

2020 ANNUAL REPORT



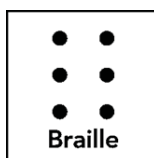
CITY OF MILWAUKEE
HEALTH DEPARTMENT





This report was prepared by the City of Milwaukee Health Department in accordance with Ch.59 of the City of Milwaukee Code of Ordinances.

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CITY OF MILWAUKEE HEALTH DEPARTMENT

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Message from the City of Milwaukee Board of Health

Dear Community,

In 2019, the City of Milwaukee established its Board of Health (BOH). This nine-member governing board is responsible for assuring the City of Milwaukee residents that the Milwaukee Health Department (MHD) fulfills the responsibilities mandated by the WI Department of Health Services. We achieve this goal by advising MHD on priorities, taking stances on public health policy issues, and acting as champions for public health in Milwaukee. These BOH positions were appointed by Mayor Tom Barrett after an application and interview process and each member was confirmed by the Milwaukee Common Council.

Starting in March of 2020, Milwaukee saw its first case of COVID-19 which catapulted our city and the world into this unexpected public health crisis that brought out the best and the worst circumstances for our community. In those initial months, MHD staff put their best effort forward as they implemented emergency preparedness response plans. Now, MHD has established a robust system for COVID-19 testing, contact tracing, and equitable vaccine distribution through mobile and static community sites. MHD has continued to work collaboratively with Milwaukee County, the WI Dept. of Human Services, and various local community partners and stakeholders to deliver information, services, and resources to Milwaukee residents as efficiently as possible through the rapidly changing COVID-19 pandemic.

Throughout the last year, MHD has also responded to the unsurprising, but dire disparities that were exacerbated by the pandemic. The Board of Health stood with MHD, led by Commissioner Kowalik, to emphasize the health department's original declaration of racism as a public health crisis in light of the murder of George Floyd and many other Black and Brown people in the United States due to police brutality. This racism can also be seen systemically through lack of access to resources and health outcomes for Milwaukee's Black and Brown communities. The Board of Health still supports more funding for the Milwaukee Health Department, including dollars that can be dedicated to anti-racism work to allow for all Milwaukee residents to thrive.

As the Board of Health reflects on 2020, we want to thank all MDH staff for their long hours worked to serve the Milwaukee community and honor the city orders, mask mandate, and other policies/protocols put in place to reduce the negative impact of COVID-19. We also would like to thank Commissioner Kowalik and Interim Commissioner Jackson for their service to the city of Milwaukee residents during 2020. And we welcome Commissioner Johnson in her new role.

In the year ahead, the Board of Health looks forward to a community with increasing city-wide vaccine uptake to reduce the spread of COVID-19. We also look forward to addressing more of the health issues that have ailed the people of Milwaukee before the COVID-19 pandemic. We are honored to represent the residents of Milwaukee and work collaboratively with the Milwaukee Health Department as they develop their next strategic plan to identify the key issues of public health concerning Milwaukee. Please visit our website at www.milwaukee.gov/boardofhealth for more information and look for ways to get more involved. We look forward to the work ahead and contributing to the development of a thriving Milwaukee.

Yours in Health,

Ruthie Burich-Weatherly- Chair
Caroline Gomez-Tom, MSW
Bria Grant
Alderwoman Chantia Lewis
Ian B.K. Martin, MD, MBA
Julia Means, RN
LaNelle Ramey, MPA
Ericka Sinclair, MS, MPH – Vice Chair
Wujie Zhang, PhD



Message from the Interim Commissioner of Health

I am so very proud to jointly present to you the 2020 Annual Report. I feel privileged to have been a part of the work and a phenomenal team, during what many consider one of the most difficult years our country has faced in recent history. This report highlights the great work that the Milwaukee Health Department accomplished in 2020.

The first COVID-19 Case was reported in Milwaukee on March 13, 2020. While other health departments across the country suspended services, the Milwaukee Health Department took quick and decisive action to stand up our COVID response structure and systems while continuing to provide fundamental services to the people of Milwaukee. While COVID-19 response did take center stage for much of 2020, and shifted our priorities, the Milwaukee Health Department continued to provide services from each of our four branches; Community Health, Environmental Health, Medical Services and Policy, Innovation and Engagement (PIE).

The death of George Floyd and aftermath that followed added to the need for racial and social justice that the Milwaukee Health Department began in 2018. Declaring racism as a public health crisis and our City's support for the Office of Violence prevention, positioned the Milwaukee Health Department well to respond to the needs of the City.

2020 was a year of unprecedented partnership and collaborations that we should all be proud of. Whether it was interdepartmental City of Milwaukee collaborations, large and small scale sector meetings, intergovernmental work through the United Emergency Operations Center, or Federally Qualified Health Centers efforts, the Milwaukee Community came together in a way that has never been seen before, and I am optimistic that these partnerships will continue into the future with a unified goal to serve the people of Milwaukee.

As you review this document, understand that the Milwaukee Health Department continues to operate under transition. Throughout all the change that COVID-19 and racial injustices brought in 2020, the Milwaukee Health Department remains focused on providing direct services to our most vulnerable residents and advocacy. I hope that as you read through these pages, that you are inspired to get involved and be a part of our story!

Gratefully yours,

Marlaina Jackson

How to Use the Annual Report

The City of Milwaukee Health Department's 2020 Annual Report is comprehensive and includes information on each division, office, and program within the department. As a result, the report is dense with information. Unlike traditional annual reports, this report is most useful when used as a reference document to learn about a specific division, office, or program within the department.

Program information is organized under four primary sections: Community Health, Environmental Health, Medical Services, and Policy, Innovation, and Engagement (PIE). Each of these branches has several programs or special initiatives embedded in them. Use this report to:

Learn about each public health program

Each program or special initiative includes a brief description of the program, the target population, target geographic area, priority health areas, and evidence-based practices utilized.

Access 2020 operations data

Operations data, including 2020 expense information, staffing structure, and active grants received over the course of the year, is included for each program.

Review data on each program's performance

Each program includes five years of performance measure data which highlights key deliverables. Most programs also include population or program outcome data to describe the impact of the program on Milwaukee or the clients served.

Learn about each program's 2020 accomplishments and challenges

The Milwaukee Health Department programs celebrated a number of accomplishments in 2020; however, programs also experienced a number of challenges. Learn about each program's accomplishments and challenges.

The report was prepared by the City of Milwaukee Health Department for the Mayor and Common Council in accordance with Ch. 59 of the City of Milwaukee Code of Ordinances.

Department Overview

Since 1867, the City of Milwaukee Health Department (MHD) has served the residents of Milwaukee by seeking to improve and protect the health of all who live, work, and play within the city. Although most of the department's programs and interventions have changed, over 150 years later the department remains steadfast in this mission. Today, as the largest local health department in Wisconsin, the MHD now serves nearly 600,000 residents through direct services, evidence-based programs, partnerships, and policy development.

The MHD's work centers around four goals – control and prevent disease; promote health and wellbeing across the lifespan; assure safe and healthy living environments; and conduct public health planning and policy development.

Vision

Living your best life, Milwaukee.

Mission

Advance the health and equity of Milwaukeeans through science, innovation, and leadership.

Values

Innovation: We believe in nurturing creativity and new ideas that challenge us to do our everyday work better.

Equity: We acknowledge historic and current injustices in our community and strive to cultivate an environment where everyone in our community has equal opportunity to be healthy.

Collaboration: We convene community members, partners, and elected officials to meet the needs of our community.

Courage: We take strategic risk and bold initiative to advocate for and prioritize the needs of our community.

Accountability: We act with transparency and integrity to advance the health of Milwaukee.

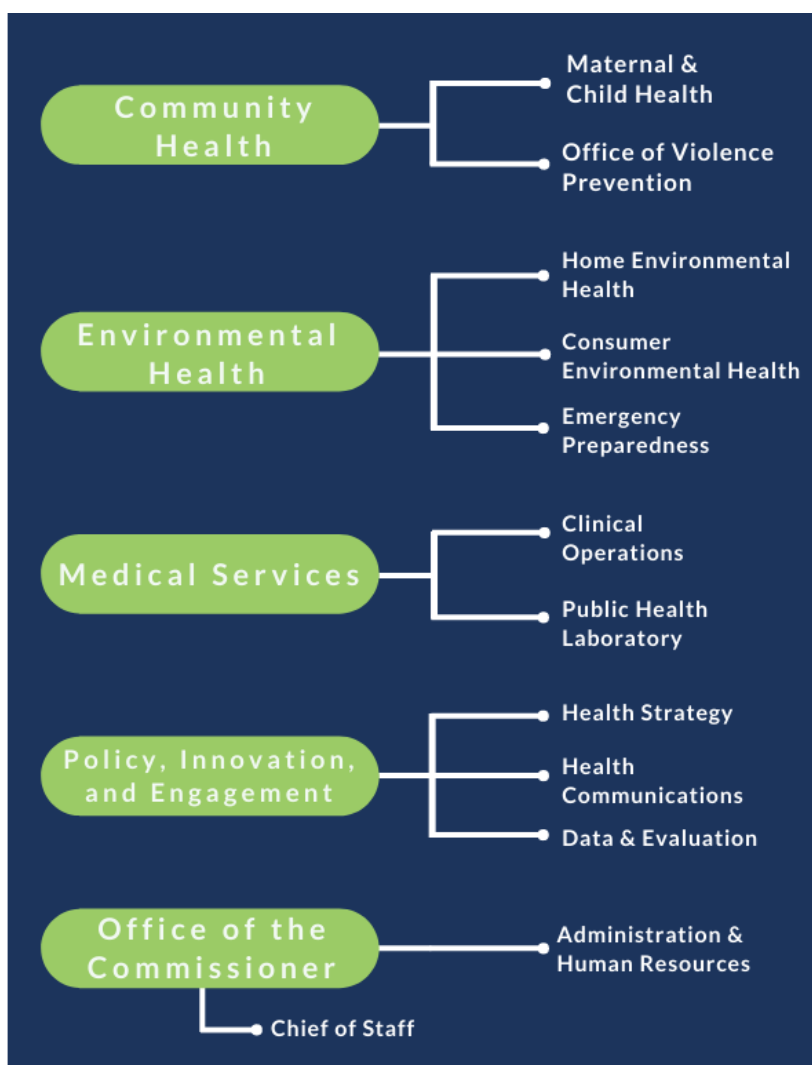
Quality: We continuously improve and adapt to create sustainable and positive health outcomes.

Structure

The MHD began a department-wide restructuring in December 2018 and instituted the bulk of the changes in 2019. The new structure now consists of five branches containing 11 divisions. Four of the branches are now managed by Deputy Commissioners, with operational direction from the Chief of Staff, who serve not only as cornerstones of the foundation of the new MHD but are also primed to serve in an “on call rotation” capacity to the Commissioner of Health. The need for this back up support was realized during the leadership changes of early 2018. The MHD is aiming to address these gaps in order to enhance MHD’s ability to provide essential public health services per state of Wisconsin and federal laws and regulations.

MHD Branches and Divisions

The MHD carries out our mission through five branches consisting of 11 divisions.



CITY OF MILWAUKEE
HEALTH DEPARTMENT

Major Accomplishments

- The City of Milwaukee was one of the first cities in the US to track and share racial and ethnic demographic data to examine inequities in COVID-19 outcomes
- Published three COVID-19 issue briefs, including one on disparities among Milwaukee's Hispanic and Latinx populations
- CARES funding leveraged for technology infrastructure
- Accessed new software to analyze, visualize, and share COVID-19 related data
- Collaborated with partners from the Medical College of Wisconsin Institute for Health and Equity, UW-Milwaukee Zilber School of Public Health, Wisconsin Department of Health Services, local health departments, Milwaukee Fire Department, and other City of Milwaukee departments
- Increased inter-departmental collaboration
- Continued providing essential services while managing the emergency COVID-19 pandemic response
- Secured an Epidemiology & Laboratory Capacity (ELC) grant for expanded COVID-19 testing
- Revamped the Milwaukee Health Department (MHD) website platform
- Staff were recognized nationally
 - Mike Otzelberger – IFPTI 2020 Fellowship
 - Pat Doornek and Mike Starks – NEHA 2020 Food Safety Hero
 - Dr. Bhattacharyya – Appointed to the APHL Board of Directors
- Secured multiple grants dedicated to supporting the pandemic response
- Aided dozens of City department offices, private businesses and agencies, federal courthouse and non-profit service organizations with COVID-19 risk assessments
- Implemented and enforced COVID-19 related public health orders to protect the public while helping local businesses remain open and operate safely
- Developed COVID-19 safety plans with local schools and businesses
- Conducted COVID-19 contact tracing and case management services
- Managed the MHD COVID-19 Hotline and Email address to provide opportunity for the community to ask questions and receive factual information from public health professionals
- Established and managed several testing clinics, including 64 place-based clinics

Key Challenges

- Lack of performance management system to help MHD tell our story and advocate for additional funding
- Human resources/personnel challenges: time required to fill vacancies, large number of vacancies, retention, pay below market for some vital positions, diversity at professional and leadership levels, need for more local formally-trained public health professionals, inconsistent professional development opportunities for all, variety of management challenges, and lingering personnel issues
- While internal and external communications have increased, gaps in staffing create inconsistencies in these communications
- Lack of an Electronic Health Record (EHR) system to increase efficiency, cost savings, management of care, expand family planning services, and collect data for performance improvement across all three clinics
- Preparing for the Democratic National Convention – additional time was required in order to onboard staff for preparedness
- The COVID-19 pandemic overextended system capacity and reduced revenue due to staff re-deployment
- Increasingly politicized nature of the pandemic
- Workforce fatigue
- Management of outside and inter-departmental expectations
- Movement into COVID-19 incidence command structure required reduction of services to those deemed “essential”
- MHD staff were redeployed to support COVID-19 operations



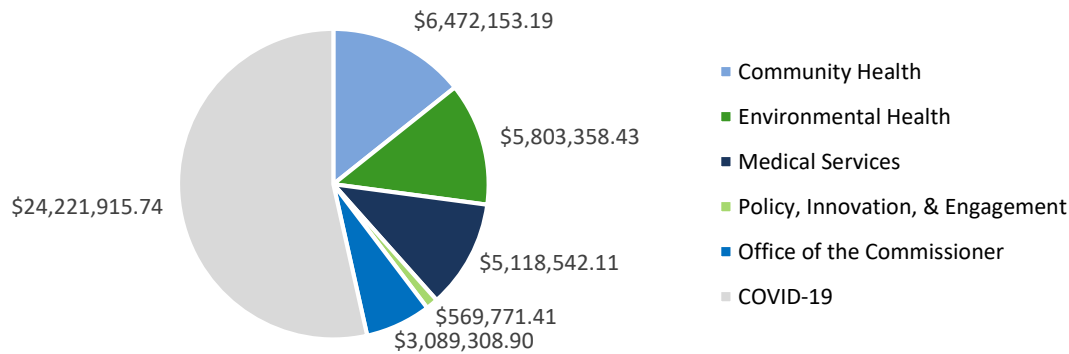
Expenses and Workforce

The operations of the City of Milwaukee Health Department are funded through City Operations and Maintenance (O&M), grants, capital, and to a lesser extent, reimbursable funds. O&M is also known as “tax levy”.

City of Milwaukee Health Department Expenditures by Funding Source

	2016	2017	2018	2019	2020
O&M	\$13,524,425	\$13,726,808	\$13,555,698	\$16,122,871	\$14,586,057
Grant	\$10,531,949	\$10,823,306	\$10,450,150	\$9,388,247	\$29,805,644
Reimbursable	\$65,631	\$68,440	\$2,094	\$785,819.50	\$349,615
Capital	\$386,708	\$217,926	\$977,318	\$1,229,587.10	\$533,734
Total Expenses	\$24,508,713	\$24,836,481	\$24,985,260	\$27,526,525	\$45,275,050

2020 Total Expenses by Branch

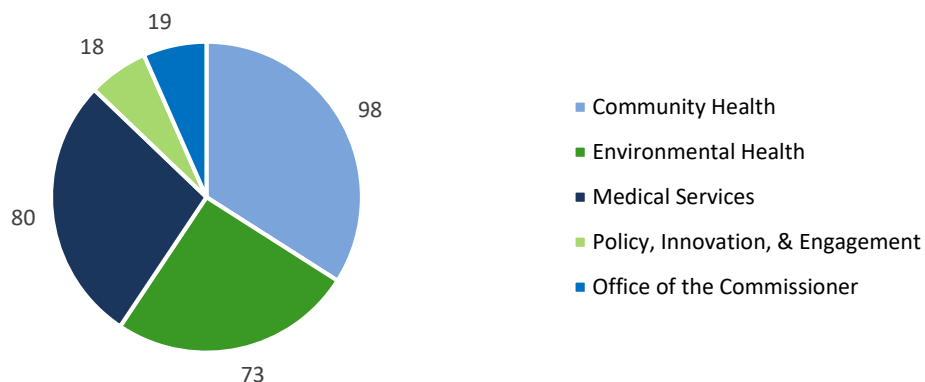


City of Milwaukee Health Department Personnel

	2016	2017	2018	2019	2020
O&M FTE*:	139.18	138.20	136.70	166.02	151
Non-O&M FTE*:	102.65	102.80	108.85	105.98	137
Total FTE*:	241.83	241.00	245.55	272	288

*FTE = full-time equivalent employee (40 hours/week)

2020 Total Full Time Equivalent Employees by Branch





Community Health

Maternal and Child Health

Office of Violence Prevention



Environmental Health

Consumer Environmental Health

Home Environmental Health

Emergency Preparedness & Environmental Health



Medical Services

Clinical Operations

Laboratory Services

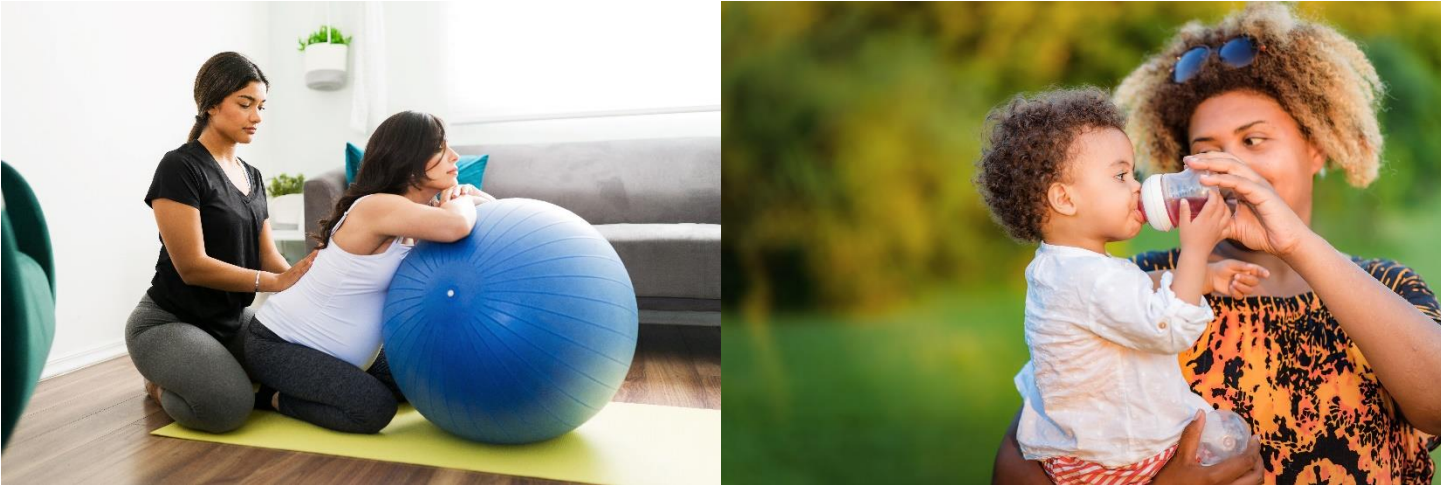


Policy, Innovation, and Engagement



COVID-19 Response

Maternal and Child Health



DIVISION OPERATIONS

Branch & Division:	Community Health: Maternal and Child Health
2020 Staffing:	
O&M FTE:	21
Grant FTE:	68
Total FTE:	89
Total positions vacant at any point in 2020	23



Community Healthcare Access Program

The City of Milwaukee Health Department Community Healthcare Access Program (CHAP) assists community members in accessing the health care coverage they need. CHAP helps community members determine their options under the Affordable Care Act, helps determine eligibility for BadgerCare (Medicaid), and assists in accessing Family Planning Only Services, Express Enrollment for pregnant women and children, Senior Care, and Title 19. CHAP also can facilitate enrollment or provide referrals for enrollment in FoodShare, energy assistance, tax preparation, dental services, Women, Infants and Children (WIC), and free and sliding-fee clinics.

