

public  
H E A L T H  
u n d e r s t a n d i n g o u r n e e d s

volume one

CITY OF ST. LOUIS DEPARTMENT OF HEALTH



Prepared by:

City of St. Louis Department of Health  
Planning and Information  
Louise C. Quesada, MPH  
Health Planning Executive

Acknowledgements:

Ann Mertens, PhD, University of Minnesota, Department of Epidemiology  
Jin Jin, MD, MPH, City of St. Louis Department of Health  
HealthMap Inc.  
Susan Prichard, Design and Layout, Saint Louis University, School of Public Health

Special Thanks To:

Ellen Ellick, Press Secretary, City of Saint Louis Department of Health  
Greg Evans, PhD, MPH, Saint Louis University, School of Public Health

acknowledgments





# executive summary

This report looks at the City of St. Louis zip code by zip code and provides data on a wide range of health indicators and factors that affect health. With this information, we see the City not as one uniform urban area but as a collection of neighborhoods. Some of those neighborhoods are nearly perfect pictures of the public health vision of healthy people in healthy communities. But there are other neighborhoods with serious problems. The population exodus from these neighborhoods exceeds that in other parts of the City, leaving behind people who live lives of increasing misery by almost all measurable standards.

The problems this report illuminates are not new; they are also not recent. Those familiar with St. Louis City know about the gap between the thriving neighborhoods and those that are floundering. But with this report, we now have the concrete data that can help policy makers and others develop the strategies to build a stronger, healthier St. Louis, neighborhood by neighborhood. The data is valuable to city, state and federal officials, to health care systems, social service agencies, developers, realtors, educators and others.

At a time when resources are always limited, this report can mean the difference between scattering efforts that are ultimately ineffectual or targeting responses where they will accomplish the most. This information is useful to those who may collaborate in seeking funding and for those who need concrete data when deciding how to award funding.

This report came about partially because of an internal review of Department of Health capabilities several years ago. The review pointed out a critical need for public health planning and statistical data to support and define public health responses. Since then, the department has hired a certified health planner who completed this assessment of the City's public health needs.

Research for the report included more than 20 focus groups, numerous interviews with key individuals, and extensive compilation of existing data from multiple sources. The assessment looks at the many areas that affect health, including housing, income, employment, population change, environmental factors and access to health care.

It includes such things as infant mortality rates and rates of heart disease and cancer mortality, asthma, teen pregnancies, rates for AIDS and sexually transmitted diseases, homicides and accidents. Together they are indicators of the overall health of a community. It's impossible in this report to ignore the dramatic racial disparities. The areas of greatest concerns (zip codes 63106, 63107 and 63113) are almost exclusively black. The best areas (zip codes 63109, 63139 and 63116) are predominately white.

Although much in this report is discouraging, the information within it can create opportunities. The information on the thriving communities can be used to attract people to these communities. The data in those neighborhoods of greatest concern must give rise to strategies for creating healthier neighborhoods for all the City's citizens and for those who may one day become residents of the City of St. Louis.

# table of contents

I.	<u>Overall Zip Code Rating</u>	2,3			
II.	<u>Demographic</u>				
	i. <u>Overall Population</u>	6,7			
	ii. <u>Population Change</u>	8,9			
	iii. <u>0 to 4 Age Cohort</u>	10,11			
	iv. <u>15 to 24 Age Cohort</u>	12,13			
	v. <u>65+ Age Cohort</u>	14,15			
	vi. <u>15 to 44 Female Age Cohort</u>	16,17			
	vii. <u>Crude Birth Rate</u>	18,19			
	viii. <u>Fertility Rate</u>	20,21			
	ix. <u>Crude Death Rate</u>	22,23,			
	x. <u>Refugees Processed</u>	24,25			
	xi. <u>Racial Polarization</u>	26,27			
III.	<u>Socio-Economic</u>				
	i. <u>Average Household Income</u>	30,31			
	ii. <u>Households Below Poverty</u>	32,33			
	iii. <u>Female Head of Household</u>	34,35			
	iv. <u>Education Level</u>	36,37			
	v. <u>Unemployment Rates</u>	38,39			
	vi. <u>Crimes Against Property</u>	40,41			
	vii. <u>Crimes Against Persons</u>	42,42			
	viii. <u>Vacant Lots</u>	44,45			
IV.	<u>Quality/Access</u>				
	i. <u>Clinics/Hospitals</u>	48,49			
	ii. <u>Primary Care Physicians</u>	50,51			
	iii. <u>Hospital Admission Rates</u>	52,53			
	iv. <u>Avoidable Hospitalizations</u>	54,55			
	v. <u>Emergency Room Visits</u>	56,57			
	vi. <u>Medicaid Eligible</u>	58,59			
	vii. <u>Prenatal Care</u>	60,61			
	viii. <u>Low Birth Weight</u>	62,63			
	ix. <u>Teen Pregnancy 10 to 17</u>	64,65			
	x. <u>Teen Pregnancy 10 to 14</u>	66,67			
	xi. <u>Infant Mortality</u>	68,69			
	xii. <u>Out-of-Wedlock Births</u>	70,71			
	xiii. <u>Teen Abortions 10 to 17</u>	72,73			
	xiv. <u>Birth – Medicaid</u>	74,75			
	xv. <u>Birth – WIC</u>	76,77			
	xvi. <u>Birth – Food Stamps</u>	78,79			
	xvii. <u>Birth – Smoking</u>	80,81			
	xviii. <u>Birth – Alcohol</u>	82,83			
	xix. <u>Birth – Education</u>	84,85			
V.	<u>Epidemics</u>				
	i. <u>HIV Infection</u>	88,89			
	ii. <u>AIDS Cases</u>	90,91			
	iii. <u>AIDS Mortality</u>	92,93			
	iv. <u>Syphilis</u>	94,95			
	v. <u>Gonorrhea</u>	96,97			
	vi. <u>Chlamydia</u>	98,99			
	vii. <u>TB Cases</u>	100,101			
	viii. <u>Hepatitis A</u>	102,103			
	ix. <u>Hepatitis B</u>	104,105			
VI.	<u>Environmental</u>				
	i. <u>Lead Poisoning</u>	108,109			
	ii. <u>Asthma</u>	110,111			
	iii. <u>Foodborne Illness</u>	112,113			
VII.	<u>Injury</u>				
	i. <u>Motor Vehicle Accident Mortality</u>	116,117			
	ii. <u>Non-motor Vehicle Accident</u>	118,119			
	iii. <u>Overall Accident Mortality</u>	120,121			
VIII.	<u>Behavior</u>				
	i. <u>Homicide</u>	124,125			
	ii. <u>Suicide</u>	126,127			
	iii. <u>Leading Causes of Death</u>	128,129			
	iv. <u>Overall Mortality</u>	130,131			
	v. <u>Heart Disease Mortality</u>	132,133			
	vi. <u>Cancer Mortality</u>	134,135			
	vii. <u>CVA Mortality</u>	136,137			
	viii. <u>Influenza and Pneumonia</u>	138,139			
	ix. <u>COPD Mortality</u>	140,141			
	x. <u>Diabetes Mortality</u>	142,143			
IX.	<u>Glossary</u>				144,145
X.	<u>Appendix</u>				146,147

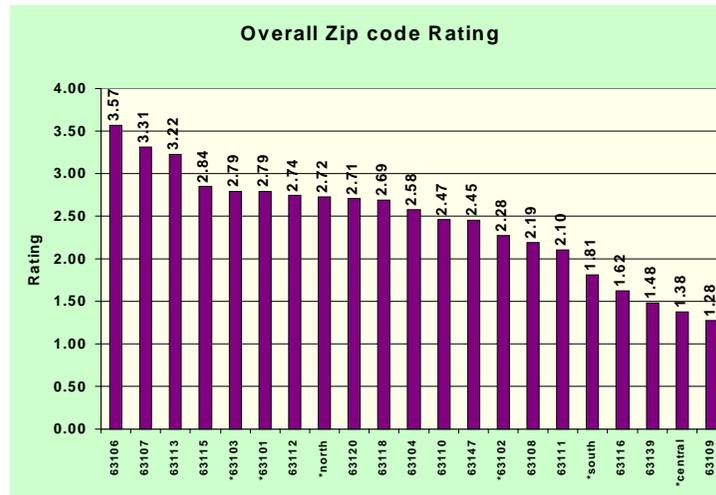
# overall zip code rating

**Definition** This needs assessment looks at 63 different indicators and factors that affect health. They cover a wide range of topics and are grouped in the following categories: demographic, socioeconomic, access and quality, epidemics, environmental, injury and behavior related mortality. The assessment records the data by the 18 full and the 10 partial Zip codes in the City of Saint Louis. Most of the information is given in the form of “rates”, making it possible to compare different groups. Although this report is purely descriptive in nature, those who review it can readily determine the areas and populations of concern. All 63 variables have been collapsed into a single summary statistic for each Zip code and assigned a rating of 1 through 4 with “1” being the most favorable rating and “4” assigned to areas of most concern. See Appendix B for additional methodology.

**Public Health Implications** The overarching public health implication is that the health of any community of people depends on much more than the quality or availability of doctors and hospitals or the services public health provides. Jobs, housing, income levels, schools, the environment and crime are among the factors that directly and indirectly impact health. Successful strategies to improve public health in the City of Saint Louis must reach beyond the medical and public health establishments to embrace all factors that contribute to making a neighborhood a place where its residents can be healthy. Strategies must also target neighborhoods according to their needs rather than attempting to find one solution that will work citywide.

