

Tom Barrett, Mayor Bevan K. Baker, CHE Commissioner of Health www.milwaukee.gov/health

Public Health Report by Aldermanic District

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Public Health in the News

Hardly a day passes that public health is not in the news. In the past week alone there have been headlines regarding the development of a school of public health in Milwaukee, and what role the military should take to enforce public health quarantine orders in the event of an avian flu pandemic. There have been stories on Tuberculosis, Infant Mortality, Teen Pregnancy, and West Nile Virus. The City of Milwaukee Health Department (MHD) has targeted its health priorities and outcomes around the current health status

of the city. This report is the first in a series of newsletters that will keep you informed about public health issues facing our City. In this issue, we will broadly describe the activities of the MHD, and present data that, when possible, is organized by aldermanic district. Citizens in Milwaukee are protected by the breadth of pubic health activities that we provide on a daily basis. Further, this report includes a combination of health status measures and public health services directed to your constituents.

Health Priorities and Outcomes

- Improve the Quality and Safety of Consumer Products and Services
- Healthy and Safe Homes for Healthier Children
- Promote Reproductive Health, Healthy Child Development and School Readiness
- Reduce Illness and Injury from Communicable Disease, Pollution and Disasters
- Promote Healthy Behaviors and Access to Health Services

Public Health Organizes Around Health Outcomes

This report is organized around the department's outcome areas. We define outcomes as "population health change." Population health outcomes define the MHD's organizational structure, and drive all departmental activities. In essence they are our bottom line. Measurable outcomes are necessary to allocate resources and to acquire new resources. The entire organization supports the achievement of defined health outcomes. Outcomes allow

us to measure our progress, identify disparities, use common measures with other communities and to establish benchmarks for success. Outcome-driven organizations require special strategies. We need community participation and external partners. Staff at all levels must adjust strategies around best practices, lessons learned and community input.

CONSUMER ENVIRONMENTAL HEALTH

Improve the Quality and Safety of Consumer Products and Services

Protecting Buyers and Sellers

Security and Fire Safety

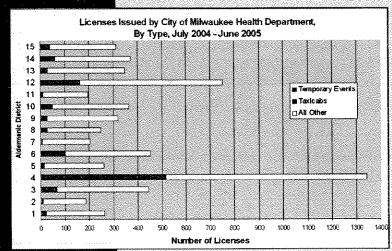
Improve the Quality and Safety of Consumer Products and Services

The work in this outcome area encompasses food safety, weights and measures, sales ordinances, convenience store security, fire inspections, and regulations for tattoo and body piercing annually in licenses and inspection fees. The goal is to ensure that food provided for human consumption is safe, of good quality, free from adulteration, and produced under conditions and by practices which are

safe, clean and sanitary. The program is risk-focused and designed to reduce the occurrence of violations identified that contribute to foodborne illnesses. Services in food safety

include food inspections, education, investigations, consultations, and enforcement in the following types of food establishments: restaurants, grocery stores, bakeries, taverns, fairs/festivals, food vending machines, mobile food units, convenience stores and filling stations. This program operates as a registered agent of the Wisconsin Department of Health and Family Services and State Department of Agriculture.

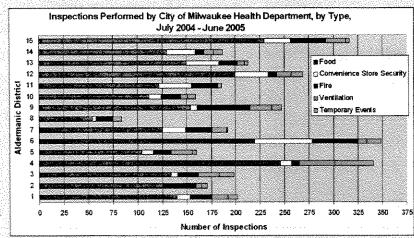
Milwaukee was the host of a tattoo convention October 14–16, 2005 featuring 52 artists from around the world. These establishments are regulated to protect the public from the transmission of bloodborne pathogens. A listing of inspection services by aldermanic district follows.



establishments. The food safety program is most prominent, and generates more than \$1.4 million

Security and Fire Safety

Annually in the US, 76 million illnesses are linked to food-borne agents, and many of these illnesses are associated with dining out. An increase in robberies in convenience stores led to the enactment of these regulations for convenience stores. These security regulations are intended to be a deterrent to armed robberies in these types of facilities. A convenience store by definition sells only



continued on next page

Security and Fire Safety, continued

certain items and has a retail sales area of less than 5,000 square feet. The division of Consumer Environmental Health works cooperatively with the Milwaukee Police Department to obtain

compliance with these requirements.

To prevent duplication of inspection activity and to reduce the need for industry to interact with separate city agencies, fire inspections

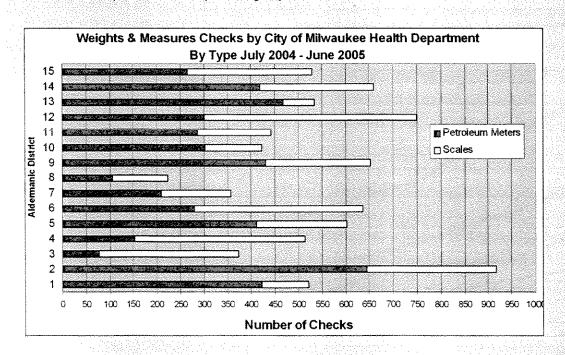
are conducted at the time of an establishment's routine food inspection. These inspections are done to ensure compliance with the city's fire safety regulations in freestanding food establishments.

Protecting Buyers and Sellers

The regulation of weights and measures protects the interests of both buyer and seller. The measurement standards developed by government provide a basis for value comparison and fair competition in commerce. These standards are fundamental to protecting consumers, protecting purchasers of weighing and measuring devices, and promoting fairness in competition

among device
manufacturers and among
retail and wholesale
marketers. The weights and
measures program is also
responsible for checking the
accuracy of individually
packaged merchandise and
enforcing Method of Sale
and labeling requirements
for items offered for sale.
The sales ordinance is in
place to regulate businesses
that go out of business,
protecting buyers from

unscrupulous dealers and ensuring fair competition in the marketplace. The division investigates, issues licenses, and collects personal property taxes for all going-out-of-business sales. Without oversight there could be abuse and fraud related to the manner in which these sales are conducted.



