

# ILLINOIS MATERNAL AND CHILD HEALTH DATABOOK

July 2015



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## About This Report

This databook was prepared as part of the 2015 Illinois Title V Needs Assessment. Title V, or the Maternal and Child Health Services Block Grant Program, is granted to U.S. states and territories annually from the Maternal and Child Health Bureau (MCHB) of the U.S. Health Resources and Services Administration (HRSA). States use the allotted funds to support a variety of direct services, enabling services, and infrastructure improvements to benefit women, infants, and children. At least thirty percent of funds must be used for programming for children with special healthcare needs.

Every five years, each state/territory is required to conduct a comprehensive assessment of the health needs of the federally mandated populations served by Title V: pregnant and postpartum women, infants, children, adolescents, and children with special healthcare needs. During the needs assessment process, a variety of quantitative and qualitative data are collected by the state to inform the selection of state priorities for the upcoming years. The 2015 needs assessment is due in September 2015 and will produce an action plan that will guide Illinois Title V activities during 2016-2020.

This report was created to function as one of many data sources that would inform the 2015 Illinois needs assessment process. The databook is not intended to be comprehensive of all the health issues facing women and children, but instead highlights key topics and indicators that are of national and state focus. The report is organized by population domain, in alignment with the new MCHB block grant guidance. Within each population domain, 8-10 key topic areas and sentinel indicators were chosen for inclusion in the databook. Review of MCHB national performance and outcome measures, emerging MCH issues, current state initiatives, and current data availability all informed the selection of the indicators that were presented for each domain. When available, the data were presented by race/ethnicity, geography, and other key demographic factors (e.g., age, income level).

## About This Report

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## Data Sources Used

Acronym	Data Source	Population	Description
<b>ACS</b>	American Community Survey	Households	ACS is administered by the U.S. Census Bureau to collect information between the decennial censuses. Data are weighted to be representative of all Illinois residents or households.
<b>BRFSS</b>	Behavioral Risk Factor Surveillance System	Adults ages 18 and older	Landline and cell phone survey of adult civilian population. Data are weighted to be representative of all adults in Illinois.
<b>DSCC-FS</b>	Division of Specialized Care for Children - Family Survey, 2014	Families of DSCC-eligible children ( <i>children with special healthcare needs</i> )	DSCC-FS was conducted in 2014 via online surveys in English and Spanish.
<b>HDD</b>	Hospital Discharge Data	Discharges from Illinois hospitals	HDD contains the records from every discharge from an Illinois hospital. Data obtained from the IDPH Division of Patient Safety and Quality.
<b>IVRS</b>	Illinois Vital Records System	Live births ; Deaths	IVRS houses the complete files of birth and death records of Illinois residents.
<b>mPINC</b>	Maternity Practices in Infant Nutrition and Care	Birthing Hospitals	Survey sent to all Illinois birthing hospitals on policies and practices related to breastfeeding. Data represent those hospitals who responded to the survey.
<b>NIS</b>	National Immunization Survey	Children 19-35 months	Mail survey of families of children 19-35 months old, including physician reporting of immunization records. Data are weighted to be representative of all children 19-35 months in Illinois.
<b>NSCH</b>	National Survey of Children's Health	Children ages 0-17	Phone-based survey of families with children ages 0-17. Data are weighted to be representative of all children in Illinois.
<b>PRAMS</b>	Pregnancy Risk Assessment Monitoring System	Women who recently delivered a live birth	Mail and phone-based survey sent 3-4 months after a woman delivers a live birth. Data are weighted to be representative of all births in Illinois.
<b>YRBS</b>	Youth Risk Behavior Surveillance System	High school students	Survey administered in schools. Data are weighted to be representative of all high school students in Illinois.

# Section 1:

## Illinois Population Characteristics

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# Illinois Demographics

## Population Size and Changes

Illinois is a large, well-populated state situated, both physically and culturally, in the center of the United States. It is currently the fifth most populous state in the nation and was home to 12,880,580 residents in 2014.<sup>1</sup> Chicago, the largest city in Illinois, is home to 2.7 million people, making it the third largest city in the US. The total population of Illinois increased 3.3% between 2000 and 2010.<sup>2</sup>

The age distribution in Illinois is similar to that of the nation. Nearly one in four (23.5%) Illinois residents are under age 18 — a total of over 3,000,000 children. Approximately 6% of the total population are under age 5 (nearly 800,000 children).<sup>1</sup>

Because it is the fifth most populous state in the country, Illinois is frequently compared to the other “Big Five” states: California, Texas, New York, and Florida. Although these states differ greatly with respect to geography, demographics, and economics, the sheer number of people affected by these states’ policies warrants comparison. Together, these five states are home to 37% of the US population.

The birth rate in Illinois during 2013 was 12.2 births per 1,000 persons in the population. The total fertility rate was 60.3 births per 1,000 women ages 15-44. The birth and fertility rates in Illinois are higher than those in Florida and New York, but lower than those in Texas and California.<sup>3</sup>

## Geographic Considerations

Two-thirds of the total Illinois population resides in Cook County and the “collar counties” — the five counties flanking Cook County. Between 2000 and 2010, the population of Cook County decreased by 3.4% and the population in the city of Chicago decreased by 6.9%.<sup>4</sup> In contrast, most of the counties surrounding Cook County experienced a substantial population increase during 2000-2010. The five collar counties increased in population size by 15% during 2000-2010. In Illinois, the county with the largest population increase during 2000-2010 was Kendall county (a county near Cook county, but not directly flanking it), which more than doubled in population size. Maps on population density, size, and change over time are shown on pages 5-7.

The remaining Illinois population is more sparsely spread throughout 96 other counties in Illinois. Several of these counties contain smaller metropolitan areas (like Peoria, Rockford, and Springfield) but many of them are rural counties. Many rural counties experienced declines in their population during 2000-2010.

The Illinois maternal and child health system thus has the unique challenge of serving a broad array of communities and needs, from the highly urban and diverse Cook county, to the agricultural counties bordering Iowa, Kentucky and Missouri.

## Education

Approximately 87% of Illinois adults are high school graduates and 31% are college graduates. Educational achievement is not evenly distributed in the state, however. Only 81% of adults in Cook County are high school graduates, indicating the need for increased educational focus in this county. The rates of high school and college graduation are slightly higher in Illinois than in the US as a whole. Additionally, Illinois has the highest percentage of high school graduates among the Big Five states.<sup>1</sup>

# Illinois Demographics

## Racial and Ethnic Diversity

The majority (62.7%) of the population in Illinois are non-Hispanic white persons. African Americans comprise 14.7% of the population, and Latinos of all ethnicities account for 16.5%. Overall in the state, Illinois racial demographics are comparable to US averages. In comparison to the Big Five states, however, Illinois has the largest non-Hispanic white population.<sup>1</sup>

In Cook County, only 43% of the population is non-Hispanic white, while African Americans comprise 25% and Latinos comprise 24%. Within the city of Chicago, this diversity is even more pronounced: 32% are non-Hispanic white, 33% are African-American, and 29% are Latino.<sup>1</sup> So, while Illinois is more racially homogenous than other large states, the concentration pockets of racial minorities in the Chicago area present unique challenges for culturally competent health care delivery.

## Foreign Born Population

Illinois has a significant percentage of the population born outside the United States. During 2009-2013, 13.8% of Illinois residents were foreign-born. The majority of these foreign-born residents (52.8%) are not US citizens. Foreign born Illinoisans come primarily from Latin America, with a sizeable Asian population as well. Reflecting this large immigrant population, more than 22% of Illinoisans speak a language other than English at home, with Spanish being the most common other language. Compared to the other Big Five states, Illinois has fewer foreign-born and non-English speaking residents.<sup>1</sup>

Cook County has a higher percentage of foreign-born residents and non-English speakers than the rest of the state. Over 21% of Cook County residents were born outside the United States and 35% speak a language other than English at home.<sup>1</sup>

## Employment and Income

In 2009-2013, 66% of Illinois adults were in the civilian labor force — meaning that they were working or wanted to be working.<sup>1</sup> Among those in the labor force In 2013, Illinois had an unemployment rate of 9.5%, a slight decline from 2009 when the unemployment rate was over 10%.<sup>4</sup> Illinois' unemployment rate was lower than California and Florida but higher than New York and Texas.<sup>5</sup>

The majority of Illinois residents were in occupations categorized as management / professional (37%) or sales / office (25%).<sup>5</sup> The education, health care, and social services industries are the largest employers in the state, employing about 23% of working Illinoisans. Other industries employing substantial percentages of Illinois residents include: manufacturing (13%), professional / scientific / management (11%), and retail (11%).<sup>5</sup>

The per capita income in Illinois in 2009-2013 was \$29,666, compared to a national average of \$28,155. Illinois' per capita income was higher than that of California, Florida, and Texas, but lower than that of New York.<sup>1</sup>

# Illinois Demographics

## Poverty and Housing

In 2013, 14.7% of all Illinoisans lived in households with incomes below the federal poverty line (FPL). Children are more likely to live in poverty; 20.7% of children under 18 years old and 22.4% of children under 5 years old lived in poverty. Poverty in Illinois is more common in Cook County, and specifically in the city of Chicago. In Cook County, 17.7% of the total population and 25.9% of children lived in poverty; in Chicago, 23.0% of the total population and 34.0% of children lived in poverty.<sup>5</sup> Of all Illinois households in 2013, 13.5% received food stamps and 2.6% received cash assistance.<sup>5</sup>

Living in a female-headed household is strongly associated with poverty in Illinois. While 10.8% of all households were impoverished, 30.2% of female-headed households had incomes below the FPL. In female-headed households with children, the percentage in poverty were even higher; 40.5% of female-headed households with children under 18 years old and 47.6% of female-headed households with children under 5 years old were impoverished. Of the Big 5 states, Illinois has the highest poverty rate for female-headed households with children under 5 years old.

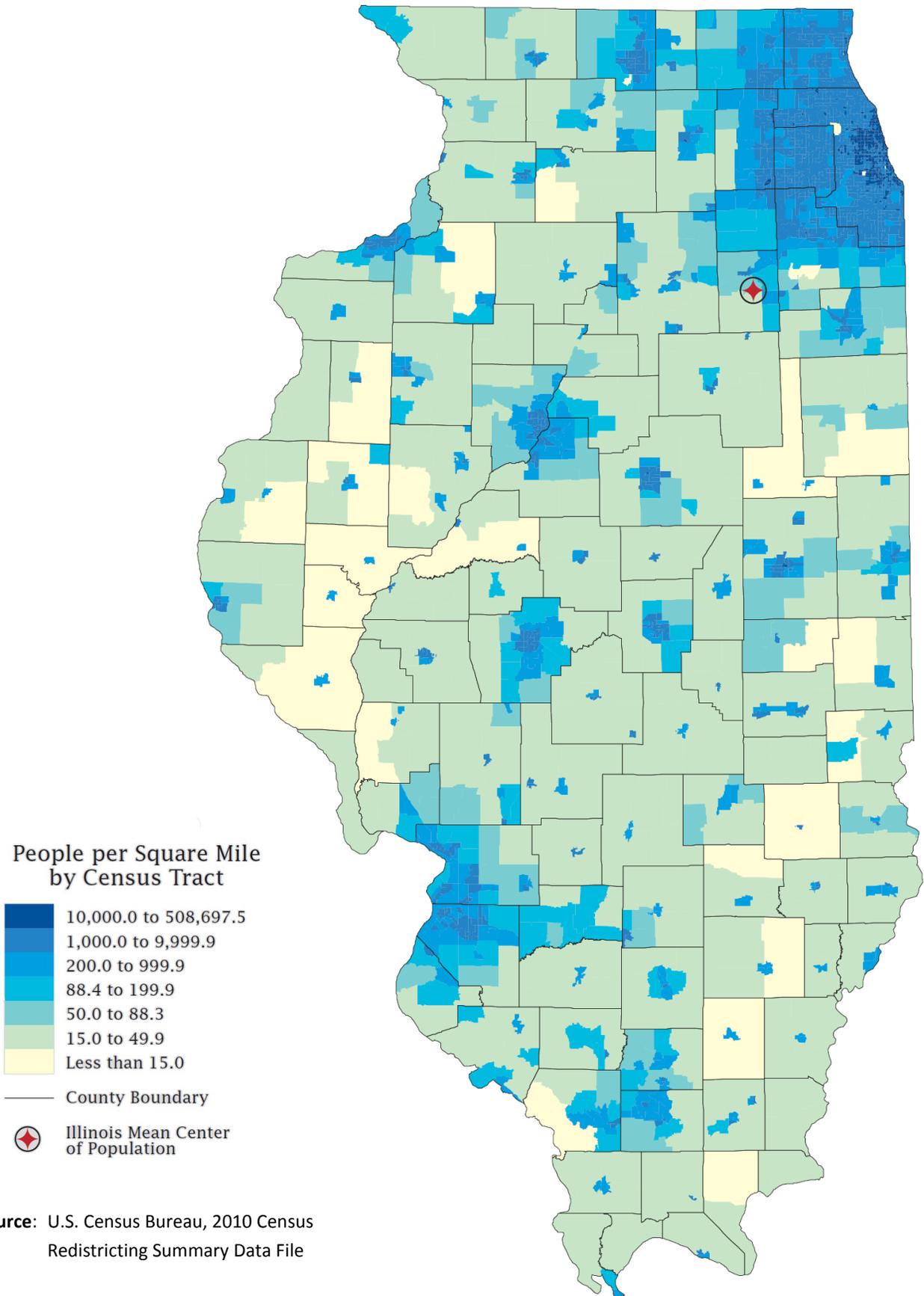
Poverty is also drastically different by race/ethnicity in Illinois. Among non-Hispanic white residents, the poverty rate was 9.5%, compared to 31.6% among African-Americans and 18.9% among Hispanics. Among children, this disparity in poverty is even further demonstrated: 11.3% of non-Hispanic white children under age 18 lived in poverty, compared to 44.0% of African-American children and 25.1% of Hispanic children.<sup>7</sup>

In Illinois in 2013, 63.9% of housing units were owner-occupied — the highest of the Big 5 states. About one-third (32.8%) of families that owned their home paid more than 30% of their household income on their mortgage. For those families that rent a home, a major point of concern in Illinois is the high cost of rental housing. In 2013, 49.5% of families renting a home spent more than 30% of their income on rent.<sup>6</sup> Low-income families are especially at risk for rental costs that consume large proportions of their household income.

### Data Sources:

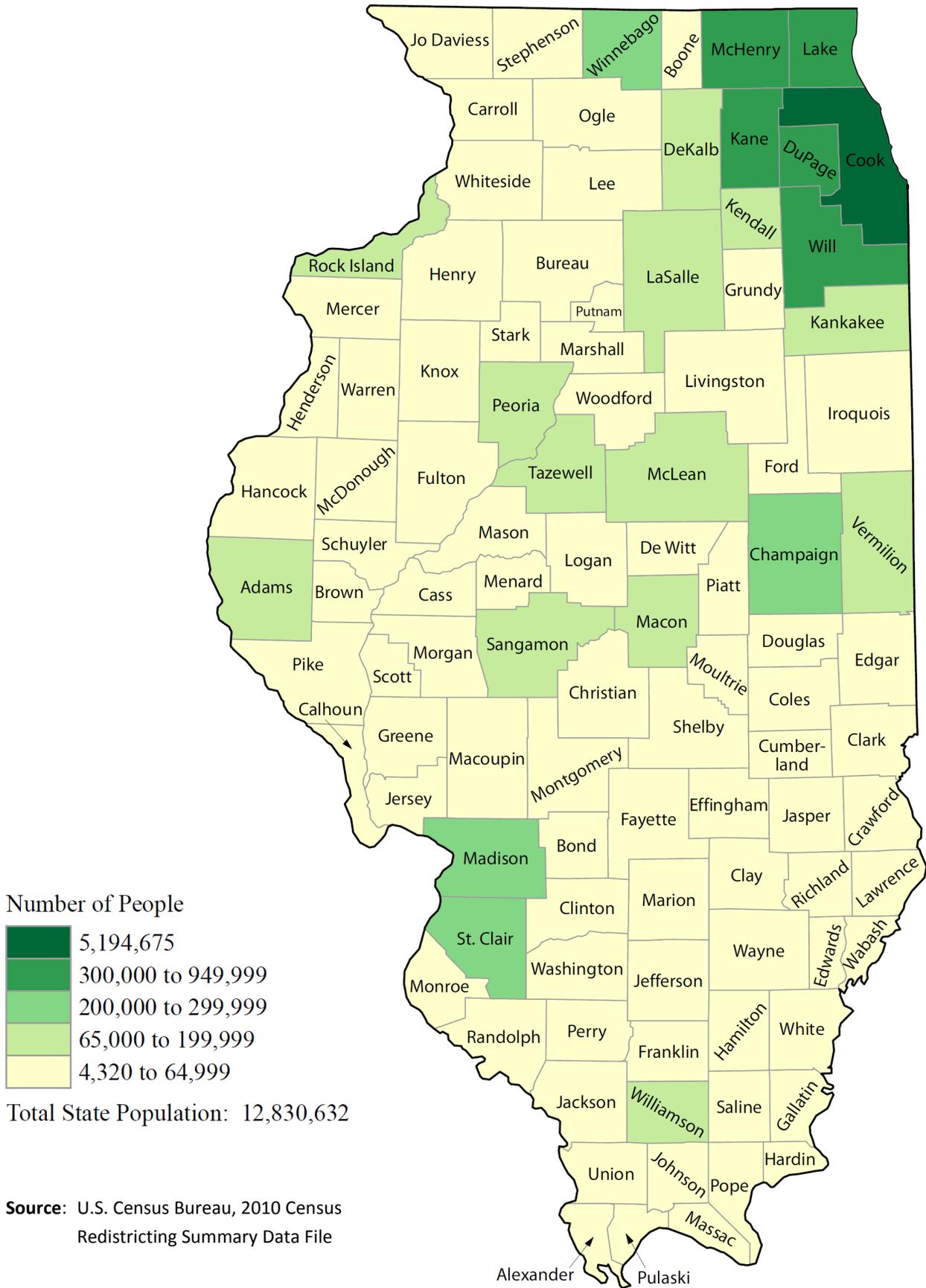
- 1) <http://quickfacts.census.gov/qfd/states/17000.html>
- 2) US Census Bureau, Census 2000 and 2010 Census Redistricting Data Summary File
- 3) Births, 2013: [http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64\\_01.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_01.pdf)
- 4) U.S. Census Bureau, American FactFinder. Table DP-01. ACS 2013 1-year estimates.
- 5) U.S. Census Bureau, American FactFinder. Table DP-03. ACS 2013 1-year estimates.
- 6) U.S. Census Bureau, American FactFinder. Table S0201. ACS 2013 1-year estimates.
- 7) U.S. Census Bureau, American FactFinder. Table B17020. ACS 2013 1-year estimates.

# Illinois Population Density, 2010

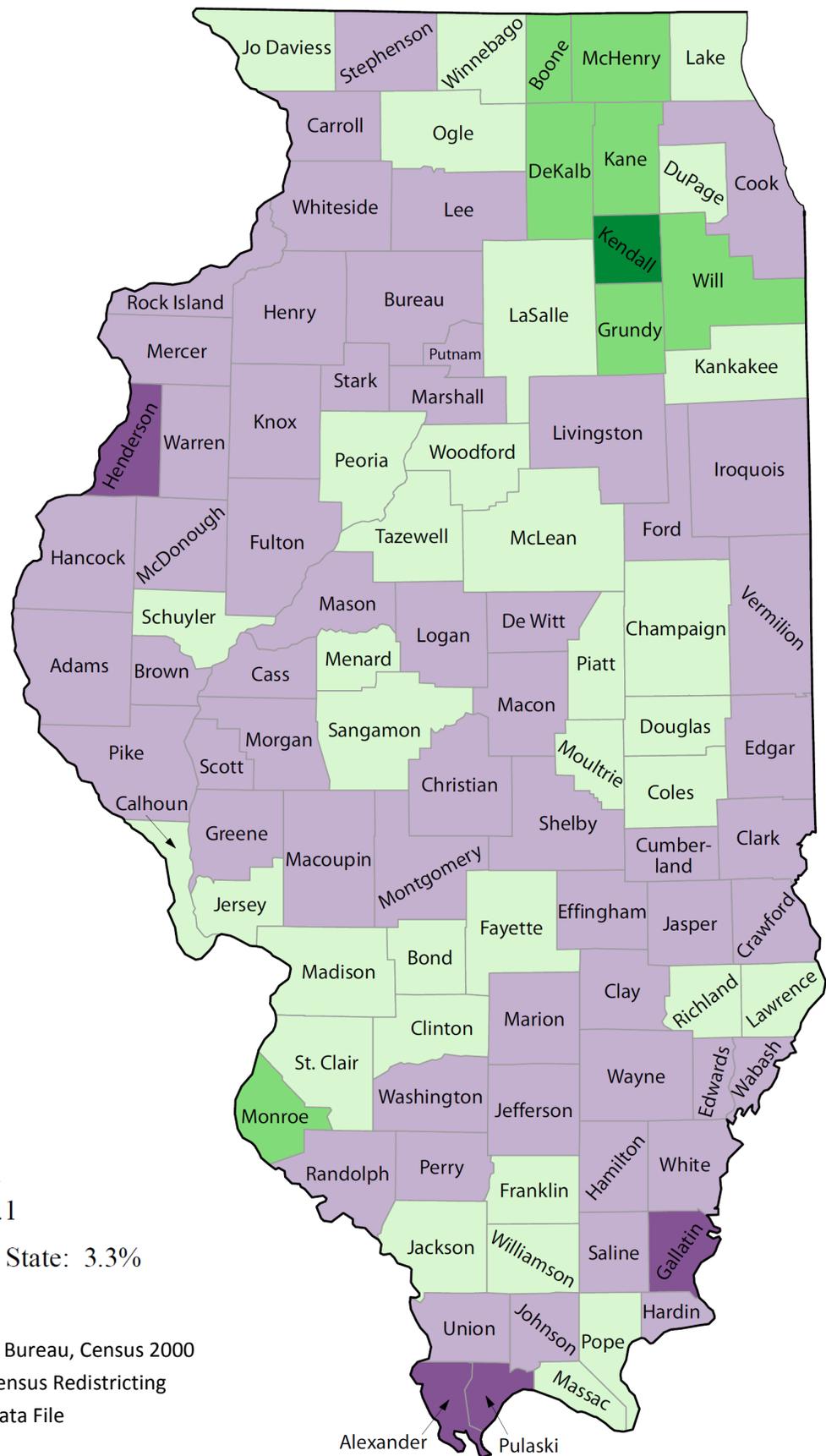


Source: U.S. Census Bureau, 2010 Census Redistricting Summary Data File

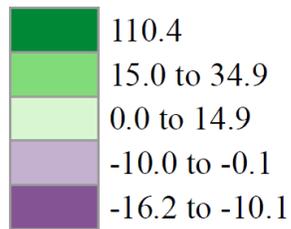
# Illinois Population Size by County, 2010



# Illinois Population Change by County, 2000-2010



Percent Change



Percent Change for State: 3.3%

**Source:** U.S. Census Bureau, Census 2000 and 2010 Census Redistricting Summary Data File

# Section 2:

## Women's & Pre-Conception Health

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# Well-Woman Care: Routine Check-Up

**Importance:** Prevention is the key to ensuring healthy women, babies, and families. Women of reproductive age are in need of general preventive services, such as routine gynecologic visits for pap smears and family planning prescriptions. Such preventive visits offer an opportune time for preconception health promotion to occur.

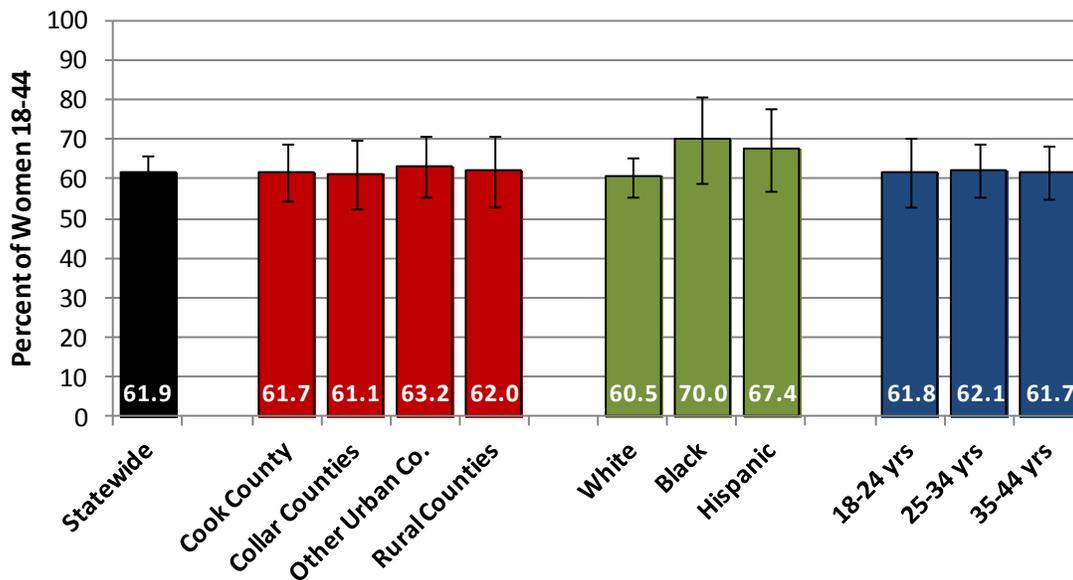
**Data Source:** Illinois Behavioral Risk Factor Surveillance System (BRFSS), 2013

**Definition:** BRFSS survey respondents reported whether they had seen a doctor or other health care provider for a routine check-up in the last year. The analysis of this indicator is limited to women of reproductive age (18-44 years old).

**Related Healthy People 2020 Objective(s):**

- AHS-2: Increase the proportion of insured persons with coverage for clinical preventive services.
- AHS-5: Increase the proportion of persons who have a specific source of ongoing care.

**Percent of Illinois Women Ages 18-44 who Had a Routine Check-up in the Last Year; BRFSS 2013**



Overall, about 62% of Illinois women of reproductive age saw a health care provider for a routine check-up in the last year.

There were not statistically significant differences in getting a routine check-up by location of residence, race/ethnicity, or age group for reproductive aged women.

## Well-Woman Care: Personal Health Care Provider

**Importance:** Many people do not have a particular doctor’s office, clinic, or health center where they go to seek health care advice. “People with a usual source of health care are more likely than those without a usual source of care to receive a variety of preventive health care services.” *Quoted From: Pre-Conception Health Indicators Documentation: Indicator C1.3*

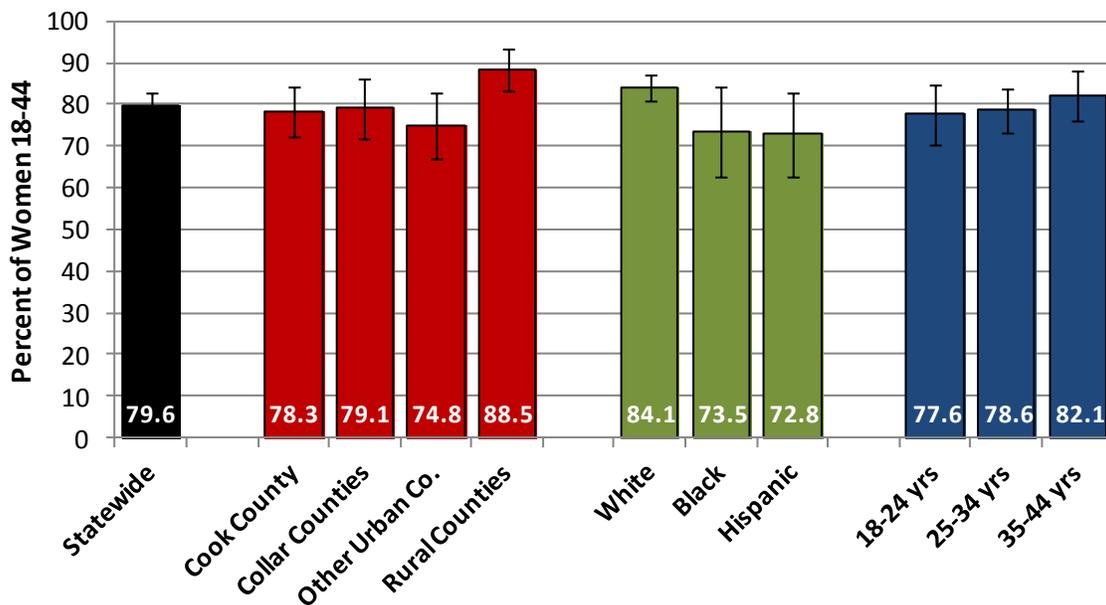
**Data Source:** Illinois Behavioral Risk Factor Surveillance System (BRFSS), 2013

**Definition:** BRFSS survey respondents reported whether they have at least one provider they consider their personal doctor. The analysis of this indicator is limited to women of reproductive age (18-44 years old).

**Related Healthy People 2020 Objective(s):**

AHS-3: Increase the proportion of persons with a usual primary care provider. Target: 83.9%

**Percent of Illinois Women Ages 18-44 who Have at Least One Personal Health Care Provider; BRFSS 2013**



Overall, about 80% of Illinois women of reproductive age had at least one health care provider they considered their personal doctor or nurse.

Having a personal health care provider significantly varied by race/ethnicity. About 84% of non-Hispanic white women had a personal provider, compared to about 73% of non-Hispanic black women and Hispanic women.

There were not statistically significant differences in having a personal health care provider by location of residence or age group for reproductive aged women.

# Smoking

**Importance:** “Smoking is the most preventable cause of morbidity and mortality in the United States, yet more than 140,000 women die each year from smoking related causes. Women of reproductive age who smoke risk adverse pregnancy outcomes...as well as adverse health consequences for themselves. ...Because only 20% of women who smoke are able to quit successfully during pregnancy, the Centers for Disease Control and Prevention (CDC) recommend smoking cessation prior to pregnancy.” *Quoted From: Pre-Conception Health Indicators Documentation: Indicator E1.1*

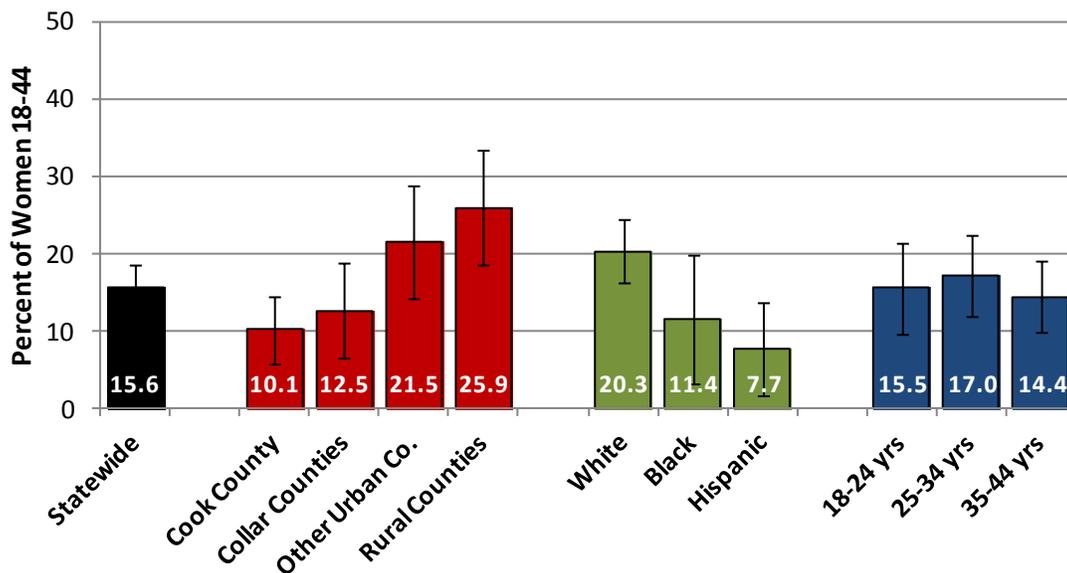
**Data Source:** Illinois Behavioral Risk Factor Surveillance System (BRFSS), 2013

**Definition:** BRFSS survey respondents reported whether they currently smoke cigarettes every day or on most days. The analysis of this indicator is limited to women of reproductive age (18-44 years old).

**Related Healthy People 2020 Objective(s):**

TU-1.1: Reduce cigarette smoking by adults. Target: 12%

**Percent of Illinois Women Ages 18-44 who Currently Smoke;  
BRFSS 2013**



Overall, about 16% of Illinois women of reproductive age are current smokers. An additional 14% of women of reproductive age are former smokers (*data not shown*).

Smoking varied significantly by location of residence. Over 25% of women of reproductive age living in rural Illinois smoke, compared to only 10% of women living in Cook County.

Smoking also varied significantly by race/ethnicity. About 20% of White women smoke, compared to about 11% of Black women and 8% of Hispanic women.

There were not statistically significant differences in smoking by age group for reproductive aged women.

