



# 2008 ANNUAL REPORT

MARQUETTE COUNTY HEALTH DEPARTMENT  
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Visit our website at [www.mqthealth.org](http://www.mqthealth.org).

To the Honorable Members of the Marquette County Board of Commissioners, the Marquette County Board of Health, and the Residents of Marquette County:

Your Marquette County Health Department is pleased to present its 2008 Annual Report. The Department is the unit of county government mandated by state law to maintain the health of county residents, prevent disease, and protect individuals from environmental hazards. This report summarizes the Department's activities during what proved to be another challenging and productive year. It is intended to give citizens and other interested parties an update on the health status of our community and a greater understanding of the Department's function and impact.

As a summary, this document can only partially reflect our progress toward achieving the Department's mission, and the full extent of the accomplishments and dedication of the Department's staff and volunteers. As always, our achievements would not have been possible without the ongoing support and assistance of many individuals and organizations in the community. In particular, I would like to recognize the continuing interest, support, and leadership we receive from the Marquette County Board of Health and the Marquette County Board of Commissioners. We look forward to the challenges to come as we continue our efforts to make Marquette County a safer and more healthy place in which to live.

Respectfully submitted,

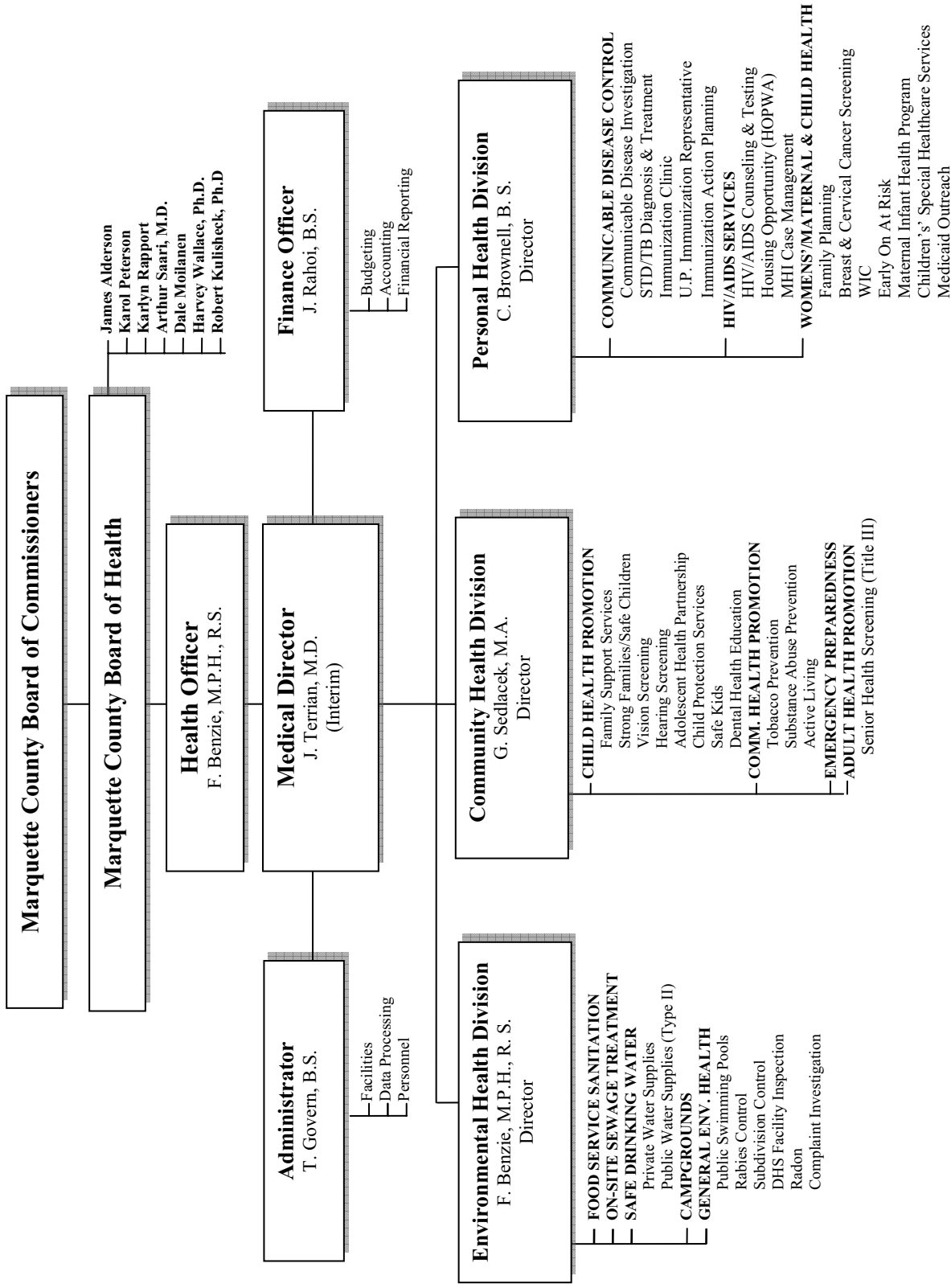
Fred J. Benzie, MPH, RS  
Health Officer

**Vision:** Healthy choices for a healthy community.

**Mission:** To serve people by assessing, promoting and assuring health within our community.

- ❖ Assures the quality and accessibility of health services
- ❖ Prevents epidemics and the spread of disease
- ❖ Promotes safe and healthy behaviors
- ❖ Protects against environmental hazards

# Marquette County Health Department



## **ORGANIZATION**

The Marquette County Health Department (MCHD) is a branch of county government ultimately responsible to the County Board of Commissioners. The Board of Commissioners appoints the seven member Board of Health which is responsible for establishing policies, setting department priorities, overseeing activities, approving monthly expenditures, and ensuring that the public health needs of the community are adequately addressed. During 2008, Board of Health members included: James Alderson (Chairperson), Dale Moilanen (Vice-Chairperson), Harvey Wallace, Ph.D. (Board of Commissioners Liaison), Arthur Saari, M.D., Karlyn Rapport, Karol Peterson, and Robert Kulisheck, Ph.D.

On July 1, 2008, Dr. Randall M. Johnson, M.P.H., the Health Officer/Medical Director for the Health Department, retired after dedicating over 27 years of service. Upon the recommendation of Dr. Johnson, the Board of Health agreed to reorganize the leadership of the Health Department to follow what many other health departments in the state have already done by hiring an Administrative Health Officer to take care of the everyday functions of managing and directing the Health Department and hiring a part-time Medical Director for overseeing medical operations. Fred Benzie was promoted to Administrative Health Officer from Environmental Health Division Director. The Environmental Health Division Director position remains vacant at the end of 2008. A six month contract with LMAS District Health Department was initiated for interim Medical Director services provided by Dr. James Terrian. These changes cut administrative expenses and saved the department significant money. The Interim Medical Director position is temporary until a candidate for Medical Director can be found.

The Health Department is now directed by an Administrative Health Officer who is recommended by the Marquette County Board of Health, appointed by the Marquette County Board of Commissioners and approved by the Michigan Department of Community Health (MDCH). During 2008, he was assisted in managing the Department by a Finance Officer, Administrator, Community Health Division Director, Personal Health Division Director and support staff within the Finance & Administrative Services Division.

Finance & Administrative Services Division staff performed or supervised agency-wide activities such as budgeting, financial management, human resources management, data processing, facilities management, planning, evaluation and resource development. These activities supported the programmatic divisions in their efforts to serve clients as effectively and efficiently as possible.

The Department's programmatic divisions during 2008 included Community Health, Environmental Health, and Personal Health. Day-to-day activities within each division were managed by a Division Director who reported to the Health Officer. (See Organizational Chart on page 2)

## FINANCE AND ADMINISTRATIVE DIVISION

### FINANCIAL

Health Department expenditures in 2008 decreased by \$903,671 from 2007 levels to \$3,642,626 and revenues decreased by \$899,945 to \$3,644,181. The decreases in both revenues and expenditures are due to the closure of the Dental Clinic at the end of 2007, with the areas affected most including Salaries & Wages, Fringe Benefits and Third Party Reimbursement. As in the previous year, the Federal Value of Vaccine (in the amount of \$431,147) is included in Other State/Federal Funds as revenue and Supplies/Materials as an expense due to State of Michigan requirements.