CONSUMER ENVIRONMENTAL HEALTH

Improve the Quality and Safety of Consumer Products and Services

Protecting Buyers and Sellers

Security and Fire Safety

Critical Food Violations:

- Improper
 Temperatures
- Contaminated equipment or crosscontamination
- Poor personal hygiene

Plan Review The City of Milwaukee Health Department's Consumer Environmental Health Program reviews plans for all food establishments undergoing construction or major remodeling. The plan review process ensures that facilities and equipment meet health and safety requirements and are adequate for the proposed operation.

	# of Plan
District	Reviews
1	8
2	27
3	32
4	76
5	11
6	14
7	8
8	6
9	30
10	8
11	18
12	61
13	18
14	31
15	16

HOME ENVIRONMENTAL HEALTH

Healthy and Safe Homes for Healthier Children

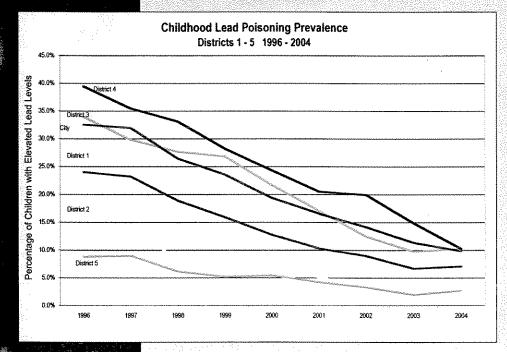
Healthy and Safe Homes for Healthier Children

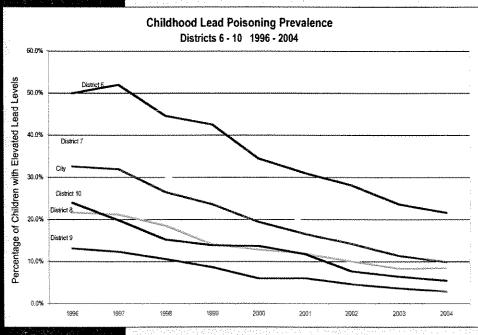
The Home Environmental Health Division focuses on preventable conditions such as childhood lead poisoning, asthma and unintentional injuries. Although comprehensive health and housing services are provided to families, the major focus is on the safety of the home environment. Activities include testing, care coordination and case management of children; inspection, abatement and technical assistance for housing rehabilitation; community-based education and training for health professionals and community organizations; and research on costeffective healthy homes strategies.

Lead Poisoning

Childhood Lead Poisoning Prevalence rates reflect the percentage of children in a one year period who had a lead test result above the threshold of concern. Lead exposure above this threshold results in learning disabilities, behavior problems and loss of I.Q. The effects are irreversible.

Nationally, the lead poisoning prevalence rate is 1.6%. Although great progress has been made in the City of Milwaukee rates have been reduced by over 50% in the last five years - the Milwaukee rate of 9.8% is still over six times areater than the national average. In high-risk areas defined by old housing stock with a high percentage of rental properties and low assessed values, the prevalence rate is 22%, or over 13 times greater than the national average. In 2004, 2,364 children were identified as being exposed to dangerous levels of lead.





Healthy and Safe Homes for Healthier Children, continued

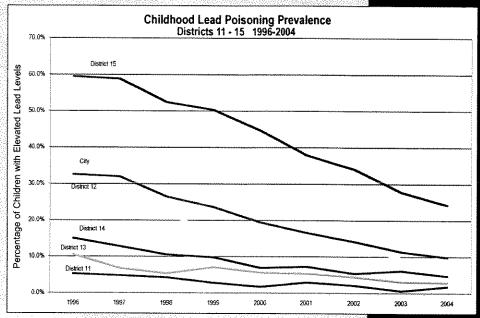
Asthma

Asthma affects 30,000 children in Milwaukee County at an annual estimated cost of \$10 million. Today, asthma is the most common chronic childhood disease in the US. It is the number one cause of emergency visits and preventable hospitalizations and the leading cause of school absenteeism. The MHD provides leadership for care coordination, in-home case management, home assessment and remediation of environmental triggers and community-based education.

Unintentional Injuries

Unintentional injuries are the leading cause of death for individuals ages 1–34 in the United States, the State of Wisconsin and the City of Milwaukee. The MHD focuses on common

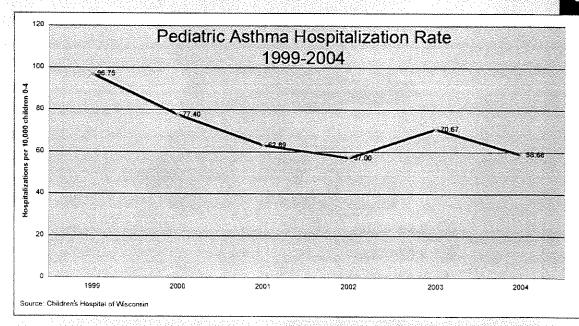
household hazards such as falls and fire prevention as a part of lead poisoning and asthma risk assessments. developed by a communitybased Planning Committee to set forth the framework to eliminate lead poisoning by 2010. HOME ENVIRONMENTAL HEALTH



Milwaukee has been designated by HUD as a Lead-Safe and Healthy Homes Community. As a result, the City of Milwaukee Lead Strategic Plan was During 2003, 968
children were
hospitalized and 3,784
children received
emergency department
services due to the
severity
of their asthma. The MHD
collaborates with

Children's Hospital of Wisconsin to collect data on pediatric asthma hospitalization.

The City of Milwaukee rate of 58.68 per 10,000 is far above the MHD 2010 goal of 25 per 10,000.



MATERNAL & CHILD HEALTH

Promote Reproductive Health, Healthy Child Development and School Readiness

Reducing Infant Mortality is a top priority.

The reduction of infant mortality and specifically the reduction of racial and ethnic disparities in infant mortality is a top priority for the MHD. Infant mortality is measured by the number of infants who die before their first birthday per 1,000 live births. The overall city rate for infant mortality is 11.8/1,000. The Non-Hispanic Black rate is 19.23/1000, and the Non-Hispanic White rate is 4.52. Twenty-five registered nurses in the City all work on infant mortality as part of their caseload.

