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EXECUTIVE SUMMARY

KEY POINTS FROM COMMUNITY HEALTH ASSESSMENT

- Demographic changes in the Village of Greendale changing health care issues/needs
  - Increased diversity of socioeconomic status, family structure, race/ethnicity, religious background results in changing health needs as well as new approaches to reach this population.
  - Increased percentage of elderly, including those who live alone in their own homes, results in an increased need for targeted identification, outreach and support services for seniors and their families/caregivers

- Changes in chronic disease rates
  - Increased rates of hypertension and diabetes
  - Need to identify if underlying cause is primarily as a result of changing demographics/aging population or increased disease rates in younger residents
  - Need to tailor public health interventions based on underlying cause

- Changes in high risk behaviors related to alcohol
  - Increased alcohol intake in adults
  - Increased binge drinking rates in adults and high school students
  - Community wide, multi-pronged approach required to address this issue

- Vaccination uptake rates
  - While compliance rates are high, rates of parents opting out of vaccinations for religious or personal reasons leaves community vulnerable to outbreak of preventable disease, particularly measles
  - Influenza vaccination rates for adults are below recommendations from Healthiest Wisconsin 2020, particularly in light of current influenza outbreaks
  - Recent changes in pneumonia vaccine recommendations for seniors require public education messaging
MESSAGE FROM THE HEALTH OFFICER

January, 2015

Greetings Village of Greendale Residents,

I am pleased to present the 2012 Greendale Community Health Assessment (CHA). The health of our population is instrumental to the well-being of our community. The Greendale Health Department’s mission is to protect and promote the health of all people who live, work and attend school in Greendale. Healthy people lead more productive lives, contribute more to society and keep our economy strong. Prevention of chronic disease such as diabetes, heart disease and cancer not only assures a strong quality of life, but also results in a decreased economic burden on our health care system. This report gives a snapshot of the current health status of Greendale citizens.

Many community members and key stakeholders participated in the CHA focus groups and community forums and examined current data relevant to the health of Greendale residents. They ultimately selected three priority focus areas that could benefit from a coordinated community planning effort. A Community Health Improvement Plan (CHIP) is being developed as a companion to the CHA and will detail goals, objectives, action plans and evaluation measures for each of the three health focus areas.

Sincere appreciation is extended to JKV Research, LLC for Aurora Health Care, Children’s Hospital of Wisconsin, Columbia St. Mary’s Health System, Froedtert Health and Wheaton Franciscan Healthcare in partnership with Greendale Health Department and the Center for Urban Population Health. Additional data was collected by health department staff, Greendale School District staff and Greendale Board of Health (BOH) members to name a few. Many leaders in the Village participated in key stakeholder meetings to share their insights about factors contributing to the health of the community. Many residents gave up their time to participate in 7 focus groups to share their concerns and narrow the priority health areas. A special note of thank you is extended to Carole DeRoche, chairperson, Greendale BOH for her time drafting and editing multiple versions of the report. She also assisted with creating tables, graphs and a PowerPoint of the CHA for presentation to the community.

Introduction

All Wisconsin local public health departments must conduct community health assessments and community health improvement plans every five years (Wisconsin Administrative Code, DHS Chapter 140).

An assessment is a formal process of evaluation of a process or system which may include qualitative information but preferably includes quantitative information (Last, 2007). Assessments include collecting, reviewing, and analyzing health data in the community, along with case-finding to identify population groups, families and individuals at a higher risk for illness, injury, disability, or premature death. Furthermore, health assessments are important to identify and quantify the magnitude of health problems in the community. A high quality assessment is the first step of the community
health improvement planning process. The assessment findings should drive planning to improve the health status of the community.

The Public Health Accreditation Board (PHAB), a national accreditation organization for local public health departments, has emphasized the need for a community health assessment by including it as a key component in the accreditation process. The accreditation process begins with the submission of three documents – 1) a community health assessment; 2) a community health improvement plan, and 3) a strategic plan. A stringent review of how a local health department provides programming related to each of the ten essential services follows.

*Healthiest Wisconsin 2020* was published in July 2010 and is the state’s version of a health improvement plan. This plan represents the cooperative efforts of public health system partners and will be the Wisconsin public health agenda for the next decade. The twelve health focus areas of *Healthiest Wisconsin 2020* are listed below; these focus areas will be utilized to determine the health priorities of the community during the community health improvement planning process to follow the community health assessment.

- Adequate, appropriate, and safe food and nutrition
- Alcohol and other substance use
- Chronic disease prevention and management
- Communicable disease prevention and control
- Environmental and occupational health hazards
- Healthy growth and development
- Injuries and violence
- Mental health
- Oral health
- Physical activity
- Reproductive and sexual health
- Tobacco use and exposure

**Methods**

A modified version of Mobilizing Action through Planning and Partnership (MAPP) was used as a framework for this assessment process. The MAPP tool was developed through the partnership of the National Association of County and City Health Officials (NACCHO) and the Center for Disease Control (CDC). The MAPP project emphasizes creating and strengthening the local public health system by collaborating with community partners to share the sense of ownership in working towards improving their community’s overall health status. In addition to MAPP, the NACCHO website provided resource tools as a guide to help complete the assessment, such as the core indications list, examples of community health surveys and previous health assessment reports.

Several primary and secondary data sources were used the community health assessment. Primary data sources included:
- Greendale Community Health Survey (2003, 2006, 2009, 2012), commissioned by Aurora Health Care, Children’s Hospital of Wisconsin, Columbia St. Mary’s Health System,
Froedtert Health and Wheaton Franciscan Healthcare, in partnership with the Greendale Health Department and the Center for Urban Population Health.

- Greendale Health Department Annual Incident Reports (2010, 2011, and 2012)
- Greendale Health Department Community Leader Focus Group Report (2012)

Secondary data sources included:
- Healthiest Wisconsin 2020
- US Census, 2000, 2010
- 2007 – 2011 American Community Survey 5-Year Estimates (Greendale)
- Wisconsin Department of Health Services, Division of Public Health, Office of Health Informatics. Wisconsin Interactive Statistics on Health (WISH)

Results

I. Demographics

Key Points
- The population decreased 2.5% from 2000 to 2010
- Adults 65+ years old make up 8% of the population
- The population has increased in racial and ethnic diversity
- Poverty as defined by eligibility for free/reduced school lunches has more than doubled during the past 10 years.