## Chronic Conditions

**Importance:** Chronic diseases, such as diabetes, hypertension (high blood pressure), and asthma can cause serious health complications. Additionally, such conditions are associated with adverse pregnancy outcomes for both the women and infant. Women who have chronic diseases should receive appropriate care to manage their conditions before becoming pregnant. (*Information summarized from: Pre-Conception Health Indicators Documentation: Indicators 11.1, 15.1, and 16.1*)

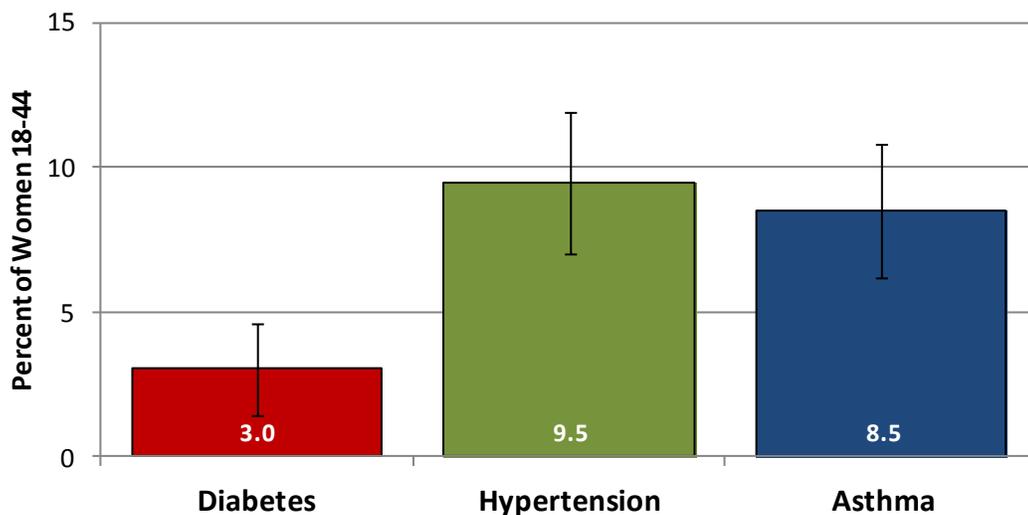
**Data Source:** Illinois Behavioral Risk Factor Surveillance System (BRFSS), 2013

**Definition:** BRFSS survey respondents reported whether they: 1) have ever been told by a doctor they have diabetes (excluding diabetes only during pregnancy), 2) have ever been told by a doctor they have high blood pressure (excluding hypertension only during pregnancy), and 3) currently have asthma. The analysis of these conditions is limited to women of reproductive age (18-44 years old).

**Related Healthy People 2020 Objective(s):**

- D-1: Reduce the annual number of new cases of diagnosed diabetes in the population
- HDS-5.1: Reduce the proportion of adults with hypertension
- RD-6: Increase the proportion of persons with current asthma who receive formal patient education

**Percent of Illinois Women Ages 18-44 with Chronic Health Conditions; BRFSS 2013**



Of women of reproductive age in Illinois, approximately 3% had chronic diabetes, 10% had chronic hypertension, and 9% had asthma. This translates to 70,000 Illinois women of reproductive age with diabetes, 220,000 women with hypertension, and 200,000 women with asthma.

Due to small sample sizes and the relative rarity of these conditions, location-, race/ethnicity-, and age-specific chronic condition prevalence rates could not be determined from BRFSS data.

# Overweight & Obesity

**Importance:** “Obesity contributes to numerous adverse health conditions including type II diabetes, hypertension, heart disease, a variety of cancers, and infertility. Obesity is also associated with a host of unfavorable perinatal health outcomes...and maternal complications such as gestational diabetes and pre-eclampsia. ...Overweight and obese women should be provided with healthy strategies to achieve a healthier body weight, especially prior to any future pregnancies.” *Quoted From: Pre-Conception Health Indicators Documentation: Indicator F2.1*

**Data Source:** Illinois Behavioral Risk Factor Surveillance System (BRFSS), 2013

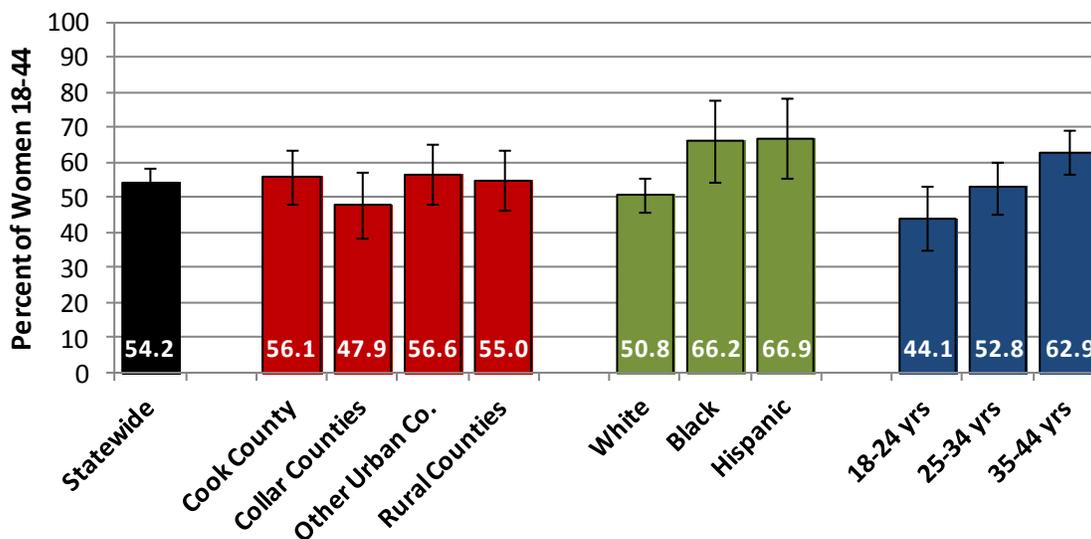
**Definition:** BRFSS survey respondents reported their current weight and height. Measurements were used to calculate body mass index (BMI) in kg/m<sup>2</sup>. Those with a BMI ≥30 are considered obese and those with a BMI in the range of 25.0-29.9 are considered overweight. Overweight and obese women were combined into a single group. The analysis of this indicator is limited to women of reproductive age (18-44 years old).

**Related Healthy People 2020 Objective(s):**

NWS-8: Increase the proportion of adults who are at a healthy weight. Target: 33.9%

NWS-9: Reduce the proportion of adults who are obese. Target: 30.5%

**Percent of Illinois Women Ages 18-44 who are Overweight or Obese; BRFSS 2013**



More than half of Illinois women of reproductive age are overweight or obese. About 27% are obese and 27% are overweight (*data not shown*).

Overweight/Obesity significantly varied by race/ethnicity. About 51% of White women were overweight/obese, compared to over 66% of Black and Hispanic women. Overweight/obesity also significantly varied by age group. About 44% of young women were overweight/obese and this rose to nearly 63% of women ages 35-44.

There were not statistically significant differences in overweight/obesity by location of residence for reproductive aged women.

## Poor Mental Health

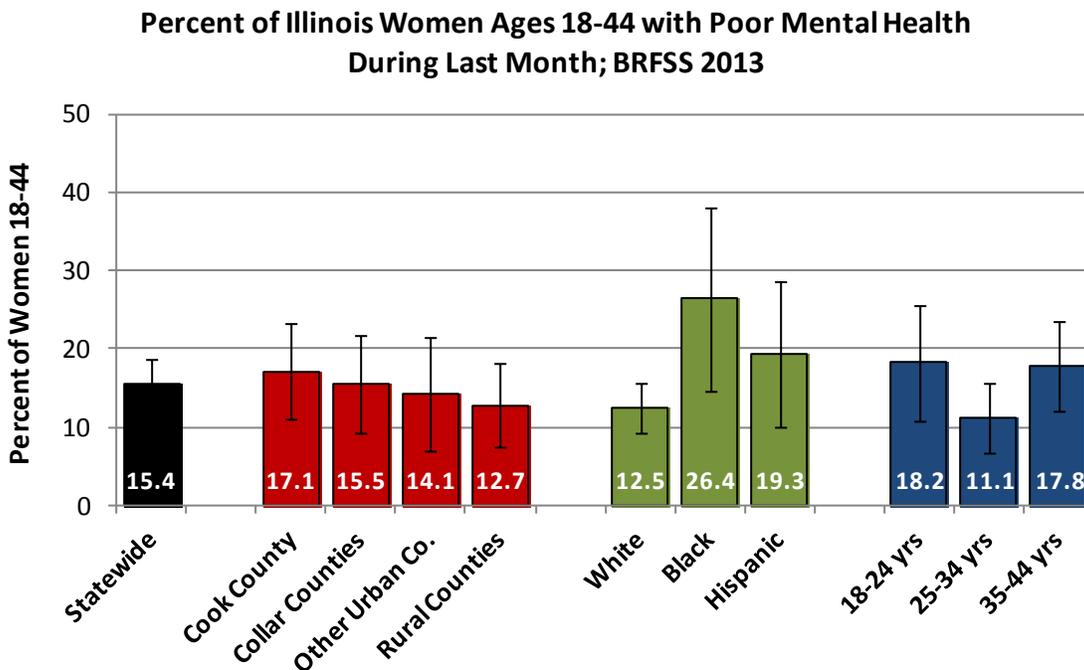
**Importance:** “Research has shown that poor mental health is a major source of distress, disability, and social burden. Furthermore, poor mental health can interfere with social functioning and negatively impact physical well-being as well as the practice of health-promoting behaviors.” *Quoted From: Pre-Conception Health Indicators Documentation: Indicator G1.1*

**Data Source:** Illinois Behavioral Risk Factor Surveillance System (BRFSS), 2013

**Definition:** BRFSS survey respondents reported the number of days in the last month when their mental health was not good. Those who reported 14 or more days during the last month were considered to suffer from poor mental health. The analysis of this indicator is limited to women of reproductive age (18-44 years old).

**Related Healthy People 2020 Objective(s):**

Overall Goal: Improve mental health through prevention and by ensuring access to appropriate, quality mental health services.



Overall, about 15% of Illinois women of reproductive age had poor mental health during the last month.

There were not statistically significant differences in mental health by location or residence, race/ethnicity, or age group for reproductive aged women.

Despite not being a statistically significant difference from other racial/ethnic groups, the high prevalence (26%) of poor mental health among Black women is concerning and warrants further attention.

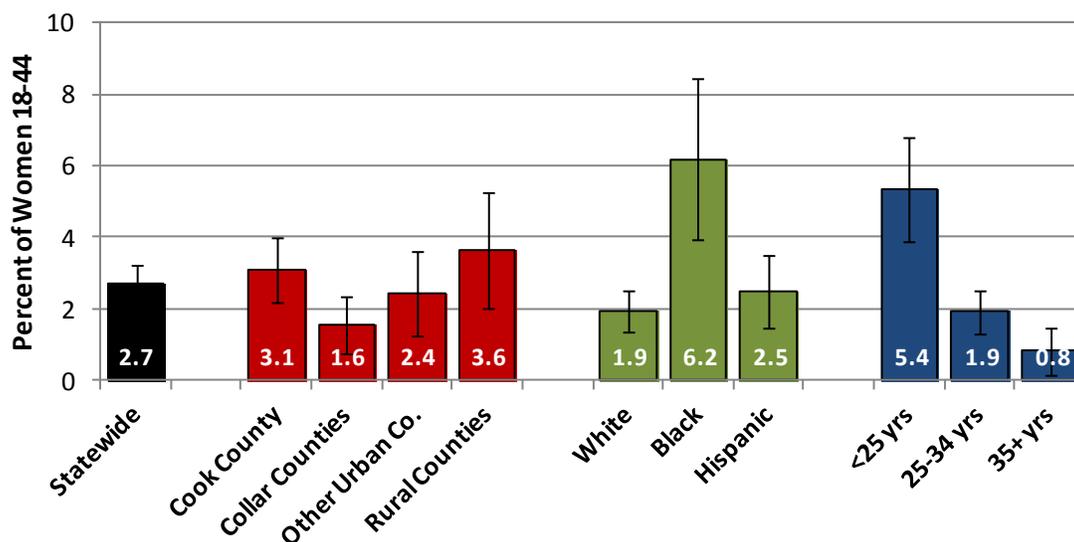
## Intimate Partner Violence

**Importance:** “Intimate physical partner violence (IPPV) during pregnancy may lead to poor maternal physical health, increased risk for sexually transmitted diseases, preterm labor and birth, delivery of low birth weight infants, and neonatal death... Abuse prior to pregnancy is the greatest predictor of prenatal and postpartum abuse.” *Quoted From: Pre-Conception Health Indicators Documentation: Indicator H1.1*

**Data Source:** Illinois Pregnancy Risk Assessment Monitoring System (PRAMS), 2009-2011

**Definition:** PRAMS survey respondents are women who have delivered a live birth during the previous 2-6 months. Women reported whether their husband or partner pushed, hit, slapped, kicked, choked, or physically hurt them in any other way during the 12 months before pregnancy. Three years of data were combined to obtain sufficient sample sizes for sub-group analysis.

**Percent of Illinois New Mothers Who Were Physically Abused By Their Partner/Husband In the Year Before Pregnancy; PRAMS 2009-2011**



Overall, about 2.7% of Illinois new mothers reported physical abuse by their husbands or partners during the year prior to pregnancy.

The percentage of women experiencing intimate partner violence (IPV) varied significantly by race/ethnicity and by age group. Black women were three times more likely to experience IPV than white women (6.2% vs. 1.9%). Young women were also more likely to experience IPV than older women (5.4% among women under 25 years old vs. 0.8% among women 35 years old or older).

# HIV & Sexually Transmitted Diseases

**Importance:** Despite their burdens, costs, complications, and the fact that they are largely preventable, sexually transmitted diseases (STDs) remain a significant public health problem in the United States. STDs cause many harmful, often irreversible, and costly clinical complications, such as: reproductive health problems, fetal and perinatal health problems, and cancer. They can also lead to an increased rate of the sexual transmission of human immune deficiency virus (HIV).

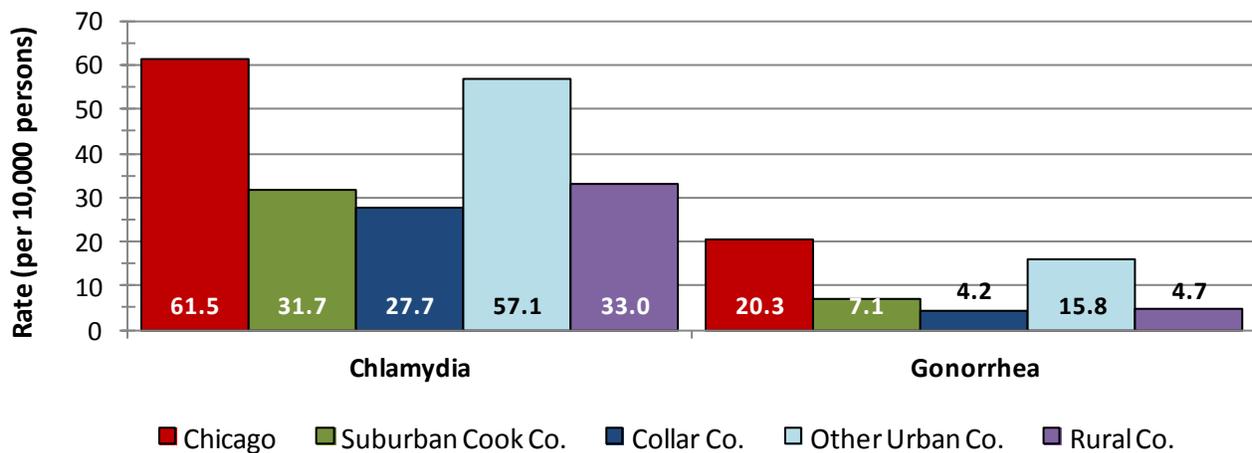
**Data Source:** Illinois Department of Public Health, 2013 HIV/STD Surveillance Report

**Definition:** Cases of Chlamydia and Gonorrhea diagnosed in 2013 were reported to IDPH. The 2013 post-censal population estimates were used to generate rates of disease per 10,000 population.

**Related Healthy People 2020 Objective(s):**

- STD-1: Reduce the proportion of adolescents and young adults with *Chlamydia trachomatis* infections
- STD-6.1: Reduce gonorrhea rates among females aged 15 to 44 years. Target: 25.2 per 10,000 population.
- STD-6.2: Reduce gonorrhea rates among males aged 15 to 44 years. Target: 19.5 per 10,000 population.
- HIV-2: Reduce the number of new HIV infections among adolescents and adults.

**Rate of Sexually Transmitted Diseases among all Illinois Residents, By Location of Residence, IDPH STD Surveillance 2013**

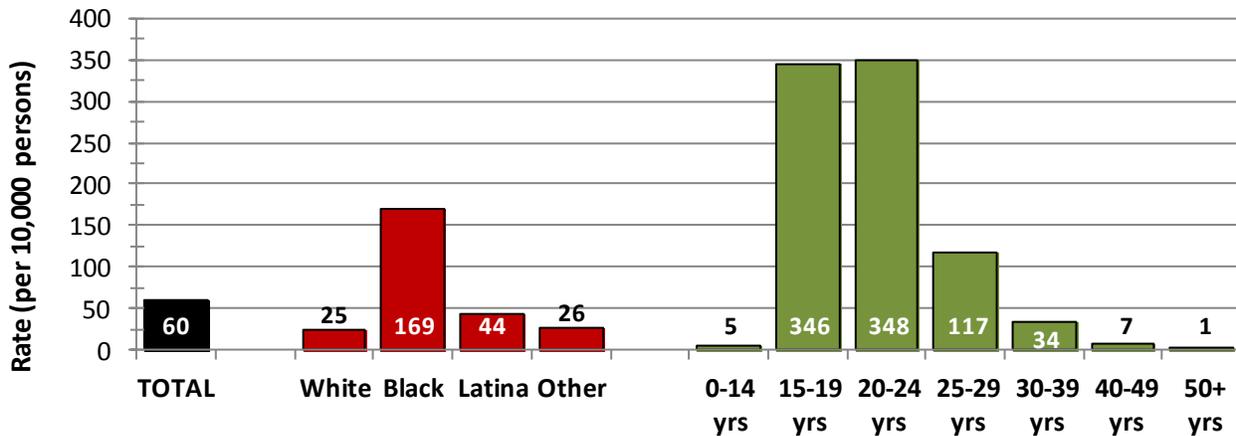


The overall rate of Chlamydia infection in Illinois in 2013 was 41.7 cases per 10,000 persons. There were large differences by location of residence, with much higher Chlamydia infection rates in Chicago and in non-Chicago area urban counties than in other areas of Illinois.

The overall rate of Gonorrhea infection in Illinois in 2013 was 10.3 cases per 10,000 persons. There were large geographical differences that mirrored the disparities seen for Chlamydia infection: Chicago and non-Chicago area urban counties had the highest rates of Gonorrhea infection.

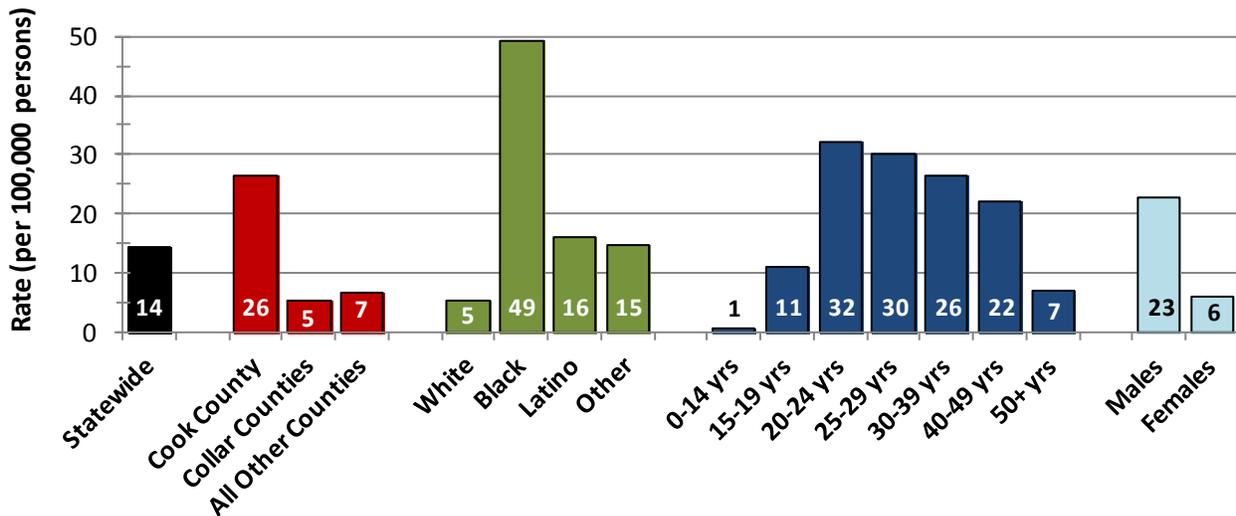
# HIV & Sexually Transmitted Diseases (continued)

**Rate of Chlamydia Infection among Illinois Women,  
2013 IDPH STD Surveillance**



The overall rate of Chlamydia infection among Illinois women was 60 cases per 10,000 women in 2013. There were wide disparities by race/ethnicity and age group. The rate of Chlamydia among Black women was six times higher than that for White women, and the rate of Chlamydia among Latinas was nearly twice as high as the rate among White women. Chlamydia infection rates were extremely high among young women ages 15-24; an infection rate of over 340 cases per 10,000 women.

**Annualized HIV Infection Rate among Illinois Residents,  
2006-2013 IDPH HIV Surveillance**



The annualized average rate of HIV infection among Illinois residents during 2006-2013 was 14 cases per 100,000 persons. The HIV infection rate was highest among Cook County residents (*5 times higher than residents of the Collar counties*), persons of color (*Black persons had an infection rate 10 times higher than Whites, while Latino and other races had an infection rate 3 times higher than whites*), adults in their 20s, and among males (*nearly 4 times higher than females*).

## Severe Maternal Morbidity

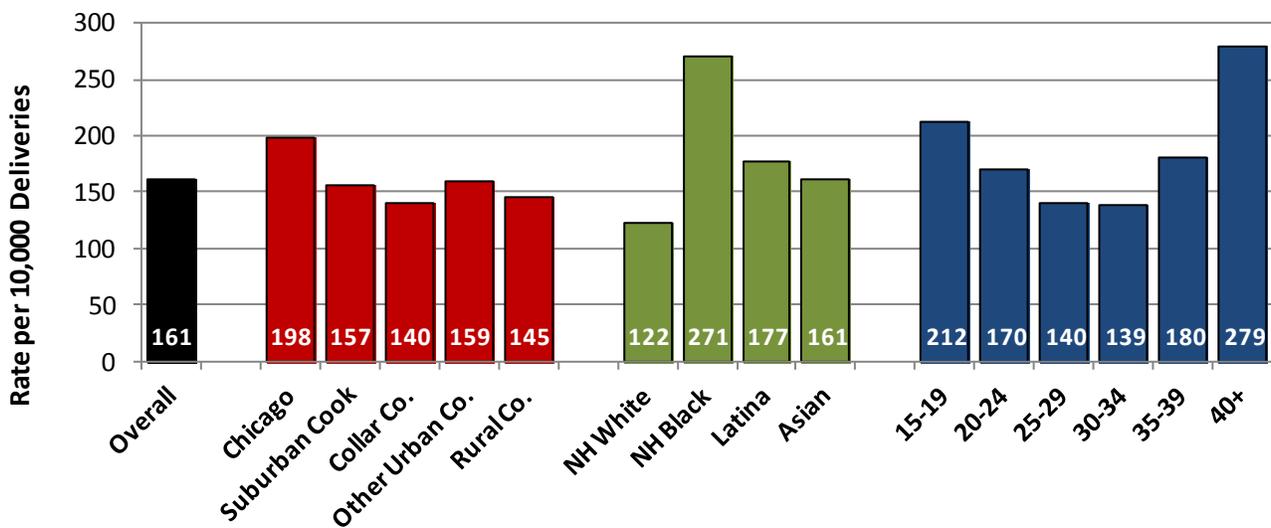
**Importance:** Severe maternal morbidity (SMM) is about 100 times more common than pregnancy-related mortality and affects thousands of women each year. It is estimated to have risen sharply over the last decade, most likely to due rises in chronic conditions.

**Data Source:** Illinois Hospital Discharge Data (HDD), 2011-2013, IDPH Division of Patient Safety and Quality

**Definition:** A CDC-developed definition of SMM was used. Delivery hospitalizations were identified for women ages 15-45 using diagnosis-related group, ICD-9-CM diagnosis codes, and procedure codes. Women with any of 18 diagnoses or 7 procedures were initially classified as having SMM. Women with short length of stay (<90th percentile) were recoded as non-SMM to restrict the classification to the most severe cases.

**Related Healthy People 2020 Objective(s):**

Severe Maternal Morbidity among Illinois Delivery Hospitalizations, 2011-13



In Illinois in 2011-2013, 7,239 women were affected by severe maternal morbidities — a rate of 161 cases for every 10,000 delivery hospitalizations. This is higher than the published national rate of 129 per 10,000.

The SMM rates were highest in the city of Chicago and Suburban Cook County, and were lowest for residents of rural counties.

Racial/ethnic disparities in SMM were also quite pronounced. All women of color had higher SMM rates than white women, but black women experienced the highest rates of SMM — more than two times as high as the rate experienced by white women.

SMM rates were highest among young women and older women. Women age 40 or older had the highest SMM rates.

## Severe Maternal Morbidity (continued)

Number and Rate of Severe Maternal Morbidities, Illinois 2011-2013

SMM Condition or Procedure	#	Rate per 10,000
Transfusion	5,518	122.6
Disseminated Intravascular Coagulation	700	15.6
Hysterectomy	480	10.7
Operations on Heart and Pericardium	445	9.9
Heart Failure during Procedure	413	9.2
Respiratory Distress	306	6.8
Mechanical Ventilation	282	6.3
Renal Failure	232	5.2
Shock	184	4.1
Eclampsia	180	4.0
Sepsis	113	2.5
Pulmonary Embolism	84	1.9
Cardiovascular Accident	76	1.7
Pulmonary Edema	56	1.2
Sickle cell anemia with crisis	37	0.8
Cardiac Arrest / Ventricular Fibrillation	35	0.8
Conversion of Cardiac Rhythm	32	0.7
Anesthesia Complications	26	0.6
Amniotic fluid embolism	22	0.5
Internal Injuries to Abdomen	17	0.4
Invasive Cardiac Monitoring	15	0.3
Acute Myocardial Infarction	7	0.2
Temporary Tracheostomy	5	0.1
Intra-cranial Injuries	4	0.1
Aneurysm	2	<0.1
<b>ANY Morbidity Above</b>	<b>7,239</b>	<b>160.8</b>
<b>ANY Morbidity Above Except Transfusion</b>	<b>2,599</b>	<b>57.7</b>

The table above shows the frequency of each of the conditions that went into the SMM definition. The most common morbidity was blood transfusion, affecting over 5,500 — 122 out of every 10,000 deliveries. The other leading causes or indications of SMM were: disseminated intravascular coagulation, hysterectomy, operations on the heart and pericardium, and heart failure during a procedure.

## Pregnancy-Associated Mortality

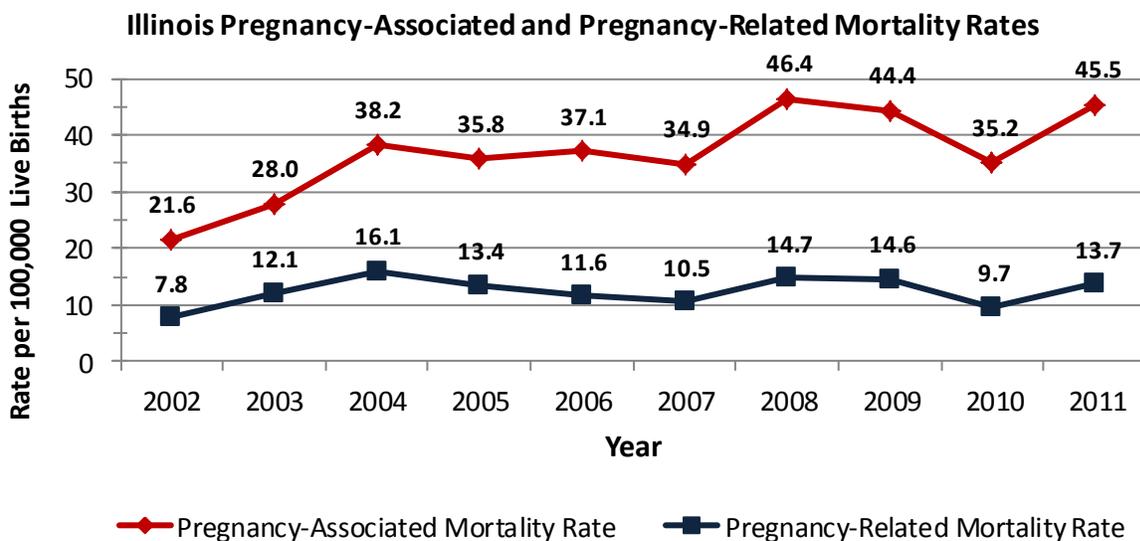
**Importance:** The death of a woman during pregnancy, at delivery, or soon after delivery is a tragedy for her family and for society as a whole. During pregnancy, a woman's body goes through many changes. These changes are entirely normal, but may become very important in case there are complications or problems. In Illinois, all deaths occurring within one year of a pregnancy outcome are reviewed by perinatal hospitals.

**Data Source:** Illinois maternal mortality review form database, 2002-2014. Data for 2013-2014 are incomplete due to time required to collect records and conduct reviews.

**Definition:** Pregnancy-associated deaths are deaths occurring to women within one year of a pregnancy outcome, regardless of the cause of death. Pregnancy-related deaths are deaths occurring within one year of pregnancy that have a cause related (directly or indirectly) to pregnancy and/or delivery. Death rates were calculated as the number of deaths per 100,000 live births.

**Related Healthy People 2020 Objective(s):**

MICH-5: Reduce the rate of maternal mortality. Target: 11.4 deaths per 100,000 live births



In 2011, there were a total of 73 pregnancy-associated deaths identified through the maternal death review process, translating to a pregnancy-associated mortality rate (PAMR) of 45.5 deaths per 100,000 live births. Of these deaths, about 30% were determined to be pregnancy-related, a pregnancy-related mortality rate (PRMR) of 13.7 deaths per 100,000 live births. While both the pregnancy-associated and pregnancy-related mortality rates in Illinois appear to be increasing over time, this may be an artifact of improved surveillance rather than a true increase in maternal deaths.

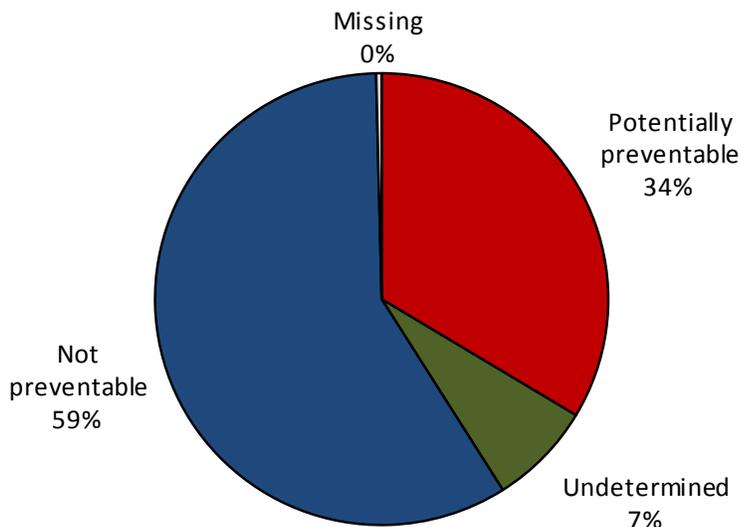
While the 2013 maternal death review data is still incomplete, a cursory analysis revealed wide racial/ethnic disparities in pregnancy-related mortality. The 2013 PRMR was 8.1 deaths per 100,000 births for white women and 28.9 deaths per 100,000 births for black women. Additionally, of all identified pregnancy-associated deaths during 2002-2014, 45% of deaths to black women were pregnancy-related, compared to only 25-30% of deaths to white or Latina women.

## Pregnancy-Associated Mortality (continued)

### Cause of Death for Illinois Pregnancy-Related Deaths, 2002-2014

Cause of Death	Example Conditions	n	%
Vascular	AFE, PE, cerebrovascular events, chronic HT	74	28.9
Cardiac	Cardiomyopathy, heart disease, dysrhythmias	46	18.0
Hemorrhage	Uterine rupture, atony, lacerations	38	14.8
(Pre-)Eclampsia	Pre-eclampsia/ Eclampsia	18	7.0
Infection	Puerperal, due to spontaneous AB	16	6.3
Cancer	Breast, leukemia, lymphoma, melanoma	13	5.1
Pulmonary	Pneumonia, asthma	13	5.1
Other	Psychiatric, anesthesia, hematologic, hepatic	38	14.8
<b>Total</b>		<b>256</b>	<b>100.0</b>

### Preventability of Pregnancy-Related Deaths, Maternal Death Reviews 2002-2014



During 2002-2014, there were 496 pregnancy-associated deaths that were not related to pregnancy. The most common single causes of these deaths were motor vehicle accidents and homicide, together accounting for nearly 40% of non-pregnancy-related deaths.