Every infant born in the city is assessed for risk factors that prompt a Public Health Nurse (PHN) visit. There are not sufficient nursing resources to provide services to all 12,000 newborns born each year in Milwaukee. Statistical analysis of infant birth and death records identifies infants who are at most risk for public health nursing services. The infant mortality map shows rates per aldermanic district.

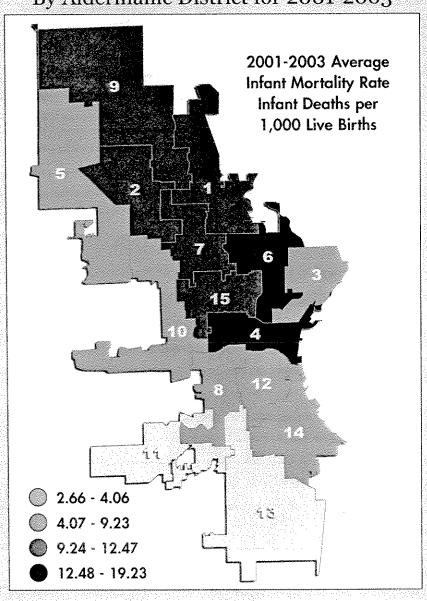
Promote Reproductive Health, Healthy Child Development and School Readiness

Maternal and Child Health outcomes include reducing disparities in infant death rates and increasing school-readiness of preschool children. Activities include family case management and home visiting programs for pregnant women and

young children, follow-up of infants with special needs, and community-based promotion of healthy pregnancy and child rearing. Staff at the Women Infants and Children (WIC) nutrition centers and nursing clinics assess health needs

and provide care or referral as needed. This division also seeks to ensure children enter school healthy and ready to learn by ensuring age-appropriate immunization and promoting healthy parenting and out-of-home childcare.

City of Milwaukee Health Department Average Infant Mortality Rate By Aldermanic District for 2001-2003

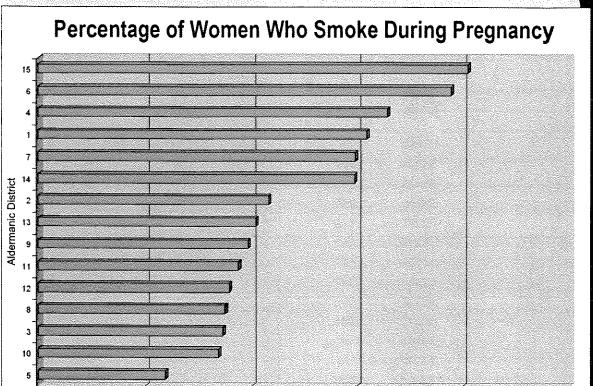


MATERNAL & CHILD HEALTH

Smoking during pregnancy can lead to pregnancy complications and serious health problems in newborns. Smoking nearly doubles a woman's risk of having a low birth weight baby. Infants who are exposed to second hand smoke are at risk of dying from Sudden Infant Death Syndrome (SIDS). Compared with unexposed infants, babies exposed to secondhand smoke after birth are at twice the risk for SIDS, and infants whose mothers smoked before and after birth are at three to four times greater risk. All pregnant women followed by public health nurses are counseled about smoking and exposing their infants to

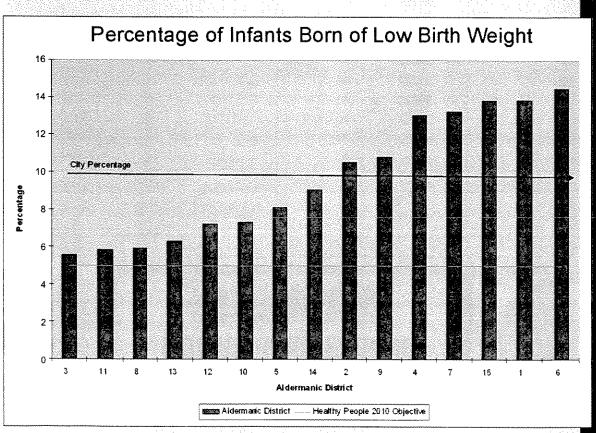






10%

5%



MATERNAL & CHILD HEALTH

The table at right summarizes PHN home visits by zip code.

Information on Programs
Provided During Home Visits:

- Arthritis Control Program
- Asthma Control Program
- Young Child/Toddler Health
- Genetics
- Immunization
- Infant Health
- Maternal/Perinatal Health
- Prevention of Child Abuse /Neglect
- Reproductive Health
- Communicable Disease
 Investigation/Follow-up

In 2004, the following ad appeared on city buses as part of the MHD effort to reduce infant mortality.

City of Milwaukee Health Department Home Visits by Zip Code in 2004

Zip Number of	
Zip Code	Home Visits
Code	HOIRE VISHS
53202	26
53204	490
53205	143
53206	359
53207	112
53208	262
53209	197
53210	279
53211	9
53212	255
53213	4
53214	14
53215	453
53216	183
53218	293
53219	8
53220	23
53221	94
53222	48
53223	. 61
53224	78
53225	89
53226	8
53227	1
53228	4
53233	70

Public Health Nurses do home visits and also see residents in clinics and in other community settings. In 2004 more than 9,000 residents received public health nursing services. 3,563 residents were visited at home by a public health nurse. PHNs also administered more than 15,000 immunizations in 2004.



WARNING! DANGEROUS POSITION

BABIES PLACED FACE DOWN TO SLEEP CAN DIE. BABIES SHOULD ALWAYS SLEEP ON THEIR BACKS.

