Mid-Michigan District Health Department
Board of Health Annual Report

2007

Your public health experts, connecting with the community and exceeding expectations

Serving Clinton, Gratiot & Montcalm Counties
www.mmdhd.org
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.

Our Vision

Your public health experts, connecting with the community and exceeding expectations.

Essential Public Health Services

- Monitor health status to identify and solve community health problems.
- Diagnose and investigate health problems and health hazards in the community.
- Inform, educate and empower people about health issues.
- Mobilize community partnerships to identify and solve health problems.
- Develop policies and plans that support individual and community health efforts.
- Enforce laws and regulations that protect health and ensure safety.
- Connect people to needed personal health services.
- Assure a competent public and personal health care workforce.
- Evaluate effectiveness, accessibility and quality of personal and population-based health services.
- Research for new insights and innovative solutions to health problems.

GRAPHIC DESIGN and LAYOUT:
Leslie Kinnee, Mid-Michigan District Health Department
The Mid-Michigan District Board of Health is pleased to provide you with our 2007 Annual Report. This report provides an overview of several selected health indicators, as well as highlights the Environmental Health (EH) and Community Health & Education (CHED), Divisions’ programs and services. Health department staff work throughout the year to protect the public’s health and enhance the quality of life for all residents in Clinton, Gratiot, and Montcalm Counties.

This report also summarizes department priorities and accomplishments throughout the year. Strengthening our ability to respond to change and address emerging issues continued to be a focus in 2007. Our emphasis was on maximizing existing resources and seeking creative partnerships and funding opportunities to meet new challenges. The health department:

- Successfully completed the third on-site accreditation review, leading to fully-accredited status.
- Chartered a new Vision Action Team to champion the agency's strategic planning process, resulting in a revitalized Strategic Plan.
- Enhanced our All-Hazards and Pandemic Influenza Response plans and sponsored the second Pandemic Influenza Summit for community partners.
- Occupied a new health department facility in St. Johns, which includes a three operatory community-based dental clinic.
- Implemented new Environmental Health programming in the areas of Food Certification Training and a Thermometer Exchange Program.
- Expanded Breast Health Screening Clinics in conjunction with community partners for uninsured and underinsured women.

In conclusion, the Mid-Michigan District Health Department will continue its efforts to enhance the health and well-being of the residents of the district by providing exceptional customer service through strengthened community partnerships, and by actively responding to emerging issues. On behalf of the Board of Health and the many dedicated professionals who work at the health department, I encourage you to review this report. Please feel free to call me (989-831-3610) with questions, or e-mail me at kSingh@mmdhd.org. The Mid-Michigan District Health Department looks forward to continuing our work in making our communities healthier and appreciates your continued support.

Sincerely,

Kimberly Singh, M.A., C.H.E.S.
Health Officer
The Mid-Michigan District Health Department Board of Health governs the Agency’s programming, finances and personnel. It is composed of two county commissioners, appointed by each of the three member counties (Clinton, Gratiot and Montcalm) served by the health department. It is the responsibility of the Board of Health to see that a plan is designed and implemented which will provide long-term, continuing health protection for the residents of the district.

**Jack Enderle (Clinton County)**
Mr. Enderle is serving his 1st year on the Board of Health. He serves as a member of the Finance and Mid-Central Coordinating Committees. As Chairperson of the Personnel Committee, he presides at all negotiation meetings and presents recommended salary and benefit changes to the Board.

**Paul McNamara (Clinton County)**
Mr. McNamara is serving his 1st year on the Board of Health. As Chairperson of the Board, he is responsible for preparing and/or approving meeting agendas and presiding at Board meetings. He also serves as a member of the Program and Public Health Emergency Committees. He is also a representative of the Michigan Association for Local Public Health (MALPH).