**Saint Louis Rates and Comparative Info** Where comparative data are available, the City of Saint Louis health indicator rates are usually worse than those for the State of Missouri or the United States. When the 63 different variables are summarized, the Zip codes of most concern are 63106, 63107 and 63113. The most favorable Zip codes are 63109, 63139 and 63116.

**Black/White Disparity** The summary statistics show that the African-American population in the City of Saint Louis has less favorable rates for almost all of the indicators than does the White population. The White population showed less favorable rates only in the following areas: percent of the population over age 65, crude death rates, teen abortion ratio, smoking during pregnancy, motor vehicle accident mortality rate and suicide rate. Where comparative data are available, the health indicator rates for the Saint Louis City African-American population are generally less favorable than the U.S. African-American population. The Zip codes with the less favorable summary statistics are predominately African American. The Zip codes with the most favorable summary statistics are predominately White.



## Focus Group Comments/Concerns

“STD’s” “TB” “Teen pregnancy” “Infant mortality” “Refugees” “HIV/AIDS” “Violence” “Drugs” “Smoking” “Sanitation” “Taking the Health Department seriously and recognizing it as a serious entity.” “Fragmented efforts - no one monitoring outcomes.” “Racial tension underlies everything.” “Poverty is the greatest challenge; everything else flows from that.” “Lack of coordination across different jurisdictions, interest groups and constituents.” “Without data, there is no way to do an overhaul of the system - there aren’t enough resources available to do a flavor-of-the-month approach.” “We have competitive political leadership.” “Disintegration of infrastructure - roads, sewers, water, housing.” “People abandoning the city - loss of population and businesses.” “There is no organized effort.” “There isn’t a connectedness or collaboration.” “We are beginning to look at problems in a holistic way.” “The City needs to commit resources strategically.” “All problems are system problems.” “The Department of Health can’t be a panacea for everything.”

## Potential Public Health Interventions

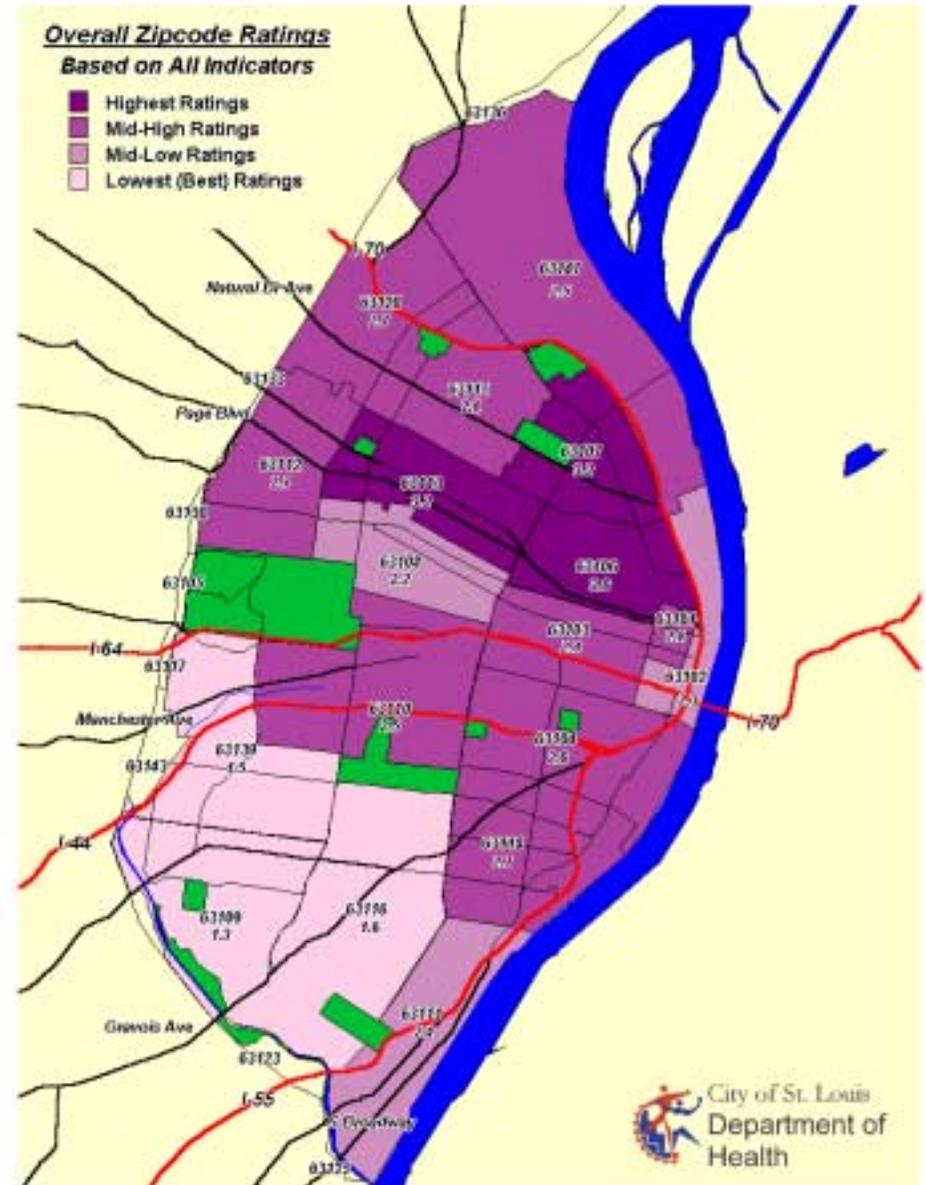
The possible interventions listed throughout this report are among some of the strategies and approaches that might address specific public health concerns in our community. They are not intended to be a complete list of all possible interventions that could be undertaken individually or collaboratively within the public health arena. It is also clear that the problems of public health are societal issues and must be addressed through an interdisciplinary community-wide collaborative effort.

Some of the approaches include agency collaboration, continual community assessment, surveillance, education, planning, epidemiological studies, infrastructure development, policy development, program development and assurance that that programs and services are provided.

## Overall Zip Code Rating

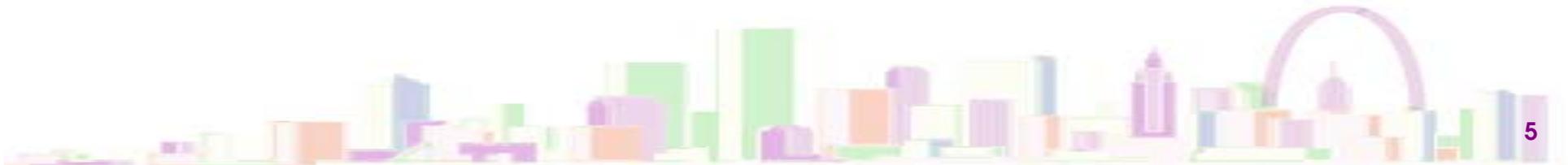
Zip	Rating	SD*
63106	3.57	0.77
63107	3.31	0.80
63113	3.22	0.92
63115	2.84	0.77
*63103	2.79	1.20
*63101	2.79	1.28
63112	2.74	0.83
*north	2.72	1.14
63120	2.71	1.12
63118	2.69	0.98
63104	2.58	0.86
63110	2.47	0.80
63147	2.45	0.90
*63102	2.28	1.25
63108	2.19	1.00
63111	2.10	0.99
*south	1.81	0.95
63116	1.62	0.77
63139	1.48	0.90
*central	1.38	0.81
63109	1.28	0.64

\* Standard Deviation



overall zip code rating

# DEMOGRAPHIC



# overall population

## Definition

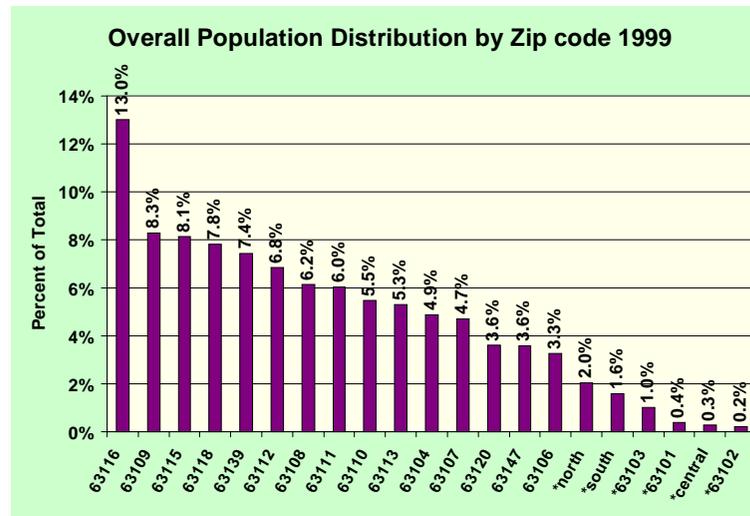
Population estimates and projections are based on the 1990 Census. The 2000 Census data should be available by mid 2001. Population estimates for the City of Saint Louis in 1999 show a total population of 335,554. The total population in Saint Louis has been declining in the past decade and is projected to continue declining.

## Public Health Implications

Public health issues result from the loss of population and the resulting growth of poverty. These issues include uninsured populations, violence, teen pregnancies, sexually transmitted diseases, lead poisoning as well as environmental issues that result from abandoned buildings and vacant lots, to name a few.