While CHAP can serve the entire city of Milwaukee and the State of Wisconsin, there is a particular focus on residents in ZIP codes where infant mortality rates are high. CHAP staff provide services at community organizations and are available to assist individuals on weekdays at the Southside Health Center, Northwest Health Center, and Keenan Health Center.

PROGRAM OPERATIONS

Branch & Division:	Community Health: Maternal and Child Health
Established:	1999
2020 Expenses:	
O&M Expenses:	\$372,575
Grant Expenses:	\$333,855

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Medical Assistance Outreach - Forward Health	State of WI-Department of Health Services-Division of Health Care Access and Accountability	1/1/20-12/31/20	\$411,811
City Match-MA Outreach-Forward Health (O&M)	O&M City Match	1/1/20-12/31/20	\$435,783

PERFORMANCE MEASURES

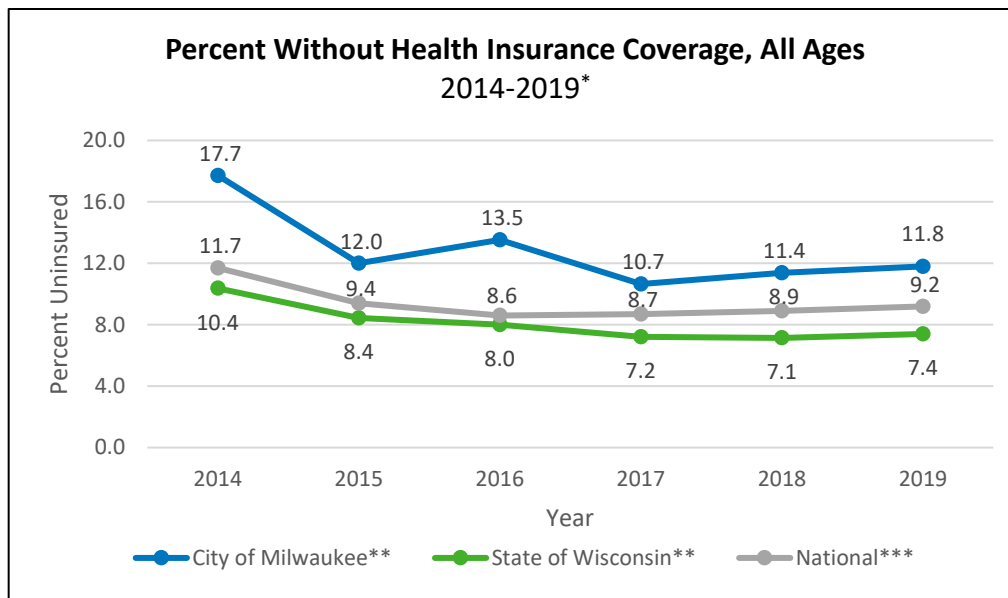
Measure	2016	2017	2018	2019	2020*
# of individuals who completed full applications for BadgerCare Plus	3,793	3,873	3,309	1,638	405
# of express enrollments in BadgerCare Plus - Children	46	13	10	54	1
# of express enrollments in BadgerCare Plus - Women	35	30	20	30	1
# of Non-Qualified Immigrant Pregnant Women enrolled in BadgerCare Plus	92	86	57	63	24
# of childless adults enrolled in BadgerCare Plus	518	907	880	158	64
# clients enrolled in Family Planning Only Services (FPOS)	404	304	435	89	23
# EBD (Elderly, Blind, Disabled) Medicaid applications				77	17
# of Marketplace insurance applications				0	14
# of enrollment events				172	58
# of requests for technical assistance (application support)	3,554	3,933	5,602	3,173	1,514
# of new Community Based Organization partnerships	5	5	4	8	1
# of FoodShare applications and renewals	1,480	1,161	834	1,735	566

This service enrolls undocumented mothers in insurance coverage that lasts through delivery.

This is a new measure effective 2019 to show the range of populations served including the disabled populations.

*2020 data includes full applications and renewals (express enrollments not included). Due to COVID-19 impacting clinic and outreach operations these numbers are significantly outside of the norm and not reflective of traditional outcomes

POPULATION HEALTH OUTCOMES



*2020 data not yet available as of 6/2021

**Includes those uninsured for part or all of the year

***Includes only current status at time of survey

Sources: City and State: Wisconsin Family Health Survey, WI DHS National: U.S. Census Bureau, American Community Survey, Table HI05.

2020 KEY ACCOMPLISHMENTS

1. Adapted to virtual assistance for BadgerCare online application, renewals, and new community partnerships
2. Provided technical assist help to ensure community members maintained benefits
3. Managed the COVID-19 Help Inbox, which addressed and answered City of Milwaukee residents' concerns regarding COVID-19, testing sites, safety plans and mask ordinance
4. Piloted a partnership with the Milwaukee Fire Department (MFD). Uninsured City residents serviced by MFD Ambulance connected with the CHAP program, which provided application assistance and connection to resources in the community

2020 KEY CHALLENGES

1. CHAP staffing needs were hindered by onboarding processes.
2. The absence of a case management and phone system to allow for recording signature made it difficult to operate remotely particularly during COVID-19 when remote servicing is imperative to program sustainability and the community's access to care/benefits.



Direct Assistance for Dads (DAD) Project

The Direct Assistance for Dads (DAD) Project is a voluntary, long-term home visiting program that engages fathers in the City of Milwaukee with intensive, evidence-based home visiting services. The program works to strengthen fathers' involvement in their child(s) and partners' lives by providing services intended to improve parenting skills, increase awareness of child development, and improve relationships with their partner and children

DAD Project home visitors partner with fathers to complete individualized, strength-based care plans, and track progress toward participant-driven goals. Case management services include mental health and domestic violence screenings; referrals for mental health consultation, education, employment, financial and legal services; and facilitating access to health services. Home visitors also provide fatherhood coaching and support fathers in co-parenting with the child's mother.

The DAD Project adheres to the Parents as Teachers (PAT) evidence-based home visiting model that is compliant with Federal (HRSA) Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV) requirements, and utilizes the PAT child development and parenting curriculum. The program focuses on child engagement, helping fathers connect to community resources and supporting fathers to reach their goals. In addition, the program employs the 24/7 Dad curriculum, a comprehensive fatherhood curriculum developed by the National Fatherhood Initiative.

PROGRAM OPERATIONS

Branch & Division:	Community Health: Maternal and Child Health
Established:	2013
2020 Expenses:	
O&M Expenses:	\$215,754
Grant Expenses:	\$52,427

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Family Foundations in Home Visitation (FFHV)*	State of WI-Department of Children & Families	10/1/20-9/30/21	\$1,391,570
City Match-Home Visiting (O&M)*	O&M City Match (Requirement)	10/1/20-9/30/21	\$631,510

*Grant supports more than one MHD program or initiative

PERFORMANCE MEASURES

COVID changed how home visits were completed in 2020. Following safety protocols & model guidance, visits were offered virtually, telephonically and in person.

Measure	2016	2017	2018	2019	2020*
# of referrals received by DAD Project	57	50	83	51	14
# of successful face-to-face visits by DAD Project staff	468	369	430	198	142
# of newly enrolled families	24	21	46	21	10
# of families enrolled in program (cumulative)	27	41	64	44	23
# of caregivers enrolled	27	41	64	44	23
# of children enrolled	28	38	53	37	22
Total # of clients served	56	41	56	81	23
# of families who left through attrition (did not complete full program)	20	15	17	30	9
# of families who completed program	11	4	5	2	1
% of primary caregivers screened for depression within 3 months of enrollment (if not enrolled prenatally) or within 3 months of delivery (if enrolled prenatally)	6%	77%	71%	77%	38%
% of children who received the last recommended visit based on the American Academy of Pediatrics schedule		100%	88%	88%	73%
% of primary caregivers who reported using tobacco at enrollment and were referred to tobacco cessation counseling/services within 3 months of enrollment		0%	13%	0%	0%
# of ASQ-3 screenings completed	13	10	12	14	12

PERFORMANCE MEASURES, Continued

Measure	2016	2017	2018	2019	2020*
# of primary caregivers who receive an observation of caregiver-child interaction by the home visitor using a validated tool		1	13	10	6
% of children screened who need monitoring		0%	27%	21%	17%
% of children screened who need a referral		20%	0%	0%	17%
# of father group meetings	2	2	9	2	3
% of primary caregivers who are screened for intimate partner violence (IPV) within 6 months of enrollment using a validated tool		1	11	56%**	100%**
% of primary caregivers with positive screens for intimate partner violence (IPV) who receive referral information to IPV resources		0% screened positive	0% screened positive	0% screened positive	0% screened positive
% of primary caregivers who had continuous health insurance coverage for at least 6 consecutive months	15	7	9	89%**	78%**

*2020 data includes full applications and renewals (express enrollments not included). Due to COVID-19 impacting clinic and outreach operations these numbers are significantly outside of the norm and not reflective of traditional outcomes

**Measurement shifted from the number to percentage for outcomes measurement purposes



2020 KEY ACCOMPLISHMENTS

1. The DAD Project continued the partnership with Children's Hospital of Wisconsin (CHW) via the Health Start Grant and building the infrastructure of engaging fathers into services between MHD and CHW that best meet their needs.
2. The DAD Project strengthened its partnership with The Parenting Network and Next Door Foundation; setting the groundwork for collaborative fatherhood groups launching 2020-2021.
3. Our Fatherhood Engagement Services were respectively featured in two news articles—one for the DAD Project and one for the subcontract partnership with Healthy Start and the overall fatherhood work through MHD. These are excellent opportunities to highlight the DAD Project as well as fatherhood work overall in Milwaukee; placing emphasis on the importance of fathers as parents.

2020 KEY CHALLENGES

1. The COVID-19 pandemic greatly impacted the flow of new external referrals into the program and the program staff's ability to do community outreach – the biggest avenue for referral recruitment (i.e. health fairs, groups, job fairs, etc.).
2. Navigating the barriers to increasing awareness and normalcy of Home Visitation for fathers; a traditionally maternally heavy field
3. The process of reclassifying the DAD Project Health Project Assistant Home Visitors to parallel other home visitation salary ranges began but has yet to be completed.
4. With some shifts in department leadership, the program was without a dedicated program manager for part of the year.





Empowering Families of Milwaukee

The Empowering Families of Milwaukee (EFM) program serves high-risk pregnant women, or women with children less than 60 days of age, who reside in the City of Milwaukee. Milwaukee has high racial disparities in infant mortality and healthy birth outcomes. Nearly half of all children in Milwaukee live in poverty, leaving Milwaukee's families at risk for poor prenatal, birth, infant, and child development outcomes. MHD developed strategic community partnerships and programs like EFM that target clients in communities with high rates of infant mortality, racial disparities in birth outcomes, lower income and educational attainment, and the multitude of contributing risk factors to the safety and health of babies.

EFM utilizes the Parents as Teachers (PAT) evidence-based home visiting model and curriculum and has been a funded home visitation program through the Wisconsin Department of Children and Families (DCF) since 2005. EFM applies evidence-based models to improve birth outcomes, enhance family functioning, prevent child abuse and neglect, and support child health, safety, and development. The program collaborates with community partners to facilitate access to health, social, and child development support for families.

All EFM home visitors provide intensive, in-person home visits to families; enrolling them during pregnancy whenever possible, and families are offered services until at least the child's second birthday. EFM utilizes a unique, multi-disciplinary dyad approach to effectively serve enrolled families. Each dyad consists of a public health nurse and a public health social worker. The public health nurses focus on the health and medical needs of families while the social worker focus on the psychosocial needs of families. EFM has the capacity to serve approximately 130 families per year when fully staffed (7 dyads = 14 home visitors).

PROGRAM OPERATIONS

Branch & Division:	Community Health: Maternal and Child Health
Established:	2006
2020 Expenses:	
O&M Expenses:	\$1,368,017
Grant Expenses:	\$514,631

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Family Foundations in Home Visitation (FFHV)*	State of WI-Department of Children & Families	10/1/20-9/30/21	\$1,391,570
City Match-Home Visiting (O&M)*	O&M City Match (Requirement)	10/1/20-9/30/21	\$631,510

*Grant supports more than one MHD program or initiative

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020*
# of referrals received	68	46	143	191	34
# of newly enrolled families	45	18	66	76	23
# of caregivers enrolled	112	122	124	151	118
New clients enrolled prenatally	42	17	41	59	20
Clients enrolled in 1 st trimester	1	0	0	3	2
Clients enrolled in 2 nd trimester	20	3	20	20	7
Clients enrolled in 3 rd trimester	21	14	21	37	11
# of children enrolled	119	146	130	147	124
# of successful face-to-face visits made by EFM Program staff	3,743	2,708	2,769	1,921	1,473
# of unsuccessful (no response) home visits attempted	363	222	94		
Families who left through attrition (did not complete program)	34	27	44	37	16
Families who successfully completed the program	22	13	42	19	13
% of infants (among mothers who enrolled prenatally before 37 weeks) who are born preterm following program enrollment	0	28%	14%	5%	10%
% of infants (among mothers who enrolled prenatally) who were breastfed any amount at 6 months of age	15%	35%	17%	37%	29%
% of primary caregivers screened for depression within 3 months of enrollment (if not enrolled prenatally) or within 3 months of delivery (if enrolled prenatally)	4%	68%	54%	52%	46%
% of children who received the last recommended visit based on the American Academy of Pediatrics schedule	65%	65%	80%	90%	72%

COVID changed how home visits were completed in 2020. Following safety protocols & model guidance, visits were offered virtually, telephonically and in person.

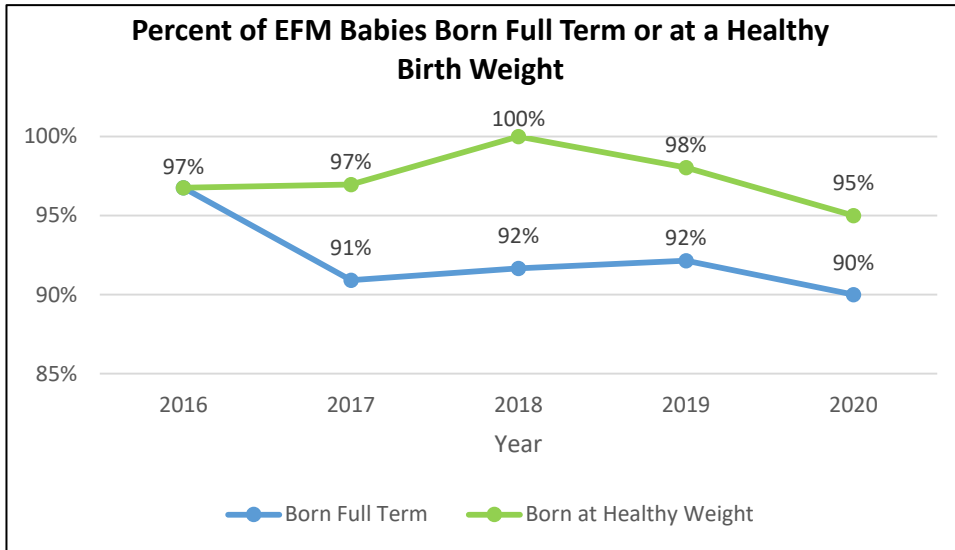
PERFORMANCE MEASURES, Continued

Measure	2016	2017	2018	2019	2020*
% of mothers enrolled prenatally or within 30 days after delivery who received a postpartum visit with a healthcare provider within 8 weeks of delivery	0%	53%	53%	73%	57%
% of primary caregivers who reported using tobacco at enrollment and were referred to tobacco cessation counseling/services within 3 months of enrollment		0%	0%	29%	0%
# of mental health screenings for depression for mothers (Edinburgh Postnatal Depression Scale (EPDS))	105	81	70	93	53
% of infants that are always placed to sleep on their backs, without bed-sharing or soft-bedding	8%	63%	52%	30%	15%
% of children who were breastfed any amount since birth	3%	22%	17%	25%	78%
% of primary caregivers who receive an observation of caregiver-child interaction by the home visitor using a validated tool	43%	104%	96%	63%	35%
# of ASQ-3 screenings completed	54	190	142	100	160
% of children screened who need monitoring	57%	52%	50%	33%	19%
% of children screened who need a referral	13%	22%	19%	18%	11%
% of primary caregivers who are screened for interpersonal violence within 6 months of enrollment using a validated tool	5%	28%	32%	90%	85%
% of primary caregivers who had continuous health insurance coverage for at least 6 consecutive months	90%	52%	67%	88%	96%

This is a significant growth in breastfeeding rates; EFM staff have increased # of staff training to be CLC certified.

The Ages and Stages Questionnaires (ASQ) is a developmental screening that helps identify potential delays. Children with development delays are connected with appropriate services by program staff.

PROGRAM HEALTH OUTCOMES



Full term: ≥ 37 weeks gestation, Healthy weight: ≥ 2500 grams

Denominator = # of singleton live births in the year among EFM babies enrolled prenatally

2020 KEY ACCOMPLISHMENTS

1. In 2020, EFM retained or successfully graduated 86% of enrolled families, which is the highest percent of retention and lowest percent of attrition in the past five years.
2. EFM staff were largely redeployed to the COVID-19 response in 2020 and supported MHD with contact tracing, case management, COVID hotline, COVID screening, mask distribution and various other tasks all while maintaining their essential program work and keeping families engaged in services.
3. EFM continued the work of transitioning to the Parents as Teachers (PAT) evidence-based model and integrated several new assessments and tools into practice to support child health, wellness and development.

2020 KEY CHALLENGES

1. COVID-19 presented challenges in 2020 including slowing the progress EFM was making on increasing the total program enrollment (2019 EFM tripled their numbers from previous years and was set back in 2020).
2. With some shifts in department leadership, the program was without a dedicated program manager for part of the year.
3. Increasing staff retention to best meet grant objectives and reach as many families as possible



Infant Mortality Special Initiatives

Cribs for Kids

The City of Milwaukee Health Department became an official Cribs for Kids program site in 2009. The program provides families in need of a crib education on how to create a safe sleeping environment for their babies along with a free Graco Pack'n Play (PnP) portable crib. Families also are provided with crib sheets and a sleep sack and are taught how to properly secure the sheets to reduce sleeping hazards. The MHD conducts clinics multiple times a week.

The Cribs for Kids program receives nearly one thousand referrals from a number of MHD programs and community partners to identify families in need of a safe place for their baby to sleep. Additionally, the program provides trainings and presentations for various agencies on infant mortality and safe sleep practices. As a result, these agencies can provide safe sleep education to the families they serve.

Strong Baby Title V Program

The Strong Baby Title V Program provides training, education, and informs practice on six focus areas — Safe Sleep, Breastfeeding, Developmental Screening, Healthy Equity, Perinatal Depression and Adolescent Suicide. This program targets relevant entities to build their awareness and practice in these areas. This is including, but not limited to, providing community groups, outreach/educational events, collaborating with health care providers, childcare providers, schools, and community organizations that impact children and families in Milwaukee.

PROGRAM OPERATIONS

Branch & Division:	Community Health: Maternal and Child Health
Established:	2009 (Cribs for Kids); 2015 (Strong Baby)
2020 Expenses:	
O&M Expenses:	\$85,298
Grant Expenses:	\$0

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Maternal and Child Health	State of Wisconsin, Consolidated Contract	1/1/20-12/31/20	\$446,614
City Match-MCH (O&M) (75% Required Match)	O&M City Match	1/1/20-12/31/20	\$334,961

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
Cribs for Kids					
# of referrals to Cribs for Kids/Safe Sleep Clinic		946	909		525
# of families that met eligibility requirements and were registered for Safe Sleep Clinic		808	695		482
# of participants				587	412
# cribs distributed	809	756	651	611	386
# of families that completed safe sleep education and received PnPs at Safe Sleep Clinic	809	640	602	519	356
# of families enrolled in home visitation program and received education and PnP in home		96	49	92	30
# of safe sleep training sessions				869	58
% of cribs distributed in ZIP codes with a high prevalence of infant mortality		79%	79%	78%	82%
Strong Baby Title V Program					
# of educational trainings/groups provided to community					106

Between Jan-Mar 2020, events were in person but effective April 2020 Strong Baby Specialists had to move to all virtual platforms, diminishing some of the program's momentum. We anticipate 2021 will be more accurately reflective of the program.

2020 KEY ACCOMPLISHMENTS

1. The Strong Baby Program built pertinent relationships with community partners such as African American Breastfeeding Network (AABN), Libraries, HeadStart organizations, MPS schools, etc.
2. Grant objectives were carried out by the existing staff despite the Program Manager position being vacant until April 2020 — speaking to their autonomy, initiative and resilience.
3. Safe Sleep was able to transition their classes to 1:1 appointments, which maintained this essential service through the pandemic.

