Kent County Health Department

Mailing Address/Main Office

700 Fuller N.E. Grand Rapids, Michigan 49503

On the Web: www.co.kent.mi.us/health

General Information: (616) 336-3030

or toll-free from anywhere in the 616 area code 1-888-515-1300

Fax: 336-3884

Community Relations: 336-2220

Community Clinical Services: 336-3962

Fax: 336-4915

Community Nursing Services: 336-3040

Fax: 336-3983

Environmental Health: 336-3089

Fax: 336-2436

Health Promotion/Disease Prevention: 336-3037

Fax: 336-3844

Immunization: 336-2233

WIC: 336-3011

AIDS Information Line: 336-3602

Communicable Disease/TB Unit: 336-3425

Outreach Unit Hotline: 1-800-301-1733

Notes on this PDF publication:

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Monitoring Child Health in Kent County, Report to the Community 1999 printed and electronic versions © 1999 Kent County Health Department, Grand Rapids, MI.

Introduction

The Role of Child Health Assessment in Prevention and Intervention

The Kent County Health Department, like local public health departments across the United States, is redefining its role in the community to focus more explicitly on community health status assessment. In addition to health status assessment of the community at large, special attention must be given to population groups who because of age, socioeconomic status, racial/ethnic background, genetic predisposition or other factors are particularly vulnerable to identified health risks.

For children, health risks must be considered first in the context of the prenatal and perinatal periods because a mother's behaviors during pregnancy can have lifelong consequences for her child. Certainly any effort to protect and assure child health must focus first on mothers. However, because many individual health problems can be mitigated if detected early enough, prevention and intervention efforts targeting infants and children (i.e., diagnostic screenings, immunization, W.I.C.) also have the potential to be highly effective. Child health status assessment therefore is not only a necessary complement to prevention generally, but provides information for community-based intervention specifically. That is the purpose of this report.

While data sources on health status are many and varied, community-based data from organizations and agencies in Kent County have the potential to provide the most accurate picture of our childrens' health. Working with our community to develop collection strategies and data sets, as well as assuring the integrity of collected data, will be a priority of this health department.

Local avenues for the collection and reporting of information from provider networks, human service agencies and schools are being developed. CATCCH (Community Assessment Technology Changing Children's Health) is a collaboration of the local health systems, public health, education, and human service agencies whose goal is to provide current information related to children's health on a Web-based planning tool created by the Health Forum (The Outcomes Toolkit). The Outcomes Toolkit provides an excellent opportunity to standardize the collection of demographic information, as well as to create indicators based on local "real-time" data.

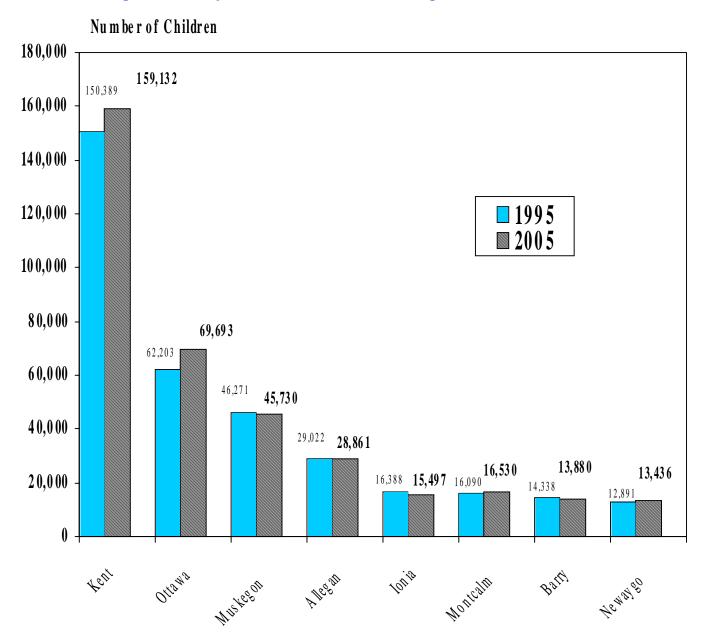
The Kent County Health Department is intent upon improving our ability to report on the health status of all residents of Kent County. This will require a renewed commitment from the public and private sectors to gather this information in ways that allow for valid and reliable aggregation of health and socioeconomic information and at the same time assure absolute confidentiality.

