Mid-Michigan District Health Department

Board of Health ANNUAL REPORT

2016

Serving Clinton, Gratiot and Montcalm Counties

Our vision

Your public health team, connecting with our communities to achieve healthier outcomes

Our mission

We take action to assure the health and well-being of our community and the environment by responding to public health needs and providing a broad spectrum of prevention and educational services.

Administrative Staff

Melissa Bowerman
B.S.
Administrative Services Division Director

Bob Gouin
R.S., M.B.A.
Environmental Health Division Director

Jennifer Morse
M.D.
Medical Director

Andrea Tabor
R.N., B.S.N., M.P.H.
Community Health and Education Division Director

Health Officer's Message

Former Board of Health Member Jack Enderle, former Health Officer Kimberly Singh, and Health Officer Marcus Cheatham

On May 17, 2016, the Mid-Michigan District Health Department (MMDHD) celebrated its 50th anniversary at the Church of the Brethren in Middleton. The Church threw open its doors for us and prepared a delicious luncheon for which we were very grateful. We used the occasion to thank members of the community who have stood up for public health over the years by presenting them with Public Health Champion awards. Honorees included environmentalists Tim Keeton, Jane Keon and John Switzer; public health advocates Bob Clingenpeel, Jodie Faber and Deb Kloosterman; and people who have served MMDHD in the past, including former Board of Health member Jack Enderle, former Medical Director Bob Graham and former Health Officer Kim Singh.

It is amazing how far MMDHD has come since 1966. At that time, each county had one nurse and one sanitarian. The first immunization clinic was staffed by volunteers and parents were so anxious to have their children immunized there was a line out the door and around the corner. It wasn't until 1968 that MMDHD issued its first restaurant license to Tim's Café, whose owner, Jack VanHarn, later joined the Board of Health.

In the 1970s, Michigan built its public health system into one of the finest in the nation. MMDHD grew and developed diversified health education programming, but in 1981, as the recession hit, nearly one third of the staff were laid off. Those were tough times, especially since HIV was beginning to hit. In the 1990s, a group of health officers formed the Northern Health Foundation, specifically to build health department buildings. Then Health Officer, Kim Singh, built a new building in each MMDHD county and launched the Stanton Dental Care Clinic, which is now located in Sidney and known as the Montcalm Community Dental Clinic. In 2000, with the economy booming again, the department issued 1,600 restaurant licenses and permitted 1,000 septic systems and 1,300 wells. Across the district, we provided personal health services to some 55,000 individuals.

People working at that time could not have anticipated the high-tech health department we have today, with our electronic health records and seamless integration into the statewide surveillance systems and immunization record, among many others. We leverage the data on our network to constantly improve the quality and efficiency of our performance.

How has the health of the public been impacted by all this work? In 1966, the age adjusted death rate in our area was over 1,100 per 100,000 and now it is only 750. Public health has a lot to do with this improvement because of things like smoking cessation, vaccination, vehicle safety and more. Better health care has done a lot too. But I am very concerned about recent trends. In the article in this report entitled, "Community Health Assessment," we show that recently mortality in our area has been getting worse again. For the first time ever in rural Michigan drug deaths, suicide and heart disease are getting worse. The National Association of County and City Health Officials (http://bit.ly/2o9F5uK) argues that what we have to do now goes beyond what a health department can do with its basic programming and requires us to come together in new ways to restore the vitality of our communities. MMDHD is ready for this challenge and invites you to join us.

We have been around long enough now to have seen the passing of some old friends. Only a short time after we presented him with his award at the 50th anniversary celebration, Dr. Graham passed away. Graham had served MMDHD and two neighboring local health departments as medical director for 24 years, amassing a record of service few in the state can match. The best way to honor our departed public health champions is to put their values to work tackling the challenges of today.

Marcus Cheatham

Marcus Cheatham, Ph.D.
Health Officer

Dr. Cheatham is serving his fifth year as Health Officer. He is responsible for carrying out the policies of the Board of Health and overseeing the internal operations of the Health Department.

Board of Health

The Board of Health governs the agency's programming, finances and personnel. It is comprised of two county commissioners, appointed by each of the three counties served by the health department. It is the Board of Health's responsibility to see that a plan is formulated and implemented which will provide long-term continuing health protection for the district's residents.

Bruce DeLong • Clinton County Commissioner
Mr. DeLong is serving his sixth year on the Board of Health. He also serves as a member of the Finance and Program Committees.

Ken Mitchell • Clinton County Commissioner
Mr. Mitchell is serving his second year on the Board of Health. As Chairperson of the Personnel Committee, he presides at all negotiation meetings and presents recommended salary and benefit changes to the Board. He also serves on the Mid-Central Coordinating Committee as well as a representative to the Michigan Association for Local Public Health (MALPH) Board.