The Village of Greendale is located in the southwest region of Milwaukee County and was incorporated in 1939.

Greendale had a population of 14,046 people in 2010, a decrease of 2.5% from 2000. Of this 2010 population, approximately 46.7% are male and 52.9% are female.

Table 1: Population by Gender and Age

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2010</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Population</td>
<td>14,405</td>
<td>14,046</td>
<td>-2.49%</td>
</tr>
<tr>
<td>Male</td>
<td>47.1%</td>
<td>46.7%</td>
<td>-3.48%</td>
</tr>
<tr>
<td>Female</td>
<td>53.4%</td>
<td>52.9%</td>
<td>-1.61%</td>
</tr>
<tr>
<td>Under 18</td>
<td>22.4%</td>
<td>22.1%</td>
<td>-0.3%</td>
</tr>
<tr>
<td>18–64</td>
<td>57.6%</td>
<td>55.7%</td>
<td>-1.9%</td>
</tr>
<tr>
<td>65 &amp; over</td>
<td>20.1%</td>
<td>22.1%</td>
<td>7.8%</td>
</tr>
</tbody>
</table>

US Census, 2000, 2010

The distribution of age groups has changed since 2000: the percentage of children fewer than 18 years old and adults ages 18-64 have each decreased by approximately 5% while the percentage of adults 65 years old and older has increased almost 8%. (Table 1, Figure 1)
The population of Greendale has increased in diversity of race and ethnicity since 2000. The percentage of white persons has decreased from 96% to 93% while the number of Hispanic (N=667), Asian (N=434), Black/African (N=170), and American Indian (N=59) persons have increased. Individuals of Hispanic, Asian, multi-racial and Black/African descent represent 5, 3, 2 and 1% of the population, respectively. All other racial groups represent less than 1% of the Greendale population. (Figure 2)

The health status of a community is heavily affected by socioeconomic characteristics such as income, education level, and employment. Research suggests that lower socioeconomic status is linked to poorer health outcomes. Poor health, in turn, may reduce one’s ability to work and, therefore, decrease their ability to improve their socioeconomic status. The table and graphs below compare changes in Greendale’s socioeconomic characteristics from 2003 through 2012.
Table 2: Socioeconomic Characteristics of Greendale Population

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Civilian labor force</td>
<td>64.2%</td>
<td>60.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employed</td>
<td>62.3%</td>
<td>57.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In labor force - unemployed</td>
<td>1.8%</td>
<td>3.2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not in labor force</td>
<td>35.7%</td>
<td>39.3%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median household income</td>
<td>$55,553</td>
<td>$59,813</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income below poverty level (FPL thresholds)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Children &lt;18yo</td>
<td>3.1%</td>
<td>6.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Families</td>
<td>3%</td>
<td>4.9%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>People &gt;65yo</td>
<td>2.2%</td>
<td>8.5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All People</td>
<td>3.9%</td>
<td>6.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Education (/&gt;= 25yo; N= 10,170))</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HS Diploma or less</td>
<td>8.7%</td>
<td>5.4%</td>
<td>19%****</td>
<td></td>
</tr>
<tr>
<td>HS Diploma</td>
<td>28.4%</td>
<td>29.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some post-high school</td>
<td>27.3%</td>
<td>26.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Graduate (Bachelors or higher)</td>
<td>35.6%</td>
<td>39.4%</td>
<td>54%</td>
<td></td>
</tr>
</tbody>
</table>

*US Census, 2000, 2010 **American Community Health Survey ***Greendale Community Health Survey, 2012 ****High school diploma or less

The median income in 2010 increased to $59,813 from $55,553 in 2000. However, the percentage of children, families, people > 65 years old and all people with income below the Federal Poverty Level (FPL) has increased. (Table 2)

Student eligibility for free or reduced school lunches is another widely used indicator of poverty. While US Census data shown in Table 2 show that 4.9% of Greendale families and 6% of Greendale children fall below the Federal Poverty Level, the Greendale School District reports that the percentage of students eligible for free or reduced lunch (family incomes of <185% the Federal Poverty Level) has more than doubled from less than 10% of students to more than 20% from 2000-01 to 2010-11. (Figure 3)
II. Health Resource Utilization

Key Points

- 95% of persons are covered by Health Insurance
- >80% adults report Routine Care: Health Check-up, Cholesterol test and Dental Check-up
- 88% of children received preventive health care
- Unmet needs for adults include medical care, prescription drugs and dental care
- Unmet needs for children include medical, dental and specialist care
- Greendale Health Department provided clinic services to over 1000 clients and administered over 875 vaccinations to children and adults
- Over 99% of children enrolled in schools in Greendale were in compliance with the Wisconsin “Student Immunization Law

Health Resource utilization measures access, utilization, and costs of preventive health care. In 2012, approximately 5% of Greendale residents reported not “currently” having health insurance at the time of the survey. Six percent (6%) reported not having had health insurance and 7% reported a household member not having insurance during the past 12 months. (Table 3)

Table 3: Health Insurance Coverage*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Covered</td>
<td></td>
<td></td>
<td>96%</td>
<td>95%</td>
</tr>
<tr>
<td>Not Covered</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Personal, current</td>
<td>2%</td>
<td>2%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Personal, past 12 months</td>
<td>2%</td>
<td>2%</td>
<td>6%</td>
<td>6%</td>
</tr>
<tr>
<td>Household member</td>
<td>9%</td>
<td>8%</td>
<td>8%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Greendale Community Health Survey, 2012, Pre Affordable Healthcare Act

Persons not personally covered by health care insurance are more likely to be male, 18 – 34 years old, have a high school education or less and have income in the bottom 40% bracket.
Ninety (90) percent of adults reported having had a routine check-up in the past 2 years, a statistical increase compared to 2003 when 85% reported routine checkup. Persons reporting routine check-up were more likely 65+ years old, have a college education and are in the upper 60% income bracket. Eighty-six (86) percent reported cholesterol level checked within the past 4 years, as well as dental care (78%) and eye exam (50%) within the past year. These percentages were relatively unchanged since 2003 and exceed the Healthiest Wisconsin 2020 Goal. (Figure 4)