The unaudited 2008 year-end fund balance was a positive \$1,555.

| <b>STATEMENT OF REVENUES &amp; EXPENDITURES</b> |                    |                    |               |
|---|--------------------|--------------------|---------------|
|   | <b>2007</b>        | <b>2008</b>        | <b>2008</b>   |
| <b>REVENUES</b>                                 |                    |                    |               |
| COUNTY FUNDS                                    | 521,506            | 521,506            | 14.3%         |
| CIGARETTE TAX                                   | 22,018             | 15,685             | 0.4%          |
| LICENSES & FEES                                 | 248,995            | 248,769            | 6.8%          |
| THIRD PARTY REIMBURSEMENT                       | 1,000,137          | 280,715            | 7.7%          |
| STATE L.P.H.O. FUNDS                            | 246,623            | 251,128            | 6.9%          |
| OTHER STATE/ FED.FUNDS                          | 2,233,902          | 2,227,732          | 61.1%         |
| OTHER REVENUES                                  | 270,945            | 98,646             | 2.8%          |
| <b>TOTAL</b>                                    | <b>\$4,544,126</b> | <b>\$3,644,181</b> | <b>100.0%</b> |
| <b>EXPENDITURES</b>                             |                    |                    |               |
| SALARIES & WAGES                                | 2,247,525          | 1,567,154          | 43.0%         |
| FRINGE BENEFITS                                 | 1,069,073          | 992,157            | 27.2%         |
| TRAVEL  | 68,932             | 70,851             | 1.9%          |
| CONTRACTUAL SERVICES                            | 348,361            | 214,861            | 5.9%          |
| SUPPLIES/MATERIALS                              | 634,126            | 557,348            | 15.3%         |
| COMMUNICATIONS                                  | 19,821             | 14,745             | 0.4%          |
| REPAIRS & MAINT.                                | 37,377             | 28,871             | 0.8%          |
| RENT  | 36,612             | 89,778             | 2.5%          |
| INSURANCE & BONDS                               | 36,178             | 25,752             | 0.7%          |
| OTHER EXPENSES                                  | 34,204             | 77,085             | 2.1%          |
| CAPITAL OUTLAY                                  | 14,088             | 4,024              | 0.2%          |
| <b>TOTAL</b>                                    | <b>\$4,546,297</b> | <b>\$3,642,626</b> | <b>100.0%</b> |
| <b>FUND BALANCE</b>                             | <b>(\$2,171)</b>   | <b>\$1,555</b>     |               |

## **PERSONNEL**

Staffing levels were significantly decreased from 2007 to 2008, due mostly to the transfer of the Dental Clinic to Michigan Community Dental Clinics. Thirteen employees who previously worked in the Dental Clinic were either put on layoff or were able to bump into other positions of lower senior employees. The total full time equivalent (FTE) employees at the end of 2008 was 28.50 (compared to 43.88 in 2007).

The Health Department labor groups, AFSCME Local #1613 and the Michigan Nurses Association, were both in the final year of three year contracts. Negotiations with both groups were completed: the AFSCME group negotiated a new one year contract for the year 2009, while the Michigan Nurses Association contract will be in effect through June 30, 2010. Both groups participated in the Health Insurance Coalition with representatives from all county employee groups and the County negotiation team to come to an agreement regarding health insurance options.

## **CAPITAL IMPROVEMENT PROJECTS**

No major purchases or capital improvement projects were funded in 2008. The Health Department had previously been assuming operational functions for the Negaunee Service Center, which is a county building; however, at their February 5, 2008 meeting, the County Board of Commissioners approved for the transfer of this responsibility back to the County Resource Management Department (Facilities). Two other departments besides the Health Department utilized space in the building: the County Planning Department and MSU Extension. Two maintenance staff were transferred from the Health Department AFSCME union to the Courthouse AFSCME group. Supervision of these positions is provided by Health Department Administrator with support from Larry Gould. The Health Department had total building costs for 2008 of \$68,030.

## ENVIRONMENTAL HEALTH DIVISION

The Environmental Health Division exists to preserve, protect, and improve the quality of life within Marquette County. Managing our environment allows the control of elements that cause, or have the potential to cause, deleterious effects to our health and well-being. This involves the food and drink, lands, waters, atmosphere, shelter and other resources upon which we are dependent for our existence. Services were provided through the efforts of a Division Director, three full time Sanitarians, a Lead Secretary and additional clerical support, when needed, from a Secretary provided by the County. Services provided include environmental education, consultation, planning, inspections and regulatory enforcement through several program areas.

| Environmental Health Statistical Report     |             |              |             |              |             |
|---|-------------|--------------|-------------|--------------|-------------|
|   | INSPECTIONS |              |             | HOURS        |             |
|   |             | #            | %           | #            | %           |
| <b>General EH Program</b>                   |             | 83           | 5.5%        | 205          | 2.6%        |
| Swimming Pool Inspections                   | 41          |              |             |              |             |
| DHS Inspections (including follow ups)      | 35          |              |             |              |             |
| Other Gen. EH Inspections                   | 7           |              |             |              |             |
| <b>Food Service Program</b>                 |             | 842          | 56.2%       | 3,466        | 44.0%       |
| # of Inspections                            | 816         |              |             |              |             |
| Plan Reviews Conducted                      | 15          |              |             |              |             |
| Plan Reviews Completed                      | 11          |              |             |              |             |
| <b>Sewage</b>                               |             | 336          | 22.4%       | 2,422        | 30.7%       |
| <b>Type II</b>                              |             | 12           | 0.8%        | 244          | 3.1%        |
| <b>Private Water</b>                        |             | 206          | 13.8%       | 1,499        | 19.0%       |
| <b>Campgrounds</b>                          |             | 20           | 1.3%        | 48           | 0.6%        |
| Permanent Campgrounds Inspected (844 sites) | 16          |              |             |              |             |
| Temporary Campgrounds Inspected (615 sites) | 4           |              |             |              |             |
| <b>TOTAL</b>                                |             | <b>1,499</b> | <b>100%</b> | <b>7,884</b> | <b>100%</b> |

### FOOD SERVICE SANITATION

The Division provided all licensing and inspection services to facilities that served food to the public in accordance with Michigan's Food Law of 2000, Act 92, P.A. as amended and the Federal Food and Drug Administration: Food Code of 2005. Food-borne illness investigations are conducted to identify the causative agents and practices responsible, and are reported to the Michigan Department of Agriculture (MDA). The primary purpose of the program is the prevention of food-borne illness. Staff time in the food program decreased by 558 hours from last year, but amounted to a greater percentage of time (from 34% of the total available staff time to 44%). This was due to less overall staff time available. There were 283 fixed food service and 94 temporary establishments licensed in Marquette County during 2008. The number of licensed fixed establishments increased by 16 and the number of temporary licensed events decreased by 22. We continued to conduct pre-license inspections of all temporary food events

as required by law and MDA program requirements. Sanitarians provided weekend coverage on an overtime basis to license temporary events.

The total number of food inspections increased slightly from 794 in 2007 to 816 in 2008. This included 528 routine fixed facility inspections, 194 follow-up inspections on critical violations and 94 temporary facility inspections. A total of 15 facility plan reviews for new or extensively remodeled establishments were also performed and of that number 11 were opened in 2008. There were 10 food related complaints and no food-borne illness investigations. Multiple free food service sanitation classes were held for food handlers and employees of county food service establishments. These classes provided basic food service sanitation training.

Sword Solutions software was successfully implemented for use in Environmental Health programs initially enabling restaurant inspections to be more efficiently conducted, eliminating the need for multiple copies of paper records. Staff now take laptop computers and portable printers into restaurants when conducting inspections which allow the data to be stored electronically and viewed quickly for past history. A well and septic system component is expected to be added in 2009.

#### **ON-SITE SEWAGE TREATMENT**

The Superior Environmental Health Code requires a permit for the construction or major alteration of all on-site sewage treatment systems. Sanitarians conducted site investigations to determine soil suitability and then specified any special construction practices required before issuing permits. Construction inspections were performed to insure that minimum design specifications were met and that systems will function properly while minimizing risks to public health and the environment. In addition, services were provided upon request to evaluate existing systems for prospective home buyers before their purchase of a previously owned home. Staff also protected public health and the environment by responding to complaints and requiring corrective action where failing on-site sewage systems were identified. Staff time decreased significantly in this program, by 1,073 hours and utilized 31% of the total available staff time. The number of sewage permits issued decreased to 176 (from 221 in 2007) and final inspections decreased to 160 (from 212 in 2007).

#### **PRIVATE WATER SUPPLY**

The Superior Environmental Health Code requires a permit for the construction of new water supply systems in accordance with State minimum program requirements. Sanitarians conducted site investigations and consultations to determine appropriate well locations. Special construction practices were specified dependent upon area geology and potential risk to the water supply. Bacteriological and partial chemical samples for analysis of water quality were taken for the homeowner as part of the final inspection. Final inspections help insure a safe water source is being provided and that well drillers are operating within the confines of the law. In addition, services were provided upon request to prospective home buyers to evaluate existing systems before their purchase of a previously owned home. Staff also protected the public health by responding to water quality complaints and investigating water borne illnesses. The Division performed volatile organic hydrocarbon (VOC) sampling through a contract with Michigan Department of Environmental Quality (MDEQ) on residential wells in the Harvey area and Skandia Township. Results were provided to the homeowners in consultation with MDEQ.