2020 KEY CHALLENGES

1. The lack of an MCH Epidemiologist and impact of COVID-19 hindered the work being done on refining data evaluation, metric building and outcome measurements for this new program.
2. COVID-19 ordinances, community business unavailability and MHD's focus on COVID emergency response impacted the Community Outreach Specialists' abilities to carry out pertinent education and trainings.



Birth Outcomes Made Better (BOMB) Doula Program

The Birth Outcomes Made Better (BOMB) Doula Program was created to support healthy pregnancies and nurture healthy babies in the City of Milwaukee. Through doula services families will have the support and education necessary for a healthy pregnancy and beyond. The program works with pregnant people prenatally at any stage of pregnancy through birth and 12 weeks postpartum, with a focus on the 53206 zip code. This program was created in late 2019 and services launched in late 2020.

What is a Doula?

Doulas are trained professionals who provide non-clinical emotional, physical and informational support for pregnant people, before, during and after labor and birth. During the prenatal period doulas share resources and information about the labor process, facilitate positive communication and self-advocacy. During labor and birth doulas provide hands-on comfort measures to assist with pain management. Doulas also provide post-partum support to help with transitions into parenting, breastfeeding, etc.

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
BOMB Doula funding (not grant funded)	City of Milwaukee O&M	11/1/2019-12/31/2020	\$240,000
Department of Health & Human Services County Grant	Department of Health & Human Services – Milwaukee County	10/1/2019-12/31/2021	\$52,000

PROGRAM OPERATIONS

Branch & Division:	Community Health: Birth Outcomes Made Better (BOMB) Doula Program
Established:	2019
2020 Expenses:	
O&M Expenses:	\$214,995
Grant Expenses:	\$1,593

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020*
# of referrals received					1
# of newly enrolled families					1
% of births where doula was present/supporting					100%
% of clients provided with referral from identified community service need					100%
% of clients where a medical home/provider was established					100%
% of clients residing in high infant mortality zip codes					100%
% of infants (among mothers who enrolled prenatally before 37 weeks) who are born preterm following program enrollment					0%
% of infants (among mothers who enrolled prenatally) who were breastfed any amount within 3 months of age					100%

*Due to COVID-19 impacting all MHD operations the BOMB Doula Program did not begin accepting referrals until November 2020. More robust data will be available in 2021.

2020 KEY ACCOMPLISHMENTS

1. As of Nov 2020, the BOMB Doula Program began taking referrals while concurrently formalizing partnerships with various HMO providers, local hospitals, clinics, and Obstetrician/Midwifery programs to create intentional referral pipelines and projects targeting priority zip codes for poor birth outcomes.
2. Hiring 3 FTE Doulas, creation of a database, completion of Train the Trainer sessions for the Community Based Doulas' training, and necessary infrastructure to launch the 53206 County Doula Initiative in 2021
3. Launching BOMB Doula Webinar series and trainings for MHD and community stakeholders increasing awareness of Doulas

2020 KEY CHALLENGES

1. During March 2020 – September 2020 the BOMB Doula program was heavily impacted by canceled trainings/certifications and still needing to create the necessary infrastructure of the program.
2. Having to adjust the staffing model to include a Program Coordinator position to support the Program Manager given the span of control needs with 4 FTE Doula positions and upwards of 12 contracted Community Based Doulas.
3. The COVID-19 demands on all MHD staff to support emergency response/public health operations.



Parents Nurturing and Caring for Their Children and Newborn Screening

Parents Nurturing and Caring for their Children

Parents Nurturing and Caring for their Children (PNCC) is a home visiting program aimed at helping pregnant women and their families access medical, social, educational and other needed services during the prenatal period as an intervention to promote a healthy pregnancy.

PNCC services are provided voluntarily during pregnancy and for the first 60 days following delivery. Services include outreach, health assessments and information, care plan development and goal setting, advocacy, ongoing care coordination and health education and nutritional counseling. All Medicaid eligible pregnant women who are interested in learning more about having a healthy baby are eligible to participate in PNCC. This program serves the City of Milwaukee residents.

Newborn Screening

The City of Milwaukee Health Department has two Newborn Screening programs to identify conditions in newborns that affect the outcome of their health and development. The first program is the Newborn Hearing program which aims to identify hearing impairment early to provide timely intervention to ensure children reach their highest potential. The Public Health Nurse Coordinator (PHNC) for the Newborn Hearing Program covers the Southeast region of Wisconsin which accounts for half of all the babies diagnosed with permanent hearing impairment. The PHNC case manages and screens newborns that are born in the home, failed their first newborn hearing screen, left the hospital without a screen, or are lost to follow-up with their primary care physician. If an infant is found with any degree of hearing impairment, the PHNC ensures that a referral is made to an early intervention program like Children's Hospital of Wisconsin.

The second program is the Congenital Disorder Screening program which uses blood from a heel prick to identify 44 different genetic, endocrine and metabolic disorders. If not diagnosed in a timely manner, they could lead to cognitive delays, brain damage, illness or death. The PHNC performs some blood draws on newborns that were not screened before they left the hospital, but the majority of the screens are for newborns that need retesting. More specifically, a retest is completed when there was a problem with the way the first blood sample was collected or the test result was abnormal. The PHNC also will perform confirmatory blood draws on newborns suspected of having a sickling disorder. In addition, the case managers ensure that newborns diagnosed with sickle cell disorder, hypothyroidism and cystic fibrosis are connected with specialty clinics and that parents are educated on the complexities of the diagnosis.

PROGRAM OPERATIONS

Branch & Division:	Community Health: Maternal and Child Health
Established:	PNCC-2009 NBS-1993 NBH-2010
2020 Expenses:	
O&M Expenses:	\$491,068
Grant Expenses:	\$133,264

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Universal Newborn Hearing Screening	State of Wisconsin, Department of Health Services	1/1/20-12/31/20*	\$67,000
Congenital Disorders	State of Wisconsin, Department of Health Services	7/1/19-6/30/20	\$142,026

* Changed as of January 2020 to the 1/1/20-12/31/20 grant cycle from 4/19-3/20

PERFORMANCE MEASURES - PNCC

Measure	2016	2017	2018	2019	2020
# of new referrals received	106	88	102	133	71
% of families and clients who were referred and then enrolled	55%	56%	45%	38%	42%
# of new clients enrolled	58	49	46	50	30
# of clients who successfully completed program	33	20	25	26	23
# of infants enrolled in PNCC born before 37 weeks	3	2	1	6	4
% of infants enrolled in PNCC born before 37 weeks	6%	6%	29%	15%	15%
# of mothers in PNCC who initiated breastfeeding	39	25	21	35	18
% of mothers in PNCC who initiated breastfeeding	80%	71%	62%	85%	72%
# of ASQ screenings completed for families enrolled			117	25	22
# of mental health screenings for depression for mothers (Edinburgh Postnatal Depression Scale (EPDS))			162	73	62
# of referrals to mental health services (based on EPDS score and/or other referrals made for mental health services, e.g., anxiety)			7	4	0
% of families referred and connected to additional care based on EPDS Screenings				5%	0%

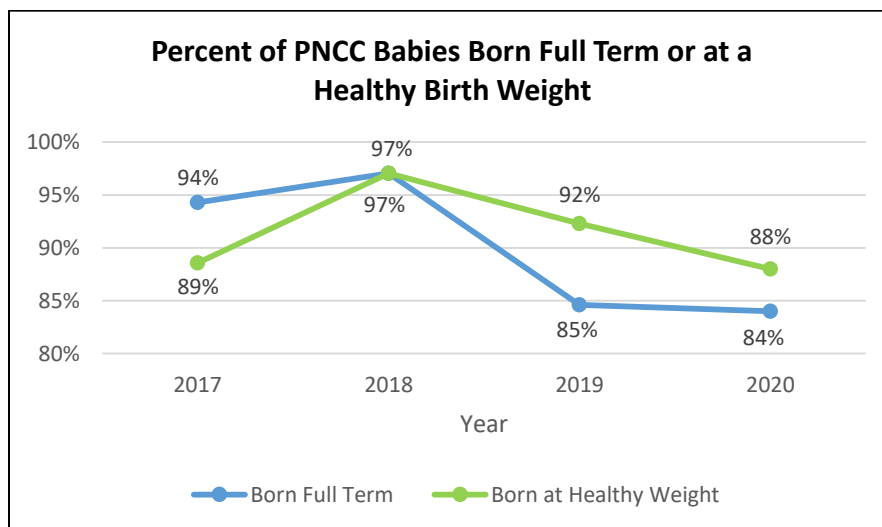
The Ages and Stages Questionnaires (ASQ) is a developmental screening that helps identify potential delays. Children with development delays are connected with appropriate services by program staff.

PERFORMANCE MEASURES – Newborn Screening

Measure	2016	2017	2018	2019	2020
Newborn Hearing Screening					
# of referrals received	117	171	347	415	1,074
Average # of babies case managed per month	68	70	119	135	318
# of babies screened	49	43	37	56	14
# of babies with confirmed hearing loss	5	3	32	29	3
Congenital Disorders Screening					
# of NBS referrals received from the newborn screening	68	88	109	103	90
# of infants identified with sickle cell through NBS and were case managed	19	18	17	12	26
# of infants identified with cystic fibrosis through NBS and were case managed	2	3	14	2	0
% of infants that were triaged within 2 days of receiving referral (goal 95%)			98%		100%
% of infants identified with a sickling disorder on newborn screening seen at CHW by four months of age (goal 95%)	100%	100%	100%	100%	100%

This number can fluctuate year to year depending on the number of cases who missed their initial hearing screening. All babies that were screened were successfully case-managed and provided access to appropriate care.

PROGRAM HEALTH OUTCOMES



Full term: ≥ 37 weeks gestation, Healthy weight: ≥ 2500 grams
 Denominator = # of singleton live births in year among PNCC babies enrolled prenatally
 Change in metric tracking – numbers prior to 2017 cannot be directly compared

2020 KEY ACCOMPLISHMENTS

1. Supervisor worked with Newborn Screening Coordinators and PNCC public health nurses (PHNs) to create a cross-cutting backup/training system where they can support the various functions of NBH/CD/PNCC.
2. All Nurses on the team provided integral support to the various COVID-19 operations including the hotline, case management and contact tracing.
3. Newborn Hearing team members continued to build and strengthen their collaborative efforts with birth units, midwives/birth attendants, primary care providers, and audiologists in order to ensure timely access to screening and follow-up audiological care for infants and their families.
4. PNCC clinical support staff became integrated with Cribs for Kids/Pack and Play service provision to deliver safe sleep education and a pack n' play for mothers in the City of Milwaukee.

2020 KEY CHALLENGES

1. The Newborn Screening and PNCC handbooks for this program are not up to date and there is no electronic version.
2. There are several MHD Nursing specific policies that need to be updated but since the Director of Nursing position no longer exists (post MHD reorganization) there has been no consistent leadership point person to reconvene this process.
3. The COVID-19 pandemic presented its own challenges to address NBH infants and work through clinic closures/restrictions, shipping delays for screening supplies, and changes in screening protocols.





Women, Infants, and Children Nutrition

The City of Milwaukee Health Department Women, Infants, and Children (WIC) program promotes and maintains the health and well-being of nutritionally at-risk pregnant, breastfeeding, and postpartum women, infants, and children up to age five. The four main goals of the program are to provide nutrition education, breastfeeding education and support, supplemental nutritious foods, and community referrals to its participants.

In addition to prescribing specifically tailored monthly food packages to participants, an added seasonal benefit is the Farmer's Market Nutrition Program (FMNP), which provides \$24 in vouchers to spend at local farmer's markets. Additionally, the MHD WIC Program also seeks to coordinate additional services that parallel other public health priorities, such as educating families on healthy birth spacing and providing blood lead testing to children.

The MHD WIC program aims to serve at least 97% of its monthly contracted caseload of approximately 7,361 participants. Geographically, the MHD WIC program operates at all three health department locations targeting participants in the central, northwest, and southern urban areas of Milwaukee.

PROGRAM OPERATIONS

Branch & Division:	Community Health: Maternal and Child Health
Established:	1981
2020 Expenses:	
O&M Expenses:	\$44,762
Grant Expenses:	\$1,273,013

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
WIC Operations	State of Wisconsin, Department of Health Services	1/1/20-12/31/20	\$1,277,625
WIC-Farmer's Market	State of Wisconsin, Department of Health Services	1/1/20-12/31/20	\$7,500
WIC-Fit Families Grant	State of Wisconsin, Department of Health Services	10/1/19-9/30/20	\$31,675
WIC Infrastructure	State of Wisconsin, Department of Health Services	10/1/19-9/30/20	\$6,000
WIC Breastfeeding Peer Counselor (BFPC)	State of Wisconsin, Department of Health Services	1/1/20-12/31/20	\$35,825

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
# of participants	85,375	86,515	88,197	86,053	88,846
# of nutritional lessons provided to participants	4,527	5,075	5,441	6,025	5,079
# of referrals	633	722	1,155	3,412	2,566
# of “voluntary” lead screens for children enrolled in WIC	3,706	3,124	3,278	3,028	1,591
# of lead water filters distributed	N/A	549	209	87	30
# of WIC benefits distributed (Dollar Amounts Redeemed)	\$3,630,687	\$3,778,555	\$3,823,696	\$3,386,350	\$3,040,441
% of Farmers Market vouchers used of those distributed (Total Checks/Dollar Amount Used)	42%	40%	40%	40%	33%
% of Farmers Market vouchers used of those distributed (Some of All of Checks/Dollar Amount Used)	84%	87%	83%	83%	90%
# of infants enrolled in WIC who ever breastfed	1,204	1,211	1,219	1,217	976
% of infants enrolled in WIC who ever breastfed ¹	58%	57%	57%	57%	49%
# of infants breastfed through 3 months ²	209	213	212	226	236
% of infants breastfed through 3 months ³	42%	42%	42%	39%	37%
# of infants enrolled in WIC who exclusively breastfed at 3 months ⁴	56	67	58	69	60
% of infants enrolled in WIC who exclusively breastfed at 3 months ⁵	15%	17%	15%	15%	14%

[1] Denominator is the total number of infants on WIC born during the same period.

[2] This includes all infants who reached the age of 3 months within the year, and had breastfeeding documented as “Yes” at the time they turned 3 months. It also includes infants who BF past 3 months of age.

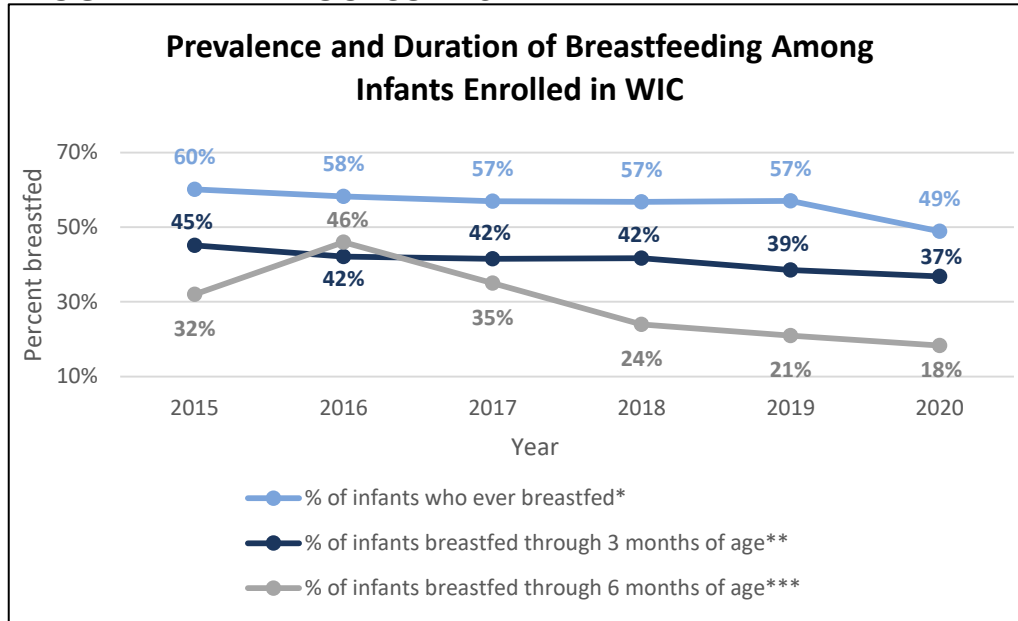
[3] Denominator is all infants on WIC who turned 3 months during the year

[4] This includes all infants who reached the age of 3 months of age within the year, and were documented as exclusively BF at 3 months of age. It also includes those infants who exclusively BF past 3 months of age

[5] Denominator is all infants on WIC who turned 3 months during the year and ever breastfed



PROGRAM HEALTH OUTCOMES



*Denominator is the total number of infants on WIC born during the same period

**Denominator is all infants on WIC who turned 3 months during the year

***Denominator is all infants on WIC who turned 6 months during the year

2020 KEY ACCOMPLISHMENTS

1. Continued provision of WIC services and food benefits to families throughout entire pandemic period, leading to no lapses in benefits to WIC families.
2. Successful implementation of the *Breastfeeding Peer Counselor* program into the MHD WIC Program. 2020 was the first fully awarded year for this grant.
3. Continued partnership between The MHD WIC program and Ascension St. Joseph's Hospital to enroll participants and provide program outreach, in particular to high-risk pregnant women.
4. Increased caseload as a result of an increased participation in WIC Services.

2020 KEY CHALLENGES

1. With the rapid onset of the COVID-19 pandemic, there were difficulties transitioning to full remote operations.
2. The COVID-19 pandemic resulted in numerous staffing and capacity issues across the WIC program. Many of the staff were reassigned to COVID-19 related duties leaving limited capacity to perform programmatic tasks and responsibilities.
3. WIC staffing needs were hindered by reclassification and onboarding processes.



Community Health

Maternal and Child Health

Office of Violence Prevention



Environmental Health

Consumer Environmental Health

Home Environmental Health

Emergency Preparedness & Environmental Health



Medical Services

Clinical Operations

Laboratory Services



Policy, Innovation, and Engagement



COVID-19 Response

Office of Violence Prevention



The Office of Violence Prevention (OVP) advances strategies through partnerships that strengthen youth, families, and neighborhoods. Community-wide prevention is the most effective, long-term solution to violence, and OVP facilitates multidisciplinary, population-level approaches to influence the social, behavioral, and environmental factors that contribute to violence. OVP brings together agencies, experts, and community resources on efforts that reduce domestic and intimate partner violence, sexual assault, child abuse, human trafficking, children witness to violence, gun violence, interpersonal violence, intentional injury, homicide, and more. Current initiatives include:

Blueprint for Peace: The Blueprint for Peace is Milwaukee’s comprehensive violence prevention strategy. The Blueprint planning process was completed in Fall 2017. The six goals and thirty strategies contained in the Blueprint were informed by the input of over 1,500 Milwaukee residents, including youth.

ReCAST Milwaukee: ReCAST MKE is a five-year effort funded in 2016 by the federal Substance Abuse and Mental Health Services Administration to promote healing and restorative practices among youth ages 12-24, and their families. It aims to reduce the impact of trauma in Milwaukee by enhancing individual and community resilience, building the capacity of organizations to have healing focused care practices, and strengthening collaboration between institutions and community.

Commission on Domestic Violence and Sexual Assault: The Commission on Domestic Violence and Sexual Assault is one of the oldest commissions in the country established by city ordinance. It is comprised of domestic violence and sexual assault survivors, prevention advocates, service providers, and system partners including criminal justice, law enforcement, and corrections. The Commission focuses on improving the collaboration between system and community partners, and advocates for policies that enhance prevention and protect survivors.

Safe Visitation and Exchange: The Safe Visitation and Exchange Center is a partnership between OVP, Children’s Hospital, Legal Action, and Sojourner Family Peace Center. The center provides a safe space for families impacted by domestic violence to conduct supervised visitation and exchanges of children. The program is funded by a Justice for Families Grant through the U.S. Department of Justice.

Trauma Response Initiative: The Trauma Response Initiative links children who have been exposed to trauma or violence with resources. The Trauma Response Team provides support and guidance for children and families and may recommend additional services such as counseling or therapy. In addition to OVP's role, partnerships include Milwaukee County Children's Mobile Crisis, the Milwaukee Police Department, and the Milwaukee Fire Department.

414Life: 414Life is a program that uses a public health approach to preventing violence. This program is modeled after Cure Violence, a successful violence prevention effort implemented in multiple cities around the world. The model engages credible messengers from the community to engage in prevention-based outreach and targeted conflict mediation. The program's outreach workers interrupt and prevent violence in targeted neighborhoods while spreading conflict mediation skills. Through partnerships with local hospitals, the team is trained to provide support to families, friends, and survivors of gun violence in local hospitals and the surrounding communities.

Community Engagement: OVP hosted or sponsored more than two dozen community events and presentations focused on violence prevention and healing.