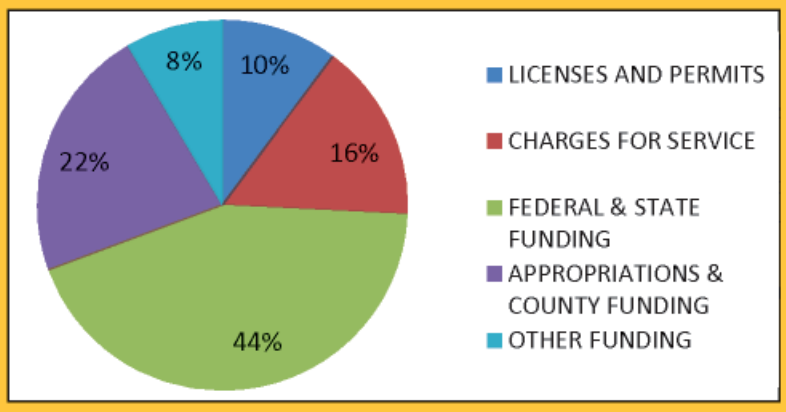
George Bailey • Gratiot County Commissioner
Mr. Bailey is serving his second year on the Board of Health. He serves as Vice Chairperson for the Board and is also a member of the Finance Committee.

Sam Smith • Gratiot County Commissioner
Mr. Smith is serving his first year on the Board of Health. As Chairperson of the Program Committee, he is responsible for developing and presenting all proposed policies and program changes. He also serves as a member of the Personnel and Mid-Central Coordinating Committees.

Betty Kellenberger • Montcalm County Commissioner
Ms. Kellenberger is serving her fourth year on the Board of Health. As Chairperson of the Board, she is responsible for preparing and/or approving meeting agendas and presiding at Board meetings. She also serves as a member of the Personnel Committee and Quality Vision Action Team (QVAT).

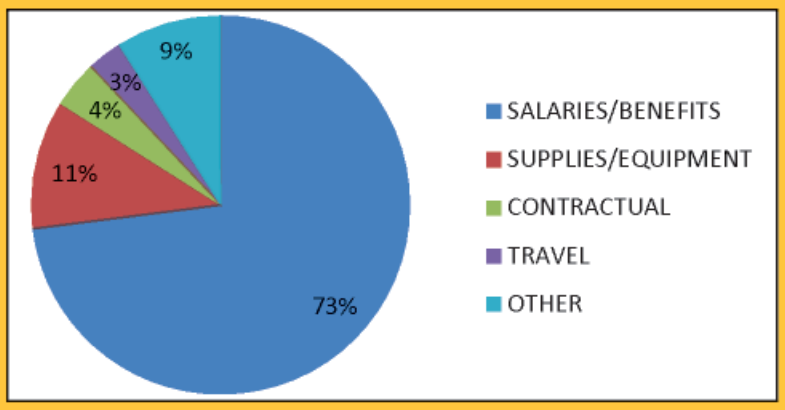
Tom Lindeman • Montcalm County Commissioner
Mr. Lindeman is serving his thirteenth year on the Board of Health. As Chairperson of the Finance Committee, he is responsible for developing and presenting the proposed annual budget for Board approval. He also serves as Vice Chairperson of the Mid-Central Coordinating Committee and is a member of the Program Committee.

Finances



Revenues

22% of MMDHD revenues come from county general funds and 26% from fees and billing for services.

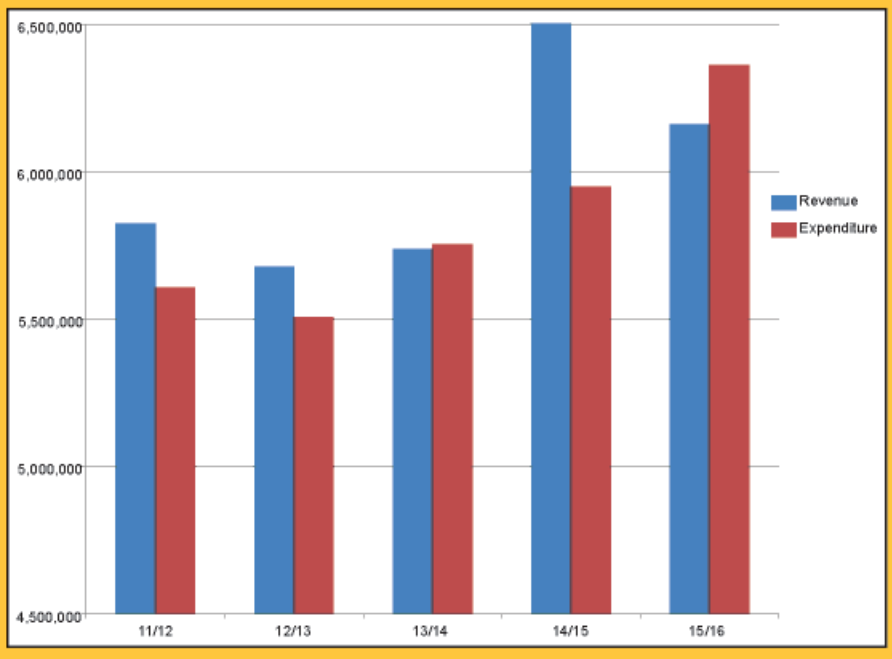


Expenses

Almost all of MMDHDs expenses are related to its employees.

Five-Year Trend

The 2015/2016 deficit was a planned capital investment in new technology to improve efficiency and customer service.



Environmental Health

In 2016, this division provided services to 3,531 unduplicated clients.