Staff time in this program decreased by 524 hours from last year. The number of well permits issued decreased by 82 from the previous year and the number of final inspections increased by 30.

| <b>TOWNSHIP</b> | <b>SEPTIC PERMITS</b> | <b>SEPTIC FINALS</b> | <b>WELL PERMITS</b> | <b>WELL FINALS</b> |
|-----------------|-----------------------|----------------------|---------------------|--------------------|
| Champion        | 2                     | 2                    | 1                   | 1                  |
| Chocolay        | 24                    | 24                   | 22                  | 24                 |
| Ely             | 15                    | 12                   | 8                   | 4                  |
| Ewing           | 0                     | 0                    | 0                   | 1                  |
| Forsyth         | 24                    | 24                   | 12                  | 14                 |
| Humboldt        | 7                     | 6                    | 3                   | 1                  |
| Ishpeming       | 8                     | 5                    | 4                   | 3                  |
| Marquette       | 14                    | 13                   | 4                   | 2                  |
| Michigamme      | 2                     | 2                    | 1                   | 4                  |
| Negaunee        | 25                    | 23                   | 21                  | 16                 |
| Powell          | 9                     | 5                    | 2                   | 2                  |
| Republic        | 14                    | 15                   | 14                  | 6                  |
| Richmond        | 2                     | 2                    | 0                   | 2                  |
| Sands           | 16                    | 15                   | 9                   | 7                  |
| Skandia         | 6                     | 3                    | 4                   | 1                  |
| Tilden          | 6                     | 7                    | 4                   | 2                  |
| Turin           | 0                     | 0                    | 0                   | 1                  |
| Wells           | 1                     | 0                    | 1                   | 1                  |
| West Branch     | 1                     | 2                    | 2                   | 2                  |
| <b>TOTALS</b>   | <b>176</b>            | <b>160</b>           | <b>112</b>          | <b>94</b>          |

### **PUBLIC WATER SUPPLY**

The Division issued permits for the construction or major alteration of noncommunity public water supplies. Examples include on-site wells serving schools, restaurants, motels, gas stations and other businesses who serve water to the public. We have a contract with the MDEQ in the Noncommunity Public Water Supply Program to perform a sanitary survey on each water supply every five years and to establish bacteriological sampling frequency. A survey determines if well construction, location, and distribution system comply with Michigan's Safe Drinking Water Act, Act 399, P.A. of 1976. During 2008, there were 57 Type II noncommunity supplies in Marquette County. This was up three from the previous year. This program affords reasonable assurance to persons using noncommunity public drinking supplies that they are properly constructed and the water safe to consume.

### **PUBLIC SWIMMING POOLS & SPAS**

The Division inspected all public swimming pools and spas in Marquette County at least once during their operating season. Inspections included reviewing the design, construction, operation

and maintenance of the pool or spa. Bacteriologic samples were collected quarterly by staff and the results reported to owners or operators. In 2008 there were 41 licensed public swimming pools and spas in Marquette County. This was a decrease of one over 2007.

**CAMPGROUNDS**

The Division inspected all 16 fixed and 4 temporary campgrounds in Marquette County for compliance with Michigan Department of Environmental Quality rules.

**GENERAL ENVIRONMENTAL HEALTH**

This program involves services/inspections in a variety of areas including insect and rodent control, rabies control, nuisance investigation, indoor air quality, environmental and subdivision planning, and facility inspections for the Michigan Department of Human Services licensed facilities.

No rabies cases were found in the animal population in 2008. We saw a slight decrease in the number of animal bites reported. There were 99 animal bites reported in 2008 as opposed to 108 reported in 2007.

Two new site condominium plats regulated by the Land Division Act were submitted for review. One was approved and the other is still in progress. Consultations were provided with the developers and their consulting engineer during the planning stages and before the sale of individual lots. Field visit and plan reviews were conducted to determine if adequate water quality and quantity and suitable soil for on-site sewage treatment existed. Restrictive covenants were recorded with the Register of Deeds office identifying any limited potential for on-site water or sewage treatment facilities.

| <b>ANIMAL BITES</b>  |           |
|----------------------|-----------|
| Dogs                 | 79        |
| Cats                 | 14        |
| Bats                 | 5         |
| Other (Bear)         | 1         |
| <b>TOTAL</b>         | <b>99</b> |
| <b>Rabies Tests:</b> |           |
| 3 Bats, 3 Cats       | 6         |
| Negative             | 6         |
| <b>COMPLAINTS</b>    |           |
| Sewage               | 4         |
| Garbage              | 0         |
| Pests/Rodents        | 0         |
| Water Problems       | 2         |
| Food                 | 10        |
| <b>TOTAL</b>         | <b>16</b> |

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## PERSONAL HEALTH DIVISION

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The Personal Health Division provides a wide variety of services. Many of the programs are interrelated in order to ensure clients have the easiest possible access to services. Every effort is made to collaborate with all members of the community health care team to provide services. Services of the Personal Health Division are offered by appointment, and by walk-in as available.

### **FAMILY PLANNING (FP)**

The Family Planning program provided a wide array of services associated with reproductive health care.

Voluntary family planning is an important health measure. The legal, political and logistical availability of affordable contraceptive services has an influence on the health of the individual, the relationship, the family and the community. It was therefore our intention to provide cost effective, confidential and accessible services that would assist the individual to prevent an unplanned pregnancy. The primary components of the Family Planning Program were:

- Education (individual, group, community)
- Contraceptive Methods
- Pregnancy Determination
- Reproductive Evaluation, Diagnosis and Treatment
- Referral Network.

Verbal and written education opportunities were offered to every new client seeking contraceptive services so the individual had access to the information needed to make an informed decision when selecting the contraceptive method right for them.

Contraceptive methods provided through our Family Planning Program included: Natural Family Planning, Abstinence, Condoms, Spermicide, Diaphragms, Hormonal (oral) Contraceptives, Depo-Provera (injectable) contraceptives, Nuva ring, Intra uterine contraception, Ortho Evra (patch) and Plan B. Early detection of a pregnancy, planned or unplanned, is paramount in initiating plans and selecting medical services. Clients were referred immediately to prenatal care providers upon detection of pregnancy; additional auxiliary services were also available including WIC, Maternal Infant Health Program and Medicaid enrollment.

Care was not limited to contraception services but included medical evaluation, diagnosis, and treatment of sexually transmitted diseases (STDs) to all clients who requested service. Clients were served regardless of age, race, sex, or financial status for: pap, breast examination, treatment of vaginal infection, STDs, fertility counseling or infertility evaluation.

Some individuals who attended the Family Planning Clinic had needs extending beyond the scope of the services available. As a public agency we offered extended referral for continued medical care intervention and health care promotion. For clients who met financial eligibility, Medicaid assistance was available through the FP/Breast and Cervical Cancer Control Program (BCCCP). This program is explained in more detail in the next section.

Plan First! is a state funded program that provides coverage for family planning services. This program's eligibility is income based for ages 19 and older. Enrollment numbers for this program increased throughout the year. This allowed for more women to be served by the Family Planning Program.

The FP/BCCCP program was created to serve women under age 40, who qualified by BCCCP guidelines, with cervical abnormalities. Funding was provided for gynecological consultation and testing for cervical cancer. During this year, 24 women were served in this program.

**BREAST AND CERVICAL CANCER CONTROL PROGRAM (BCCCP)**

Title X federal grant resources continued to be available to support breast and cervical cancer services to women age 40 and over. Women are referred to us for enrollment into the program from several sources, such as Medical Care Access Coalition (MCAC) and private providers. We continued to maintain clinical screening services at the health department, while increasing the percentage of women screened by participating health care providers throughout our area.