Child Population Demographics

Population Changes in West Michigan

Estimates of growth by the U.S. Census Bureau suggest that Kent County has experienced a growth of 7.7% since the last census, and continued growth is expected through the beginning of the next century. The office of the State Demographer estimates a 4.5% increase in the total child population of Kent County (less than 18 years old), by the year 2005. In the West Michigan region, only Ottawa County is expected to have a larger gain in the population less than 18 years old (12%).

Estimated Change in Child Population, 1995-2005, West Michigan

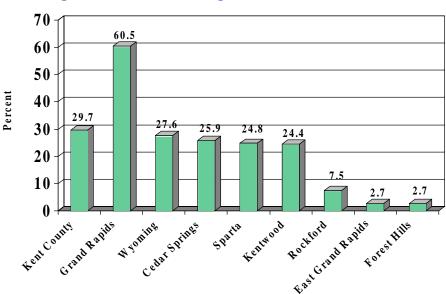


Children Needing Assistance

School Lunch Program

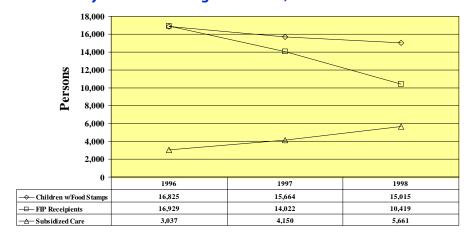
The most recent estimates of children in poverty for Kent County suggest that 17.9% (26,693) of the youth of Kent County live in poverty (1993 U.S. Census Bureau estimate for the U.S. Department of Education). Data from the Free and Reduced lunch program support this estimate as 29.7% of Kent County school-age children received either a free or a reduced price lunch in 1996. When the data from the lunch program are broken out by school district there are glaring differences observed. The highest percentage of students who

Percentage of Children Receiving Free or Reduced School Lunch



qualified for the program is in the **Grand Rapids Public Schools with** 60% of students receiving a free or reduced price lunch. The data from this program can be an effective way of determining the level of need for the geographic areas that populate a school. For example, while 60% of all students in Grand Rapids Public School district take advantage of this program there are schools in the city where as many as 90% of the students enrolled receive a free or reduced price lunch. (Kent County has seen a 54% increase in the number of students in this program since the 89-90 school year).

Kent County Assistance Program Trends, 1996-1998



Assistance Programs

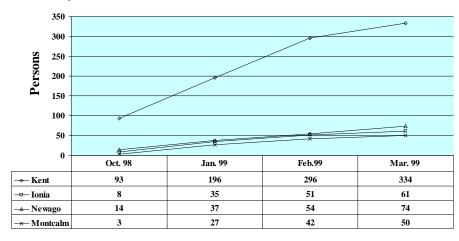
Work-First, the Michigan program designed to decrease dependency on cash assistance and promote employment, has affected Family Independence program statistics for Kent County. Trends show a 26% decrease in the number of persons receiving assistance through the Family Independence Program (F.I.P), and an 86% increase in the number of children receiving subsidized daycare for the same period. The number of children receiving food stamps is also down approximately 11% since 1996.