## Saint Louis Rates and Comparative Info

Estimates show that nationally, 71.9% of the population is White, 12.1% African American, 3.6% Asian, 0.9% American Indian and Pacific Islander and 11.5% of Hispanic Origin. Zip code 63116 contains the largest population with close to 44,000.



## Black/White Disparity

1999 population estimates show that the city is 52.5% African American, 44.3% White, 1.2% Asian, 0.3% American Indian and Pacific Islander and 1.7% of Hispanic origin.

## Focus Group Comments/Concerns

“Out migration of the City’s population.” “The City’s infrastructure is deteriorating as residents leave the City. Buildings are abandoned, garbage is thrown into vacant lots and the sewer system is antiquated.” “Urban flight – over the past ten years the City has lost half of its population.”

## Potential Public Health Interventions

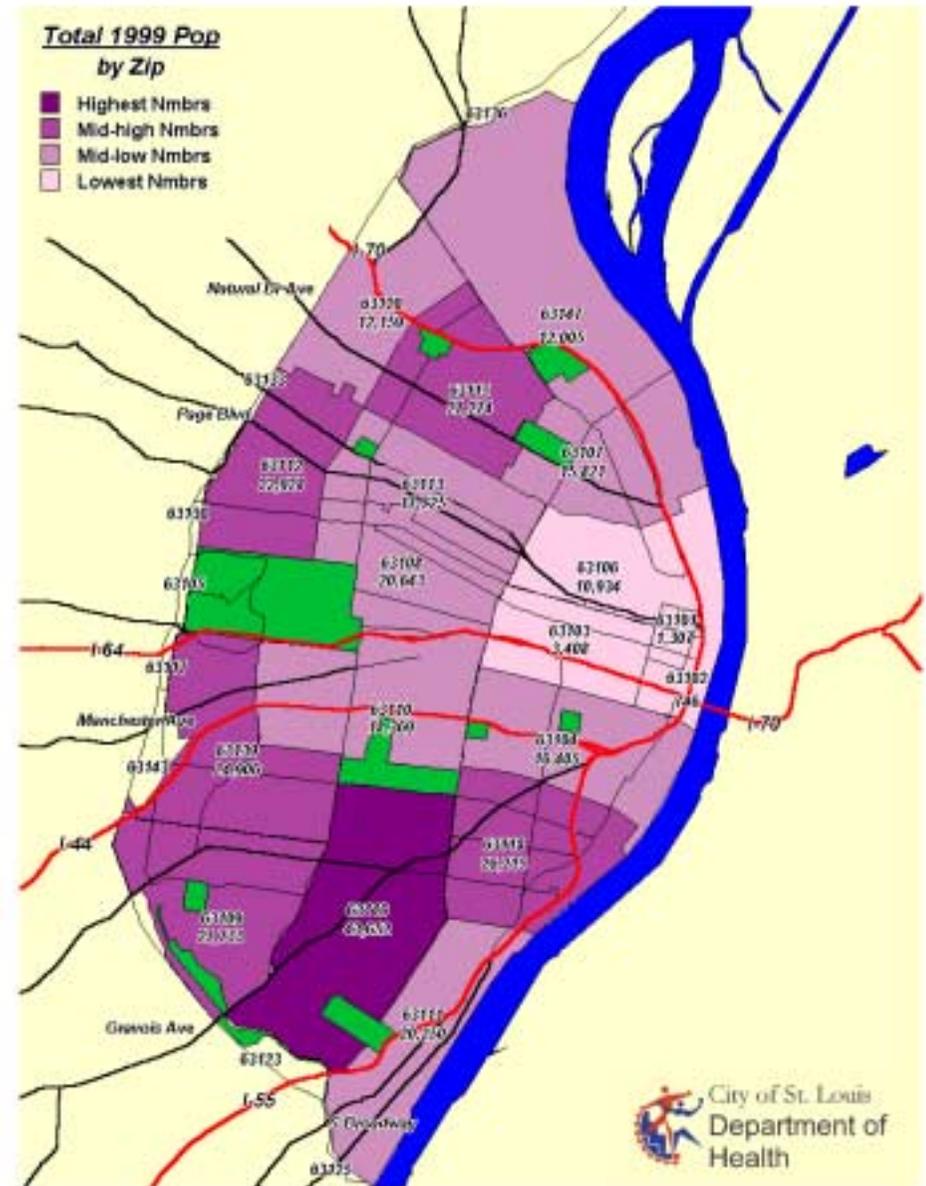
The Health Department must enhance the data and information infrastructure to identify the problems and target populations and then develop programs to address the issues.

## Data Source

Claritas, Inc.

# 1999 Population Estimates

Zip	Population	% of Total
63116	43,652	13.0%
63109	27,733	8.3%
63115	27,274	8.1%
63118	26,215	7.8%
63139	24,906	7.4%
63112	22,928	6.8%
63108	20,643	6.2%
63111	20,250	6.0%
63110	18,369	5.5%
63113	17,725	5.3%
63104	16,405	4.9%
63107	15,821	4.7%
63120	12,159	3.6%
63147	12,005	3.6%
63106	10,934	3.3%
*north	6,818	2.0%
*south	5,306	1.6%
*63103	3,408	1.0%
*63101	1,307	0.4%
*central	950	0.3%
*63102	746	0.2%
<b>Saint Louis</b>	<b>335,554</b>	<b>100.0%</b>
<b>St. Louis Co.</b>	<b>997,659</b>	
<b>Missouri</b>	<b>5,465,439</b>	
<b>U.S.</b>	<b>272,212,864</b>	



overall population

# population change

## Definition

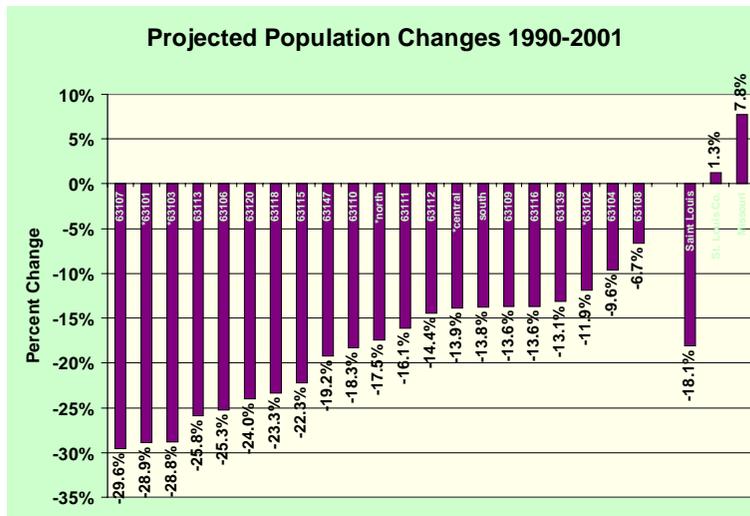
The percent changes in population were calculated by subtracting projected 2001 population data from 1990 census data. The City has experienced enormous decreases in population since the 1950's when the population exceeded 800,000. The population estimate for 1999 was about 335,000 for the City of Saint Louis

## Public Health Implications

The increases and decreases in population are an indicator of the economic strength and stability of a city. A decreased tax base potentially contributes to the under funding of public health initiatives. Public health programs include lead paint remediation, immunizations, sanitation, education, assessment, surveillance, communicable disease, prevention control and disease outbreaks and maternal and child health activities to name a few.

## Saint Louis Rates and Comparative Info

Saint Louis City is projected to experience a population decrease of 18.1 % between 1990 and 2001. Saint Louis County, in the same time period, is projected to see a 1.3 % increase. Missouri and the United States are also expected to experience increases, 7.8 % and 11.8 % respectively.



## Black/White Disparity

Predominately African-American Zip codes are experiencing, and are projected to experience, greater decreases in population than those Zips that are predominately White. The three Zip codes experiencing the greatest decline in population are 63107, 63113 and 63106.

## Focus Group Comments/Concerns

“Urban flight – over the last ten years the City has lost half its population.” “People abandoning the City – loss of population and businesses.” “A healthy community should be growing.”