Three local agencies, each with multiple physicians, signed contracts to enroll clients and provide services. Five additional contractors agreed to provide services UP-wide. The UP-wide service agreements were a combined effort made by all health departments across the region.

| <b>PERSONAL HEALTH DIVISION</b>               |       |
|---|-------|
| <b>AIDS ANTIBODY COUNSELING &amp; TESTING</b> |       |
| TOTAL PRE-TEST COUNSEL VISITS                 | 186   |
| TOTAL POST TEST                               | 172   |
| INDIVIDUALS SERVED IN COC FOR HIV             | 83    |
| COC CLINIC VISITS                             | 63    |
| <b>BREAST &amp; CERVICAL CANCER SCREENING</b> |       |
| MCHD  | 244   |
| PRIVATE MD                                    | 70    |
| TOTAL   | 314   |
| ABNORMAL FINDINGS                             | 37    |
| OTHER REFERRALS                               | 42    |
| POSITIVE CASES                                | 3     |
| <b>COMMUNICABLE DISEASES / STD / VD</b>       |       |
| INDIVIDUALS SCREENED FOR STD                  | 537   |
| T.B. SKIN TEST GIVEN                          | 239   |
| <b>FAMILY PLANNING</b>                        |       |
| INDIVIDUALS SERVED                            | 673   |
| TOTAL VISITS                                  | 1,017 |
| <b>MATERNAL CHILD HEALTH</b>                  |       |
| MSS/ISS INITIAL VISITS                        | 63    |
| PROFESSIONAL VISITS                           | 465   |
| TOTALS  | 528   |
| <b>VACCINE DOSES</b>                          |       |
| VACCINES GIVEN - DPT, OPV, HBCV, MMR          | 1,248 |
| FLU VACCINE S GIVEN                           | 2,521 |
| <b>WIC</b>                                    |       |
| AVERAGE MONTHLY CASELOAD                      | 1,494 |
| NUMBER OF VISITS                              | 6,300 |

### **SEXUALLY TRANSMITTED DISEASES (STD)**

Sexually Transmitted Disease exams, diagnosis, and treatment were provided free of charge to clients identified as high risk. For clients who do not meet the guidelines for high risk and would like to be tested, they can do so for a minimal charge. Assistance with partner notification was provided when requested by those diagnosed with STDs. Skilled early intervention for medical management of STDs and education is essential to preservation of health and future fertility.

STD education was incorporated into Family Planning and HIV community presentations throughout the year. These presentations were conducted at university health fairs and the Great Lakes Recovery Program.

### **COMMUNICABLE DISEASE CONTROL**

Several Public Health Nurses work under the direction of the Medical Director to provide the epidemiological analysis and treatment services needed to address communicable disease. Reportable communicable diseases are investigated following established guidelines. Based on the Center for Disease Control (CDC) guidelines, follow up is made with people who have been exposed to some communicable diseases, such as Salmonella, Hepatitis C and Chlamydia. Tuberculosis (TB) skin testing was provided for a nominal fee.

### **MATERNAL INFANT HEALTH PROGRAM (MIHP)**

This focus of this program was on prevention and control of maternal and child health problems through education, monitoring and referral to appropriate support agencies. The Maternal Infant Health Program is certified through the Michigan Department of Community Health (MDCH) and offers nursing, social work and nutritionist services to high risk pregnant women and infants on Medicaid.

Pregnant women are screened during WIC appointments for eligibility for the MIHP program. Eligible women are offered services and enrollment during their WIC appointment.

All public health staff within the MIHP program were involved in the Early On Michigan project that provides cooperative services with family involvement for eligible children – ages zero to three. Pathways, the Marquette-Alger Regional Educational Service Agency (MARESA), the Marquette County Health Department and the state Department of Human Services (DHS) worked jointly to determine necessary services through a program called Wrap Around.

### **CHILDREN'S SPECIAL HEALTH CARE SERVICES (CSHCS)**

The Children's Special Health Care Services program was available to children of Marquette County who meet certain medical eligibility requirements. Children's Special Health Care Services is a program that provides financial assistance for medical bills to those individuals who have a chronic or debilitating condition. CSHCS covers from birth to the age of 21, if medically eligible. Medical eligibility is determined at the state level. This is based on the severity of the condition and what medical care and treatment the individual requires. A diagnostic evaluation is used to help determine if a child has a medically qualifying condition. Financial guidelines are based on the gross income of the family and family size. Renewal for CSHCS is done on a yearly basis. Cystic fibrosis and hemophilia are qualifying conditions for the lifetime of the individual.

The CSHCS program continues to provide case management services or care coordination to families in need of hands on services.

### **WOMEN, INFANTS AND CHILDREN (WIC)**

WIC helps correct or prevent malnutrition in low income pregnant and breast-feeding women by providing WIC coupons that can be redeemed at local grocery stores. Women who recently had a baby, infants, and children up to five years old are eligible if there is a health risk or inadequate nutrition. Nutrition education is offered to all WIC participants or their care givers. Common topics include nutrition during pregnancy, encouragement for breast-feeding, and nutrition during childhood and wise food shopping. An added benefit of the WIC program has been screening for health problems and referral to other appropriate agencies and social services. WIC services were available on a weekly basis at the Health Department and Lake Superior Village. Services were also available twice monthly in Gwinn. The WIC program worked closely with the Immunization program and Material Infant Health Program (MIHP). Screening was provided during the WIC clinics for pregnant women to determine eligibility for MIHP services.

Project Fresh was a highlight for WIC again this year. This program offered clients access to fresh season food through an incentive program. The incentive program taught the clients new skills for food preparation and the opportunity to become familiar with other community assets.

The WIC Coordinator and an additional Dietitian on staff worked to increase the screening of Medicaid clients for elevated lead levels. As many of those clients were seen in the WIC program it was an open opportunity to evaluate the level of lead for each child to age 36 months who were on Medicaid.

The WIC staff have worked to address a lack of insurance coverage for newly pregnant clients by screening them for Medicaid eligibility at the time of their first several WIC appointments. At the same time they are given the information about other programs that could be of service to them. These include MIHP services.

### **IMMUNIZATIONS**

Childhood and adult immunizations were available to all Marquette County residents for a nominal fee.

There were several flu vaccination clinics in the community. The drive-thru flu clinic held at the MarqTran facility was a community favorite. A second drive-thru clinic was held in the Gwinn area. This clinic provided service to both walk-in and drive-thru clients. We also had walk-in flu clinics at Pamida in Ishpeming, the Marquette Senior Center and at the Courthouse Annex for county employees. The flu vaccination clinics expanded again this year to include Marquette Area Public Schools, WE Energy Power Plant, Michigamme Community Hall, Aspen Ridge School, Peninsula Bank, Janzen House, and Snowberry Heights. Several other private businesses took advantage of providing their employees flu shots through onsite flu clinics provided by the Health Department. Hepatitis B clinics were held for the Marquette municipal employees at their location.

The Marquette County Health Department became part of an expansion to the Michigan Care Improvement Registry (MCIR). MCIR is an electronic statewide childhood immunization registry that is accessible by private and public immunization providers, as well as day care providers and schools. All of Marquette County's immunization providers and schools have access to the MCIR and have been able to receive immediate access to immunization history information. By receiving reliable information on a child's immunization status, health care providers have been able to decrease the number of missed opportunities for administering immunizations to children and decrease over-immunization as well. The expansion of this program has changed how Vaccines For Children (VFC) are distributed to area physicians. The Health Department no longer provides vaccines to the area physicians through our supply. All immunization orders are filled through a national distribution company directly to the physicians. The Health Department still remains the main contact for the private provider offices regarding questions and to review and approve their vaccine orders prior to the distribution company filling and shipping the orders.

We were able to take advantage of a program through the State that allowed us to provide some free vaccines to those clients who meet age and income requirements. The vaccines that were available through the Special 317 Vaccine program were Human Papilloma Virus (HPV), Twinrix (Hepatitis A & Hepatitis B) and Zostavax (shingles vaccine).

#### **HIV ANTIBODY COUNSELING AND TESTING (ACT)**

ACT services were provided to persons interested in learning about HIV/AIDS and their HIV status. The Michigan Department of Community Health (MDCH) continued its practice of not funding areas of the State which are considered "low incidence" including all of the Upper Peninsula. We continued to make the service available for a flat fee of \$35 per test.

Testing was provided to adult and adolescent residents of the Great Lakes Recovery Program in Marquette as part of the Early Intervention Project funded through MDCH Substance Abuse Services. This population has been identified nationally as a high risk, hard to reach population. This testing uses the Ora Sure Testing system, which is a saliva testing procedure. Through this outreach program, 93 high risk clients were tested for HIV. There were no positive test results at the Great Lakes Recovery Program.

Testing that was court ordered as a result of conviction for criminal sexual assault was also provided. This testing included HIV antibody, STD and Hepatitis B. There was a total of 12 court ordered tests completed. There were no positive results.

Collaboration between HIV testing and STD testing continued to be implemented on site. Testing for HIV was an optional test at the time a person was tested for STDs. Every attempt was made to eliminate the need for a client to schedule a separate appointment for each test and discuss their situation with a multitude of staff members. There were 13 HIV tests completed in conjunction with STD testing.

Other collaborative efforts included providing clients in the Family Planning program and Breast and Cervical Cancer program with information regarding the transmission of HIV to

heterosexual females who are at higher risk for transmission and the availability of counseling and testing at the time of their Family Planning appointment.

HIV educational presentations were conducted for community organizations and at several of the high school health classes. Informational tables were set up at health fairs held at Northern Michigan University and several other community events.

### **CONTINUUM OF CARE (COC)**

The COC program provided case management services throughout the Upper Peninsula to clients infected and affected by HIV/AIDS. Services include: emergency financial assistance, support group referrals, patient advocacy, short-term housing assistance, food card assistance, dental care and outpatient medical care through a clinic staffed by four infectious disease specialists. Funding sources for these services included Michigan Health Initiative (MHI), Ryan White Title II, and Housing Opportunities for People With AIDS (HOPWA). Throughout the course of the year there were 61 unduplicated clients seen for services through this program.