During 2002-2014, there were 256 deaths determined to be pregnancy-related. The most common causes of death were vascular conditions, cardiac conditions, and hemorrhage. These three conditions accounted for over 60% of pregnancy-related deaths.

Of the pregnancy-related deaths in 2002-2014, 34% were determined by the death review committee to be potentially preventable.

### Cause of Death for Illinois Pregnancy-Associated Deaths Not Related to Pregnancy, 2002-2014

Cause of Death	n	%
Motor Vehicle Crashes	105	21.8
Homicide	88	17.7
Suicide	45	9.1
Substance Abuse	43	8.7
Cancer	19	3.8
Other	196	39.5
<b>Total</b>	<b>496</b>	<b>100.0</b>

# Section 3:

## Perinatal & Infant Health

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# Unintended Pregnancy

**Importance:** “Mistimed, and particularly unwanted pregnancies, have been associated with maternal health behaviors prior to, during, and after pregnancy that can adversely affect birth outcomes, and maternal and infant health. Unintended pregnancies are by definition unplanned, meaning that a woman with an unintended pregnancy may not be optimally prepared for pregnancy at the time of conception.”

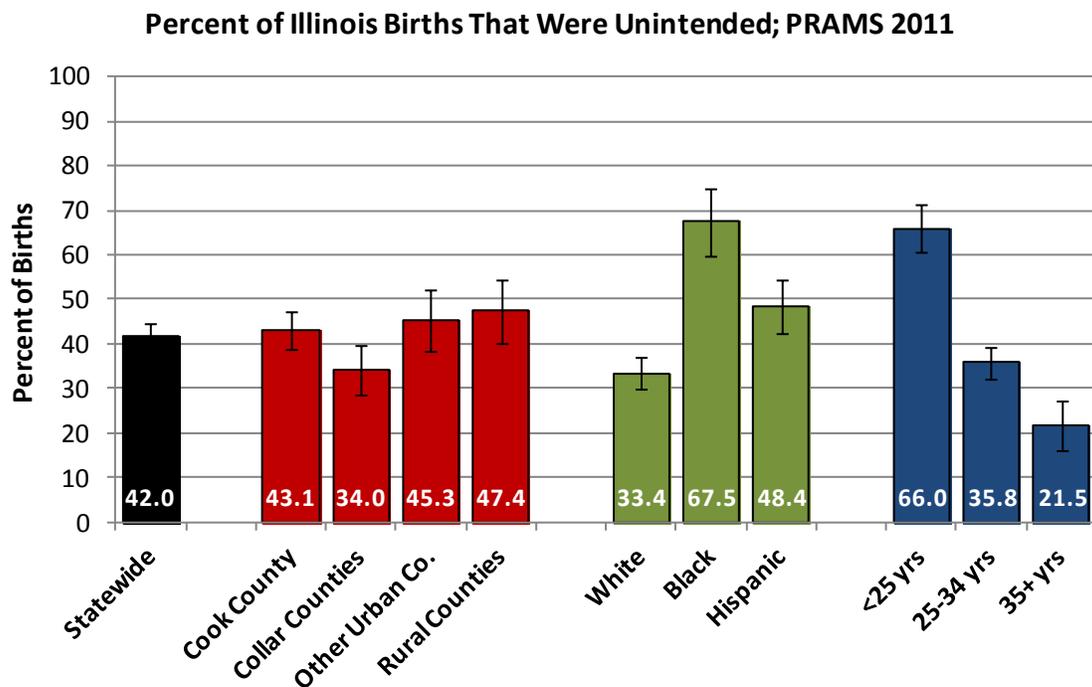
*Quoted From: Pre-Conception Health Indicators Documentation: Indicator D5.1*

**Data Source:** Illinois Pregnancy Risk Assessment Monitoring System (PRAMS), 2011

**Definition:** PRAMS survey respondents are women who have delivered a live birth during the previous 2-6 months. Women reported how they felt about becoming pregnant just before they found out they were pregnant. Women who reported they wanted to be pregnant later or did not want to be pregnant at any time in the future were classified as having a birth resulting from unintended pregnancy.

**Related Healthy People 2020 Objective(s):**

FP-1: Increase the proportion of pregnancies that are intended. Target 56% intended, 44% unintended.



Overall, about 42% of Illinois births results from unintended pregnancies. Location of residence, race/ethnicity, and age group all significantly affected the likelihood that a woman’s recent birth resulted from an unintended pregnancy.

The births to women in the Collar counties were less likely to result from an unintended pregnancy than those in other areas. Over two-thirds (67.5%) of births to Black women resulted from unintended pregnancies, compared to about half of births to Hispanic women and one-third of births to White women. Young mothers (<25 years old) were more than twice as likely to have a birth resulting from an unintended pregnancy than older women.

## Prenatal Care

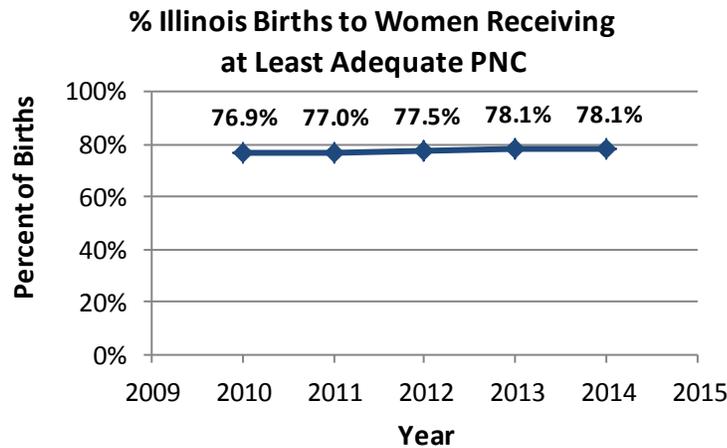
**Importance:** Prenatal care is important for both maternal and fetal/infant health during a pregnancy. It presents an opportunity for early identification of pregnancy risk factors and conditions, management of maternal chronic conditions, and health education. Women are recommended to start prenatal care during the first trimester of pregnancy and to follow a visit schedule set by the American College of Obstetricians and Gynecologists.

**Data Source:** Birth records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2010-2014. 2010-2011 are final data and 2012-2014 are provisional data. Provisional data may be subject to change upon finalization.

**Definition:** The adequacy of the prenatal care utilization index (APNCU) was used to classify the timing of prenatal care entry and number of prenatal care visits as: adequate-plus, adequate, intermediate, inadequate, or no prenatal care. Adequate-plus and adequate care were combined into a single category representing “at least adequate” prenatal care. Records missing timing of entry or number of visits were excluded. (6%)

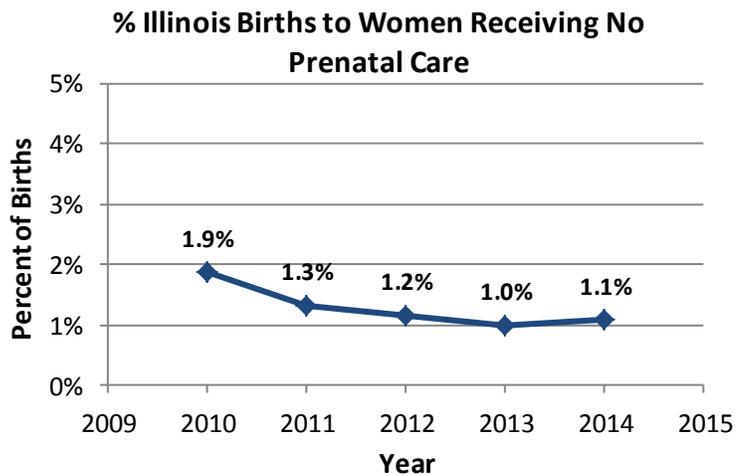
**Related Healthy People 2020 Objective(s):**

MICH-10.2: Increase the proportion of pregnant women who receive early and adequate prenatal care.



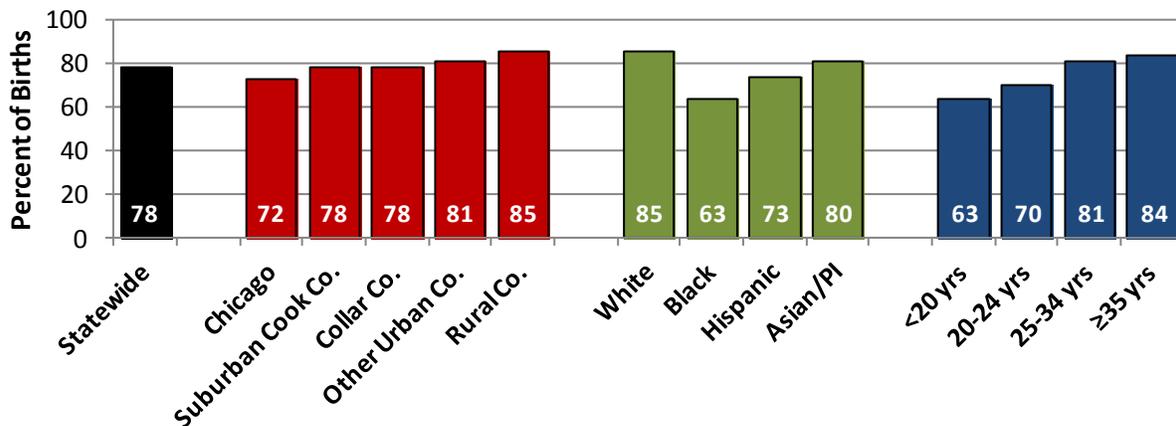
The percentage of Illinois births to women who received at least adequate prenatal care slightly increased from 76.9% in 2010 to 78.1% in 2014.

The percentage of Illinois births to women who received no prenatal care decreased from 1.9% in 2010 to 1.1% in 2014.



## Prenatal Care (continued)

**% Illinois Births Receiving At Least Adequate Prenatal Care, Provisional Birth Certificates 2014\***

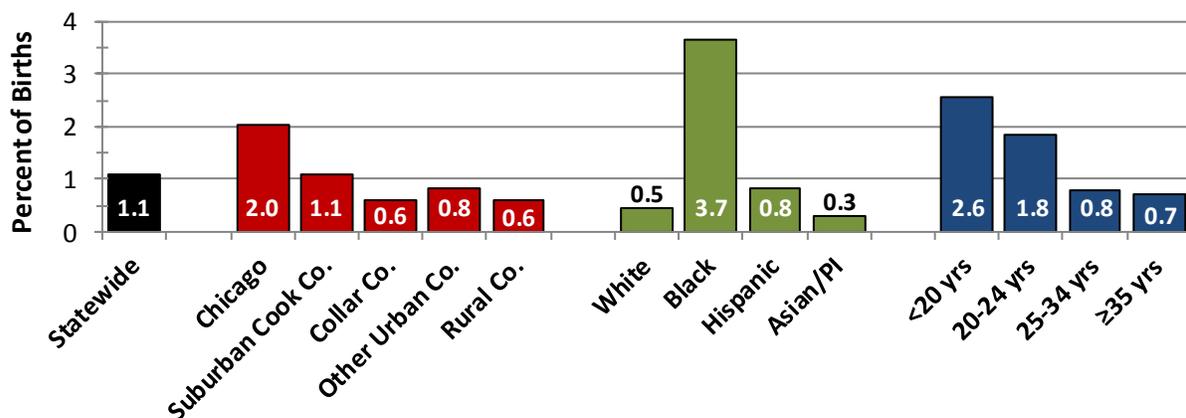


In 2014, the percentage of births to women who received at least adequate prenatal care was highest in rural counties in Illinois and lowest in the city of Chicago. White women were the most likely to receive at least adequate prenatal care, while black women were the least likely among the racial/ethnic groups. Young mothers were less likely to receive at least adequate prenatal care compared to older mothers.

The geographic, racial/ethnic, and age-based disparities in receiving no prenatal care were the inverses of those for receiving at least adequate prenatal care. Women living in Chicago, Black women, and young women were the most likely to receive no prenatal care.

For both measures, the combination of being a young, Black woman in Chicago demonstrates the extent of staggering disparities in prenatal care in the state. Only 45.1% of young (<20), Black women in Chicago had at least adequate prenatal care, compared to 88.3% of older (≥35), White women in rural counties. Additionally, 6.8% of young, Black women in Chicago received no prenatal care, compared to only 1.0% of older, White women in rural counties.

**% Illinois Births Receiving No Prenatal Care, Provisional Birth Certificates 2014\***



# Low Birth Weight

**Importance:** Low birth weight (LBW) is associated with poor infant health outcomes, including increased risk of infant mortality. Nationally in 2010, 68% of all infant deaths occurred to the 8.2% of infants born with low birth weight.

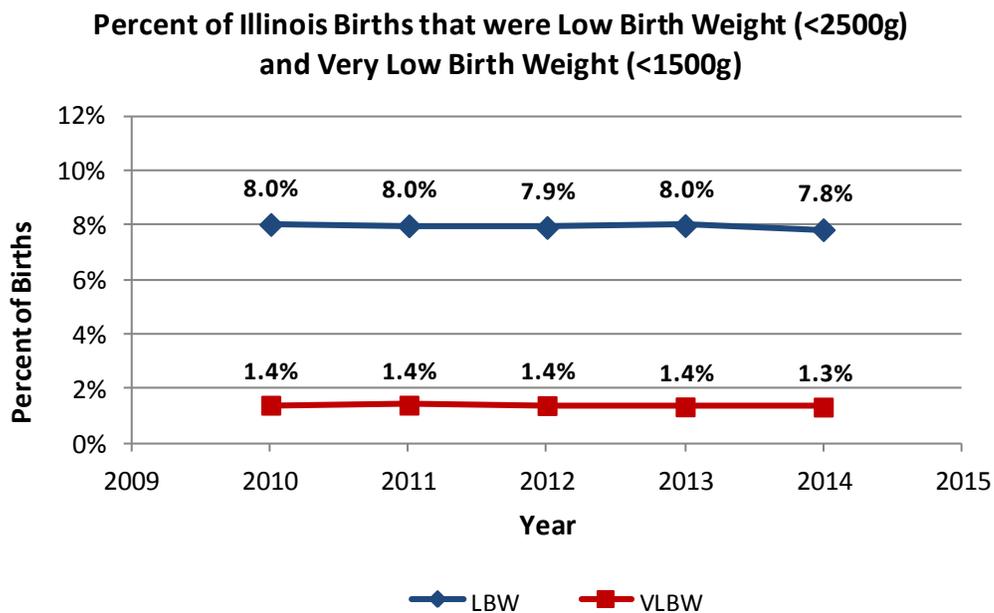
**Data Source:** Birth records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2010-2014. 2010-2011 are final data and 2012-2014 are provisional data. Provisional Data may be subject to change upon finalization.

**Definitions:** Infants born <2500 grams are classified as LBW and those born <1500 grams are classified as very low birth weight (VLBW). Infants with a birth weight less than 350 grams were excluded from analysis. Data are shown only for births occurring in Illinois to Illinois resident mothers.

**Related Healthy People 2020 Objective(s):**

MICH-8.1: Reduce low birth weight (LBW). Target: 7.8%

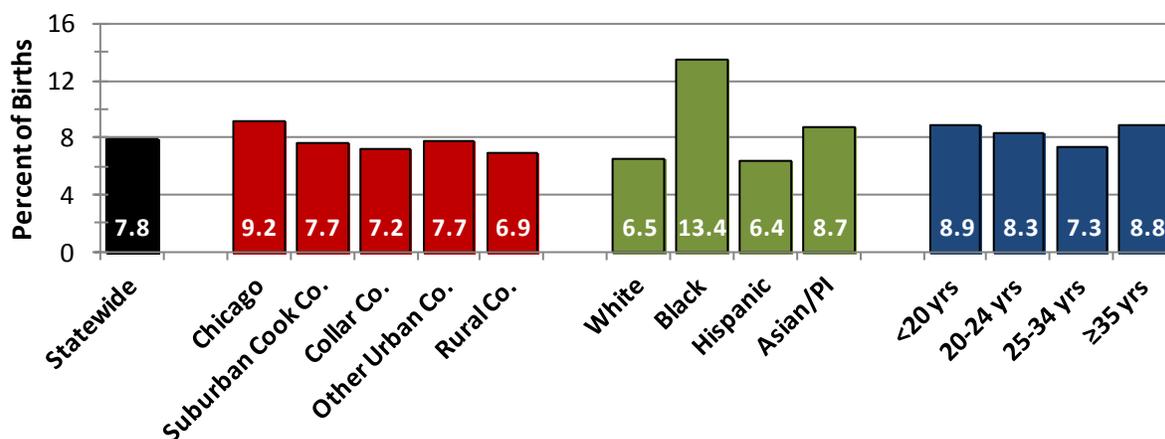
MICH-8.2: Reduce very low birth weight (VLBW). Target: 1.4%



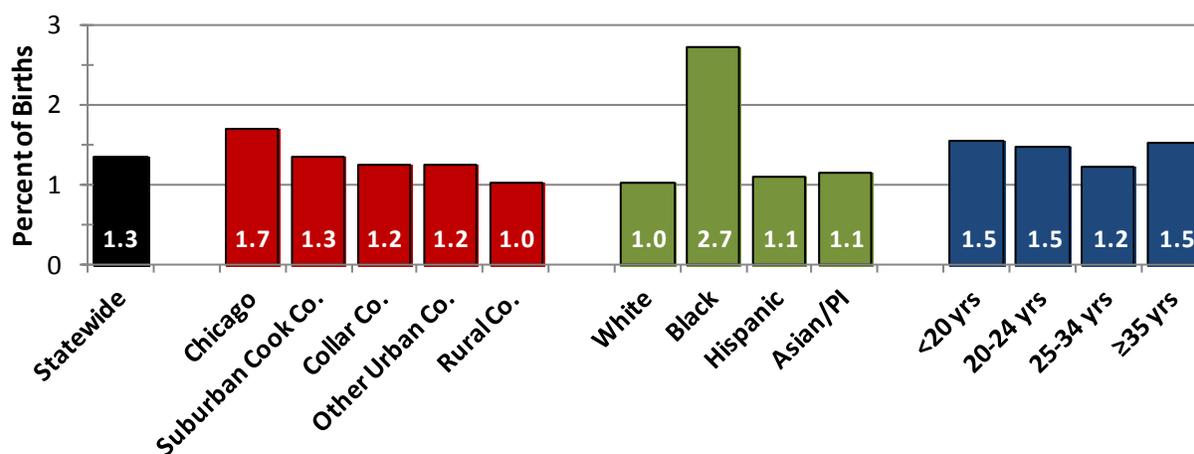
During 2010-2014 in Illinois, both the low birth weight rate and very low birth weight rate remained steady. Throughout this time period, approximately 8.0% of Illinois infants — a total of over 12,000 babies each year — were low birth weight. Additionally, 1.4% of Illinois infants — over 2,000 babies each year — were very low birth weight.

## Low Birth Weight (continued)

Percent of Illinois Births that were Low Birth Weight (<2500g),  
Provisional Birth Certificates 2014\*



Percent of Illinois Births that were Very Low Birth Weight (<1500g),  
Provisional Birth Certificates 2014\*



In 2014, 7.8% of Illinois babies were LBW. LBW in Illinois varied significantly by location of residence, maternal race/ethnicity, and maternal age. Infants born to residents of rural Illinois counties had the lowest LBW rate; Infants born to residents of Chicago, Suburban Cook County, and Other Urban Counties (but not the Collar counties) had significantly higher rates of LBW. Hispanic and White women had similar LBW rates — around 6.5%. Black and Asian/Pacific Islander women had significantly higher LBW rates than White women. Infants born to women ages 25-34 had the lowest LBW rate (7.3%) of all age groups — both younger and older women had significantly higher LBW rates.

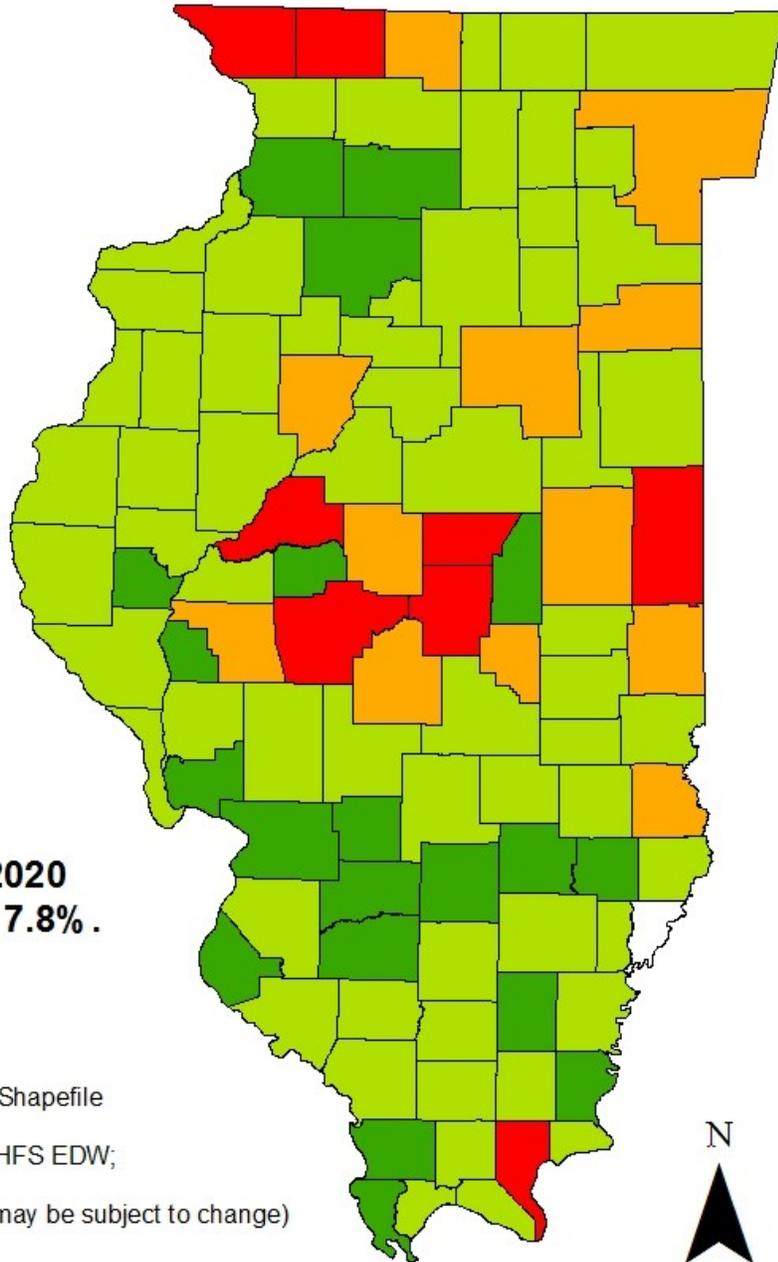
In 2014, 1.3% of babies in Illinois were VLBW. Infants born to residents of rural counties had the lowest VLBW rate (1.0%) and all other areas had significantly higher VLBW rates. Infants born to White, Hispanic, and Asian/Pacific Islander women all had similar rates of VLBW, but infants of Black women were 1.5 times more likely to be VLBW. Infants born to women ages 25-34 had the lowest VLBW rate (1.2%) of all age groups — both younger and older women had significantly higher VLBW rates.

# Low Birth Weight (continued)

## Low Birth Weight (LBW) Rate, By Illinois County, 2010-2014

### LBW Rate

- < 6.0%
- 6.0 - 7.8%
- 7.9 - 9.0%
- > 9.0%



The Healthy People 2020 Objective for LBW is 7.8% .

### Data Sources:

Map File: TigerLine Census 2010 Shapefile

Birth Data: IDPH Vital Records & HFS EDW;  
2010-2011 final birth files  
2012-2014 provisional birth files (may be subject to change)

Analysis Details:  
Includes births occurring in Illinois to Illinois resident women



## Infant Mortality

**Importance:** The U.S. infant mortality rate has substantially declined over the last century, but persistent racial/ethnic disparities remain. Infant mortality continues to be a complex health issue with many medical, social, and economic determinants. Neonatal mortality is associated with gestational age, low birth weight, congenital malformations, and health problems originating in the perinatal period. Post-neonatal mortality is generally related to Sudden Infant Death Syndrome (SIDS), unintentional injury, and congenital malformations.

**Data Source:** Death and Birth records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2010-2014. For deaths, 2010-2012 data are final and 2013-2014 data are provisional. For births, 2010-2011 are final data and 2012-2014 are provisional. Provisional Data may be subject to change upon finalization.

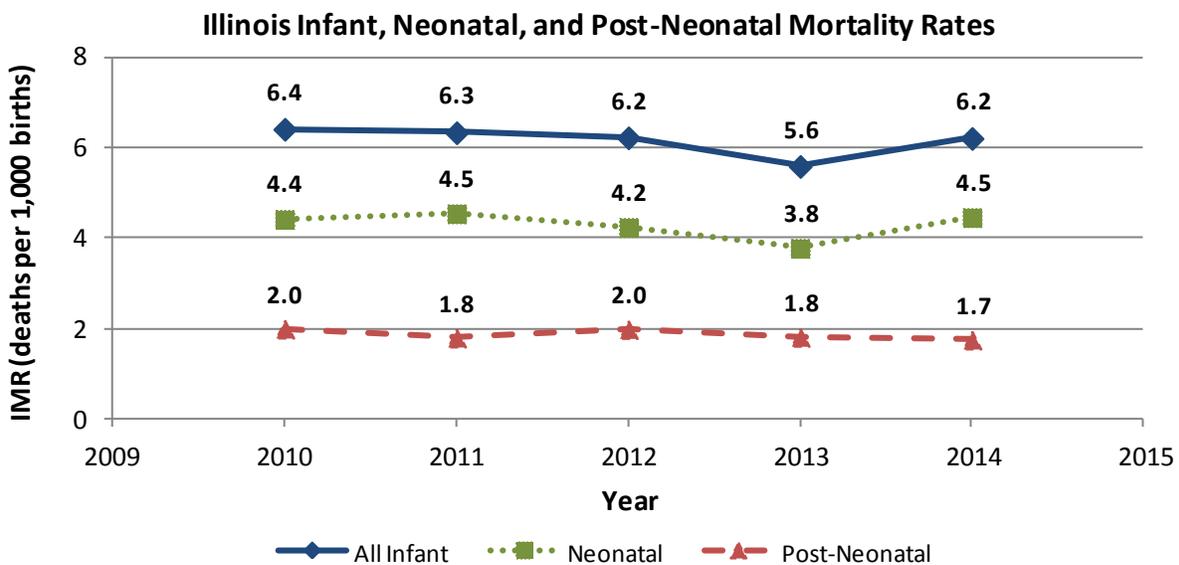
**Definition:** Infants who die before their first birthday are considered infant deaths. Those that die during days 0-27 are neonatal deaths, while those who die during days 28-364 are post-neonatal deaths. The mortality rates were calculated as the number of deaths per 1,000 live births. Data shown only include births and deaths to Illinois residents occurring within Illinois.

**Related Healthy People 2020 Objective(s):**

MICH-1.3: Reduce the rate of all infant deaths (within 1 year). Target: 6.0 deaths per 1,000 births

MICH-1.4: Reduce the rate of neonatal deaths (within the first 28 days of life). Target: 4.1 deaths per 1,000 live births

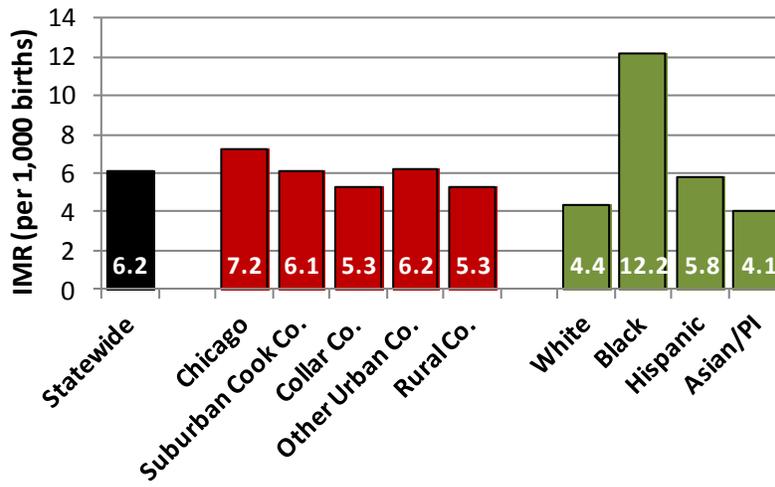
MICH-1.5: Reduce the rate of post-neonatal deaths (between 28 days and 1 year). Target: 2.0 deaths per 1,000 live births



The infant, neonatal, and post-neonatal mortality rates have remained approximately the same over the last five years. While there may have been a slight dip in neonatal mortality (and, resultantly, infant mortality) in 2013, the rate in 2014 returned to the value seen in 2012. It is likely that the dip in 2013 is the result of incomplete data from the 2013 provisional vital records.

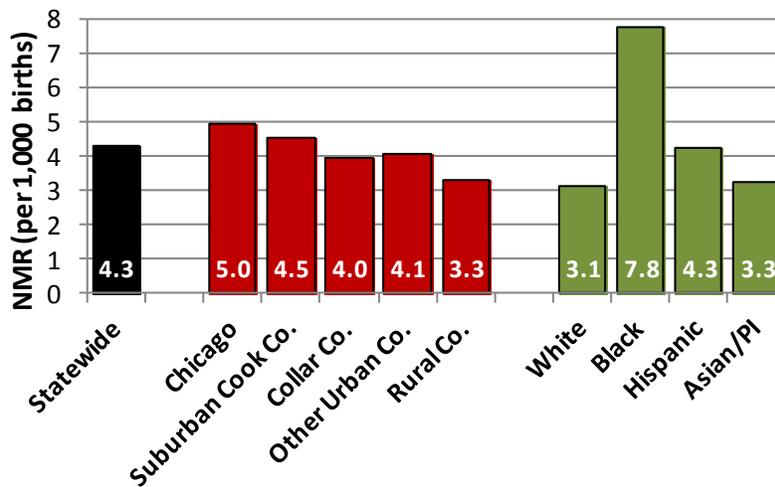
## Infant Mortality (continued)

Illinois Infant Mortality Rate, 2010-2014



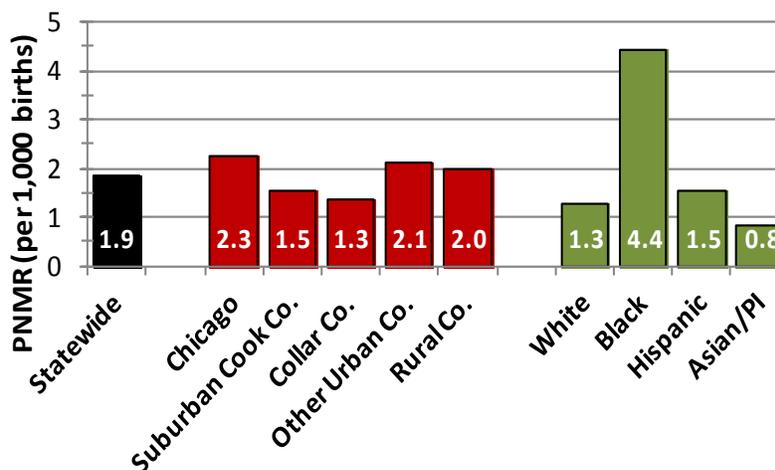
During 2010-2014, the average Illinois infant mortality rate (IMR) was 6.2 deaths per 1,000 live births. The IMR was highest in the city of Chicago and lowest in rural Illinois counties. There were also striking racial/ethnic disparities in infant mortality, where black infants were about 2.8 times as likely as white infants to die in the first year of life.

Illinois Neonatal Mortality Rate, 2010-2014



During 2010-2014, the average Illinois neonatal mortality rate (NMR) was 4.3 deaths per 1,000 live birth — constituting about 2/3 of all infant deaths in Illinois. In comparing geographies, the city of Chicago had the highest NMR, while rural Illinois counties had the lowest NMR. Black infants were 2.5 times as likely as white infants to die during the first 28 days of life.

Illinois Post-Neonatal Mortality Rate, 2010-2014



During 2010-2014, the average Illinois post-neonatal mortality rate (PNMR) was 1.9 deaths per 1,000 live births. The PNMR was highest in the city of Chicago, and lowest in the Collar counties. While rural counties had the lowest overall IMR, they had an average PNMR. The black-white disparity was even more pronounced in the PNMR — Black infants were 3.3 times as likely as white infants to die during days 28-364 of life.

## Infant Mortality (continued)

The causes of infant death were classified into 30 categories, as defined by the Centers for Disease Control and Prevention (CDC). The top five cause categories for infant, neonatal, and post-neonatal mortality are shown in the three tables below. Together, the top five causes of death accounted for 2 out of 3 infant deaths.

The top two causes of neonatal death were disorders related to short gestation (prematurity) and congenital anomalies (birth defects). The top two causes of post-neonatal death were “sign, symptoms, and findings not otherwise classified”, which includes Sudden Infant Death Syndrome, and congenital anomalies. For both neonatal and post-neonatal deaths, the top two causes alone accounted for about 50% of each type of death.