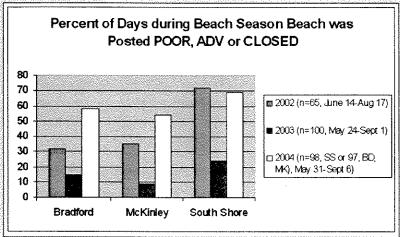
FOR INFORMATION 1-866-LIV-BABY

Percentage of Days during Beach Season that a Beach was Posted POOR, ADV or CLOSED

The following graph shows for a three year period the percentage of days over the public beach swimming season (typically June – August) in which the MHD recommended that a particular beach be posted as having water quality conditions not conducive to public contact. The MHD

risk determination is based both on daily water sampling data as well as predictive water modeling developed using microbiological, physical and chemical data available to the MHD from various sources. The content and the format of the beach postings (i.e., signage) was developed in

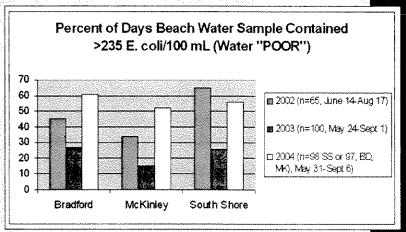
coordination with the Wisconsin Department of Natural Resources Agency and has been used a model throughout the State of Wisconsin, especially within other Lake Michigan communities.



Percentage of Days Beach Water Sample Contained Greater Than 235 E. coli/100mL (Water "POOR")

The graph below shows for a three year period the percent of days over the public beach swimming season (typically June – August) in which the daily sample of water collected by the MHD from the beach exceeded the US Environmental Protection Agency (USEPA) threshold for bacterial contamination. This graph demonstrates the variability of water

quality at each public beach location within the City from year to year, and its association with a number of environmental variables including rainfall, non-point stormwater discharge at or near the area, and select wastewater treatment events such as combined sewer overflows to the watershed.



DISEASE CONTROL & PREVENTION

Reduce Illness and Injury from Communicable Disease, Pollution and Disasters

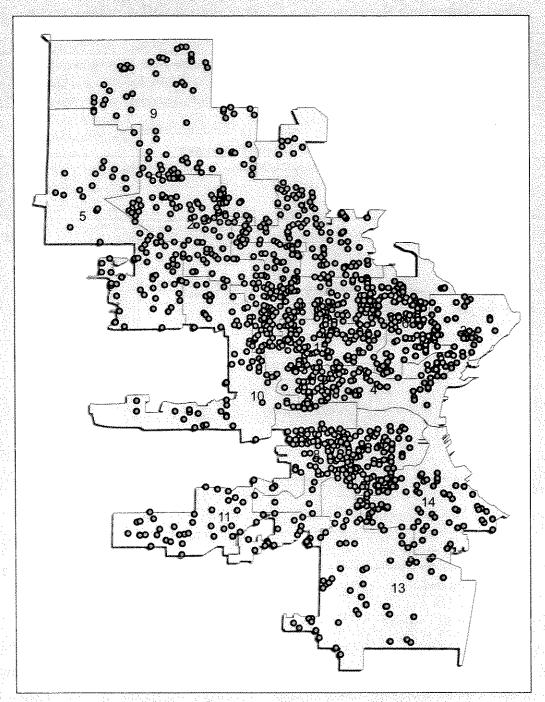
The Division of Disease **Control and Prevention** seeks to control communicable diseases. and to reduce and manage hazardous contamination of air, water, and soil. This group also coordinates the preparation and response for public health emergencies such as epidemics, hazardous material releases, and weather emergencies. They ensure surveillance, education, prevention, case management, and care for infectious diseases including tuberculosis, sexually transmitted diseases. and AIDS. They also help prevent and clean up pollution of air, water, and brownfields (contaminated properties) through surveillance, education, technical assistance, and partnerships with public and private groups.

DISEASE CONTROL & PREVENTION

Communicable Disease Reporting in the City of Milwaukee

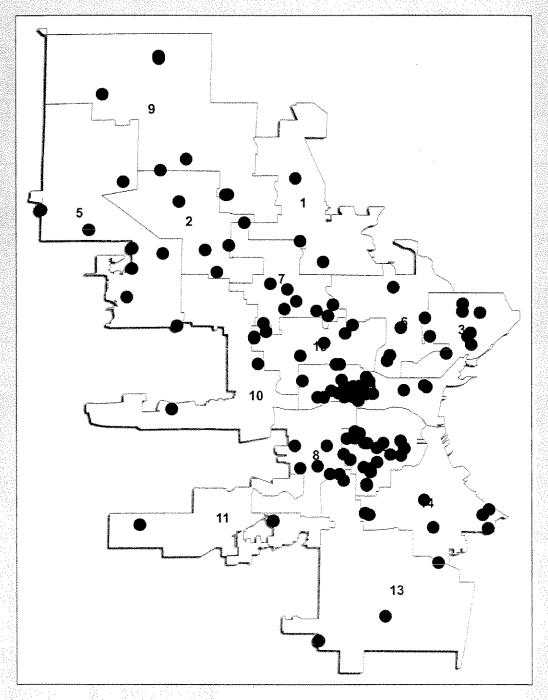
The map at right delineates reported communicable disease (CD) case investigations conducted by MHD. Communicable disease incidence locally and regionally is not isolated to distinct geographic or civil boundaries with the exception of outbreaks. The MHD has centralized surveillance and CD reporting within Milwaukee County through an agreement with surrounding municipalities and the State of Wisconsin Division of Public Health (DPH). The Milwaukee County Communicable Disease Surveillance Network or "SURVNET" has been in existence since 1998 and has served as the primary public health disease tracking system in monitoring the occurrence and distribution of reportable communicable disease within Milwaukee County. This information is compiled and distributed to other public health agencies and healthcare partners electronically on a monthly basis. In turn, this information is used on a regional and state-wide basis for program planning as well prevention and intervention strategies.