Duane Schneider, Environmental Health Specialist

MMDHD Helps People Understand New Water Well Rules

MMDHD is charged with implementing many State and Federal regulations. While there are usually good reasons for these regulations, they can impose hardships on people, especially in a low-income rural area like ours. One of the things we try to do is lighten the impact of these regulations and make it easy for people to understand them. A good example of this is our approach to the so-called Revised Total Coliform Rule (rTCR), a rule which increased water testing and well inspections required of facilities on well water that serve it to the public, like rural restaurants, schools and churches.

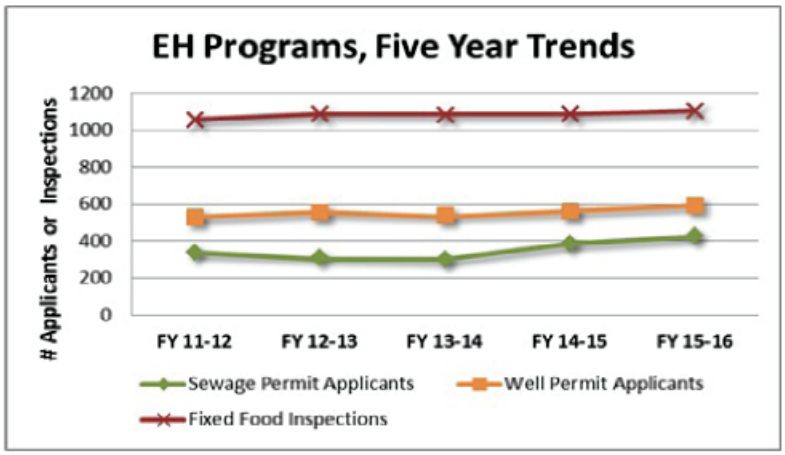
There are over 250 such facilities in our jurisdiction. Until now, they had been required to have their water tested once a year. rTCR, which was launched in April 2016 includes two options for local health departments: ask facility owners to have their water tested four times a year, or ask facility owners to submit to a complete inspection of their well by the health department.

First, let me say there is good science behind rTCR. Our well infrastructure is aging and aging wells are more prone to being invaded by coliform bacteria. The presence of these bacteria indicate that disease causing organisms may be present. With this rule, the EPA was trying to protect the health of the public. But those good intentions alone don't mean things will go smoothly. Faced with the new rules, a facility owner is likely to be left scratching his head and thinking, "I've never had a problem with my well but now I have to do all this?"

Whatever MMDHD decided to do was likely to pose a hardship for facility owners. If we ask them to test their water four times a year, some are bound to forget, and if they forget they are in violation of the rule. That means a visit from the health department, paper work and possibly a fine or increased sampling. If we ask facilities to submit to annual inspections, how will those inspections be paid for? The State did not appropriate any additional funds for rTCR, so MMDHD would have to charge a fee for that. That would be a brand new additional cost owners would face even though they had done nothing wrong.

We asked Duane Schneider, Environmental Health Specialist, to take the lead in getting folks ready and he did a great job. We did three things: First, we sent them all extensive information ahead of time, hoping that would help them get prepared, and Duane did informational presentations to try to get people talking. Second, we set up a system under which we will automatically send reminders to facility owners, hoping they won't miss a sample. Third, we decided to leave the choice of how to comply with rTCR up to the owners. If they want to avoid the fee, they can decide to take their own samples for testing. However, if they prefer to avoid the hassle and risk, they can pay the fee and Duane will do an inspection and ensure they are in compliance.

MMDHD can't make these regulations go away, but can make it as easy as possible for people to deal with them and, in the end, that is probably the best way to ensure all of us stay healthy.



Ensuring a safe and healthy environment for the residents and visitors of Clinton, Gratiot and Montcalm counties is this division's primary objective.

Food Program

Through regular inspections and education, this program helps assure the public that the meals consumed outside of the home are safe.

Number of Clients Served

	Clinton	Gratiot	Montcalm	District
Advanced Food Training Classes	59	72	37	168
Food Service Inspections (Fixed)	427	303	374	1,104
Food Service Inspections (Temp.)	52	59	79	190
TOTALS	538	434	490	1,462

Wastewater Management

Proper treatment of human wastewater helps prevent the spread of disease and viral infection. These programs provide guidance and oversight for on-site sewage disposal.

Number of Clients Served

	Clinton	Gratiot	Montcalm	District
On-Site Sewage Disposal Permits	120	72	235	427
Site Evaluation	83	24	53	160
TOTALS	203	96	288	587

Environmental Quality

Assuring a good quality of life where we live and play is a key component of these programs.

Number of Clients Served

	Clinton	Gratiot	Montcalm	District
Campground Program	4	6	30	40
DHS Inspections	49	28	44	121
Nuisance Complaint Investigations	44	57	89	190
Radon Test Kits Distributed	172	55	92	319
Public Swimming Pool Program	51	8	14	73
TOTALS	320	154	269	743

Surface And Groundwater Control

A fundamental component of public health met by these programs is the protection of our lakes, streams and the water we drink.

Number of Clients Served

	Clinton	Gratiot	Montcalm	District
Groundwater Quality Control (permits)	148	112	336	596
Well Contaminate Monitoring	8	16	0	24
Septage Haulers- Trucks Inspected	10	12	13	35
Septage Haulers- Sites Inspected	1	1	8	10
Loan Evaluations	12	5	47	64
Clandestine Drug Investigations	7	2	1	10
TOTALS	186	148	405	739

Community Health & Education

In 2016, this division provided services to 33,940 unduplicated clients.