<b>Cause of Death Category</b>	<b># Infant Deaths</b>	<b>% Infant Deaths</b>
Disorders related to Short Gestation and Fetal Malnutrition	1134	23.8
Congenital Malformations & Chromosomal Abnormalities	766	16.1
SIDS & Symptoms, Signs, Findings NEC	595	12.5
Hemorrhagic and Hematological Disorders of Newborn	386	8.1
Newborn affected by Maternal Complications of Pregnancy	331	6.9
<i>All Other Causes</i>	1558	32.7

<b>Cause of Death Category</b>	<b># Neonatal Deaths</b>	<b>% Neonatal Deaths</b>
Disorders related to Short Gestation and Fetal Malnutrition	1116	33.6
Congenital Malformations & Chromosomal Abnormalities	565	17.0
Hemorrhagic and Hematological Disorders of Newborn	366	11.0
Newborn affected by Maternal Complications of Pregnancy	328	9.9
Newborn affected by Complications of Placenta, Cord & Membranes	164	4.9
<i>All Other Causes</i>	785	23.6

<b>Cause of Death Category</b>	<b># Post-Neonatal Deaths</b>	<b>% Post-Neonatal Deaths</b>
SIDS & Symptoms, Signs, Findings NEC	517	35.8
Congenital Malformations & Chromosomal Abnormalities	201	13.9
Accidents	174	12.0
Unknown	107	7.4
Respiratory System Disease	100	6.9
<i>All Other Causes</i>	347	24.0

## Sudden Unexpected Infant Death (SUID)

**Importance:** About 3,500 US infants die suddenly and unexpectedly each year. The cause of death in many of these cases of sudden unexpected infant death (SUID) often cannot be explained, though many of these cases occur while the infant is sleeping in an unsafe sleeping environment. SUID is the term now used to encompass sudden infant death syndrome (SIDS), accidental suffocation, and other unknown causes of sudden infant death.

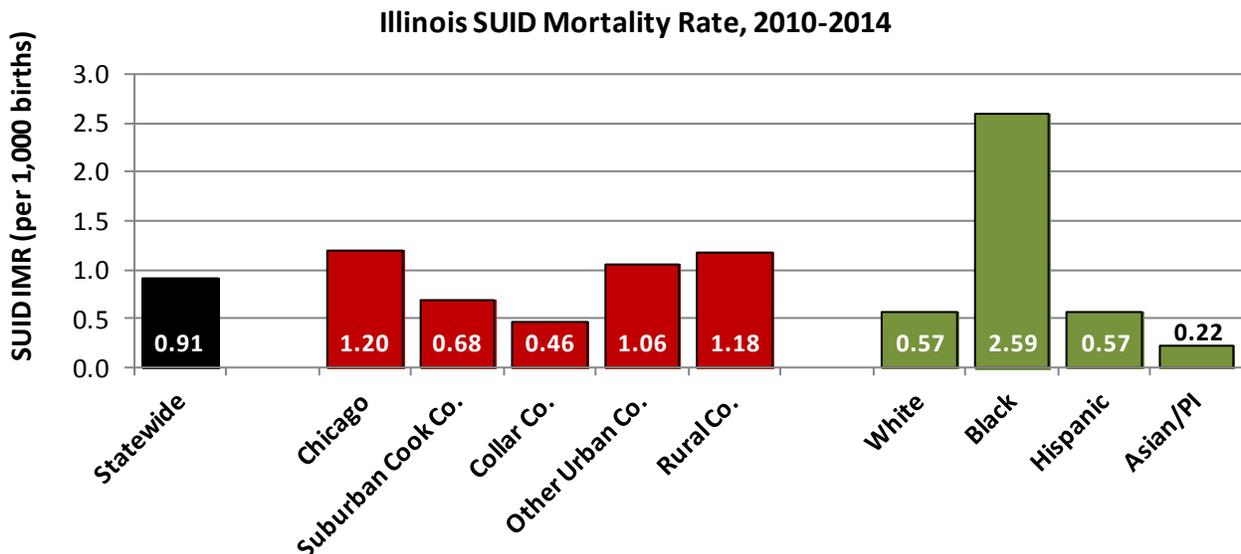
**Data Source:** Death and Birth records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2010-2014. For deaths, 2010-2012 data are final and 2013-2014 data are provisional. For births, 2010-2011 are final data and 2012-2014 are provisional. Provisional Data may be subject to change upon finalization.

**Definitions:** Infants with a cause of death code of R95 (SIDS), R99 (Unknown or Ill-Defined Cause), or W75 (Accidental Suffocation) were considered SUID deaths. The SUID mortality rate was calculated as the number of SUID deaths per 1,000 live births. Data shown only include births and deaths to Illinois residents occurring in Illinois.

**Related Healthy People 2020 Objective(s):**

MICH-1.8: Reduce the rate of infant deaths from sudden infant death syndrome (SIDS). Target: 0.50 deaths per 1,000 live births

MICH-1.9: Reduce the rate of infant deaths from sudden unexpected infant deaths (includes SIDS, Unknown Cause, Accidental Suffocation, and Strangulation in Bed). Target: 0.84 deaths per 1,000 live births



During 2010-2014, the average SUID mortality rate in Illinois was 0.91 deaths per 1,000 live births. The SUID-mortality rate was highest in the city of Chicago and rural Illinois counties, and was lowest among the Collar counties. Of the examined racial/ethnic groups, black infants were most likely to experience a sudden unexpected infant death and Asian/Pacific Islander infants were least likely. Black infants were 4.5 times as likely as white infants to experience a sudden unexpected infant death.

## Infant Sleep Practices

**Importance:** About 3,500 US infants die suddenly and unexpectedly each year. Many of these sudden deaths are sleep-related and may be linked to unsafe sleep positioning and environments. The American Academy of Pediatrics recommends that infants be put to sleep alone, on their back, in a crib free of bumpers, blankets, toys, and other loose materials.

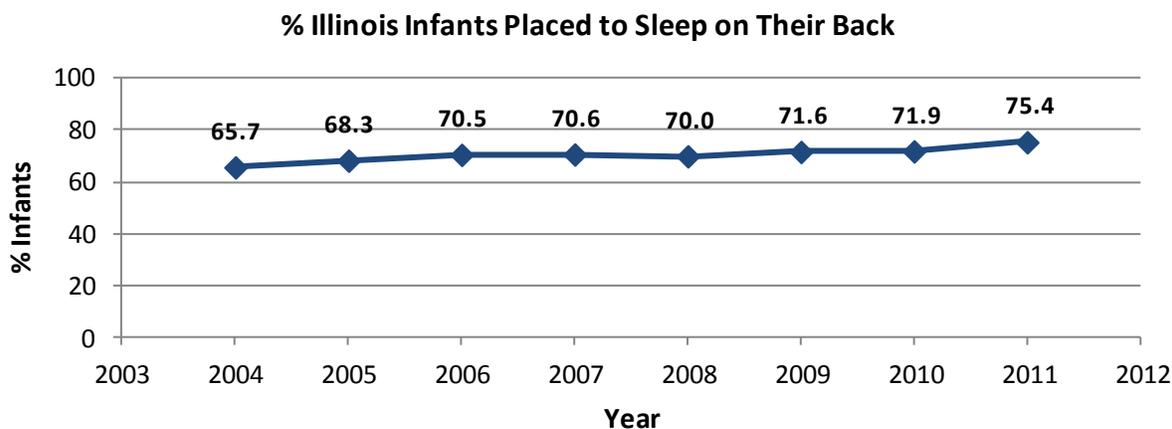
**Data Source:** Illinois Pregnancy Risk Assessment Monitoring System (PRAMS), 2004-2011

**Definitions:** PRAMS survey respondents are women who have delivered a live birth during the previous 2-6 months. Mothers reported the position they most often laid their infant down to sleep. Mothers also reported “yes” or “no” to a series of seven questions about the infant’s usual sleep environment. These seven practices were combined into a single index to measure the safe sleep environment; if a women had indicated ANY of the seven unsafe practices, the infant was classified as sleeping in an unsafe environment.

**Related Healthy People 2020 Objective(s):**

MICH-1.9: Reduce the rate of infant deaths from sudden unexpected infant deaths (includes SIDS, Unknown Cause, Accidental Suffocation, and Strangulation in Bed). Target: 0.84 deaths per 1,000 live births

MICH-20: Increase the proportion of infants who are put to sleep on their backs. Target: 75.9%

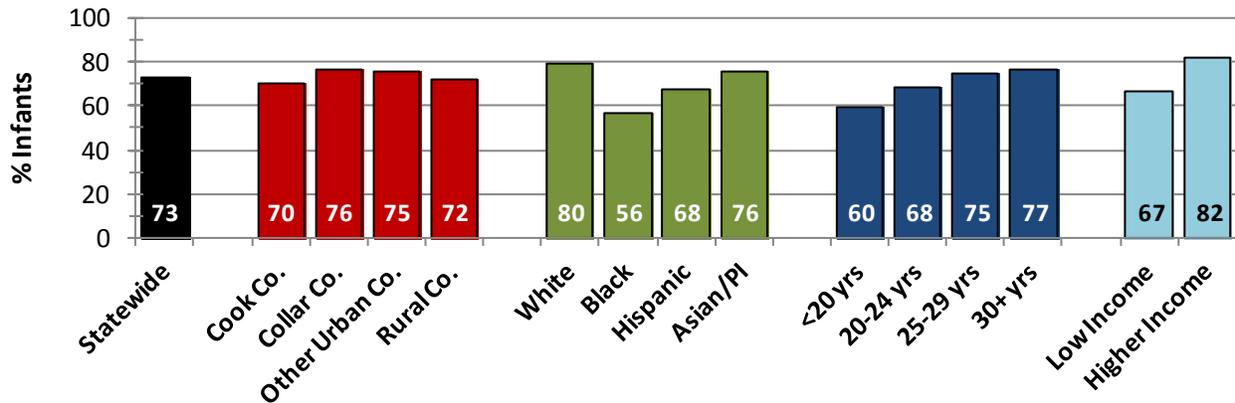


During 2004-2011, the percentage of infants routinely placed to sleep on their back increased from 65.7% to 75.4%, a 15% relative increase. Despite these improvements, one in four Illinois infants is routinely placed to sleep in a position other than on their back, which is a known risk factor for SIDS/SUID.

Page 34 includes a chart that compares the percentage of infants put to sleep on their back by Illinois location of residence, maternal race/ethnicity, maternal age, and maternal income level during a 3-year period in Illinois. Back-sleeping is roughly even across location of residence, but wide disparities exist across the other factors. Black infants are 30% less likely than white infants to be placed to sleep on their back — only just about half of black infants are put to sleep on their back. Young mothers less than 20 years old are over 20% less likely to place their infant to sleep on its back than mothers ages 30 and older. Finally, low income mothers are about 18% less likely to place their infant on its back to sleep compared to mothers in higher income households.

## Infant Sleep Practices (continued)

**% Illinois Infants Placed to Sleep on Their Back, PRAMS 2009-2011**



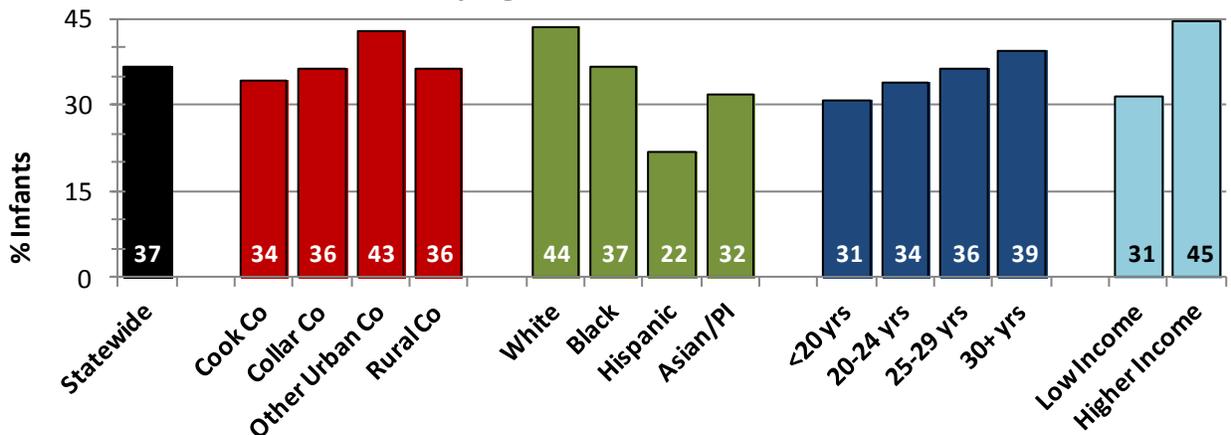
The most common unsafe sleep environment practice among Illinois infants was sleeping in a crib with bumper pads, affecting 36% of infants during 2009-2011. Other unsafe sleep environment practices included: sleeping with plush blankets (19%), sleeping with another person (16%), not sleeping on a firm mattress (13%), not sleeping in a crib (13%), sleeping with pillows (8%), and sleeping with toys (3%).

When all seven of these practices were combined into a single index, only 37% of Illinois infants routinely slept in a sleep environment that met all seven of the recommended practices. Infants living in Chicago were least likely to sleep in a safe environment.

Infants of Hispanic women were least likely to sleep in a safe environment — only 22% sleep in a place meeting all seven of the recommended practices. Even among the racial/ethnic group with the highest prevalence of sleeping in a safe environment (infants of white women), less than half of infants slept in a safe environment.

Infants of young mothers and low-income mothers were less likely to sleep in a safe environment than those born to older mothers or those in higher income households.

**% Illinois Infants Sleeping in a Safe Environment, PRAMS 2009-2011**



## Non-Medically Indicated Early Delivery (NMIED)

**Importance:** Births delivered early via induction or cesarean section without a medical indication put the mother and infant at higher risk for complications. IDPH recommends that all hospitals have a policy in place against non-medically indicated deliveries prior to 39 weeks gestation.

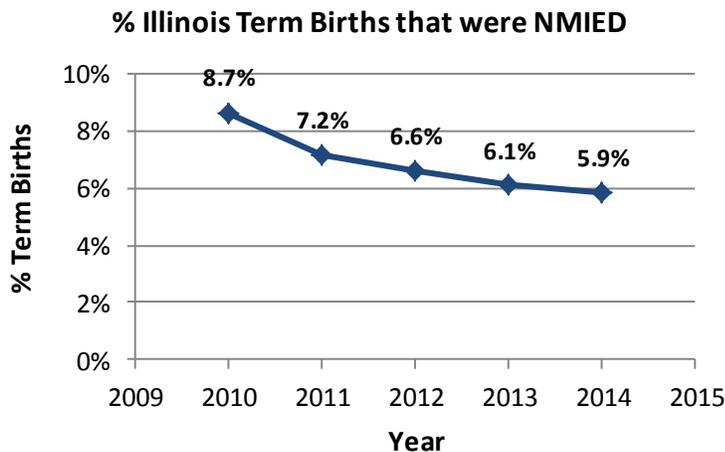
**Data Source:** Birth records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2010-2014. 2010-2011 are final data and 2012-2014 are provisional data. Provisional Data may be subject to change upon finalization.

**Definitions:** This analysis used a nationally vetted standardized method of identifying early elective deliveries using birth certificates. Infants were considered NMIED if they were born after an induction or cesarean section at 37-38 weeks gestation without any of several specific medical conditions that are indications for early delivery. The rate denominator was the total number of term births (37-41 wks) after exclusions for certain medical conditions. Data include only births occurring in Illinois to Illinois resident mothers.

### Related Healthy People 2020 Objective(s):

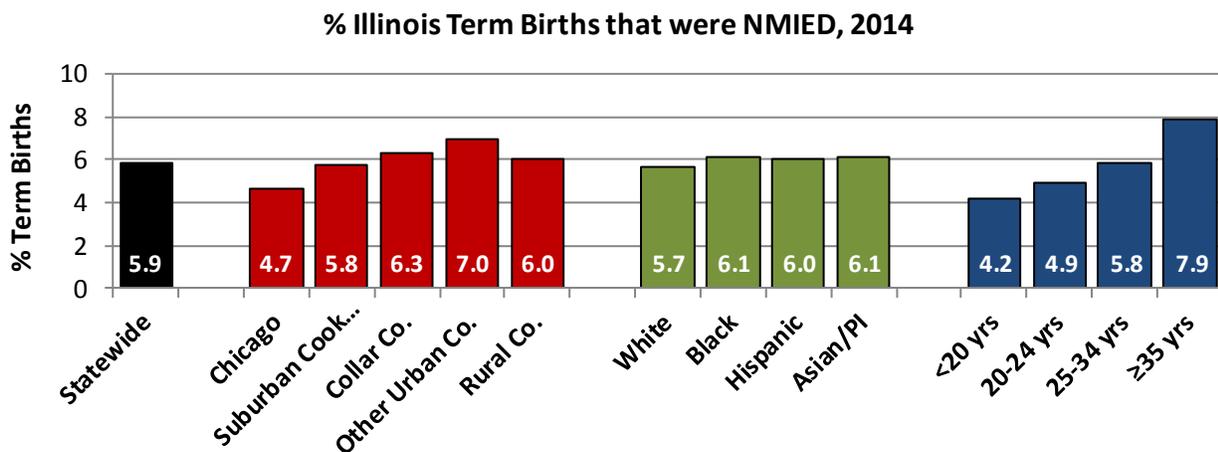
MICH-7.1: Reduce cesarean births among low-risk women with no prior cesarean births. Target: 23.9%

MICH-7.2: Reduce cesarean births among low-risk women giving birth with a prior cesarean birth. Target: 81.7%



The NMIED rate decreased from 8.7% of term births in 2010 to 5.9% of term births in 2014. A focus on this issue at IDPH and by other quality improvement initiatives has increased the number of hospitals with a hard-stop policy against NMIED.

In 2014, women in non-Chicago area urban counties and older women were the most likely to have an NMIED. There were not substantial differences by race/ethnicity.



# Breastfeeding

**Importance:** Breastfeeding is the healthiest way to feed an infant and is associated with many positive maternal and infant health outcomes. The American Academy of Pediatrics recommends that infants be breastfed for at least the first year of life and be exclusively breastfed for the first six months of life.

**Data Sources:** Illinois Pregnancy Risk Assessment Monitoring System (PRAMS), 2004-2011  
National Immunization Survey (NIS), 2011 birth cohort  
Maternity Practices in Infant Nutrition and Care (mPINC), 2007-2013

**Definitions:** In PRAMS and NIS, parents reported whether the infant was ever breastfed, the duration of any breastfeeding, and the timing of first food introduction (to calculate duration of exclusive breastfeeding). In mPINC, hospitals self-reported their practices and policies related to a variety of breastfeeding issues.

**Related Healthy People 2020 Objective(s):**

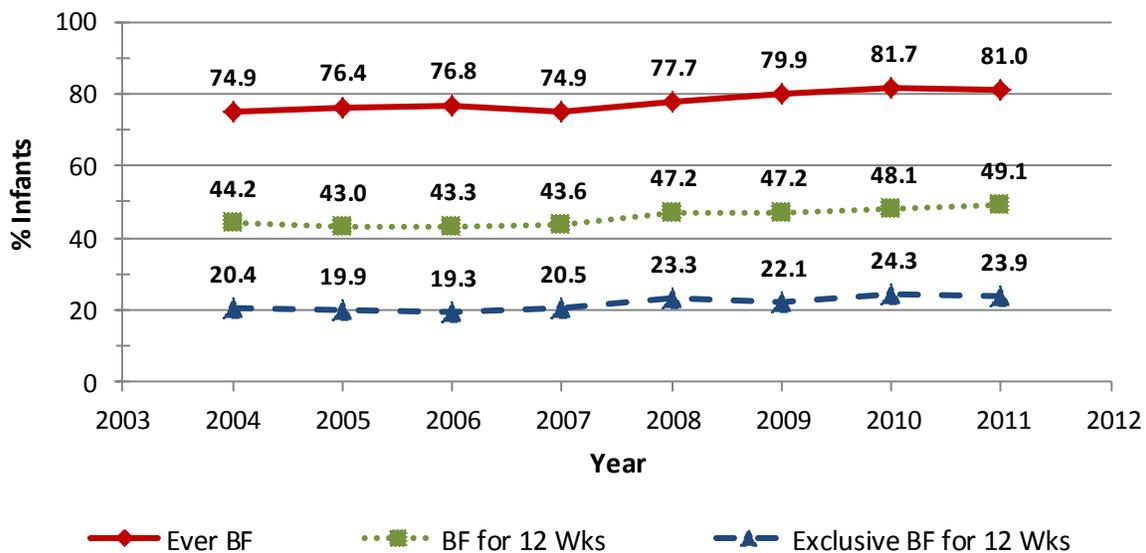
- MICH-21.1: Increase the proportion of infants who are ever breastfed. Target: 81.9%
- MICH-21.2: Increase the proportion of infants who are breastfed at 6 months. Target: 60.6%
- MICH-21.3: Increase the proportion of infants who are breastfed at 1 year. Target: 34.1%
- MICH-21.4: Increase the proportion of infants who are breastfed exclusively through 3 mos. Target: 46.2%
- MICH-21.5: Increase the proportion of infants who are breastfed exclusively through 6 mos. Target: 25.5%
- MICH-23: Reduce the proportion of breastfed newborns who receive formula supplementation within the first 2 days of life. Target: 14.2%
- MICH-24: Increase the proportion of live births that occur in facilities that provide recommended care for lactating mothers and their babies. Target: 8.1%

**Summary of Illinois Breastfeeding in Relation to U.S. Average, & Healthy People 2020 Objectives**  
(data from NIS 2011 birth cohort)

Breastfeeding Indicator	Illinois 2011 (%)	U.S. 2011 (%)	Healthy People 2020 (%)	Illinois Rank in U.S. (1 = best, 51 = worst)
Breastfeeding Initiation	77.4	79.2	≥ 81.9	31
Breastfeeding to 6 Months	47.0	49.4	≥ 60.5	28
Breastfeeding to 12 Months	26.7	26.7	≥ 34.1	25
Exclusive Breastfeeding to 3 Months	38.1	40.7	≥ 44.3	31
Exclusive Breastfeeding to 6 Months	18.2	18.8	≥ 23.7	25
Percent of Live Births Occurring at Baby Friendly Facilities	2.6	7.8	≥ 8.1	34
Percent of Breastfed Infants Receiving Formula Before 2 Days of Age	24.7	19.4	≤ 15.6	44

## Breastfeeding (continued)

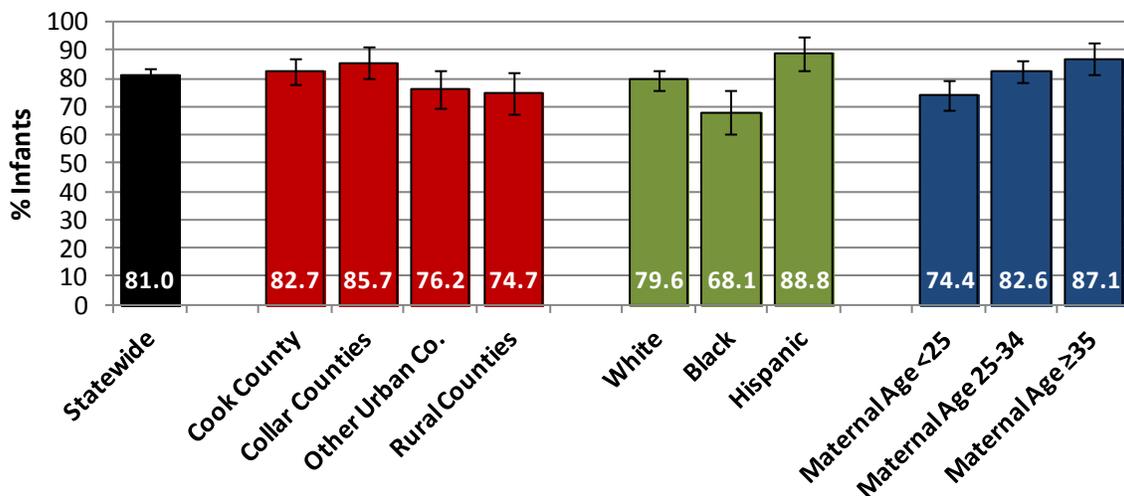
Percent of Illinois Infants Who Were Breastfed, PRAMS 2004-2011



The Illinois rates of ever breastfeeding, breastfeeding for twelve weeks, and exclusive breastfeeding for twelve weeks increased during 2004-2011 by 8%, 11%, and 17%, respectively. In 2011, Illinois was close to meeting the *Healthy People 2020* objective for breastfeeding initiation, though there is still a long way to go to meet the objectives for duration and exclusivity.

Disparities in breastfeeding are present by geography, race/ethnicity, and age group. Women in rural counties, black mothers, and young mothers are the least likely to ever breastfeed their infants. The disparities in duration and exclusivity mirror the disparities in breastfeeding initiation, with one exception. Among those who begin breastfeeding, Hispanic women are less likely than white women to breastfeed their infants exclusively.

Percent of Illinois Babies Ever Breastfed; PRAMS 2011



## Breastfeeding (continued)

### Summary of Illinois Hospital Breastfeeding Practices

(data from mPINC 2007-2011)

Breastfeeding-Related Maternity Care Practice	IL Rank in U.S., 2013 (1 = best, 50 = worst)	Illinois Score, 2013	Illinois Score, 2011	Illinois Score, 2009	Illinois Score, 2007
<b>Total Score</b>	<b>20</b>	<b>77</b>	<b>66</b>	<b>63</b>	<b>59</b>
Labor and Delivery (e.g. skin-to-skin, BF in first half hour)	29	80	62	57	48
Feeding of Breastfed Infant (e.g. first and supplemental feedings)	31	84	80	79	74
Breastfeeding Assistance (e.g. BF assessment, information, documentation)	30	86	83	80	78
Mother-Infant Contact (e.g. rooming-in, separation)	31	77	72	68	62
Discharge Care (e.g. types of post-discharge support, formula packs)	23	64	40	36	35
Staff Training (e.g. staff education and assessment)	10	71	56	53	54
Structural and Organizational Factors (e.g. policies)	15	76	71	69	67

The table above shows the Illinois mPINC scores for various categories of maternity hospital breastfeeding practices over four iterations of the survey. Overall and in each of seven categories, Illinois substantially improved the maternity practice scores between 2007 and 2013. The largest improvements in mPINC scores came in the categories of: labor and delivery, discharge care, and staff training.

Compared to other states in the nation, Illinois ranks 20th on the total mPINC score — a vast improvement from the Illinois rankings during 2007-2011 that remained between 30th and 35th. In terms of individual categories, Illinois is in the top half of states for staff training (10th), structural and organizational factors (15th), and discharge care (23rd). Illinois ranks in the bottom half of states for labor and delivery practices (29th), breastfeeding assistance (30th), feeding of breastfed infants (31st), and mother-infant contact (31st).

While Illinois continues to improve their maternity care practices, there is still much room for improvement. Out of the Big Five states (California, New York, Texas, Florida, and Illinois), Illinois ranks 4th out of five on six of seven categories. On the seventh category, staff training, Illinois ranks 3rd out of 5. Illinois can particularly learn from the examples of California and New York when it comes to promoting breastfeeding within maternity hospitals.

# Section 4: Child Health

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# Asthma

**Importance:** Asthma is a chronic inflammatory disorder of the airways characterized by episodes of reversible breathing problems due to airway narrowing and obstruction. These episodes can range in severity from mild to life threatening. Symptoms of asthma include wheezing, coughing, chest tightness, and shortness of breath. Daily preventive treatment can prevent symptoms and attacks and enable individuals who have asthma to lead active lives. The burden of respiratory diseases affects individuals and their families, schools, workplaces, neighborhoods, cities, and states.

**Data Source:** National Survey of Children’s Health (NSCH), 2011-2012 ; Illinois Hospital Discharge Data (HDD) — emergency department outpatient visits, 2011-2013, IDPH Division of Patient Safety and Quality

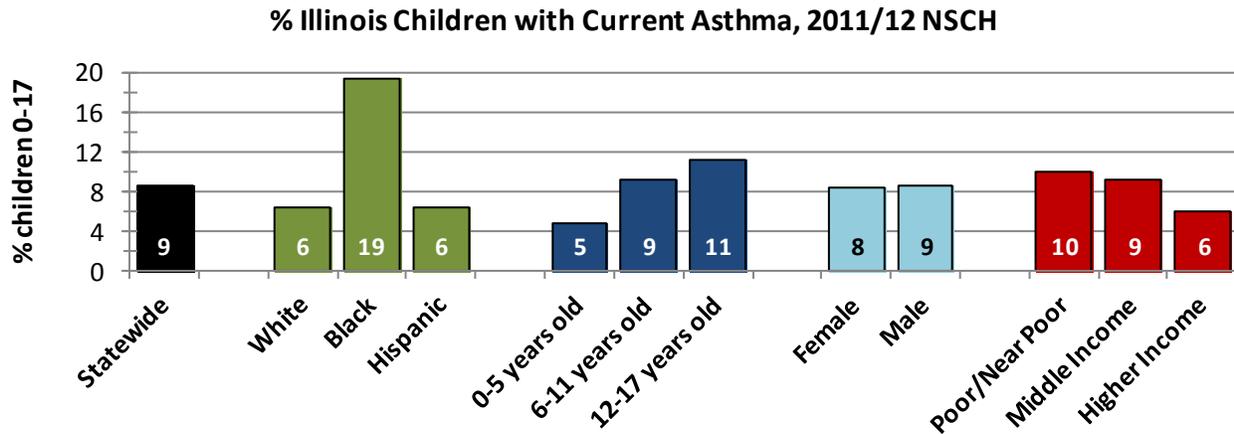
**Definitions:** In the NSCH, parents reported whether their child had ever been diagnosed with asthma by a health care provider and whether the child currently had asthma at the time of the survey. In HDD, asthma emergency department visits were identified for children and divided by the county population to determine the rate per 10,000 children.

**Related Healthy People 2020 Objective(s):**

RD-3.1: Reduce emergency department (ED) visits for asthma among children under age 5 years . Target: 95.7 per 10,000

RD-3.2: Reduce emergency department (ED) visits for asthma among children and adults aged 5 to 64 years. Target: 49.6 per 10,000

RD-2.1: Reduce hospitalizations for asthma among children under age 5 years . Target: 18.2 per 10,000



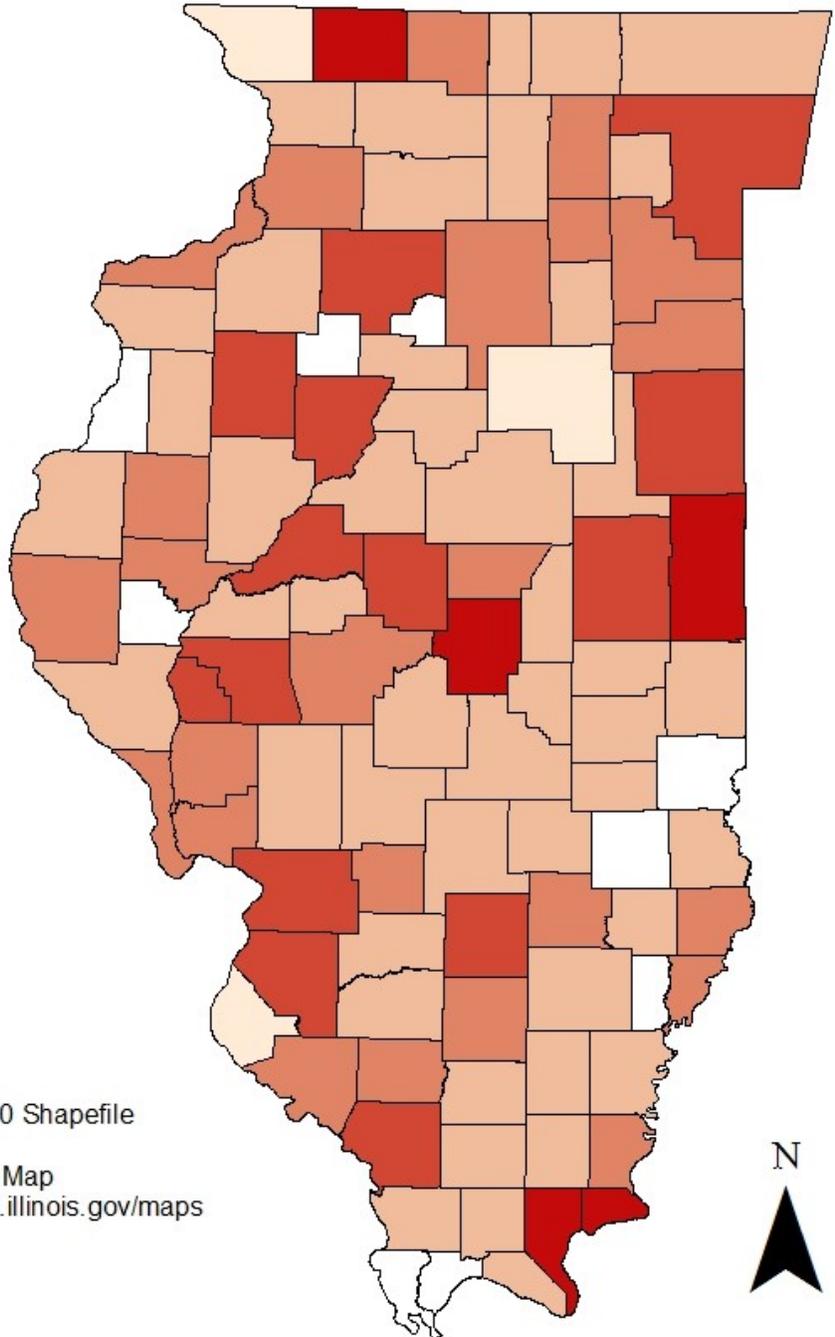
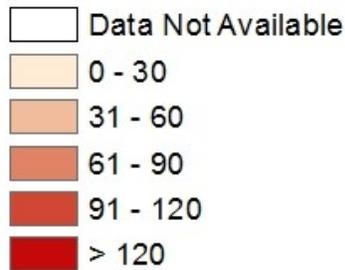
In 2011-2012, 9% of Illinois children had asthma. The prevalence of asthma was highest among black children and was over three times higher than that for white or Hispanic children. Asthma prevalence was also higher among adolescents and children living in poor or near poor households. There was no difference in asthma prevalence by sex.