**Figure 4: Self-reported Routine Care**

Eighty-two (82) percent of women reported having had a mammogram within the last 2 years, 65% of those over 65 years old reported having had a bone density and 86% of those between 18 and 65 a PAP smear within the past 3 years. Sixty-nine (69) percent of men 40 years old and older reported having received a prostate cancer screening, prostate specific antigen and/or digital rectal examination, within the past 2 years. (Figure 5) Seventy-five (75) percent of respondents reported having had screening for colorectal cancer within the recommended time frame. (Figure 6)
However, many respondents reported unmet medical needs. Seven (7) percent of adults reported prescription medication not taken due to cost: households in the middle 20% income bracket and households with children were more likely to report this. Unmet needs for dental, medical and mental health services were reported by 12, 4 and 3% of adults, respectively. Unmet medical care was more likely to be reported by 18-34 year olds, unmarried persons and those in the bottom 40% income bracket. (Table 4)

As reported in 2012, eighty-eight (88) percent of children received preventive care within the past 12 months. On the other hand, unmet needs for medical, dental and specialist care were reported for 4%, 9% and 4% of children. (Table 4)
Table 4: Unmet Health Care Needs

<table>
<thead>
<tr>
<th>Service</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prescription Medicine Not Taken Due to Cost</td>
<td>7%</td>
</tr>
<tr>
<td>Dental Care</td>
<td>12%</td>
</tr>
<tr>
<td>Medical Care</td>
<td>4%</td>
</tr>
<tr>
<td>Mental Health Care</td>
<td>3%</td>
</tr>
</tbody>
</table>

Greendale Community Health Survey, 2012

The Greendale Health Department (GHD) provides a variety of clinic services to both adults and children including clinic visits for a variety of services as well as blood pressure at senior living centers located in Greendale. In each year 2010, 2011 and 2012, the GHD provided clinic services for over 1000 clients; office visits for services increased approximately 6% over 2010 while blood pressure clinic services decreased approximately 15% in the same time period. (Figure 7)

Figure 7: Greendale Health Department Clinic Visits

Immunizations to both adults and children are provided by the Greendale Health Department dependent upon re-imbursement policies. Routine immunizations for children who have no health insurance are provided through the federal Vaccines for Children program. In 2012, the Affordable Care Act required that vaccinations for children with health care insurance be provided by the insurers. As a result, the number of children immunized by the GHD has decreased from 502 in 2010 to 227 in 2012 and the number of immunizations has deceased correspondingly. The GHD is currently unable to bill Medicaid for vaccinations of adults; furthermore, vaccinations are readily available through a number of other organizations, e.g. pharmacies, healthcare clinics. These factors have impacted the number of immunizations provided to adults. (Figure 8)
Both public and private schools are required to assess the immunization status of their students each year. If a child does not meet the minimum requirements, specific information pertaining to that child, who may not be protected in the event of disease outbreak, must be reported to the health department. The health department utilizes the information to exclude from school unvaccinated children so that they do not contract the disease or spread it to other unvaccinated children. The GHD used such a list during a recent pertussis outbreak in a school. Table 4 shows the immunization compliance rates for schools in Greendale. This rate includes children whose parents have opted out of vaccinating their children for personal, religious or health reasons. These are considered compliant even though they are not up to date with vaccine.

### Table 5: Immunization Compliance Rates – Greendale Schools

<table>
<thead>
<tr>
<th>School Year</th>
<th>Public Schools</th>
<th>Private Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-2011</td>
<td>98%</td>
<td>95%</td>
</tr>
<tr>
<td>2011-2012</td>
<td>99%</td>
<td>99%</td>
</tr>
<tr>
<td>2012-2013</td>
<td>99%</td>
<td>100%</td>
</tr>
</tbody>
</table>

The percentage of persons 65 years and older who self-reported receiving flu vaccinations has decreased from 80% in 2003 to 67% in 2012. Seventy-five (75) percent of respondents 65 years and older reported having received a pneumonia vaccination in their lifetime. (Table 5)
Table 6: Immunization Rates – Adults 65+ years old

<table>
<thead>
<tr>
<th>Year</th>
<th>Flu Vaccination, past year</th>
<th>Pneumonia Vaccination, ever</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>80%</td>
<td>57%</td>
</tr>
<tr>
<td>2006</td>
<td>73%</td>
<td>74%</td>
</tr>
<tr>
<td>2009</td>
<td>76%</td>
<td>70%</td>
</tr>
<tr>
<td>2012</td>
<td>67%</td>
<td>75%</td>
</tr>
</tbody>
</table>

Greendale Community Health Survey, 2012

HP 2020 Goal

Flu: 90%; Pneumonia: 90%

III. BEHAVIORAL Risk Factors

Key Points - Adults
- Self-reported binge drinking has increased since 2003 from 12% to almost 25%
- Percentage of persons reporting moderate exercise has doubled since 2003
- Percentage of overweight persons has increased 11% since 2003

Key Points – Children
- Only 50% of children have physical activity 60 minutes/day, 5 days per week
- Only 22% of children consume the recommended 3+ servings of vegetables/day
- Alcohol use has declined among high school students since 2003
- 5% of the Greendale High School boys report having carried a weapon on school grounds

Adults

Behavioral risk factors include injuries, disease, death during youth/adolescence and significant morbidity and mortality in later life. Specific risk factors measured in this category include substance use and abuse, lifestyle and protective or safety factors.
Figure 9: Self-reported Behavioral Risk Factors

![Graph showing self-reported behavioral risk factors over time]

Figure 9 displays the self-reported responses from adults regarding behavioral risk factors. Importantly, binge drinking in the last month, defined as four or five more drinks per occasion for women and men respectively, is the one factor which has increased steadily since 2003 from 12% to 24% in 2012, a statistically significant increase. Twenty-nine (29) percent and 19% of adult males and females, respectively, reported binge drinking. The percentage of persons reported as driver/passenger in car in which the driver had perhaps had too much to drink has remained relatively constant at between 0 and 5% since 2003.