Children's Special Health Care Services

Families can face many challenges when a child has a serious medical condition. The challenges can be emotional or financial and can strain relationships. It can be difficult to understand a complicated medical condition and hard to navigate the health care system to get everything your child needs. This is why one of our most beneficial programs, Children's Special Health Care Services (CSHCS) exists.

CSHCS is administered by the State of Michigan's Division of Family and Community Health, but all services are offered locally. MMDHD helps children (and some adults) with chronic health care problems. Over 2,000 different diagnoses qualify for the program including things like cancer, paralysis, deformities, amputations, cerebral palsy, muscular dystrophy and many more.

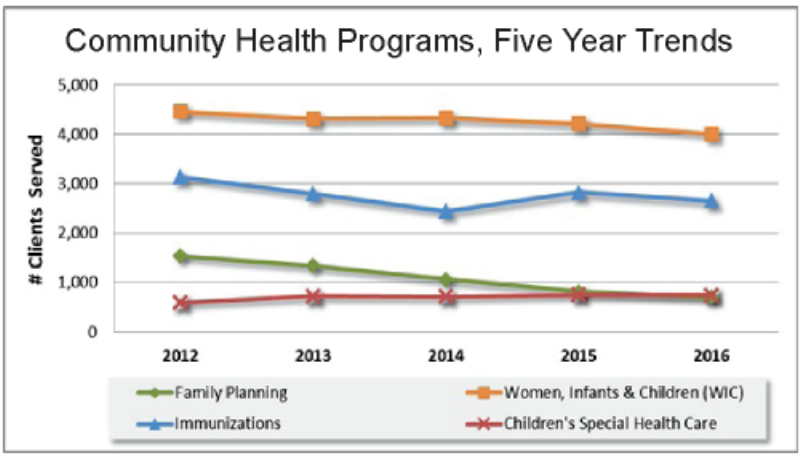
At any one time MMDHD has about 400 clients enrolled in the program, which is double the number we were serving three years ago. This is because we began to heavily promote the program in hopes of reaching even more qualified families. Part of this effort included obtaining a grant from the State of Michigan and using it to contract with Amanda Schafer, parent liaison, to connect with families who have a child with a qualifying condition. Amanda serves as the point-of-contact for these families and offers support and a listening ear. She also organizes sib shops for kids who have siblings with special needs and the annual family picnic at which CSHCS families bond with others who are facing similar struggles and having similar experiences.

Promoting CSHCS is personal for Amanda because her four children are enrolled in the program. Amanda says the program has given her family something invaluable, and that's peace of mind. "It allows us to concentrate more on our children and less on medical bills and related expenses," she said. She hopes more families are made aware of the program and encourages them to apply, regardless of how much money they make, or if they are insured. That's because your child's medical condition, not your income, determines if you qualify. Families with higher incomes may be asked to pay a small yearly fee, but it's well worth it in the long run.

Services include:

- Financial assistance and coverage of specialty services based on your child's health problems.
- Family-centered services to support you in your role as your child's primary caretaker.
- Community-based services to help you care for your child at home and maintain normal routines.
- Culturally-competent services that demonstrate an awareness of your special circumstances.
- Coordinating services to organize the many providers who work within different agencies.

If you think your child may qualify for CSHCS, obtain a report on your child's condition from your specialist. If your child has not seen a specialist, call the Family Phone Line at 1-800-359-3722, and MMDHD can make arrangements to have your child evaluated. Your child's medical condition, not your income, determines if you qualify.



This division embraces its role as the provider of and advocate for public health in our counties.

Maternal & Child Health

These programs give financial, social, nutritional and medical support to qualified families and benefit the community by reducing infant mortality, ensuring healthy births and maintaining the health of mothers and children.

Number of Clients Served

	Clinton	Gratiot	Montcalm	District
Hearing Screenings (# conducted)	2,989	1,850	3,887	8,726
Vision Screenings (# conducted)	4,217	3,043	5,625	12,885
Children's Special Health Care	228	158	359	745
Family Planning Services	207	263	235	705
Women, Infants & Children	1,001	1,241	1,761	4,003
Maternal/Infant Health	N/A	216	N/A	216
TOTALS	8,642	6,771	11,867	27,280

Chronic Disease Control

These activities target specific chronic diseases and focus on early detection and referral.

Number of Clients Served

	Clinton	Gratiot	Montcalm	District
Lead Poisoning Screening	341	373	695	1,409
TOTALS	341	373	695	1,409

Communicable Disease Control

These programs offer testing, education, prevention and treatment services to control communicable diseases within our communities and may be available at low or no cost.

Number of Clients Served

	Clinton	Gratiot	Montcalm	District
Communicable Disease Control	598	312	564	1,474
HIV Counseling/Testing	2	21	31	54
Immunizations	916	732	1,015	2,663
Sexually Transmitted Disease Control	50	49	75	174
TOTALS	1,566	1,114	1,685	4,365

Oral Health

For families that cannot afford dental care, help with prevention is essential for their children's oral health. MMDHDs fluoride varnish program, supported by Meijer, helps meet this need.