The map on page 38 shows the rate of emergency department (ED) use for asthma among Illinois children. The five counties with the highest ED use for asthma were: Harden, Macon, Pope, Stephenson, and Vermilion. All of these counties had a rate of more than 120 asthma-related ED visits per 10,000 children.

# Asthma (continued)

## Rate of Pediatric Asthma Emergency Department Visits, By County of Residence, 2011-2013

**ED Visit Rate  
per 10,000 children**



**Data Sources:**

Map File: TigerLine Census 2010 Shapefile

Data: Illinois Community Health Map  
<http://www.healthcarereportcard.illinois.gov/maps>



# Medical Home

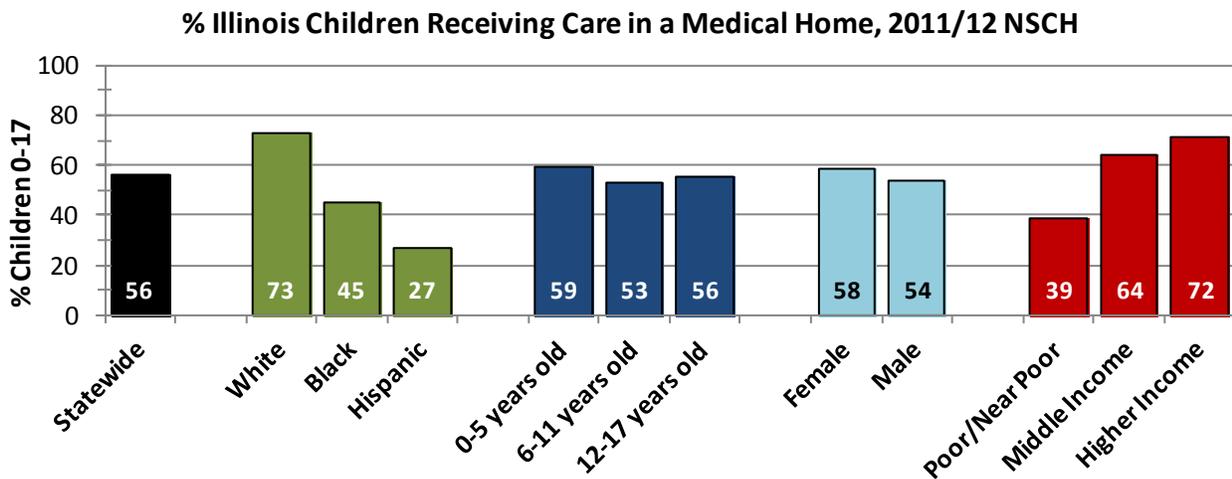
**Importance:** A medical home is a source of ongoing, comprehensive, coordinated, family-centered care in the child’s community. The medical home can and should provide preventive services, appropriate screening, health care supervision, and counseling for patients and their families, as well as ensuring continuity of care over time.

**Data Source:** National Survey of Children’s Health, 2011-2012

**Definitions:** MCHB developed a core indicator that measures five sub-components of the medical home: usual source of care, personal doctor or nurse, family-centered care, receipt of needed referrals, and receipt of effective care coordination services. These five components were captured in the NSCH in 19 questions and combined into a summary index.

**Related Healthy People 2020 Objective(s):**

- MICH-30.1: Increase the proportion of children who have access to a medical home. Target: 63.3%
- AHS-3: Increase the proportion of persons with a usual primary care provider. Target: 83.9%
- AHS-5.2: Increase the proportion of children and youth aged 17 years and under who have a specific source of ongoing care. Target: 100%



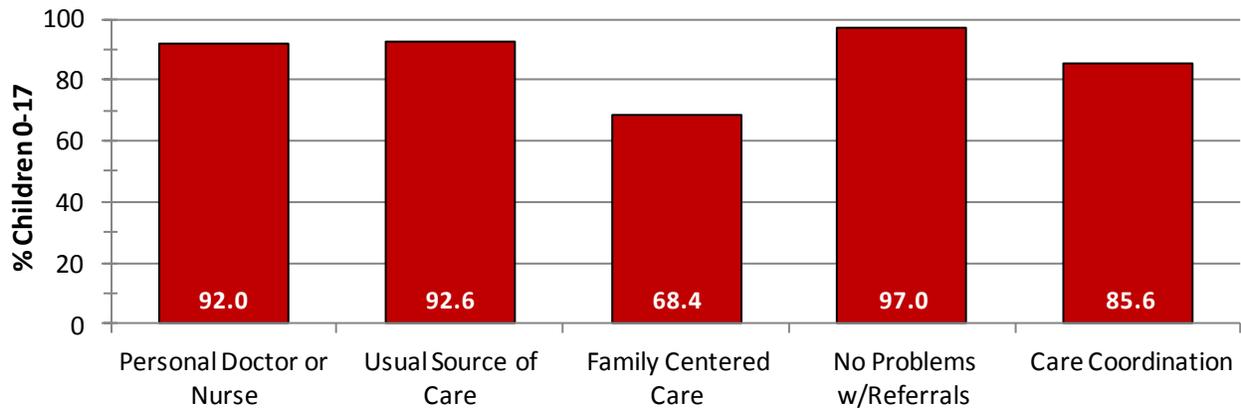
About half (56%) of Illinois children received care in a medical home during 2011-2012.

There were wide disparities in medical home by child’s race/ethnicity. Approximately 73% of White children had a medical home, compared to 45% of Black children, and only 27% of Hispanic children. There were also wide disparities by family income level. Only about 39% of children from poor or near poor families had a medical home, compared to 64% of children in middle income families and 72% of children in higher income families.

There were no significant differences in having a medical home by age group or sex for Illinois children.

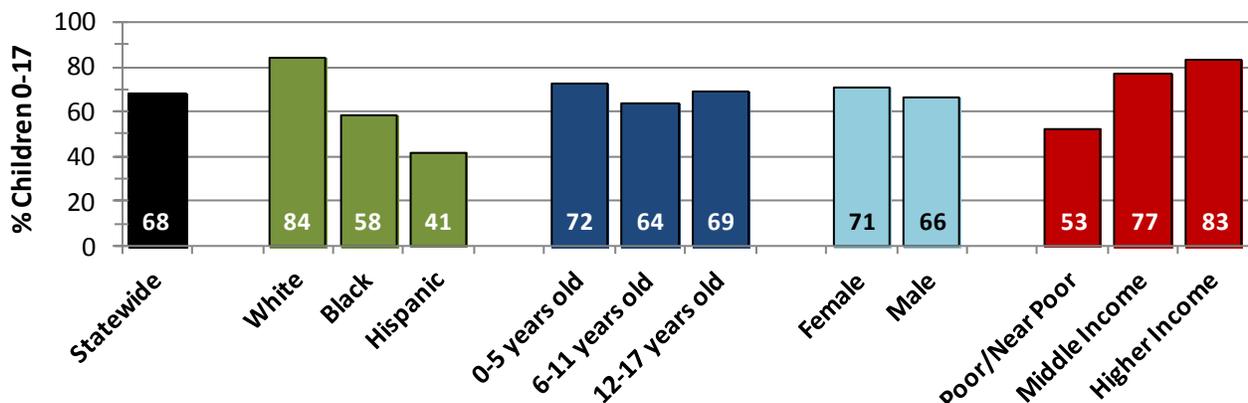
## Medical Home (continued)

**% Illinois Children Receiving Care Meeting the Sub-Components of the Medical Home, 2011/12 NSCH**



The five medical home components were examined individually to see how they contributed to the overall medical home measure. Over 90% of Illinois children experienced each of three medical home components: personal doctor or nurse, a usual source of care, and no problems with referrals. Effective care coordination was experienced by 86% of Illinois children. The medical home component experienced by the lowest percentage of children was family-centered care, which only 68% of Illinois children and their families experienced.

**% Illinois Children Receiving Family-Centered Care, 2011/12 NSCH**



Not only was family-centered care the component with the lowest prevalence, but it also had the greatest disparities by race/ethnicity and income level, thus accounting for most of the disparities seen in the overall medical home measure.

While 84% of White children experienced family-centered care, only 58% of Black children and 41% of Hispanic children had this experience. Children in poor and near poor families were also significantly less likely to experience family-centered care than those in higher income families (53% vs. 83%).

## Well-Child Visits

**Importance:** Well-child visits are an opportunity for preventive health screening for children and education for their families, also including services such as immunizations and developmental screenings. It is recommended that children have multiple well-child visits during the first two years of life and then annually thereafter.

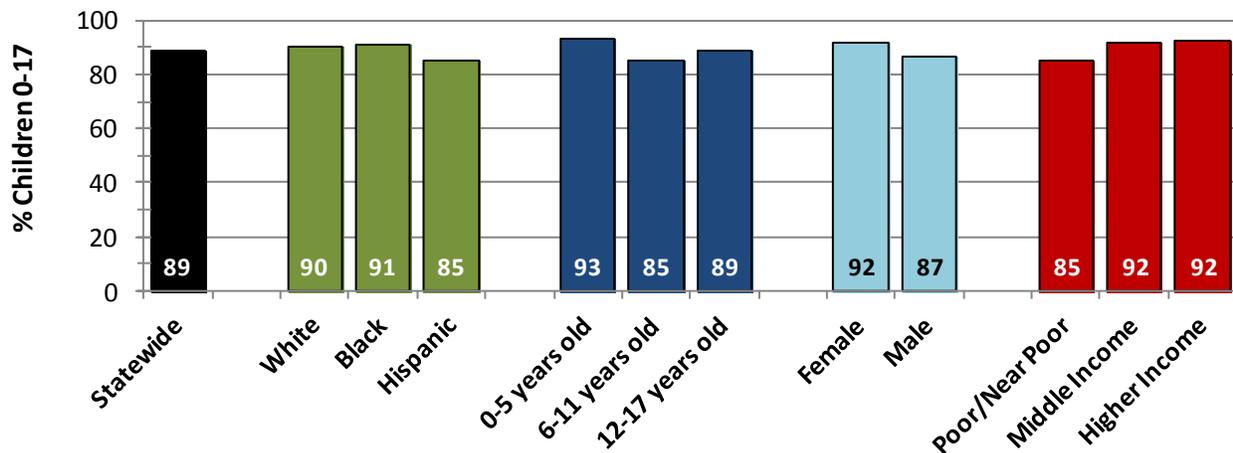
**Data Source:** National Survey of Children’s Health (NSCH), 2011-2012 ; CHIPRA Databook (Medicaid data), CY2012

**Definitions:** Parents reported whether their child had at least one preventive visit with a health care provider during the last year.

**Related Healthy People 2020 Objective(s):**

none

**% Illinois Children with at Least One Preventive Health Visit in the Last Year, 2011/12 NSCH**



In general, 89% of Illinois children had at least one well-child visit during the last year. The prevalence of having had a well-child visit was lowest for: Hispanic children, children ages 6-11 years old, males, and children from poor or near poor families.

Medicaid Data (not shown in charts)

- 71.7% of continuously enrolled 15 month olds had at least six well child visits during the first 15 mos
- For older children, the percentage receiving a well-child visit within the last year were:
  - 3 year olds: 72.1%
  - 4 year olds: 72.0%
  - 5 year olds: 74.8%
  - 6 year olds: 56.1%
  - 12-21 year olds (adolescents): 42.0%

# Immunizations

**Importance:** The increase in life expectancy during the 20th century is largely due to improvements in child survival; this increase is associated with reductions in infectious disease mortality, due largely to immunization. However, infectious diseases remain a major cause of illness, disability, and death. Immunization recommendations currently target 17 vaccine-preventable diseases across the lifespan.

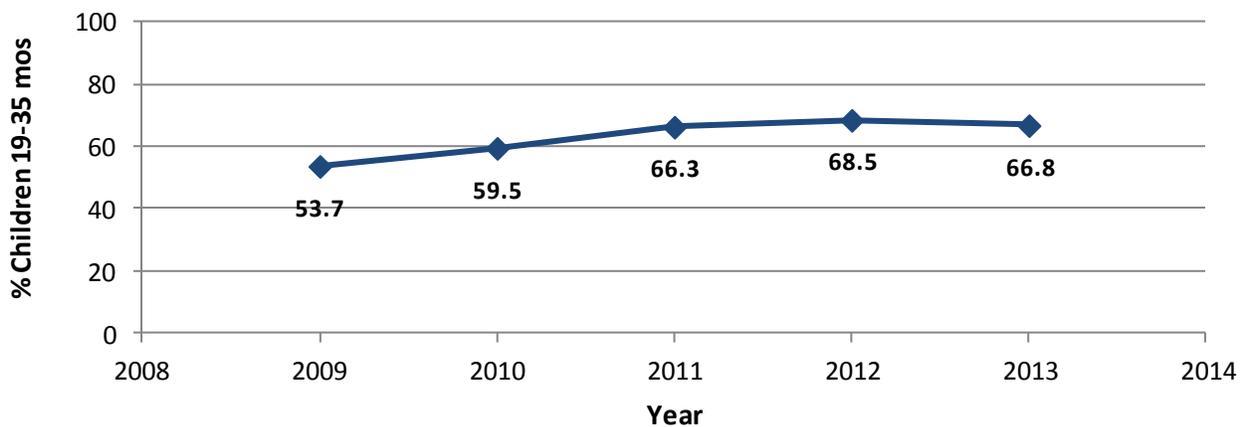
**Data Source:** National Immunization Survey (NIS), 2009-2013 ; CHIPRA Databook (Medicaid data), CY2012 ; MMWR Report: "Vaccination Coverage Among Children in Kindergarten — United States, 2013–14 School Year", October 2014

**Definitions:** Physicians reported the immunization history for children ages 19-35 months in the NIS. Children were considered to have received a complete series of childhood immunizations if they had at least: 4 doses DTaP, 3 doses polio, 1 dose MMR, 3 doses Hib, 3 doses HepB, 1 dose varicella, and 4 doses pneumococcal conjugate (4:3:1:3:3:1:4 series).

**Related Healthy People 2020 Objective(s):**

IID-8: Increase the percentage of children aged 19 to 35 months who receive the recommended doses of DTaP, polio, MMR, Hib, hepatitis B, varicella and pneumococcal conjugate vaccine (PCV). Target: 80.0%

**% of Illinois Children 19-35 with Full Immunization Coverage for: DTaP, Polio, MMR, Hib, Hepatitis B, Varicella, & Pneumococcal conjugate (4:3:1:3:3:1:4 series)**



The rate of 4:3:1:3:3:1:4 vaccine series completion increased in Illinois from 53.7% in 2009 to 66.8% in 2013. However, there is still a large gap that Illinois must close to meet the *Healthy People 2020* objective of 80%. Additionally, children in poverty had lower vaccination rates (62.1%) compared to children at or above poverty (70.4%). Medicaid reported that 63.1% of continuously enrolled two-year olds had completed this series.

During the 2012-2013 school year, it was estimated that 6.1% of Illinois kindergarteners had exemptions to required vaccinations. This was one of the top three highest exemption rates among all the states (surpassed only by Oregon and tied with Vermont).

# Childhood Obesity

**Importance:** Weight status for children is associated with adult weight status and chronic diseases, such as diabetes, later in life. Good nutrition is also important to the growth and development of children.

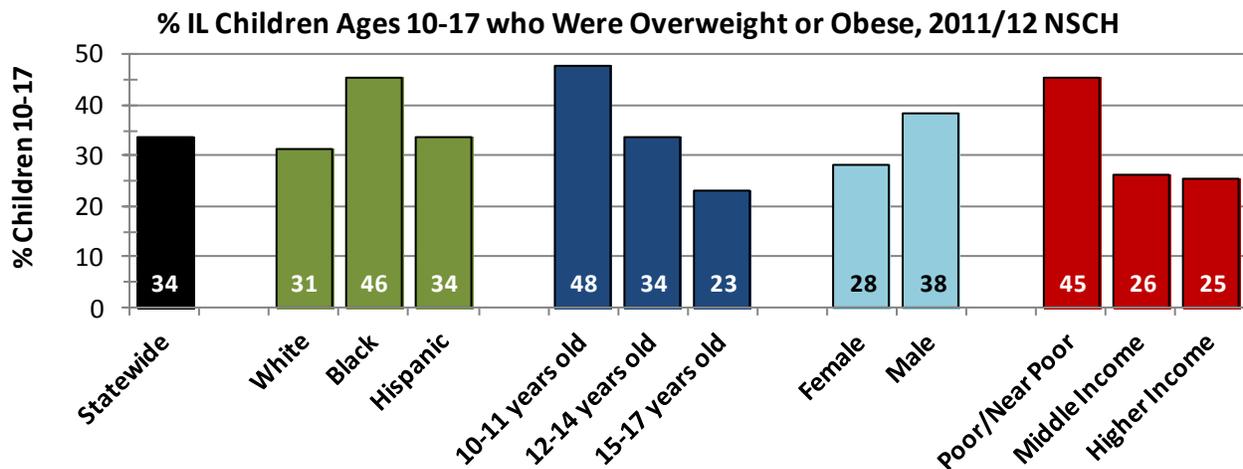
**Data Source:** National Survey of Children’s Health (NSCH), 2011-2012

**Definitions:** Body mass index (BMI; kg / m<sup>2</sup>) was calculated based on height and weight. Using CDC growth curves, BMI-for-age above the 85th percentile was considered overweight and BMI-for-age above the 95th percentile was considered obese. These categories were combined for analysis. Due to validity issues with parent-reported height and weight, only children ages 10-17 were included in the analysis.

**Related Healthy People 2020 Objective(s):**

NWS-10.2: Reduce the proportion of children aged 6 to 11 years who are considered obese. Target: 15.7%

NWS-10.3: Reduce the proportion of adolescents aged 12 to 19 years who are considered obese. Target: 16.1%



In Illinois in 2011-2012, about one-third of children ages 10-17 were overweight or obese. This is similar to the rates seen in previous iterations of the NSCH: 35% in 2007 and 31.2% in 2003.

Black children were more likely to be overweight or obese than White or Hispanic children; nearly one half of Black children were overweight or obese compared to one-third of White or Hispanic children.

Younger children were also more likely to be overweight or obese than older children. Nearly half (48%) of children ages 10-11 were overweight or obese, compared to 34% of 12-14 year olds and 23% of 15-17 year olds.

Males were more likely to be overweight or obese than females.

Children in poor or near poor families were almost twice as likely to be overweight/obese as children from middle or higher income families.

# Injury

**Importance:** Injuries are widespread in society. Many people accept them as “accidents,” “acts of fate,” or as “part of life”, but most events resulting in injury, disability, or death are predictable and preventable. Unintentional injuries are the leading cause of death for all children ages 1 and older.

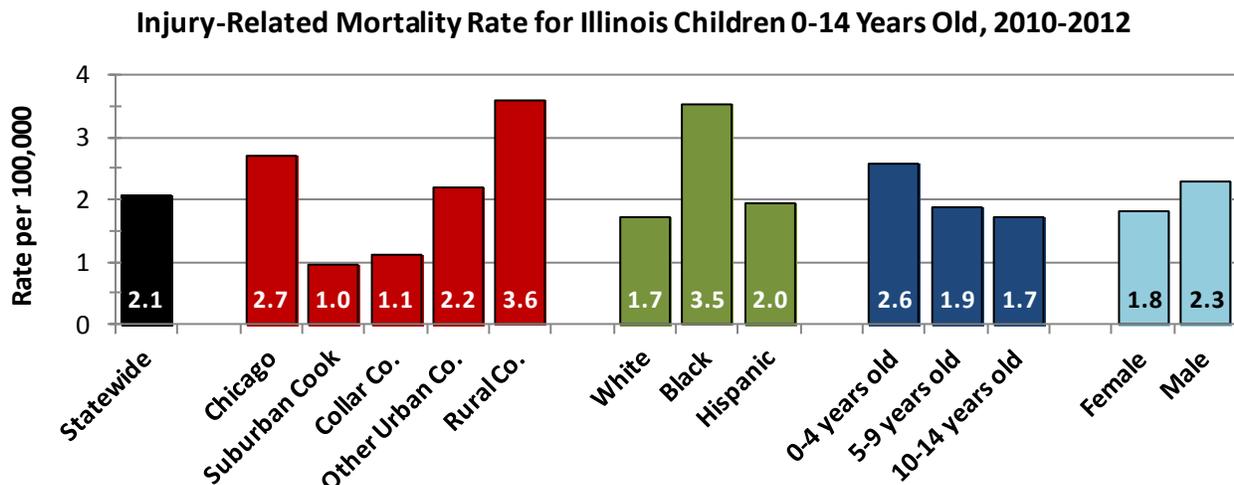
**Data Source:** Death records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2010-2012 (*data are final*) ; U.S. Census Bureau Post-Censal Population Estimates, 2010-2012.

**Definitions:** Mortality rates for children ages 0-14 were determined by counting the number of injury-related deaths (using ICD-10 codes: V00-X59 or Y85-Y86 for underlying cause of death on death certificate) per 100,000 children in the population.

**Related Healthy People 2020 Objective(s):**

IVP-1.1: Reduce fatal injuries. Target: 53.7 per 100,000 persons (*HP2020 target is for whole population, not limited to children*)

IVP-11: Reduce unintentional injury deaths. Target: 36.4 per 100,000 persons (*HP2020 target is for whole population, not limited to children*)



During 2010-2012, there were an average of 52 child deaths from injuries each year — a rate of 2.1 deaths per 100,000 children ages 0-14.

The injury-related mortality rates were highest in rural Illinois counties (3.6 deaths per 100,000) and the city of Chicago (2.7 per 100,000).

Black children had an injury-related mortality rate about twice as high as white children in Illinois.

Young children under five years old had higher injury-related mortality rates than older children.

Male children had a slightly higher injury-related mortality rate than female children.

# Oral Health

**Importance:** Oral health is essential to overall health. Good oral health improves a person’s ability to speak, smile, smell, taste, touch, chew, swallow, and make facial expressions. Childhood cavities are one of the most common diseases of childhood, but dental service access is difficult for many families. Bi-annual preventive dental visits are recommended for all children ages 1 and older.

**Data Source:** National Survey of Children’s Health, 2011-2012

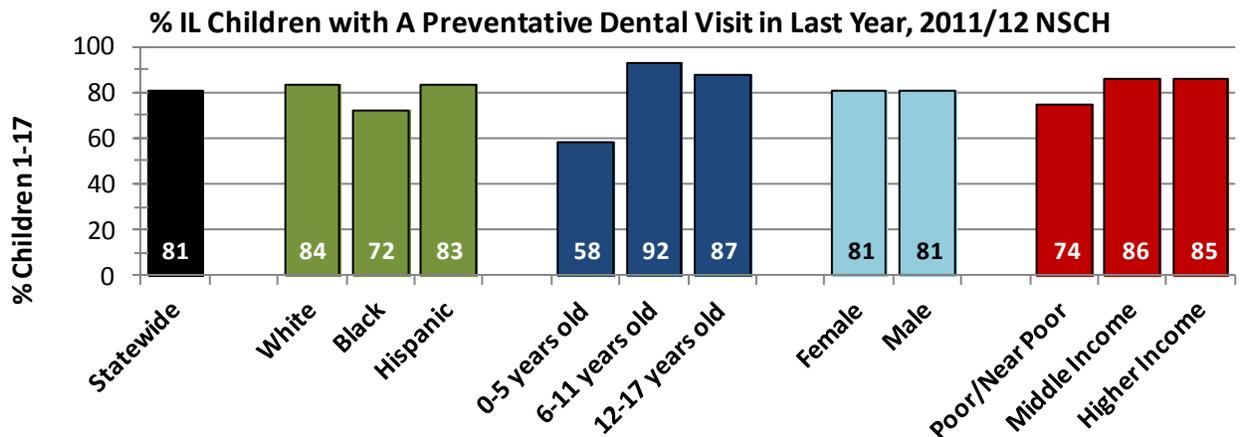
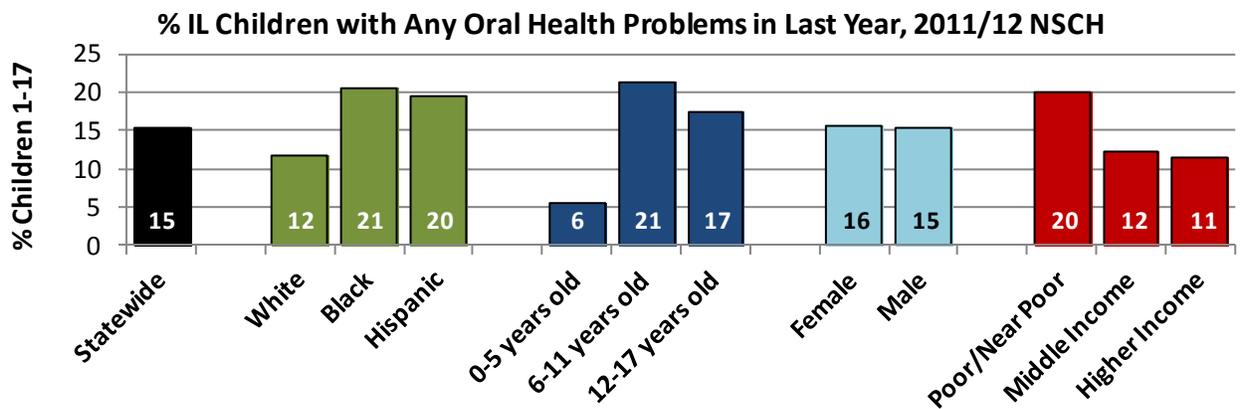
**Definitions:** For children ages 1 and older, parents reported whether their child had any oral health problems and whether the child had any preventive dental visits during the last 12 months.

**Related Healthy People 2020 Objective(s):**

OH-2: Reduce the proportion of children and adolescents with untreated dental decay

OH-7: Increase the proportion of children and adolescents who used the oral health care system in the past year

OH-8: Increase the proportion of low-income children and adolescents who received any preventive dental service during the past year



15% of Illinois children ages 1-17 had oral health problems in the last year and 81% had at least one preventative dental visit. Oral health problems were highest among Black and Hispanic children, children ages 6-11, and children living in poor/near poor households. Preventive dental visits were least common in these same sub-groups of children (with the exception of Hispanic children, who had visits similar to white children).

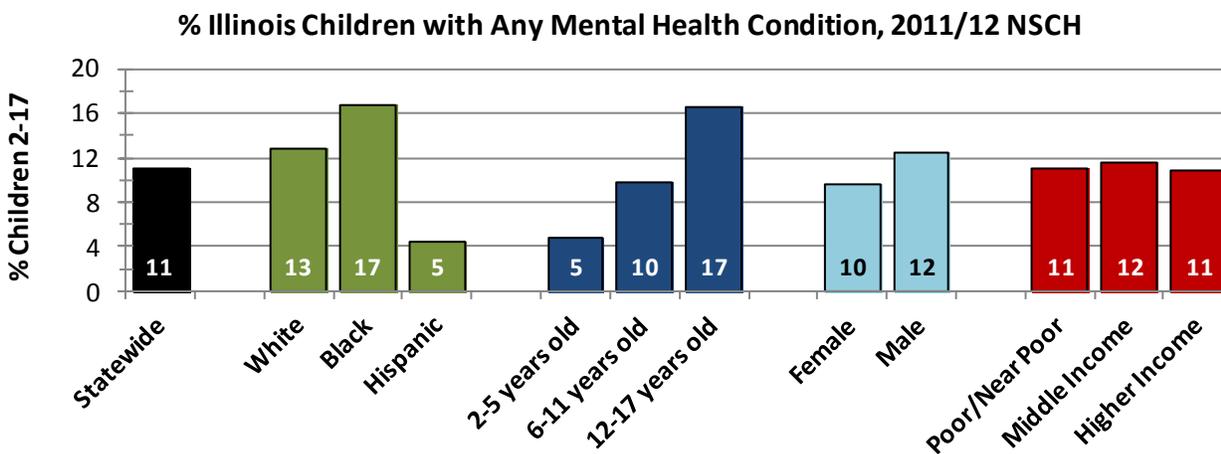
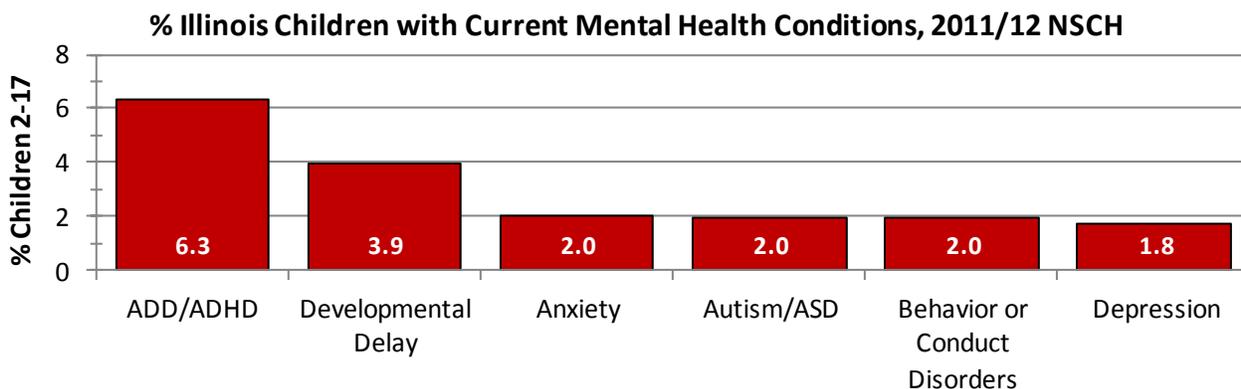
# Mental Health Conditions

**Importance:** The burden of mental illness in the United States is among the highest of all diseases, and mental disorders are among the most common causes of disability. Mental health is essential to a person’s well-being, healthy family and interpersonal relationships, and the ability to live a full and productive life.

**Data Source:** National Survey of Children’s Health, 2011-2012

**Definitions:** Parents reported whether their child had ever been diagnosed with any of seven conditions: Anxiety, Attention Deficit (Hyperactivity) Disorder (ADD/ADHD), Autism Spectrum disorders (ASD), a behavior or conduct disorder, depression, developmental delay, or Tourette syndrome. Parents then reported whether their children still currently had the condition. Due to survey skip patterns, only children ages 2-17 were included in this analysis.

**Related Healthy People 2020 Objective(s):** none



Of the seven mental health conditions, ADD/ADHD was the most common, affecting about 6% of Illinois children during 2011-2012. Overall, 11% of Illinois children had a current mental health condition. The prevalence of mental health conditions was lower for Hispanic children than for white or black children, perhaps reflecting cultural views on mental health and lower perceived need to seek physician diagnoses for such conditions. Older children were more likely to have a mental health condition than younger children. There were not significant differences by sex or family income level.

# Section 5: Adolescent Health

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Alcohol, Tobacco, and Other Drug Use	62

# Motor Vehicle Safety

**Importance:** Unintentional injuries are the leading cause of death for adolescents — of these deaths, motor vehicle accidents (MVA) account for the majority of the injuries.

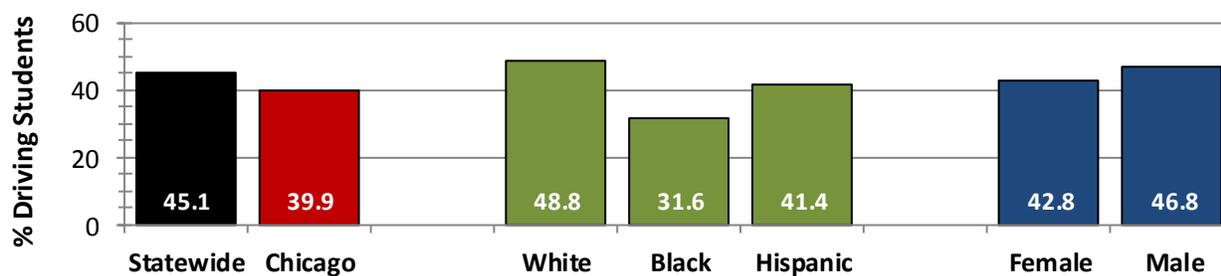
**Data Source:** Youth Risk Behavior Survey, 2013 ; Death records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2010-2012 (*data are final*) ; U.S. Census Bureau Post-Censal Population Estimates, 2010-2012.