## Potential Public Health Interventions

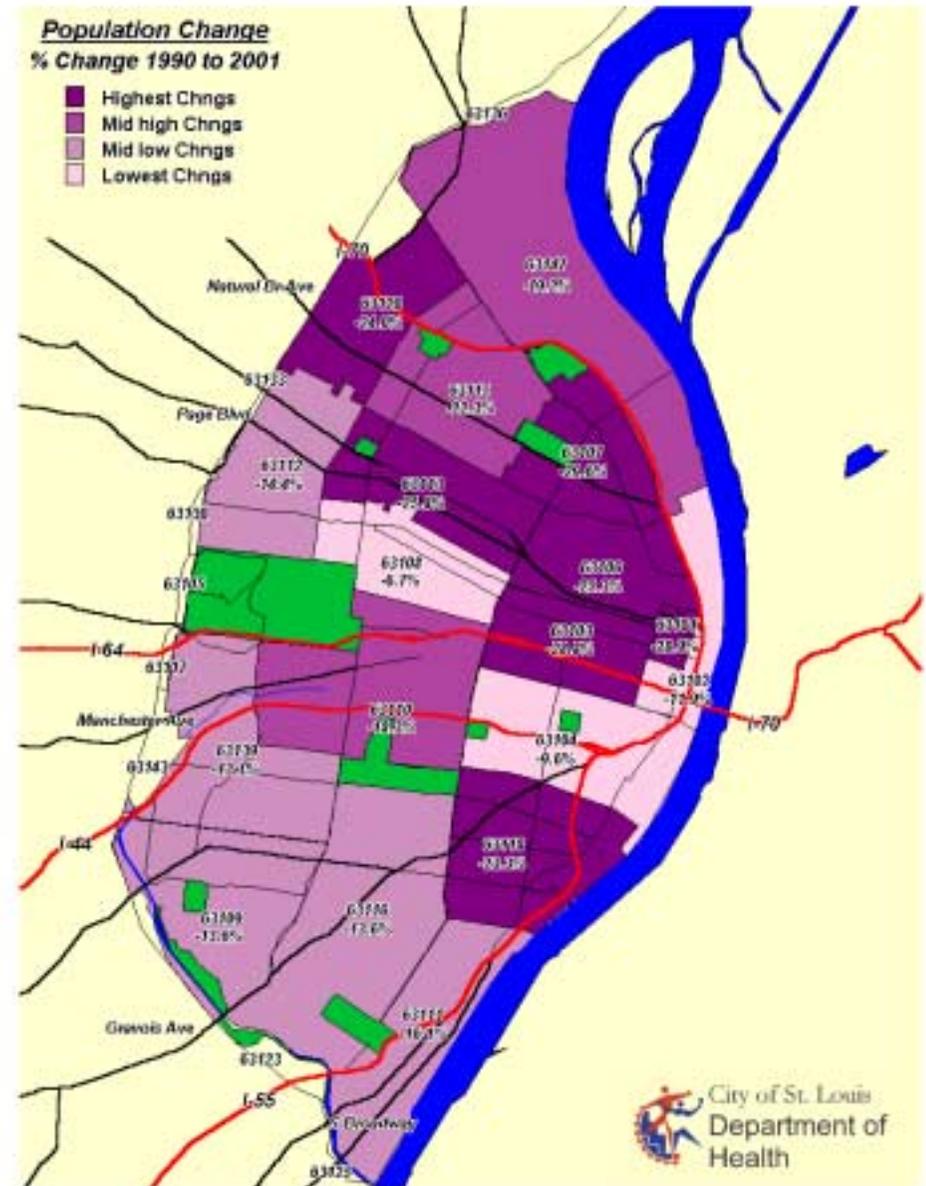
Within budget constraints, assess, determine and prioritize the most pressing public health needs in the City of Saint Louis.

## Data Source

Claritas, Inc.

# Projected Population Changes 1990-2001

Zip	% change
63107	-29.6%
*63101	-28.9%
*63103	-28.8%
63113	-25.8%
63106	-25.3%
63120	-24.0%
63118	-23.3%
63115	-22.3%
63147	-19.2%
63110	-18.3%
*north	-17.5%
63111	-16.1%
63112	-14.4%
*central	-13.9%
south	-13.8%
63109	-13.6%
63116	-13.6%
63139	-13.1%
*63102	-11.9%
63104	-9.6%
63108	-6.7%
Saint Louis	-18.1%
St. Louis Co.	1.3%
Missouri	7.8%
U.S.	11.8%



population change

# 0 to 4 age cohort

## Definition

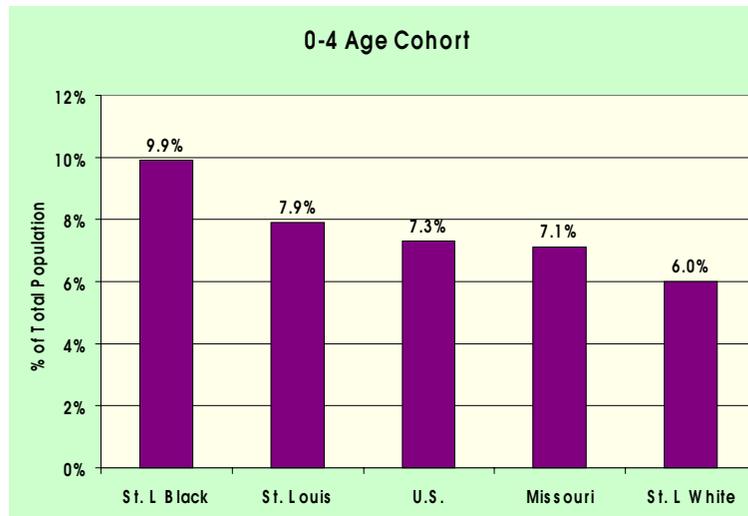
This cohort consists of the 1996 estimated population in Saint Louis City from birth through 4 years of age. It is expressed as percent of total population.

## Public Health Implications

This population is vulnerable to various public health problems such as lead poisoning, non-immunization, injuries and lack of access to care.

## Saint Louis Rates and Comparative Info

The City of Saint Louis has a slightly higher percentage of birth to 4 year olds as compared to Missouri or the U.S., 7.9% vs. 7.1% and 7.3% respectively. In 1996 there was an estimated 28,000 children in this birth through 4 years of age cohort in the City of Saint Louis. The Zip codes with the highest percentages of 0-4 year olds are 63107 and 63106. The Zip code with the lowest percentage is 63108.



## Black/White Disparity

The African-American population in the City of Saint Louis is younger than the White population. Birth to 4 year olds comprise 9.9% of the African-American population while only 6% of the White population is under 5 years of age.

## Focus Group Comments/Concerns

"We have to address kids in a holistic way - addressing the needs of the whole family."  
"Have to look at how kids access health insurance."  
"Abused and neglected children."  
"Low rates of immunization."  
"Children living in poverty."

## Potential Public Health Interventions

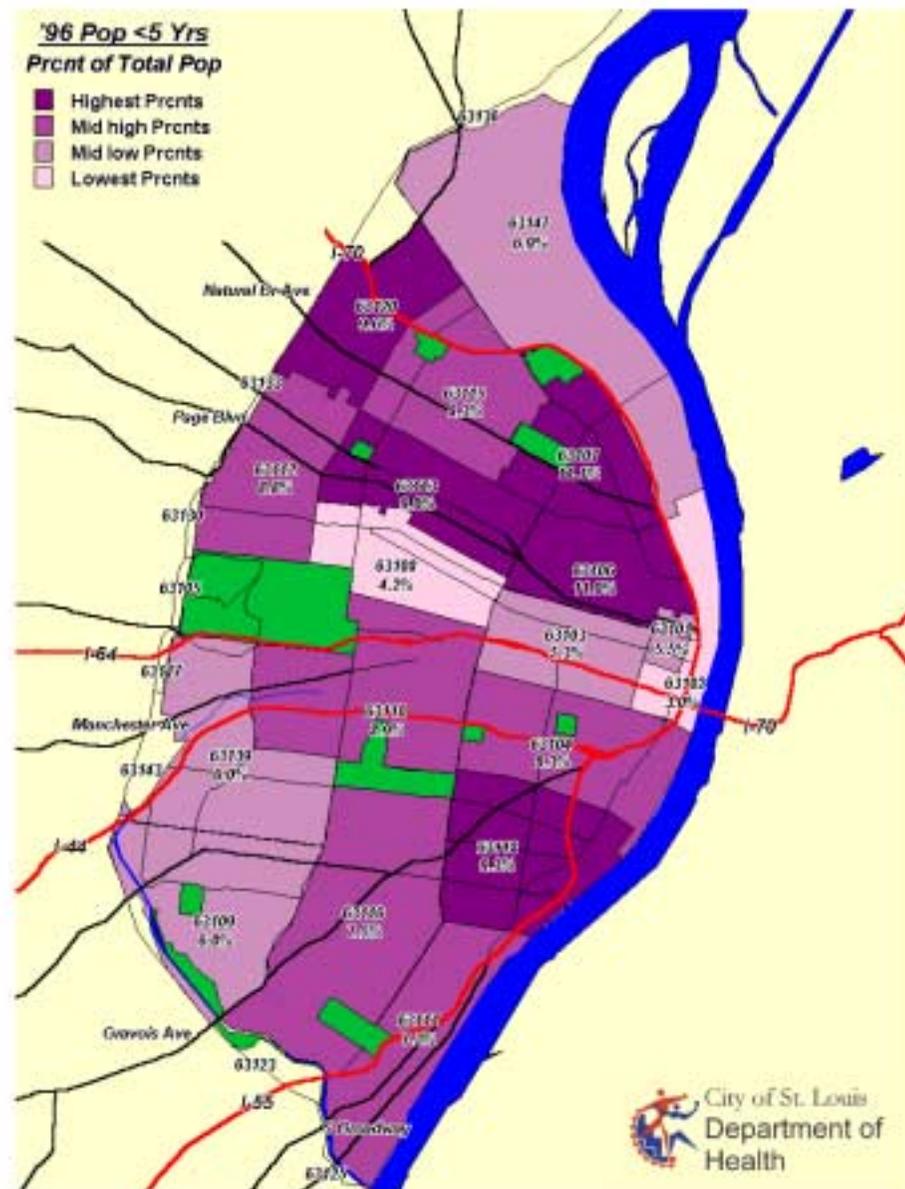
Lead poisoning prevention programs including lead remediation, immunizations, access to MC+ (Medicaid) assistance, day care licensure and injury prevention programs

## Data Source

Claritas, Inc.