**Linton Chapin (Gratiot County)**
Mr. Chapin is serving his 3rd 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.

**Roger Cook (Gratiot County)**
Mr. Cook is serving his 1st year on the Board of Health. He also serves as a member of the Finance, Mid-Central Coordinating and Public Health Emergency Committees.

**Carl Paepke (Montcalm County)**
Mr. Paepke is serving his 13th year on the Board of Health and is Vice Chairperson. As Chairperson of the Finance Committee, he is responsible for developing and presenting the proposed annual budget for Board approval. He also serves as a member of the Program, Mid-Central Coordinating and Public Health Emergency Committees.

**Marcia Walker (Montcalm County)**
Ms. Walker is serving her 3rd year on the Board of Health. She serves as a member of the Personnel Committee.

**Kimberly Singh, M.A., C.H.E.S. (Health Officer)**
Ms. Singh is serving her 11th year as the agency’s Health Officer. She is responsible for carrying out the policies of the Board of Health and overseeing the internal operations of the Health Department.

**Robert Graham, D.O., M.P.H., F.A.A.F.P. (Medical Director)**
Dr. Graham is serving his 16th year as the Medical Director for the Mid-Michigan District Health Department and is also the Medical Director for the Central Michigan District Health Department. He is responsible for determining and directing medical policies and procedures.
The accounting and financial management of the health department’s resources are overseen by the Administrative Services Division. The financial management staff are responsible for complying with budgeting requirements and financial reporting for the various state and federal agencies that provide financial resources to the agency.
ENVIRONMENTAL HEALTH DIVISION

2007 HIGHLIGHTS

While many facets of environmental health focus primarily on food service sanitation, wastewater management and ground water quality control, the Environmental Health Division oversees many other programs. Many of these programs are less visible, but are nonetheless just as important. Some programs may be specific to a particular county, such as the mercury thermometer exchanges held in Gratiot County last year. Other programs, such as the identification of vulnerable populations, in conjunction with emergency preparedness encompass Clinton, Gratiot and Montcalm counties. In keeping with the Health Department mission of assuring the health and well-being of our community and the environment by responding to the public health needs and providing a broad spectrum of prevention and educational services, the Environmental Health Division placed particular emphasis on several of these programs in the past year. They are:

**Mercury Thermometer Exchange Program**
The Environmental Health Division conducted a mercury exchange program in Gratiot County. Mercury thermometers were replaced with digital thermometers that had been provided by the Saginaw Bay Watershed Protection Council with grant funds from General Motors. Over the course of the year a total of 535 thermometer exchanges were recorded in Gratiot County. Old mercury thermometers were recycled versus being placed in a landfill.

**Water Well Sampling**
This past year the Environmental Health Division began sampling all new residential water wells constructed in Clinton, Gratiot, and Montcalm counties. Previous to this, water sampling was voluntary on the part of the homeowner and was conducted on approximately 25% of new well installations. By ensuring that all wells are sampled, the Division is not only able to identify and correct problem installations, but can also provide added assurance to homeowners that their water supply is free of contamination and safe to drink.

**Emergency Preparedness**
During the year, the Division began to identify vulnerable populations. By definition, a vulnerable population is a special-needs group whose needs are not fully addressed by traditional providers or who cannot comfortably or safely access and use standard resources during an emergency, relief, or recovery event. Examples include long-term care/nursing homes, schools, day care facilities, prisons, and independent/assisted living facilities. During the year, the Division completed the first phase of a mapping and inventory project where approximately 700 facilities within the district were mapped and coded electronically for future reference. The ultimate goal is to have a complete database that will allow these groups to be notified and assisted as applicable in the event of emergency or disaster events.

**Food Certification Training**
In January of 2007, the Division began offering a food certification training program targeting managers and owners of area food service restaurants and operations. The training is advanced in nature and is endorsed by the Michigan Department of Agriculture. Participants must complete an in-depth 16-hour training course. Upon successful completion of the training program, candidates receive a certificate of completion. The certificate is valid for a period of five years. As of September 30, 2007, 111 food service professionals have successfully completed the training and received certification.