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## COMMUNITY HEALTH DIVISION

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The mission of the Community Health Division is to identify community health needs, plan and evaluate appropriate responses, and provide educational services that direct the attention of individuals to their own health behavior.

This mission when put into practice, results in service to the Department as well as programming for the community. Departmental service activities include media relations (news releases/public service announcements), maintaining a health resource library, community and internal planning and evaluation, and grant writing.

Community programming focuses primarily on prevention of chronic disease conditions through risk reduction by providing education as well as developing community health policies which allow individuals to improve or maintain their own health practices.

A variety of preventive initiatives were undertaken to educate the public about risk reduction in 2008. The Division seeks community partnerships to assess and improve the health of area residents. A review of pertinent demographics is an important part of identifying health issues of area residents. Our website now has several health reports of demographic data and other health indicators for Marquette County residents.

MCHD maintains and updates as necessary, local statistics on health issues. A procedure to have the community prioritize health concerns has been established with the local Marquette Family Coordinating Council, United Way of Marquette County and the Marquette County Board of Health. Access to health care, early childhood health and substance abuse have been issues that have been addressed for the past ten years. Information regarding these priority issues as well as several other health coalitions is included in our website ([www.mqthealth.org](http://www.mqthealth.org)).

Heart disease is the number one cause of death in Marquette County. A lack of fitness is a major contributing factor. In response we have been successful in receiving grant assistance in developing community initiatives to work to prevent heart disease and other chronic diseases such as cancer and diabetes. For example, the Division was instrumental in the development and implementation of the Active Living Task Force. The Division was awarded a grant in 2008 and was successful in obtaining an extension from the Michigan Department of Community Health to conduct a community trial to improve the nutrition and fitness of area residents. The program has been able to work collaboratively with the Lake Superior Community Partnership to continue work on a 50 mile paved bike path through the center of Marquette County from Republic through the cities of Ishpeming, Negaunee, and Marquette to Chocoday Township. We awarded the City of Negaunee \$25,000 to complete the path between the City of Negaunee and Ishpeming. An evaluation demonstrated that nearly 500 people a day use the path for exercise. In addition, \$9,000 was awarded to the Sawyer Fitness Facility and \$8,000 to the MSU Extension for nutrition education programs.

|                                       |        |
|---------------------------------------|--------|
| <b>COMMUNITY HEALTH<br/>PROMOTION</b> |        |
| <b>HEALTH PROMOTION SCREENING</b>     |        |
| SENIOR CITIZENS                       | 83     |
| REFERRALS                             | 24     |
| <b>EDUCATIONAL PROGRAMS</b>           |        |
| PROGRAMS                              | 110    |
| PARTICIPANTS                          | 2,469  |
| <b>SCHOOL HEALTH</b>                  |        |
| HEARING SCREENS                       | 3,034  |
| REFERRALS                             | 101    |
| VISION SCREENS                        | 4,272  |
| REFERRALS                             | 283    |
| ADOLESCENT HEALTH ASSESSMENTS         | 1723   |
| REFERRALS                             | 1510   |
| <b>FAMILY HEALTH EDUCATION</b>        |        |
| PROGRAM/CLIENT HOURS                  | 3,440  |
| FAMILIES SERVED                       | 95     |
| <b>COMMUNITY MEETINGS</b>             |        |
| CONDUCTED                             | 58     |
| PARTICIPANTS                          | 652    |
| ATTENDED                              | 137    |
| <b>NEWS RELEASES</b>                  | 165    |
| <b>INFO REQUESTS</b>                  | 2,417  |
| <b>INFO DISTRIBUTION</b>              | 51,232 |

The Senior Screening project reached a total of 83 seniors with 24 referrals to local physicians for follow up of abnormal screening tests. These screenings take place in some of the more rural areas of the county in which seniors have a difficult time receiving preventive checkups.

The Division's Health Educators conducted 110 educational programs that reached a total of 2,469 residents! These programs ranged from Fitness Education to Smoking Cessation. A goal of the Division is to facilitate community collaboration to reduce or prevent health problems. The Health Educators conducted a total of 58 community meetings that attracted 652 community members. In addition, they attended 137 other community meetings working collaboratively on many community health issues. Newsletters and other forms of communication to educate

residents on health issues were sent to nearly 51,232 people! The Division also responded to more than 2,417 requests for health information. A total of 165 news releases were sent to area media.

### **EMERGENCY PREPAREDNESS**

The Emergency Preparedness program in Community Health was involved in a multitude of activities in 2008. Throughout the year the Emergency Preparedness staff attended monthly conference calls or on-site conferences with the Office of Public Health Preparedness (OPHP). These meetings addressed issues confronting health departments throughout the state. Emergency Preparedness staff are represented on the Local Emergency Planning Committee along with other local government and private institutions. This committee addresses health and security issues regarding hazardous materials within the County. Additional committee meetings with the hospital Health Resources Services Administration (HRSA) grant project were attended throughout the year. This group coordinates the planning for emergency response activities involving hospitals, ambulance companies and public health.

A comprehensive All Hazards Response Plan revision was submitted to the Michigan Department of Community Health (MDCH) as mandated by OPHP in February. This plan addressed the response to biological, radiological, and chemical emergencies. The Centers for Disease Control (CDC) audits the preparedness activities within each state and the All Hazards Plan is evidence that local governments are participating in this program. Our Strategic National Stockpile (SNS) plan revisions were submitted in December. The revisions resulted in a greater percentage of required criteria being met.

Our Pandemic Influenza Plan revision was submitted in December. Numerous activities focusing on Pandemic Influenza were conducted. Response planning was the focus of these meetings to encourage local private and government entities to develop strategies to ensure continuity of operations during an influenza outbreak. A full scale exercise of our Pandemic Influenza Plan was conducted in September at the Superior Dome in Marquette. This exercise was a multi-discipline exercise in that it involved both public, private, local business and citizen participation. This was a successful exercise which resulted in several changes in the Pandemic Influenza Plan.

The two large scale influenza vaccination drive thru clinics (MarqTran and Forsyth Township Emergency Facilities) in October and November were also utilized as Emergency Preparedness activities. These events exercised a number of response components while vaccinating a large group of citizens, such as patient tracking, credentialing of response workers, communications capabilities, and media releases.

Key Emergency Preparedness team members attended trainings in September and October in Marquette. This training brought our team members into compliance with current CDC guidelines.

### **UPPER PENINSULA CHILD PASSENGER SAFETY (CPS) PROJECT**

Since 2005, the Marquette County Sheriff's Office (MCSO) has been awarded this grant from the Office of Highway Safety Planning (OHSP) and subcontracted CPS Project Assistant

responsibilities to the Health Department. In September 2008, the Health Department was awarded the grant for \$115,000 to fulfill all objectives of the U.P. Child Passenger Safety Project. Due to similar projects across the state, Michigan is now ranked #1 in the nation for its high seat belt/car seat use rate (97%).

The overall goal of this project is to reduce the risk of injury and death to Upper Peninsula children while riding in vehicles. We obtain this goal by providing CPS education and seat checks in communities across the Upper Peninsula. All seat checks have to be conducted by a certified CPS technician.

One of the objectives of the project is to encourage CPS technicians to re-certify. A CPS technician certification is valid for two years. To re-certify a technician must obtain six CEUs, attend a CPS event, and obtain verification of five seat installations from an instructor. During the 2008 grant cycle, project staff offered two CEU classes, organized 16 CPS events and verified seat installations for 38 technicians. Another objective is to increase the number of CPS technicians within the Upper Peninsula. In June 2008, project staff conducted a 4-day CPS Technician training. We have also succeeded in establishing at least one technician in all 15 Upper Peninsula counties.

|  | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> |
|--|-------------|-------------|-------------|-------------|
| <b># UP CPS Technicians</b>            | 39          | 51          | 57          | 68          |
| <b># UP CPS Technician Instructors</b> | 2           | 3           | 4           | 4           |
| <b># CPS Events</b>                    | Unknown     | 19          | 14          | 16          |
| <b># Car Seats/Children Checked</b>    | 256         | 422         | 435         | 403         |
| <b># Car Seats Distributed</b>         | 126         | 231         | 276         | 181         |
| <b># CPS Presentations</b>             | Unknown     | 27          | 38          | 22          |

### **SCHOOL HEARING AND VISION SCREENING PROGRAM**

The mission of the Hearing and Vision Screening Program is to identify hearing or vision loss in children as early as possible, reduce preventable hearing or vision loss and disease, and provide support and resources for children identified as at-risk for these losses. The Health Department works with local schools to provide this service to area children. Certified technicians carried out 3,034 hearing screenings with 101 referrals (3%), and 4272 vision screenings with 283 referrals (7%). Otolaryngology clinics are also held with area Ear, Nose and Throat specialists, free of charge to parents. The importance of early detection of school hearing/vision problems is evident when considering the fact that 384 children were referred for further treatment.

