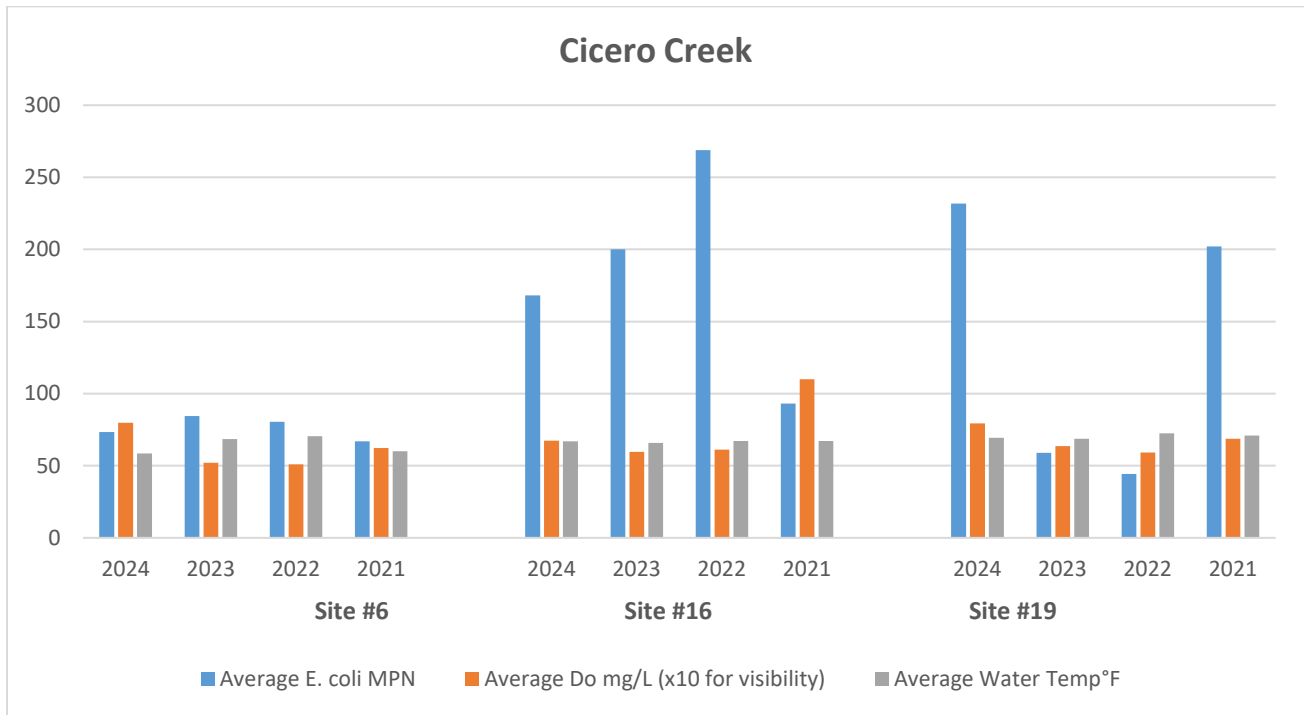
DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	34.5	87.8	10.62
5/23/2024	18.9	75.7	11.2
6/27/2024	65.7	78.3	7.02
7/18/2024	44.1	77.1	NONE
8/15/2024	8.5	78	4.3
9/12/2024	13.5	73.2	5.1
10/24/2024	<1.0	60	7.4

SITE #8

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	5.2	58.1	10.08
5/23/2024	4.1	72	10.5
6/27/2024	11	79	8.79
7/18/2024	2	79.8	NONE
8/15/2024	31.3	79.1	4.4
9/12/2024	3.1	74.3	5
10/24/2024	3.1	62.2	5.7

Morse Reservoir is a drinking water reservoir that is owned and operated by Citizens Energy. It is surrounded by suburban neighborhoods. The majority are connected to sanitary sewer, but there are several with private OSS's. There are several smaller tributary streams that run into the reservoir from mostly rural agricultural areas. Most notably are Little Cicero Creek and Bear Slide Creek from the NW, Big Cicero Creek from the NE, and Hinkle Creek from the W. These all enter the reservoir and flow into Cicero Creek at the spillway on the south end of the reservoir. These tributaries contain a combination of agricultural and suburban runoff. Cicero Creek flows into the White River near Cherry Tree Road where more sand and gravel mining operations are currently taking place. These factors, along with precipitation quantities, can contribute to the seasonal fluctuations in water quality data.





Site #	Site Name	City
6	SR 38 Bridge over Cicero Creek	Noblesville
16	SR 32 @ Cherry Tree Rd-Cicero Creek	Noblesville
19	Spillway @ Morse	Noblesville

Actual Site Data from Cicero Creek 2024

SITE # 6

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	96	56.8	11.7
5/23/2024	27.5	71.9	10.7
6/27/2024	137.6	78.6	8.82
7/18/2024	20.1	79.2	NONE
8/15/2024	90.6	72.8	4.1
9/12/2024	115.3	67	5.2
10/24/2024	25.9	54.1	7.3

SITE # 19

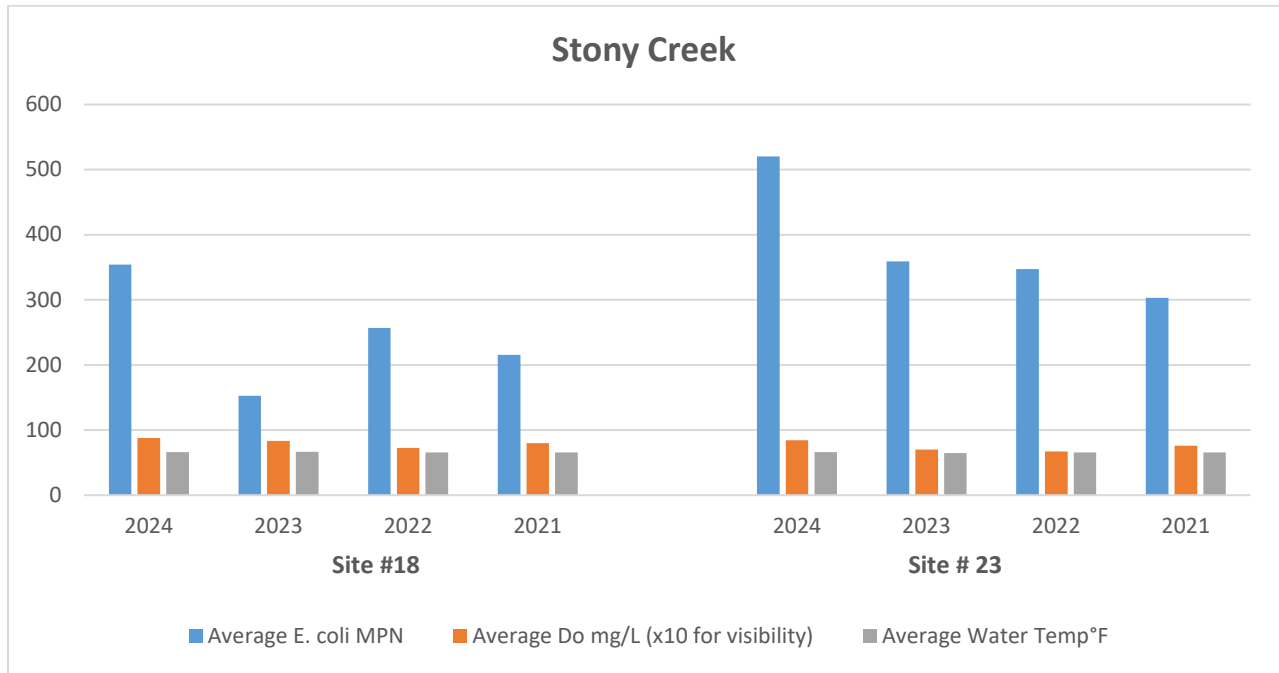
DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	4.1	57.2	10.81
5/23/2024	3	72	10.8
6/27/2024	7.5	79.6	9.86
7/18/2024	11	79.3	NONE
8/15/2024	1413.6	74.4	6.5
9/12/2024	166.4	70.2	5.6
10/24/2024	17.1	53.8	4

SITE # 16

DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
4/23/2024	105	55.8	13.6
5/23/2024	93.2	69.5	6.2
6/27/2024	435.2	75.9	4.7
7/18/2024	98.7	77	5.1
8/15/2024	235.9	72.3	4.6
9/12/2024	167	65.3	6.8
10/24/2024	42	53.3	6.1

The Cicero Creek sites are located south of Morse Reservoir between where the spillway flows into the creek and then into the White River. This area is mostly suburban with larger neighborhoods with a few agricultural sites. These factors, along with precipitation quantities, can contribute to the seasonal fluctuations in water quality data.





Site #	Site Name	City
18	Greenfield Ave- Stony Creek	Noblesville
23	Highlands Footbridge-Stony Creek	Noblesville

Actual Site Data from Stony Creek 2024

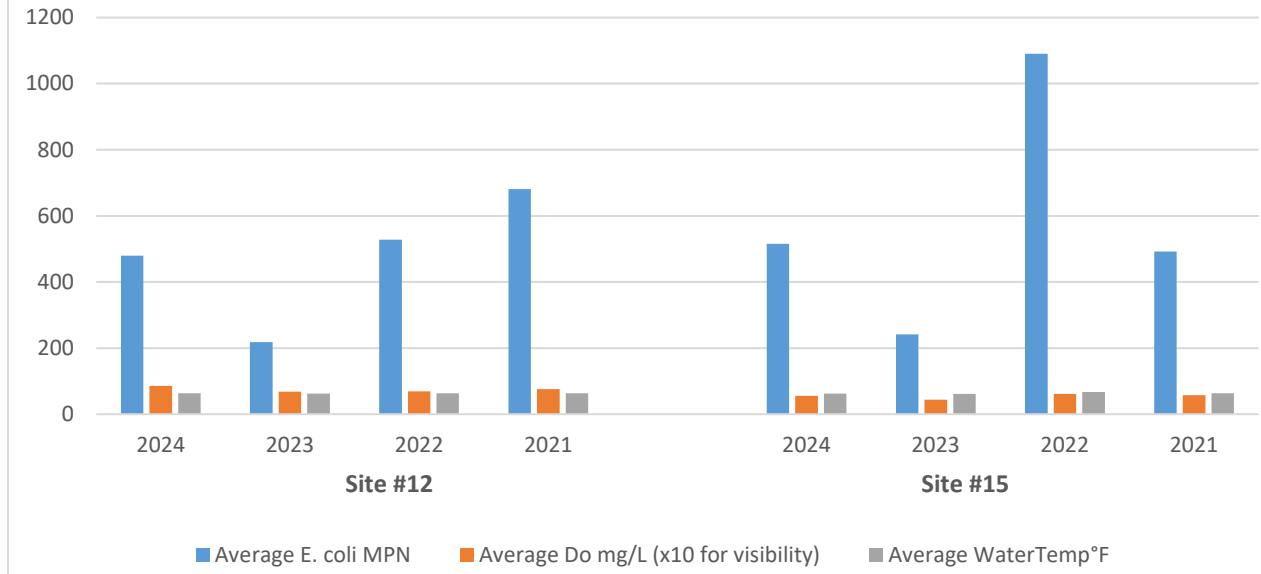
SITE # 18	DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
	4/23/2024	178.9	54.9	14.3
5/23/2024	135.4	70.2	9	
6/27/2024	1413.6	70.4	8.5	
7/18/2024	162.4	73.1	7.7	
8/15/2024	365.4	70.5	6.9	
9/12/2024	124.6	67.8	7	
10/24/2024	98.4	55.4	7.9	

SITE # 23	DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
	4/23/2024	172.3	53.3	12.7
5/23/2024	228.2	67.2	9.3	
6/27/2024	1203.3	6.79	7.9	
7/18/2024	325.5	70	7	
8/15/2024	648.8	6.81	7.5	
9/12/2024	517.2	64	6.9	
10/24/2024	547.5	52.6	7.7	

The Stony Creek sites are located on the eastern side of the county. Upstream of site #23 is a sand and gravel operation with NPDES permits from IDEM. There is a large golf course that runs along the south of the creek before it meanders into the City of Noblesville with a mix of urban uses nearby. These factors, along with precipitation quantities, can contribute to the seasonal fluctuations in water quality data.