**Definitions:** High school students self-reported whether they texted while driving during the last 30 days. Mortality rates were determined by counting the number of motor-vehicle-accident-related deaths (using ICD-10 codes starting with “V” for underlying cause of death) per 100,000 teens in the population.

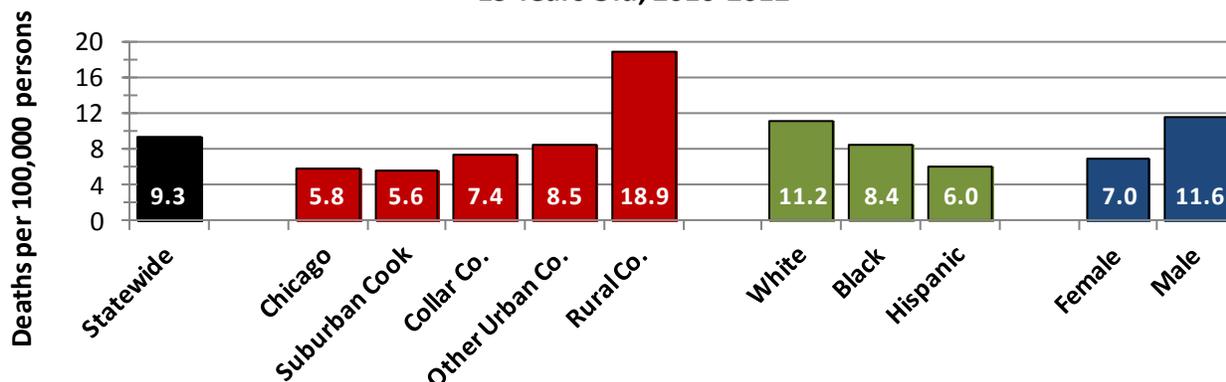
**Related Healthy People 2020 Objective(s):**

IVP-13: Reduce motor vehicle crash-related deaths.

**Of Illinois High School Students Who Drove a Car in Last Year, Percent Reporting Texting While Driving, 2013 YRBS**



**Motor-Vehicle-Accident-Related Mortality Rate for Illinois Adolescents 15-19 Years Old, 2010-2012**



Nearly half of high school students who drove a car reported texting while driving during the last 30 days. Texting while driving was more common among White students than Black or Hispanic students, but it did not significantly vary across gender.

During 2010-2012, there were approximately 85 MVA deaths to youth ages 15 to 19 annually — a rate of 9.3 deaths per 100,000 youth. The MVA-related mortality rate was highest in rural counties, for white youth, and for male youth.

# Bullying

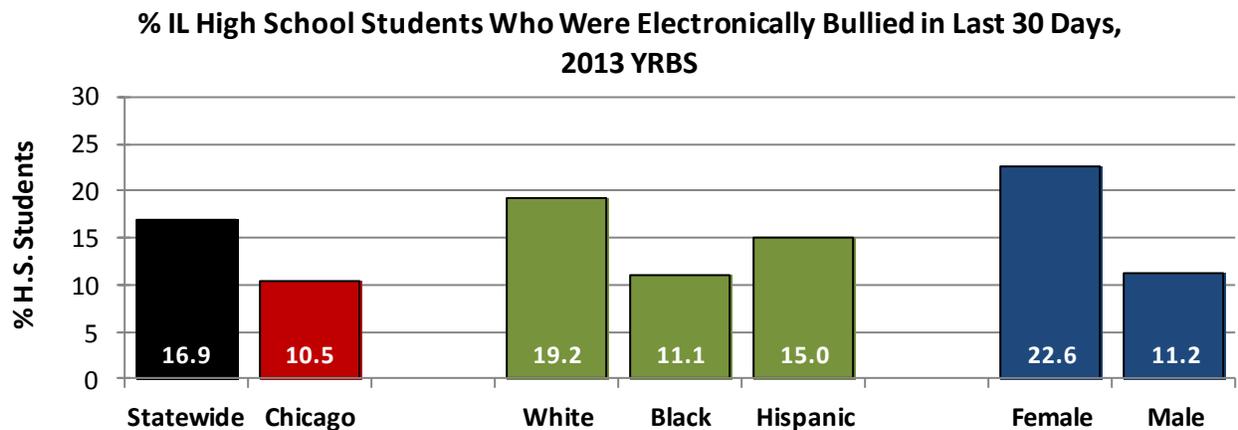
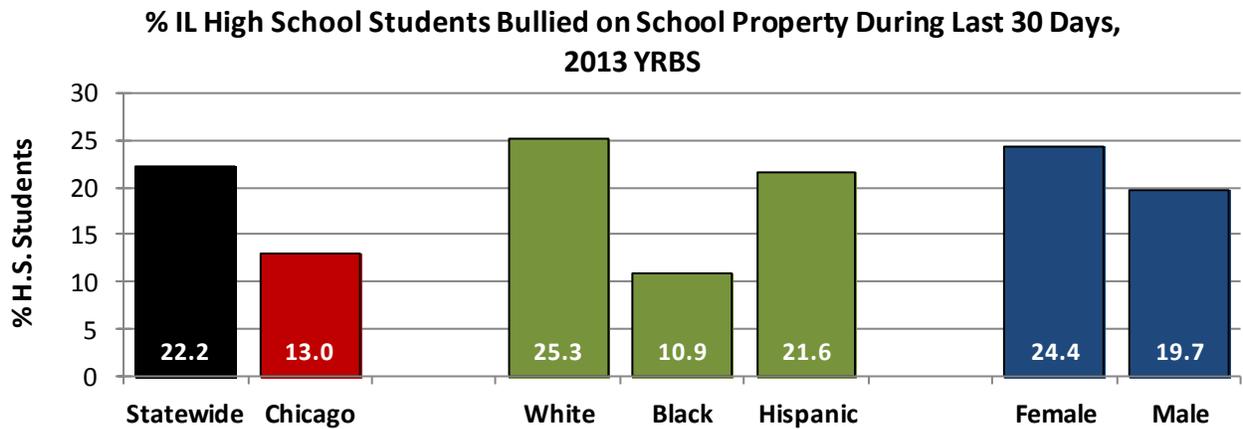
**Importance:** Bullying is emerging as a top public health priority because of the impact it has on adolescent mental health. Bullying may contribute to violence, depression, and suicide.

**Data Source:** Youth Risk Behavior Survey, 2013

**Definitions:** High school students reported whether they had experienced electronic bullying (via email, chat rooms, social media, etc.) or bullying on school property during the last 30 days.

**Related Healthy People 2020 Objective(s):**

IVP-35: Reduce bullying among adolescents. Target: 17.9%



In 2013, 22% of Illinois high school students reported being bullied on school property during the last 30 days. The prevalence of bullying was lower among students living in the city of Chicago. White students were more likely to report being bullied than Black or Hispanic students. Female students reported being the victim of bullying more frequently than males.

Additionally, 17% of high school students reported being bullied electronically during the last 30 days. The same patterns seen across geography, race/ethnicity, and sex for bullying at school were also present for electronic bullying.

# Dating Violence

**Importance:** Dating violence is controlling, abusive, and/or aggressive behavior in a romantic relationship. For the first time in 2013, the YRBS captured information on dating violence among high school students.

**Data Source:** Youth Risk Behavior Survey, 2013

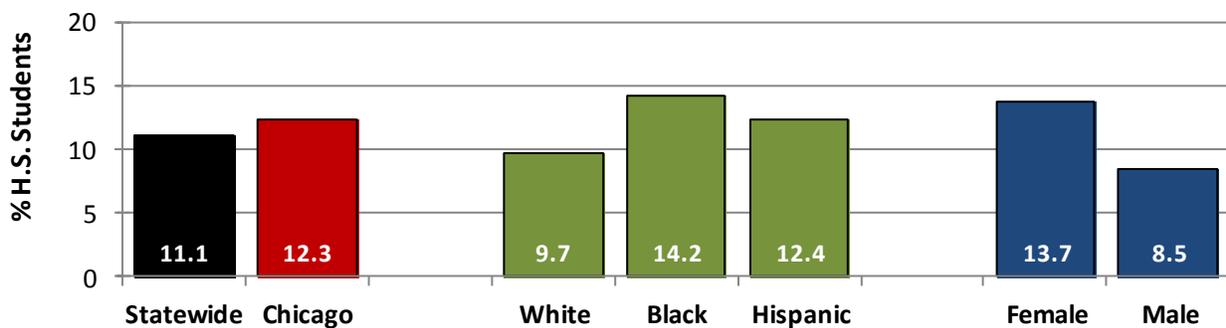
**Definitions:** Among high school students who reported they had dated someone during the previous 12 months, students reported whether they had experienced physical violence or sexual violence by their dating partner.

**Related Healthy People 2020 Objective(s):**

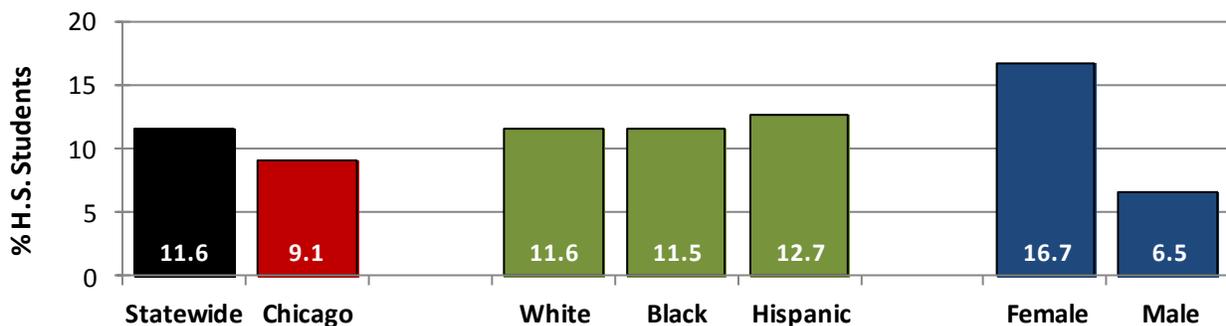
IVP-39.1: (Developmental) Reduce physical violence by current or former intimate partners.

IVP-39.2: (Developmental) Reduce sexual violence by current or former intimate partners.

**Of Illinois High School Students Who Dated in the Last Year, Percent Who Experienced Physical Dating Violence, 2013 YRBS**



**Of Illinois High School Students Who Dated in the Last Year, Percent Who Experienced Sexual Dating Violence, 2013 YRBS**



Of high school students who dated, approximately 11% reported experiencing physical and sexual dating violence. Black students were more likely to report being a victim of physical violence than white students, but there were not significant differences across race/ethnicity for sexual violence.

For both types of violence, females were more likely to report experiencing violence than males. Of female students who dated someone, 14% experienced physical violence and 17% experienced sexual violence.

## Violence & Homicide

**Importance:** Violence is a major contributor to disability and death among all persons, but particularly burdens adolescents. Homicide is the third most common cause of death among adolescents and young adults in the United States.

**Data Source:** Youth Risk Behavior Survey, 2013 ; Death records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2011-2012 (*data are final*) ; U.S. Census Bureau Post-Censal Population Estimates, 2011-2012.

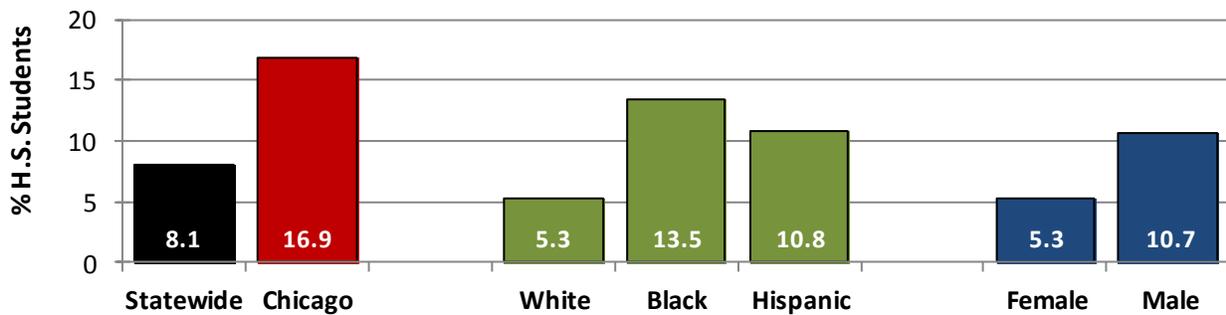
**Definitions:** High school students reported in YRBS whether they had been in a physical fight on school property during the last year and whether they had missed school during the last month because they felt unsafe (either at school or on their way to school). Homicides were identified using the “manner of death” on the death certificate and homicide rates were calculated as the number of deaths per 100,000 persons in the population.

**Related Healthy People 2020 Objective(s):**

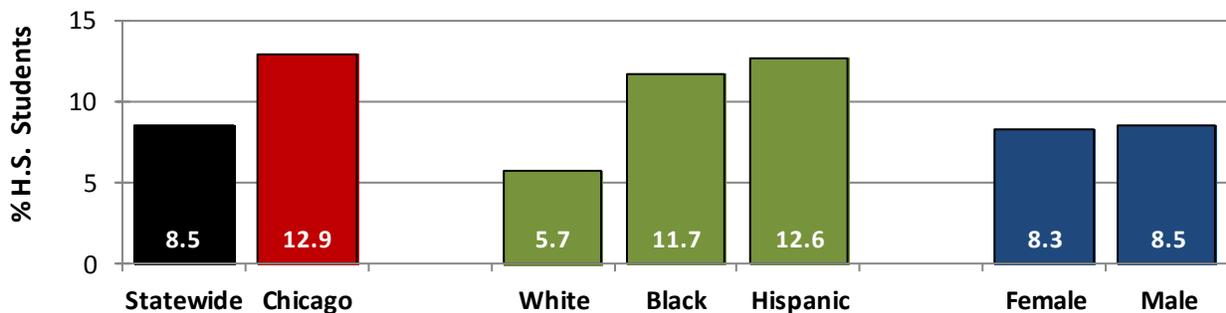
IVP-29: Reduce homicides. Target: 5.5 deaths per 100,000 persons

IVP-34: Reduce physical fighting among adolescents. Target 28.4%

**Percent of Illinois High School Students in a Physical Fight on School Property in the Last 12 Months, 2013 YRBS**



**Percent of Illinois High School Students Who Did Not Go to School Because They Felt Unsafe in Last 30 Days, 2013 YRBS**

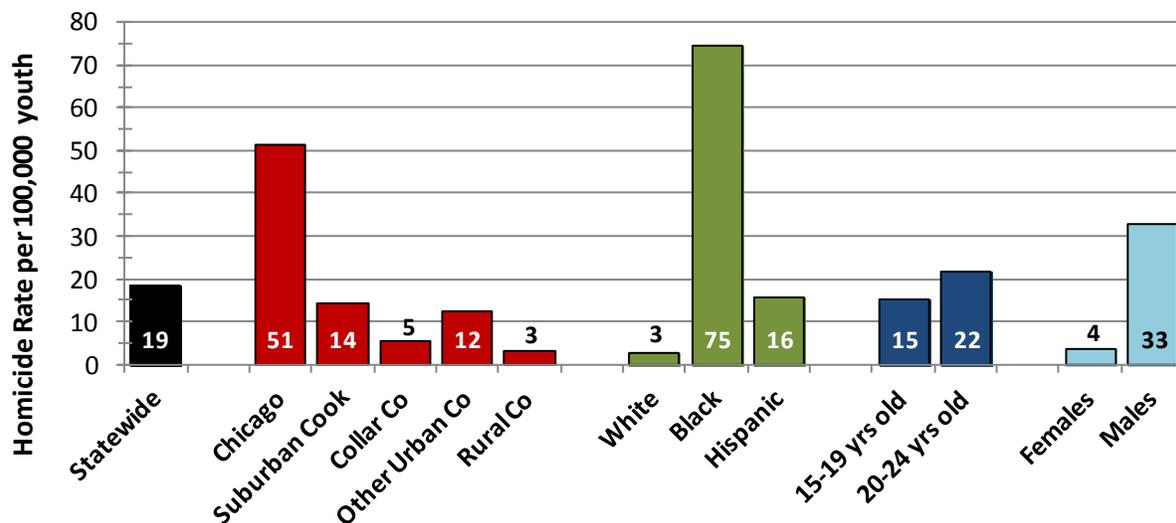


## Violence & Homicide (continued)

In 2013, 8.1% of Illinois high school students reported that they were in a physical fight on school property during the last 30 days — a decline from the 11.3% of students who reported fighting in 2007. Physical fighting was more than twice as common among Chicago students (16.9%) than the state average in the state. Black and Hispanic students were significantly more likely than White students to report being in a fight at school. Males were twice as likely to have been in a fight than females.

Additionally, 8.5% of high school students reported that they did not go to school on at least one day during the last 30 days because they felt unsafe — nearly two times the rate of 4.6% reported in 2007. Missed school due to safety concerns was more common for Chicago students (12.9%) than the state average. Black and Hispanic students were significantly more likely to report missing school than White students. There was no significant difference between boys and girls.

**Homicide Rate for Illinois Youth Ages 15-24, 2011-2012**



In Illinois during 2011-2012, there were an average of 332 homicides of youth ages 15-24 annually — a rate of 19 deaths per 100,000 youth. This is well above the *Healthy People 2020* objective of 5.5 deaths per 100,000 persons.

Over 60% of these homicides occurred in the city of Chicago, translating to a homicide rate of 51 deaths per 100,000 youth ages 15-24. Suburban Cook County and non-Chicago area urban counties also had youth homicide rates well above the *Healthy People 2020* objective.

Nearly three out of every four Illinois youth who were homicide victims were African-American. The homicide rate among Black homicides of youth ages 15-24 was 75 per 100,000 — over 13 times higher than the *Healthy People 2020* objective. Hispanic youth also experienced a high homicide rate (16 per 100,000).

The homicide rate was higher among young adults ages 20-24 than among youth ages 15-19. The homicide rate was eight times higher among male youth than females.

## Mental Health & Suicide

**Importance:** Mental health disorders are among the most common causes of disability and are strongly connected to physical health. Adolescents often do not have the skills to cope with poor mental health and may be more prone to having or acting upon thoughts of suicide. Suicide is the second most frequent cause of death among adolescents and young adults in the United States.

**Data Source:** Bi-annual Youth Risk Behavior Surveys, 2007-2013 ; Death records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2011-2012 (*data are final*) ; U.S. Census Bureau Post-Censal Population Estimates, 2011-2012.

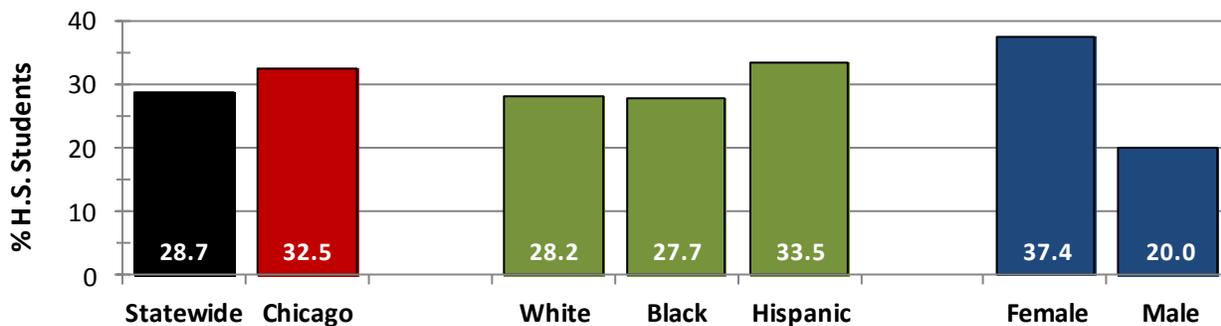
**Definitions:** High school students reported in YRBS whether they had been sad/hopeless for an extended period of time in such a way that affected their normal activities, whether they had considered committing suicide, and whether they had attempted suicide during the last year. Suicide deaths were identified using the “manner of death” on the death certificate and rates were calculated as the number of deaths per 100,000 persons in the population.

**Related Healthy People 2020 Objective(s):**

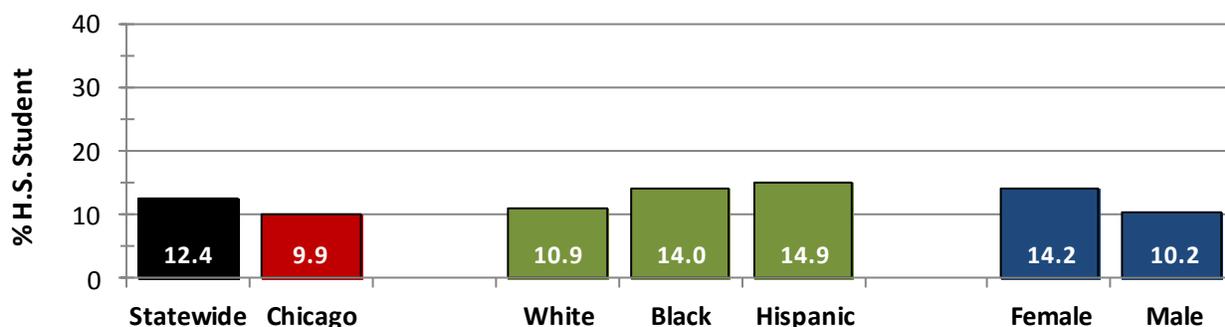
MHMD-1: Reduce the suicide rate. Target: 10.2 per 100,000

MHMD-2: Reduce suicide attempts by adolescents. Target: 1.7%

**% Illinois High School Students Who Felt Sad or Hopeless for a Period of at Least 2 Weeks During Last 12 Months, 2013 YRBS**



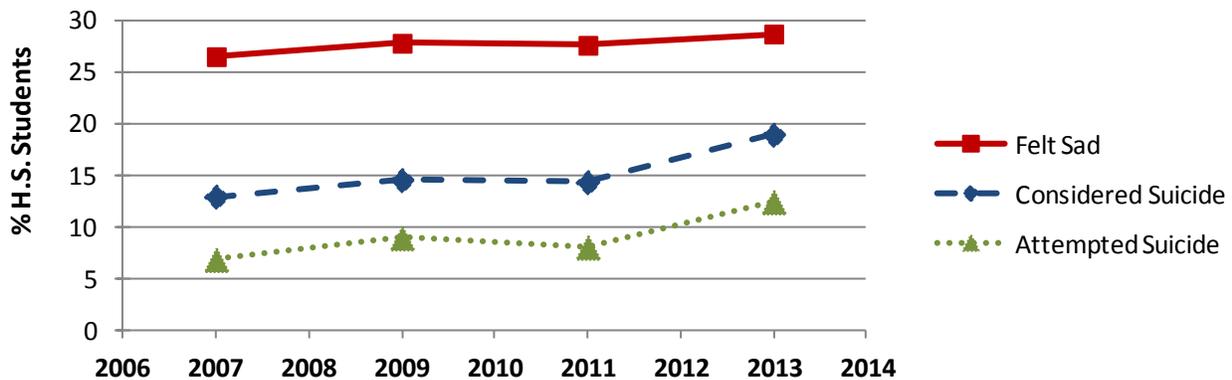
**% Illinois High School Students Who Attempted Suicide During Last 12 Months, 2013 YRBS**



## Mental Health & Suicide (continued)

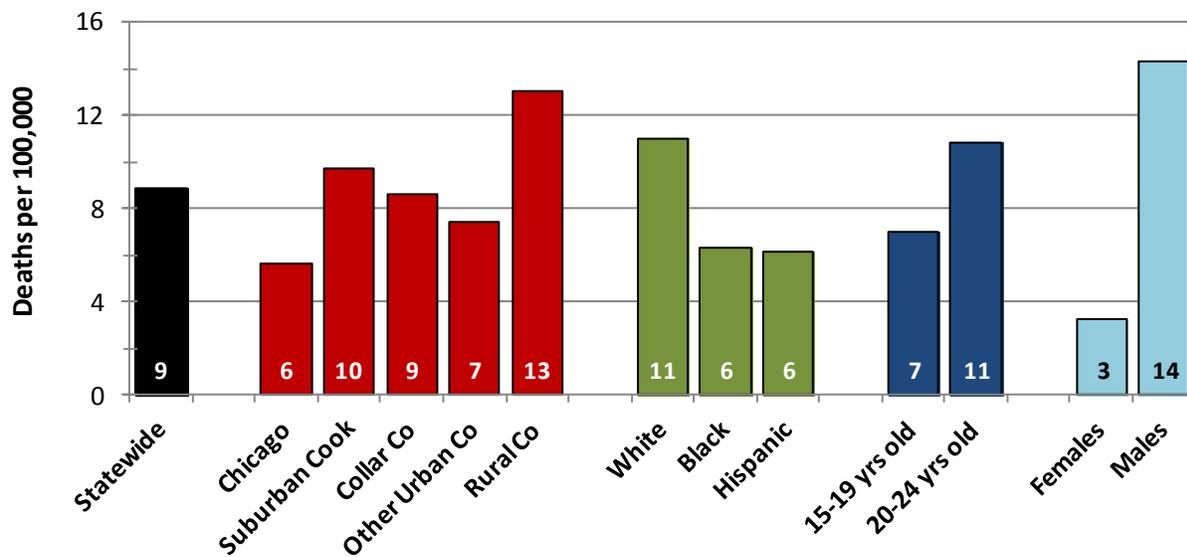
In 2013, 29% of Illinois high school students reported extended feelings of sadness. Hispanic students and female students were more likely than their counterparts to report such feelings. Additionally, 12.4% of students reported they had attempted suicide during the last 12 months. There were no significant differences by race/ethnicity, but girls were more likely to have attempted suicide than boys.

**% IL High School Students Who Felt Sadness for Extended Period of Time, Who Considered Suicide, and Who Attempted Suicide**



Looking at the YRBS data over time shows that the percent of students reporting extended periods of sadness has not significantly changed since 2007. However, the percent of students considering suicide and attempting suicide significantly increased (by 47% and 82%, respectively).

**Suicide Rate among Illinois Youth Ages 15-24, 2011-2012**



In Illinois during 2011-2012, an average of 159 youth ages 15-24 died by suicide each year — a rate of 9 deaths per 100,000 youth. Adolescents and young adults in rural Illinois counties had the highest suicide rate. Suicide rates were also higher among white youth, young adults 20-24 years old, and males.

## Sexual Health Behaviors

**Importance:** Young people may engage in sexual risk behaviors that can result in negative health outcomes, such as sexually transmitted diseases, HIV, and unintended pregnancy.

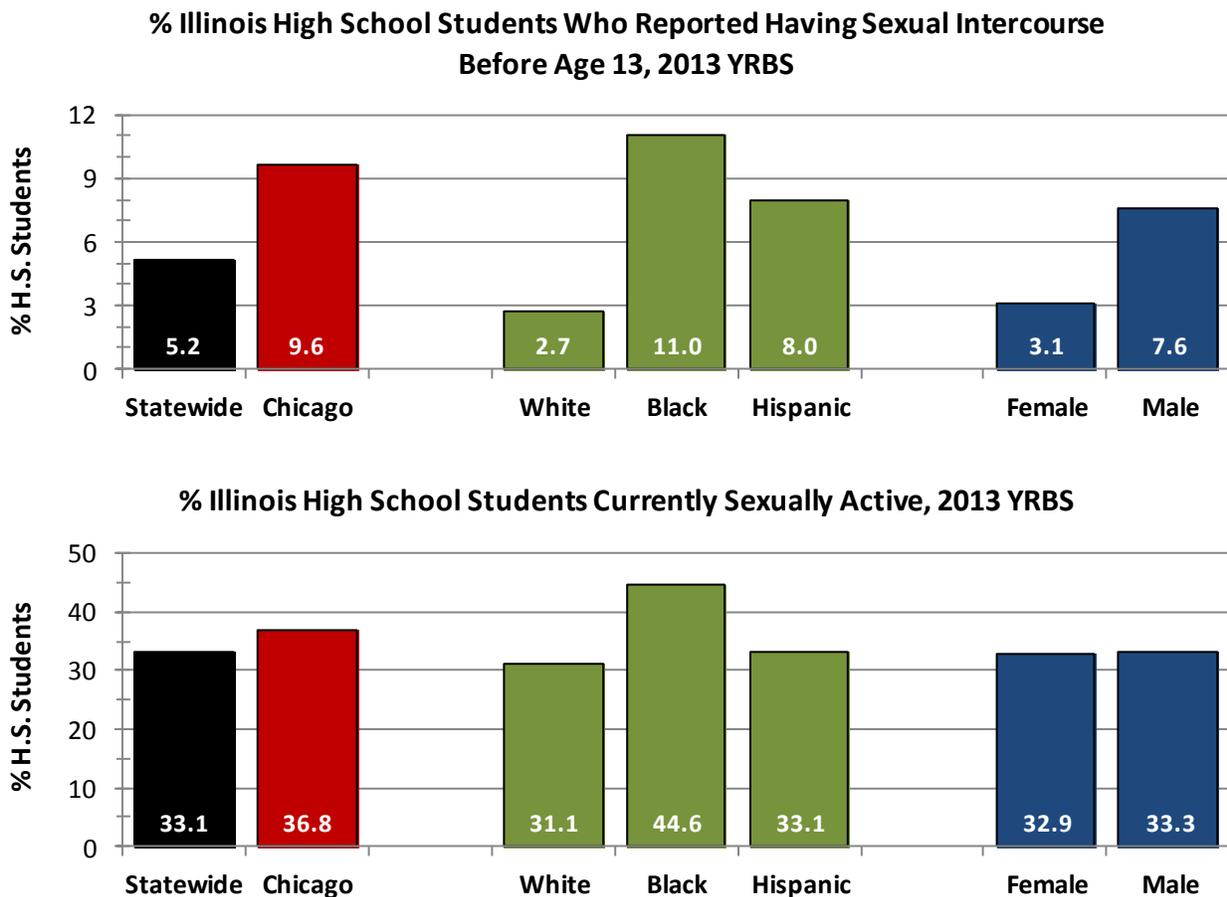
**Data Source:** Youth Risk Behavior Survey, 2013

**Definitions:** High school students reported various behaviors / experiences related to their sexual activity and receipt of HIV education in school.

**Related Healthy People 2020 Objective(s):**

FP-9.1 & FP-9.2: Increase the proportion of female and males adolescents aged 15 to 17 years who have never had sexual intercourse

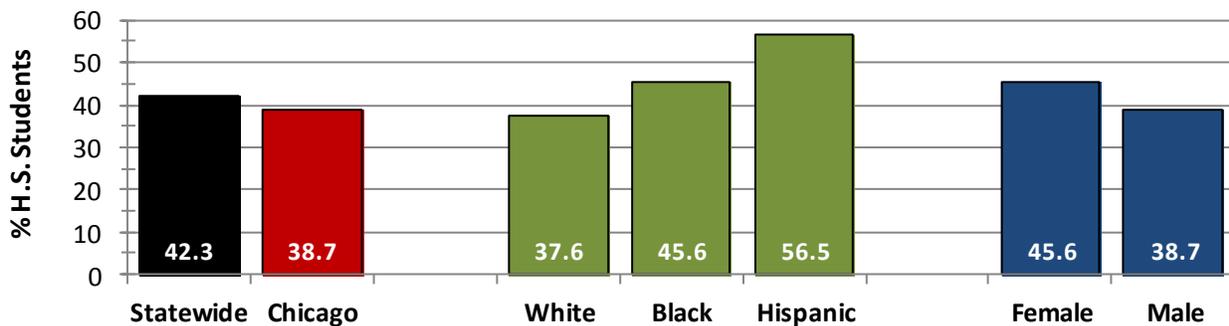
FP-10.3 & FP-10.4: Increase the proportion of sexually active females and males aged 15 to 19 years who used a condom at last intercourse



In 2013, 5.2% of Illinois high school students reported becoming sexually active before age 13 and 33.1% reported being currently sexually active. For both indicators, the rates in Chicago were higher than the state average. Black students were the racial group most likely to report early sexual debut and current sexual activity, though Hispanics also had a high rate of early sexual debut. Boys were more likely to report early sexual debut than girls, but there was no statistically significant difference for current sexual activity.