Coaching Boys to Men: This program engages athletic coaches in presenting a sexual assault prevention curriculum to student athletes.

PROGRAM OPERATIONS

Branch & Division:	Community Health: Office of Violence Prevention
Established:	2008
2020 Expenses:	
O&M Expenses:	\$908,467
Grant Expenses:	\$323,637
2020 Staffing:	
O&M FTE:	6.25
Grant FTE:	2.75
Total FTE:	9
Total positions vacant at any point in 2020	2

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Justice for Families	US Department of Justice	10/1/19-9/30/22	\$550,000
ReCast Milwaukee Project	Substance Abuse and Mental Health Services Administration	10/1/19-9/30/20	\$1,000,000

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
Community Engagement					
# of community engagement events and briefings	3	21	28	24	105
# of copies of Blueprint for Peace distributed		500	400	3,250	2,500
# of Facebook followers (cumulative)		828	1,699	5,513	6,734
# of 414Life website views			7,824	14,034	13,979
# of OVP website unique views				16,641	18,542
Trauma Response Initiative					
# of referrals received	223	236	327	466	217
# of families engaged	179	212	182	272	89
Safe Visitation and Exchange					
# of families served	53	74	60	70	23
# of supervised exchange services provided	713	404	386	637	100
# of one-to-one supervision services provided	524	352	348	762	148
414Life Violence Interruption					
# of violence interruptions			14	67	63
# of participants			16	56	54
# of agencies and organizations engaged	60	58	72	85	87
# of Commission meetings	12	10	11	11	10
Completed training for current officers/recruits of MPD	Yes	Yes	Yes	Yes	Yes
# of community engagement efforts/events	25	22	26	42	31

Families engaged include families that a counselor made contact with through phone calls or home visits.

This program began in November 2018, so 2018 figures reflect two months of service.

PERFORMANCE MEASURES, Continued

Measure	2016	2017	2018	2019	2020
Suicide Prevention					
# of suicide prevention trainings					26
# of community members trained					671
Coaching Boys to Men					
# of coaches			23	23	0
# of student athletes			180	180	0
ReCAST MKE					
# of youth served		189	2,063	4,578	1,958
# of adults trained			306	403	753
# of organizations receiving funding or subcontracts		6	49	29	31

The suicide prevention trainings added to OVP's scope of work after the Community Health Liaison joined the OVP team in 2019.

The Coaching Boys to Men trainings did not take place in 2020 due to the COVID-19 pandemic causing programming at all Milwaukee Public Schools to be halted.

2020 KEY ACCOMPLISHMENTS

1. Increased community awareness and engagement related to the Blueprint for Peace
2. Hosted virtual Blueprint Boot camps
3. Hosted annual Love Without Violence Conference
4. Increased collaborations with community partners to serve youth and families through ReCAST Milwaukee Initiative
5. Hosted press conference to recognize and raise awareness of Suicide Prevention Month
6. Hosted suicide prevention panels with youth and community partners

2020 KEY CHALLENGES

1. Challenges associated with stay-at-home orders during COVID-19, which reduced community engagement



Community Health

Maternal and Child Health

Office of Violence Prevention



Environmental Health

Consumer Environmental Health

Home Environmental Health

Emergency Preparedness & Environmental Health



Medical Services

Clinical Operations

Laboratory Services



Policy, Innovation, and Engagement



COVID-19 Response

Consumer Environmental Health

The City of Milwaukee Health Department promotes safe food preparation and service, safe tattooing and body art practices, and protect consumers from fraudulent practices in commercial transactions involving determinations of quantity through its Food Inspection, Tattoo and Body Art Inspection, and Weights & Measures programs.

Each year, the Food Inspection Program conducts annual and periodic inspections of the over 3,000 food service establishments, 600 mobile vendors and 600 temporary events in the City of Milwaukee. Along with regulating establishments, specialists provide training to food service managers on safety and sanitation, investigate complaints and illnesses associated with establishments, review plans and conduct pre-occupancy inspections of new or remodeled establishments, provide food and safety consultations, and develop and implement policies to support food safety.

Along with the prevention of foodborne illness, inspectors work to decrease the risk of blood-borne diseases such as Hepatitis B, Hepatitis C, or HIV from tattoo or body art practices by conducting inspections to assure that tattoo, permanent makeup, and/or body piercings are done in a sanitary and sterile manner. MHD's Weights & Measures Program also works to protect Milwaukee consumers' pocketbooks by monitoring retail businesses to assure that devices such as scales and scanners are accurately determining the price of goods sold by weight.

In 2020, the program functioned intermittently between its normal duties and COVID-19 related work.

PROGRAM OPERATIONS

Branch & Division:	Environmental Health: Consumer Environmental Health
Established:	Food inspections began in 1980, Consumer Environmental Health formed in 2012
2020 Expenses:	
O&M Expenses:	\$1,521,227
Grant Expenses:	\$15,075
2020 Staffing:	
O&M FTE:	27.75
Grant FTE:	0.25
Total FTE:	28
Total positions vacant at any point in 2020	0

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
FDA Retail Program Standards Grant	US Food and Drug Administration (FDA)	7/1/19-6/30/20	\$70,000

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
Food Inspection					
Routine inspections	5,963	3,626	2,697	2,633	999
% of routine inspections with one or more critical violations	31%	34%	41%	42%	44%
30 day inspections			357	318	140
Pre-inspections			537	430	383
Complaints	598	577	701	829	641
Revenue generated (food only)	\$2,508,788	\$2,499,221	\$2,199,443	\$2,109,897	\$426,619
Food Sampling					
# of samples tested	337	144	468	On hold in 2019	On hold in 2020
Violation rate	25%	19%	14%	-	-
Temporary Events					
# of inspections		615	603	532	4
# of priority violations		207	182	88	0
Mobile Restaurants					
# of total mobile inspections	463	322	315	530	127
% of mobile routine inspections with a priority violation	17%	15%	34%	32%	47%
Food Safety Education & Outreach					
# of operator training sessions performed	189	341	381	325	53
# of food handlers trained	1,235	1,463	1,378	1,312	185
Tattoo & Body Art					
# of tattoo/body art inspections	104	186	215	50	60
Total # of violations for routine inspections	129	107	56	56	22
Revenue generated (tattoo & body art licenses)	\$11,031	\$14,718	\$19,009	\$13,569	\$1,099
Weights & Measures					
# of devices or inspections tested	8,259	1,505	1,081	865	737
Revenue generated	\$403,271	\$388,827	\$429,080	\$337,452	\$79,114

Critical violations continued to increase as a result of changes to data collection. The new software more accurately captures violations.

Sterilization-related violations continue to decrease as the tattoo and body art industry has transitioned to pre-sterilized, disposable needles and ink tubes.

Due to changes in compliance software, data collected is per inspection vs per device.

POPULATION HEALTH OUTCOMES

Cases Reported	2016	2017	2018	2019	2020	Three Year Average	Estimated # of Cases Per Case Reported*	Total Estimated Cases 2020	Total Estimated Cases Three Year Average
Campylobacter	45	62	58	99	46	68	30	1,426	2,098
E. coli 0157	16	7	14	13	1	9	26	27	252
Listeria	1	1	0	0	0	0	2	0	0
Salmonella	77	75	99	75	52	75	29	1,560	2,260
Vibrio	1	4	0	1	1	1	142	143	95
Yersinia	1	2	1	0	2	1	123	248	124

City of Milwaukee enteric disease cases from Wisconsin Electronic Disease Surveillance System on January 6, 2020. Please note that data are provisional and subject to change.

*FoodNet Progress Report <https://www.cdc.gov/features/dsfoodnet2012/food-safety-progress-report-2012-508c.pdf>

Incidence per 100,000 ¹	2016	2017	2018	2019	2020	Three Year Average	Healthy People 2020 Target ²	Healthy People 2020 Status ³ (met or not met)
Campylobacter	7.6	10.4	9.8	16.6	7.7	11.4	8.5	Met
E. coli 0157	2.7	1.2	2.4	2.2	0.2	1.6	0.6	Met
Listeria	0.2	0.2	0.0	0.0	0.0	0.0	0.2	Met
Salmonella	12.9	12.6	16.6	12.6	8.7	12.7	11.4	Met
Vibrio	0.2	0.7	0.0	0.2	0.2	0.1	0.2	Met
Yersinia	0.2	0.3	0.2	0.0	0.3	0.2	0.3	Met

[1] Incidence calculated using 2010 U.S. Census Population data.

[2] Food Safety, Healthy People 2020 <http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=14>

[3] Based on comparison between 2020 City of Milwaukee incidence with 2020 target.

2020 KEY ACCOMPLISHMENTS

In 2020, the program functioned intermittently between its normal duties and COVID-19 related work.

Consumer Environmental Health staff played a key role in the implementation of and continued enforcement of COVID related orders so Milwaukee businesses could remain open and operate safely. This included the development of safety plans for restaurants, bars, entertainment venues, schools and more, COVID compliance checks at facilities for which we received complaints, assisted with vaccination clinics, grocery delivery to families in need, checking for safe operations at community meal sites, staffing the Super 8 and Clare Hall shelters, and assisting businesses experiencing outbreaks within their workforce due to COVID as well as contact tracing and case management.

Here are some of the impressive outputs the CEH team completed around COVID related work in 2020:

Number of total COVID business complaints investigated in 2020: 1,586

Total number of site calls: 3,616

Alleged positive case complaints handled: 225

Total number of site visits: 117

Total Number of restaurant and bar safety plans reviewed: 1,108

Total Number of school plans CEH staff helped approve: 47

Total Number of special event safety plans: 434

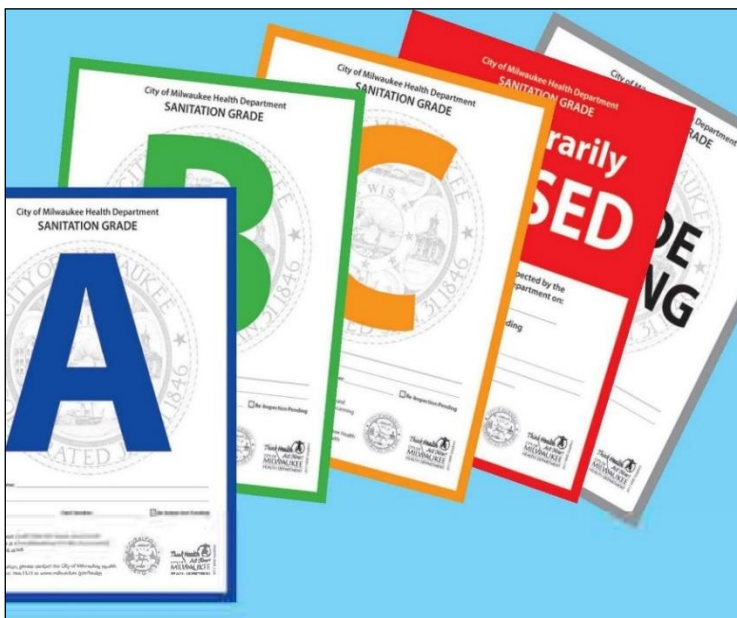
Total Number of sports safety plans: 34

Community meal site inspections: 117

Grocery delivery runs: 498

2020 KEY CHALLENGES

1. Trainings and preliminary work for the DNC began at the end of 2019 and continued through August of 2020 while managing COVID-19 response and food safety inspections.
2. Much of the first half of 2020 staff worked significant overtime to aid in COVID-19 response. Between the hours and scrutiny over work in the media staff burned out and felt underappreciated.
3. License fees were waived for much of 2020.





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Home Environmental Health



The Home Environmental Health Division (HEH) of the City of Milwaukee Health Department consists of four complimentary programs that together aim to keep children and families healthy and safe from lead:

The Lead Hazard Reduction Program

Wisconsin Statute 254.155 (2m) requires that orders are issued to abate lead hazards identified when local health departments are responding to a lead poisoned or lead exposed child. The Home Environmental Health Division (HEH) investigates children screened and identified with elevated blood lead levels. Children with high levels of lead are provided nurse case management and the source of the child’s exposure is identified in the child’s environment through lead inspection and risk assessment. If lead hazards are identified, written orders are issued, the department monitors the hazard abatement by a state certified lead abatement contractor and assures the hazard is mitigated through clearance testing. The department administers grants to assist property owners with the expense of lead hazard abatement. In addition, the Lead Poisoning Prevention program works with community partners to distribute water filters to individuals who are pregnant or have a child under the age of six years old and whose homes are served by lead laterals. The program works to educate the community and medical providers around the risks of lead and the need to screen children for lead poisoning.

The **Public Health Nurse Case Management program** provides family-centered case management to assess early childhood developmental, nutritional, and medical needs of children with lead poisoning. Education is provided on lead hazards in the home setting along with strategies to reduce and minimize continued exposure. Public Health Nurse Case Mangers conduct in-person home visits, virtual and telephone visits to engage families in the development and implementation of individualized child care plans. Collaboration with program Lead Risk Assessors assure lead safe housing for families with lead poisoned children, and for future families who may move into the same housing. Connections to community resources for developmental, social, and family needs, promotes optimal school readiness and supports educational achievements.

The **Healthy Homes program** provides the required comprehensive assessment of 29 health and safety hazards as outlined by the U.S. Department of Housing and Urban Development (HUD). The program manages healthy homes projects from initiation to closure by distributing financial assistance to remediate hazards, providing a comprehensive health and safety investigation, developing scopes of work to address primarily non-lead hazards, collaborating with contractors to perform the work, monitoring ongoing projects, and providing final review of projects. This program works closely with internal and external partners, to protect the health and safety of children and families.

The **Drinking Water Safety program** provides ongoing education and awareness to support city-wide efforts centered on lead in water issues. The program manages water filter distribution by collaborating with internal and external partners to ensure filters are distributed to targeted populations and manages water testing at homes where a child has been lead poisoned. This program ensures children and families receive the education and testing necessary to understand potential hazards due to lead in water.

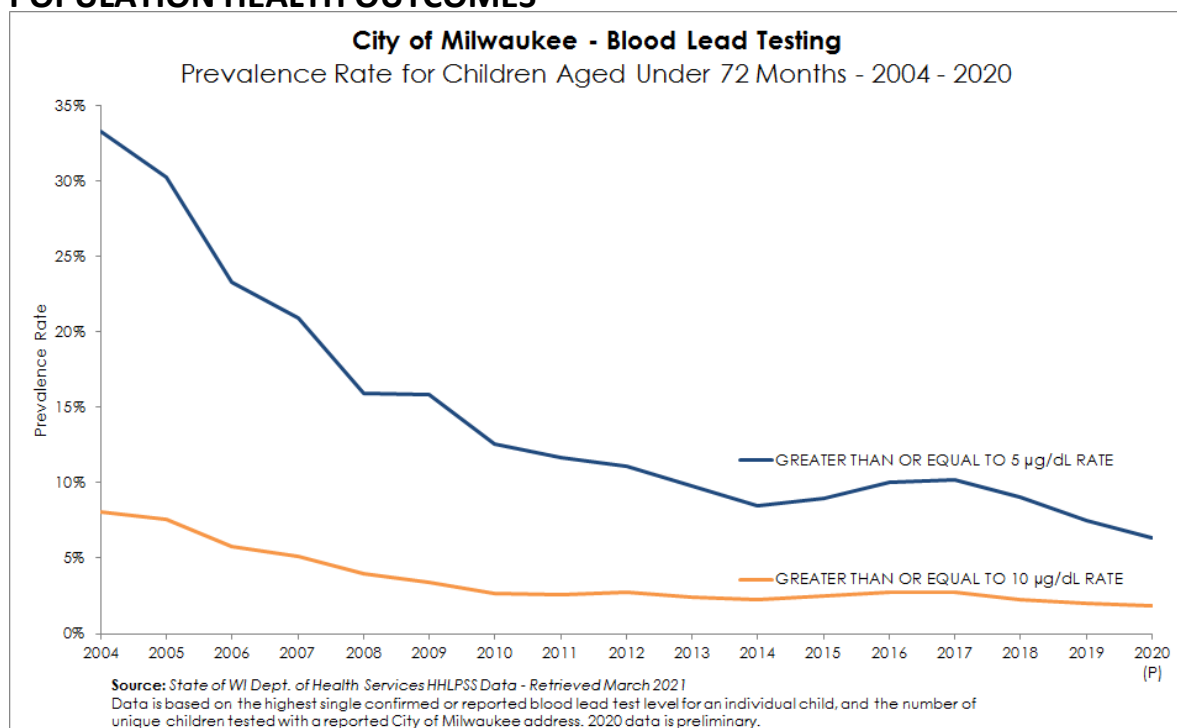
PROGRAM OPERATIONS

Branch & Division:	Environmental Health: Home Environmental Health
Established:	1997
2020 Expenses:	
O&M Expenses:	\$1,389,787
Grant Expenses:	\$2,097,773
2020 Staffing:	
O&M FTE:	8
Grant FTE:	30
Total FTE:	38
Total positions vacant at any point in 2020	4

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Lead Hazard Reduction Demonstration Grant	US Department of Housing and Urban Development	01/01/20 - 07/30/23	\$5,600,000
Lead Detection Grant	State of Wisconsin	01/01/20 - 12/31/20	\$250,489
Lead Abatement Grant	City of Milwaukee Community Development Grant	01/01/20 - 12/31/20	\$1,500,000
Lead Prevention Grant	City of Milwaukee Community Development Grant	01/01/20 - 12/31/20	\$690,000

POPULATION HEALTH OUTCOMES



PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
Lead Hazard Reduction					
# of Lead Inspections completed		251	205	204	79
# of Risk Assessments Completed		232	209	203	77
# of permits issued	299	291	192	220	250
# of MHD final clearances	385	386	152	156	101
# of families provided relocation services			Not available	60	53
# of orders issued		22	163	191	82
Healthy Homes					
# of Healthy Homes Assessments completed				50	45
Lead Surveillance and Responses					
# of EBL outreach letters sent		1,891	2,350	3,952	2,078
# of children referred for nurse case management		70	88	71	48
# of children requiring chelation			21	10	7
# of chelation events			23	13	9
# of nurse cases closed			31	118	84
# of nurse case management outreach attempts				2,628	4,663
# of developmental screenings completed				153	187
Water Quality Testing					
# of water samples collected from childcare facilities	844	1,252	80	164	128
# of water samples collected from chartered schools			411	389	741
# of water filters distributed	1,588	1,965	1,537	2,610	392
Division Metrics					
Total combined revenue generated from lead billing		\$2,970	\$50,507	\$95,200	\$54,650
Revenue generated from environmental investigation billing		\$2,102	\$45,163	\$86,300	\$48,9000
Revenue generated from case management billing		\$867	\$5,344	\$8,900	\$5,650
Number of outreach events attended		48	43	36	4

Due to the COVID-19 pandemic, home visits and inspections were placed on hold from March 16 – June 8, 2020.

Childcare water sample collection is done in partnership with Milwaukee Water Works (MWW).

Water filter distribution is primarily conducted in-person. Due to the COVID-19 pandemic this in-person work was limited.

PERFORMANCE MEASURES, Continued

Measure	2016	2017	2018	2019	2020
Lead Epidemiology					
Total # of reported tests	35,129	36,604	37,907	34,493	24,019
Total # of children tested	26,233	26,797	27,779	26,134	19,766
Total # of reported tests for children under 72 months	33,207	34,613	34,186	32,933	22,959
Total # of children under 72 months tested	24,494	25,051	24,388	24,736	18,829
Total # of Children Under 72 Months – 5-9.9 µg/dL	1,794	1,865	1,658	1,368	855
Total # of Children Under 72 Months – 10-14.9 µg/dL	420	385	316	271	195
Total # of Children Under 72 Months – 15-19.9 µg/dL	134	150	115	106	73
Total # of Children Under 72 Months – 20-39.9 µg/dL	100	124	99	101	66
Total # of Children Under 72 Months – Greater than 40 µg/dL	14	26	24	14	11
Rate of Children Under 72 Months – Greater than 5 µg/dL	10.1%	10.2%	9.1%	7.7%	6.4%
Rate of Children Under 72 Months – Greater than 10 µg/dL	2.7%	2.7%	2.3%	2.0%	1.8%
% of Children 12 to 35 Months of Age with at least 1 Lead Test	68.3%	70.6%	73.2%	70.3%	

2020 blood lead testing data is preliminary. At the time of publishing, DHS is finalizing data, so final 2020 data may change.