In 2007, the Environmental Health Division provided service to 4,793 unduplicated clients or facilities throughout the district.

Bruce Du Hamel, R.S., M.S.A.
Environmental Health Division Director
**FOOD PROGRAM**

The focus of the food program is to assure a safe, clean food product for the public through regular inspections and education. Efforts in this program are key elements in assuring the meals we consume outside of home are safe.

<table>
<thead>
<tr>
<th>Food Service Sanitation (Fixed)</th>
<th>Clinton</th>
<th>Gratiot</th>
<th>Montcalm</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>398</td>
<td>262</td>
<td>393</td>
<td>1,053</td>
</tr>
<tr>
<td>Food Service (Temporary permits)</td>
<td>92</td>
<td>45</td>
<td>86</td>
<td>223</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>490</td>
<td>307</td>
<td>479</td>
<td>1,276</td>
</tr>
</tbody>
</table>

**WASTEWATER MANAGEMENT**

One of the most important methods of preventing the spread of disease and viral infection is the proper treatment of human wastewater. These programs provide guidance and oversight for on-site sewage disposal.

<table>
<thead>
<tr>
<th>On-Site Sewage Disposal Permits</th>
<th>Clinton</th>
<th>Gratiot</th>
<th>Montcalm</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>118</td>
<td>81</td>
<td>281</td>
<td>480</td>
</tr>
<tr>
<td>Site Evaluations</td>
<td>140</td>
<td>87</td>
<td>287</td>
<td>514</td>
</tr>
<tr>
<td>Sewage Disposal Evaluation</td>
<td>5</td>
<td>6</td>
<td>135</td>
<td>146</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>263</td>
<td>174</td>
<td>703</td>
<td>1,140</td>
</tr>
</tbody>
</table>

**ENVIRONMENTAL QUALITY**

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

<table>
<thead>
<tr>
<th>Campground Program</th>
<th>Clinton</th>
<th>Gratiot</th>
<th>Montcalm</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>6</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>Dept. Human Services Inspections</td>
<td>57</td>
<td>19</td>
<td>56</td>
<td>132</td>
</tr>
<tr>
<td>Nuisance Complaints</td>
<td>29</td>
<td>37</td>
<td>94</td>
<td>160</td>
</tr>
<tr>
<td>Radon Test Kits</td>
<td>222</td>
<td>174</td>
<td>176</td>
<td>572</td>
</tr>
<tr>
<td>Mercury Thermometer Exchange</td>
<td>N/A</td>
<td>535</td>
<td>N/A</td>
<td>535</td>
</tr>
<tr>
<td>Public Swimming Pool Program</td>
<td>35</td>
<td>9</td>
<td>14</td>
<td>58</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>345</td>
<td>780</td>
<td>365</td>
<td>1,490</td>
</tr>
</tbody>
</table>

**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.

<table>
<thead>
<tr>
<th>Drinking Water Well Program</th>
<th>Clinton</th>
<th>Gratiot</th>
<th>Montcalm</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Well Contaminate Monitoring</td>
<td>197</td>
<td>119</td>
<td>346</td>
<td>662</td>
</tr>
<tr>
<td>Septage Waste Haulers</td>
<td>8</td>
<td>11</td>
<td>17</td>
<td>36</td>
</tr>
<tr>
<td>Trucks Inspected</td>
<td>9</td>
<td>7</td>
<td>14</td>
<td>30</td>
</tr>
<tr>
<td>Sites Inspected</td>
<td>3</td>
<td>4</td>
<td>10</td>
<td>17</td>
</tr>
<tr>
<td>Water System Evaluation</td>
<td>5</td>
<td>7</td>
<td>130</td>
<td>142</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>222</td>
<td>148</td>
<td>517</td>
<td>887</td>
</tr>
</tbody>
</table>
The Community Health & Education Division provides a variety of preventive health services to individuals and families in many settings, including health department clinics, homes, community centers, churches, schools and throughout the entire community.