## Sexual Health Behaviors (continued)

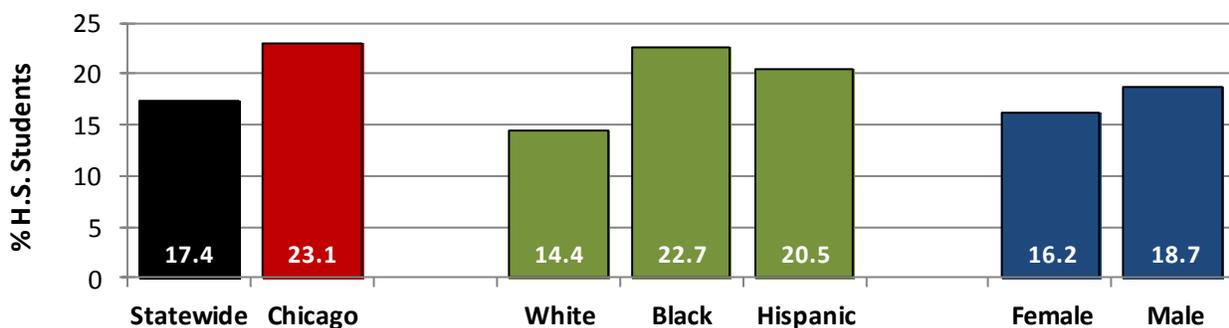
**% Sexually Active Illinois High School Students Who Did NOT Use a Condom at Last Intercourse, 2013 YRBS**



Among students who reported being currently sexually active, 42.3% did not use a condom during the last time they had intercourse. More than 56% of Hispanic students did not use a condom at last intercourse, significantly higher than the 37% among White students. There was not a statistically significant difference in condom use between boys and girls.

Alarming, looking at past YRBS surveys demonstrates that this indicator is moving in the wrong direction. In 2007, 35% of students reported no condom use at last intercourse, but this significantly increased to 42% in 2013.

**% Illinois High School Students Who Reported They Did NOT Learn About HIV/AIDS in School, 2013 YRBS**



In 2013, 17% of Illinois high school students and 23% of Chicago high school students reported not learning about HIV/AIDS in school. Both Black and Hispanic students were more likely to report not learning about HIV/AIDS than White students. There was not a significant difference between boys and girls.

Unfortunately, this indicator is moving in the wrong direction over time. In 2007, only 9.4% of students reported not learning about HIV/AIDS in school — significantly lower than the rate of 17.4% in 2013.

*See Also "Sexually Transmitted Diseases & HIV" on page 16-17 to view data on infection rates among adolescents*

# Teen Childbearing

**Importance:** Teen pregnancy is generally unintended and has long-term negative effects on future physical, behavioral, educational, and economic development of both mothers and children.

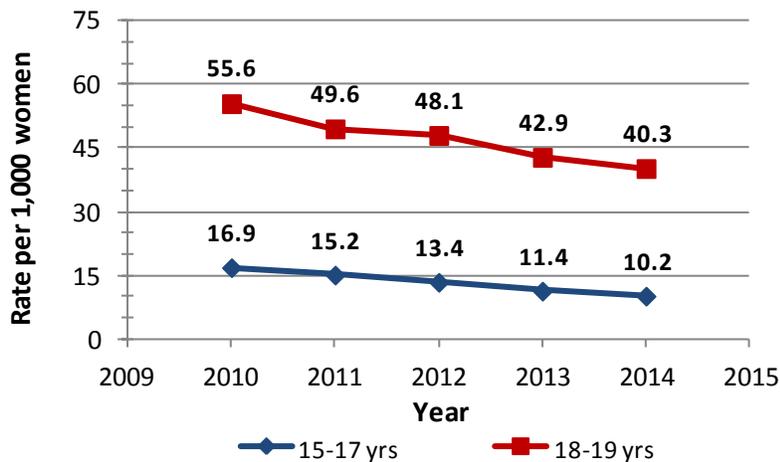
**Data Source:** Birth records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2010-2014 (2010-2011 data are final and 2012-2014 data are provisional, may be subject to change upon finalization) ; U.S. Census Bureau Post-Censal Population Estimates, 2010-2013.

**Definitions:** Births to women ages 15 to 19 were considered teen births. Births to younger women were not considered in this analysis due to small numbers. The teen birth rate was calculated as the number of births per 1,000 women ages 15-19 in the population.

**Related Healthy People 2020 Objective(s):**

- FP-8.1: Reduce pregnancies among adolescent females aged 15 to 17 years.
- FP-8.2: Reduce pregnancies among adolescent females aged 18 to 19 years.

**Birth Rate for Illinois Women 15 to 19 Years Old**



The birth rate to teen women ages 15-19 has dropped substantially over the last five years.

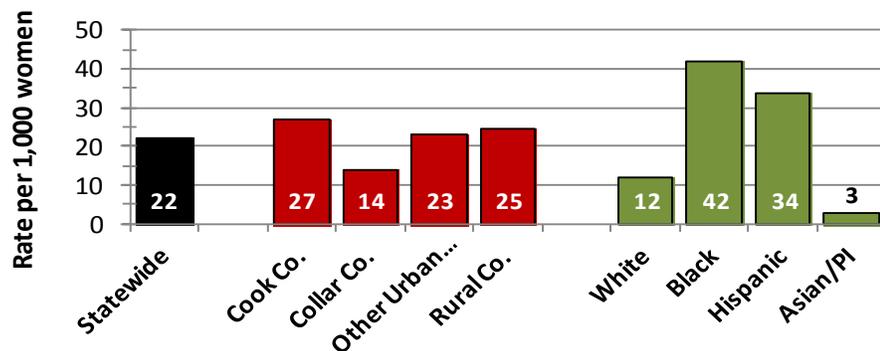
For 15-17 year olds, the birth rate dropped 40%: from 16.9 per 1,000 in 2010 to 10.2 per 1,000 in 2014.

For 18-19 year olds, the birth rate dropped 28% :from 55.6 per 1,000 in 2010 to 40.3 per 1,000 in 2014.

Among all Illinois women 15-19, the birth rate was 22 per 1,000 in 2014. The teen birth rate was lower in the Collar counties than other areas in the state.

The birth rates for Black and Hispanic teens were significantly higher than the rate for White teens.

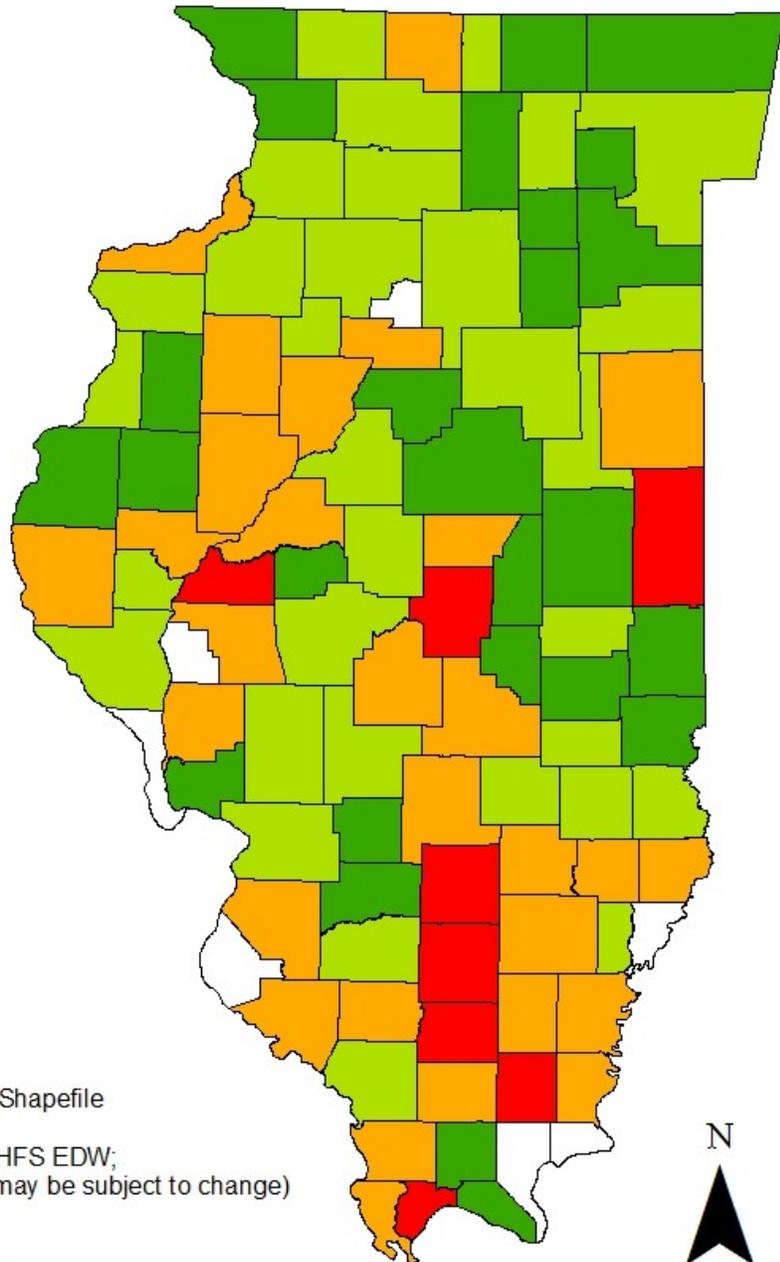
**Birth Rate to Illinois Women 15-19 Years Old, 2014\***



## Teen Childbearing (continued)

### Teen Birth Rate By Illinois County, 2012-2014 (provisional data)

#### Teen Birth Rate



#### Data Sources:

Map File: TigerLine Census 2010 Shapefile

Birth Data: IDPH Vital Records & HFS EDW;  
2012-2014 provisional birth files (may be subject to change)

Analysis Details:  
Includes births occurring in Illinois to  
Illinois resident women ages 15 to 19



Teen birth varied substantially throughout the state, with county-level teen birth rates ranging from a low of 5.7 births per 1,000 (Jo Daviess Co.) to a high of 51.4 per 1,000 (Vermilion Co.). The eight counties with the highest teen birth rates (*shown in red on the map*) were: Vermilion, Franklin, Pulaski, Saline, Marion, Jefferson, Macon, and Cass.

## Alcohol, Tobacco, and Other Drug Use

**Importance:** The use of tobacco products, such as cigarettes, can lead to a variety of illnesses and conditions, including cancer, heart disease, and lung disease. Cigarette smoking among adolescents can result in both immediate and long-term damage. Alcohol and other drugs alter brain functioning, and early substance use is especially dangerous, as it increases an individual’s risk for drug abuse and addiction as well as teenage pregnancy, HIV/AIDS, other sexually transmitted diseases, motor vehicle accidents, crime, homicide, and suicide.

**Data Source:** Youth Risk Behavior Survey, 2013

**Definitions:** High school students self-reported whether they had ever used various substances, and whether they had used certain substances during the last 30 days.

**Related Healthy People 2020 Objective(s):**

TU-2.1: Reduce use of tobacco products by adolescents (past month). Target: 21.0%

TU-2.2: Reduce use of cigarettes by adolescents (past month). Target: 16.0%

SA-13.2: Reduce the proportion of adolescents reporting use of marijuana during the past 30 days. Target: 6.0%

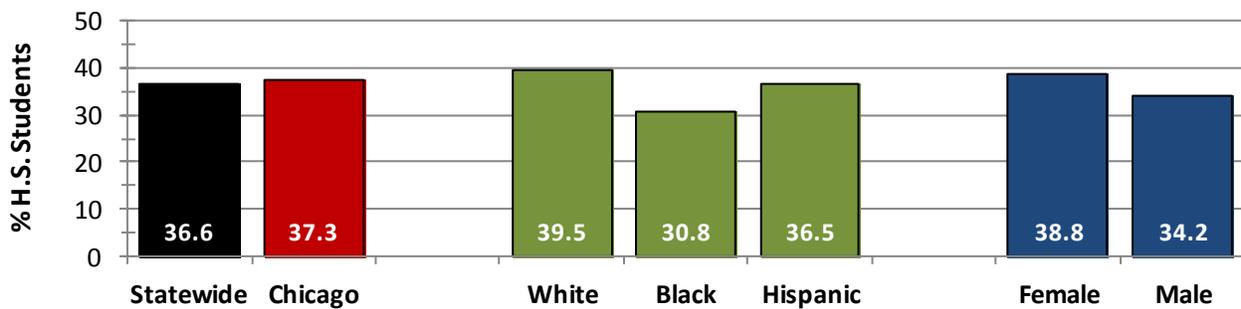
SA-14.4: Reduce the proportion of persons engaging in binge drinking during the past month—adolescents aged 12 to 17 years. Target; 8.6%

SA-18: Reduce steroid use among adolescents.

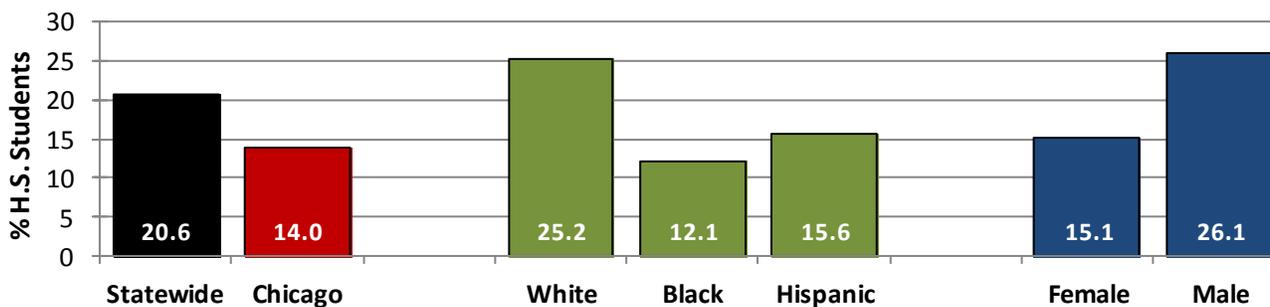
SA-19: Reduce the past-year nonmedical use of prescription drugs.

SA-21: Reduce the proportion of adolescents who use inhalants.

**% IL High School Students Who Drank Alcohol in the Last 30 Days, 2013**



**% IL High School Students Using Any Tobacco Product During Last 30 Days, 2013**



## Alcohol, Tobacco, and Other Drug Use (continued)

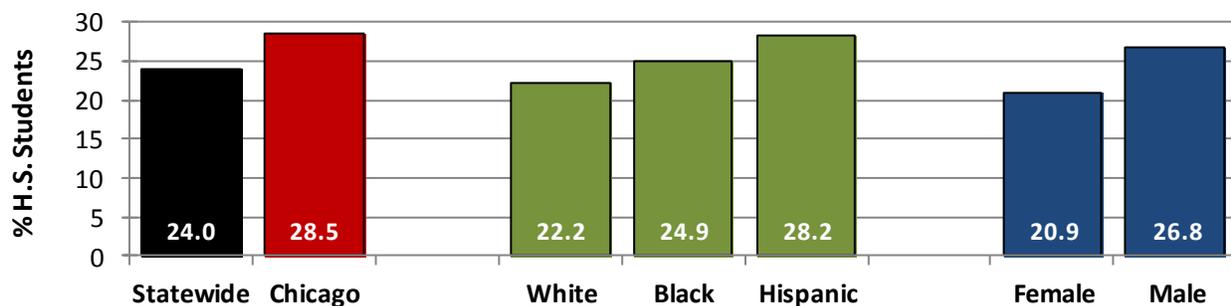
**ALCOHOL:** Over one-third of Illinois high school students reported drinking alcohol during the last 30 days. There were no significant differences by race/ethnicity, but girls were more likely to report recent alcohol use than boys. Additionally, 21.1% of students reported binge drinking in the last 30 days (*data not shown*).

**TOBACCO:** Over 20% of Illinois high school students reported any tobacco product use during the last 30 days; 14.1% smoked cigarettes, 14.0% smoked cigars, and 8.4% used smokeless tobacco. Any type of tobacco use was highest among White students and among males.

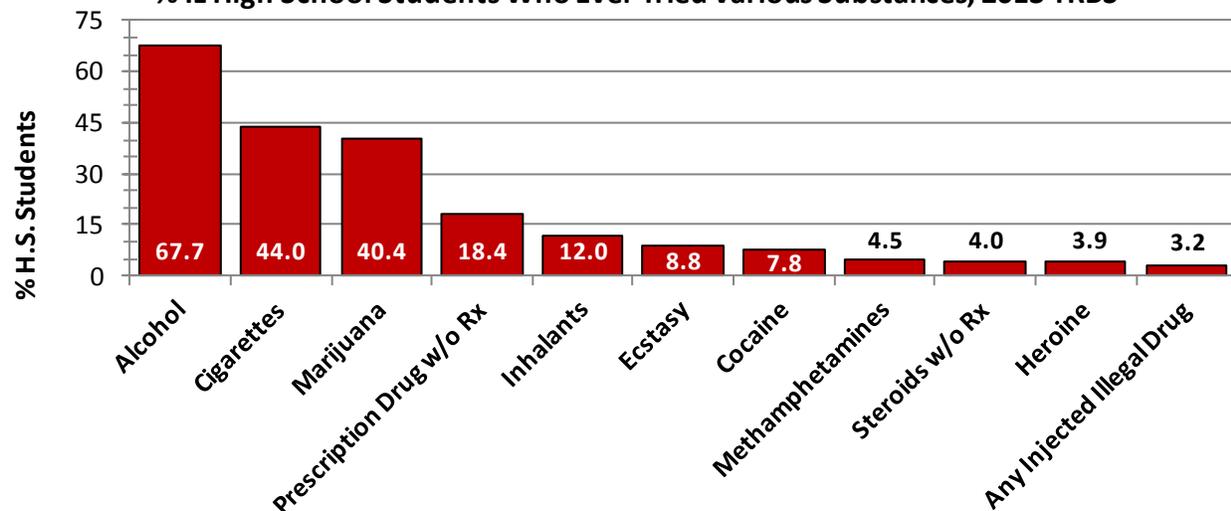
**OTHER DRUGS:** 24% of Illinois high school students reported using marijuana during the last 30 days. Hispanic students were significantly more likely to have used marijuana than White students, and males were more likely to have used marijuana than females.

Over 40% of students reported ever using marijuana. The next most common drugs ever used by students were prescription medications without a prescription (18.4%), inhalants (12.0%), and ecstasy (8.8%).

**% IL High School Students Who Used Marijuana in the Last 30 Days, 2013**



**% IL High School Students Who Ever Tried Various Substances, 2013 YRBS**



# Section 6:

## Children with Special Health care Needs (CSHCN)

<u>Topic</u>	<u>Page</u>
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Type of Special Health care Needs	67
Family Partnership	68
Medical Home	69
Adequate Insurance	70
Community-Based Services	71
Youth Transition Services	72

### Notes About the Data Source: DSCC Family Survey

To gather information and input from families of CSHCN in Illinois, the UIC Division of Specialized Care for Children developed and implemented a family survey in 2014. This survey was intended to capture detailed information on the experiences of Illinois CSHCN related to topics such as: access to health care and health-related services, care coordination, insurance and health care financing, and youth transition services. The survey was open from April 2014 through July 2014 through both paper and online versions, as well as being available in both English and Spanish. A total of 1,400 completed surveys were returned, representing about 25% of DSCC families.

The data from this survey serves as the source of data for this section on children with special health care needs. The National Survey of Children with Special Health care Needs was not used because it is out-of-date (last iteration was 2009-2010) and because the children captured in that survey are different from the population of children served by the Illinois Title V CSHCN program.

# Children Served by UIC-DSCC

**Importance:** The Division of Specialized Care for Children (DSCC) of the University of Illinois at Chicago (UIC) aims to enable all Illinois children with special needs to achieve their full potential. Since 1937, DSCC has provided services to families of children with special health care needs, including care coordination, financial assistance, and family support services. DSCC is the state agency designated to carry out public health services for children with special health care needs (CSHCN) under Illinois' Title V (Maternal and Child Health Services) Program.

This section will provide an overview of the child and family characteristics for those children served by UIC -DSCC whose parent/guardian completed the 2014 DSCC family survey.

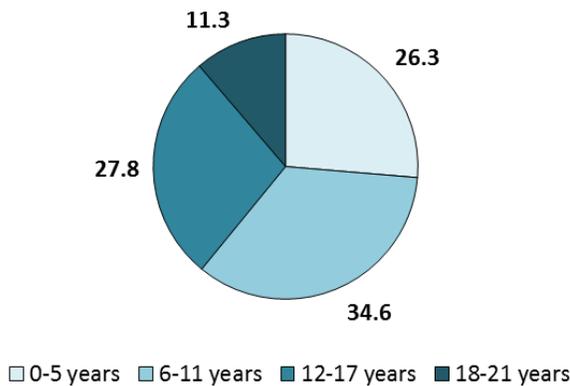
**Data Source:** DSCC Family Survey, 2014

**AGE:** DSCC serves children from birth up to age 21. Children along the whole spectrum of this age range were represented in the survey, with about 60% being under 12 years of age.

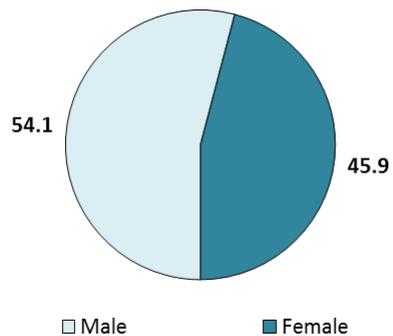
**SEX:** More males than females were represented in the DSCC survey (54% vs. 46%).

**RACE/ETHNICITY:** Of children in the DSCC survey, 63% were White, 21% were Hispanic, 8% were Black, and 8% were other/multiple race.

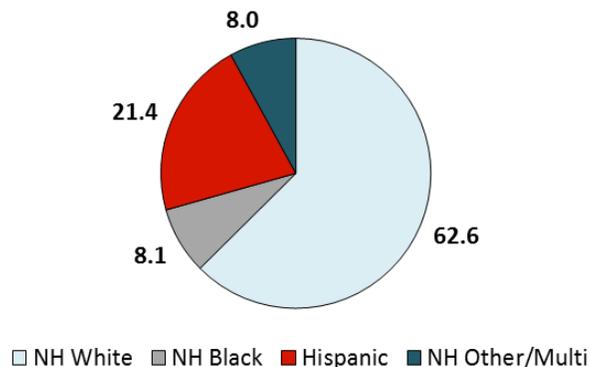
**Age of Children in DSCC Family Survey**



**Sex of Children in DSCC Family Survey**



**Race/Ethnicity of Children in DSCC Family Survey**



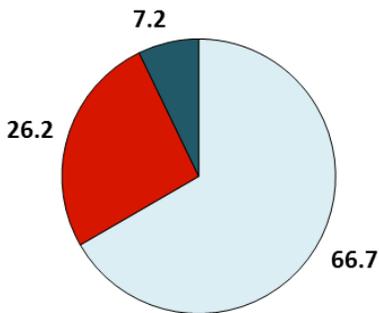
## Children Served by UIC-DSCC (continued)

**FAMILY STRUCTURE:** Approximately two-thirds of children in the DSCC family survey lived in two-parent families (with biological, adopted, or step-parents), 26% lived in single mother families, and 7% in other family structures (including single fathers, grandparent-headed families, etc.).

**INSURANCE STATUS:** A total of 97.5% of DSCC children were insured at the time of the DSCC family survey. The most common type of insurance coverage was public insurance (Medicaid or AllKids), which covered 45.1% of DSCC children. An additional 38.2% of DSCC children were privately insured and 11.3% were covered by *both* private and public insurance. Only about 5% had “other” or no insurance.

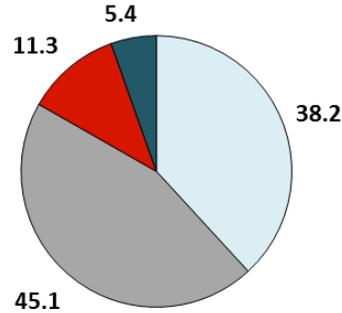
**HOUSEHOLD INCOME:** Among DSCC families, about one-third (31%) were poor, or had income levels below the federal poverty line (FPL). Additionally, another one-third (35%) of DSCC families were “near-poor” (had income levels 100-199% of the FPL). Only about one-third (34%) of DSCC families were middle or higher income families (income at least 200% of the FPL).

**Family Structure of Children in DSCC Family Survey**



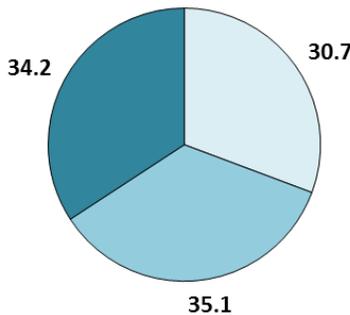
□ 2 Parent Family    ■ Single Mother    ■ Other

**Current Insurance Status of Children in DSCC Family Survey**



□ Private Ins    ■ Public Ins  
 ■ Both Private & Public    ■ Other or Uninsured

**Household Income of Children in DSCC Family Survey**



□ Poor    ■ Near Poor    ■ Middle/Higher Income

## Type of Special Health care Needs

**Importance:** The NS-CSHCN uses five special health care needs screening criteria to determine the type and severity of needs experienced by children with complex medical conditions. The screening criteria employed by NS-CSHCN were included in the 2014 DSCC Family Survey.

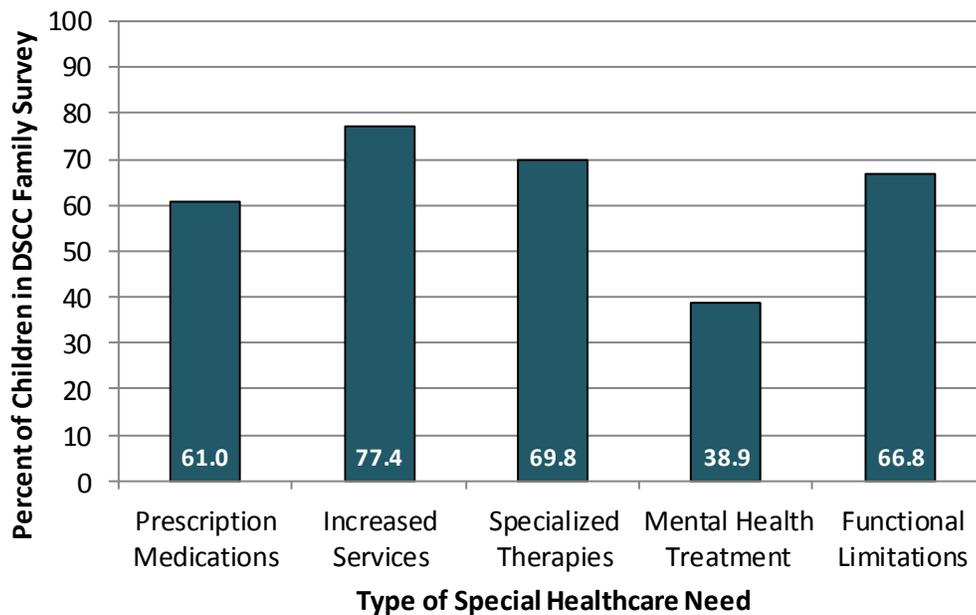
**Data Source:** DSCC Family Survey, 2014

**Definitions:** The five criteria that classify a child as having “special health care needs” according to the MCHB definition include:

- Use of prescription medication(s)
- Need for medical, mental health, or educational services beyond that of other children the same age
- Need for special therapies (e.g. physical therapy, speech therapy)
- Have an emotional, developmental, or behavioral problem for which the child receives treatment or counseling
- Have limitations in abilities compared to other children the same age (functional limitations)

Of those children whose families completed the 2014 DSCC Family Survey, the most common type of special health care need was increased medical services, followed by: specialized therapies, functional limitations, prescription medications, and mental/behavioral health services.

**Percent of DSCC Children with Each of Five CSHCN Screening Criteria**



DSCC children were also very likely to have more than one of these five special needs. Approximately 80% of the DSCC children surveyed had two or more of the types of special health care needs, and 49% had four or more types of special health care needs.

## Family Partnership in Decision-Making

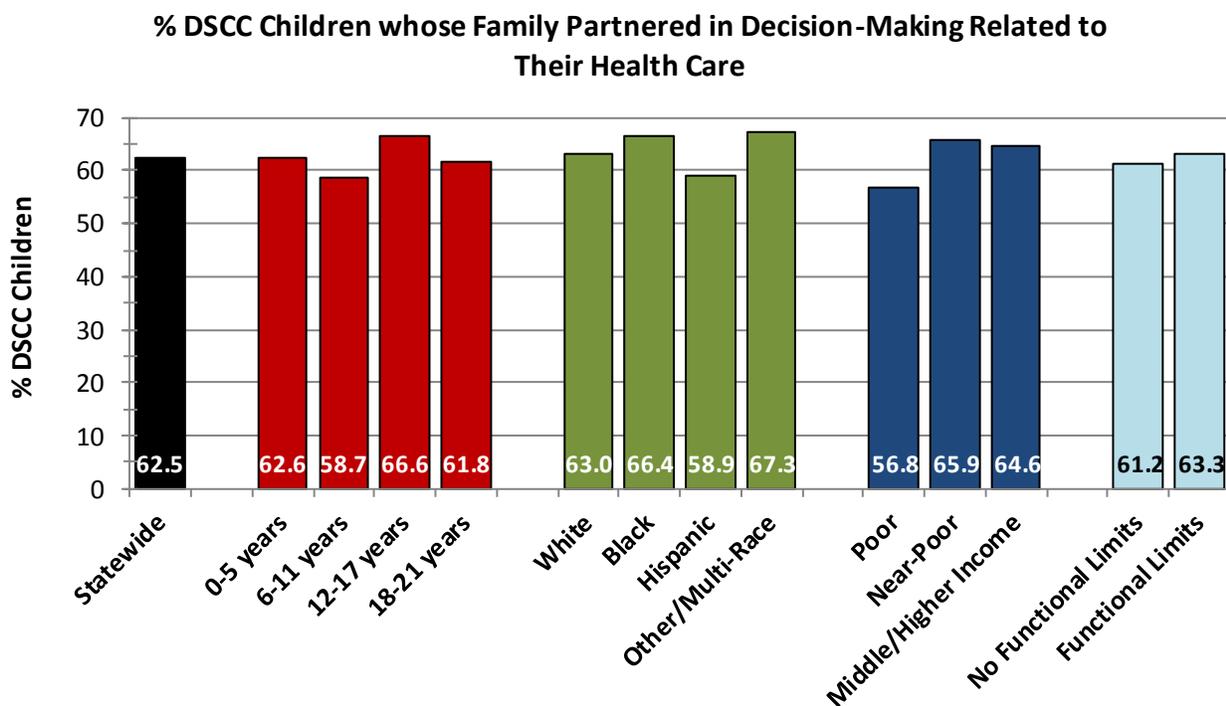
**Importance:** Family-centered care is a process to ensure that the organization and delivery of services, including health care services, meet the emotional, social, and developmental needs of children; and that the strengths and priorities of their families are integrated into all aspects of the service system.

**Data Source:** DSCC Family Survey, 2014

**Definitions:** Parents/guardians were asked four questions to gauge how frequently they were engaged in the decision-making process for the child’s health care. Children whose families reported “always” or “often” for *all four* questions were considered to have experienced family partnership in decision-making related to their health care and treatment.

**Related Healthy People 2020 Objective(s):**

MICH-31: Increase the proportion of children with special health care needs who receive their care in family-centered, comprehensive, and coordinated systems



Overall, 62.5% of DSCC children had families who were involved as a partner in decision-making about their health care and health.

Hispanic children were less likely to have their family involved as a partner in decision-making than children of other racial/ethnic groups. Children living in poor families were less likely to have their family involved as a partner in decision-making than those in near-poor or middle/higher income families.

The percent of families involved as partners in decision-making was not significantly different across age groups or by functional limitation status.

# Medical Home for CSHCN

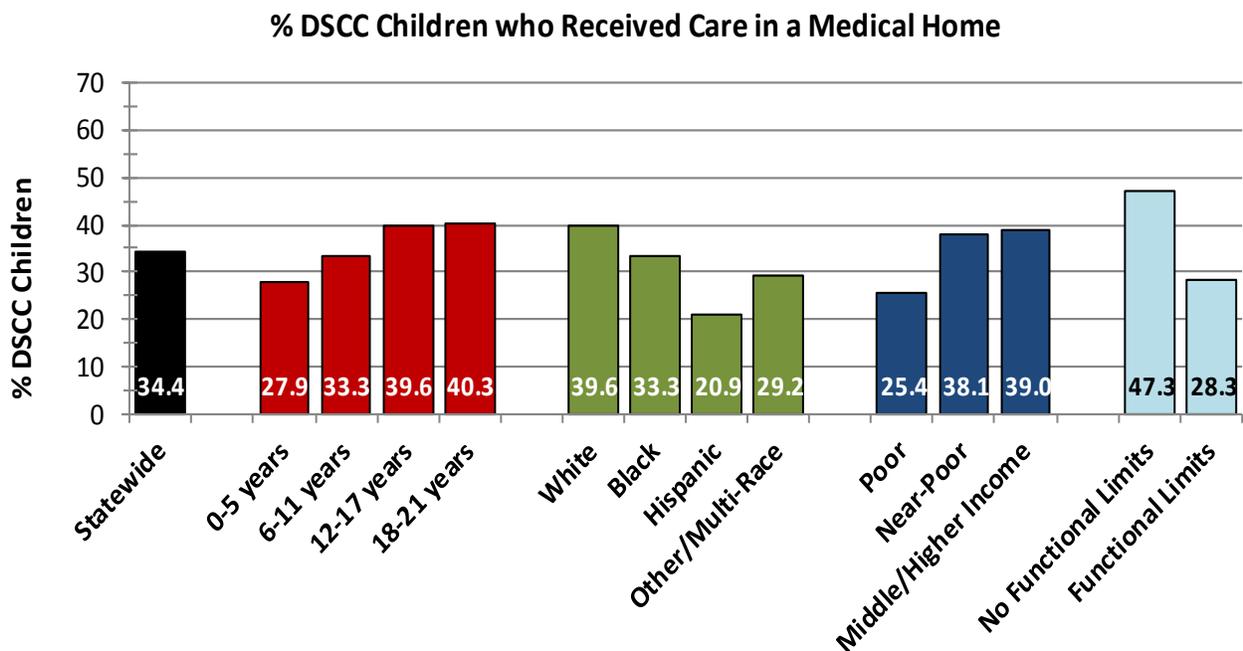
**Importance:** A medical home is a source of ongoing, comprehensive, coordinated, family-centered care in the child’s community. The medical home can and should provide preventive services, appropriate screening, health care supervision, and counseling for patients and their families, as well as ensuring continuity of care over time.