Persons who report being a “current smoker” defined as smoking within the past 30 days has declined from 18% in 2003 to 14% in 2012. Those reporting having tried to quit smoking within the past year has also remained relatively constant. However the percentage of healthcare providers who have advised these smokers to quit has risen from 66% in 2006 to 83% in 2012.

Nutrition and physical activity are two lifestyle factors that play a role in maintaining weight and Body Mass Index (BMI), a calculated number based on an individual’s height and weight. Unhealthy eating and inadequate physical activity, along with genetic or individual factors, may lead to unhealthy weight gains and higher BMI numbers.

Sixty-five (65) percent and 31% of adults report consuming the recommended number of servings of fruit and vegetables each day, respectively. The intake of vegetables has remained relatively constant while fruit intake has declined slightly. Fruits and vegetables are two of the five food groups that are filled with nutrients, minerals and antioxidants that promote good body maintenance and may reduce the risk of developing some chronic disease. These results are based on previous US Department of Agriculture (USDA) dietary guidelines: adults should have three servings of vegetables and two servings of fruit each day.

The percentage of persons reporting moderate exercise has more than doubled since 2003 from 20% to 43% in 2012, a statistically significant increase, while the number reporting vigorous exercise has remained relatively constant. The Centers for Disease Control recommend moderate activity that causes small increases in breathing or heart rate for at least 30 minutes on five or more days of the week.
week or vigorous activity which causes large increases in breathing or heart rate for at least 20 minutes on three or more days of the week.

The percentage of persons reporting “overweight” has increased from 56% in 2003 to 62% in 2012, although this difference is not statistically significant. Male respondents, persons who are inactive and persons over 65 years old were more likely to be overweight than respondents in other groups. Overweight was calculated using the Center for Disease Control’s Body Mass Index (BMI) based on self-reported height and weight. A BMI of 25.0 to 29.9 is considered overweight and 30.0 or more considered obese. Overweight includes both overweight and obese respondents. (Figure 10)

**Figure 10: Self-reported Exercise and Nutrition Behaviors- Adults**

![Graph showing exercise and nutrition behaviors over time.](image)

**Children**

Over 68% of respondents to the Greendale Community Health Survey reported that their child 5 – 17 years old had 2+ servings of fruit/day while only 23% consumed the recommended 3+ servings of vegetables. Children aged 5 to 12 were statistically more likely to consume the recommended number of vegetable servings than those ages 13 – 17. Eighty-nine (89) percent of those in the bottom 60% of household income bracket ate the recommended number of fruit servings/day while 66% of those in the top 40% household income bracket did.

Overall, 51% of children were reported to be physically active, 60 minutes/day, 5 times/week. Sixty-eight (68) percent of children 5-12 years old were physically active while only 40% of those 13 – 17 years old were physically active, a statistically significant difference. (Figure 11)
Figure 11: 2012 Nutrition and Exercise Behaviors – Children

Exercise and Nutrition

In the 2012 Youth Risk Behavior Survey, described in the next section, Greendale High School students self-reported the following behaviors as seen Table 5. Only 67% of boys and 44% of girls are achieving the recommended level of exercise, while approximately 30% of boys and 20% of girls are spending more than 3 hours/school day on non-school related computer activities or video games.

Table 4: Greendale High School Students Exercise and Nutrition Behaviors

<table>
<thead>
<tr>
<th></th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trying to lose weight</td>
<td>28.3%</td>
<td>2%</td>
</tr>
<tr>
<td>Drank a can, bottle or glass of soda one or more times/day during the past 7 days</td>
<td>34.6%</td>
<td>9.8%</td>
</tr>
<tr>
<td>Ate breakfast 3 or more days in the past 7 days</td>
<td>78.7%</td>
<td>69.3%</td>
</tr>
<tr>
<td>Physically active for a total of at least 60 minutes/day on 5 or more of the 7 days before the survey</td>
<td>66.9%</td>
<td>44.4%</td>
</tr>
</tbody>
</table>

Greendale School District Surveys

The Greendale School District conducts a Youth Risk Behavior Survey of both middle school and high school students every two years. For this survey, a random sample of students is chosen to participate. For the 2012 survey, 350 middle school and 280 high school students completed the survey. The survey includes information regarding nutrition and exercise as well as risk behaviors since nutritional status and physical activity contribute to health and well-being.
Greendale High School Students

Thirty-five (35%) percent of high school boys and 23% of high school girls report having used alcohol in the past 30 days, both a small decrease from 2009. Approximately 10% of both boys and girls report marijuana use within the last 30 days; marijuana use has declined slightly for boys since 2009 but remained relatively constant for girls. (Figure 12)

In the 2012 survey, 12% of boys reported having carried a weapon (not limited to guns) within the last 30 days, including 2% who reported carrying a weapon (not limited to guns) on school property.

Figure 12: Youth Risk Behaviors: Greendale High School Boys and Girls

Boys

HP 2020 Goal:
Alcohol last 30 d – 16.6%
Marijuana, last 30 d – 6%

2009 - Boys

2012-Boys
Girls


Greendale Middle School Students

In 2012, three (3) percent of middle school boys and 6% middle school girls report having used alcohol at some time in the past. All other risk behaviors were reported by 6% or fewer students. The percentage of middle school students reporting alcohol use within the past 30 day has decreased for both boys and girls. The remaining risk behaviors, cigarette smoking, marijuana use, and having carried a weapon remained relatively unchanged. (Figure 13)

Figure 13: Youth Risk Behaviors: Greendale Middle School Students
Bullying

In the Greendale Community Health Survey, 23% of adult respondents reported that their child had experienced some form of bullying: 23% verbally, 3% via cyber, and 2% physically. In the 2012 Greendale Youth Risk Behavior Survey of high school students, 18% of boys and 30% of girls reported having experienced bullying.