2007 HIGHLIGHTS

Breast Health Screening Clinics
The Mid-Michigan District Health Department (MMDHD) was awarded two grants through the Komen Foundation (Grand Rapids Affiliate and Capitol Area Affiliate), which resulted in more than $61,000 of funding for Clinton and Montcalm Counties. In Montcalm County, MMDHD partnered with the Montcalm Community College Division of Nursing and United Lifestyles. In Clinton County, MMDHD partnered with Clinton Memorial Hospital. MMDHD hosted six clinics in Clinton and ten in Montcalm County, offering education and free breast screenings for uninsured or underinsured women. Free mammograms were offered to eligible women in need of the service. Over 200 women were served through the clinics. In September, the Michigan Cancer Consortium (MCC) awarded MMDHD the Spirit of Collaboration Award for its contribution to cancer control in Montcalm County.

Women, Infant and Children (WIC)
The demand for WIC services continued to increase in 2007, with staff providing 875 more visits compared to the previous year. One of the goals of WIC is to promote healthy weight by providing nutrition education and coupons for healthy foods. In 2007, MMDHD experienced a decrease in the percentage of children in the program that are overweight (10.9% compared to 13% in 2006; State percentage 16.2%), which ranks the program best in the state. The positive results are due to staff training on Ellyn Satter principles, increased breast-feeding rates and using value-enhanced nutrition assessment principles when working with families on feeding issues.

Stanton Dental Care Center
The Dental Center continues to provide quality service to over 1,800 Medicaid patients annually. The Center’s current patient caseload is approximately 81% children, with Medicaid adults served for urgent dental needs when appointments are available. The Dental Center’s continued successful operation, with its primary focus on children and low-income families, is dependent upon strong community support from the United Way and other community partners.

The following satisfaction survey comments reveal the level of appreciation for the public dental center:

- “My family is grateful to the Stanton Dental Center and staff. We have never been treated so well.”
- “The dental center has been extremely helpful with the homeless students on my caseload. The staff is professional and goes above and beyond to support the patients.”
- “I had to go to Bay City before I came here. It’s clean here and easy to access with my wheelchair; much better than any other dentist I’ve been to. The staff is great and always very nice”
- “The clinic is close to my home and accepts my foster kids without having to wait six months or more to get an appointment. We love this place!”

St. Johns Community Based Dental Clinic
In April, the Dental Clinic opened to serve Medicaid-eligible adults from Clinton and Gratiot Counties. Prior to the clinic opening, there were very few dentists accepting new adult patients on Medicaid. There were 260 adults served in the clinic in 2007. The clinic’s continued successful operation is dependent upon strong support from community partners and professional dental volunteers.

Clients included the following comments on the satisfaction surveys:

- “Staff is friendly and easy to speak with. My dental experience was awesome!”
- “Everyone here is very positive and compassionate. Great service, thank you.”
- “Staff are professional and care about my well-being. Thanks for being available for services.”

In 2007, the Community Health and Education Division provided service to 42,267 unduplicated individuals and families.
Maternal and child health programs give financial, social, nutritional and medical support to qualified families. These programs benefit the community by reducing infant mortality, ensuring healthy births and maintaining infant and child health.