Cool Creek & Asa Bales



Site #	Site Name	City
12	Cool Creek Park- Cool Creek	Carmel
15	Asa Bales Park- Asa Bales Drain	Westfield



Actual Site Data from Cool Creek and Asa Bales 2024

SITE # 12	DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
	4/23/2024	191.8	52.8	13.6
	5/23/2024	344.8	66.5	10.9
	6/27/2024	1732.9	68.6	6.7
	7/18/2024	231	69.7	6.4
	8/15/2024	461.1	68.1	7.1
	9/12/2024	307.6	63.2	7.5
	10/24/2024	90.8	52	7.6

SITE # 15	DATE	<i>E. coli</i> MPN	H2O Temp °F	DO mg/L
	4/23/2024	307.6	51.7	9.6
	5/23/2024	307.6	60.6	9.1
	6/27/2024	770.1	68.9	5.5
	7/18/2024	135.4	68.8	5.8
	8/15/2024	83.6	68.9	5.1
	9/12/2024	1986.3	64.2	4.9
	10/24/2024	17.5	52.2	6.1

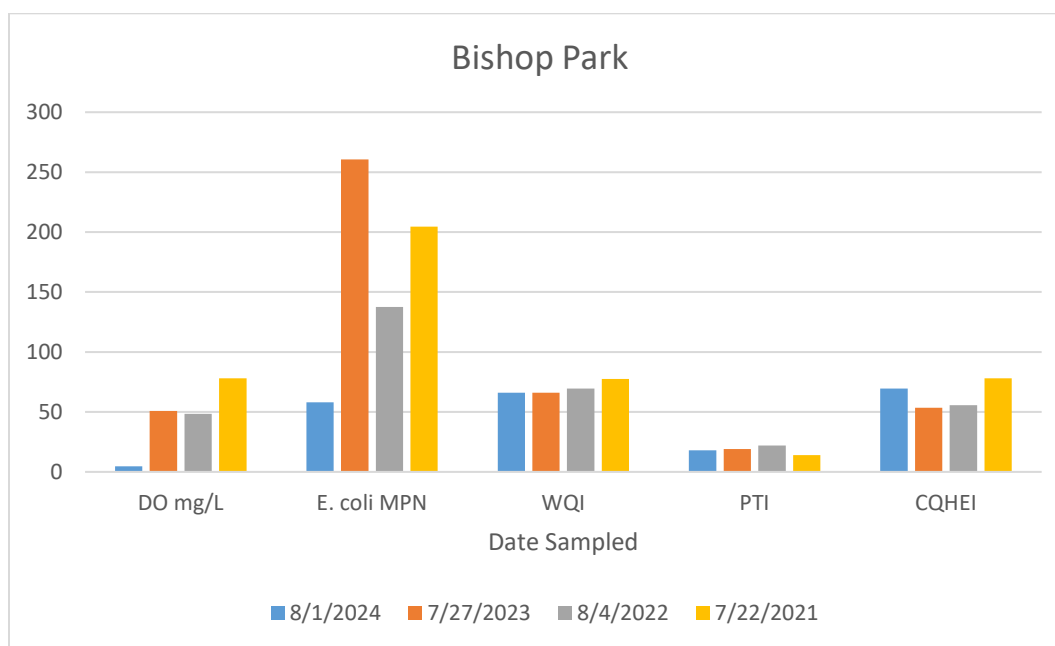
Asa Bales is a small drainage way that connects to the Grassy Branch tributary that then connects to Cool Creek. Site #15 is in Asa Bales Park just south of Westfield High School. This section is an urban area with mostly homes along it. Site #12 is located within Cool Creek Park. This section is a mix of urban and park lands. Currently, the area to the north of this site is under heavy development and construction. These factors, along with precipitation quantities, can contribute to the seasonal fluctuations in water quality data.

As the data shows, fluctuations in water quality can be affected by several factors. Hamilton County is rapidly growing. With more development and more people, the quality and quantity of our water will be directly affected. Continual monitoring will allow us to contribute more data to statewide databases such as IDEM's External Data Network. This network allows for agencies like ours from around the state to contribute data that can help make better assessments of the overall water quality in Indiana. More information can be found on IDEM's website here:

<https://www.in.gov/idem/cleanwater/resources/external-data-framework/>

Hoosier Riverwatch

HCHD continues its participation in IDEM's Hoosier Riverwatch program. The Bishop Park location was surveyed once in 2024, and data was collected. The data collected over the four years has shown a slight difference in overall water quality. In 2024 there was a slight increase in overall scores. Please note that HCHD is getting one day of data once per year, this is not enough data to draw a conclusion why a decrease or increase is being seen. We will continue to collect and report data from this site and hope to see the score increase over time. The following chart compares the data collected from 2021-2024 at this location.



Bishop Park Data from 2021-2024

Date	DO mg/L	<i>E. coli</i> MPN	WQI	PTI	CQHEI
8/1/2024	4.63	58	66	18	69.5
7/27/2023	5.08	260.7	66	19	53.5
8/4/2022	4.83	137.6	69.63	22	55.5
7/22/2021	7.8	204.6	77.56	14	78

The Ohio Environmental Protection Agency developed the Citizens Qualitative Habitat Evaluation Index (CQHEI). Its purpose is to provide a measure of stream habitat and riparian health that corresponds to physical factors affecting fish and other aquatic life such as macroinvertebrates. It is intended for use in wadable streams, not the larger streams or rivers. The CQHEI produces a total score that can be used to compare changes at one site over time or to compare two different sites. (IDEM, Hoosier Riverwatch Manual)

The Water Quality Index (WQI) is an overall grade of a stream's health based on chemical monitoring data collection. Water professionals have created a weighted index system that gives each parameter a Q-Value. The results give a sense of the overall health or water quality of the stream sampled. The maximum WQI is 100 and the lowest is 0. The Pollution Tolerance Index (PTI) is how macroinvertebrates are classified based on how tolerant they are of pollution in streams. Hoosier Riverwatch uses a macroinvertebrate index that is divided into Pollution Tolerance Groups 1,2,3 and 4. The higher the number, the higher pollution tolerance the organism has. Varied species have either more or less pollution tolerance. The PTI rating of 23 + is Excellent, 17-22 is Good, 11-16 is Fair and 10 or less is Poor.

Combined, data for *E. coli*, DO, PTI, WQI and the CQHEI gives us an idea of the overall water quality in a stream. Adding new meters with greater data collection capabilities will be a great asset in sampling. As we gather more data over time, we will see overall trends in the water quality of a specific stream that can help decision making in the future.

The picture below is of the 2024 part-time water quality (WQ) and vector control (VC) technicians collecting data for Hoosier Riverwatch at Bishop Park. We rely heavily on these part-time technicians for both the water quality and vector control programs in the busy summer months. Without their help, all the pools would not get inspected, water quality data would not be collected, and mosquito populations would run rampant. We truly appreciate all the hard work these technicians perform for not only our office, but the citizens of Hamilton County.



From left to right: Chase Ramirez (VC), Anthony Byrd (VC), Lauren Pike (WQ) and Ellie Karst (WQ).

ADDENDUM “B”

VECTOR CONTROL REPORT

2024 Overview

Warm temperatures and steady rainfall were recorded for the majority of the season, with a few dry periods. Late summer and early fall brought warm, dry weather eliminating many breeding sites. The Indiana Department of Health (IDOH) reported Hamilton County’s first West Nile virus (WNV) positive sample collected on June 18th. Increased WNV positive samples were observed between June and August, peaking in late July. In September, the temperature dropped significantly, which helped reduce the number of mosquitoes collected. There were no reported human WNV cases in Hamilton County, but viral activity was present in field samples. In total, 341 mosquito pools were tested this season, yielding 46 positive samples (13.49%). As a result, 16 ULV applications were made at 13 different geographic areas throughout Hamilton County. Forty-two (42) mosquito related complaints were received this year, almost double the number of requests received in 2023. Dry conditions and pre-treatment efforts that were completed in the early spring may have helped reduce the number of requests for service. The Vector Control Program’s main goal is to minimize the risk of disease transmission from mosquitoes to humans.

Larval Mosquito Control

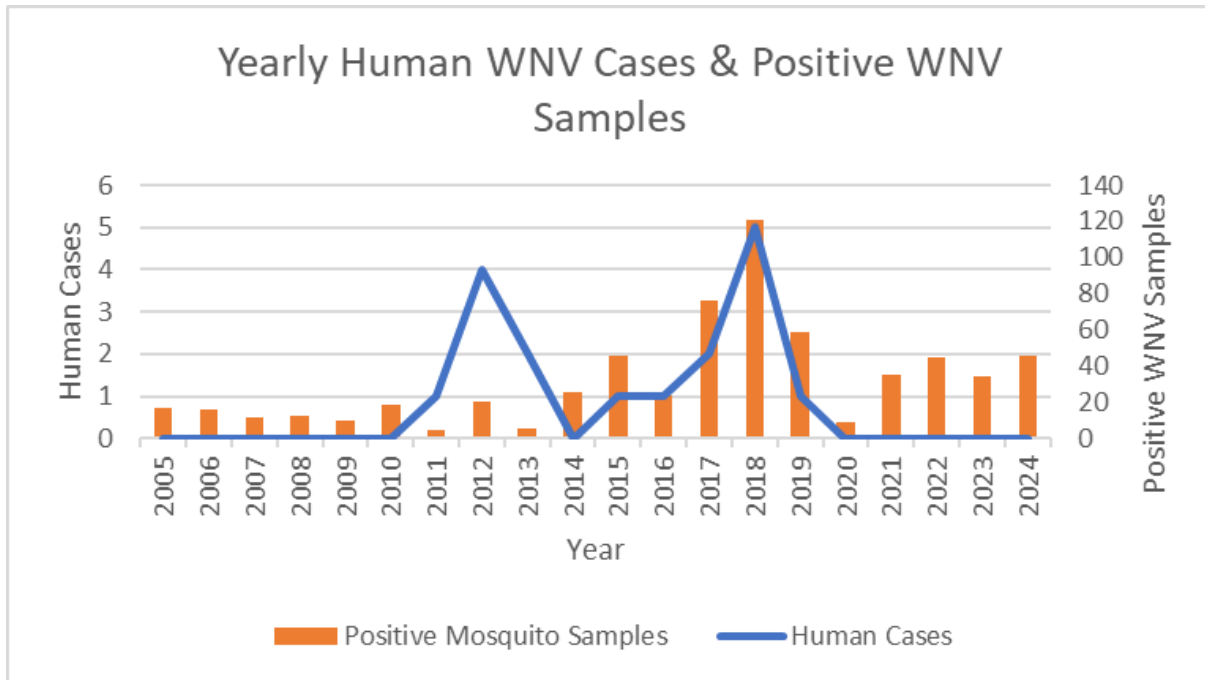
Starting in March, known mosquito breeding sites were visited on a routine basis. A site evaluation was completed at each location and mosquito larvae were collected when present. The collected larvae were brought back to the office and identified as time allowed. Identification of larval species helped detect breeding habits within the county. If a site was found to be breeding, the mosquito control technician used best judgement to determine site treatment. Treatment was dependent on the site conditions and life cycle stage of the mosquito. When possible, physical alteration was the preferred method in preventing breeding (i.e., emptying a swimming pool). Larvae were treated with a granular bacterium, which kills the mosquito through ingestion. If pupae were present, a larvicide oil was applied to the water. Larvicide oil disrupts the surface tension of the water causing the pupae and larvae to drown. In total, 1,719 site inspections were completed during the 2024 season.