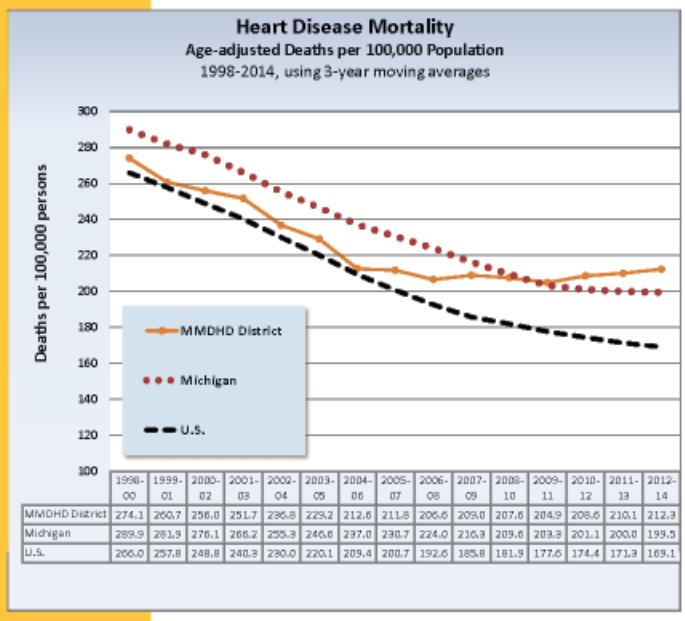
Number of Clients Served

	Clinton	Gratiot	Montcalm	District
Fluoride Varnish Application- WIC	25	58	180	263
Fluoride Varnish Application- Head Start	0	0	623	623
TOTALS	25	58	803	886

Community Health Assessment

Chronic disease, drug abuse and suicide are part of a cluster of health problems befalling low-income, rural communities in some parts of North America that are so severe, they are actually causing measurable increases in the overall mortality rate. And these unprecedented mortality rate increases are happening in low-income, rural parts of Michigan. You can see it at the local level.

Recently, we have begun to see some alarming trends in public health in rural Michigan. After years of making steady progress, some parts of rural Michigan are beginning to lose ground.

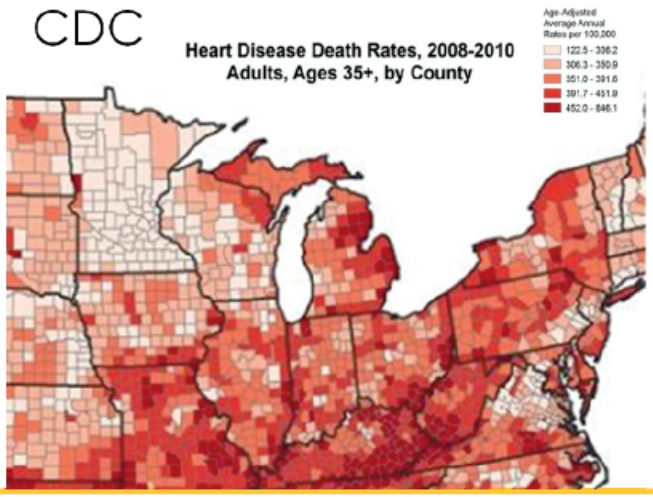


	1998-00	1999-01	2000-02	2001-03	2002-04	2003-05	2004-06	2005-07	2006-08	2007-09	2008-10	2009-11	2010-12	2011-13	2012-14
MMDHD District	274.1	260.7	256.0	251.7	236.8	229.2	212.6	211.8	206.6	209.0	207.6	204.9	208.6	210.1	212.9
Michigan	289.9	281.9	276.1	266.2	255.3	246.6	237.0	230.7	224.0	216.3	209.6	203.3	201.1	200.0	199.5
U.S.	266.0	257.8	248.8	240.3	230.0	220.1	209.4	200.7	192.6	185.8	181.9	177.6	174.4	171.3	169.1

This chart shows the heart disease death rate; the orange line is for our district. For years heart disease death rates had been trending down due to reductions in smoking and health care improvements, but in the past few years the trend has reversed. Our district used to have lower mortality than the rest of the State and now is higher. Why is this happening now? At the root of the problem lies stagnating rural economies. Northern Michigan depended on industries like mining and forestry and these have declined. Central Michigan had a mix of small factories providing just-in-time parts and services to the big manufacturers in the State and many of these too are gone.

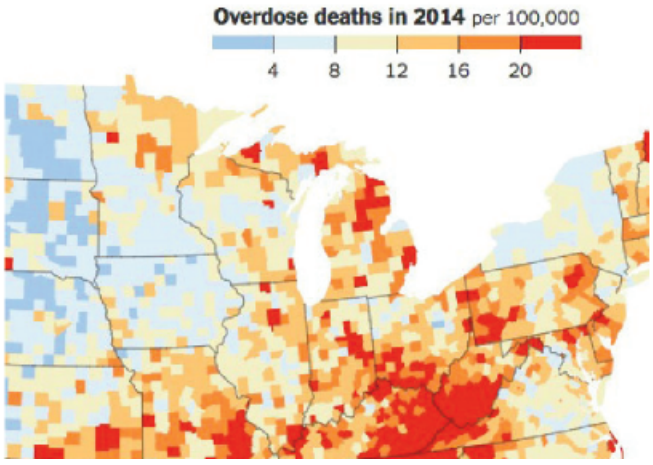
But today, even when these industries pick up, they depend heavily on advanced technology and don't employ many people any more. Unemployment has declined in rural Michigan recently, but household incomes have not increased. People are working more but not earning more. A related challenge is that rates of chronic disease are increasing in rural areas just like everywhere in the country. But they are increasing more and faster in northern and central Michigan than in other places. At the same time, people in rural areas face health care shortages and have more difficulty than others getting screening tests which could foresee a health problem and difficulty getting care when they are sick. Higher rates of disease, combined with poor access to care leads to higher death rates. A more difficult problem is how all this affects mental health. Chronic illness by itself can harm mental health, and it is likely to be magnified by poverty and joblessness; and mental health services are among the most difficult to get in rural areas.