### Communicable Disease Control Programs

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

<table>
<thead>
<tr>
<th>Service</th>
<th>Clinton</th>
<th>Gratiot</th>
<th>Montcalm</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIV Counseling/Testing</td>
<td>2,797</td>
<td>2,188</td>
<td>3,863</td>
<td>8,848</td>
</tr>
<tr>
<td>Immunizations</td>
<td>4,811</td>
<td>2,857</td>
<td>6,063</td>
<td>13,731</td>
</tr>
<tr>
<td>Women, Infants &amp; Children Program</td>
<td>1,001</td>
<td>1,468</td>
<td>1,986</td>
<td>4,455</td>
</tr>
<tr>
<td>Maternal Support Services</td>
<td>N/A</td>
<td>189</td>
<td>N/A</td>
<td>189</td>
</tr>
<tr>
<td>Infant Support Services</td>
<td>N/A</td>
<td>138</td>
<td>N/A</td>
<td>138</td>
</tr>
<tr>
<td>Early On</td>
<td>N/A</td>
<td>303</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>9,329</td>
<td>8,211</td>
<td>13,281</td>
<td>30,487</td>
</tr>
</tbody>
</table>

### Chronic Disease Control Programs

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

<table>
<thead>
<tr>
<th>Service</th>
<th>Clinton</th>
<th>Gratiot</th>
<th>Montcalm</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breast &amp; Cervical Cancer Control</td>
<td>58</td>
<td>93</td>
<td>N/A</td>
<td>151</td>
</tr>
<tr>
<td>Lead Poisoning Screening</td>
<td>107</td>
<td>287</td>
<td>513</td>
<td>907</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>165</td>
<td>380</td>
<td>513</td>
<td>1,058</td>
</tr>
</tbody>
</table>

### Maternal & Child Health Programs

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

### Oral Health

These programs promote oral health education and prevention, increase community awareness of the needs in the district and improve access to oral dental services.

<table>
<thead>
<tr>
<th>Service</th>
<th>Clinton</th>
<th>Gratiot</th>
<th>Montcalm</th>
<th>District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stanton Dental Care Center</td>
<td>N/A</td>
<td>N/A</td>
<td>1,836</td>
<td>1,836</td>
</tr>
<tr>
<td>St. Johns Community-Based Dental Clinic</td>
<td>143</td>
<td>117</td>
<td>N/A</td>
<td>260</td>
</tr>
<tr>
<td>(opened 4/07)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-School Education (Kindergarten</td>
<td>N/A</td>
<td>N/A</td>
<td>1,968</td>
<td>1,968</td>
</tr>
<tr>
<td>through third grade)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sealants</td>
<td>143</td>
<td>117</td>
<td>4,103</td>
<td>4,363</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Dr. Robert Graham is the Medical Director for the Mid-Michigan District Health Department (MMDHD). A 1977 graduate of the Kirksville (MO.) College of Osteopathic Medicine, Dr. Graham received his Master’s Degree from the University of Michigan in 1994, and was made a fellow of the American Academy of Family Physicians in 2004. He began his tenure with MMDHD in 1992. Prior to his affiliation with the health department, Dr. Graham was in private family practice for 14 years in Ithaca, Michigan. Some of the activities Dr. Graham oversees include immunizations, family planning clinics, disease outbreak investigations, and advising the MMDHD Board of Health in medical matters.

At MMDHD we are committed to improving the health of our citizens and minimizing potential health risks. One of the ways we accomplish this is through disease surveillance by collecting information on the state of the public’s health. Knowing what illnesses are affecting the public helps health care providers allocate resources, assess the effectiveness of health care programs, and assure that health needs are being met.

Data is collected from a variety of sources for both acute and chronic illnesses. Acute illnesses are conditions such as influenza, whooping cough, diarrheal illnesses, and meningitis. Examples of chronic illnesses are diabetes, cancer and heart disease.

The Michigan Disease Surveillance System is a program in which data on diseases that are required to be reported are sent to the Michigan Department of Community Health in Lansing for monitoring. This internet-based and paperless system was vital in the detection of the outbreak of salmonella associated with contaminated peanut butter in 2007.

The Sentinel Physician Influenza Network is another program that collects information about the number of people being seen by doctors with influenza and influenza-like illnesses. This program is linked with the Centers for Disease Control (CDC) and Prevention in Atlanta, Georgia. Information from this national network helps doctors by providing timely information about influenza activity locally as well as on a national level. The Sentinel Physician Influenza Network is also being counted on to help detect new strains of influenza such as Avian (bird) flu.