2020 KEY ACCOMPLISHMENTS

1. Completed follow-up on all 112 Historic properties identified on the Wisconsin DHS Correction plan
2. Implemented Public Health Nurses and Lead Risk Assessor conferencing
3. Database documentation and reporting enhancements
4. Nursing and Environmental case closure of new addresses for children below blood lead level response levels

2020 KEY CHALLENGES

1. Due to the COVID-19 pandemic, the Home Environmental Health staff worked remotely and were re-deployed to COVID-19 related tasks, and home visits and inspections were placed on hold for several months.
2. The COVID-19 pandemic impacted partner operations, which directly affected the program's ability to complete screenings.
3. Procuring supplies and PPE for effective COVID-19 pandemic response efforts
4. HEH staffing needs were hindered by retention and onboarding processes.



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Hazardous Materials

EPEH is notified and occasionally consulted by the MFD HAZMAT unit in the event of serious hazardous material releases. Emergency Preparedness staff sit on the Local Emergency Planning Committee (LEPC) which carries out mandates of the Emergency Planning and Community Right to Know Act. The committee inspects facilities that are required to submit hazardous inventories and emergency plans to compare the safety and readiness initiatives described in the plans to observations in the facilities. Plans are formally reviewed and approved every four to five years for hundreds of facilities in and near the City of Milwaukee.

PROGRAM OPERATIONS

Branch & Division:	Environmental Health: Emergency Preparedness and Environmental Health
Established:	2004; Beach Monitoring (2008); Climate Change (2016); West Nile (2002)
2020 Expenses:	
O&M Expenses:	\$367,347
Grant Expenses:	\$144,132
2020 Staffing:	
O&M FTE:	1
Grant FTE:	6
Total FTE:	7
Total positions vacant at any point in 2020	2

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Public Health Preparedness*	State of Wisconsin, Department of Health Services	7/1/19-6/30/20	\$325,122
Public Health Preparedness*	State of Wisconsin, Department of Health Services	7/1/20-6/30/21	\$319,908
City Readiness Initiative*	State of Wisconsin, Department of Health Services	7/1/19-6/30/20	\$177,098
City Readiness Initiative*	State of Wisconsin, Department of Health Services	7/1/20-6/30/21	\$177,098
CDC COVID-19 Response	State of Wisconsin, Department of Health Services	3/5/20-3/15/21	\$319,908

*Grant supports more than one MHD program or initiative.

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
% of employees who have completed required Incident Command System (ICS) training			85%	91%	90%+
% of staff successfully receiving exercised emergency notification messaging			86%	95%	90%
\$ of emergency preparedness exercises completed					10
Public Health Emergency Operations Plan (EOP) reviewed and updated			Yes	Yes	Yes
% of employees slated for fit testing who were fit tested*			88%	91%	See new metric below
% of staff slated for fit testing who had completed a fit test within a calendar year (as of 5-21-21)					76%
# of staff respirator fit testings completed*					42
# of National Guard members fit tested for COVID-19 response					48
# of COVID-19 tests performed					315,507
# of place-based COVID-19 testing clinics completed (i.e., shelters, long-term care facilities, workplaces)					64
# of COVID-19 on-site hazard assessments/consultations conducted					46
# of COVID-19 subject matter expert (SME) presentations completed					15
# of Safety Committee Meetings conducted					11
# of chemical storage plans reviewed as part of the Local Emergency Planning Committee (LEPC)			7	42	25
# of DNC planning committee meetings facilitated					80
# of days cooling/warming shelter open					4
# of needle/infectious waste removals completed					60

*Note 1: 2020 was an atypical year for the fit testing/respirator protection program. Many people who would normally be fit tested were not scheduled due to suspension of home visits and other field work. Due to limited availability and need to preserve N-95 respirators, fit testing was done on an as-needed basis. Beginning late in 2020, the full respiratory protection program protocol (medical clearance, on-line training, fit testing) resumed for all positions slated for fit testing. Most individuals slated for this protocol do not need to employ respirator protection in a typical year, although COVID-19 increased the need for respirator use. COVID-19 also increased the number of job descriptions slated for respiratory protection/fit testing, as people began to resume in-person job duties. Efforts to get everyone slated for fit testing through the full protocol extended into 2021.

Typically, individuals who responded and had completed protocol prerequisites for fit testing were schedule for a fit test within two weeks of eligibility. Those currently fit tested within a calendar year versus those slated to do so stands at 105 of 138, with no eligible individuals in queue as of 5-10-21.

Environmental Health

Environmental Health utilizes a combination of surveillance, health promotion, enforcement and assessment to prevent disease and injury, eliminate the disparate impact of environmental health risks and threats on population subgroups, and create health-supportive environments where everyone in Milwaukee has an equal chance to thrive. Projects and areas of investigation include: indoor and outdoor air quality, animal bites and rabies control, climate change and extreme weather, recreational and drinking water quality, human health hazards, mosquito surveillance and control, carbon monoxide poisoning prevention and education, and brownfield and vapor intrusion investigations.

Climate Change and Health

To enhance regional awareness of climate change mitigation, adaptation and resilience activities, the City of Milwaukee Health Department has partnered with the Environmental Collaboration Office (ECO), Wisconsin Department of Health Services Climate and Health Program, and numerous community organizations. Together, the MHD and Reflo Sustainable Water Solutions have worked to support climate change adaptation and promote community health and health equity by sustainably improving food security, decreasing storm-water runoff, and decreasing carbon emissions associated with transportation of food, water treatment and transmission. Through a collaborative project, Reflo has partnered with several Milwaukee community gardens to provide rainwater harvesting structures. As part of the project, the MHD hosted seven educational sessions to engage and educate the public about climate change, water, and health.

Mosquito Surveillance and Control

West Nile Virus (WNV) is a mosquito-borne virus that can cause a range of illnesses. Most people infected (about 80%) have no symptoms. Others, however, experience flu-like symptoms with a possible rash and swollen glands. Less than 1% of cases include more serious neurological symptoms, and about 5% of cases are fatal. The MHD WNV Surveillance and Control Program consists of public education and outreach and surveillance (monitoring human, wild bird, mosquito, and other animals for viral activity).

Recreational Water Quality and Beach Monitoring

The MHD operates from Memorial Day through Labor Day to monitor water quality at each of the city's three public beaches and issues daily water quality notifications to the public. Testing and advisories also are conducted for special event venues such as Lakeshore State Park and Veteran's Park Lagoon. Through a continued partnership with the University of Wisconsin-Milwaukee Zilber School of Public Health's Miller Laboratory (ZSPH), water samples are collected and analyzed at both ZSPH and MHD laboratories. Analysis determines the levels of *E. coli*, a micro-organism, present in the water. While *E. coli* is normally found in bodies of water, elevated levels can raise health concerns. In addition, combining test results with a model that looks at a variety of beach conditions such as water temperature, wind direction, wave height, and more allows MHD staff to predict the *E. coli* value and issue public notifications daily online and at each beach.



Harmful Algal Blooms (HABs) are a potential health threat in recreational waters. EPEH coordinates efforts to provide monitoring and management to protect people from exposure to HABs at Veterans Park Lagoon, a popular recreational water body on Milwaukee's lakefront. Working with the MHD laboratory, Miller Laboratory at ZSPH, Milwaukee County Parks and private stakeholders, routine testing is performed to identify cyanobacteria and toxin levels. Appropriate advisories and closure notifications with timely public messaging regarding water quality and information to ensure recreational users can recognize symptoms of algal bloom exposure.

Summerfest Grounds Water Quality Program

MHD has enjoyed a long-standing partnership with Milwaukee World Festival, Inc. to ensure safe, portable water for food operations and millions of festival-goers in a typical year. Water is strategically sampled and tested from several points in the supply system weekly from approximately the first week of May into early October. Any areas of concern can be quickly and effectively treated for a safe and worry-free event.

Environmental Health Investigation, Consultation, and Remediation

The Environmental Health program regularly performs environmental investigations of varied duration and complexity in response to citizen/business complaints and reports from MFD, DHS, DNR and other agencies. These principally relate to fugitive odors or other known or suspected chemical contaminations, such as carbon monoxide exposure incidents or vapor intrusion such as from leaking underground storage tanks. Sometimes the issue may be resolved through a phone or in-person consultation. Other situations involve ongoing known environmental problems and may require months or years of surveillance, inter-agency coordination, and public messaging. Additionally, the program carries out needle and other infectious waste removal in public spaces.

The program conducts phone and walk-in consultations with citizens expressing health concerns related to mold or other factors affecting indoor air quality, drinking water quality, scabies, lice, bedbugs, etc. Satisfactory resolution may involve self-help information or referrals to healthcare, other City departments or community assistance agencies.

Animals Bites and Rabies Control

Rabies exposure (human and pet) is a significant subset of health investigations in which MHD takes a central role in protecting citizens' health. All reports of possible domestic, feral, or wild animal exposures are reviewed. When indicated, animal specimens are shipped to the Wisconsin State Lab of Hygiene for testing. Program staff consults with and advises healthcare professionals and patients on post-exposure prophylaxis decisions. In addition, quarantines of pets are ordered and monitored when possible exposure occurs through unvaccinated domestic, feral or wild animal contact.

ACTIVE GRANTS

2019 Active Grants	Funder	Grant Period	Amount Over Grant Period
Beach Monitoring*	State of Wisconsin, Department of Natural Resources	4/1/20-11/30/21	\$10,500

*Grant supports more than one MHD program or initiative.

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
Total # of beach water samples collected	229	183	179	169	148
Total # of beach postings for the season	291	291	303	293	171
Total # of water samples – Summerfest	219	215	210	202	0
# of Safety Committee meetings	8	9	3	10	7
# of larviciding doses delivered in Milwaukee	5,089				
Annual Infectious Waste Reports submitted to DNR	4	4	3	3	3
Milwaukee Estuary Area of Concern meetings, re: addressing water quality in the watershed, beaches and Lake Michigan					7

POPULATION HEALTH OUTCOMES

Measure	2016	2017	2018	2019	2020
# of closures of individual beaches	12	26	33	5	33
# of cases of West Nile Virus in the City of Milwaukee	0	2	0	0	0
% of mosquito pools that tested positive for WNV	30.8%	11.7%		No mosquito testing in 2019	No mosquito testing in 2020
# of mosquito pools that tested positive for WNV			124	No mosquito testing in 2019	No mosquito testing in 2020

2020 KEY ACCOMPLISHMENTS

1. Served in multiple Incident Command positions for both City and County COVID-19 response and helped facilitate City Emergency Operations Center (EOC) meetings
2. Collaborated to stand up, supply, operate and manage the main COVID-19 isolation facility in the region
3. Organized, supported, and ran multiple COVID-19 community testing sites in different locations throughout Milwaukee
4. Collaborated with the Milwaukee Fire Department and MHD Laboratory to provide place-based testing for COVID-19 throughout the City
5. Began operational planning for COVID-19 vaccine mass vaccination distribution
6. Aided City departments, private businesses and agencies, federal courthouse and non-profit service organizations with COVID-19 risk assessments
7. Aided in research on beach water quality and sat on the Milwaukee Estuary Area of Concern committee, which is tasked with improving water quality in Milwaukee's watershed, beaches, and harbor
8. Coordinated rapid response to stand up cooling centers during extreme heat events in Milwaukee

2020 KEY CHALLENGES

1. Emergency Response staffing needs hindered by onboarding process
2. Uncertainty of funding extension at end of 2020 affected operational planning for COVID-19 response efforts
3. Maintaining essential services while focusing on COVID-19 pandemic response
4. Infrastructure/data systems inadequate to manage mass scale registration needs and management of large volume of samples for COVID-19 testing sites
5. Procuring supplies and PPE for effective COVID-19 pandemic response efforts



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PROGRAM OPERATIONS

Branch & Division:	Medical Services: Clinical Operations
Established:	Communicable Disease: 1867; Tuberculosis Control: 1912; Immunizations: 1866 Venereal Disease Clinic: 1920, renamed Social Hygiene Clinic in 1977 and STD Clinic in 1989 Breast Cancer Services: 1990; Well Woman: 1994
2020 Expenses:	
O&M Expenses:	\$1,437,090
Grant Expenses:	\$1,141,463
2020 Staffing:	
Total FTE:	
O&M FTE:	34
Grant FTE:	18
Total FTE:	52
Total positions vacant at any point in 2020	7



Infectious Disease Program

Communicable Disease Control

Since its inception, the City of Milwaukee Health Department (MHD) led the detection and response to communicable disease outbreaks. The reporting, surveillance, and control of reportable communicable diseases is a core public health function and is mandated by Wisconsin State Statute and Wisconsin Administrative Code. Communicable diseases requiring follow-up include vaccine-preventable diseases such as mumps and pertussis, vector-borne diseases such as Zika and Lyme disease, and gastrointestinal infections caused by Shigella and Salmonella bacteria.

Communicable Disease (CD) program staff investigate reports of communicable diseases and outbreaks, conduct contact investigations, monitor communicable disease trends, provide educational interventions, and supply prophylactic medications when necessary. In addition, the program staff serve as a resource for other local health departments, health care providers, schools, childcare facilities and the citizens of the southeast region of Wisconsin.

Tuberculosis Control

The City of Milwaukee Health Department has the primary responsibility of preventing and caring for those with Tuberculosis (TB) in the City. The Tuberculosis Prevention and Care Clinic (TPCC) uses evidence-based interventions to assure that all persons needing to be evaluated for TB are identified and treated, and that appropriate course of action is taken to mitigate the spread of TB. Every TB case is a potential outbreak, and the program must be prepared to promptly identify and treat persons who have TB disease, as well as identify and treat those exposed to TB. Anyone can get TB; however, TB disproportionately impacts people of color, foreign-born individuals (including resettled refugees), those with low socioeconomic status and other marginalized populations.

Immunizations

One of the most important tools to protect our community from disease is immunization. Sustaining high childhood immunization rates in the city, along with reducing disparities among racial and ethnic groups, remain primary objectives of the MHD Immunization Program. Improving immunization rates helps suppress outbreaks of vaccine preventable diseases.

The MHD not only provides immunizations during weekly walk-in clinics at its three health center locations, it partners with community agencies to provide clinics throughout the city. In addition, the program partners with the Communicable Disease and Emergency Preparedness Programs to respond to communicable disease outbreaks while also conducting educational symposiums and events directed toward schools, day cares, and clinicians to increase compliance with Wisconsin immunization law and coordinate delivery of immunizations in the community.

As a partner in the Immunize Milwaukee! Coalition, the program provides education for area providers at an annual symposium and continues to develop partnerships to coordinate the delivery of immunizations in the community.

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Communicable Disease Prevention	State of Wisconsin, Department of Health Services	7/1/2020 – 6/30/2021	\$28,900
Immunization Action Plan	State of Wisconsin, Department of Health Services	1/1/2020 – 12/31/2020	\$241,656

PERFORMANCE & OUTCOME MEASURES

Measure	2016	2017	2018	2019	2020
Communicable Disease (CD) Control					
# of cases of CD reported*	1,169	994	1,033	884	60,124
# of cases of CD reported requiring follow up		797	777	771	59,791
# of outbreaks investigated**	30	41	34	19	10
Tuberculosis (TB) Control					
# of x rays performed	578	253	224	192	123
# of x rays read for TB Clinic	406	254	239	202	125
# of TB clinic visits	635	380	398	463	236
# of Directly Observed Therapy home visits	1,849	1,907	1,287	2,008	670
# of refugees provided follow up service (screenings/TB care)	38	11	39	23	11
# of cases of tuberculosis	9	10	16	14	9
# of cases of multi-drug-resistant TB	0	0	1	0	0
# of clients provided TB case management	9	10	16	14	9

*These numbers do not include influenza associated hospitalizations, tuberculosis, or sexually transmitted infections.

**Includes respiratory and gastrointestinal outbreaks

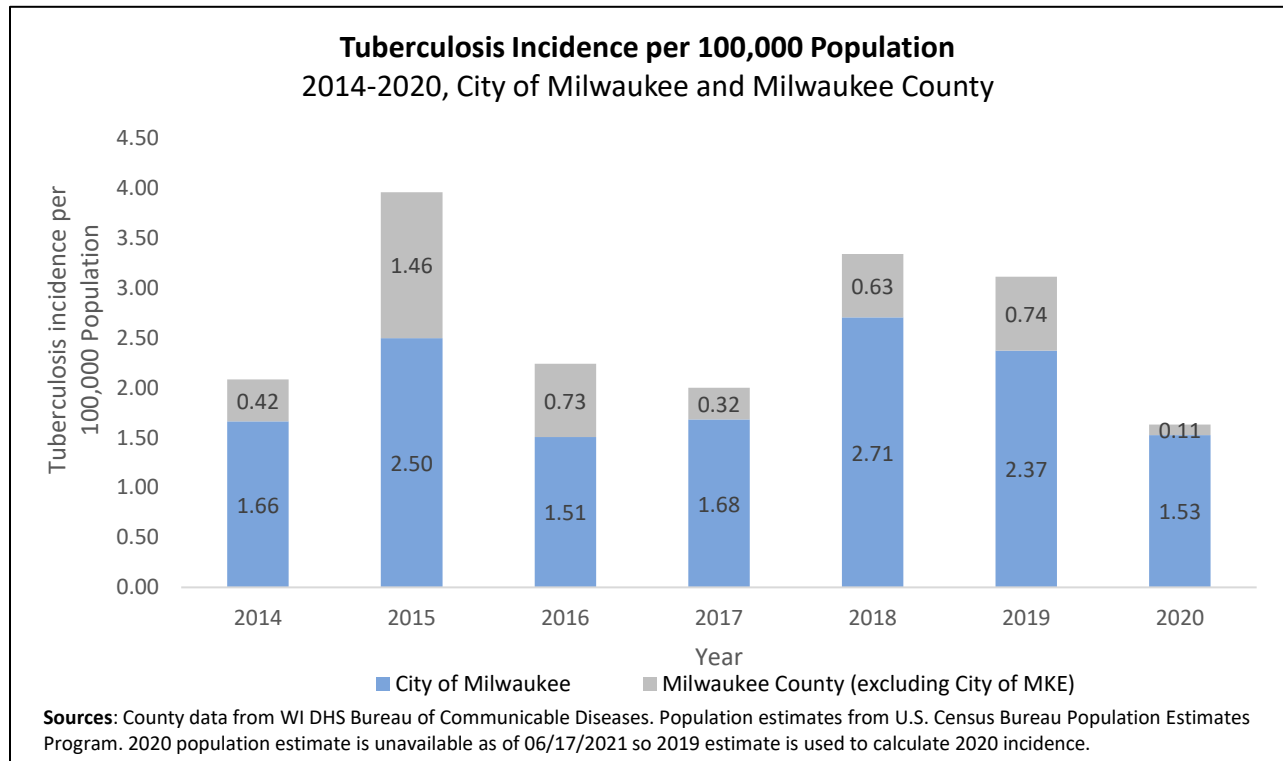
PERFORMANCE & OUTCOME MEASURES, Continued

Measure	2016	2017	2018	2019	2020
Immunizations					
# of clients immunized	3,151	2,905	2,208	2,479	4,278
# of immunizations provided	8,359	8,271	5,921	6,859	4,818
# of offsite clinics	34	23	28	17	0
# of school / childcare education sessions provided	5	5	4	3	0
# of two-year-old reminder/recall letters mailed	3,094	3,207	3,456	3,612	988
% of two-year-olds in the City of Milwaukee who are up to date on their immunizations by 24 months of age	66%	66%	62%	62%	58%
% of children in compliance with school required immunizations	91%	92%	92%	91%	92%

FLU VACCINATION MEASURES (3-year metric)

Measure	2006	2009	2012	2015	2018
Flu Vaccination (Past Year) - 18 years and older	34%	38%	35%	43%	45%
Flu Vaccination (Past Year) – 65 years and older	69%	65%	60%	76%	74%

POPULATION HEALTH OUTCOMES



2020 KEY ACCOMPLISHMENTS

1. The immunization program helped to administer 4,049 influenza vaccines for the 2020-2021 flu season. This is a large increase from the 832 influenza vaccine doses that were administered during the 2019-2020 flu season.
2. The infectious disease program trained and on-boarded over 200 individuals to assist with COVID-19 contact tracing efforts. This enabled the program to process 40,178 COVID-19 cases and 29,464 contacts in 2020.

2020 KEY CHALLENGES

1. The COVID-19 pandemic resulted in numerous staffing and capacity issues across the infectious disease, immunization, and TB prevention and control programs. Many of the staff were reassigned to COVID-19 related duties leaving limited capacity to perform other programmatic tasks and responsibilities.
2. The TB program continued to face challenges working with an outdated paper charting system and obsolete software for scheduling client visits and maintaining health records.



Sexual and Reproductive Health

The Sexual and Reproductive Health Program provides sexual and reproductive health services including confidential testing, treatment, and education to residents of the City of Milwaukee and the surrounding communities. Services are provided at Keenan Health Clinic by medical, nursing, and clinical laboratory staff to anyone who is at least 12 years of age, at no cost to the client.