Adult Mosquito Surveillance

Surveillance for West Nile virus and St. Louis Encephalitis began the first week of June. Mosquito samples were collected using gravid traps, which are designed to attract the female *Culex* mosquito ready to lay her eggs into large tubs filled with fermented alfalfa water. Gravid traps were placed in predetermined locations, based on breeding sites, historical data, and population density. A fan and net are positioned just over the tub, collecting the mosquito once they land on the surface of the water and float under the collection tube.



Graph 1 – Hamilton County human and mosquito WNV positive samples



The mosquitoes that are collected in the gravid traps are brought back to the office, sorted by species and prepared for testing using the RAMP® system. RAMP® is a highly sensitive test used to identify WNV in mosquitoes. Excess mosquitoes are sent to IDOH where RT-PCR testing is utilized. IDOH tests for multiple diseases, including West Nile, St. Louis Encephalitis, and Eastern Equine Encephalitis.

Gravid traps are distributed throughout the county as evenly as possible to provide services to the most populated areas. Two hundred sixty-two (262) gravid traps were set at 37 locations, collecting 20,423 mosquitoes. A total of 19,908 mosquitoes were tested during the 2024 season.

Seven (7) CDC Light Traps were set at 5 locations yielding 1884 mosquitoes. Light traps were set to monitor the nuisance mosquito populations around the county. Dry ice was used as an attractant to help in collection efforts.

Within the jurisdictional area of Hamilton County Health Department, 341 mosquito samples were tested for West Nile virus in 2024. A sample can be a minimum of 10 mosquitoes and a maximum of 50 for the RAMP® system. IDOH has a maximum of 100 mosquitoes per sample and 1000 mosquitoes per site. The remaining mosquitoes are discarded after documenting the total collected. Hamilton County Health Department tested 55 samples in-house. Of these 55 samples, 4 were WNV positive. Two hundred eighty-six (286) samples were tested by IDOH yielding 40 positives. In total, there were 46 WNV positive samples in Hamilton County in 2024. Overall, samples generated a 13.49 % positivity rate in 2024 compared to a 9.37 % positivity rate in 2023.

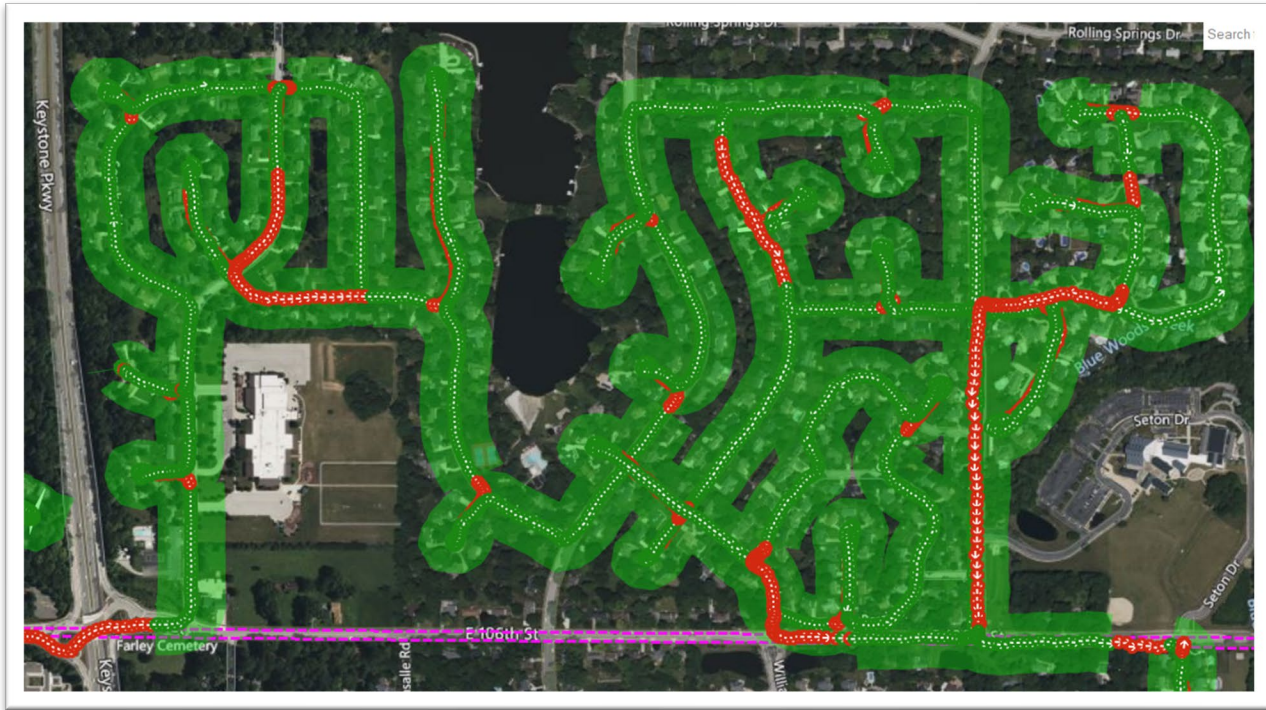
The Minimum Infection Rate (MIR) is used to calculate the ratio between the number of positive pooled samples to the number of mosquitoes tested. It can be calculated using the following formula: $MIR = (\text{number of positive pools} / \text{number of mosquitoes tested}) \times 1000$. The MIR is a useful indicator when predicting increased WNV transmission. A Minimum Infection Rate above 4 is considered an increased risk to human health. The MIR first reached above 4 during the week of July 15th, with the highest MIR occurring during the week of August 19th. Large collection numbers of adult mosquitoes in June and July provide more precise infection rate calculations. As the season progresses into August and September, lower collection numbers are found, and the infection rate is skewed due to insufficient numbers. It is important to note, the decision to end surveillance collection after the week of August 19th was based on overnight temperatures, multiple positive areas needing nighttime ulv treatment, and lower collection numbers. Since most



trapping locations were already designated “WNV Positive” from previous testing, it was determined that staff time would be better spent larviciding during normal daytime operations, thus resulting in lower trap data than previous seasons.

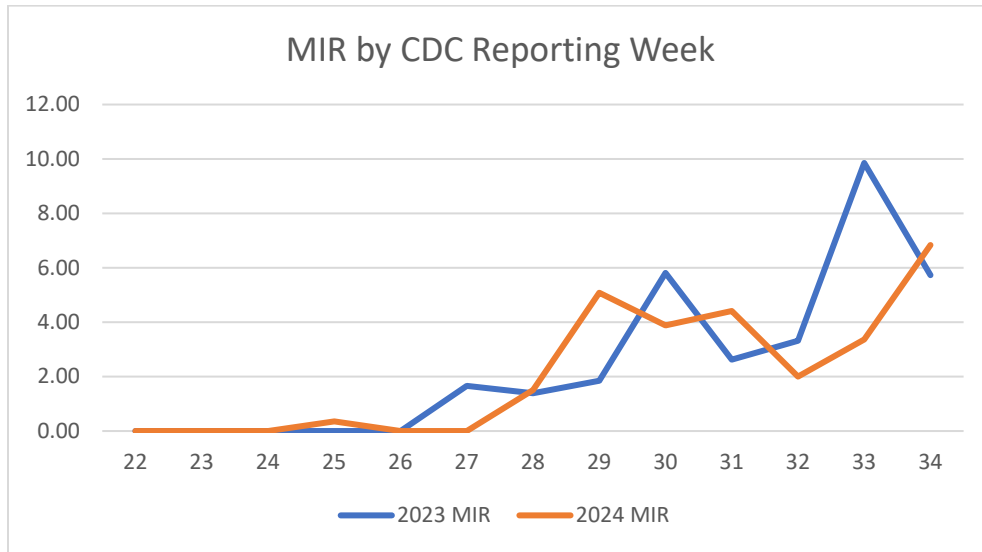
When the Hamilton County Health Department receives a WNV positive sample, applications are made with the help of Fieldseeker software. Areas can be manually drawn to encompass or exclude areas, provide driver assistance with gps, draw real-time application and display it on the computers, and provide real time weather data.

Picture 1 – Field Seeker ULV application real time mapping



The adulticide is applied by using truck mounted Ultra-Low Volume (ULV) machines. Adulticide was applied at 13 locations across the county, covering an estimated 271 miles, 9,862 acres treated, and approximately 105 gallons of adulticide used.

Graph 2 – Hamilton County calculated MIR



Human Cases

Hamilton County did not report any WNV human cases. Human cases are generally identified through laboratory testing of serum or cerebrospinal fluid to detect WNV – specific antibodies.

Statewide there were 10 WNV human cases documented in seven counties: Johnson, Kosciusko, Lake, Marion, Porter, Ripley, and Warrick. There were no reported human cases of St. Louis Encephalitis, Eastern Equine Encephalitis (EEE) or La Crosse Encephalitis.

Veterinary Surveillance

Fourteen equine cases of WNV were reported this year in Adams, Allen, Elkhart, LaGrange Marshall, and Spencer counties. No cases of EEE were reported in 2024.