## 0-4 Age Cohort - 1996

Zip	% of Total
63107	11.1%
63106	11.0%
63120	9.6%
63118	9.3%
63113	9.0%
*north	8.9%
63110	8.9%
63112	8.8%
63115	8.3%
63104	8.3%
63116	7.5%
*south	7.3%
63111	7.2%
63147	6.9%
63139	6.0%
63109	6.0%
*63101	5.5%
*63103	5.3%
*central	5.3%
63108	4.2%
*63102	3.0%
Saint Louis	7.9%
Missouri	7.1%
U.S.	7.3%
St. L White	6.0%
St. L Black	9.9%



0 to 4 age cohort

# 15 to 24 age cohort

## Definition

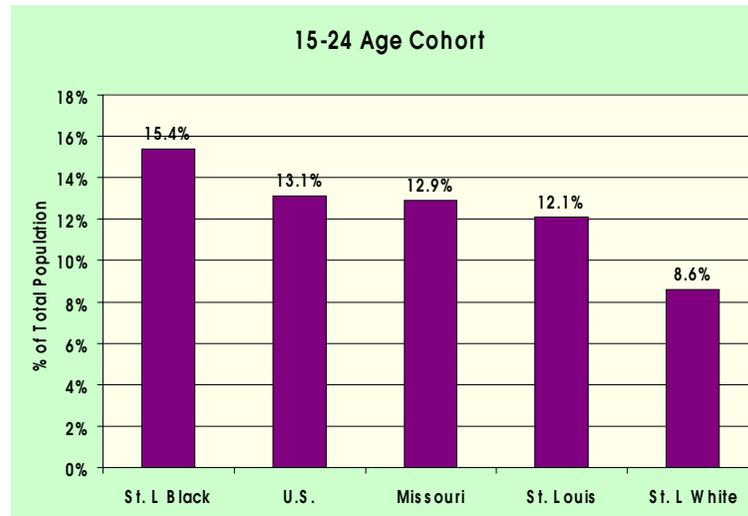
This category consists of the population 15 to 24 years of age in the City of Saint Louis. The data are 1996 estimates. It is expressed as percent of the total population.

## Public Health Implications

This age group shows vulnerability to violence, accidents, sexually transmitted diseases, HIV/AIDS, tobacco use, drug and alcohol abuse, teen pregnancy as well as risk factors that lead to heart disease and cancer later on in life such as inadequate physical activity, smoking and poor nutritional habits.

## Saint Louis Rates and Comparative Info

The City of Saint Louis has about the same percentage of this age group as compared to Missouri and the U.S., 12.1% vs.12.9% and 13.1% respectively. In 1996 there was an estimated 43,000 people in this age cohort in the City of Saint Louis. The Zip codes with the highest percentages of 15-24 year olds are 63120 and 63103. The Zip code with the lowest percentage is 63109.



## Black/White Disparity

The African-American population in Saint Louis has a much higher percentage of this cohort as compared to the White population, over 15% vs. 8.6%.

## Focus Group Comments/Concerns

“Violence, abuse of drugs, teen pregnancy and illiteracy are interwoven in the city and compound the difficulty of addressing issues.”

## Potential Public Health Interventions

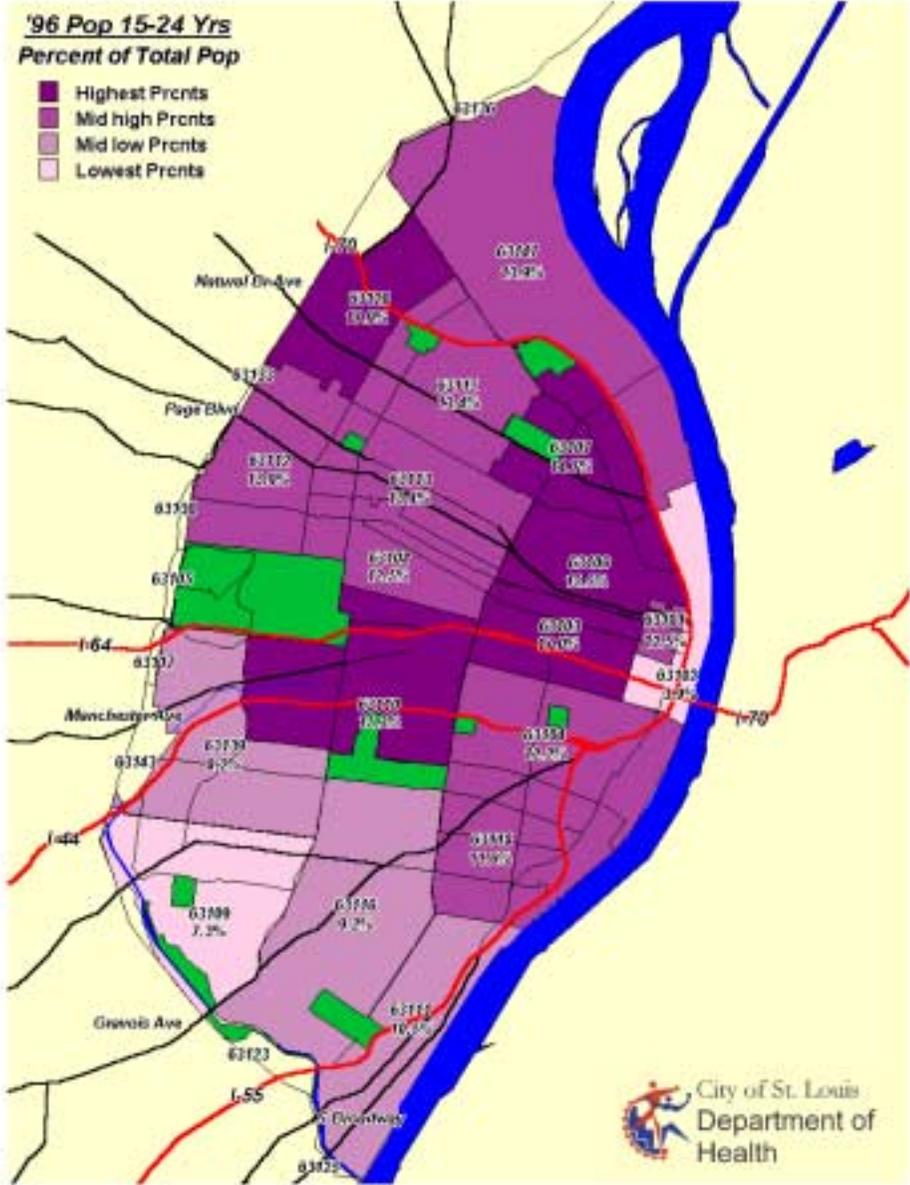
Programs focusing on STD's, HIV/AIDS, drug and alcohol abuse, tobacco use, teen pregnancy and education regarding other risky behaviors.

## Data Source

Claritas, Inc.

# 15-24 Age Cohort - 1996

Zip	% of Total
63120	17.9%
*63103	17.0%
63106	15.5%
63110	15.3%
*north	15.3%
63107	14.7%
63147	13.9%
63112	13.9%
63113	13.4%
63115	13.4%
63108	12.5%
*63101	12.5%
63104	12.2%
*central	11.7%
63118	11.6%
63111	10.5%
*south	9.2%
63116	9.2%
63139	8.2%
63109	7.3%
*63102	3.9%
St. Louis	12.1%
Missouri	12.9%
U.S.	13.1%
St. L White	8.6%
St. L Black	15.4%



15 to 24 age cohort

# 65+ age cohort

## Definition

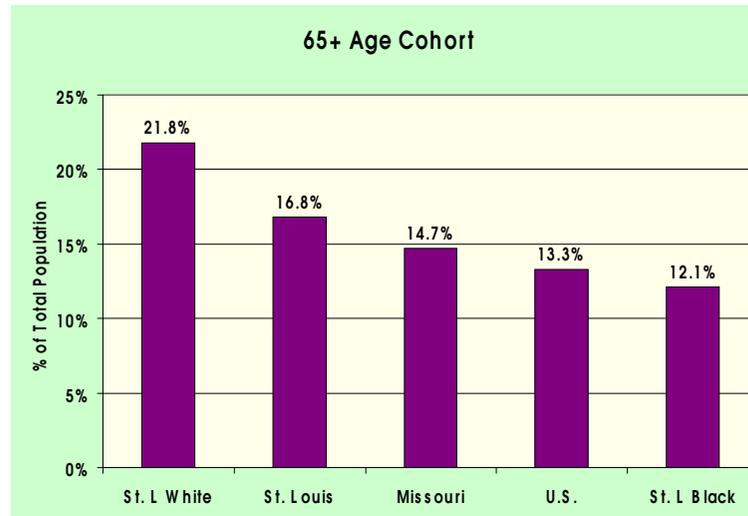
This cohort consists of the Saint Louis population that is 65 years of age and older based on 1996 estimates. It is expressed as a percent of the total population.

## Public Health Implications

Chronic disease issues, injuries, nutrition and illness and death due to extreme summer heat.

## Saint Louis Rates and Comparative Info

The City of Saint Louis has a higher percentage of elderly population as compared to Missouri and the U.S., 16.8% vs. 14.7% and 13.3% respectively. In 1996 there were an estimated 59,400 people in the 65+ age cohort in the City of Saint Louis. The Zip codes with the highest percentages of elderly are 63109 and 63139. The Zip codes with the lowest percentages are 63120, 63110, 63104 and 63107.