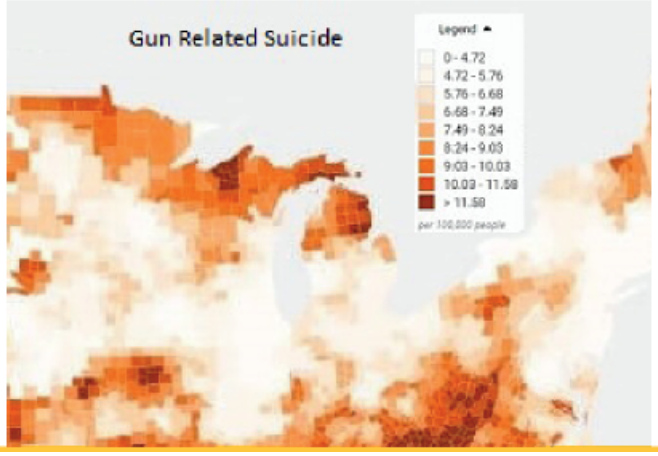
The following three maps show the distribution of some serious health problems in the Midwest. What you will see is that rural central and northern Michigan is in trouble.



This map is from a well-known analysis of the distribution of heart disease deaths originally done by the Centers for Disease Control and Prevention (CDC) and reproduced many times. First, notice the legend. The disparity in heart disease deaths is enormous. The places with the highest rates of heart disease deaths (red) have rates eight times higher than those with the lowest (white)! Then, look at northern Michigan. Excluding the prosperous communities around Grand Traverse and Charlevoix, northern Michigan tends to have high heart disease mortality rates. It's puzzling, but Minnesota and Wisconsin, which we tend to think of as being similar to us, fare much better. Now look at the big cluster of mortality centered on Kentucky and West Virginia; our heart disease death rates are like theirs.

This map is of the opioid overdose death rate, again from the CDC. Opioids include prescription painkillers and illegal drugs like heroin. Opioid overdoses have recently shot up in some rural areas, especially in Kentucky and West Virginia; and also in northern Michigan. Again, Minnesota and Wisconsin seem to be spared. New York is spared also, because of policies ensuring access to drugs that aid in recovery from addiction.





This map of the gun suicide rate was made by the digital magazine Braid using CDC data. Suicides have increased sharply in some parts of rural North America. Again we see the same pattern, with northern Michigan, Kentucky and West Virginia having very high rates and other places being lower. My conclusion: Northern Michigan has something in common with coal country!

Equity

There are four important things we need to do to stop the decline of health in rural Michigan: Increase community-based preventative services, promote policies that improve health, encourage sustainable economic development and communicate better.

1 Increase community based preventive services

These services include many of the things public health has done traditionally, including immunizations, family planning, nutrition education, services for handicapped children and their families, vision and hearing screening and many other things. It also includes environmental health activities to protect our food and water. These things have proven their value over time by contributing to big reductions in sickness and death. In order to continue to make progress, public health is increasingly focused on the sickest and most expensive people. These are people who are likely to wind up uninsured and dependent on emergency rooms for health care or are likely to have difficulty maintaining safe homes with safe water. They usually have complicated problems, which include things like addiction, mental illness or abusive relationships that make it difficult for them to take charge of their health. Public health has opportunities to develop such programs because if they can make people healthier, they can save society money by reducing health care and social services costs. MMDHD is experimenting with having mental health services available in our facilities and supporting primary care services in mental health facilities. And our community health workers visit people with complex health needs in their homes to help them remove barriers to getting the care they need.

2 Promote Policies that Improve Health

Evidence suggests that the most powerful way to improve health is not through health care and not through health education, it is by creating policies that affect the health of large numbers of people at once. Examples include requiring people to wear seat belts, mandatory restaurant inspections, required immunizations for school and marked fire escapes. When each of these things appeared, there were big reductions in deaths. There are two other kinds of policies that public health is interested in. One kind encourages healthy behaviors. Banning smoking in public places has had a big, positive impact on heart health. Other examples of such policies include making healthier food available on a large scale, for example, by getting employers or schools to improve menus. MMDHD has worked with cities and towns in our District to help them include creating opportunities for physical activity in their long-term plans.

Among policies that can promote health, perhaps the most important are those that promote equality and assure fair treatment for all. The single thing most strongly correlated with health is poverty. Low-income people almost always have shorter lives, suffer from more disease and engage in unhealthy behavior at a higher rate than people with higher incomes. These income differences are often related to racial, social class and urban/rural differences. It is true that many of the policies that promote equality like those that deal with wages, taxes, civil rights and education are made at the State and Federal level. But local health departments are active in reminding both voters and legislators of the important role that equity plays in health.