### **SUBSTANCE ABUSE PREVENTION**

The Marquette County Substance Abuse and Violence Prevention Coalition (MC2) is coordinated by the Community Health Division staff. Meetings are held the first Tuesday of

each month. The coalition continues to maintain a leadership role in bringing organizations together on a variety of issues. Fifteen coalition members on average, representing a wide variety of groups, have attended meetings. Coalition members can take advantage of training and prevention programming opportunities. Program staff facilitated a town hall meeting in March at Westwood High School to discuss the issues of alcohol in the local community. There was a good turnout of about 50 community members that had information presented to them by students. During April, Alcohol Awareness Month, 500 television ads were run in Marquette County.

The coalition has continued to work toward the following goals and objectives in the community:

1. increase retailer compliance with Marquette County laws and ordinances for tobacco and alcohol;
2. increase parents skills and knowledge in alcohol, tobacco and other drug (ATOD) use resulting in less access for youth;
3. increase the number of alternative activities for youth by 10% each year for the next five years;
4. increase enforcement of drinking and driving laws;
5. significantly increase Native American Youth contact with non-using peers;
6. increase collaborate prevention efforts within Marquette County;
7. promote programming that helps to identify and refer persons at risk for ATOD and violence;
8. expand membership and involvement of MC2 by a minimum of 25% by 2010; and
9. recognize businesses and other organizations which promote the prevention of ATOD issues.

The web site ([www.upprevent.org](http://www.upprevent.org)) for the coalition continues to be updated with national and local data on substance abuse trends as well as free information such as fact sheets. The coalition has also served as our community voice around issues related to setting community policies. Schools are regularly updated with current resources that are given to appropriate teachers. Resource packets are sent free of charge. We are working with and partnering with the media to air more drug prevention ads which will change the cultural acceptability of binge drinking and heavy drinking. The coalition received a "Drug Free Coalition" grant from the Federal Government. At least 75% of the funds will be granted out to other community organizations to assist the coalition in reducing substance abuse. As part of this we are also promoting the 0-0-1-3 policy to service clubs and Marquette County municipalities to restrict alcohol use at community events to no more than 3 drinks.

The UP Youth Conference was held in Marquette with about 300 youth attending. Participants gained knowledge in successful programs they can implement in their communities and schools.

A successful program that involves the giving of mini grants to coalition member organizations was maintained. More than \$14,000 was granted to more than 25 different youth serving organizations. Mini-grants in Marquette county were given out to programs such as the Sheriff's Department mentor program in Ishpeming and Westwood schools, parenting programs at Lake Superior Village and Marquette schools, Child and Family Services, Big Brothers/Big Sisters, Project WEAVE, Red Ribbon Campaign at the Westwood Mall, and North Star Academy. The Health Department was instrumental in resubmitting a proposal for Pathways to receive a \$155,000 prevention grant in October of 2007. The "State Incentive Grant" works to expand the

activities of the coalition to other areas in the Central and Eastern U.P. The Upper Peninsula Community Coalitions for Substance Abuse Prevention Project is in the second year of a three year project to reduce the health problems caused by high risk drinking.

## **TOBACCO PROGRAMS**

The Tobacco Free Community Coalition continued to be a leader in the state in its creativity and ability to positively influence public health policy. Our efforts to create more smoke free restaurants, businesses, and apartments have been overwhelmingly positive. We now have over 80 restaurants and bars that are 100% smoke free and over 750 smoke free housing units in Marquette County. We continue to enforce the Marquette County Smoke Free Regulation. Last year there were 3 complaints all handled through educating the business owners. We continue to sponsor quarterly meetings with other UP Health Departments Tobacco Coalitions and work on joint media campaigns to reduce tobacco use. The media networks in Upper Peninsula matched a minimum dollar for dollar in in-kind support. We continued to work with Blue Cross Blue Shield of Michigan on a regional student media campaign. The youth in the project worked on promoting the proposed statewide smoke free regulation and develop a community strategy to pass this initiative. Teens Against Tobacco Use program continues to operate at North Star Academy and Negaunee schools. Students are focusing on presentations to middle school students and recognizing businesses that go smoke free. The Lake Superior Shore Run continued to increase in participation and sponsorship. Over \$10,000 in free advertising was given to the event by the local media. This led to registering more than 320 participants, making it the largest event so far.

The web site for the coalition ([www.smokefreeup.org](http://www.smokefreeup.org)) continues to receive over 5,000 hits each year, with Tobacco retailer education as the focus for the program. Forty tobacco retailers in the County were provided with a Tobacco Retailer Kit. Tobacco sales to minors are very low in Marquette County. A check in the summer showed no retail sales to minors!

We arranged a presentation this year for Dr. Holzman, the Michigan Department of Community Health's Chief Medical Officer. Dr. Holzman gave a presentation to Marquette County nurses and physicians on implementing cessation programs into their practice. Dr. Holzman also participated in the WNMU Media Meet and Sunny 102 radio programs on smoke free initiatives. Quitline phone cessation information was also provided to all health care providers in the Upper Peninsula Medical Center.

## **FAMILY HEALTH**

Family Health Educators provided in-home services to high risk families referred by the Children's Services Unit of the Department of Human Services (DHS) and by the Early On Screening Committee under contracts with DHS, an Early On collaborative contract, and the Strong Families Safe Children project. Stress management, parenting skills, communication, and money management are some of the issues addressed with the families. The primary purpose of the program is to provide quality education services to high risk parents in order for them to raise their children in a healthy family environment. The Family Health Educators delivered 3,440 hours of family support/ education services to clients in Marquette County in 2008.

The Strong Families/Safe Children funded project for Pregnant and Parenting Teens is completing its tenth year. This case management and mentoring program for teens continues to have as its goal the removal of roadblocks so that pregnant or parenting teens can obtain their GED or high school diploma. So far, 81 teens have accomplished this goal. It is expected that this project will have over a 90% success rate in not having any parents/children referred to Protective Services. In the 2008 fiscal year 94% of the teens involved in the project had not had a substantiated abuse/neglect complaint.

### **ADOLESCENT HEALTH PROGRAM**

Adolescent Health Services at North Star Academy High School, Polaris Middle School and Powell Township School continued during 2008. Program staff also partnered with The Marquette County Sheriff's Office, G.R.E.A.T. Program and the West Branch Strength and Fitness Center to provide summer programming to high risk youth in the Sawyer community. Services offered through our non-clinical Child & Adolescent Health Center partnerships are targeted to address primary care services to children/youth in the Marquette County area. These services cover many topics, such as asthma, pregnancy prevention, obesity/nutrition/physical activity, tobacco cessation/prevention, mental health, and several different aspects of Medicaid outreach.

Other areas addressed through the Adolescent Health program were: student/staff/agency mediation services; advocacy for students in their interactions with parents and area service providers; referral for DHS services and to other community agencies; referral to Health Department programs and services; and continuing to provide access and referral to community resources for parents, students, and families associated with each of our partner schools. Over 3,749 adolescent contacts were made for a wide variety of issues related to adolescent health services and programming. A total of 975 referrals for services were made to teens assessed through the program.

### **DENTAL FLUORIDE MOUTHRINSE**

Eight Marquette County elementary schools participated in the Fluoride Mouthrinse Program (FMP) in the 2007-2008 school year. Elementary schools located in areas with non-fluoridated water supplies were eligible. The FMP is free to all students who return a signed parental consent allowing them to participate; students rinsed on a weekly basis with a fluoride mouth rinse. The supplies and any training necessary are provided to the schools by a Dental Hygienist.

Although the Dental Clinic was no longer operated by the Health Department starting January 2008, the Dental Hygienist continued to work with the schools for the remainder of the school year to distribute supplies and provide any support needed.

There were enough supplies to give to the schools to continue the program on their own for the 2008-2009 school year. Central Elementary closed and combined with Birchview Elementary for the 2008-09 school year, while Powell Township School opted to discontinue the fluoride mouth rinse program. Other dental outreach programs have been put on hold until new funding can be secured.

| <b>2007 – 2008 School Year</b>                | <b>Students Eligible</b> | <b>Students Rinsed</b> | <b>Participation Rate</b> |
|---|--------------------------|------------------------|---------------------------|
| <b>Negaunee Lakeview Elementary</b>           | 611                      | 455                    | 74%                       |
| <b>Aspen Ridge Elementary (NICE district)</b> | 588                      | 550                    | 93%                       |
| <b>Wells Township School (Arnold)</b>         | 19                       | 19                     | 100%                      |
| <b>Republic/Michigamme School</b>             | 64                       | 63                     | 98%                       |
| <b>Powell Township School (Big Bay)</b>       | 33                       | 24                     | 72%                       |
| <b>Birchview Elementary (Ishpeming)</b>       | 161                      | 148                    | 92%                       |
| <b>Central Elementary (Ishpeming)</b>         | 74                       | 63                     | 85%                       |
| <b>Cherry Creek Elementary (Harvey)</b>       | 286                      | 250                    | 87%                       |
| <b>TOTALS:</b>                                | <b>1,836</b>             | <b>1,572</b>           | <b>85%</b>                |



## VITAL STATISTICS

Vital statistics partially reflect the health status of Marquette County residents. When reviewed along with communicable disease statistics, such information can reveal important trends. The last year for which complete statistics are available is 2007 because of a six month delay in vital statistics reporting and tabulation.