## Black/White Disparity

In the City of Saint Louis the White population has a higher percentage of elderly as compared to the younger African-American population. The White elderly population comprises almost 22% of the White population whereas the African-American elderly population constitutes only 12% of the total African-American population.

## Focus Group Comments/Concerns

“Are particularly worried about the elderly who are often in their homes because they are frail and fearful of their safety if they leave home.”  
“Lifestyle issues with the elderly.”

## Potential Public Health Interventions

Surveys and epidemiological studies to determine the prevalence of various chronic disease conditions such as high blood pressure, diabetes, arthritis etc.

Prevention programs

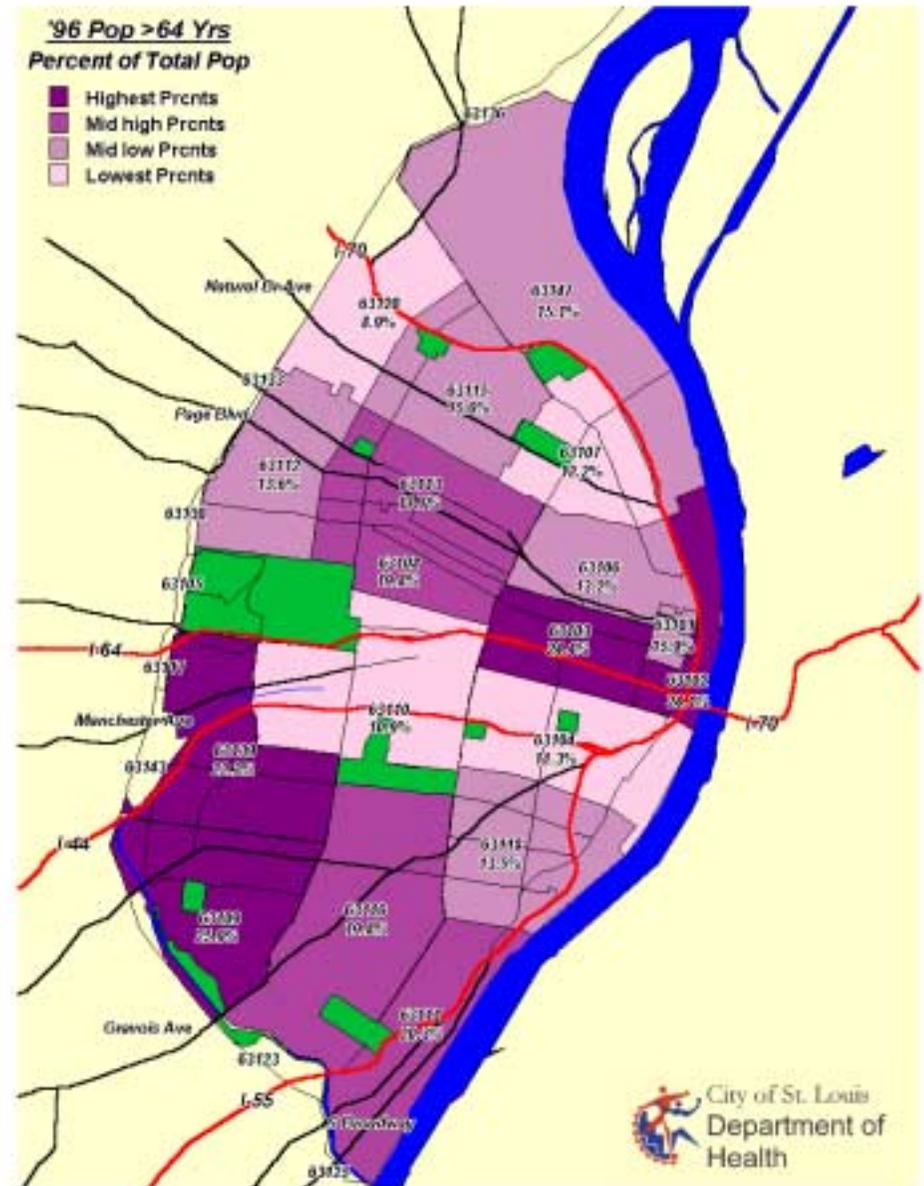
Adult immunization programs

## Data Source

Claritas, Inc.

# 65+ Age Cohort - 1996

Zip	% of Total
63109	25.9%
*63103	24.4%
*63102	24.1%
63139	22.3%
63111	20.3%
63116	19.8%
63108	19.8%
*central	18.1%
63113	17.7%
*south	17.3%
*63101	15.9%
63115	15.6%
63147	15.1%
63112	13.6%
63118	13.5%
63106	13.2%
63107	12.2%
63104	11.3%
63110	10.9%
*north	10.6%
63120	8.9%
St. Louis	16.8%
Missouri	14.7%
U.S.	13.3%
St. L White	21.8%
St. L Black	12.1%



65+ age cohort

# 15 to 44 female age cohort

## Definition

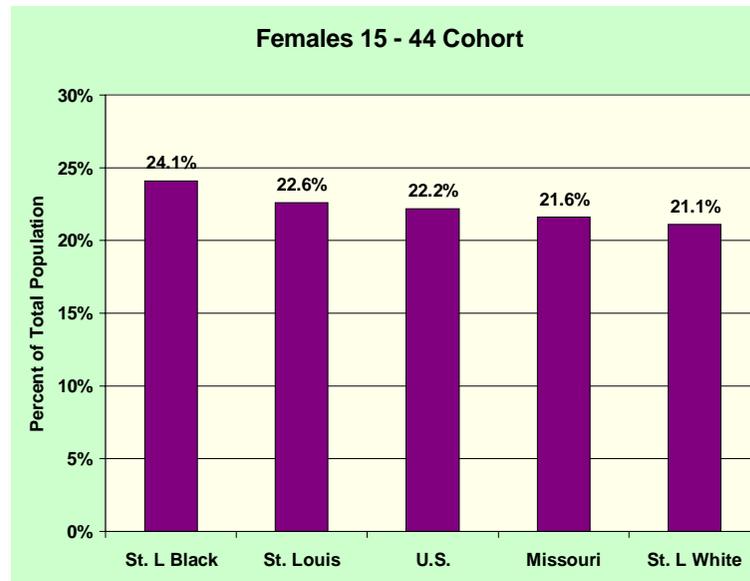
This cohort consists of females from 15 to 44 years of age. This age group is important because it represents the childbearing population. The cohort is presented as a percent of the total population.

## Public Health Implications

Public health issues include reproductive health concerns such as prenatal care, nutrition and access to care as well as women's health issues such as breast and cervical cancer, sexually transmitted diseases HIV/AIDS and tobacco use to name a few.

## Saint Louis Rates and Comparative Info

The City of Saint Louis has a similar percentage of females 15-44 years of age when compared to Missouri and the U.S., 22.6% vs. 21.6% and 22.2% respectively. In 1996 there were an estimated 80,000 females in this age cohort in the City of Saint Louis. The Zip codes with the highest percentage of females 15 to 44 years of age are 63110 and 63106. The Zip code with the lowest percentage is 63109.



## Black/White Disparity

Although the overall percentage for this cohort in the City of Saint Louis is similar to Missouri and the U.S., the African-American population in the City of Saint Louis has a slightly higher percentage than the White population, 24.1% vs. 21.1% .

## Focus Group Comments/Concerns

“Prenatal care and education...” “Maternal and child health.”