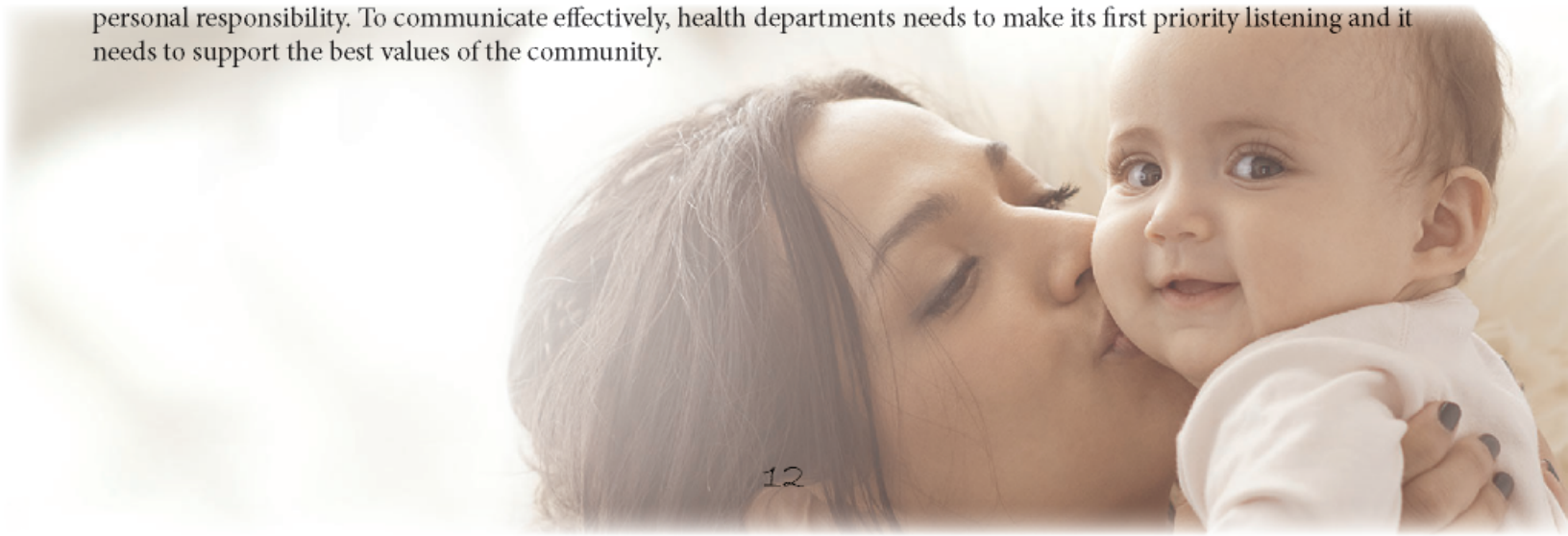
Communication

3 Encourage Sustainable Economic Development

As was just mentioned, health is strongly related to poverty and thus to its opposite—economic growth. But the wrong kind of economic growth can be had for health. In 19th century Michigan, unsafe mining practices lead to many deaths from accidents, much of the State burned in fire storms and many people were killed because of unsafe logging practices. In the 20th century, large areas of the great lakes died because of toxic industrial waste and many Michiganders were sickened by the toxic chemical PBB when it got into the food supply. In order to promote health, we need economic development practices that are sustainable without bad effects on health. Rural Michigan faces many choices about sustainable development, including the exploitation of its water supply, what to do with growing agricultural waste and continued development of wind and other sources of energy. We need all of these things: water, agriculture and energy; but we need to ensure that our use of them is healthy for future generations. Local health departments can help communities make these choices by providing them with information and data, and helping their communities' voices be heard. MMDHD is working with community groups concerned about water quality in all three of our counties. Health departments can help draw business into their communities by ensuring that employers are confident they will get accurate information, be treated fairly and have healthy communities to work in.

4 Communicate Better

Public health has a problem. Public health officials sometimes see themselves as experts whose job it is to explain to people that what they are doing is wrong and to tell them they need to change their behavior. I am sad to say that in my career I have heard public health officials use words like "ignorant" to describe Michiganders, whether they were talking about residents of Flint who thought something was wrong with their water, or residents of our District who are worried about polluted rivers. In reality, people often know what the real problems are long before the "experts." This is a tough problem because much of the time our health problems do arise from our own behavior (think of smoking, for example). But that doesn't mean people don't know that, and it doesn't mean they aren't trying to take care of their health. Public health needs to do a better job of listening to the community to understand the reasons people are struggling. When we really listen and understand people's circumstances, we can more effectively partner with them to change our community in ways that truly make it healthier. Communities in Mid-Michigan have plenty of good values that can be built on to help people recover their health, such as putting family first, supporting the community and taking personal responsibility. To communicate effectively, health departments needs to make its first priority listening and it needs to support the best values of the community.



In the SPOTLIGHT

Dr. Ammar Houssein is a Mid-Michigan treasure. He has practiced dentistry for 17 years in our community, where his work is all about "changing lives". He says, "What is most rewarding is when you have a patient who is struggling and you give them back their smile and their self-esteem, especially the kids."