Additional sources of information on the state of the public’s health is from hospital discharge diagnoses as well as birth and death certificate data. From this information we can estimate the birth rate, the number of people with heart disease, and a multitude of other health conditions. This data helps schools plan for future needs, shows health care policymakers what types of services are needed, and aids public health agencies in the development of educational and prevention programs.

When I started my tenure as Medical Director for MMDHD 16 years ago, the majority of these surveillance programs did not exist. With these programs in place, we have greatly improved our capability to meet the challenges of an emerging illness head on rather than after a disease has caused second and third generations of illness. With the fast pace at which new disease challenges are emerging it is reassuring to know we have these early warning systems to help protect the public’s health.
Disease Outbreak Response
In November 2007 MMDHD was notified that a Grand Rapids dermatologist, who also practiced in Greenville, was found to have exposed thousands of people to several different blood borne pathogens through the re-use of single-use surgical instruments and unsafe sanitation methods. MMDHD immediately notified area physicians and alerted the media. MMDHD also held 17 clinics and tested over 109 Montcalm County residents for Hepatitis B, Hepatitis C and HIV. “Our response to the situation was something to be proud of,” said Dr. Robert Graham, MMDHD Medical Director. “We had clinics up and running within days of receiving notice of the problem.”

Pandemic Influenza Summit
On October 23, 2007, MMDHD sponsored a day-long conference on pandemic influenza. The conference included participants from over 100 community partners in Clinton, Gratiot and Montcalm Counties. Dr. Arnold Monto, a well-known and respected influenza expert from the University of Michigan, was the keynote speaker. A panel of state officials presented information about the pandemic influenza preparedness activities their agencies are involved in. It is through efforts like this that, when an influenza pandemic strikes, our communities will be better prepared.

Montcalm Healthy Smiles Endowment Fund/Night at the Theatre
The 3rd annual Night at the Theatre fundraiser, held in August 2007 raised $2,223 to benefit the Montcalm Healthy Smiles Endowment Fund. The fund was created in 2004 to help provide operating support for the Stanton Dental Care Center, which serves 1,800 Medicaid-eligible and uninsured patients annually, 80% of which are children. As of 2007, the average Medicaid reimbursement rate was only $72.00 for a client visit that costs $130.00. The remaining $58.00 to serve each client must come from grants and donations. While the community has been generous in giving, the Stanton Dental Care Center will not be able to continue long-term operations without the Healthy Smiles Endowment Fund. Guests were treated to hors d’oeuvres, able to bid on numerous silent auction items and viewed the 1940 classic film “Philadelphia Story.” The fund’s current balance is $18,770.42.

Area Restaurants Go Smoke Free
A number of area restaurants in Clinton, Gratiot and Montcalm Counties were presented with a certificate of appreciation from MMDHDs Board of Health for choosing to be smoke-free, protecting patrons and employees from the potential health hazards of secondhand smoke. Smoke-free policies decrease absenteeism, reduce housekeeping and maintenance costs, lower insurance rates and result in fewer smoking-related fires. Visit www.mmdhd.org for a complete list of the 34 Clinton County, 19 Gratiot County and 38 Montcalm County smoke-free restaurants.
Many indicators are used to measure the health of the population. The following pages summarize select indicators which help create a snapshot of the health status of the residents living in Clinton, Gratiot and Montcalm counties. In some cases, Michigan data has also been provided to allow for comparison between the counties and the State. Because the population of mid-Michigan is primarily White, Non-Hispanic (98%), “Michigan, White” statistics are included on selected indicators to better reflect our district’s population.