## Potential Public Health Interventions

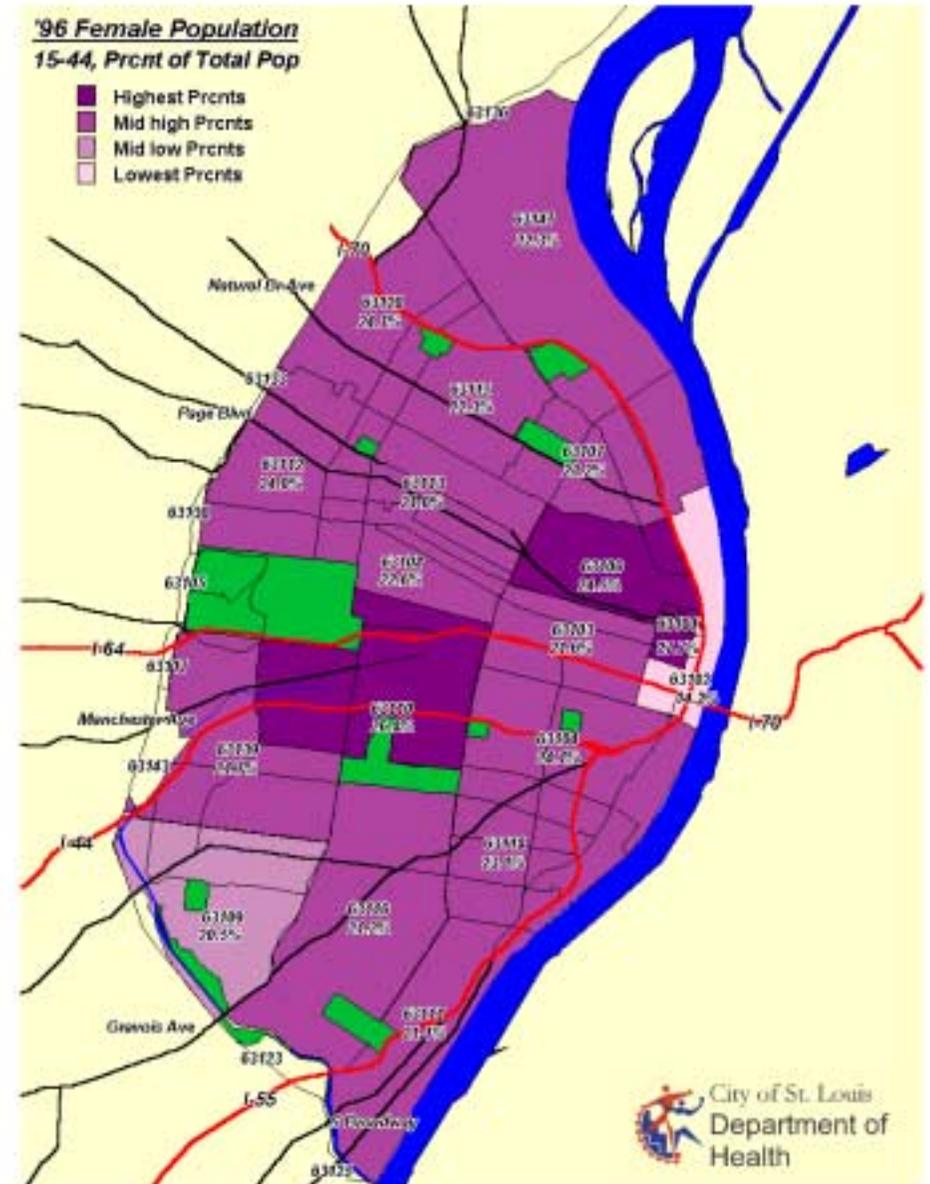
Educational programs relating to maternal, child and family health; breast and cervical cancer screening; access to care assistance; HIV/AIDS, smoking cessation and sexually transmitted disease programs

## Data Source

Claritas, Inc.

## Female 15-44 Age Cohort - 1996

Zip	% of Total
*63101	27.7%
63110	26.8%
*central	24.7%
63106	24.5%
63104	24.1%
63120	24.1%
63112	24.0%
*north	23.4%
63107	23.2%
63118	23.1%
63108	22.6%
63115	22.3%
63147	22.3%
63139	21.7%
*63103	21.6%
63116	21.2%
63111	21.1%
*south	21.1%
63113	21.0%
63109	20.5%
*63102	14.2%
St. Louis	22.6%
Missouri	21.6%
U.S.	22.2%
St. L White	21.1%
St. L Black	24.1%



15 to 44 female age cohort

# crude birth rate

## Definition

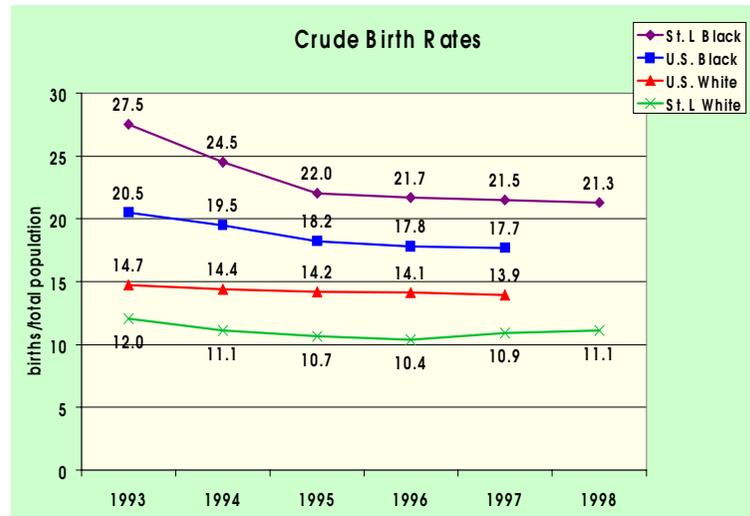
Crude birth rate is the number of live births divided by the estimated population multiplied by 1,000. It is useful as a crude measure of population growth due to natural causes. The rate is presented as live births per 1,000 estimated population.

## Public Health Implications

Crude birth rates give an indication of where the population may be growing naturally and what areas of the city may have more infants.

## Saint Louis Rates and Comparative Info

The 1993 through 1998 average crude birth rate in the City of Saint Louis is higher than the averaged rates in Missouri and the U.S. for the same time period, 17.2 vs. 13.9 and 14.9 respectively. In 1998 there were about 5,550 births in the City of Saint Louis. The Zip code with the highest averaged crude birth rate is 63106. The Zip codes with the lowest averaged rates are 63108 and 63139.



## Black/White Disparity

The 1993 through 1998 average crude birth rate is higher in the African-American community in Saint Louis City than in the White Community, 23.1 vs. 11.0 or 2.1 times higher.

## Focus Group Comments/Concerns

“Urban flight...over the past ten years the city has lost half of its population.” “People abandoning the city...loss of population and businesses.”

## Potential Public Health Interventions

This rate is an indication of the natural increase in a population. Specific public health interventions are not indicated.

## Data Source

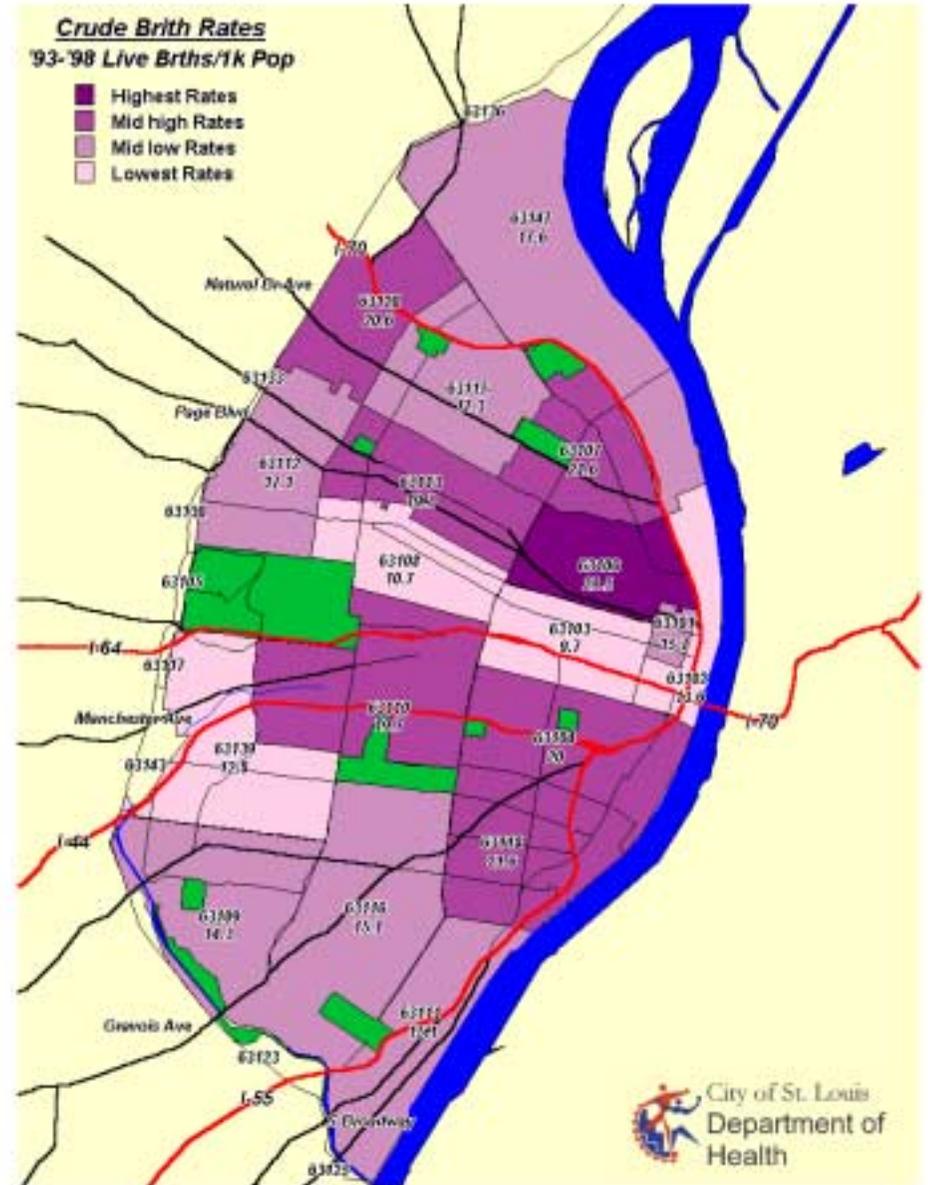
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

# Crude Births Rates

live births/1000 population 93-98 average

Zip	93-98 avg
63106	27.5
63118	21.6
63107	21.6
63120	20.6
63104	20.0
63110	19.7
63113	19.3
63147	17.6
*north	17.6
63115	17.3
63112	17.1
*63101	15.7
93111	15.1
63116	15.1
63109	14.3
*south	13.9
*63102	13.6
63139	12.8
63108	10.7
*63103	9.7
*central	4.7