Dr. Houssein was born in Syria, where his father, a supreme court judge, guided him toward medicine or dentistry as a career. He started dental school in Damascus and then went to Russia to finish. Back in Syria he was a military dentist for two years. In 1991 he decided to join his brother who was practicing medicine in Columbus, Ohio, and learned he could not practice dentistry in the U.S. without more education. So he earned his Master of Science from the Medical College of Ohio and a Doctorate of Dental Surgery from New York University College of Dentistry.

In 1999, a group called the Oral Health Coalition asked the Health Department to take the lead in establishing a dental clinic to serve low-income people in Montcalm County. The then Health Officer, Kimberly Singh, interviewed Dr. Houssein and recruited him as the first dentist in what was then called the Stanton Dental Care Center. Dr. Houssein says he was shocked by the extent of tooth decay he saw in Mid-Michigan children. I thought, "Wow, can I do this?" He credits community dentists like Dr. Marshall, Dr. Bartz, Dr. Faber and Dr. Dockham for helping the clinic get through those difficult early years. The clinic opened in September 2000, and during its first year treated 1,450 patients.

In 2009, the clinic moved into a new, larger facility at Montcalm Community College's Career Center in Sidney where new dentists and hygienists were hired. Dr. Houssein's patients followed him and new patients were added. Within a few years, the number of patients had more than doubled to over 3,500 per year.

At that time, the clinic also joined the network of public dental clinics now known as My Community Dental Centers (MCDC). MCDC helped the clinic become much more efficient and gave it access to important technology like electronic dental records.

Dr. Houssein's family lives in Greenville. He has two daughters in school there and a sister in Ludington. He says "Greenville is my family now. I run into my patients everywhere I go. I treated some of my patients when they were little kids, and now I'm treating their kids, too. I've been in public health my entire career and I can't imagine doing anything else."

He is concerned about one thing: "Every American deserves to have health insurance, including dental. We shouldn't take that away from them. This country is so powerful; we should be able to find a way to do that."

Dr. Houssein with patient and assistant Joy at the Stanton Dental Care Center, 2003.

Medical Director's Perspective

Marijuana use has become more pervasive over the years. According to results from the 2010 National Survey on Drug Use and Health, about 46% of U.S. teens will have tried marijuana before they graduate from high school. The number of teens using marijuana had been dropping, but has stalled over the past several years. Labeling marijuana as medical, as well as efforts to legalize it, have created a safer image for the drug, as well as making it more easily accessible.

Some believe marijuana is safe and non-addictive. However, about 1 in 6 adolescents and 1 in 10 adults who try marijuana will become addicted. Adolescents and young adults who even occasionally use marijuana have a higher risk of using alcohol, tobacco and other drugs, such as cocaine, ecstasy, opioids and methamphetamines in the future. Long-term studies from the U.S. and New Zealand have shown that regular cannabis smokers have more symptoms of chronic bronchitis. Marijuana use is also linked with mental illness, particularly schizophrenia and psychosis. Persistent, heavy use of marijuana by adolescents has been found to reduce IQ by as much as eight points, when tested well into adulthood. Other studies have found marijuana use linked with dropping out of school, subsequent unemployment, social welfare dependence, and a lower self-reported quality of life than those not using marijuana.

Colorado saw a significant increase in marijuana-related emergency department visits and hospitalizations in the first 6 months after legalization. The number of marijuana-related calls to their statewide poison control center doubled in the first year after recreational cannabis was legalized. The Colorado State Patrol also witnessed an increase in individuals driving under the influence involving marijuana. There was also an increase in THC-positive drivers involved in accidents, including accidents causing fatalities. In the U.S. as a whole, 6.8% of drivers involved in a motor vehicle accident test positive for THC, the psychoactive substance in marijuana.

There are literally hundreds of different strains of cannabis, or marijuana. In the past 15 years, the potency of tetrahydrocannabinol (THC) has tripled. States that have legalized recreational marijuana have had to develop ways to have third party labs test marijuana for potency, microbial, toxins and other contaminates, as well as regulate the endless variety of cannabis-containing products and edibles.

There is a belief that states that legalize marijuana will profit from tax income. Money recovered in taxes is typically exhausted by the costs of the program, that is, education to keep children and adolescents from using marijuana, enforcement of policies, testing of facilities, and so on. For comparison, the total national tax and fee revenue for alcohol and tobacco is $39 billion per year, but the total legal, health, social and regulatory costs for both tobacco and alcohol use is at least $449 billion per year. Marijuana, like tobacco and alcohol, has many health and societal consequences. Society will have the added cost of treating drug use disorders, memory and learning problems, decreased IQ and poor academic achievements. Over the years, we may see increased rates of school drop outs, unemployment and dependence on state aid programs. Health care costs will likely rise to address the increased rates of psychosis, schizophrenia and lung disease. Costs of these issues will likely surpass any income for taxation.

As providers of public health services, legalization of recreational marijuana will create challenges, costs and additional work and concerns.

Jennifer Morse, M.D.
Medical Director

Dr. Morse is serving her second year as the Medical Director for the Mid-Michigan District Health Department. She is responsible for determining and directing medical policies and procedures.

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