City of Milwaukee Health Department Communicable Disease Investigations By Aldermanic District Year 2004



Does not include STD or TB investigations

City of Milwaukee Health Department TB Clinic Clients By Aldermanic District in 2005



Services Provided at TB Clinic:

- Contact Examination
- Treatment
- Suspect Case

DISEASE CONTROL & PREVENTION

Tuberculosis Control Clinic at the City of Milwaukee Health Department

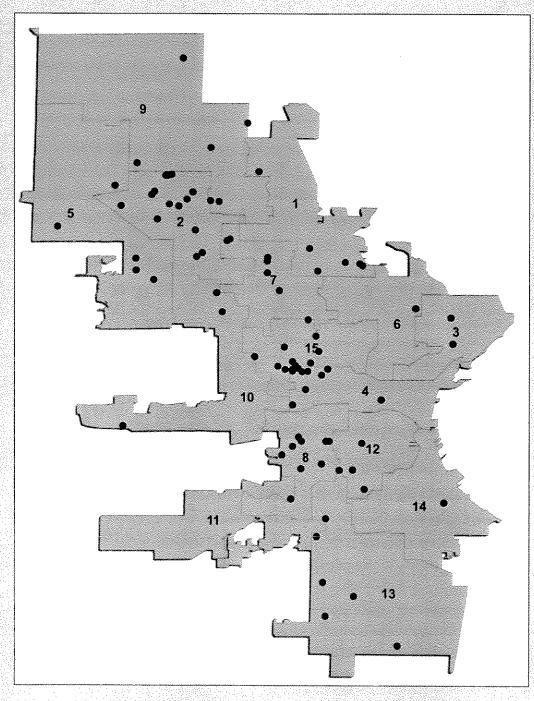
The map at left represents the reported residence of clients seen by the City of Milwaukee Tuberculosis Control Clinic (TBCC) at the Keenan Health Center located at 3200 N. 36th Street. TB crosses all socioeconomic and cultural strata and is typically not geographically isolated within a local or regional basis with the exception of targeted screening and testing programs within defined large institutional or community settings. Clients primarily include persons with suspect or confirmed TB, contacts of these individuals, persons receiving therapy to prevent TB and persons referred through refugee health screening services. The clinic is staffed with public health nurses, public health aides, an X-ray technician and clerical support dedicated toward targeted screening, testing and treatment of persons with suspect or confirmed tuberculosis (TB). Clients are referred to the TBCC for services by private healthcare, local hospitals and community-based organizations. In 2004, twenty-seven (27) cases of newly reported TB were managed by staff at the MHD TBCC. Approximately 57% of these cases were in foreign-born persons from areas of the world with high incidence of TB. In addition, the TBCC works closely with social service agencies that sponsor refugee entrance into the community including healthcare screening for communicable disease.

DISEASE CONTROL & PREVENTION

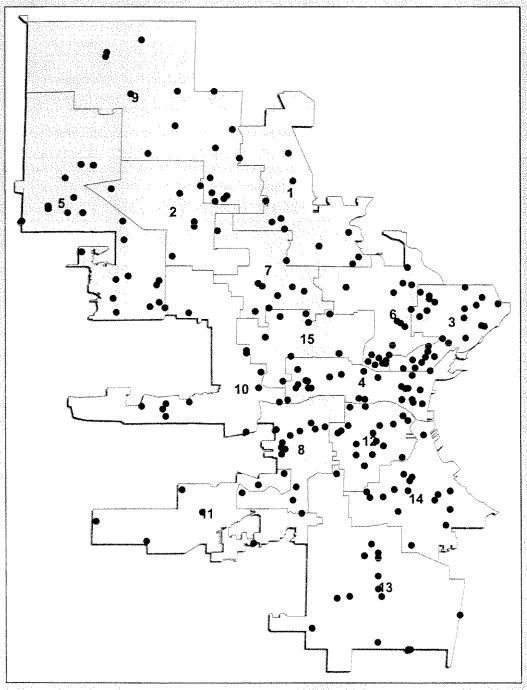
Perinatal Hepatitis B Case Investigations

The map at right represents reported cases by residence of mothers and children infected or at risk for Hepatitis B infection. As with other reportable communicable diseases, Hepatitis B cases are neither locally and regionally isolated nor specific to distinct geographic or civil boundaries. Hepatitis B is a viral infection of the liver that can cause severe cancer as well as acute illness. Hepatitis B is transmitted through contact with blood and other body fluids. Infants of women infected with Hepatitis B are at risk for transmission during birth. The MHD targets pregnant women who are reported as infected with Hepatitis B in coordination with primary healthcare to ensure that these individuals receive proper treatment and therapy to prevent transmission of Hepatitis B at birth. This intervention provides an opportunity for the MHD to provide and reinforce the need for additional immunizations to infants to reduce preventable diseases and associated morbidity.

City of Milwaukee Health Department Perinatal Hepatitis B Cases 2004-2005



City of Milwaukee Health Department Environmental Responses By Aldermanic District in 2005



Response Types:

- Emergency HazMats
- General Nuisance
- Indoor Air Quality
- Non-Emergency HazMats
- Outdoor Odors
- Off-site Plan
- Records Check
- Water Sampling

DISEASE CONTROL & PREVENTION

Environmental Responses by the City of Milwaukee Health Department

The map at left represents MHD responses to environmental health complaints or referrals involving chemical spills and nuisance odors as well as drinking or surface water quality to date during 2005. Environmental health issues that may result in adverse exposure to citizens are investigated and characterized as to overall risk to the public and surrounding environment through field investigation by MHD staff. Referral to appropriate enforcement agencies is subsequently initiated as necessary. Many environmental health investigations and responses are crossurisdictional and interdisciplinary in scope. Environmental contamination of air, water or land is seldom isolated to a specific community or within discrete geographic boundaries. As a result, joint investigations are not uncommon with other local and state government agencies including the City of Milwaukee Department of Neighborhood Services, **Department of City** Development, State of Wisconsin Department of Natural Resources and State of Wisconsin Division of Public Health. This type of collaboration is increasingly necessary to ensure a comprehensive approach and strategy to ensuring that both short and long-term health risks are mitigated.