**Community Indicators**

**Infant mortality**

The infant mortality rate is a measure of the number of infant deaths under the age of one year per 1,000 live births. Infants at greatest risk of death are those born prematurely, having low birth weight or born with major congenital anomalies. Other factors influencing infant mortality include socioeconomic status, age and health of the mother, risk of infant injury, extent of prenatal care, and the infant’s medical care during the first year of life. Infant mortality is often used as an index of the general health of the community, since many of the risk factors reflect on community issues such as health-care access, education, poverty, and lifestyle choices. After seeing a steady improvement in infant mortality since the early 1970s to early 1990s, the rate in Michigan changed little in the ten years leading up to 2004, hovering around eight deaths per 1,000 infants. The state-wide infant mortality rate for the first time has fallen below eight deaths/1,000 births for the years 2004-06 (7.5 deaths/1,000 births). Each of the three counties in our district present a unique trend in the infant mortality rate over the past 10 years; however, all three counties have experienced a rate change that now closely approximates that of the state-wide Caucasian infant death rate. MMDHD continues to advocate for a community-wide collaborative effort to examine and reduce factors that lead to infant mortality.

**Teen pregnancy**

The teen pregnancy rate typically represents the number of women 15 to 19 years old who have given birth, experienced an abortion or miscarried per 1,000 teens of the same age. For this report, however, the data represents a more specific group of teens, age 15-17 only. The counties of the Mid-Michigan District Health Department have shown steady declines in the teen pregnancy rate over the past decade, mirroring the trend for Michigan as a whole. Gratiot and Clinton County rates have remained below that of Michigan, while the Montcalm County rate consistently remains above that of the State, but falling at a similar pace. Efforts to encourage responsible sexual decision making and increased use of contraceptives have contributed to the decrease in teen pregnancy. MMDHD offers Family Planning services in all three counties.
Selected Birth Characteristics

Findings from the Centers for Disease Control (CDC) and Prevention indicate that many women report high-risk behaviors or experience high-risk conditions before, during, and shortly after pregnancy. These characteristics of the mother may influence the delivery outcome and the future health status of her newborn infant. Some of these characteristics are monitored at the county and state levels so that trends can be observed and evaluated. These findings are useful in assisting the design of public health programs and policies that address these behaviors and experiences so that the health of mothers and their infants can be improved. The table and figures (above) compare selected birth characteristics between Clinton, Gratiot and Montcalm counties and the state of Michigan.

Selected Maternal Birth Trends

The four graphs below represent trends of selected maternal birth outcomes. At the state level, both “Repeat Teen Births” (women giving birth to a second child while a teen) and “Births to Mothers who Smoked During Pregnancy” appear to be moving in the right direction (rates decreasing) over the past decade; whereas “Births to Unwed Mothers” and “Births with Medicaid as Source of Payment” appear to be moving in the wrong direction (rates increasing). County-level results generally mirror the state trend for each indicator, with one minor exception: Gratiot County appears to be experiencing an upswing in the percentage of mothers who smoked during pregnancy. Most noticeable in the county-level results is the relatively better results for Clinton County in relation to the state and the other two counties. Both Gratiot and Montcalm counties continue to experience greater rates than the state for “Births to Mothers who Smoked During Pregnancy” and “Births with Medicaid as Source of Payment.”
LEADING CAUSES OF DEATH

The 10 disease categories in the table below represent the most frequent causes of death and account for about 75% of all deaths. The values represent the average number of deaths per 100,000 people for the years 2004-2006. Mortality data helps provide a snapshot of the general health status of a community, which aids in the identification of health concerns and the development of intervention programs. This mortality data can also be used to compare the health status of one population to another (i.e., counties) or to evaluate the status of one population over time (i.e., county trends). The table shown provides a comparison between the three counties of the Mid-Michigan District Health Department and Michigan. The bar charts represent the proportion of all deaths during 2006 that each underlying cause is responsible for. The numbers 1-10 for each county correspond to the same numbers 1-10 in the Michigan bar chart (e.g., 1=heart disease).