Educational Programs

The Greendale Health Department, Greendale School District and Greendale Park and Recreation Department provide a wide variety of programs, both collaboratively and independently, to create awareness in the community regarding the behavioral health risks identified here as well as providing programs to modify these behaviors in both children and adults. Programs addressing health, wellness and behavioral modification of life style risk factors include, but are not limited, nutrition, active physical exercise, tobacco risk, and alcohol risk. These programs are available in a variety of settings to all Greendale residents.

IV. HEALTH STATUS

Key Point

● Overall health status is reported to be “Good to Excellent” by 96% of adults

This health status category is measured in terms of mortality (rates of death within a population) and morbidity (rates of the incidence [new cases] and prevalence [all cases] of disease). Data are generally limited, but one of the core indicators of this category includes overall health status.

In 2012, 93% of the respondents to the Greendale Community Health Survey reported that their health was good (35%), very good (37%) or excellent (21%). Persons reporting fair or poor health (7%) were more likely to be 65+ years old and those with a high school education, in the bottom 40% income bracket, inactive and overweight. (Figure 14)

Figure 14: Self-Reported Health Status
V. SOCIAL AND MENTAL HEALTH

Key Points
- Less than 5% of adults reported the selected mental health issues
- Less than 5% of adults reported personal safety concerns
- Fighting and bullying are issues reported by high school students
- The incidence of known offenses as reported by the Greendale Police Department has remained relatively constant over the past 3 years.

This category represents social and mental factors that may directly or indirectly influence overall the health status of individuals and communities. Mental health includes conditions such as depression, panic and conduct disorders, while social health includes violence and crime in the community. Overall psychological well-being, safety, and mental health conditions may be exacerbated by substance abuse and violence within the home and community. Other factors that may also influence social and mental health factors include economic turmoil and stress.

Mental Health Status

In the 2012 Greendale Community Health Survey, the percentage of persons reporting feeling sad, blue or depressed always or nearly always was 3%. Two (2) percent of respondents reported that they seldom or never could find meaning and purpose in daily life. Likewise, 3% of persons reported having considered suicide in the past year. The percent of respondents reporting concerns regarding personal safety range from 2 to 4% in 2012. All of these percentages are relatively unchanged from previous reporting periods. (Tables 6 and 7)

<table>
<thead>
<tr>
<th>Table 5: Mental Health Status - Adults</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Felt sad, Blue or Depressed Always/ Nearly Always (past 30 days)</td>
</tr>
<tr>
<td>Find Meaning and Purpose in Daily Life - Seldom/Never</td>
</tr>
<tr>
<td>Considered Suicide (past year)</td>
</tr>
</tbody>
</table>

Greendale Community Health Survey, 2012

<table>
<thead>
<tr>
<th>Table 6: Adults – Personal Safety in the Past Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Afraid for their safety</td>
</tr>
<tr>
<td>Pushed, kicked, slapped, or hit</td>
</tr>
<tr>
<td>At least one of the safety issues</td>
</tr>
</tbody>
</table>

Greendale Community Health Survey, 2012

Forty (40) and 13% percent of high school boys and girls, respectively, responded that they had been involved in a physical fight within the past year; 21% of boys and 11% girls responded that someone had tried to hurt them. Other issues of personal safety as reported are shown in Figure 15.
Figure 15: Personal Safety – Greendale High School Students

Boys

Girls


Greendale Police Department

Known offenses reported as occurring in Greendale (excluding Southridge) in 2010 through 2012 are shown in Figure 16. The selected offenses have remained relatively constant from 2010 through 2012 with the exception of Disorderly Conduct, which has decreased from the number in 2010.
Requests for service by the Police Department are shown in Table 9.

**Table 7: Police Department Requests for Service**

<table>
<thead>
<tr>
<th>Requests for service</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Family trouble</td>
<td>115</td>
<td>129</td>
<td>93</td>
</tr>
<tr>
<td>Trouble with juveniles</td>
<td>91</td>
<td>97</td>
<td>86</td>
</tr>
<tr>
<td>Animal complaints</td>
<td>226</td>
<td>225</td>
<td>225</td>
</tr>
</tbody>
</table>

Violent death and unintentional suicide data as reported by the Greendale Police Department are shown in Table 10. Persons who committed suicide in 2012 were 57, 71, and 89 years old. There were no homicides reported in the years 2004 through 2008 and 2010 through 2012.
Table 8: Violent Death

<table>
<thead>
<tr>
<th>Year</th>
<th>Violent Death</th>
<th>Unintentional</th>
<th>Suicide</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004</td>
<td>9</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>2005</td>
<td>6</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>2006</td>
<td>4</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>2007</td>
<td>8</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>2008</td>
<td>10</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>2009</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>2010</td>
<td>NA</td>
<td>NA</td>
<td>2</td>
</tr>
<tr>
<td>2011</td>
<td>NA</td>
<td>NA</td>
<td>2</td>
</tr>
<tr>
<td>2012</td>
<td>NA</td>
<td>NA</td>
<td>3</td>
</tr>
</tbody>
</table>

Greendale Police Department, 2012

VI. MATERNAL AND CHILD HEALTH

Key Points
- The number of births in 2012 decreased from those in 2011
- One case of infant death occurred in 2012; no cases were reported in 2008 – 2011
- Over 85% of expectant mothers receive 1st trimester prenatal care

Maternal and child health is one of the most significant categories for monitoring as it related to the health of vulnerable populations: infants and children. Birth data, outcomes, and infant mortality are the major focus areas in this category. Maternal care outcomes and infant mortality are the major focus areas in this category. Maternal care is also important because it correlates with positive birth outcomes. Factors related to maternal care include measures of maternal access to, and/or utilization of, prenatal care.

In 2012, there were a total of 98 births in Greendale compared to 115 in 2011. There were no infant deaths during 2008-2011; there was one infant death in 2012.