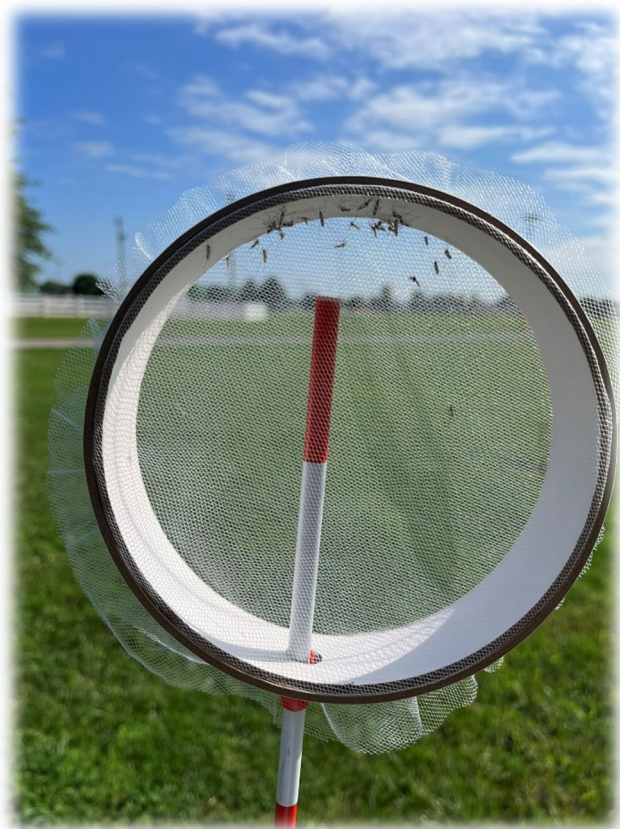
Resistance Testing

After careful evaluation of our current chemical, the program decided to switch the product used for adulticide operations based on data indicating decreased risk to human health, reduced distance setbacks for applications, and lower risk to pollinator and animal populations. Field cage test and bottle bioassay methods were used to monitor insecticide resistance in 2024.

Field cage testing was used to replicate true field conditions with local mosquito populations. *Culex pipien/restuan* mosquito egg rafts were collected and reared to the adult stage, at which time the adult female mosquitoes were



Picture 2 – Field cage with mosquitoes



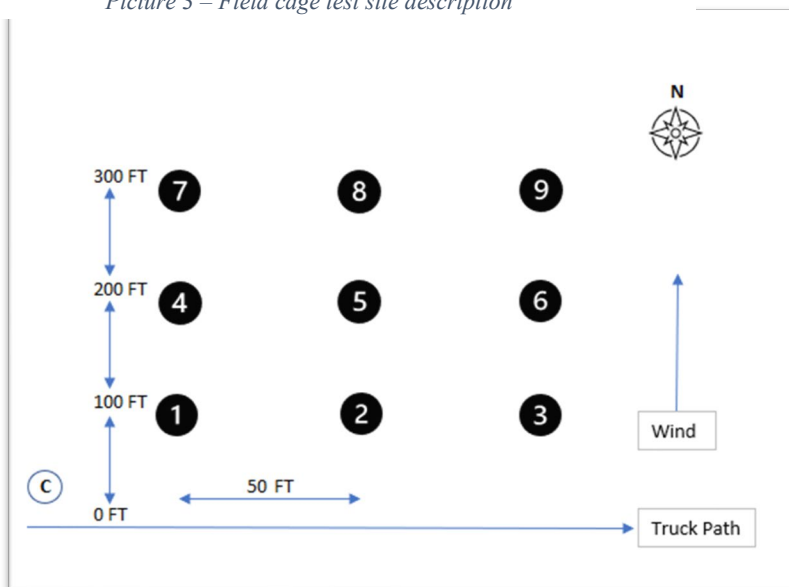
collected and moved to field cage rings for testing. Fiberglass driveway markers were used to support the rings approximately three (3) feet off the ground.

During set up for the first test, weather conditions were favorable for conducting the test. Measured wind speed was 3-5 MPH. At the time of application, wind speeds dropped, and the chemical application did not move well through the test area.

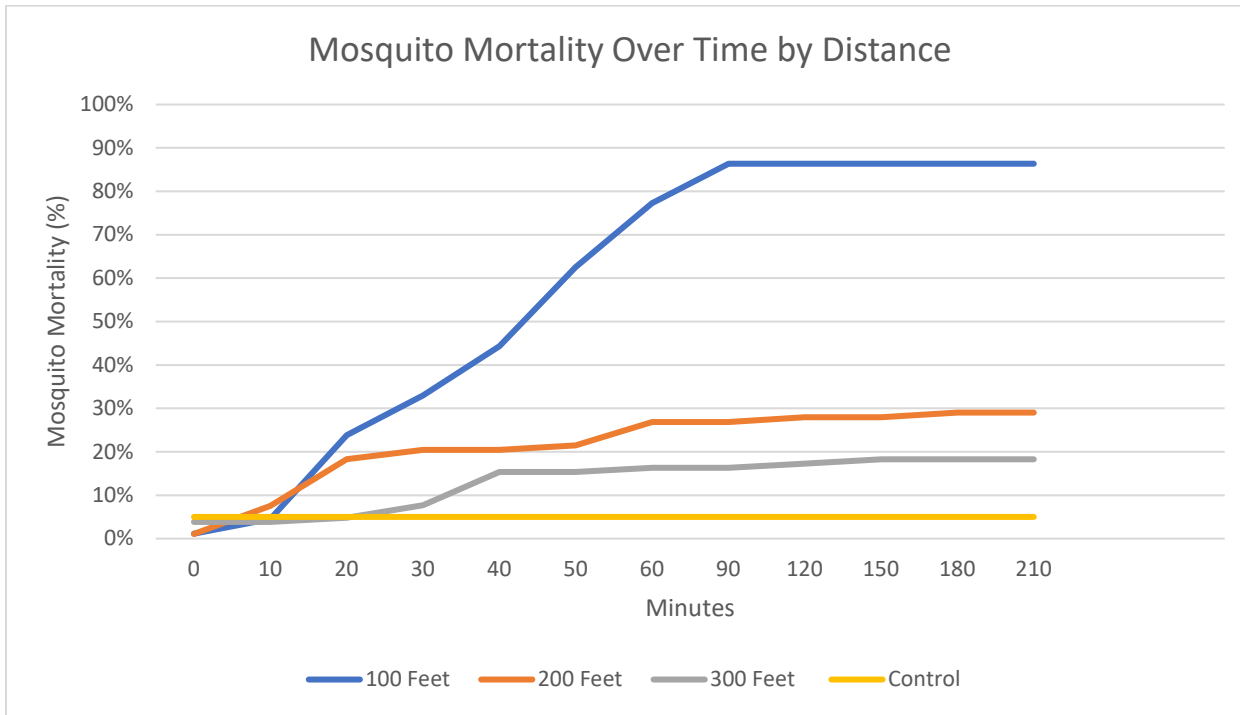
The number of live and dead mosquitoes were documented at every time interval. Mosquitoes were considered dead if they could no longer stand.

The number of mosquitoes in the field cages ranged from 27 to 38, with a goal of 25 mosquitos minimum in each cage. These rings were placed in a 3x3 grid in an open field. The control sample was placed upwind from the application. For testing purposes, the rings were placed at distances of 100 feet, 200 feet and 300 feet from the truck mounted ULV machine. Approximately 50 ft separation was used between rings placed at the same interval. At the time of the test, the temperature was 71°F with calm wind conditions. The truck was driven parallel to the grid at 10 MPH, with the intention to allow the wind drift to carry the insecticide through the grid.

Picture 3 – Field cage test site description



Graph 3 – Field cage testing results



Wind speeds were not ideal. It is assumed the insecticide did not move through the test area, which did not allow for the necessary contact to achieve 100 % mortality. Results indicated 86% mortality at 100 feet, 29% mortality at 200 feet, and 18% mortality at 300 feet. The natural mortality of the control sample was 5% throughout the test.

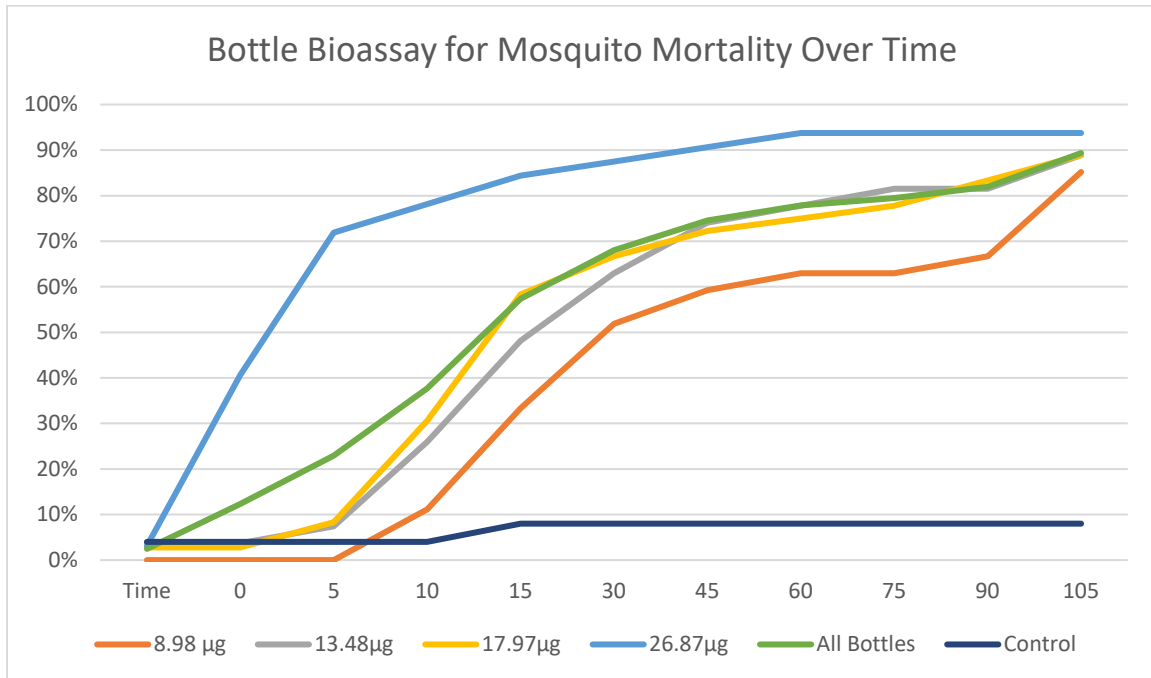
A second field cage test was conducted the following week and the control sample died during the test making results unusable.

The CDC bottle bioassay test was developed to establish baseline data on insecticide resistance to chemicals being used in the field. It allows for the early detection of resistance to chemicals. A bottle assay is performed by coating bottles with insecticide at predetermined concentrations, then measuring mortality at set time intervals.

This year, a bottle bioassay test was utilized to test new product. First time trial test results were acceptable, with an overall 89% control rate across all concentrations and the highest concentration yielded a 94% control rate. Future bottle assay test will be conducted to determine the concentration dose that yields 100% control. Further information was obtained on bottle bioassay test after discussing results with the sales representative. It was indicated that the product does not adhere well to the sides of the bottles, therefore not making it well suited for bottle bioassay testing.