<table>
<thead>
<tr>
<th>Age-Adjusted Mortality Per 100,000 Population (2004-2006 Average)</th>
<th>Clinton</th>
<th>Gratiot</th>
<th>Montcalm</th>
<th>Michigan</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Heart Disease</td>
<td>174.0</td>
<td>248.0</td>
<td>224.8</td>
<td>230.6</td>
</tr>
<tr>
<td>2. Cancer</td>
<td>165.5</td>
<td>201.6</td>
<td>180.9</td>
<td>190.3</td>
</tr>
<tr>
<td>3. Diabetes related</td>
<td>72.0</td>
<td>103.3</td>
<td>72.0</td>
<td>81.7</td>
</tr>
<tr>
<td>4. Stroke</td>
<td>71.7</td>
<td>67.4</td>
<td>60.2</td>
<td>47.0</td>
</tr>
<tr>
<td>5. Chronic Respiratory</td>
<td>33.3</td>
<td>49.3</td>
<td>54.9</td>
<td>42.0</td>
</tr>
<tr>
<td>6. Unintentional Injury</td>
<td>28.1</td>
<td>30.0</td>
<td>45.4</td>
<td>33.2</td>
</tr>
<tr>
<td>7. Alzheimer's Disease</td>
<td>24.2</td>
<td>19.1</td>
<td>19.6</td>
<td>21.2</td>
</tr>
<tr>
<td>8. Pneumonia/Influenza</td>
<td>14.8</td>
<td>23.4</td>
<td>24.8</td>
<td>17.3</td>
</tr>
<tr>
<td>9. Kidney Disease</td>
<td>11.2</td>
<td>22.5</td>
<td>23.4</td>
<td>14.9</td>
</tr>
<tr>
<td>10. Suicide</td>
<td>12.3</td>
<td>*</td>
<td>14.4</td>
<td>10.8</td>
</tr>
<tr>
<td>Subtotal</td>
<td>607.1</td>
<td>764.6</td>
<td>720.4</td>
<td>689.0</td>
</tr>
</tbody>
</table>

Age 65+ | 11.2% | 13.5% | 12.4% | 12.3%

NOTE: Values in red represent county rates greater than State of Michigan rate. Asterisk (*) indicates too few cases to determine a reliable mortality rate.
Mid-Michigan District Health Department Services

Maternal & Child Health Services
- WIC (Women, Infants and Children)
- Family Planning Program
- Immunization Program
- Communicable Disease Control
- Sexually Transmitted Disease testing, treatment, counseling and follow-up.
- Tuberculosis Control
- HIV Counseling and Testing
- Children’s Special Health Care Services
- Maternity Outpatient Medical Services (M.O.M.S.), MIChild Healthy Kids Enrollment
- Maternal and Infant Support Services
- Breast and Cervical Cancer Control Program (BCCCP)
- Early On

Environmental Health Programs
- Oversee operational status of septic systems and drinking water wells
- Food Service Sanitation Program
- Issue permits for installing or repairing sewage disposal and water supply systems
- DHS-Licensed Facility Inspections
- Inspect public swimming pools, spas and hot tubs
- Rabies control through investigation of animal bite complaints
- Annual inspections of campgrounds
- Regulate the service of septic tanks, portable toilets and septage waste haulers
- Provide test kits for radon
- Review new pool location plans and monitor pool sample reports for quality
- Lead testing in homes

Community Health Programs
- Health Education
- Hearing & Vision Screening

Mid-Michigan Health Plan
- Locally-organized system of care for uninsured adults

Stanton Dental Care Center
- Provides access to dental health and hygiene services for Medicaid, low-income and uninsured patients in Montcalm County.

St. Johns Community Based Dental Clinic
- Provides access to dental health and hygiene services for Medicaid-eligible adults in Clinton and Gratiot Counties.
MID-MICHIGAN DISTRICT
HEALTH DEPARTMENT

Your public health experts,
connecting with the community and exceeding expectations.

www.mmdhd.org