Children Needing Assistance

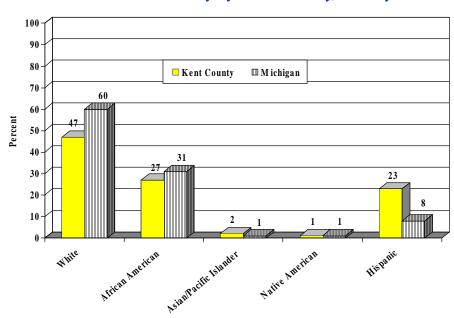
Medicaid and MIChild

While the emphasis has been to shift to a "work-first" model for cash assistance programs, de-linking medical care from other assistance is also a feature of this model. Medicaid enrollment has been relatively stable in Kent County with current enrollment at slightly over 34,000 persons. The stability in Medicaid rates is to some extent the result of the MIChild program. MIChild was created to fill the gap in medical coverage for the state's "working poor" -- those who make too much to qualify for Medicaid and who are medically uninsured. MIChild has been very effective in identifying those with incomes low enough to qualify for Medicaid.

MIChild Enrollment in Kent, Ionia, Newaygo, and Montcalm Counties, October 1998-March 1999



WIC Enrollment in Kent County by Race/Ethnicity, January 1999



WIC: Women, Infant, and Children Nutrition Education

The W.I.C. program is designed to provide for the basic foods and nutrition education that will promote healthy growth and development for infants and children. This program has an extensive state operated database that captures information on a variety of factors that influence growth and development. Unfortunately, the Kent County Health Department has limited ability to access program level information. Further, due to the nature of the program and the design of the database, the information provided here represents point-intime data -- a 'snapshot' of program participation in January 1999.

There were 17,063 persons enrolled in W.I.C. in Kent County at the sampling date in January 1999, with 9,139 children (54%); 3,973 infants (23%); and 1,860 expectant mothers (11%) enrolled.

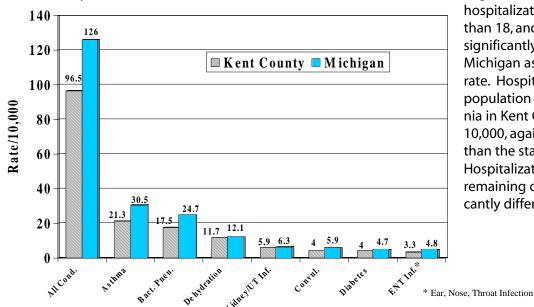
Comparisons of W.I.C. utilization by race and ethnicity show a higher distribution (by percent of total enrollment) for Whites than for all other populations; this is true for Kent County (47% White), and the State (60% White). The major difference in the distribution of populations served between Kent County and Michigan is the percent of Hispanic persons enrolled (Kent County, 23%; State of Michigan, 8%).

Child Health

Preventable Hospitalizations

Preventable Hospitalizations are hospitalization for conditions where timely and effective ambulatory care (primary care) might have prevented the acute episode. The data is a product of Hospital Discharge data. The diagnosis codes have been grouped, and validated by the Vital Statistics Division of the Michigan Department of Community Health and are available through their web-site.

Preventable Hospitalizations in Children Under 18, Kent County, 1996



For Kent County, asthma is the largest category of preventable hospitalizations in children less than 18, and yet the County rate is significantly lower than the Michigan asthma hospitalization rate. Hospitalizations in the same population for bacterial pneumonia in Kent County was 17.5/10,000, again significantly lower than the state rate of 24.7/10,000. Hospitalization rates for the remaining causes are not significantly different than state rates.

Dental Health

One of the most difficult areas of children's health to assess, on a population level, is dental health. Recent studies suggest that periodontal disease (gum disease) can be a precursor to many chronic health conditions including; strokes, diabetes, and heart disease. Preventing periodontal disease requires ongoing dental care and education throughout childhood.