The Disease Intervention Specialists (DIS) perform epidemiological investigations, partner services, linkage to care, field delivered therapy, and follow-up for clients known or suspected of having a reportable sexually transmitted infection (STI) such as gonorrhea (GC), chlamydia (CT), HIV, and syphilis in the city, and conduct follow-up for HIV cases in Milwaukee County and syphilis cases across the Southeastern Region of Wisconsin.

Most STI's are asymptomatic, but if these infections remain undetected and untreated, they have serious health consequences and pose an increased risk of HIV transmission.

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
HIV Prevention and Partner Services	State of Wisconsin, Department of Health Services	1/1/2020-12/31/2020	\$222,000
Women's Health Family Planning (WHFP)	State of Wisconsin, Department of Health Services	1/1/2020-12/31/2020	\$269,180
STD Apps	State of Wisconsin, Department of Health Services	1/1/2020-12/31/2020	\$447,431



INTERVENTION MEASURES, specific to Keenan Health Center

Measure	2016	2017	2018	2019	2020
# of clients served	5,188	5,123	4,214	5,262	5,415
# of persons tested for STIs	4,406	4,361	3,645	4,486	4,425
# of persons turned away due to clinic capacity limitations	455	639	909	520	393
# of HIV tests conducted	3,551	3,593	3,087	3,581	3,367
# of persons who were offered a PrEP referral to prevent HIV transmission	114	166	147	1,019	1,040
# of condoms distributed		62,000	67,500	19,000 (Jan – May)	100,000
# of persons provided Plan B emergency contraception	161	148	250	363	155

OUTCOME MEASURES, specific to Keenan Health Center/Sexual Reproductive Health Program unless otherwise specified

Measure	2016	2017	2018	2019	2020
# of positive HIV tests	25	48	28	34	45
# of positive gonorrhea tests	1,642	2,061	1,510	1,930	1,967
# of positive syphilis tests	321	412	364	519	594
# of STI/HIV cases assigned for case management (Chlamydia, Gonorrhea, Syphilis, and HIV follow-up)	881	973	671	915	1,109
# of new HIV infections identified in the City of Milwaukee	104	117	109	106	97*
# of cases of gonorrhea in the City of Milwaukee	4,034	4,378	4,202	4,686	4,786
# of cases of primary and secondary syphilis in the City of Milwaukee	41	66	57	97	192
# of cases of chlamydia in the City of Milwaukee	9,612	9,712	9,870	10,343	9,405
% of persons who accepted PrEP referral to prevent HIV transmission	84%	83%	83%	46%	28%

*Preliminary count, data is subject to change

CUSTOMER AND COMMUNITY IMPACT MEASURES

Measure	2016	2017	2018	2019	2020
% of HIV cases linked to care within 1 month of diagnosis ^a	78% ^b	73% ^b	81% ^c	78% ^c	81% ^{c,d}
% of cases receiving case management for STIs that were successfully treated	89%	87%	85%	89%	92%

^aData source: Wisconsin Department of Health Services, City of Milwaukee HIV Surveillance Reports

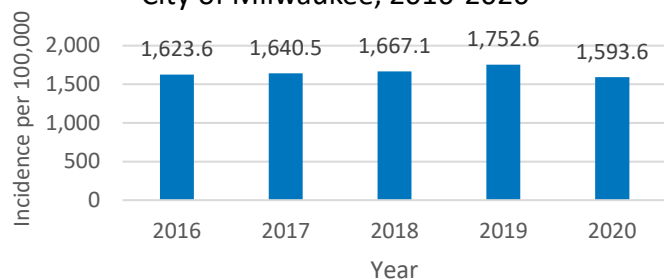
^bReflects laboratory data received through March of the following year

^cReflects laboratory data received through April of the following year; ^dPreliminary count, data is subject to change

POPULATION HEALTH OUTCOMES

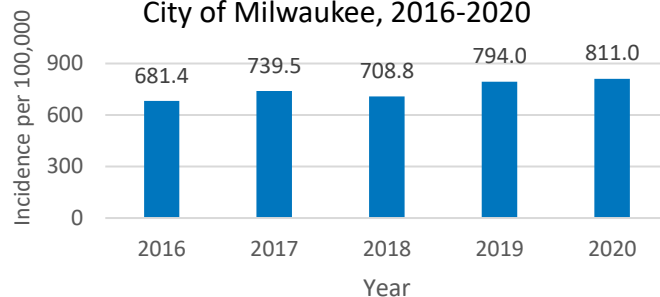
Chlamydia Incidence per 100,000 Population

City of Milwaukee, 2016-2020



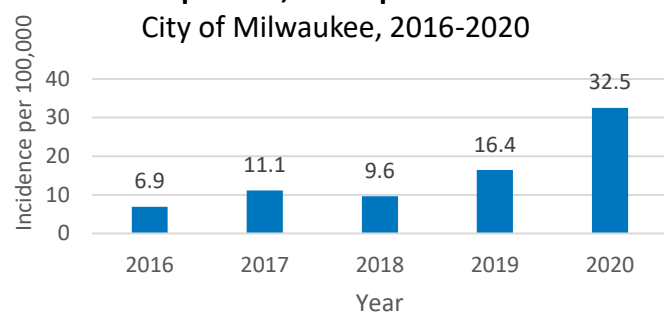
Gonorrhea Incidence per 100,000 Population

City of Milwaukee, 2016-2020



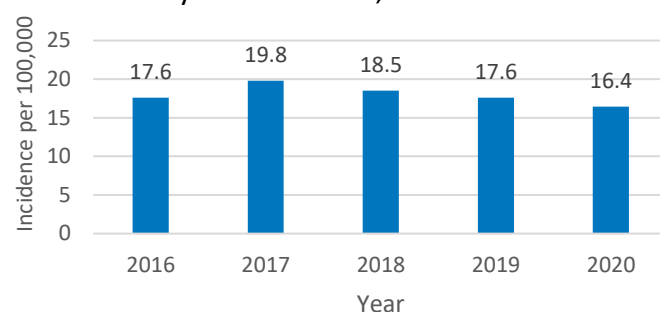
Primary and Secondary Syphilis Incidence per 100,000 Population

City of Milwaukee, 2016-2020



HIV Incidence per 100,000 Population

City of Milwaukee, 2016-2020



2020 KEY ACCOMPLISHMENTS

1. Continued to provide Sexual Health services throughout the pandemic without reduction of hours.
2. Served more clients than in 2019, while many STI testing sites across the US contracted their services and STI testing in general declined in 2020.
3. Hired a new program manager.

2020 KEY CHALLENGES

1. The COVID-19 pandemic resulted in numerous staffing and capacity issues across the STI program and its community partners. This resulted in the inability to do outreach events and paused the STI strategic planning process.
2. Cases of syphilis, especially congenital, increased substantially between 2019 and 2020.
3. Lack of electronic health record (EHR) contributed to a lack of access to quality data.

Well Woman Program

The Well Woman Program, coordinated by the Milwaukee Breast and Cervical Cancer Awareness Program (MBCCAP), provides preventive health screening services to women with low incomes and who are uninsured or underinsured. The program is administered by the Wisconsin Department of Health Services, Division of Public Health, and is available in all 72 Wisconsin Counties and 11 tribes. Well Woman works to decrease the mortality rate of breast and cervical cancer in all women in the City of Milwaukee through education, outreach, screening, treatment, and community awareness and involvement.

Well Woman provides the following services at no cost to Well Woman clients:

- Mammograms
- Clinical Breast Exams (CBE)
- Breast Cancer Treatment Referral
- Breast Self-Exam Instruction
- Pap Tests
- Diagnostic services for breast and cervical cancer
- Assessments for Multiple Sclerosis

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Breast Cancer Grant, Carita B. Urban	Greater Milwaukee Foundation	1/1/2020 – 12/30/2020	\$25,000
Breast Cancer Well Women	State of Wisconsin, Department of Health Services	7/1/20 - 6/30/21	\$668,000

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
Screening Objective – Unduplicated per State	750	700	950	900	700
Milwaukee residents ages 35-64 years screened for breast and cervical cancer (unduplicated)	1,044	999	929	1,057	885
Total number of breast cancer screenings	779	803	901	1,008	792
Breast screenings, in-house (mammograms and clinical breast exams only)	521	478	453	474	365
Breast screenings, provider	258	325	448	544	427

The objective was reduced in 2020 due to a decrease in funding from the CDC to the State of Wisconsin.

PERFORMANCE MEASURES, Continued

Measure	2016	2017	2018	2019	2020
Total number of cervical cancer screenings	175	164	98	74	75
Cervical screenings, in-house	173	160	98	71	71
Cervical screenings, provider	2	4	0	3	4
Case management encounters	6,721	10,468	7,327	8,487	8,155
WISEWOMAN clients enrolled	166	297	82	78	0
Number of community events	29	18	13	21	0

MHD is unable to offer the full range of services required to receive CDC funding.

MHD was unable to conduct any community events due to the COVID-19 pandemic.

2020 KEY ACCOMPLISHMENTS

1. Despite not conducting a full year of screening services, MBCCAP exceeded our State screening objective by 185
2. Piloted one evening clinic to increase patient enrollments and services. Not as successful as the weekend clinics.
3. Piloted two successful weekend clinics to increase enrollments and services.
4. Successful ongoing partnership with Ascension patient navigators to increase Well Woman enrollments and screening/diagnostic services and assisted in enrolling and scheduling 427 screening mammograms, in addition to diagnostic services.
5. MBCCAP continued to provide breast and cervical cancer screening services/enrollments despite all MBCCAP staff at some point being utilized for COVID-19 vaccine clinics and hotline throughout 2020.

2020 KEY CHALLENGES

1. Due to COVID-19, MBCCAP was unable to provide breast and cervical cancer screenings from March 13 to June 9, 2020.
2. In May 2020, services returned but at reduced capacity to ensure that CDC safety protocols were followed.
3. MBCCAP was not able to conduct any community events due to COVID-19, which directly impacts enrollment numbers.
4. Area providers also were not providing services for several months during COVID-19 which impacted our screening objective.
5. MBCCAP continues to use paper health records which results in a lot of duplicate work. Implementation of an Electronic Health Record system will increase the efficiency of these processes.



Community Health

Maternal and Child Health

Office of Violence Prevention



Environmental Health

Consumer Environmental Health

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Emergency Preparedness & Environmental Health



Medical Services

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Policy, Innovation, and Engagement

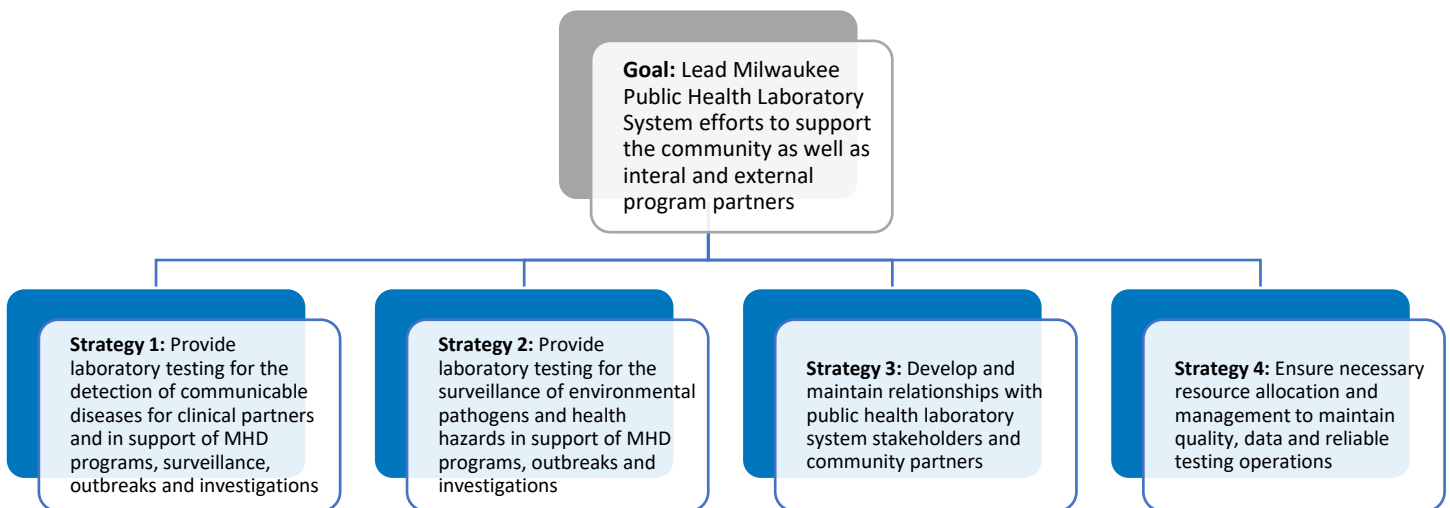


COVID-19 Response



Milwaukee Health Department Laboratory

The Milwaukee Health Department Laboratory (MHDL) works diligently to support local public health systems in collaboration with the Environmental Health and Community Health branches by providing a variety of clinical and environmental testing, as well as various reference laboratory testing services. Though 2020 was an unprecedented year, the MHD public health laboratory continued its excellent service and strengthened partnership with local health care providers, academic institutions, and community organizations. We provided uninterrupted testing services in all program areas, conducted state-of-the-art surveillance testing, while maintaining partnerships, education, workforce training, applied research, and continued quality improvement initiatives. Responding to the COVID-19 pandemic further exemplified the role of MHD laboratory to protect the health of the community by providing real-time disease surveillance from a local to international scale, and by responding to emerging threats of public health concerns and/or emergencies.



MHD Laboratory Staff, Fall 2020

PROGRAM OPERATIONS

Branch & Division:	Medical Services: Laboratory Services
Established:	1874
2020 Expenses:	
O&M Expenses:	\$1,642,055
Grant Expenses:	\$770,797
2020 Staffing:	
O&M FTE:	19
Grant FTE:	9
Total FTE:	28
Total positions vacant at any point in 2020	5

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
CDC Epidemiology and Lab Capacity (ELC): Enhancing Detection of COVID-19	State of Wisconsin, Department of Health Services (DHS)	5/18/20-11/18/22	\$7.19 M
CDC Epidemiology and Lab Capacity: Strengthening U.S. Response to Resistant Gonorrhea (SURRG)	State of Wisconsin, Department of Health Services (DHS)	8/1/20-7/31/21 8/1/19-7/31/20	\$324,846 \$327,392
Defining the role of college students in SARS-CoV-2 spread in the Upper Midwest	CDC, University of Wisconsin-Madison	8/1/20-7/31/22	\$147,745
Laboratory System Improvement Program (L-SIP): Strengthening the Local PHL System	Association of Public Health Laboratories (APHL)	1/1/20-6/30/21 (extended from 2020)	\$10,000
Development of a Regional Environmental Health System Meeting	APHL/CDC	1/1/20-6/30/21 (extended from 2020)	\$7,500
STD APPS (via STD Program)	State of Wisconsin, Department of Health Services (DHS)	1/1/20-12/31/20	\$353,470
CDGA Lead Abatement and Lead Prevention Grants (2) (via MHD Lead Program)	Centers for Disease Control and Prevention (CDC)	1/1/20-12/31/20	\$1.5M; \$690,000
Lead Hazard Reduction Grant (via MHD Lead Program)	U.S. Department of Housing and Urban Development (HUD)	1/2/20-7/1/23	\$5 M

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
Tests Performed: Communicable Diseases					
Respiratory	555	634	666	687	386
SARS-CoV-2 (COVID-19)					26,649
Gastrointestinal	630	382	272	210	215
Syphilis	7,184	7,272	6,342	7,318	5,838
Chlamydia	11,632	13,428	11,817	13,709	10,350
Gonorrhea	14,477	16,999	16,386	18,266	13,532
Mycoplasma	N/A	N/A	N/A	1,596	1,288
Trichomonas	5,519	5,285	4,363	4,528	4,365
HIV	3,578	3,725	3,163	3,698	3,415
Herpes	342	499	421	364	283
Other (Clinical/Reference)	296	390	260	212	553
Tests Performed: Environmental Health					
Lead in Dust wipes, Paint, Soil	8,488	8,289	5,780	6,137	3,956
Lead in Water		859	1,425	1,428	979
Summerfest Water (Potable)	669	649	630	613	0
Beach Water (Recreational)	307	273	191	175	147
Municipal Water (Potable)	713	669	627	677	495
Water Treatment Plant (raw and finished water- Potable; Cryptosporidium, Giardia and culturable viruses)	60	89	95	72	86
Harmful Algal Blooms			84	44	15
Food- Dairy	445	359	533	83	
Food- Beef, Deli, Fish	274	373	391	32	
Other (Environmental/ Reference)	321	288	205	439	414

COVID-19 testing increased overall lab testing by more than 20%. MHDL was 1 of 2 public health labs in state of WI to perform SARS-CoV-2 surveillance testing in the initial stages of pandemic.

MHDL continued to maintain all testing services despite being heavily taxed by COVID19 response.

MHD partners with UWM Zilber School of Public Health to coordinate beach water sample collection in the summer and performs conventional and real-time detection of E. coli.

MHD discontinued routine food sampling and testing previously performed in support of the Consumer Protection Division during 2019.

PERFORMANCE MEASURES, Continued

Measure	2016	2017	2018	2019	2020
# of laboratory system partner events hosted	0	1	2	3	0
# of LRN Activities- Bio-threat Detection	6	25	24	24	11
# of external conferences, meetings & trainings attended	16	19	30	24	10
# of active grants	2	3	6	7	9
# of grant applications submitted	1	3	8	8	8
# of grants applied for awarded	1	2	4	4	4

Although planned MHD events were canceled due to COVID-19, the Lab was actively involved in planning for DNC response and support.

OUTCOME MEASURES

Measure	2016	2017	2018	2019	2020
# of positive HIV cases reported	14	34	22	28	20
# of resistant Gonorrhea identified	32	11	23	151	173
# <i>Mycoplasma genitalium</i> infections detected				354	351
# of clients using self-collect option at Sexual Health Clinic				82	692
# of COVID samples sequenced					209
# of water samples with elevated lead (5 and up)		53	174	95	78
# of new partners testing services provided	1	2	12	5	42
# of certifications maintained*	6	6	7	7	7
# of successful regulatory inspections	4	3	3	3	3

*The following certifications are currently maintained: Clinical Laboratory Improvement Amendment (CLIA) certificate of compliance (ZMB, KHC and SSHC locations), Wisconsin Department of Agriculture, Trade & Consumer Protection (WDATCP) – Milk, Food and Water Lab certification, Wisconsin Department of Natural Resources (DNR) – Lead in Water certification, American Industrial Hygiene Association Laboratory Accreditation Programs (AIHA-LAP, LLC) – Environmental Lead certification, CDC Environmental Legionella Isolation Techniques Evaluation (ELITE) certification

MHDL in partnership with Advanced Vaccine Research Laboratory, Madison (AVRL) performed SARS-CoV-2 sequencing from earlier cases in March-April to see transmission routes and detect clusters.

Significantly increased new clients due to COVID pandemic response. Partnered with SEOC to provide testing for local and expanded jurisdictions as well as supported 15 rapid COVID19 ID NOW analyzers within community partner sites

CUSTOMER AND COMMUNITY IMPACT MEASURES

Measure	2016	2017	2018	2019	2020
# of clients/partners served	39	45	53	51	96
# of new tests validated	0	0	4	4	8
# of residential soil samples tested		18	55	104	82
"e"lab reports to clinical partners & stakeholders (12 per calendar year) on laboratory surveillance	100%	100%	100%	100%	100%
# of lab tours conducted	18	16	15	21	10
# of academic internships hosted	5	7	8	4	4
# of presentations, posters & publications	10	8	9	11	12
Fee for Service Revenue	\$225,766.09	\$334,766.11	\$301,047.37	\$401,068.00	\$267,548
Reimbursement Revenue	\$527,497.22	\$425,319.60	\$489,418.46	\$324,867.71	\$91,780.71

The large variance between 2019 and 2020 is due to a crash in the department's system, resulting in a loss of information.