HEALTHY BEHAVIORS
AND
HEALTHCARE ACCESS

Promote Healthy Behaviors and Access to Health Services

Healthy Behaviors and Healthcare Access focuses on health promotion among youth and adults, and on ensuring access to preventive and primary health care. Key health promotion outcomes address reduction of tobacco use, violent injuries, teen pregnancy, and cancer, while improving diet, cardiovascular, and mental

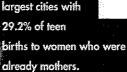
health. Consultation and services are provided in partnership with schools, youth-serving organizations, neighborhood groups, and agencies for the aging. Staff promote healthcare access by linking families to health insurance and subsidized primary care (including the Isaac Coggs and Johnston Community Health Centers), and improving access to

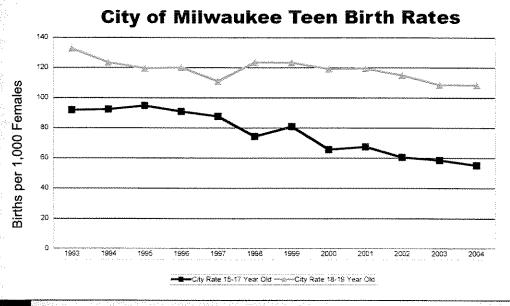
disease screening and preventive care related to cancer, heart disease, mental health, and other chronic conditions.

Employee occupational health services and an employee assistance program help our workforce remain healthy and reduce healthcare costs.

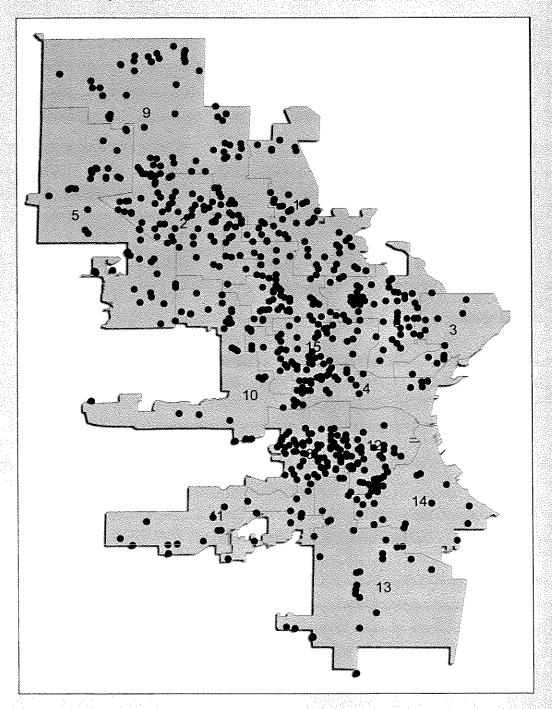
The reduction of teen births is a priority for the MHD.

As this graph illustrates, teen birth rates are on the decline, but Milwaukee still ranks poorly compared to other cities. In the 2003 Right Start Report, by the Annie E. Casey Foundation, Milwaukee ranked third worst among our nation's 25 largest cities with





City of Milwaukee Health Department Tobacco Control Partnerships By Aldermanic District in 2004–2005



HEALTHY BEHAVIORS AND HEALTHCARE ACCESS

In tobacco control, the MHD has demonstrated a measurable impact through the collaborative work of the Milwaukee Community Tobacco Coalition (MCTC). MCTC is funded through the City of Milwaukee Health Department and the Tobacco Control Program. The MCTC consists of an interactive partnership of over 25 local and state agencies and organizations working collaboratively to address and eliminate tobacco-related health disparities within Milwaukee's diverse communities. Successful community programming and partnerships with MHD's Tobacco Control Program are in direct alignment with the Centers for Disease Control and Prevention's (CDC) recommended nine Best Practice components for a comprehensive program. Those nine CDC recommended components are: Community Programs to Reduce Tobacco Use; Chronic Disease Programs to reduce the Burden of Tobacco-Related Diseases; School Programs; **Enforcement Efforts**; Statewide Programs; Counter-Marketing; Cessation Programs; Surveillance and Evaluation and Administration and Management. The map at left represents the span of community partnerships that help to enhance outreach efforts to populations disparately affected by tobacco use.

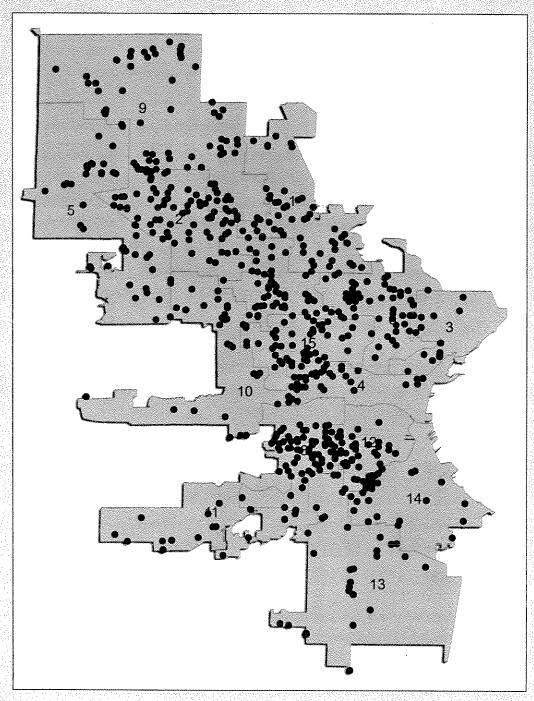
HEALTHY BEHAVIORS AND HEALTHCARE ACCESS

Connecting Families to Health Insurance

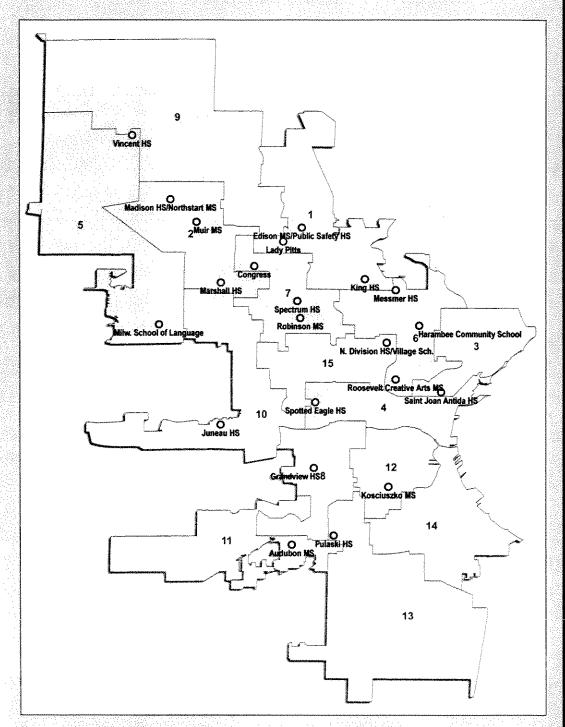
This map represents families who have been assisted by outreach staff to obtain health insurance. MHD staff connects families with insurance resources, medical care, housing, food and other emergency assistance. The large numbers of families which have been assisted in districts 2, 4, 6, 7, 8, 12 and 15 represent areas of the city having the greatest need.