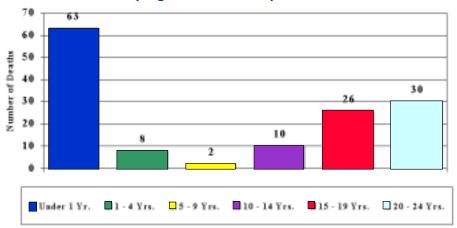
While local data is not currently available, research from the Center for the Future of Children suggests that children's access to dental care is influenced by socioeconomic status and the availability of dental insurance. They found that only 20% of all children, ages birth to 20 years enrolled in Medicaid, actually received preventative dental services. One of the most frequently cited reasons for failure to deliver service was a shortage of dentists who will accept Medicaid. The study also indicated that there are racial/ethnic disparities in dental care. While the rates of dental disease were similar among different racial/ethnic groups, African American and Hispanic youth were reported to have twice as many untreated decayed teeth as White children.

The most frequently used indicator of dental health in children is the number of treated vs. untreated decayed, missing, and filled teeth (DMFT). Data collected on school children in the United States related to this indicator suggest that children ages 2 to 4 had an average of 0.6 decayed, missing, or filled primary teeth, 82% of which went untreated. Children ages 5 to 9 had, on average, 1.9 decayed, missing or filled primary teeth, 40% of which went untreated. Children ages 5 to 11 had a mean of 0.6 decayed, missing, or filled permanent teeth and 29% untreated while children 15 to 17 had, on average, 2.8 DMFT and 17% untreated.

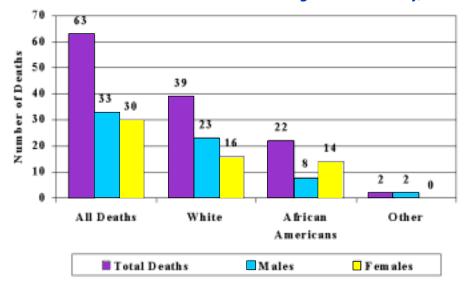
Child Mortality

The following graphs represent data from the Michigan Department of Community Health, Division of Vital Statistics. The data represent the 1997 calendar year, and was released in November of 1998. Kent County Health Department has released a portion of the information contained in these health statistics in the Community HealthWatch Report cards on Infant Mortality and HIV/AIDS. The data is broken down by five year age ranges, and includes race (when available), sex, and cause of death.

Children's Deaths by Age in Kent County, 1997



Deaths in Children Less Than One Year of Age in Kent County,



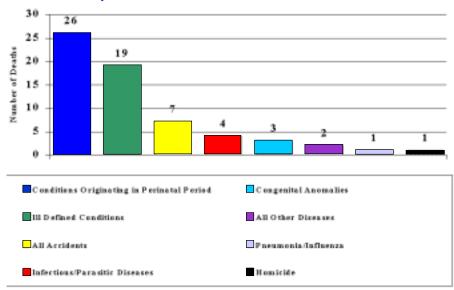
Deaths in Children Less than One Year of Age

There were 63 infant deaths in 1997 for an overall rate of 7.0/1,000 (7 deaths per 1,000 live births) and 44 neonatal deaths (4.89/1,000) in Kent County. As discussed in the Community HealthWatch on infant mortality there is still a large gap between White and African American Infant Mortality rates in Kent County with African American rates approximately 4 times that of White.

Causes of Death

Causes of death in children less than one are, for the most part, associated with events in the perinatal period (71% of all deaths). There have been numerous studies documenting the need for early and ongoing prenatal care and adequate nutrition during the gestation period to increase the likelihood of a positive birth outcome. Maternal and Infant Support Services were created to identify and manage high risk pregnancies in

Cause of Death for Children Less Than One Year of Age in Kent County, 1997

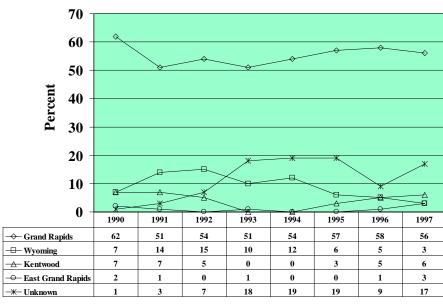


vulnerable populations. Kent County Health Department through it's Maternal Support Services assisted 2,877 expectant mothers in Fiscal Year 1998, 98% of whom delivered viable infants. Infant Support Services saw 4,444 clients during the same period.