2020 KEY CHALLENGES

1. Initial delays in COVID-19 CDC assay onboarding needed to deploy COVID-19 testing
2. Maintaining continuity of services due to national supply shortages impacting all areas of laboratory testing
3. A variety of staffing challenges – including limited technical staff for testing and clinic support, limited administrative/office support staff, and hiring delays that impacted grant obligations.
4. Ensuring necessary staff coverage and training to support expanded hours of operation including evenings, weekends and holidays
5. Lack of preparedness funding or the BSL-3 (unfunded mandate to support CDC's Laboratory Response Network-LRN-Biological, HHS BioWatch activities, USPS, FBI and Law enforcement supports to rule out high risk biological agents and toxins)

2020 KEY ACCOMPLISHMENTS

1. Maintained all lab certifications, which required successful completion of three regulatory inspections.
2. Successfully maintained CDC's Bio-threat Detection LRN-B laboratory program activities to support local, state and federal program, law enforcement, USPS and FBI.
3. Maintained CDC program activities- CDC/WHO Influenza and other respiratory virus, PulseNet, CaliciNet (enteric bacteria & viruses), sexually-transmitted infections (STI).
4. Increased detection of antibiotic-resistant gonorrhea infections by >6 times the previous year. This represents a significant component of SURRG project efforts to combat drug-resistant gonorrhea in Milwaukee and other major U.S. cities.
5. Completed validation of patient-collected swabs in a clinical setting for STI testing – including vaginal, penile meatal, rectal and throat swabs for Gonorrhea culture and antibiotic susceptibility testing, and vaginal swabs for nucleic acid amplification testing (NAAT) for Gonorrhea, Chlamydia, Trichomonas and Mycoplasma. This lead to improved diagnosis of STIs that may otherwise have gone undetected in high-risk populations seen at STI and non-STI clinics.

Pandemic Response Successes:

6. Rapidly procured lab equipment upgrades including high throughput analyzers and ultra-low temperature freezers, along with SARS-CoV-2 test supplies.
7. Successfully deployed 15 ID NOW rapid testing analyzers to support COVID-19 testing at partner sites throughout the community, including those serving high-risk populations such as congregate living, student health centers and homeless shelters, as well as the City's own employee testing site.
8. Successfully secured several grants to support pandemic response efforts, as well as expand and enhance public health lab capacity and build genomic programming.
9. Created new positions to support COVID-19 operations, including a Laboratory Quality Assurance Specialist, Bioinformatician and two Microbiologist positions.
10. Utilized data visualization to monitor COVID-19 testing operations.
11. Amidst responding to a pandemic, maintained all testing services and external clients as well as MHD internal program support, to assist in timely detection of communicable diseases, laboratory surveillance and outbreak investigations through new test development and outstanding customer service.



Community Health

Maternal and Child Health

Office of Violence Prevention



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Policy, Innovation, and Engagement



COVID-19 Response



Policy, Innovation, and Engagement

The Policy, Innovation, and Engagement (PIE) branch is responsible for providing informed policy analysis, supporting the department's data needs, and coordinating the planning activities of the City of Milwaukee Health Department, its divisions, and programs. It also provides leadership in advocating for policy, systems, and environmental changes that support health equity and a culture of health, both within city government and in the community.

The PIE team achieves this by engaging in the following activities:

- Utilizing data to drive policy and programmatic decisions that improve health outcomes;
- Providing resources and technical support to assist department leadership with decision making including consulting on program data collection, analysis and interpretation as well as program evaluation;
- Developing a framework that is inclusive of internal and external stakeholders to create and implement the department's strategic plan;
- Developing and implementing methods to track progress on departmental and community health goals and objectives as articulated in the Community Health Improvement Plan (CHIP) and Strategic Plan;
- Identifying and collaborating with community partners to improve efficiency and effectiveness of public health efforts;
- Monitoring and analyzing policy initiatives and research at the city, state and federal level and providing policy recommendations;
- Creating and maintaining strategic partnerships with academic institutions to foster workforce development and public health research;
- Providing tools and resources to help elected officials, community residents and other stakeholders understand the health challenges faced by Milwaukee residents, including education around the social determinants of health and the creation of data dashboards;
- Staffing, coordinating and/or leading public health initiatives.

In addition to the above activities, PIE leads the department's efforts to obtain national public health accreditation, which includes advocating for and maintaining written policies and procedures, driving the community engagement and planning process to draft the city's Community Health Improvement Plan. Lastly, PIE is tasked with identifying emerging trends and compiling data and information to produce several reports, including the City of Milwaukee Health Department Annual Report, the Community Health Assessment, and the Community Health Improvement Plan – MKE Elevate.

Milwaukee Overdose Response Initiative (MORI): This is a collaboration between MHD and the Milwaukee Fire Department. As part of this initiative, a group of community paramedics, peer support specialists, and individuals providing harm reduction resources will follow up on nonfatal overdoses in Milwaukee and sometimes Milwaukee County. This program idea was initiated by District 10 Alderman Michael Murphy in January 2019 when \$100k was allocated to pilot the program (MORI 1.0). The receipt of a new National Association for County and City Health Officials (NACCHO) grant (MORI 2.0) in 2019 allowed the program to expand substantially. At the end of 2020, MORI 3.0 was created where MORI partnered with the Milwaukee County Medical Examiner's Office to follow up with families following a fatal overdose to provide resources for grievance and the social determinants of health with the goal of preventing future fatal overdoses in Milwaukee.

PROGRAM OPERATIONS

Branch:	Policy, Innovation, and Engagement
Established:	2008; Vital Statistics – 1893; Fetal Infant Mortality Review – 1993
2020 Expenses:	
O&M Expenses:	\$480,892
Grant Expenses:	\$71,591
2020 Staffing:	
O&M FTE:	15
Grant FTE:	3
Total FTE:	18
Total positions vacant at any point in 2020	3

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Preventive Health Grant	State of Wisconsin, Department of Health Services	10/1/19-9/30/20	\$57,900
Wisconsin Supplemental Nutrition Assistance Program-Education (SNAP-Ed)	State of Wisconsin, Department of Health Services	10/1/2020-9/30/2021	\$20,000
Implementing Overdose Prevention Strategies at the Local Level	National Association of County and City Health Officials	11/8/19-7/31/21	\$1,234,889

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
General Performance					
# of data dashboards maintained (internal and public-facing)		2	2	2	15
# of legislative policies consulted on			29	22	11
# of unique Common Council Committee & Task Force appearances				113	115
Community Health Improvement Plan, MKE Elevate					
# of Steering Committee and Priority Action Team meetings held		4	3	0	1
# of organizations actively re-engaged					100+

13 COVID-19 related
1 Laboratory
1 STI program

PERFORMANCE MEASURES, Continued

Measure	2016	2017	2018	2019	2020
Academic Health Department					
# of active Academic Affiliation Agreements			6	15	19
# of student placements at MHD		47		50+	80+
Departmental and City-Wide Plans Completed					
Community Health Assessment completed within last 5 years	Complete	Complete	Complete	Complete	Drafted
Community Health Improvement Plan completed within the last 5 years		Complete	Complete	Complete	Complete
A quality improvement plan reviewed / completed within the last 5 years		Complete	Complete	Complete	Complete
A performance management plan completed within the last 5 years			Drafted	Drafted	Drafted
A departmental strategic plan completed within the last 5 years			Drafted	Drafted	Drafted
City-County Heroin, Opioid, and Cocaine Report		Drafted	Complete		
Department Annual Report Completed within first six months	Complete	Complete	Complete	Complete	Complete
Substance Misuse Initiatives					
Number of community partner workgroup meetings held			4	3	8
Number of prevention efforts implemented			2	3	5
Number of Narcan kits distributed					403
Number of community presentations facilitated					2
Number of press related events held					5
Engagement					
# of MHD website views	62,271	48,305	40,396	37,584	108,954
# of MHD Facebook page followers*			655	1,085	6,637
# of MHD Facebook page engaged users (total # of users who have interacted with the page and its posts)*				9,093	34,714
# of new MHD Twitter followers			143	162	754
# of tweets published	6	54	110	236	461
# of MHD Twitter engagements (total # of times a user interacted with a tweet)	454	749	3,000	3,368	4,921

In October 2019, MHD began hosting monthly Connections to Heal workgroup meetings with community partners in the Substance Use Disorder community



Vital Statistics

Vital records are records of life events kept under governmental authority, including birth and death certificates. In Wisconsin, each county seat is authorized as an agent of the State of Wisconsin Vital Records unit. In Milwaukee, there is an additional site housed in the City of Milwaukee Health Department, which falls within the Policy, Innovation and Engagement branch.

The governmental authority is tasked with the safekeeping of Vital Records, effectively providing the State government and the City of Milwaukee government with another source of income through fees. Vital Records operations are governed by [Chapter 69](#) of Wisconsin State Statute.

Vital Statistics issues both certified and uncertified documents. Certified copies are official copies that can be used as a form of identification. Uncertified copies do not have the State seal and cannot be used for identification, for court purposes, etc. There are additional restrictions on who can request/receive a certified document.

The City of Milwaukee Vital Records office has access to birth records for all State of Wisconsin births and paper death records for anyone who died at a City resident/institutional address prior to September 2013. We have access to all State of Wisconsin deaths from September 2013 to the present. The office does not have access to marriage or divorce certificates. The office has a Notary Public official on staff. On average, the office takes 550 phone calls each month from customers.

PERFORMANCE MEASURES

Measure	2016	2017	2018	2019	2020
Total gross income, cash receipts, and billing	\$337,948	\$411,965	\$458,679	\$404,584	\$535,633
Births registered	9,700	9,700	9,318	9,170	8,476
Deaths registered	4,310	4,500	5,928	5,931	7,220
Total births and death records	44,166	54,626	60,100	58,461	69,990
Death certificates issued	32944	40432	44978	47706	52,649
Birth certificates cash sales	11,222	14,194	15,122	10,755	17,251
Death certificates cash sales	3,417	2,402	3,158	2,486	3,617
Death certificates via billing to funeral directors	29,527	38,030	41,820	45,220	49,032





Fetal Infant Mortality Review

The Fetal Infant Mortality Review (FIMR) is a process that reviews the circumstances of an infant's life and death to find out what could have been done to prevent the death, promote prevention strategies and goals for community action, and reduce the racial disparity in infant deaths. The guidelines and prevention strategies issued by the FIMR Case Review Team are meant to help keep Milwaukee's infants healthy, safe and alive. FIMR is made possible through the cooperation of Milwaukee area hospitals, health care providers, social service providers and community agencies through a Memorandum of Understanding with the State of Wisconsin.

The Review Process*

1. Case finding through various sources.
2. Contact mother/family for possible maternal interview.
3. Abstract medical and social service data from all institutions and providers for the period of the pregnancy through postpartum.
4. Prepare a Case Narrative and Summary and submit for review to Case Review Team or enter data directly into FIMR database.
5. Convene Case Review Team to prioritize recommendations.
6. Data and recommendations released to public.

*Process is fluid and can take up to four years to complete

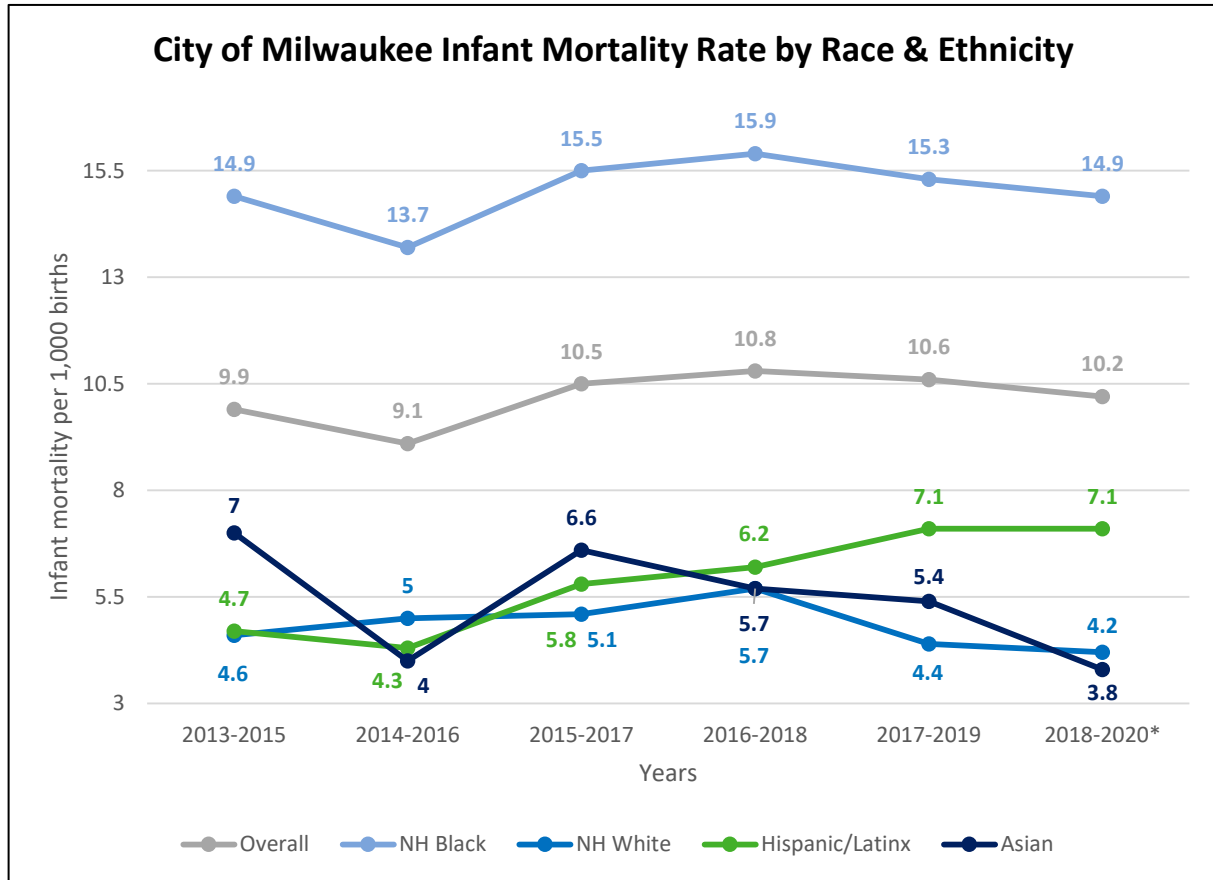
PERFORMANCE MEASURES

Measure	2015	2016	2017	2018	2019	2020
# of infant deaths	95	89	120	99	77	100**
Infant mortality rate	9.7	9.2	12.6	10.8	8.4	11.5*
# of stillbirths	72	53	52	59	67	47**
# of reviews completed	6	6	6	5	6	2
% maternal interviews completed	11%	11%	10%	11%	10%	0
# of partners actively engaged	35	30	38	43	41	45
% of cases analyzed	100%	100%	100%	100%	2019 not yet completed; will be 100%	2019, 2020, and 2021 ongoing: all deaths are analyzed

*preliminary numbers; will not be reconciled until the end of 2020

**data is preliminary and subject to change

POPULATION HEALTH OUTCOMES



*2020 data is preliminary

NH: Non-Hispanic



2020 KEY ACCOMPLISHMENTS

1. Analyzed branch and division onboarding processes within MHD which informed Anti-Racism Plan – advocated for funding for department-wide racial equity trainings as part of onboarding process
2. Developed and published three COVID-19 Issue Briefs
3. Re-engaged the Community Health Improvement Plan (CHIP), MKE Elevate, Steering Committee and Implementation Partners and held a Reengagement Webinar for community members and partners
4. Built collaborative partnerships amidst COVID-19 with Community Health Workers (CHWs)
5. Analyzed and published report on GARE Health Equity Survey from January 2020
6. Contributed analytical and scientific information for two City of Milwaukee amicus briefs that advocated for the preservation of public health emergency powers before the Wisconsin Supreme Court
7. Developed a rubric for evaluating Electronic Health Record vendors and facilitated the selection of a vendor through a systematic process involving key stakeholders
8. Developed and launched mass media campaigns to address COVID-19 and Influenza
9. Modernized the Milwaukee Health Department Website

2020 KEY CHALLENGES

1. Overextended operational capacity due to the COVID-19 pandemic, which caused significant difficulty in balancing strategic and operational functions
2. Unstable aging data systems and the lack of a department-wide electronic health record led to data loss and makes it difficult to report on key metrics and outcomes of the department
3. PIE staffing needs hindered by retention and the recruitment and onboarding processes.
4. Long term sustainability of grant funding sources





Community Health

Maternal and Child Health

Office of Violence Prevention



Environmental Health

Consumer Environmental Health

Home Environmental Health

Emergency Preparedness & Environmental Health



Medical Services

Clinical Operations

Laboratory Services



Policy, Innovation, and Engagement



COVID-19 Response



COVID-19 Response

Overview

On March 13, 2020, Milwaukee Health Department (MHD) confirmed Milwaukee's first case of COVID-19. Due to the identified case Milwaukee County and the City of Milwaukee declared a public health emergency. In order to swiftly respond to the emerging pandemic, MHD adjusted services to prevent community spread and activated the Incident Command Structure on March 17, 2020, which redeployed staff to the pandemic response. Key to MHD's response throughout the pandemic was an emphasis on equity and seeking to ensure that services are accessible to all community members, aided by an early focus on reporting COVID-19 related data by race and ethnicity. MHD joined the Unified Emergency Operations Center (UEOC) to support strong multi-sector collaborative response to the COVID-19 pandemic. Additionally, MHD stood up a number of response efforts thoroughly described below.



Communication

The Milwaukee Health Department (MHD) recognized the need for strong communication to the public and its community partners. Through news releases and updates, issue briefs and regularly scheduled media briefings, MHD kept the public apprised of changing trends and emerging guidance to respond to the pandemic. Additional communication strategies include the COVID-19 hotline, website, and text and email communications.

COVID-19 Hotline

The Milwaukee Health Department (MHD) COVID-19 Hotline remains a critical piece of MHD's response to the COVID-19 pandemic. The COVID Hotline was stood up in March 2020 at the beginning of the pandemic as a resource to the community to ask questions and seek out factual information and resources from public health nurses. As the virus spread and COVID testing became more available, the hotline quickly became an access point for individuals to obtain timely access to their test results; at this time, redeployed library staff were brought in and trained to assist. As the needs of the community evolved, so did the hotline, growing from one health information line, to four distinct specialties with a strong staff of temporary employees. In 2020, the COVID Hotline answered over 29,000 calls and assisted individuals with connection to: testing locations, test results, exclusion letters, case managers/contact tracers, healthcare providers, thermometers, groceries to comply with isolation/quarantine, MHD CEH for concerns, questions, safety plans and mask violations, and much more.

Website Communications

Throughout 2020, the communication team at MHD expanded electronic communications, including the launching of a website specific to COVID-19 in the City. This website houses options to sign up for text and e-mail alerts, regularly updated data on the extent of the spread of COVID-19, as well as housing useful information on how the public may stay safe throughout the pandemic. Accessibility was ensured by providing translations of the English language version of the website and its contents into Spanish and Hmong. This website was necessary in providing consistent, reliable, and trustworthy messaging throughout the pandemic for diverse audiences. The communication team efficiently adapted their materials to the frequently changing needs of the pandemic despite staff limitations and frequent turnover thanks to successful interdepartmental collaboration.

Text and E-Mail Communication

Utilizing E-Notify, members of the public could sign up for regular COVID-19 updates, including alerts through text or e-mail and a subscription to the weekly COVID-19 newsletter. These services allowed MHD's communication team to readily share informational materials, resources, details on free mask and testing sites, the location of mobile clinics, gating metrics, and updates on vaccine sites. These efforts were aided by robust work teams who collaboratively and creatively developed partnerships with community groups to further spread the reach of these messages.

Testing

Emergency Preparedness

MHD's focus on equity in access to testing and collaboration with service providers throughout the city allowed MHD to target services to housing instable or low-income populations. Place-based testing efforts centered on congregate settings, where individuals who face barriers to physical distancing could safely isolate in free residential isolation centers. MHD staff collaborated with representatives from the Milwaukee County Housing Division, the Wisconsin National Guard, and the Milwaukee Fire Department to set up and operate a residential isolation facility at Clare Hall on the grounds of the Milwaukee Archdiocese. At Clare Hall, residents who tested positive for COVID-19 were monitored for severe symptoms, provided with food, clothing, transportation to medical appointments, and support from social workers as needed. The deployment of COVID-19 Community/Mobile testing services additionally allowed MHD staff to target emergent hotspots.

MHD Lab

Building upon a strong infrastructure for collaboration with local partners, the MHD laboratory provided a robust response to the COVID-19 pandemic and surveil for outbreaks of COVID-19 throughout the city. The MHD laboratory worked to provide testing services throughout the pandemic and was one of two other public health labs in the state to conduct COVID-19 surveillance early in the pandemic. These early efforts were hindered in delays in SARS-CoV-2 CDC Assay test onboarding needed to implement testing efforts in the City, though these complications were quickly overcome.

Contact Tracing

To meet the demands of high COVID caseloads, MHD reassigned numerous internal programs, on-boarded staff from other city functions, worked with temp agencies, and reengaged previously retired public health nurses and leaders to respond to the growing needs of the pandemic. All staff were trained virtually with processes, procedures, and training curriculum that were developed and consistently revised based on evolving guidance from the CDC and WI DHS. Many data systems were employed to manage the large and shifting workforce and to facilitate surveillance of the pandemic. The contact tracing team additionally established special project teams in order to better work with specific populations like K-12 schools, childcare facilities, and higher education institutions, and to work with specific processes like case processing, case assignment, and case review. While rapid changes to policies and procedures that reflected the changeable nature of the pandemic remained challenging throughout 2020, the contact tracing team overall managed to maintain high levels of staff retention, recruit a culturally and linguistically diverse workforce, support residents by offering grocery delivery services, and maintain a cohesive team structure that was more ready to respond to the pandemic.