MHD is expanding our outreach activities for the remaining districts with the cooperation of our community partners: community-based organizations, clinics, hospital systems, HMOs, and others.

City of Milwaukee Health Department Medical Assistance Outreach By Aldermanic District in 2005



Adolescent School Health Interventions



Services to Adolescents in Schools

Federal Maternal Child Health block grant dollars provide funding for the Adolescent School Health Program. Nursing, nutrition and health education staff provide health screenings, prevention education, counseling and case-management services in 22 middle and high schools. The emphasis is on prevention, and the program encourages active participation of youth in developing personalized plans for optimizing their health. Depression, obesity, high-risk sexual behavior, physical fitness and tobacco use are the areas of focus in schools.

HEALTHY BEHAVIORS AND HEALTHCARE ACCESS

• Services to Adolescents in School in 2004:

Public Health Nurses assisted students to meet their individual health goals by developing 578 personalized care plans.

Over 600 students received depression screening and referral services, for mental health issues.

Over 1150 students received assistance for first aid or sudden illness.

Over 6000 students received vision screening and 566 received glasses.

Over 7000 students received educational classes pertaining to violence prevention, high risk sexual behavior, pregnancy prevention, drug use, or mental health.

 Promotion of Healthy Diets in Schools

During the 2004 and 2005 school years 30 schools have joined the Comprehensive Nutrition Program. This means a commitment to healthy meals being served and vending machines either removed from the premises or healthy food contained within them. There are 200 MPS sites. The MHD is on target for 100% of Milwaukee schools to join the program by 2010.

• Nutrition, Obesity and Physical Activity

In 2004, 2100 youth and adults received nutritional education in the form of classes, workshops and seminars.

A total of 260 hotline inquiries were responded to, with professional advise on nutrition.

Through the "Walk, Dance, Play Be Active Everyday" Program, 51,000 were involved with the program as role models, mentors or caregivers.

HEALTHY BEHAVIORS AND HEALTHCARE ACCESS

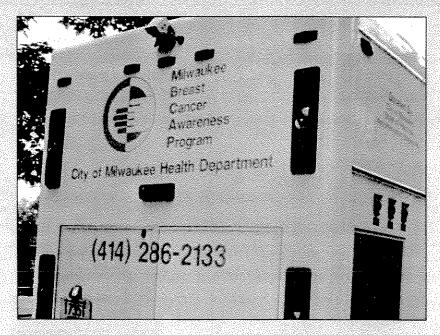
The purpose of the Milwaukee Breast and Cervical Cancer Awareness Program (MBCCAP) is to educate and motivate women to take decisive actions that will prevent premature death and disability due to breast cervical cancer, and chronic diseases. Program efforts are intensively focused on highrisk and economically disadvantaged women in the City of Milwaukee. The MBCCAP has been extremely successful in

reaching medically uninsured and underinsured women aged 35 – 64 years old. The women who are served by the program often represent the hardest-toreach segments of the Milwaukee area. They are considered to be at greatest risk for chronic disease and typically have little or no access to medical care. These services are provided in a culturally sensitive and supportive environment. The MBCCAP serves a racially and ethnically diverse client base, including African-American, Southeast Asian, Native American, Hispanic and Caucasian women.

The MBCCAP has been successful because if reaches these women in their neighborhoods. It's a one step process to obtain a complete chronic disease screening, including breast and cervical cancer screening, along with a comprehensive follow-up plan. As a result, the program has experienced an 89% compliance rate on follow-up on all abnormal findings. This compliance rate exceeds the national norm.

The Milwaukee Breast and Cervical Cancer Awareness Program





Services in 2004:

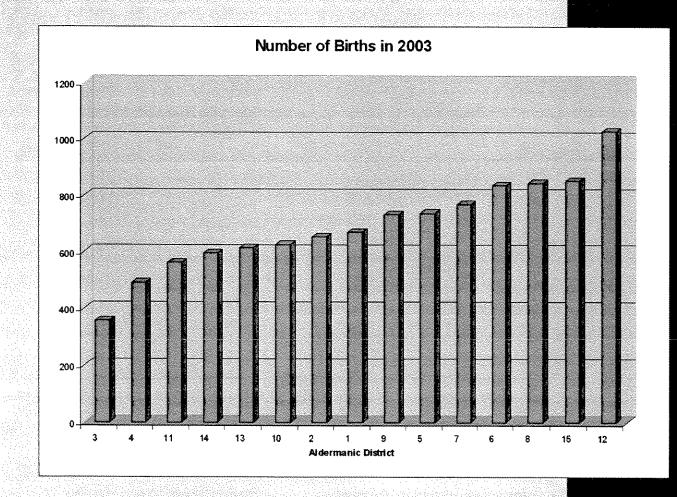
- 1,607 women received mammography and cervical cancer screening.
- The mobile Health Unit was brought to 4 summer festivals, with over 150,000 in attendance. Educational and outreach services were provided.
- Program staff participated in 25 health fairs with over 1,800 women receiving comprehensive health screenings.
- Established and maintained partnerships with 34 community organizations, to provide health education and information dissemination. Provided over 35 group education classes.

VITAL STATISTICS

Vital Statistics

Approximately 12,000 births and 6,000 deaths occur in the City of Milwaukee annually. The Vital Statistics office maintains birth records dating from 1893 to the present and death records dating back to 1869. Birth and death certificates provide important information regarding the health status of Milwaukee residents. Birth data is used by public health nurses to identify atrisk infants, and track immunization levels. Vital records data is widely used by other

health department programs, communitybased organizations and other health care providers to address public health issues such as teen pregnancy and infant mortality. Milwaukee residents need accurate and timely certified copies of vital records for a variety of reasons. In 2004, 56,400 certified copies of birth and death certificates were issued to customers, generating revenue of \$260,000.