**Data Source:** DSCC Family Survey, 2014

**Definitions:** MCHB developed a core indicator that measures five sub-components of the medical home: usual source of care, personal doctor or nurse, family-centered care, receipt of needed referrals, and receipt of effective care coordination services. The DSCC Family Survey was adapted to include sixteen questions that would capture these five components and produce a summary measure of the percent of children receiving care in a medical home.

**Related Healthy People 2020 Objective(s):**

MICH-30.2: Increase the proportion of children with special health care needs who have access to a medical home. Target: 51.8%



Overall, about one-third of DSCC children received care in a comprehensive medical home. The percent of DSCC children who received care in a medical home significantly varied by age, race/ethnicity, income, and functional limitation status.

Older children tended to be more likely to have a medical home than younger children. Non-Hispanic white children were the most likely of all racial/ethnic groups to have a medical home, while Hispanic children were the least likely. Children in poor households were less likely to have a medical home than those in near-poor or middle/higher income families. Finally, children without functional limitations were more likely to have a medical home than those with functional limitations.

## Adequate Insurance Coverage

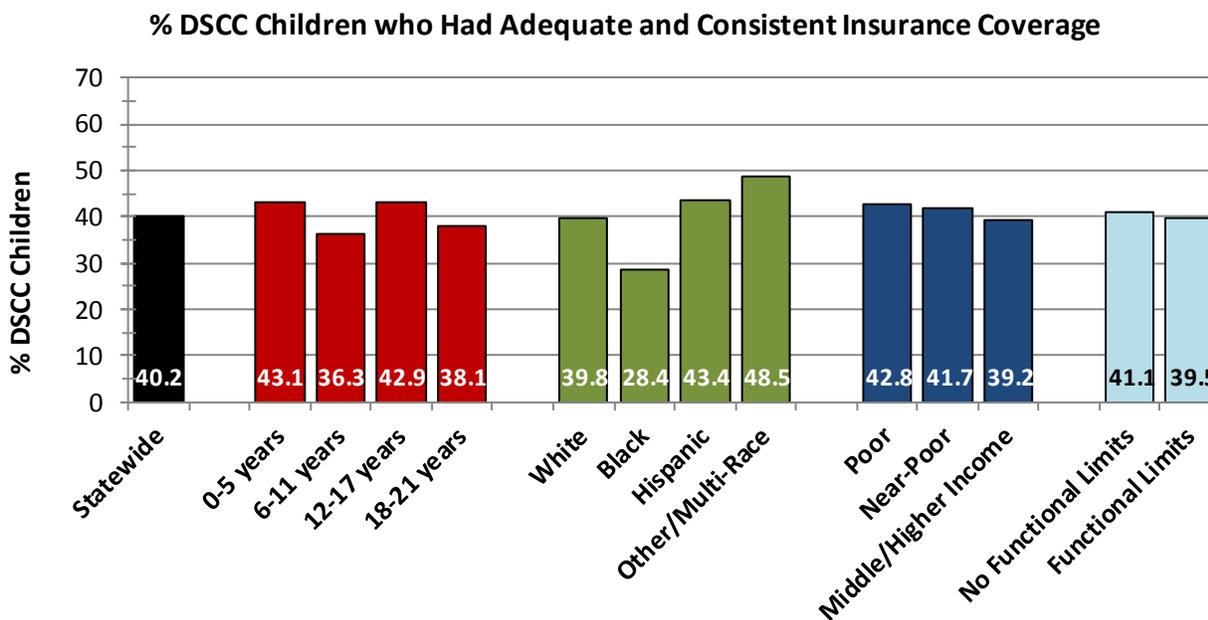
**Importance:** Without health insurance, children are more likely to forgo necessary preventive care and acute health care can leave their families with overwhelming medical bills. Insurance coverage alone, however, does not guarantee that children will be able to receive needed services, as plan benefit limitations or out-of-pocket costs may be prohibitive for families.

**Data Source:** DSCC Family Survey, 2014

**Definitions:** Five survey questions were created to ask families about their child’s current insurance coverage, gaps in coverage over the last year, and their perceptions of whether the child’s current insurance met the child’s needs. The responses for these three components were combined to determine whether the child had consistent and adequate insurance coverage to meet their care needs during the last year.

**Related Healthy People 2020 Objective(s):**

AHS-1.1: Increase the proportion of persons with medical insurance . Target: 100%



While 97.5% of DSCC children were covered by insurance at the time of the survey, only 40.2% of had adequate and consistent insurance over the last year. Adequate and consistent insurance did not significantly vary by age group, household income, or functional limitations.

Child’s race/ethnicity, however, did affect whether children had adequate and consistent insurance. Non-Hispanic black children were least likely to have adequate and consistent insurance coverage, which was present for only 28% of these children. In contrast, 40% or more of children in each other racial/ethnic group had adequate and consistent insurance.

# Community-Based Services

**Importance:** A community-based system of services is an infrastructure that operates across service sectors, facilitating integration of services in organization, delivery, and financing. It is clear that communities and their resources affect the way families of children with special health needs find and use services.

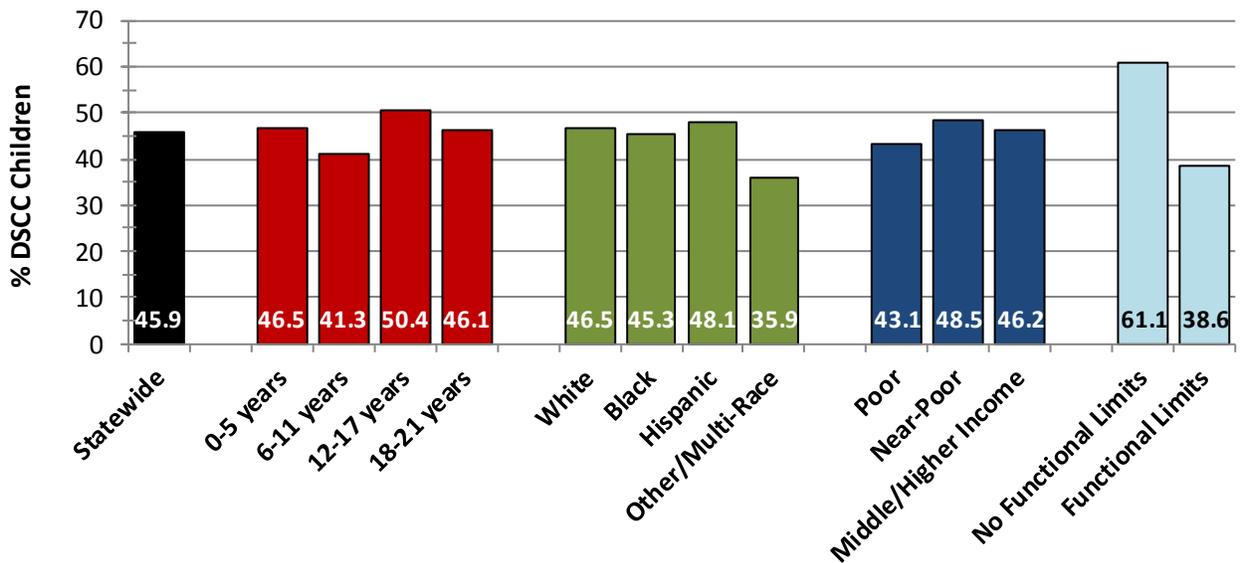
**Data Source:** DSCC Family Survey, 2014

**Definitions:** Seven survey questions were created to ask families about barriers they encountered in accessing services for CSHCN and how frustrated they were in their efforts to obtain services for their children. The responses for these components were combined to determine whether the family was able to easily access community-based services.

**Related Healthy People 2020 Objective(s):**

MICH-31: Increase the proportion of children with special health care needs who receive their care in family-centered, comprehensive, and coordinated systems

**% DSCC Children whose Families Were Able to Easily Access Community-Based Services**



Overall, 45.9% of DSCC children experienced well-organized community-based services. Receiving services in a well-organized system did not significantly vary by age, race/ethnicity, or household income.

Functional limitation status, however, did influence the rate of experiencing community-based services. Children without functional limitations were substantially more likely to experience well-organized community-based services than children with functional limitations.

## Transition Services for Youth

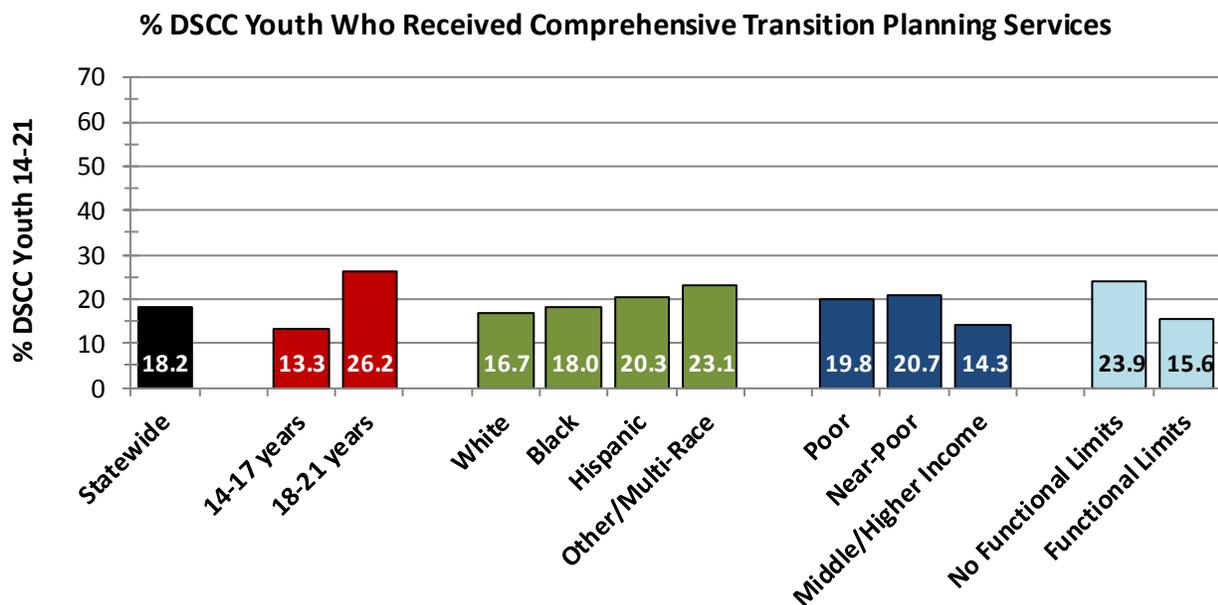
**Importance:** Rapid advances in medical science have enabled more than 90% of children born with special needs to reach adulthood, but youth with special health care needs (YSHCN) and their families need coordinated services to assist them in their transition to adult-oriented care and independence. Transition planning must begin early in order to move children along in a developmentally appropriate fashion.

**Data Source:** DSCC Family Survey, 2014

**Definitions:** Eight survey questions were created to ask families about two dimensions of transition services: whether doctors encouraged adolescents to take responsibility for their health care, and whether doctors had provided anticipatory guidance for the transition to adult health care. The responses for these two sub-components were combined to determine whether the child received transition services.

**Related Healthy People 2020 Objective(s):**

DH-5: Increase the proportion of youth with special health care needs whose health care provider has discussed transition planning from pediatric to adult health care.



If a young adult had providers who encouraged them to take responsibility for their health care *and* received need anticipatory guidance, they were considered to have met the MCHB core outcome on comprehensive transition services.

Under this definition, only 18.2% of DSCC youth ages 14-21 received comprehensive transition services. The only characteristic that significantly affected receipt of transition services was child’s age. Youth 18-21 years old were twice as likely to receive comprehensive transition services as youth 14-17 years old, though the rates for both groups were very low (26.2% vs. 13.3%).

# Section 7:

## Life Course / Cross-Cutting Issues

<u>Topic</u>	<u>Page</u>
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## Concentrated Disadvantage

**Importance:** “Concentrated disadvantage” is a standardized measure for the economic strength of a community. While it is similar to measuring poverty, it encompasses more than just income level to determine a community’s economic standing. Previous research has demonstrated the association of community concentrated disadvantage with a wide array of health outcomes.

**Data Source:** Census estimates, 2010 ; American Community Survey (ACS) 2008-2012 5-year estimates ; Birth records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2010 (final data) ; Death records, IDPH Division of Vital Records, Enterprise Data Warehouse (EDW), 2009-2011 (final data) .

### **Definitions:**

#### *Concentrated Disadvantage Indicator*

Several measures of community economic viability and strength were combined to create the concentrated disadvantage indicator (as described by the Association of Maternal and Child Health Program Lifecourse Indicator set). Economic disadvantage was calculated at the county-level based on five variables collected in the U.S. Census and ACS:

- % of families under the poverty line
- % of persons living in households receiving public assistance (cash assistance, SSI, SNAP)
- % of individuals 16 and older in the labor force who are unemployed
- % of households headed by single females
- % of persons under 18 years of age

For each variable, a county’s percentage was compared to the state average by creating a z-score (which indicates the number of standard deviations away from the state average that the county fell). The z-scores for the five variables were then averaged to create an overall z-score for the county. The county-level overall z-scores were divided into four quartiles to indicate relative levels of concentrated disadvantage.

*Health Outcomes:* Various health outcomes were stratified by the quartiles of concentrated disadvantage.

- Infant mortality rate (per 1,000 live births)
- % Low birth weight births (<2500 grams)
- % Very low birth weight births (<1500 grams)
- Teen birth rate (per 1,000 women ages 15-19)
- % Births where mother received no or late (3rd trimester) prenatal care
- Homicide rate (per 1,000 persons)

# Concentrated Disadvantage (continued)

## Concentrated Disadvantage By Illinois County, 2008-2012

The 10 Most Disadvantaged Counties in Illinois are:  
(in alphabetical order)

- Alexander
- Cook
- Kankakee
- Macon
- Marion
- Pulaski
- Saline
- St. Clair
- Vermillion
- Winnebago

### Level of Disadvantage

(compared to state average)

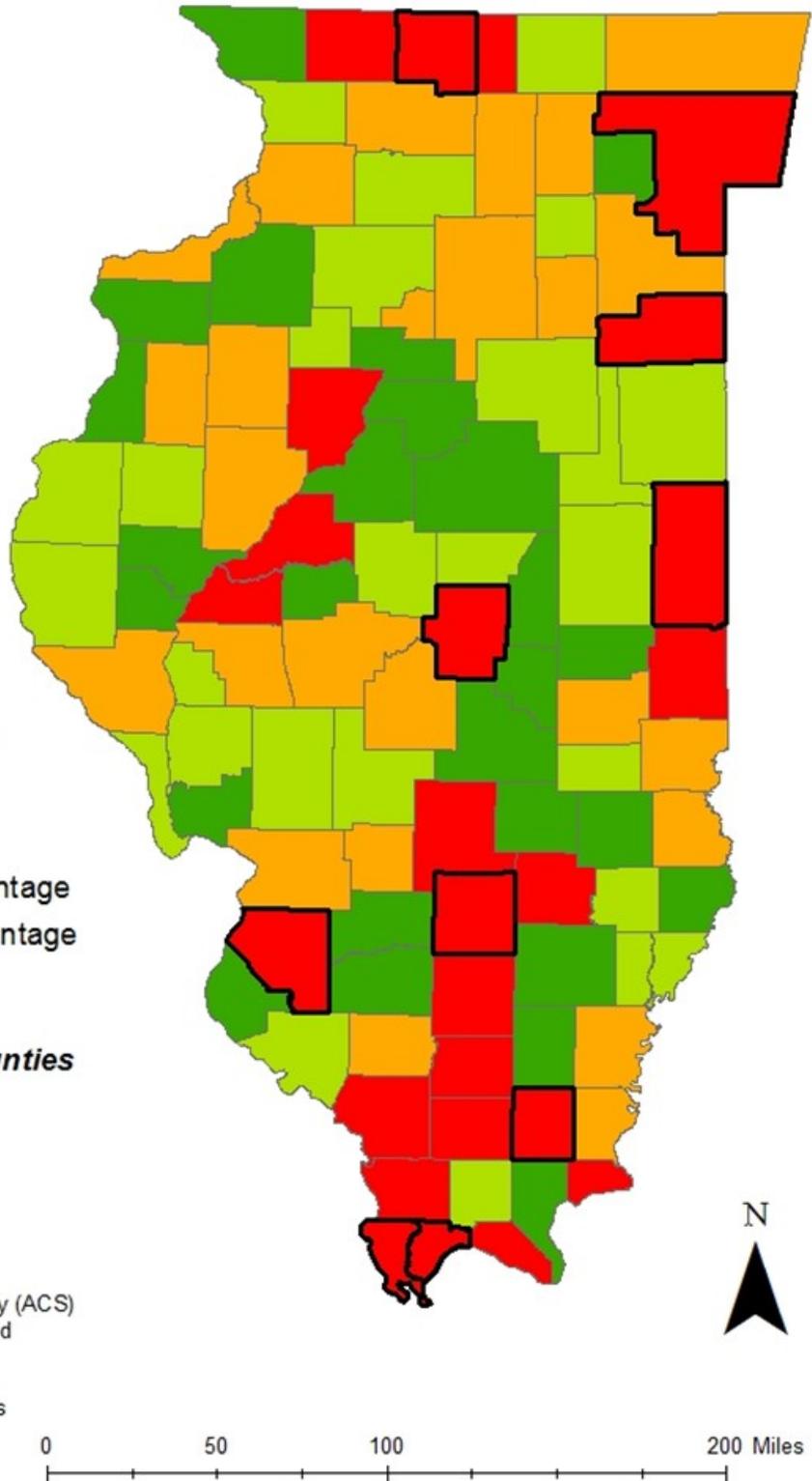
-  Low Disadvantage
-  Low-Medium Disadvantage
-  Medium-High Disadvantage
-  High Disadvantage

**Top 10 disadvantaged counties are outlined in bold line**

### Data Sources:

Economic Disadvantage is a summary index created from five variables in the 2008-2012 American Community Survey (ACS) and 2010 Census files, as recommended by AMCHP Life Course Indicator Set.

Shapefiles: 2010 Census TigerLine Files



## Concentrated Disadvantage (continued)

### Birth Outcomes By County-Level Concentrated Disadvantage

	Infant Mortality Rate (IMR) per 1,000 births 2009-2011	% Low Birth Weight (LBW) (<2500g) 2010	% Very Low Birth Weight (VLBW) (<1500g) 2010
Low Disadvantage	5.0 per 1,000	7.0 %	1.11 %
Low-Medium Disadvantage	5.5 per 1,000	7.4 %	1.35 %
Medium-High Disadvantage	5.7 per 1,000	7.6 %	1.38 %
High Disadvantage	6.9 per 1,000	8.8 %	1.60 %
<i>Healthy People 2020 Objectives</i>	<i>&lt; 6.0 per 1,000</i>	<i>&lt; 7.8 %</i>	<i>&lt; 1.40 %</i>

### Other Outcomes By County-Level Concentrated Disadvantage

	Teen Birth Rate per 1,000 women 15-19 2010	% Births with Less Than Adequate Prenatal Care 2010	Homicide Rate per 100,000 population 2009-2011
Low Disadvantage	19.0 per 1,000	17.2 %	1.9 per 100,000
Low-Medium Disadvantage	22.5 per 1,000	15.2 %	2.4 per 100,000
Medium-High Disadvantage	28.6 per 1,000	20.2 %	3.3 per 100,000
High Disadvantage	39.8 per 1,000	26.4 %	9.8 per 100,000
<i>Healthy People 2020 Objectives</i>	<i>n/a</i>	<i>&lt; 22.4%</i>	<i>&lt; 5.5 per 100,000</i>

Each of the indicators in the tables above are related to the level of concentrated disadvantage within a community. Residents of disadvantaged communities are more likely than residents of more advantaged areas to experience poor birth outcomes (like infant mortality, low birth weight, and very low birth weight) and other key indicators of maternal and child health.

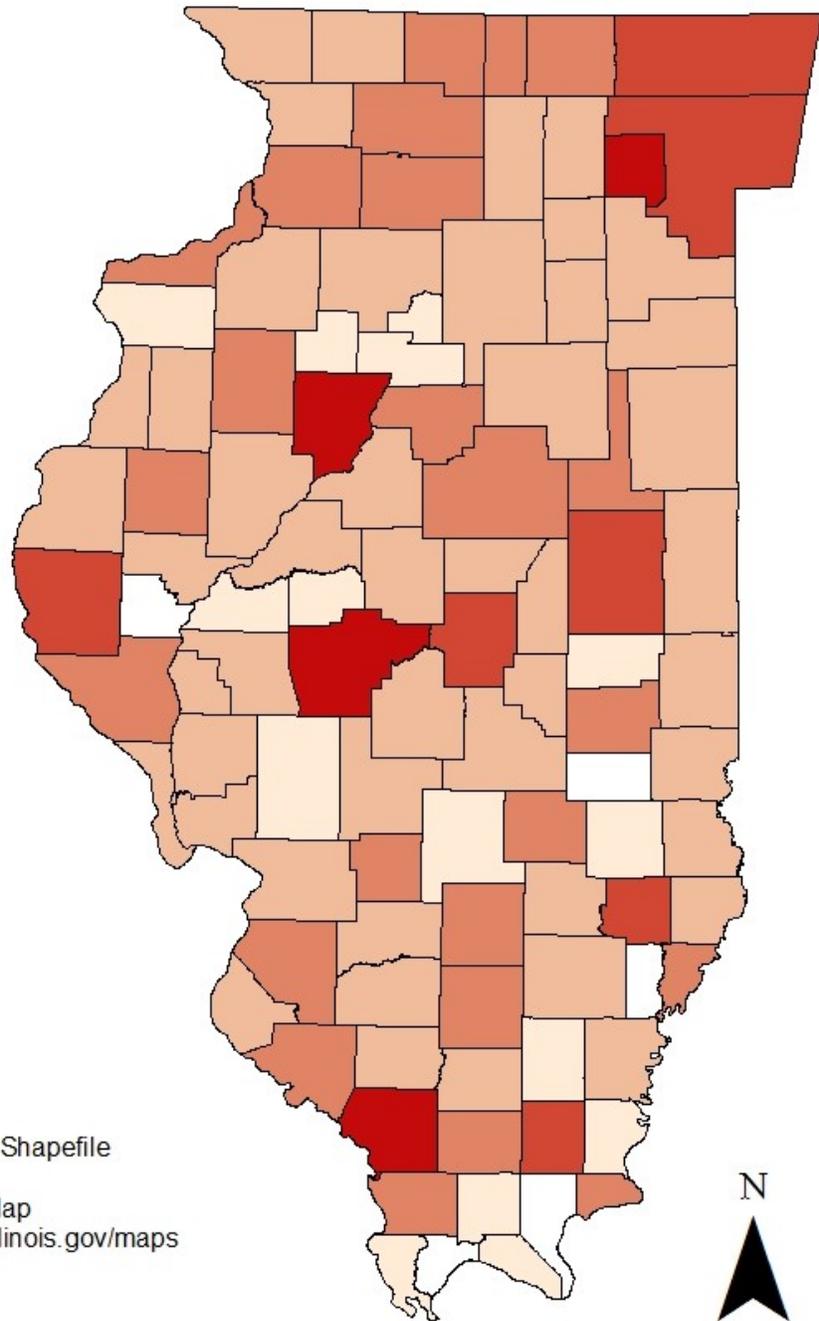
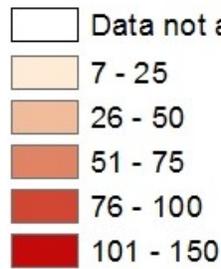
#### **How is Concentrated Disadvantage Useful as a Planning Tool?**

Because concentrated disadvantage is a strong marker for a wide array health outcomes, it may be useful for identifying target communities for public health interventions. Concentrated disadvantage can also be calculated at the census tract level within counties, giving more specific information about the distribution of disadvantage across smaller geographic areas. When allocating resources in public health programs, concentrated disadvantage may be useful for identifying the areas within a county or city with more vulnerable populations.

# Primary Care Physicians

## Primary Care Physicians in Illinois

### PC Physicians per 100,000 population



### Data Sources:

Map File: TigerLine Census 2010 Shapefile

Data: Illinois Community Health Map  
<http://www.healthcarereportcard.illinois.gov/maps>



Health care providers are not equally distributed throughout the state of Illinois. Certain areas of the state, particularly some counties in downstate, rural Illinois, have few primary care physicians available to care for the population.

# Section 8:

## Data Summary & Conclusions

This databook has provided information on many diverse indicators of maternal and child health that can inform program and policy development in Illinois. Several criteria and scenarios were used to summarize the information across diverse indicators and populations and to demonstrate areas of success and challenge for the state.

**Time Trends:** For indicators that had multiple years of data available, trends were assessed to identify metrics showing significant improvement over time and metrics showing worsening rates.

**Racial/Ethnic Disparities:** The indicators with the largest relative disparities between two racial/ethnic groups are identified to highlight target populations for health equity work.

**Geographic Disparities:** The indicators with the largest relative disparities between two geographic areas are identified to highlight focus areas for health equity work.

**Comparison to *Healthy People 2020 Objectives*:** For indicators with a corresponding *HP2020* objective, Illinois data values were compared to the objective. Those indicators already meeting *HP2020*, and those that are far from meeting the objectives are both highlighted to show successes and areas for improvement.

## Time Trends

### MCH Indicators Improving Over Time

Population	Pages	Indicator	Annual Values	Change Over Time
Perinatal	35	Non-Medically Indicated Early Deliveries	2010: 8.7% 2014: 5.9%	32% Improvement in 5 years
Adolescent	60-61	Teen Birth Rate (15-19 year olds)	2010: 32.3 births per 1,000 2014: 22.2 births per 1,000	31% Improvement in 5 years
Perinatal	38	Hospital Breastfeeding Support	2007: mPINC score = 59 2013: mPINC score = 77	Improved in state rankings from 35 <sup>th</sup> place to 20 <sup>th</sup> place
Adolescent	62-63	Teen Tobacco Use During Last 30 Days	2007: 25.3% 2013: 20.6%	18% Improvement in 6 years
Perinatal	36-37	Exclusive Breastfeeding for 12 Weeks	2004: 20.4% 2011: 23.9%	17% Improvement in 7 years
Adolescent	62-63	Teen Alcohol Use During Last 30 Days	2007: 43.7% 2013: 36.6%	16% Improvement in 6 years

### MCH Indicators Worsening or Unchanging Over Time

Population	Pages	Indicator	Annual Values	Change Over Time
Adolescent	59	Not Learning About HIV/AIDS in School	2007: 9.4% 2013: 17.4%	Worsened 85% in 6 years
Adolescent	54	Did Not Go To School Because Felt Unsafe	2007: 4.6% 2013: 8.5%	Worsened 85% in 6 years
Adolescent	56	High School Students Reporting Attempted Suicide	2007: 6.8% 2013: 12.4%	Worsened 82% in 6 years
Adolescent	59	Not Using Condom During Last Intercourse	2007: 35.0% 2013: 42.0%	Worsened 20% in 6 years
Perinatal	29-31	Neonatal Mortality Rate	2010: 4.4 deaths per 1,000 2014: 4.5 deaths per 1,000	No significant changes during last 5 years
Perinatal	26-28	Low Birth Weight Rate	2010: 8.0% 2014: 7.8%	No significant changes during last 5 years

## Racial/Ethnic and Geographic Disparities

### MCH Indicators with Largest Racial/Ethnic Disparities

Population	Page	Indicator	Race-Specific Rates	Risk Ratio
Adolescent	55	Homicide Rate <i>(15-24 year olds)</i>	Blacks: 75 deaths per 100,000 persons Whites: 3 deaths per 100,000 persons	25.0
Women	17	HIV Infection Rate	Blacks: 49 cases per 100,000 persons Whites: 5 cases per 100,000 persons	9.8
Women	17	Chlamydia Infection Rate <i>(15-44 year olds)</i>	Blacks: 169 cases per 100,000 persons Whites: 25 cases per 100,000 persons	6.8
Child	40	Pediatric Asthma Emergency Department Visit Rate	Blacks: 239 visits per 10,000 persons Whites: 41 visits per 10,000 persons	5.8
Perinatal	32	Sudden Unexplained Infant Death (SUID) Mortality Rate	Blacks: 2.59 deaths per 1,000 persons Whites: 0.57 deaths per 1,000 persons	4.5
Adolescent	58	Early Sexual Debut <i>(before age 13)</i>	Blacks: 11.0% Whites: 2.7%	4.1

### MCH Indicators with Largest Geographic Disparities

Population	Page	Indicator	Geography-Specific Rates	Risk Ratio
Child	41	Pediatric Asthma Emergency Department Visits	Hardin County: 400 visits per 10,000 Monroe County: 16 visits per 10,000	25.0
Adolescent	55	Homicide Rate <i>(15-24 year olds)</i>	Chicago: 51 deaths per 100,000 Rural Counties: 3 deaths per 100,000	17.0
Adolescent	61	Teen Birth Rate <i>(15-19 year olds)</i>	Vermillion Co.: 51.4 births per 1,000 Jo Daviess Co.: 5.7 births per 1,000	9.0
Child	47	Injury-Related Mortality Rate <i>(0-14 year olds)</i>	Rural Counties: 3.6 deaths per 100,000 Suburban Cook: 1.0 deaths per 100,000	3.6
Adolescent	51	Motor Vehicle Accident Related Mortality Rate <i>(15-19 year olds)</i>	Rural Counties: 18.9 deaths per 100,000 Suburban Cook: 5.6 deaths per 100,000	3.4
Perinatal	32	Sudden Unexplained Infant Death (SUID) Mortality Rate	Chicago: 1.20 deaths per 1,000 Rural Counties: 1.18 deaths per 1,000 Suburban Cook: 0.46 deaths per 1,000	2.6

## Comparison to *Healthy People 2020* Objectives

### MCH Indicators Already Achieving *HP2020* Objective

Population	Page	Indicator	<i>HP2020 Objective</i>	Illinois Value
Perinatal	24	Adequate Prenatal Care	≥ 77.6%	78.1% in 2014
Perinatal	26	Low Birth Weight Rate	≤ 7.8%	7.8% in 2014
Perinatal	26	Very Low Birth Weight Rate	≤ 1.4%	1.3% in 2014
Perinatal	29	Post-Neonatal Mortality Rate	≤ 2.0 deaths per 1,000	1.7 per 1,000 in 2014

### MCH Indicators Furthest From Meeting *HP2020* Objectives

Population	Page	Indicator	<i>HP2020 Objective</i>	Illinois Value
Adolescent	56-57	Suicide Attempts by H.S. Students	≤ 1.7%	12.4% (2013)
Adolescent	63	Marijuana Use During Last 30 Days by H.S. Students	≤ 6.0%	24.0% (2013)
Adolescent	55	Homicide Rate (among 15-24 year olds)	≤ 5.5 deaths per 100,000	19 deaths per 100,000 (2010-12)
Perinatal	36	Breastfed Babies Receiving Formula Before Day 2 of Life	≤ 15.6%	24.7% (2011)
Perinatal	36	Breastfed for at Least 6 Months	≥ 60.6%	47.0% (2011)
Child	45	Immunization Full Series (4:3:1:3:3:1:4) (19-35 month olds)	≥ 80.0%	66.8% (2013)

## Conclusions

This databook has highlighted many important health issues affecting women, infants, children, adolescents, and children with special healthcare needs. These data were used to inform the Title V needs assessment, which ultimately resulted in ten new MCH priorities for the state of Illinois for 2016-2020.. These ten priorities listed below will set the stage for the major strategies and activities of the Title V program over the next five years as it seeks to improve the health of women, children, and families.

### 2015 Illinois Title V Priorities

1. Assure accessibility, availability and quality of preventive and primary care for all women, particularly for women of reproductive age
2. Support healthy pregnancies and improve birth outcomes
3. Support expanded access to and integration of early childhood services and systems
4. Facilitate the integration of services within patient-centered medical homes for all children, particularly for children with special healthcare needs
5. Empower adolescents to adopt healthy behaviors
6. Assure appropriate transition planning and services for adolescents and young adults, including youth with special health care needs
7. Assure that equity is the foundation of all MCH decision-making; eliminate disparities in MCH outcomes
8. Support expanded access to and integration of mental health services and systems for the MCH population
9. Partner with consumers, families and communities in decision-making across MCH programs, systems and policies
10. Strengthen the MCH capacity for data collection, linkage, analysis, and dissemination; Improve MCH data systems and infrastructure