The most recent data (2010) on low birth weight and prenatal care, available from the Wisconsin Dept. of Health Services, Division of Public Health, Office of Health Informatics, are shown in Table 11.
Table 9: Greendale Births

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Births</th>
<th>Low Birth Weight N (%)</th>
<th>1st Trimester Prenatal Care N (%)</th>
<th>Mortality N</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>136</td>
<td>5 (3.6)</td>
<td>118 (86)</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>122</td>
<td>7 (5.7)</td>
<td>107 (87)</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>92</td>
<td>5 (5.4)</td>
<td>81 (88)</td>
<td>0</td>
</tr>
<tr>
<td>2011</td>
<td>122</td>
<td>NA</td>
<td>NA</td>
<td>0</td>
</tr>
<tr>
<td>2012</td>
<td>120</td>
<td>17</td>
<td>80%</td>
<td>1</td>
</tr>
</tbody>
</table>


VII. DEATH, INJURY, ILLNESS

Key Points

- The leading causes of death (cardiovascular disease, cancer, respiratory disease and dementia/Alzheimer’s) have remained relatively constant over the past 3 years
- Percentage of persons with high blood pressure and diabetes has increased significantly since 2003
- Follow-up on selected communicable diseases increased in 2012

This health status category is measured in terms of mortality (rates of death within a population) and morbidity (rates of the incidence [new cases] and prevalence [all cases] of disease).

Death

The number of deaths that occurred in Greendale was 160, 136 and 133 in 2010, 2011 and 2012, respectively. The leading causes of death are shown in Figure 17. Cardiovascular disease continues to be the leading cause of death with cancer, and respiratory disease remaining relatively constant over the past three (3) years, although death due to cancer showed a small increase in 2012 over 2010 and 2011.
The 2010 death data for dementia/Alzheimer must be qualified since a dementia/Alzheimer’s long term care facility within Greendale skews the data. Since 2010 another community-based residential facility which provides more custodial care for the same type of residents will also impact the cause of death of people residing in Greendale.

Reports of violent death are incomplete but information available is shown in Figure 18. Violent death, both unintentional and suicide, was reported in 9, 6, 4, 8, and 8 cases in 2004, 2005, 2006, 2007 and 2008, respectively, as shown in Figure 19. Data are not available for 2009 through 2012. Suicide data are available for 2010 through 2012 and are included in Figure 18. Ages of those persons who committed suicide in 2012 were 57, 71 and 89.
Illness

Health conditions as self-reported by respondents to the Greendale Community Health Survey from 2003 to 2012 are shown in Figure 19. High blood pressure and diabetes have shown a statistically significant increase since 2003 while the changes in high cholesterol, heart disease and obesity have not increased significantly. Cancer was reported by 7% and 8% in 2009 and 2012, respectively. Other conditions remaining relatively constant in prevalence since 2003 include asthma and stroke.

In 2012, 99% of persons with high blood pressure and 97% of those reporting diabetes reported that it was under control through medication, exercise or lifestyle changes. The percentage of persons with selected conditions that are controlled through medical, exercise or lifestyle changes is shown in Table 12.

Figure 19: Prevalence of Selected Health Conditions

Table 10: Control of Medical Conditions

<table>
<thead>
<tr>
<th>Condition</th>
<th>N</th>
<th>(Percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Blood Pressure</td>
<td>158</td>
<td>(99)</td>
</tr>
<tr>
<td>High Blood Cholesterol</td>
<td>96</td>
<td>(93)</td>
</tr>
<tr>
<td>Heart Disease/Condition</td>
<td>50</td>
<td>(90)</td>
</tr>
<tr>
<td>Diabetes</td>
<td>39</td>
<td>(97)</td>
</tr>
<tr>
<td>Mental Health Condition</td>
<td>29</td>
<td>(77)</td>
</tr>
<tr>
<td>Asthma</td>
<td>27</td>
<td>(96)</td>
</tr>
</tbody>
</table>

Greendale Community Health Survey, 2012

*statistically significant increase
**Communicable Disease**

Communicable disease includes diseases that are typically transmitted through person-to-person contact or shared use of contaminated instruments/materials. These diseases can usually be prevented through a high level of vaccine coverage of vulnerable populations, or through the use of protective measure such as condoms for prevention of sexually-transmitted disease. The table below shows the number of cases of the most frequently reported communicable diseases within the Village of Greendale over the past two years.

Nineteen (19) cases of Mycobacterial disease were reported in 2012. Treatment of one child required direct observation of administration of medication by the Greendale Health Department professional staff at the home of the child.

The “Other” category included 39 cases of pertussis. The Greendale Health Department staff followed-up each case by contacting persons known to have been in contact with the infected individual. (Figure 20)

![Figure 20: Communicable Diseases](image)

**Environmental Health**

Air quality in Greendale can be assessed through proxy use of Milwaukee County’s air quality report from the 2011 Wisconsin County Health Rankings. Milwaukee County was reported to have eight unhealthy air pollution days due to unsafe particulate matter in the air and three unhealthy ozone days (Wisconsin County Health Rankings, 2011); the lower number of ozone days in the state was zero and the highest number of days was eight. Particulate matter days ranged from zero to 12 days using data from the same report. A lower number of particulate and ozone days would be indicative of better air quality.

The Milwaukee Water Works (MWW) provides full water service for Village of Greendale residents. As such, the Milwaukee Water Works Consumer Confidence Report 2010 is the best source of data related to water quality in the city. The MWW tests for over 500 contaminants, whereas the
Environmental Protection Agency (EPA) requires testing for only 90 contaminants. Water quality reports from the MWW continue to demonstrate high-quality water supply.

The Greendale Health Department conducts both restaurant and retail food inspections. As such, the Greendale Health Department has a comprehensive environmental health inspection program within the community, conducting routine inspections of all establishments that sell food, as well as all temporary food stands and Farmers’ Markets. The program oversees inspection of local animal-associated businesses (kennels, pet stores, grooming establishments) as well and environmental complaints through the Village. (Table 13)

Table 11: Environment/Sanitation Inspection Activities

<table>
<thead>
<tr>
<th>Establishment</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retail</td>
<td>28</td>
<td>43</td>
</tr>
<tr>
<td>Residential</td>
<td>24</td>
<td>69</td>
</tr>
<tr>
<td>Restaurant</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

Greendale Health Department, 2012

Elevated lead level is another environmental concern that is correlated with poor health in young children. To reduce the number of children in Greendale exposed to lead, the Greendale Health Department participates in the Wisconsin Childhood Lead Poisoning Prevention and Control program. Referrals from medical providers, clinics, and the Women, Infant and Children program are made to the health department for further investigation and follow-up.