Mitigation & PH Emergency Orders

Free Mask Program

The City of Milwaukee Health Department started the free mask program in fall of 2020 and partnered with over 116 different organizations in our communities to distribute nearly 481,425 masks by the end of 2020. In collaboration with various local vendors, masks of various sizes and ADA compliant masks that supported lip reading for individuals that are deaf or hard of hearing were distributed. MHD staff remained mindful of COVID precautions, providing separated and individually packaged masks.

Public Health Emergency Orders

In 2020, nine public health emergency orders were passed by the City of Milwaukee with help from MHD staff. These orders ensured safe operation of businesses and schools, enforcement of safety precautions and COVID safety compliance, the development of grocery delivery and community meal sites, as well as the expansion of a public health workforce to better assist in mitigation efforts. These orders could not have been drafted or enforced without continuous collaboration between leadership at all levels of City government.

Vaccine Distribution Planning

The end of 2020 brought the approval of two safe and effective COVID vaccines, thus requiring MHD staff to focus on planning for mass vaccination efforts. Staff needed to identify mass vaccination clinic venues that could be large enough to allow for physical distancing, air cycling, and screening, while also allowing for large numbers of City residents to access vaccination. Further, MHD worked to select a venue that could be accessible for all residents and chose the Wisconsin Center located in the central city of Milwaukee. MHD staff collaborated to ensure that the City would have a ready supply of vaccine doses, to recruit and train a workforce to work in the Wisconsin Center, and to adapt to the phased eligibility for vaccination among the population.

PROGRAM OPERATIONS

2020 Expenses:	
O&M Expenses:	\$1,386,385
Grant Expenses:	\$22,835,531

ACTIVE GRANTS

2020 Active Grants	Funder	Grant Period	Amount Over Grant Period
Advancing a Healthier Wisconsin	Medical College of Wisconsin	4/10/20-12/31/20	\$500,000
Bioterrorism Public Health Preparedness – COVID-19	State of Wisconsin Department of Health Services	4/1/20-3/15/22	\$319,908
Coronavirus Aid, Relief and Economic Security (CARES) Act Grant - Federal	U.S. Federal Government	03/01/20-12/31/20	\$18,313,582
COVID-19 Test Pilot Program	State of Wisconsin Department of Health Services	12/31/20-08/31/21	\$3,920,000
Epidemiology & Laboratory Capacity COVID-19 Enhancing Detection & Prevention Grant	State of Wisconsin Department of Health Services	10/01/20 - 10/31/22	\$6,056,200
Routes To Recovery COVID-19	State of Wisconsin Department of Administration	3/1/20-11/1/20	\$3,000,000
Epidemiology & Laboratory Capacity (ELC) CARES Act Grant			
Epidemiology & Laboratory Capacity CARES COVID-19	State of Wisconsin Department of Health Services	2/1/20-9/30/21	\$115,500
Testing Coordination	State of Wisconsin Department of Health Services	3/1/20-12/31/20	\$756,100
Planning	State of Wisconsin Department of Health Services	3/1/20-12/31/20	\$30,000
Contact Tracing	State of Wisconsin Department of Health Services	3/1/20-12/31/20	\$5,115,246

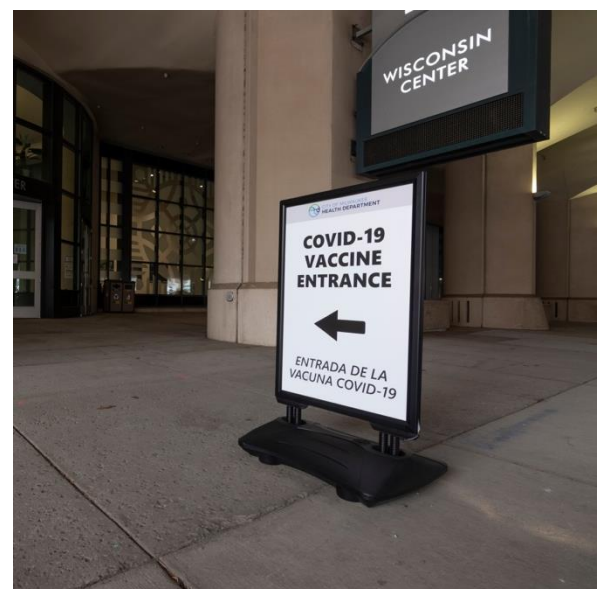


PERFORMANCE MEASURES

Measure	2020
Outcome measures	
# of confirmed cases	55,396
# of deaths	498
Testing	
# of COVID-19 tests performed at MHD lab	26,649
# of individual place-based testing clinics	64
# of facilities sampled via testing clinics	42
# of tests performed at mass testing sites	305,316
# of tests completed at place-based testing clinics	2,512
# of tests completed at Clare Hall Testing Station	2,017
Contact tracing & case management	
# of confirmed cases worked by MHD	40,178
# of contact investigations worked by MHD	29,464
# of close contacts identified from cases	6,901
Workforce	
Hours dedicated to COVID-19 response	286,944
% of MHD staff redeployed to support pandemic response operations	42%
# of contract employees hired for COVID-19 response	317
Communication, Outreach, & Engagement	
Responses to emails from public (askmhd covid19@milwaukee.gov)	4,149
# of assists through COVID-19 hotline	29,092
# of COVID-19 issue briefs published	3
COVID-19 data dashboard views*	361,150
# of data dashboards maintained (internal and public)	13
# of MHD COVID-19 website views	195,030
Mitigation	
# of public health emergency orders issued	9
# of free mask distribution sites**	106
# of masks provided to mask distribution sites**	481,425

*as of May 25, 2021

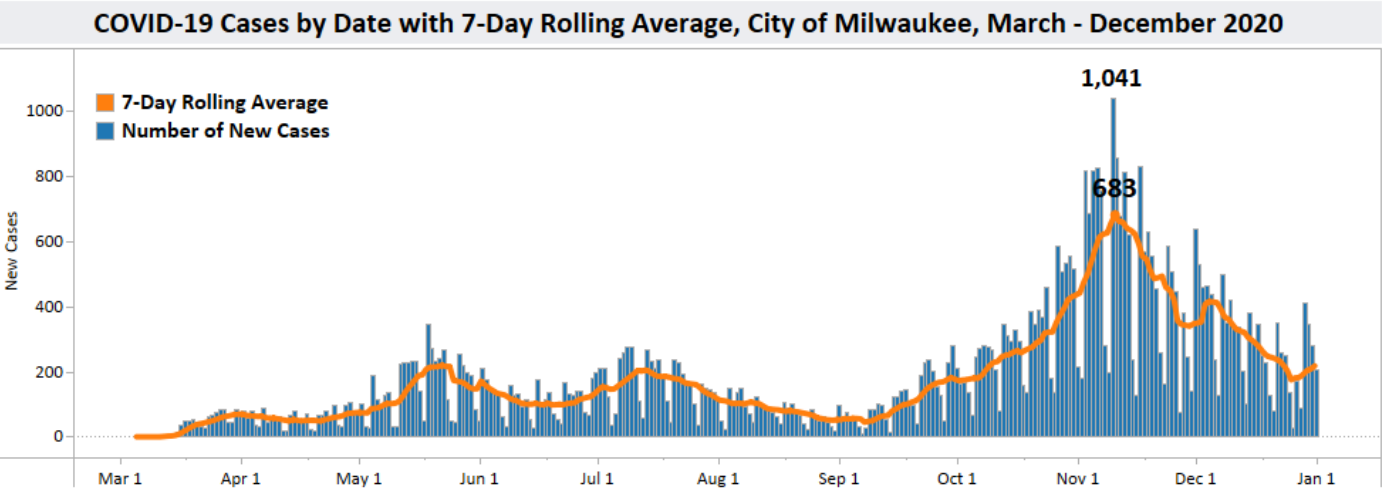
**number is approximate



POPULATION HEALTH OUTCOMES

INCIDENCE RATES

The following figures display new cases of COVID-19 in the City of Milwaukee over time and by demographic breakdown (i.e., age, race/ethnicity and gender). The first figure on this page displays the number of new cases and 7-day rolling average over time. The subsequent figure displays COVID-19 case data by age group.



Data Source: Wisconsin Electronic Disease Surveillance System (WEDSS)

COVID-19 Incidence Rates per 1,000 Persons by Age Group, City of Milwaukee, March - December 2020



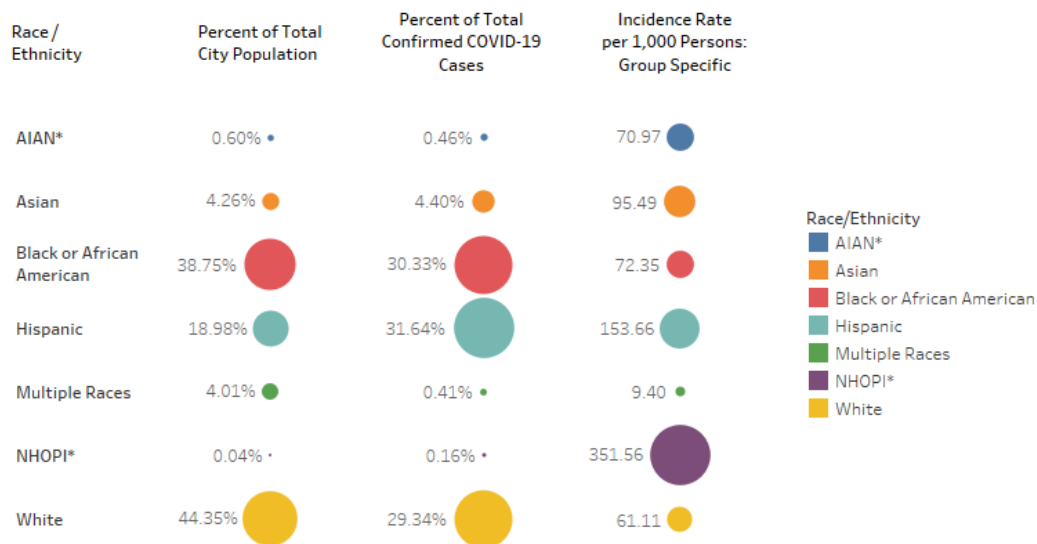
	<15	15-24	25-34	35-44	45-54	55-64	65+
Confirmed COVID-19 Cases	4,965	11,064	12,211	8,941	7,290	5,480	5,012
Total Group Population	129959	95301	101565	74841	66835	63719	62328
Percent of Population	21.86%	16.03%	17.08%	12.59%	11.24%	10.72%	10.48%
Percent of COVID-19 Cases	9.03%	20.13%	22.22%	16.27%	13.26%	9.97%	9.12%
Group Specific Incidence Rate	38.20	116.10	120.23	119.47	109.07	86.00	80.41

Data Source: Wisconsin Electronic Disease Surveillance System (WEDSS)
Data are suppressed when between one and five cases are reported per group.

INCIDENCE RATES CONTINUED

The first figure on this page displays detailed COVID-19 case data by race and ethnicity. The subsequent figure displays detailed case data by gender.

COVID-19 Incidence Rates per 1,000 Persons by Race and Ethnicity, City of Milwaukee, March - December 2020

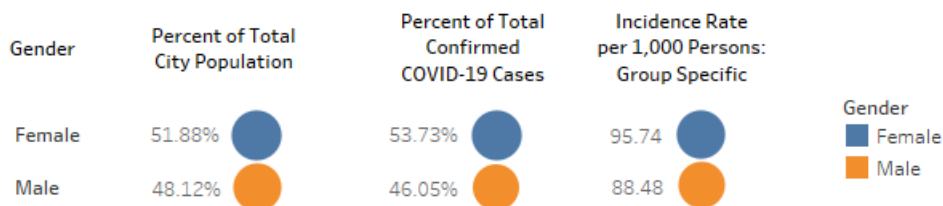


*AIAN: American Indian or Alaska Native;
NHOPI: Native Hawaiian or Other Pacific Islander
Data Source: Wisconsin Electronic Disease Surveillance System (WEDSS)

Data are suppressed when between one and five cases are reported per group.

	AIAN*	Asian	Black or African American	Hispanic	Multiple Races	NHOPI*	White
Confirmed COVID-19 Cases	254	2,421	16,673	17,390	224	90	16,126
Total Group Population	3579	25344	230371	112817	23838	256	263703
Percent of Population	0.60%	4.26%	38.75%	18.98%	4.01%	0.04%	44.35%
Percent of COVID-19 Cases	0.46%	4.40%	30.33%	31.64%	0.41%	0.16%	29.34%
Group Specific Incidence Rate	70.97	95.53	72.37	154.14	9.40	351.56	61.15

COVID-19 Incidence Rates per 1,000 Persons by Gender, City of Milwaukee, March - December 2020



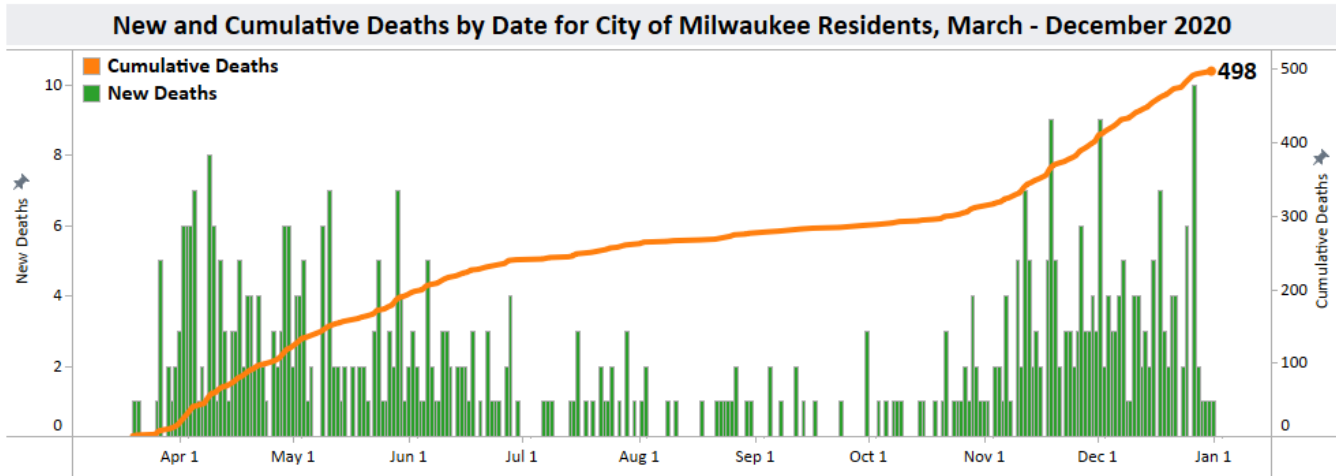
Data Source: Wisconsin Electronic Disease Surveillance System (WEDSS).

Data are suppressed when between one and five cases are reported per group.

	Female	Male
Confirmed COVID-19 Cases	29,532	25,313
Total Group Population	308467	286081
Percent of Population	51.88%	48.12%
Percent of COVID-19 Cases	53.73%	46.05%
Group Specific Incidence Rate	95.738	88.482

DEATH RATES

The following figures display data on COVID-19 deaths in the City of Milwaukee. The first figure shows new and cumulative deaths over time. The subsequent figure displays detailed COVID-19 death data by age group.



Data Source: Milwaukee County Medical Examiner's Office

COVID-19 Death Rates per 1,000 Persons by Age Group, City of Milwaukee, March - December 2020

Age Group	Percent of Total City Population	Percent of Total Confirmed COVID-19 Deaths	Death Rate per 1,000 Persons: Group Specific
<35	54.97%	1.41%	0.02
35-44	12.59%	2.41%	0.16
45-54	11.24%	6.22%	0.46
55-64	10.72%	15.66%	1.22
65-74	6.31%	27.51%	3.65
75-84	2.77%	26.10%	7.88
85+	1.40%	20.68%	12.40

	<35	35-44	45-54	55-64	65-74	75-84	85+
Confirmed COVID-19 Deaths	7	12	31	78	137	130	103
Total Group Population	326,825	74,841	66,835	63,719	37,530	16,494	8,304
Percent of Population	54.97%	12.59%	11.24%	10.72%	6.31%	2.77%	1.40%
Percent of COVID-19 Deaths	1.41%	2.41%	6.22%	15.66%	27.51%	26.10%	20.68%
Group Specific Death Rate	0.02	0.16	0.46	1.22	3.65	7.88	12.40

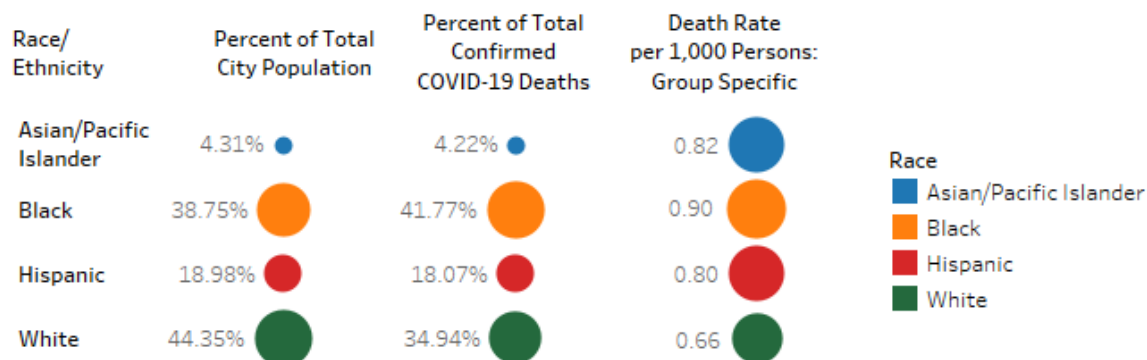
Data Source: Milwaukee County Medical Examiner's Office

Data are suppressed when between one and five deaths are reported per group.

DEATH RATES CONTINUED

The first figure on this page displays detailed COVID-19 death data by race/ethnicity. The subsequent figure shows detailed death data by gender in the City of Milwaukee.

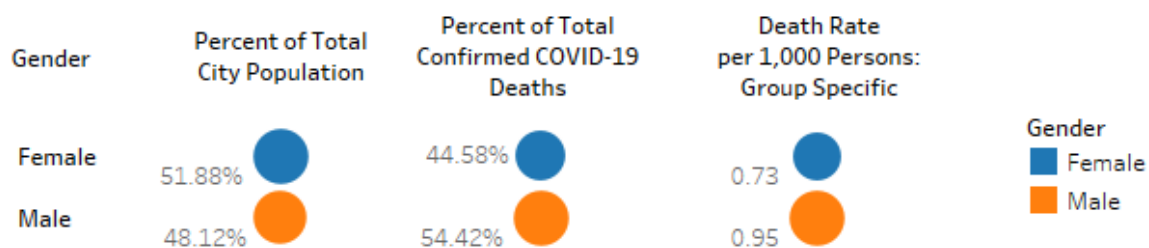
COVID-19 Death Rates per 1,000 Persons by Race and Ethnicity, City of Milwaukee, March - December 2020



Data Source: Milwaukee County Medical Examiner's Office
Data are suppressed when between one and five deaths are reported per group.

	Asian/Pacific Islander	Black	Hispanic	White
Confirmed COVID Deaths	21	208	90	174
Total Group Population	25,600	230,371	112,817	263,703
Percent of Population	4.31%	38.75%	18.98%	44.35%
Percent of COVID Deaths	4.22%	41.77%	18.07%	34.94%
Group Specific Death Rate	0.8203	0.9029	0.7978	0.6598

COVID-19 Death Rates per 1,000 Persons by Gender, City of Milwaukee, March - December 2020



	Female	Male
Confirmed COVID-19 Deaths	225	273
Total Group Population	308,467	286,081
Percent of Population	51.88%	48.12%
Percent of COVID-19 Deaths	45.18%	54.82%
Group Specific Death Rate	0.7294	0.9543

Data Source: Milwaukee County Medical Examiner's Office
Data are suppressed when between one and five deaths are reported per group.

Acknowledgements

This report was developed by the Policy, Innovation, and Engagement branch of the City of Milwaukee Health Department, with major contributions from staff across all branches and divisions.

Primary author:

Laura Rollin
Data Coordinator

Key contributor:

Kyla Quigley, MPH
Data Coordinator

Primary contact:

Bailey Murph, MPH
Deputy Commissioner of Policy, Innovation, and Engagement
bamurph@milwaukee.gov

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CITY OF MILWAUKEE
HEALTH DEPARTMENT