The live birth rate in Marquette County increased slightly from 2006 to 2007 (from 9.8 to 10.9 births/1,000 residents). In 1980, Marquette County's live birth rate was 17% higher than the state as a whole (18.4 births/1000 residents in Marquette County vs. 15.7 births/1000 residents statewide). In 2007 it was approximately 88% of the state's live birth rate (10.9 births/1,000 residents in Marquette County vs. 12.4 births/1,000 residents statewide). This long-term reduction is primarily due to the gradual shift toward an older population accentuated by the closure of K.I. Sawyer AFB which resulted in the relocation of many young families out of Marquette County.

| VITAL STATISTICS - MARQUETTE COUNTY |                                      |        |        |   |        |        | State of Michigan |
|-------------------------------------|--------------------------------------|--------|--------|---|--------|--------|-------------------|
|                                     | 2002                                 | 2003   | 2004   | 2005                                      | 2006   | 2007   | 2007              |
| POPULATION (1)                      | 64,342                               | 64,616 | 64,874 | 64,760                                    | 64,675 | 65,216 | 10,071,822        |
| LIVE BIRTHS                         | 607                                  | 647    | 615    | 600                                       | 636    | 712    | 125,172           |
| LIVE BIRTH RATE (2)                 | 9.4                                  | 10.0   | 9.5    | 9.3                                       | 9.8    | 10.9   | 12.4              |
| # OF LOW WT LIVE BIRTHS (3)         | 37                                   | 39     | 42     | 36  | 40     | 46     | 10,550            |
| % LOW BIRTHWEIGHT INFANTS           | 8.0                                  | 6.0    | 6.8    | 6.0                                       | 6.3    | 6.5    | 8.4               |
| % PRETERM INFANTS                   | 8.9                                  | 9.4    | 8.3    | 10.2                                      | 7.4    | 8.7    | 10.0              |
| % OF BIRTHS TO TEENS (< 20 YRS)     | 7.7                                  | 6.6    | 4.7    | 6.3                                       | 5.8    | 7.2    | 10.1              |
| EST. TEEN PREGNANCY RATE (4)        | 29.3                                 | 23.3   | 17.2   | 22.5                                      | 19.7   | 15.3   | 28.5              |
| DEATHS                              | 629                                  | 648    | 616    | 640                                       | 586    | 579    | 86,642            |
| AGE-ADJUSTED DEATH RATE (5)         | 1007.1                               | 885.9  | 815.7  | 845.6                                     | 759.4  | 727.9  | 805.3             |
| INFANT DEATHS                       | 5                                    | 1      | 0      | 3   | 4      | 2      | 997               |
| ANNUAL INFANT MORTALITY RATE (6)    | 8.2                                  | 1.5    | -      | 5.0                                       | 6.3    | 2.8    | 8.0               |
| AVERAGE INFANT MORTALITY RATE (7)   | 6.6                                  | 5.4    | 3.2    | 2.1                                       | 3.8    | 4.6    | 7.8               |
| MARRIAGES                           | 495                                  | 449    | 456    | 458                                       | 464    | 483    | 56,996            |
| DIVORCES                            | 242                                  | 188    | 225    | 209                                       | 215    | 206    | 34,522            |
| (1) Estimated by U.S. Census Bureau | (4) Rate Per 1,000 Females Age 10-19 |        |        | (7) 3 Yr Moving Average/1,000 Live Births |        |        |                   |
| (2) Rate Per 1,000 Population       | (5) Rate Per 100,000 Population      |        |        |   |        |        |                   |
| (3) Weight Below 2500 Grams         | (6) Rate Per 1,000 Live Births       |        |        |   |        |        |                   |

An infant death is defined as a death occurring in a child during the first year of life. The **Infant Mortality Rate** for an area is calculated by dividing the number of infant deaths by the total number of live births and multiplying by 1000. A community's infant mortality rate is one of the most important indicators of the health status of that community.

During 2007, Marquette County had only 2 infant deaths for a single year infant mortality rate of 2.8 infant deaths per 1,000 live births. During the same year there were 997 infant deaths in the state as a whole for an annual statewide infant mortality rate of 8.0 infant deaths/1,000 live births. However, since relatively few births occurred in Marquette County, it is more meaningful to compare data from several years.

For example, during the three-year period from 2005-2007, Marquette County had an average infant mortality rate of 4.6 deaths/1,000 live births. This compares to an average statewide rate of 7.8 deaths/1,000 live births for the same period.

Infant mortality rates are closely associated with the incidence of low weight live births (largely due to prematurity), lack of prenatal care, and teenage pregnancy. Many health department programs are designed to address these problem areas (i.e. Family Planning, WIC and Maternal Infant Health Program).

Examination of Death by Cause statistics shows that most deaths continue to be due to chronic diseases. This information highlights the need for continuing efforts to improve chronic disease prevention and control services.

| <b>Causes of Death - 2007</b>  | <b>Michigan</b> |              | <b>Marquette Co</b> |              |
|--|-----------------|--------------|---------------------|--------------|
|  | <b>#</b>        | <b>Rate*</b> | <b>#</b>            | <b>Rate*</b> |
| 1. HEART DISEASE   | 24,259          | 222.6        | 156                 | 188.7        |
| 2. CANCER  | 20,060          | 187.1        | 127                 | 163.8        |
| 3. STROKE  | 4,638           | 42.8         | 34                  | 41.8         |
| 4. CHRONIC LOWER RESPIRATORY DISEASE   | 4,616           | 43.5         | 38                  | 50.1         |
| 5 UNINTENTIONAL INJURIES   | 3,714           | 35.6         | 26                  | 36.0         |
| 6. DIABETES  | 2,825           | 26.3         | 10                  | **           |
| 7 ALZHEIMER'S DISEASE  | 2,430           | 22.1         | 26                  | 31.1         |
| 8 PNEUMONIA & INFLUENZA  | 1,633           | 14.9         | 21                  | 24.4         |
| 9. KIDNEY DISEASE  | 1,611           | 14.9         | 7                   | **           |
| 10. SUICIDE  | 1,123           | 10.9         | 6                   | **           |
| 11. ALL OTHER CAUSES   | 19,734          | 184.6        | 128                 | 138.4        |
| ALL CAUSES   | 86,643          | 805.3        | 579                 | 727.9        |
| * Age-adjusted deaths per 100,000 population   |                 |              |                     |              |
| ** A rate is not calculated when there are fewer than 20 deaths because the width of the confidence interval would negate any usefulness for comparative purposes. |                 |              |                     |              |

Death statistics have a serious limitation in that they only present information concerning the end stage of the disease continuum. In addition to mortality data, information on incidence, prevalence and resultant human and economic impact of various diseases and conditions would be helpful. Unfortunately, this information is not generally available.