The number of reports for elevated blood lead levels provided to the Greendale Health Department is shown in Figure 21. The number of elevated blood levels increased in 2012 due primarily to a lowering of the criteria from >10 ug/dL to >5 ug/dL.

Radon is a naturally occurring gas in the earth's atmosphere. Radon can accumulate in buildings for a variety of reasons, and while simple tests can be done to detect the level of radon in homes and buildings, being aware of the symptoms of radon poisoning is essential to protecting yourself and your family. Radon poisoning occurs when areas without adequate ventilation build up high amounts of radon gas. This can occur in underground mines, basements and in homes or buildings. Radon, like all other radioactive elements or gases, decays over a period of time, giving off tiny radioactive particles. When these particles are inhaled, they can damage the DNA in the cells of the lungs, resulting in lung cancer.

The symptoms of radon poisoning closely resemble lung cancer: a persistent cough that doesn’t get better, coughing up blood, difficulty breathing, chest pains, wheezy breathing, hoarseness and recurring bouts of respiratory infections such as pneumonia or bronchitis. In many cases, excessive exposure to radon can develop into lung cancer.

The Health Department distributes Radon Screening Kits; the number distributed in 2012 is shown in the following graph; the number of elevated radon levels increased in 2012 compared to 2011. The GHD staff attempts to counsel all clients for whom the radon levels are elevated. An analysis of the location of residences with elevated radon levels has been conducted: no distribution trend has been identified (Figure 21).
While the State of Wisconsin encourages residential radon testing, the State has no statutory or administrative-rule authority to require radon testing or reporting of radon testing or mitigation.

**Figure 21: Lead and Radon Reports**

**Lead Reports**

<table>
<thead>
<tr>
<th>Year</th>
<th>Lead Reports</th>
<th>Elevated Lead</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>225</td>
<td>4</td>
</tr>
<tr>
<td>2011</td>
<td>217</td>
<td>4</td>
</tr>
<tr>
<td>2012</td>
<td>196</td>
<td>10</td>
</tr>
</tbody>
</table>

**Radon Screening**

<table>
<thead>
<tr>
<th>Year</th>
<th>Radon Reports</th>
<th>Elevated Radon</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>71</td>
<td>30</td>
</tr>
<tr>
<td>2011</td>
<td>39</td>
<td>23</td>
</tr>
<tr>
<td>2012</td>
<td>35</td>
<td>71</td>
</tr>
</tbody>
</table>

Greendale Health Department, 2012

**VIII. Community health issues**

**Key Points**
- Similar issues were identified in both the focus groups and the Greendale Community Health Survey
- Community health issues are changing with the community demographics
- Healthy lifestyle issues are important to both adults and children/youths
- AODA remains an important community issue

**Greendale Health Department Survey**

The Greendale Health Department conducted three (3) focus groups of community leaders and activists as well as one with health department staff in October 2010. The focus groups acknowledged that the GHD is addressing the health needs of the community while, at the same time, identified the following issues:
● Health needs are a “moving target” as the demographics of the community change
● GHD is not a “top of mind” resource for residents
● Core functions remain vital to the health of the community
  □ Communicable disease and chronic disease prevention
  □ Health educational programs
  Adult Health Clinics
  □ Immunizations for children and adults
● Emphasis on life style issues is needed to prevent diseases
● Mental health and Alcohol and Other Drug Abuse (AODA) are important issues to address

Greendale Community Health Survey

The Greendale Community Health Survey identified eight (8) community health issues and asked respondents to name the three most important issues. The responses are shown in Table 14.

Table 12: Community Health Issues

<table>
<thead>
<tr>
<th>Community Health Issue</th>
<th>Percent Responding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violence</td>
<td>62%</td>
</tr>
<tr>
<td>Chronic disease</td>
<td>57%</td>
</tr>
<tr>
<td>Alcohol or Drug Use</td>
<td>55%</td>
</tr>
<tr>
<td>Teen Pregnancy</td>
<td>36%</td>
</tr>
<tr>
<td>Infectious diseases</td>
<td>26%</td>
</tr>
<tr>
<td>Infant mortality</td>
<td>24%</td>
</tr>
<tr>
<td>Mental Health or Depression</td>
<td>22%</td>
</tr>
<tr>
<td>Lead Poisoning</td>
<td>2%</td>
</tr>
</tbody>
</table>

Greendale Community Health Survey, 2012

Many of the issues identified by the focus groups in 2010 were also identified in 2012 during the Community Health Survey. Importantly, issues related to chronic disease and alcohol or drug use were of concern to over 50% of the Survey respondents and were also identified in the focus groups.

Interestingly, the respondents to the Health Survey identified Violence as the most important issue despite the low percent of respondents who identified specific issues related to violence and personal safety at other points of the Survey. (SOCIAL AND MENTAL HEALTH, p. 23). Violence was not identified in the focus group meetings in 2010. The Survey was conducted via telephone between June 21, 2012 and September 12, 2012. It is important to consider that the Aurora, Colorado, shooting occurred on July 20, 2012, and was extensively covered in the national news media for several days and weeks following the shooting. It is possible that this event and the related publicity surrounding it negatively influenced the expressed concern related to violence by Survey respondents.

Teen pregnancy was also identified as a health issue of great concern, while a review of maternal and infant data from birth certificates reports less than 1% of mothers are teenaged as defined by <20 years of age. While not an issue per se in Greendale it is of great concern for society.
IX. DISCUSSION

Demographics

The population of Greendale decreased 2.5% between 2000 and 2010 and the demographics of the Greendale population have changed. While the population remains predominantly white Caucasian, the racial and ethnic diversity of the population has increased from 4% in 2000 to 7% in 2010. The age groups of Greendale have also changed: in 2010, the percentage of persons 65+ years old increased 7.8% from 2000, while all other age groups decreased. Greendale School District data show a steady increase in the number of students eligible for reduced or free lunch from 9% in 2000 to over 20% in 2010, suggesting an increase in the number of families with limited financial resources. Both of these demographic changes have the potential to impact the need for public health services provided by the Greendale Health Department in the immediate future.