Graph 4 – Bottle bioassay results



Tick Surveillance

The HCHD Vector Control Program continued surveillance and collection of ticks to establish a base line of tick species in Hamilton County. In 2022, Hamilton County became classified as an established county for *Ixodes scapularis* (Black Legged) ticks. Efforts continued to expand the geographic area of surveillance for *Ixodes scapularis*, as well as efforts to collect other species of ticks. HCHD collected two *Amblyomma maculatum* (Gulf Coast) ticks in 2023. The identification was confirmed by IDOH and they collected additional Gulf Coast ticks from those locations. Multiple counties in the state have previously reported or established populations of *Amblyomma maculatum*. The majority of our surveillance efforts were directed towards the collection of Gulf Coast ticks in 2024. As a result, 15 Gulf Coast ticks were collected during the season from one location, designating the county as “Established” for that species of tick. The second location where Gulf Coast ticks were collected in 2023 was under construction and inaccessible.

The CDC classifies counties into three separate categories with regards to tick surveillance:

- **Established** counties are those where six or more ticks of a single life stage or more than one life stage were collected in the county within a 12-month period.
- **Reported** counties are those where less than six ticks of a single life stage were collected in the county within a 12-month period.
- **No Records** should not be interpreted as the tick being absent. No records could be a result of a lack of sampling efforts, tick collections, or a lack of reporting or publishing the results of sampling efforts



Table 1 – 2024 Tick drag collection log

Tick Collections			Black Legged		American Dog		Lone Star		Gulf Coast	
Sample Date	Location	Miles Surveyed	<i>Ixodes scapularis</i>		<i>Dermacentor variabilis</i>		<i>Amblyomma americanum</i>		<i>Amblyomma maculatum</i>	
			Male	Female	Male	Female	Male	Female	Male	Female
6/28/2024	Noblesville Sewer Plant	0.51	0	0	0	0	0	0	0	0
6/28/2024	Founders Park	0.4	0	0	0	0	0	0	0	0
6/28/2024	Eller Road Nature Preserve	0.44	0	0	0	0	0	0	0	2
6/30/2024	Eller Road Nature Preserve	0.6	0	0	0	0	0	0	1	1
7/2/2024	Founders Park	0.33	0	0	0	0	0	0	0	0
7/2/2024	Eller Road Nature Preserve	1.31	0	0	1	0	0	0	4	7
7/2/2024	126th & River Rd	0.47	0	0	1	1	0	0	0	0
7/3/2024	Koteewi Sledding Area	1.25	0	0	0	0	0	0	0	0
7/3/2024	Koteewi	0.84	0	0	0	1	0	0	0	0
7/3/2024	Burr Oak Bend	1.37	0	0	0	2	0	0	0	0
10/2/2024	Eller Road Nature Preserve	0.5	0	0	0	0	0	0	0	0
10/14/2024	River Road Park	0.7	0	0	0	0	0	0	0	0
10/15/2024	Potters Bridge	0.41	0	0	0	0	0	0	0	0
10/16/2024	Burr Oak Bend	0.66	0	0	0	0	0	0	0	0
10/22/2024	Hague Road Nature Haven	0.59	0	0	0	0	0	0	0	0
10/23/2024	HC Farms	0.84	1	0	0	0	0	0	0	0
11/6/2024	Koteewi Sledding Area	0.92	0	0	0	0	0	0	0	0
11/6/2024	Burr Oak Bend	0.4	0	0	0	0	0	0	0	0
Totals		12.54	1	0	2	4	0	0	5	10

To date 10 counties in Indiana are classified as “Established” and three counties designated as “Reported” for the presence of Gulf Coast ticks.

Seasonal Employees

Two seasonal part-time employees, Anthony Byrd and Chase Ramirez, were hired in 2024. Mitchell Fry and Alex Mahoney both provided essential help throughout the season and the program would not have been able to complete the daily operations or achieve the program goals without their help. They provided essential help during nighttime adulticide applications.



Table 2 – Mosquito collection and sampling data

YEAR AT A GLANCE	2024	2023	Numerical Difference	Percent Difference
Site Inspections	1719	1681	38	2%
Complaints	42	22	20	91%
Total Adult Mosquitos Collected	20423	21315	-892	-4%
RAMP Mosquitoes Tested	2518	3046	-528	-17%
RAMP Test	55	73	-18	-25%
RAMP Positive Samples	4	9	-5	-56%
RAMP Positive Samples Percentage	7.27%	12.33%		
IDOH Mosquitoes Tested	17390	17767	-377	-2%
IDOH Samples	286	290	-4	-1%
IDOH Positive Samples	40	25	15	60%
IDOH Positive Samples Percentage	13.99%	8.62%		
Number of Gravid Traps Set	262	302	-40	-13%
Total Hamilton County Mosquitoes Tested	19908	20813	-905	-4%
Total Light Traps Set	7	6	1	17%
Total Light Trap Mosquitos Collected	1884	31	1853	5977%
Total Samples Tested	341	363	-22	-6%
Total Hamilton County Positive Samples	46	34	12	35%
Overall Hamilton County Positive Sample Percentage	13.49%	9.37%		44%
Hamilton County WNV Human Cases	0	0	0	0%
State Grand Total Mosquitoes Tested	219,651	254,394	-34,743	-14%
State Wide Total Samples Tested	3452	3852	-400	-10%
State Wide Total Positive Samples	604	673	-69	-10%



HEALTH EDUCATION PROGRAMS

These programs are presented to local schools, community groups, professional organizations and virtually.

HAMILTON COUNTY HEALTH DEPARTMENT
HEALTH EDUCATION DIVISION
PROGRAMS 2024-2025

Below is a list of topics that can be presented to your school or community group.

ALCOHOL & DRUGS:

- Alcohol Awareness
- Heroin
- Marijuana + Vaping
- Narcan Education
- Opiates in our Society
- Prescription Drug Abuse
- Recreational Drugs
- The New THC (Delta 8)
- Vaping & Smoking (E-Cigarettes) (HS)
- Vaping & RX Drugs (Jr. High)

CPR:

- Heartsaver CPR Adult & Child*
- Heartsaver CPR Adult, Child & Infant*
- Heartsaver Online Course*
- Heartsaver CPR In School*
- Heartsaver First Aid Adult
- Heartsaver Pediatric First Aid*
- Heartsaver First Aid Online Course*
- Heartsaver Care Provider Course*
- Heartsaver Care Provider Online Course*

DISEASE + PREVENTION:

- Bloodborne Pathogens
- Breast Self-Exam (BSE) & Testicular Self-Exam (TSE)
- Cancer 101
- Diabetes Education
- Food Safety (Grades 5 -12)
- Food Safety (Adult)
- Handwashing (All ages)
- HIV Education (General)
- Immunization Education

DISEASE + PREVENTION (CONTINUED):

- Lice
- Measles
- Meningitis
- Monkeypox
- MRSA
- Oral Health & Hygiene
- Rabies
- STD/STI Education
- Tuberculosis 101
- Tuberculosis (Testing Course)*

GENERAL HEALTH:

- Asthma Education
- Autism Peer Awareness
- Brain Attack (Stroke)
- Body Modification (Tattoo + Piercings)
- Entering Adulthood
- Fall Prevention (Seniors)
- Going Viral (Social Media Safety, HS)
- Head Hurts (Concussion Education)
- Heart Attack 101
- Human Trafficking
- Injury Prevention
- Internet Safety (Parents/Guardians)
- Health Misinformation
- Organ Donation
- Parenting in the Cyber World



GENERAL HEALTH CONTINUED:

- Poison Prevention (Preschool - Grade 5)
- Poison Prevention (Seniors)
- Retention Pond Safety
- Safe Sleep
- Senior Scam Prevention (Elders)
- STOP THE BLEED (Virtual available)
- Summer Safety
- Teen Dating Safety & Healthy Relationships (HS)
- What Is Public Health?
- Women's Health
- What Will Teens Do Next? (Adult)

Other topics can be developed upon request.

* = Charge/fee for the course

MENTAL HEALTH:

- Children's Mental Health Matters
- Bullying (Grades K - 3)
- Bullying 101 (Jr. High)
- Bullying & Hazing (HS)
- Mental Health Education
- Mental Health First Aid (Adult)* **(NEW)**
- Mental Health First Aid (Youth)* **(NEW)**
- QPR (Question, Persuade & Refer)
- Stress
- Suicide Education (MS & HS)
- Suicide Education (School Nurses)

PHYSICAL ACTIVITY/NUTRITION

- Childhood Obesity
- Healthy Shopping
- Obesity
- Physical Activity/Nutrition

Indiana Academic Standards for Health and Wellness

The programs provided by the Hamilton County Health Department meet the standards for health education in Indiana schools as established by the Indiana Department of Education.

Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.

Standard 2: Students will comprehend concepts related to health promotion and disease prevention to enhance health.

Standard 3: Students will demonstrate the ability to access valid information and products and services to enhance health.

Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and void or reduce health risks.

Standard 5: Students will demonstrate the ability to use decision-making skills to enhance health.

Standard 6: Students will demonstrate the ability to use goal-setting skills to enhance health.

Standard 7: Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

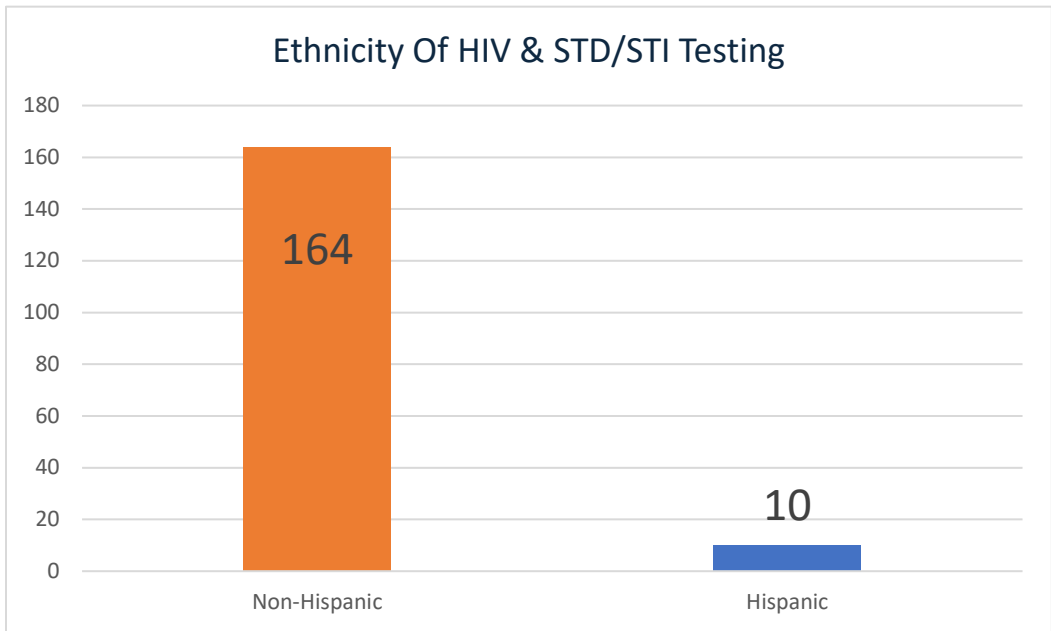
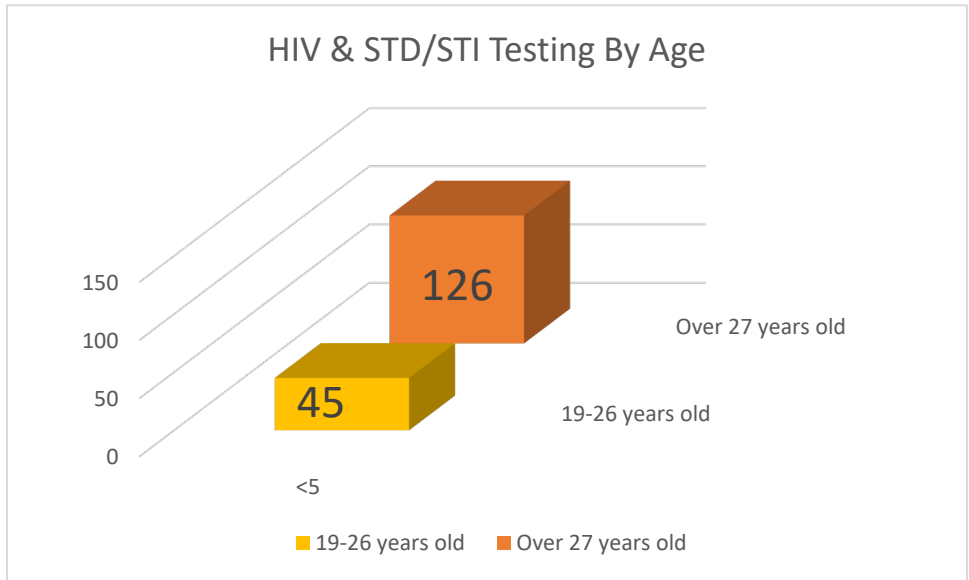
Standard 8: Students will demonstrate the ability to advocate for personal, family and community health.