Child Deaths by City

Breaking out the data by Minor Civil Division (cities), shows that for 1997 fifty-six percent (56%) of all deaths to children less than one occurred in the city of Grand Rapids. Unknown (Minor Civil Division) accounted for 17% of infant deaths and Kentwood accounted for 6%.

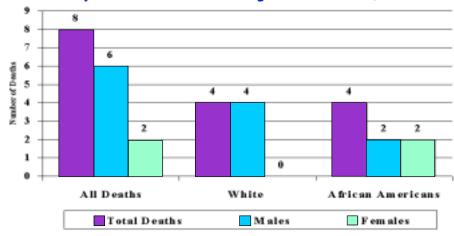
Percentage of Kent County Child Deaths Less Than One Year of Age by City, 1997



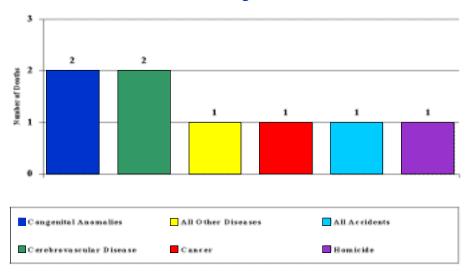
Healthy Start

Healthy Start, a family centered service, aims to strengthen parenting skills and locate resources that will ensure the healthy development of children and families. Healthy Start is a primary prevention program offered to families identified as needing the service. Program statistics suggest that 40% of families offered this service accept and that 30% of this group have two or more risk factors for negative health outcomes. Since the program began in 1995 there has been a 50% increase in the number of home visits by Healthy Start staff, providing service to over 1600 families.

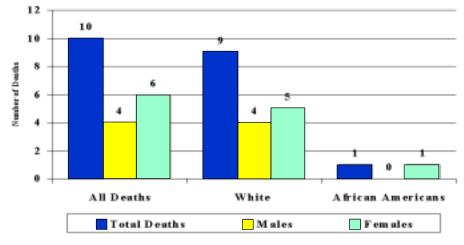
Kent County Child Deaths Between Ages One and Four, 1997



Causes of Child Deaths Between Ages One and Four, 1997



Kent County Child Deaths Between Ages 10 and 14, 1997



Child Deaths between Ages One and 14

There were 18 deaths to children ages one to 14 years old in 1997. The limited number of occurrences for any cause of death makes comparisons or determinations of need difficult.

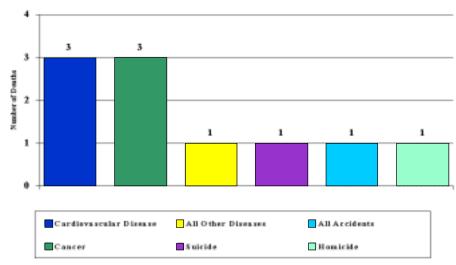
Child Death Review Team

Currently, there is a Child Death Review Team in Kent County that is responsible for investigating deaths to children less than 18 years old. This team is composed of representatives from law enforcement, education, public health, and the judicial system and has an onerous task in trying to determine the circumstances of the death.

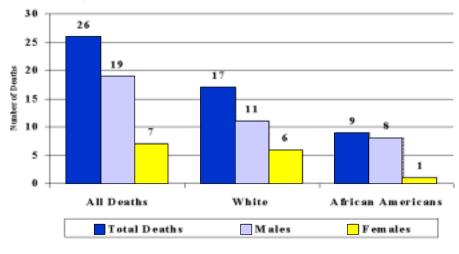
The purpose of the team is to improve our understanding of children's deaths, and to impact policies that support interventions that lead to improved child health and safety. Deaths investigated include sudden or unexpected deaths, homicides, suicides, accidents, SIDS, and deaths from undetermined causes.