PUBLIC HEALTH LABORATORIES

The City of Milwaukee Public Health Laboratories

Laboratory Support for the Health Department Outcomes in 2004

The City of Milwaukee Public Health Laboratories

The City of Milwaukee Public Health
Laboratory, established in 1874, is the
oldest municipal lab in the country. Three
laboratories perform tests that help health
professionals analyze the risk of disease,
prevent exposures, and diagnose illness.
Special technologies such as molecular
fingerprinting help us determine how
disease travels through the community.
Microbiology tests for bacteria and
parasites that cause disease, including
tuberculosis, sexually transmitted infections
and contaminants of food and water used
for drinking and swimming. Chemistry

analyzes environmental toxins including lead in children's blood and in dust, paint and soil, as well as food contaminants, environmental pollutants, and industrial hazards. Virology tests for viruses that cause AIDS, influenza, diarrhea, meningitis, and other diseases in both environmental and clinical samples. These laboratories also assist local hospital and clinical laboratories, respond to emergencies such as bioterrorism, and provide disease surveillance for local, national, and international health organizations.

Laboratory Support for the Health Department Outcomes in 2004

The City of Milwaukee Public Health Laboratory is located in the recently renovated 2nd floor of the Zeidler Municipal Building, performing more than 80,000 tests annually; approximately 85% of its tests, mostly microbiological and tests for lead poisoning for the city, and approximately 15% tests of public health importance for a fee, generating about \$200,000-\$300,000 annually for the city. Public Health Lab data of confirmed cases and seasonal trends is summarized and reported to over 100 medical providers monthly by email and posted on the MHD website. Over a recent 2-year span the laboratory received well over \$1,000,000 in grant support for programs such as bioterrorism preparedness, lead poisoning prevention programs, sexually transmitted disease prevention programs, asthma research and beach testing. The City Public Health Lab receives certification/oversight from seven federal and/or state agencies.

Laboratory Support for the Health Department

Waterborne Pathogens Control – an EPAapproved laboratory to monitor Milwaukee's watershed, source waters, and drinking waters for potential pathogens including pathogenic protozoa, Giardia and Cryptosporidium, and culturable viruses since 1994; in 2004 processed 165 specimens for the detection of parasites and 72 for isolation of viruses.

Water Quality Control – Tests were performed to ensure good water quality including that of Summerfest grounds and Milwaukee beaches. In 2004, 2,149 specimens were processed to determine water quality standards.

Sexually Transmitted Disease Control – A total of approximately 48,000 STD tests were conducted in 2004 including, from our STD Clinic: 5,358 samples for Chlamydia (818, 15.3% positive) 5,814 for gonorrhea (203, 3.5% positive), 3,555 serums for HIV (21, 0.6% positive) and approximately 13,000 specimens for syphilis testing.

Lead Poisoning Prevention – The lab tested blood lead levels in approximately 3,600 children and 16,800 environmental wipe, paint and soil samples for lead content.

Laboratory Support for the Health Department Outcomes in 2004, continued

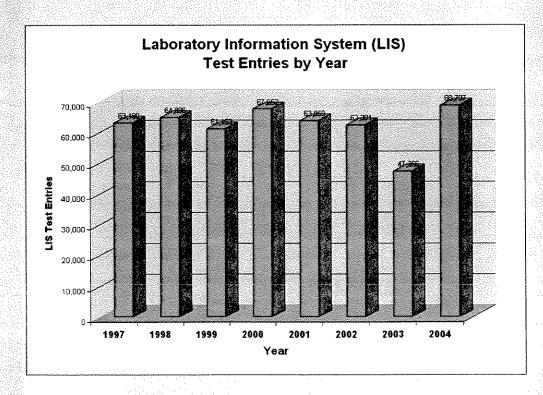
Foodborne Disease Control – The lab assisted food inspectors by evaluating approximately 900 retail or complaint-driven food samples.

Environmental Health – For the Department of Neighborhood Services, asbestos samples (269) were tested from various sources. Allergen testing to support the asthma grant included 213 dust samples for 948 allergen analyses in 2004.

Communicable Disease Control –
Approximately 6,322 clinical specimens
were analyzed in 2004 for the isolation or
confirmation of seasonal viruses (such as
influenza, respiratory syncitial virus,
enterovirus) as well as bacterial agents
of public health significance, such as

Salmonella, Shigella, pertussis, legionella and mycobacterial (tuberculosis). Laboratory-confirmed surveillance trends are identified and reported to the community and web-published.

Emergency – Bioterrorism Preparedness As part of the National Laboratory Response Network, under the federal Select Agent Program guidelines of the Department of Homeland Security and Department of Justice, this program supports the national, regional, state and local laboratory response needs for bioterrorism preparedness and communicable disease laboratory surveillance.



PUBLIC HEALTH LABORATORIES

Public Health Laboratory results are part of a prevention plan for the unpredictable, data for the formation of public policy, and preparation/response for public emergencies.

Public Health Labs are the only labs whose sole customer is the public.

The City Lab contributes to Public Health Outcomes. Examples include:

Bioterrorism Preparedness

- one of three BT preparedness labs in Wisconsin
- part of the National Laboratory Response Network
- works with first responders, law enforcement and public health professionals

Cryptosporidium

- a Waterborne
 Pathogens EPA
 certified Laboratory
- one of a few nationwide to identify Cryptosporidium/ Giardia and viruses

Lead Poisoning

- supports the City's Lead Poisoning Prevention Program
- tests at-risk children and their homes for lead content

Emerging Infections Surveillance

- surveillance for influenza and other respiratory pathogens
- reports onset of flutrends to local physicians
- an official flu surveillance lab for CDC and WHO
- investigates causes of foodborne illnesses



Tom Barrett, Mayor Bevan K. Baker, Commissioner of Health www.milwaukee.gov/health

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