If you would like to schedule a program for your group, community or school, contact the Hamilton County Health Department by email at James.ginder@hamiltoncounty.in.gov OR Kaylen.underhill@hamiltoncounty.in.gov
(The Health Education Division has the right to cancel or reschedule the presentation)

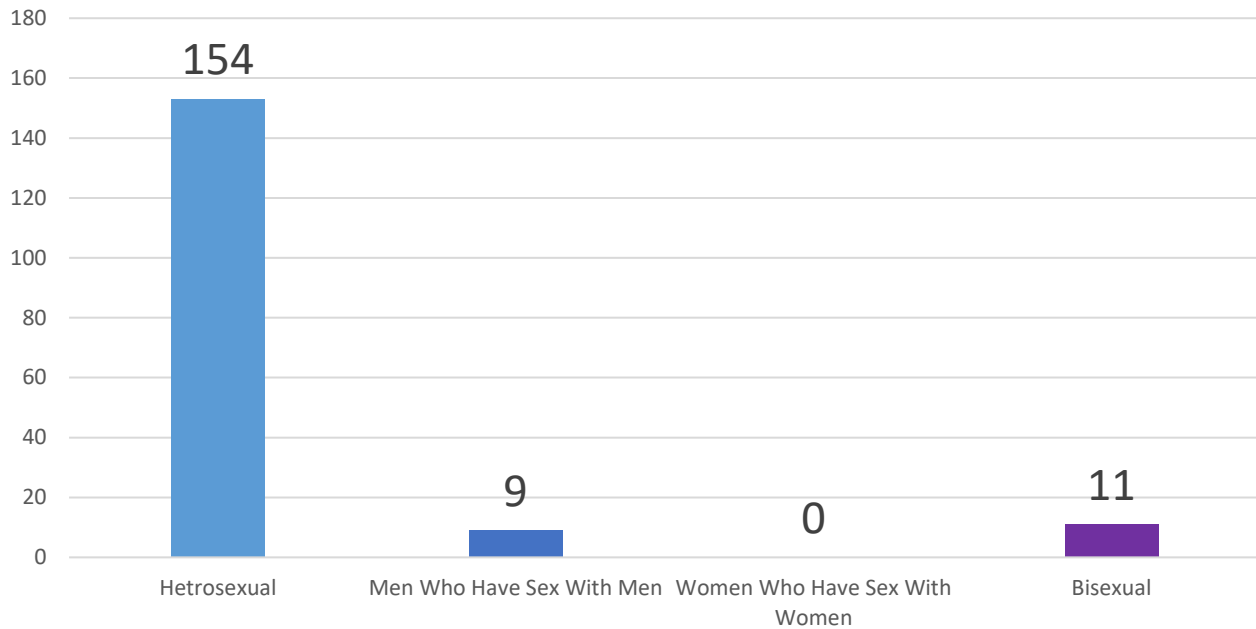
Phone: 317-776-8500



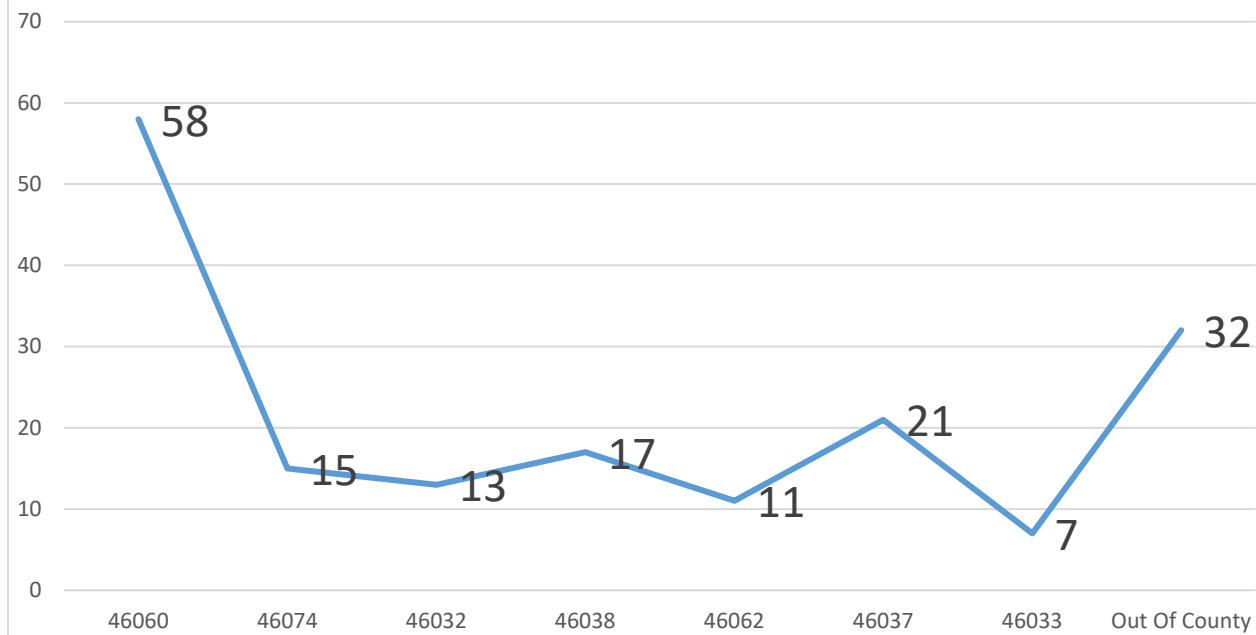
STD/STI Testing program is conducted by walk-in, scheduled appointments or due to court order. Testing and follow-up treatment is provided through a partnership with Riverview Health. Below is graphic representation of reported STD/STI statistics.



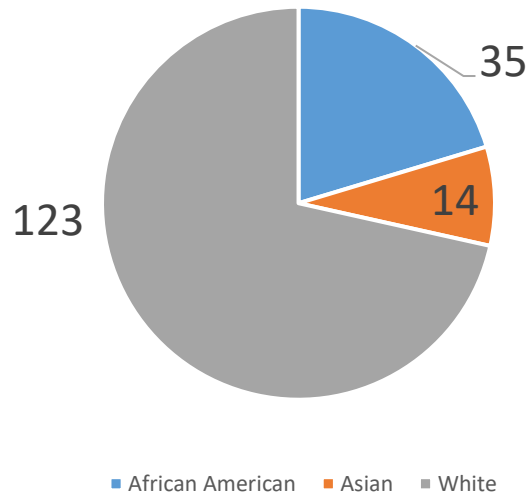
Sexual Identity for HIV & STD/STI Testing



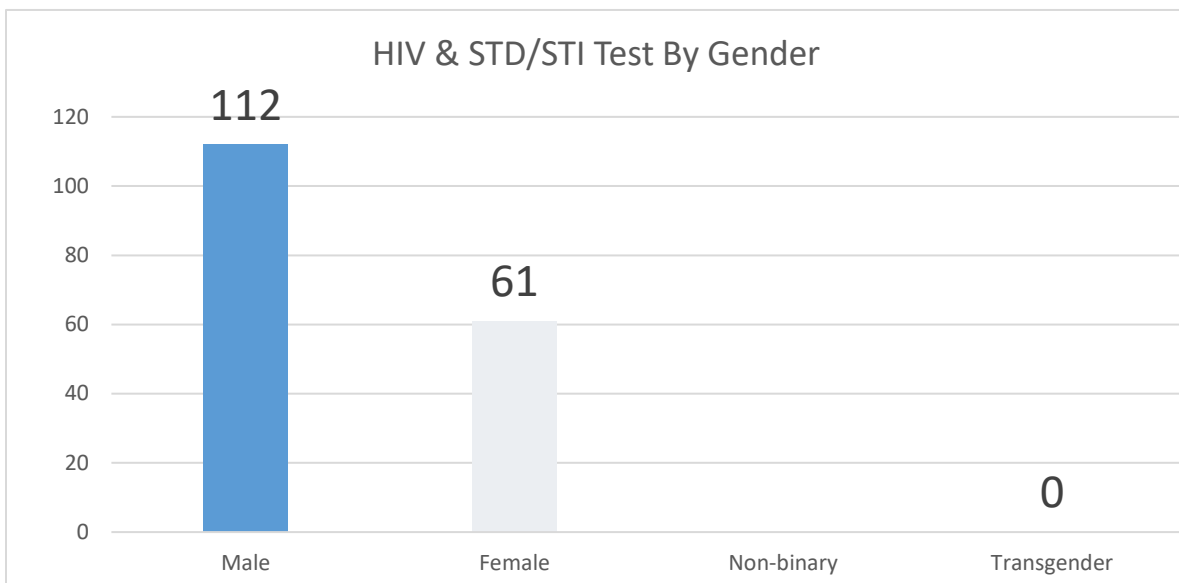
HIV & STD/STI By Zip Code



HIV & STD/STI Testing By Race



HIV & STD/STI Test By Gender



PrEP Referrals:

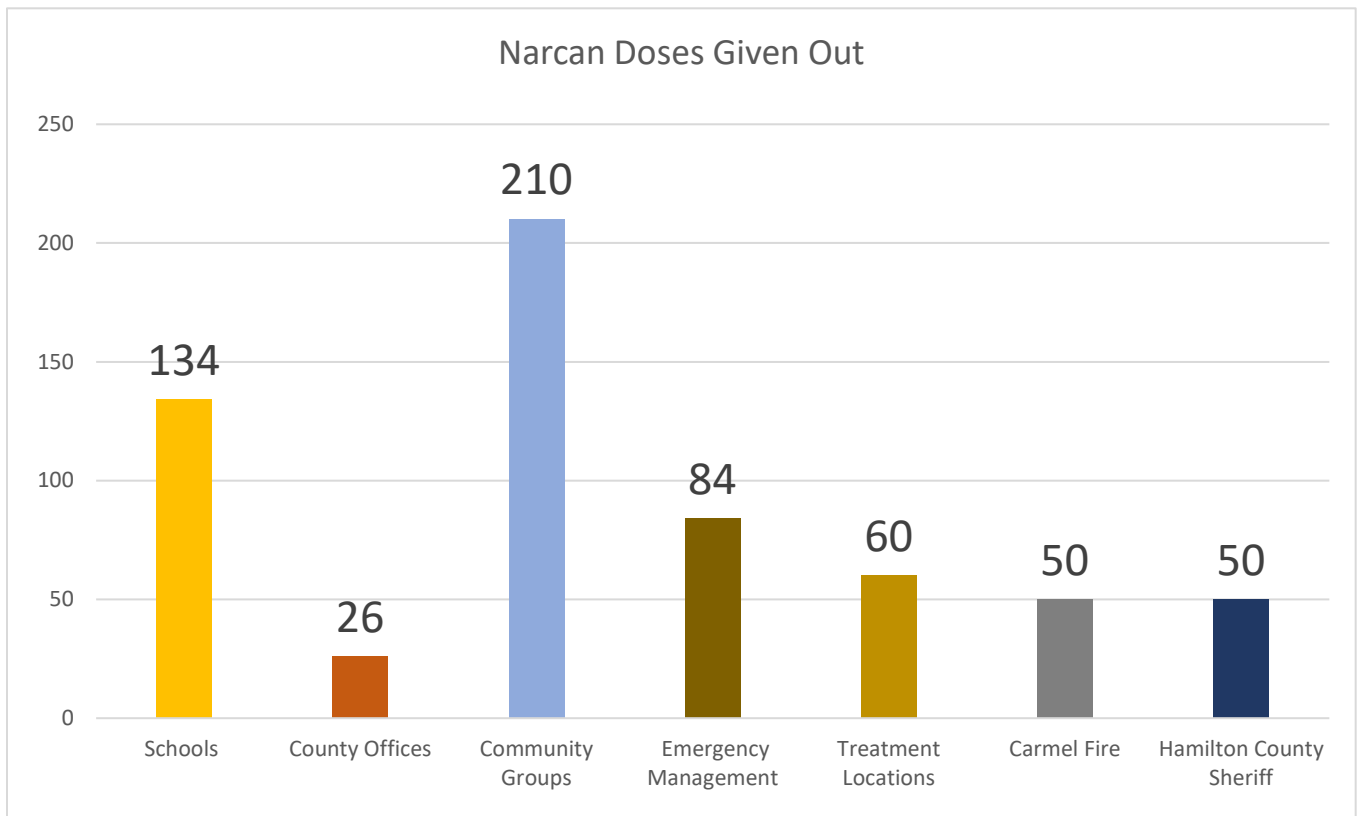
PrEP (pre-exposure prophylaxis) is medicine that reduces the chances of getting HIV from sex or injection drug use. When taken as prescribed, PrEP is highly effective for preventing HIV.

Doxy PEP has proven to reduce the risk of getting some bacterial STIs for gay, bisexual, and other men who have sex with men and transgender women at increased risk for STIs.

PrEP Referrals	9
Doxy PEP Referrals	<5

Narcan Doses Given

Naloxone (also known by the brand name Narcan) is a life-saving medication that can quickly restore the breathing of a person experiencing an opioid overdose.



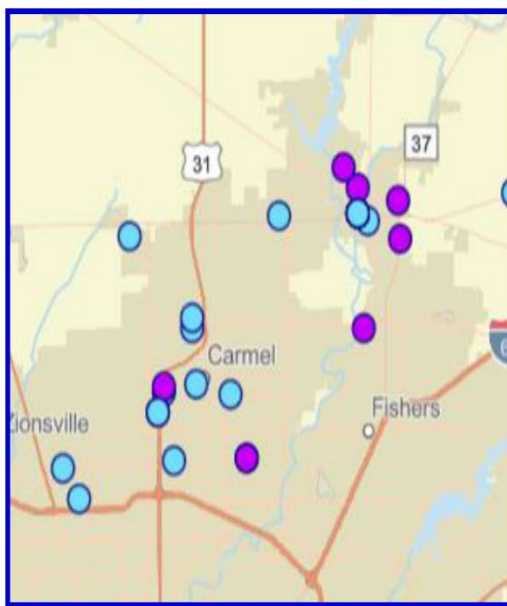
OVERDOSE DETECTION MAPPING APPLICATION PROGRAM (ODMAP)

Hamilton County Health Education Division collects Overdose Detection Mapping Application Program (ODMAP) information for strategic analysis. The Health Education Division collaborates with local law enforcement, EMS and the Hamilton County Coroner's Office to obtain local data. ODMAP provides near real-time suspected overdose surveillance data across jurisdictions to support public safety and public health efforts to mobilize an immediate response to a sudden increase or spike in overdose events.

OD Map January 1, 2024- December 31, 2024

Overdose By Type

Total Suspected Overdoses:	304
Suspected Fatal Overdoses:	31
Naloxone:	53



Overdose Types

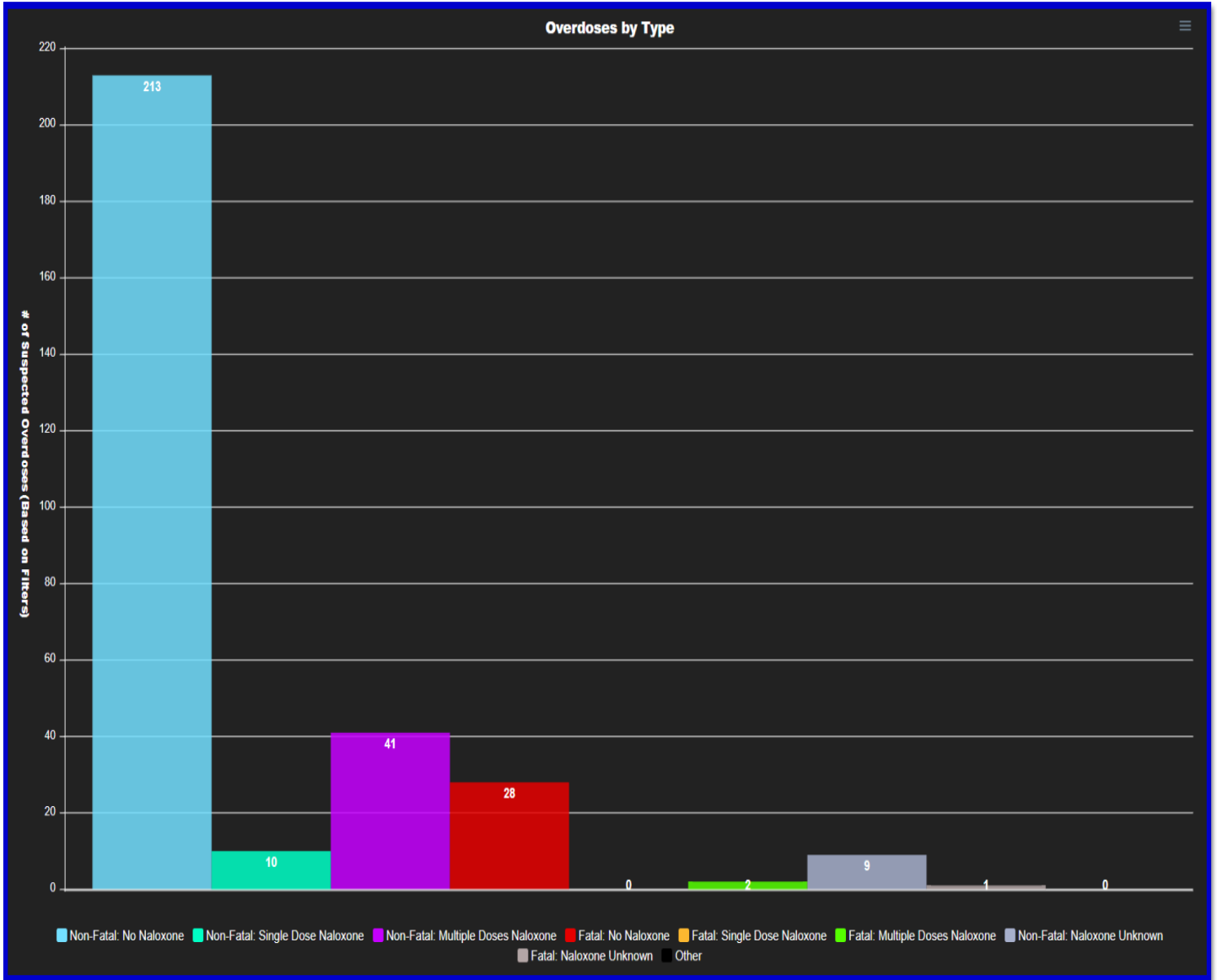
- ◆ Fatal: No Naloxone
- ◆ Fatal: Single Dose Naloxone
- ◆ Fatal: Multiple Doses Naloxone
- ◆ Fatal: Naloxone Unknown
- Non-Fatal: No Naloxone
- Non-Fatal: Single Dose Naloxone
- Non-Fatal: Multiple Doses Naloxone
- Non-Fatal: Naloxone Unknown
- Unknown

It takes 6-7 weeks to get toxicology report back.