Since 1996 the team has investigated 276 cases, 128 of these cases were neonatal deaths where prematurity was identified as the cause of death in 62% of the cases. Twenty-four deaths due to SIDS were identified for the same time, the majority of which found; infants placed on their stomachs (prone), or in co-sleeping situations, both of which have been identified as risk factors for SIDS deaths.

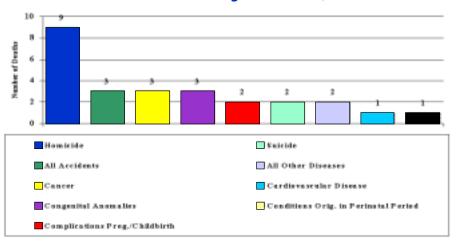
Causes of Child Deaths Between Ages 10 and 14, 1997



Kent County Child Deaths Between Ages 15 and 19, 1997



Causes of Child Deaths Between Ages 15 and 19, 1997



Deaths 15 - 19 Years

There were 26 deaths in this age group in 1997, and homicide accounted for 35% of the total (9 deaths). Suicide accounted for 11.5% of deaths (3) as did "all accidents" and "all other diseases".

Deaths 20 - 24 Years

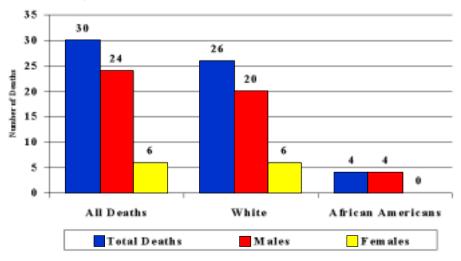
There were 30 deaths to persons 20 – 24 years old (page 10), with "all accidents" accounting for about half of those deaths. Homicide accounted for 20% of deaths in this age group and suicide 13%.

Child Health, Mortality and Prevention

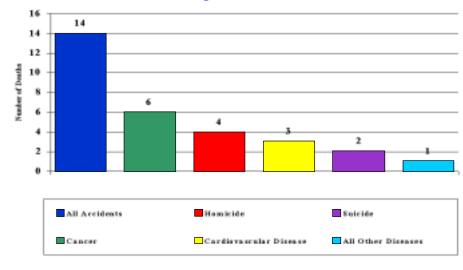
A myriad of factors influence the health of our children, and measuring which factor, or factors, have the greatest impact is both a challenge and a necessity.

As the mortality tables on these pages demonstrate, the leading risks to health vary as a child ages. At the earliest stages of life, the majority of risks and benefits to a child's health derive from the behaviors of the mother. Consequently, prevention and health promotion must focus first on women of child bearing age, but continue on to address infectious and vaccine-preventable disease, injury prevention, violence and substance abuse. Access and utilization of primary care, as well as nutrition and health behaviors, must be addressed from childhood through adolescence and into adulthood.

Kent County Deaths Between Ages 20 and 24, 1997



Causes of Deaths Between Ages 20 and 24, 1997



Developing Data for Child Health Assessment

Much of the information needed to make valid measures of child health status, as well as of needs, barriers and service gaps, already exists within the evaluation or billing functions of a variety of health and human service agencies in Kent County. Although program data may be primarily used to evaluate internal indicators of program success, data concerning the demographic composition of the client base, primary needs upon presenting for service, program completion or compliance, and subsequent referral, can provide a remarkable picture of child population health status and change when combined with similar data from other agencies.

While many agencies have the capability to collect program level information on clients electronically, some may have to resort to hand-counting or other means of data tabulation. Compiling, analyzing and disseminating population -based child health data requires the necessary database management programming and personnel, and will be a primary role of the public health department.



MONITORING C H I L D H E A L T H in KENT COUNTY

Report to the Community 1999