Adults

In 2012, 95% of Greendale adults reported being covered by health insurance. The Healthiest Wisconsin 2020 goal for health insurance coverage is 100%. Ninety percent (90%) of Greendale adults report a routine check-up within the past 2 years and 78% a dental check-up within the past year. The majority of adults report having timely, routine tests for reproductive health and colorectal cancer screening. Nonetheless, 7% report not filling a medication prescription, and 12%, 4% and 3% having unmet dental, medical and mental health care needs. These percentages correspond approximately to the percent of individuals without healthcare insurance.

The overall health status is reported to be “Good to Excellent” by 96% of adults. The prevalence of high blood pressure has increased significantly from 28% in 2009 to 40% in 2012 and diabetes from 6% to 10% of adults in the same time period. More data is needed to determine if this increase is attributable primarily to the aging population, or to changes in the health habits of those under 65. Ninety-nine (99) percent and 97% of these persons report their high blood pressure and diabetes controlled with treatment and/or life-style modification. No significant changes were seen in percentage of persons with high blood cholesterol, heart disease, stroke, asthma or cancer. The increase in both high blood pressure and diabetes substantiate the need for the GHD to continue providing educational and support programs for these conditions as well as clinic services to monitor treatment as needed. As the number of persons 65+ continues to increase, a rise in the prevalence of dementia/Alzheimer’s disease can also be expected with a resulting need for public health programs and services for these individuals and their caregivers. Greendale may be disproportionately affected by this issue due to the number and size of the congregate living facilities in our jurisdiction.

While the percentage of persons meeting exercise recommendations has increased significantly since 2009, fewer than 50% of adults report meeting current nutritional and exercise recommendations. At the same time, 60% report being overweight. Opportunities for the GHD to continue educational programs and expand co-operative efforts with the Greendale School District Park and Recreational Department to support healthy life style behaviors can be important in improving the health status of Greendale residents.
Children

As reported in 2012, 88% of children received preventative medical care. The Healthiest Wisconsin 2020 goal is 100%. As reported by Greendale schools, nearly 100% of children enrolled in public and private Greendale schools are compliant with immunization requirements. 83% of children have a primary health care provider. However, 9% of children have unmet dental care needs and unmet needs for medical and specialist care are reported by 4% each.

Data provided by the Greendale School District (GSD) suggest that the percentage of high school students who self-report smoking cigarettes, smoking marijuana and drinking alcohol within the past 30 days decreased between 2009 and 2012. However, 35% of high school boys and 30% of high school girls report having drunk alcohol within the past 30 days. These same behaviors are reported by much smaller percentages of middle school students. These data suggest opportunities for the GHD to continue working closely with the GSD to provide educational and support programs developed for the appropriate age groups to reduce risky unhealthy life style choices by these students.

The recommended level of daily exercise is achieved by only 68% of middle school students and 40% of high school students. Programs and activities that require physical exercise should be provided and participation encouraged. While recommended fruit consumption is approximately 70% for both middle and high school students, the recommended vegetable consumption is met by only 38% and 13% of middle and high school students, respectively. Programs and counseling regarding healthy exercise and nutrition to maintain healthy weight and life-style should be developed in cooperation with the GSD.

Health Department Services

Providing clinic and immunization services as well as monitoring and responding to communicable disease issues remain high priorities for the Health Department. The specific services provided may change due to the changing demographics of the Greendale community. Environmental Health activities will continue to increase as the business community, retail food establishments and restaurants in Greendale increase. Given the age of the Greendale “original” homes, continued monitoring of lead levels is important and must be supported with counseling and intervention as necessary. Likewise, radon surveillance and community education about the hazards of radon gas must be supported.

Public Safety

Concern regarding violence was the most frequently identified issue in the 2012 Greendale Community Health Survey. However, less than 5% of respondents to the survey noted concerns regarding their individual safety. Furthermore, Greendale police reports indicate that known violent offenses have not increased in the Greendale community in the past three (3) years. The shooting which occurred in Aurora, Colorado, during the time at which the survey was being conducted may be a confounding factor in the percentage of persons who perceive violence as a public health issue in Greendale.
SUMMARY

The demographics of the Greendale populations have changed since the 2000 census to become more racially and ethnically diverse and includes a larger percentage of older adults. The poverty level appears to be rising as evidenced by the number of children eligible for free/reduced lunch and mothers and children participating in Women, Infants and Children nutrition program for low income families. Over 90% of adults are covered by health insurance, consider their health to be excellent or good and receive routine health care. Likewise, nearly 90% of children received preventative health care. Nonetheless, some adults and children have unmet medical and dental healthcare needs.

Both hypertension and diabetes have increased significantly since 2003 and over 60% adults report being overweight. The percentage of adults 65+ years old who report receiving flu and pneumonia vaccinations has decreased. Other areas of concern include the percentage of adults and children not meeting recommended nutritional and exercise guidelines to promote wellness. Alcohol consumption appears to be increasing in adults and alcohol binge drinking in both adults and high school students.

The current services provided by the Greendale Health Department have addressed many of the needs of the Greendale community but will need to be adapted to meet the changing health care needs of the Greendale community as the population changes. The main purpose for this health data from this assessment is to facilitate community involvement in the creation of a new five-year community health improvement plan. These data provide much insight into the health of Greendale residents and should lend itself well toward discussion about prioritizing major health concerns to be addressed.

A major limitation in this assessment is the lack of data at a municipal level. Currently local municipal health data is summarized at a Milwaukee County level. It is anticipated that this is something that will evolve over time as public health data becomes more necessary for program management and quality control, and data collection becomes more sophisticated.

Despite the data limitations, however, this report demonstrates several positive and less-than positive health outcomes. The collected health assessment data show improvement in health status for certain focus areas throughout the years, such as decreased reported lead levels in children under the age of five. However, there are several areas that are showing a poor trend, such as a reported increase in diabetes and hypertension. There is certainly a need to further investigate community and population health concerns in Greendale and to develop a community-wide health improvement plan for the next five years.
Works Cited

Aurora Health Care. (2003). *Community Health Survey Fall 2003*. Milwaukee, WI: JVC Research, LLC.