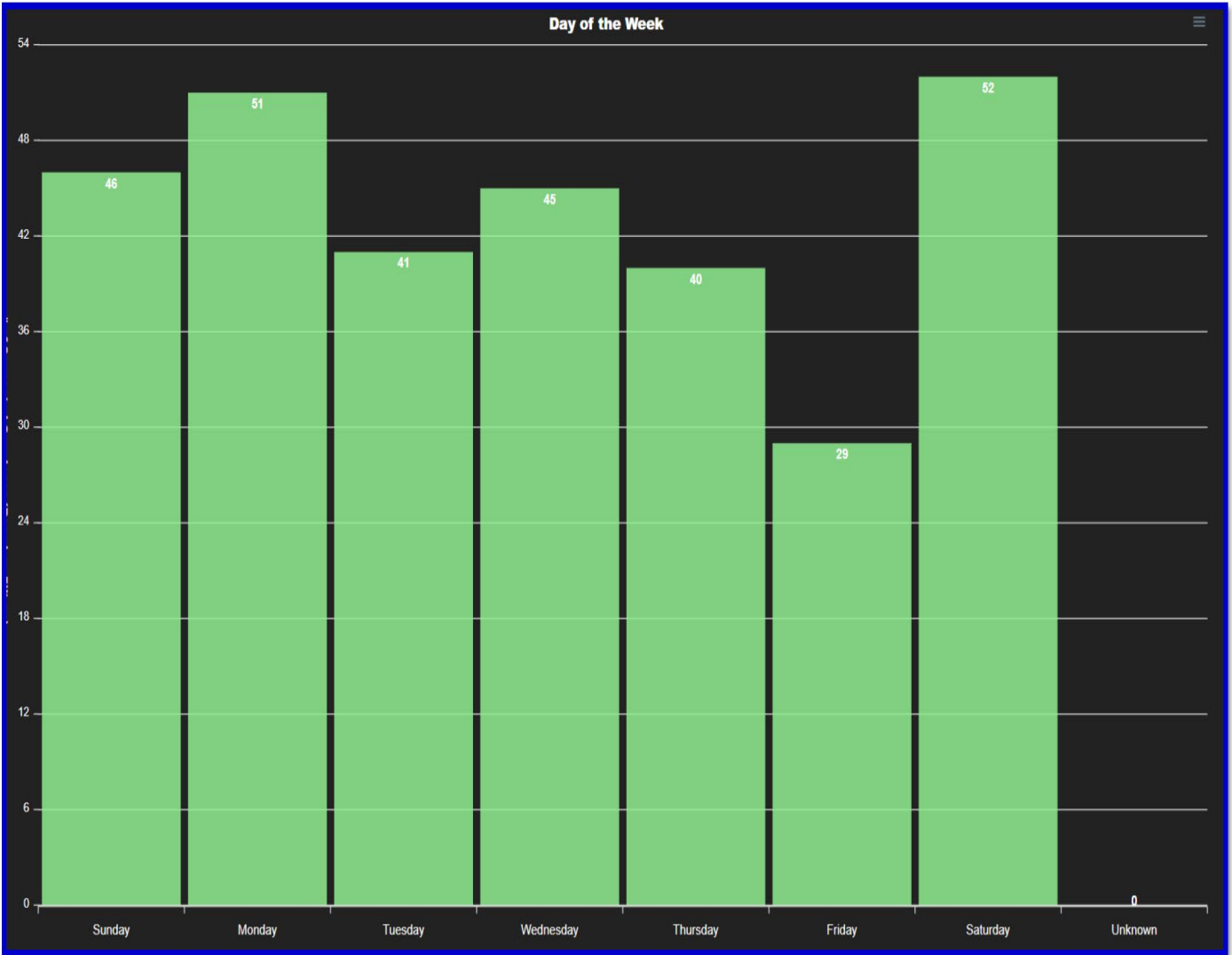
This data is from EMS, Law Enforcement, Riverview Health & Coroner's Office Only.

***0 Pending Cases**

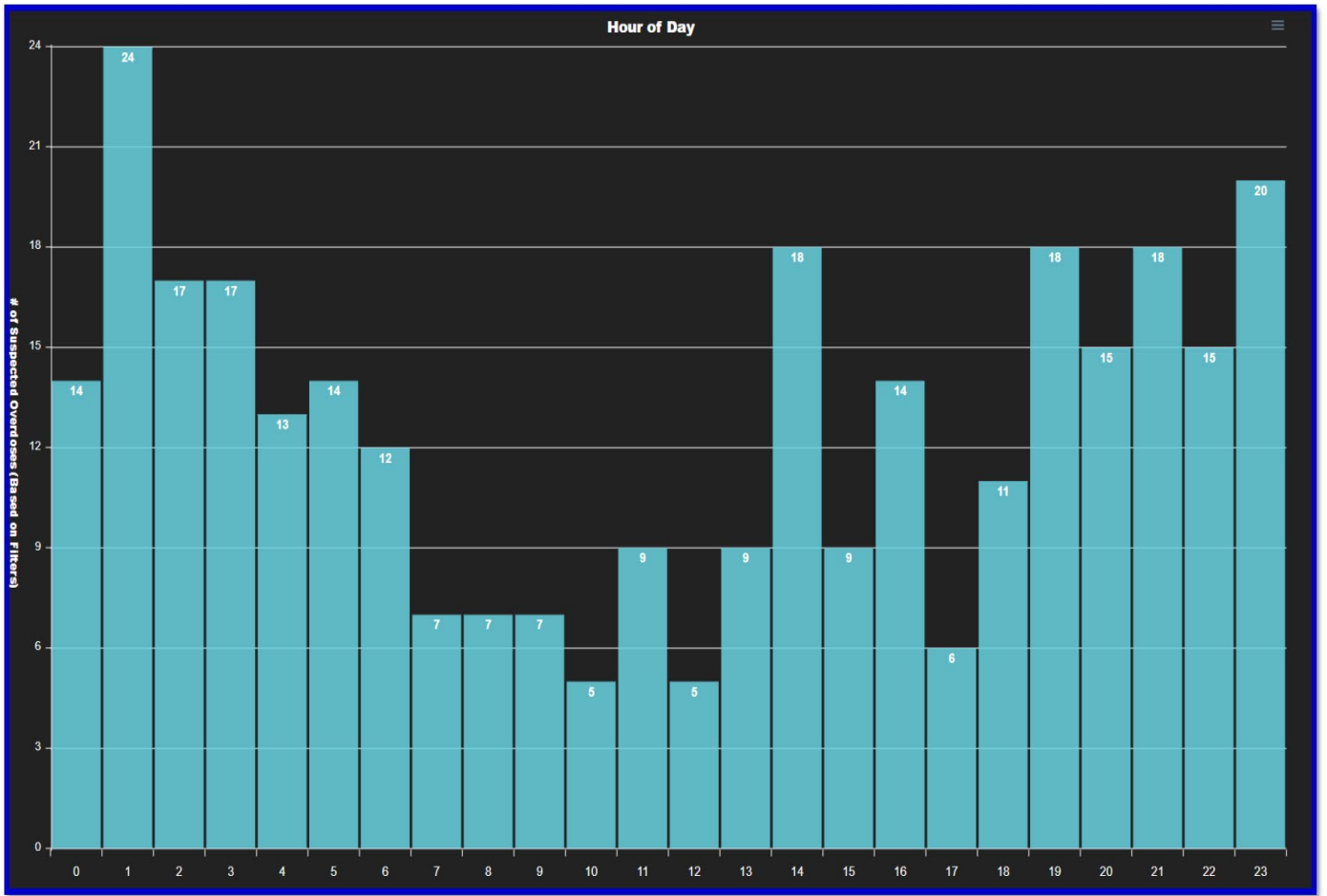




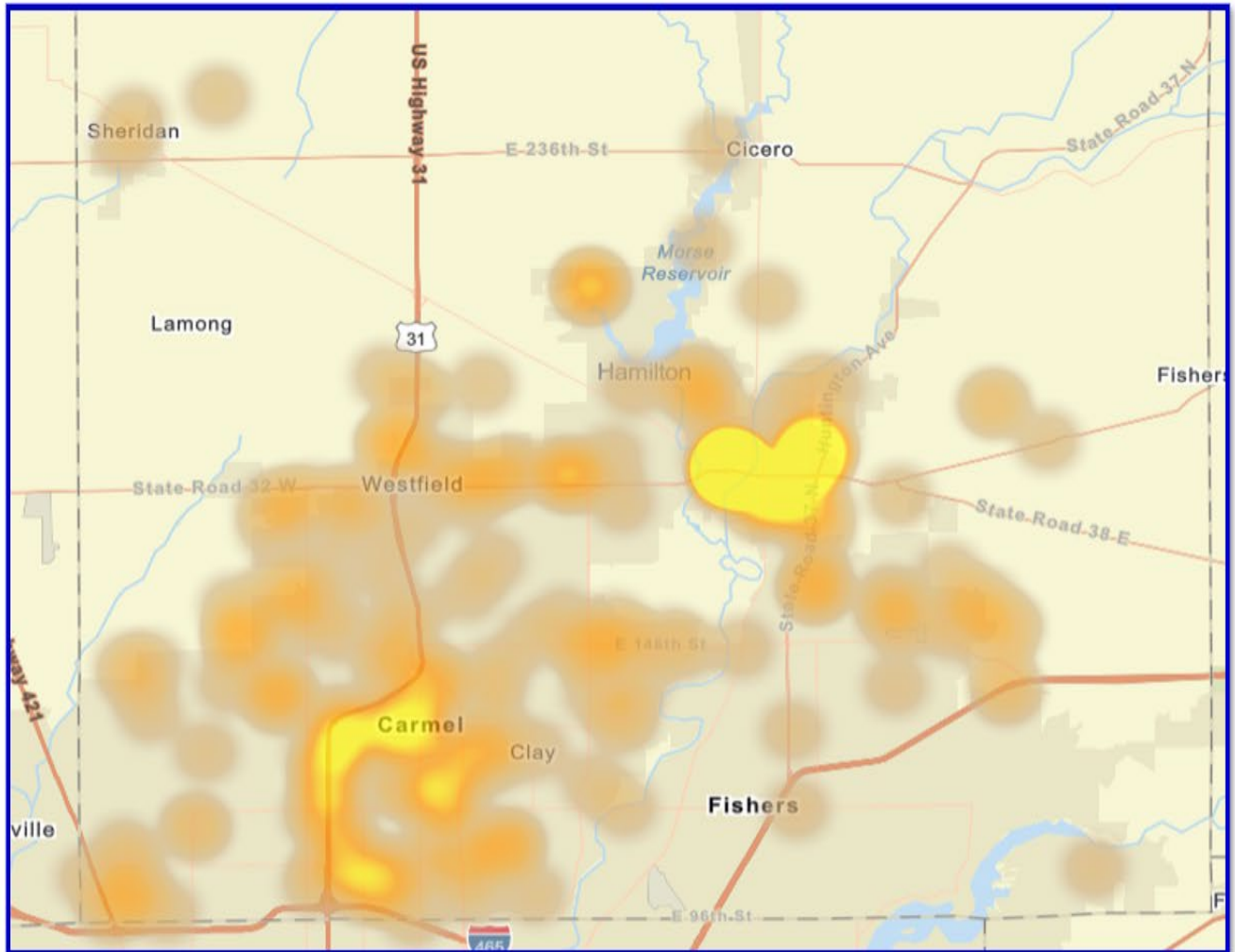
Day of the Week



Hour of Day



Heat Map of Hamilton County Overdoses



- The Darker The Yellow The More Overdoses.



Suspected Overdose Substances in Hamilton County in 2024

Substance	Primary Drug	Additional Drugs	Suspected Fatal Overdose
Alcohol	93	6	4
Benzodiazepine	0	2	0
Cocaine	13	2	3
Fentanyl	31	8	18
Heroin	4	0	0
LSD	2	0	0
Methadone	1	0	0
Meth.	3	7	2
Other *	108	27	3
Over The Counter	14	1	0
Oxycodone	5	1	1
PCP	0	0	0
Rx. Drugs	12	1	0
Suboxone	3	0	0
Synthetic Marijuana (Delta-8 THC)	15	4	0
Xylazine	0	1	0
TOTAL:	304	60	31



* Unknown Substance