## COMMUNICABLE DISEASE CONTROL GENERAL

All Michigan physicians and health care providers are required by state law to report cases of certain communicable diseases to their local health department. These “reportable communicable diseases” are those which require a public health investigation and response in order to identify additional cases and/or limit the further spread of disease.

| REPORTABLE COMMUNICABLE DISEASES IN MARQUETTE COUNTY RESIDENTS |      |      |      |      |      |      |      |      |      |      |      |      |      |
|--|------|------|------|------|------|------|------|------|------|------|------|------|------|
| DISEASE  | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| A.I.D.S.   | 0    | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |
| HIV POSITIVES  | 2    | 0    | 1    | 0    | 1    | 1    | 0    | 4    | 2    | 0    | 0    | 0    | 1    |
| BLASTOMYCOSIS  | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    | 0    |
| CAMPYLOBACTER ENTERITIS  | 9    | 18   | 9    | 8    | 18   | 8    | 11   | 6    | 11   | 3    | 7    | 18   | 5    |
| GIARDIASIS   | 9    | 27   | 12   | 5    | 12   | 6    | 24   | 10   | 16   | 11   | 2    | 5    | 3    |
| CRYPTOSPORIDIOSIS  | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    | 1    | 0    | 2    | 0    | 2    |
| E COLI. 0157:H7  | 4    | 1    | 2    | *15  | 4    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    |
| HEPATITIS (TOTAL)  | 0    | 0    | 0    | 1    | 1    | 22   | 36   | 23   | 26   | 15   | 22   | 25   | 43   |
| TYPE A   | 0    | 0    | 0    | 1    | 1    | 1    | 2    | 0    | 0    | 0    | 0    | 1    | 1    |
| TYPE B (CHRONIC)   | 0    | 0    | 0    | 0    | 0    | 3    | 2    | 3    | 3    | 2    | 4    | 2    | 3    |
| TYPE C (CHRONIC)   | 0    | 0    | 0    | 0    | 0    | 18   | 32   | 20   | 23   | 13   | 18   | 22   | 39   |
| LISTERIOSIS  | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 1    | 0    | 0    |
| LYME DISEASE   | 1    | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 1    | 0    |
| MEASLES (RUBEOLA)  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| MENINGITIS (TOTAL)   | 4    | 1    | 10   | 1    | 3    | 3    | 3    | 5    | 7    | 3    | 4    | 0    | 5    |
| ASEPTIC/VIRAL  | 3    | 1    | 9    | 1    | 3    | 3    | 2    | 4    | 4    | 3    | 4    | 7    | 4    |
| MENINGOCOCCAL  | 1    | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 2    | 0    | 0    | 0    | 0    |
| OTHER BACTERIAL  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    | 0    | 0    | 1    |
| MENINGOCOCCAL SEPTICEMIA                                       | 1    | 2    | 1    | 0    | 0    | 1    | 1    | 0    | 0    | 2    | 0    | 0    | 0    |
| MUMPS  | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 0    |
| PERTUSSIS  | 0    | 0    | 0    | 0    | 1    | 2    | 5    | 4    | 6    | 12   | 7    | 3    | 2    |
| RUBELLA  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| SALMONELLOSIS  | 15   | 5    | 11   | 4    | 12   | 14   | 6    | 5    | 24   | 8    | 5    | 7    | 8    |
| SHIGELLOSIS  | 1    | 0    | 1    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| TUBERCULOSIS   | 1    | 1    | 0    | 0    | 1    | 4    | 0    | 0    | 0    | 0    | 1    | 1    | 0    |
| <b>VENEREAL DISEASES</b>                                       |      |      |      |      |      |      |      |      |      |      |      |      |      |
| CHLAMYDIA, GENITAL   | 77   | 49   | 91   | 68   | 94   | 86   | 105  | 71   | 116  | 136  | 110  | 114  | 85   |
| SYPHILIS   | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    |
| GONORRHEA  | 7    | 0    | 9    | 8    | 15   | 9    | 11   | 10   | 5    | 10   | 5    | 7    | 5    |

\* DAY CARE OUTBREAK

Reportable communicable disease statistics are difficult to interpret for two reasons. First, the natural variation in disease incidence which occurs from year to year makes interpretation of apparent trends hazardous. Such a trend must continue over the course of several years before it can be considered significant.

Secondly, some cases of reportable communicable disease produce minimal symptoms which do not result in a physician visit or laboratory testing. Therefore the diagnosis is never made even though the individual may be infectious to others. While recognizing the inherent limitations of the statistics available to us, they can be useful in providing crude impressions for year-to-year comparison purposes.

A long term objective of the Department's activity in communicable disease control is the elimination of diseases that are preventable through administration of the classic childhood vaccines (i.e. Measles/ Mumps/Rubella, Diphtheria/Pertussis/Tetanus, and Inactivated Polio). In 2008 there were only two cases of these major vaccine preventable diseases (the two cases were of pertussis and none for the others) reported in the county. Other routinely administered vaccines include: Hepatitis B, Haemophilus influenza type b, Varicella (chickenpox), Pneumococcal and Influenza.

Cases of reportable communicable diseases were investigated by Public Health Nurses from the Personal Health Division - primarily the Communicable Disease Control Nurse. This follow-up included confirmation of the diagnosis, evaluation of case information, assuring appropriate contact identification and notification, and the institution of other appropriate measures to control the further transmission of disease. A total of two hundred and four (204) cases of reportable communicable disease were reported and investigated in 2008.

### **TUBERCULOSIS (TB)**

The general public is under the impression that tuberculosis is a disease that we do not have to be concerned about any longer. In fact, during 2008, there were no active cases of tuberculosis reported in Marquette County. However, this apparent good local control does not mean that tuberculosis can be forgotten because tuberculosis is still prevalent in the state and across the nation.

TB disproportionately affects racial/ethnic minorities and the case rate for foreign-born individuals is from four to six times higher than that for U.S.-born persons. Active TB is also more prevalent in individuals with depressed immunity secondary to infection with the Human Immunodeficiency Virus (HIV) - the causative agent of AIDS. In addition, the emergence of drug-resistant strains of TB is a serious public health concern. It is therefore important to continue actively searching for individuals infected with the TB bacteria and to provide adequate preventive therapy when indicated.

The health department continued to offer TB skin testing through its Personal Health Division. During 2008, there were 239 TB skin tests given. Local hospitals and nursing homes also routinely skin tested employees and high risk patients.

Individuals found to have positive skin tests were either seen by their private physician or referred to the health department for appropriate follow-up including a medical evaluation, chest X-rays, skin testing of close contacts, and preventive chemotherapy where indicated.

### **SEXUALLY TRANSMITTED DISEASES**

During calendar year 2008, five (5) cases of gonorrhea and 85 cases of genital chlamydia were reported in Marquette County. As both gonorrhea and chlamydia are often asymptomatic in females, the identification of most of these cases probably reflects the impact of widespread screening of asymptomatic "high risk" females and improved contact follow-up. The resulting identification, treatment and follow-up of previously undetected infections are most likely responsible for the observed dramatic reduction in the total number of reported cases of

gonorrhea over the last 15 years. Hopefully a similar reduction in the number of reported cases of chlamydia will be observed as expanded testing and contact follow-up continues.

There were no cases of syphilis reported in Marquette County during 2008.

| YEAR                     | CHLAMYDIA |      |      |      |      |      |      | GONORRHEA |      |      |      |      |      |      |
|--------------------------|-----------|------|------|------|------|------|------|-----------|------|------|------|------|------|------|
|                          | 2002      | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2002      | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| <b>TOTAL CASES</b>       | 105       | 71   | 116  | 136  | 111  | 114  | 85   | 11        | 10   | 5    | 10   | 5    | 7    | 5    |
| <b>REPORTING SOURCE:</b> |           |      |      |      |      |      |      |           |      |      |      |      |      |      |
| PRIVATE PHYSICIAN        | 35        | 33   | 35   | 44   | 37   | 47   | 33   | 3         | 5    | 2    | 1    | 1    | 2    | 1    |
| NMU HEALTH CENTER        | 13        | 11   | 10   | 12   | 14   | 14   | 7    | 0         | 1    | 0    | 3    | 1    | 0    | 0    |
| EMERGENCY ROOM, MGH/BN   | 8         | 9    | 12   | 8    | 14   | 17   | 13   | 4         | 3    | 2    | 4    | 2    | 4    | 3    |
| HEALTH DEPT              | 29        | 5    | 17   | 28   | 19   | 21   | 20   | 2         | 1    | 0    | 1    | 1    | 0    | 1    |
| PLANNED PARENTHOOD       | 19        | 12   | 41   | 43   | 26   | 15   | 10   | 2         | 0    | 1    | 1    | 0    | 1    | 0    |
| OTHER                    | 1         | 1    | 1    | 1    | 1    | 0    | 2    | 0         | 0    | 0    | 0    | 0    | 0    | 0    |
| <b>AGE:</b>              |           |      |      |      |      |      |      |           |      |      |      |      |      |      |
| 19 & UNDER               | 31        | 19   | 41   | 41   | 35   | 27   | 25   | 3         | 4    | 2    | 2    | 2    | 0    | 2    |
| 20-25                    | 62        | 38   | 58   | 79   | 52   | 61   | 40   | 5         | 6    | 2    | 5    | 2    | 3    | 2    |
| 26 & OVER                | 12        | 10   | 17   | 16   | 24   | 26   | 20   | 3         | 0    | 1    | 3    | 1    | 4    | 1    |
| UNKNOWN                  | 0         | 4    | 0    | 0    | 0    | 0    | 0    | 0         | 0    | 0    | 0    | 0    | 0    | 0    |
| <b>SEX:</b>              |           |      |      |      |      |      |      |           |      |      |      |      |      |      |
| MALE                     | 26        | 14   | 23   | 35   | 20   | 28   | 18   | 3         | 4    | 2    | 6    | 4    | 3    | 4    |
| FEMALE                   | 79        | 57   | 93   | 101  | 91   | 86   | 67   | 8         | 6    | 3    | 4    | 1    | 4    | 1    |