Zip	93-98 avg
Saint Louis	17.2
Missouri	13.9
U.S.	14.9
St. L White	11.0
St. L Black	23.1
U.S. White	14.3
U.S. Black	18.7



crude birth rate

# fertility rate

## Definition

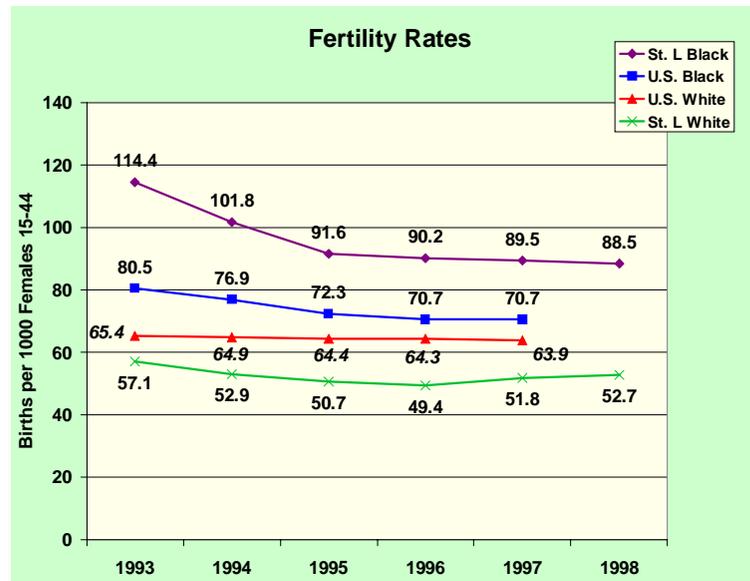
Fertility rate is the number of live births divided by the estimated number of females aged 15 to 44 multiplied by 1,000. Because it is more specific it is considered an improvement over the crude birth rate. This rate is also a measure of natural population growth due to natural causes.

## Public Health Implications

Fertility rate, as crude birth rate, gives an indication of where the population may be growing naturally and what areas of the city may have more infants.

## Saint Louis Rates and Comparative Info

The 1993 through 1998 average fertility rate in the City of Saint Louis is higher than the averaged rates in Missouri and the U.S. for the same time period, 76.2 vs.. 63.0 and 66.0 respectively or about 1.2 times higher. In 1998 there were about 5,550 births in the City of Saint Louis. The Zip code with the highest average fertility rate for the time period 1993 through 1998 is 63106. The Zip codes with the lowest rates are 63108 and 63139.



## Black/White Disparity

In Saint Louis City the 1993 through 1998 average fertility rate is higher in the African-American community than in the White population, 96.2 vs. 52.5 or 1.8 times higher.

## Focus Group Comments/Concerns

“Urban flight...over the past ten years the city has lost half of its population.” “People abandoning the city...loss of population and businesses.”

## Potential Public Health Interventions

This rate is an indication of the natural increase in a population. Specific public health interventions are not indicated.

## Data Source

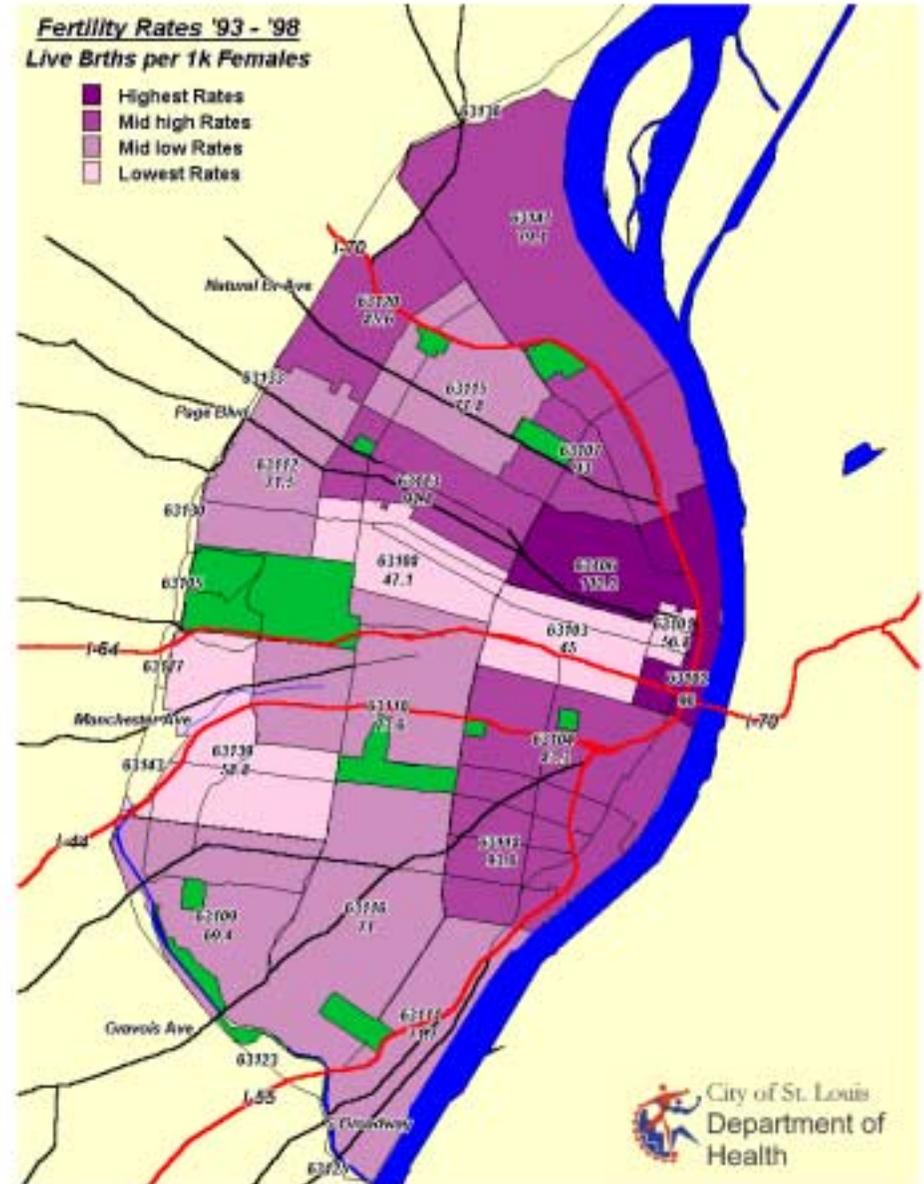
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Fertility Rates

live births/1000 females 15-44 93-98 average

Zip	93-98 avg
63106	112.2
*63102	96.0
63118	93.6
63107	93.0
63113	91.8
63120	85.6
63104	83.3
63147	79.1
63115	77.8
*north	75.0
63110	73.6
63111	71.7
63112	71.5
63116	71.0
63109	69.4
*south	61.3
63139	58.8
*63101	56.8
63108	47.1
*63103	45.0
*central	19.0

Zip	93-98 avg
Saint Louis	76.2
Missouri	63.0
U.S.	66.0
St. L White	52.5
St. L Black	96.2
Mo White	61.5
Mo Black	80.2
U.S. White	64.6
U.S. Black	74.2



fertility rate

# crude death rate

## Definition

Crude death rate is the number of deaths in a given year divided by the estimated population. The rate is expressed as deaths per 1000 population. It is useful as a measure of population decrease due to natural causes, vs. flight.

## Public Health Implications

Crude death rates are useful when allocating public health resources because it gives an indication of areas where larger numbers of deaths are occurring. However it is a very crude measure of risk because of the great variation of age. See age-adjusted overall mortality rates.

## Saint Louis Rates and Comparative Info

The 1994 through 1998 averaged crude death rate in Saint Louis City is 1.3 times higher than the averaged rate for Missouri and 1.5 times higher than the averaged U.S. rate in the same time period. In 1998 there were about 4,500 deaths in the City of Saint Louis. The Zip code with the highest averaged crude death rate is 63113. The Zip codes with the lowest averaged rates are 63120, 63110 and 63118.

## Black/White Disparity

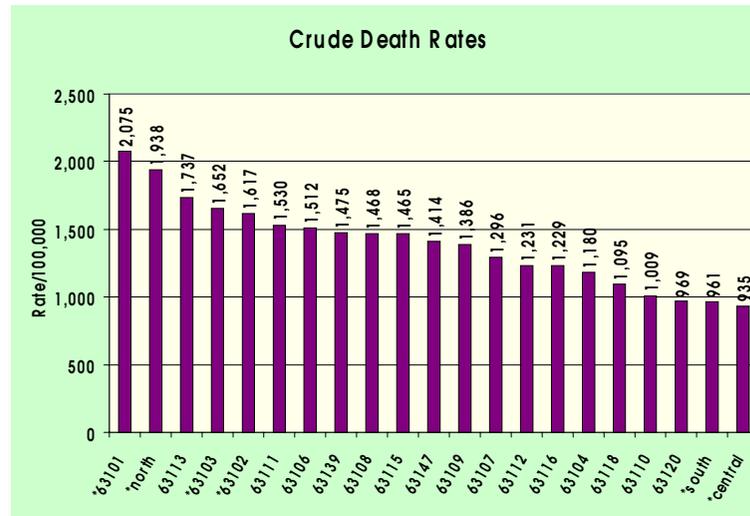
The Saint Louis City White population has an average crude death rate 1.1 times higher than the averaged rate for the Saint Louis City African-American community for the time period 1994 through 1998. This is most likely due to the higher percentage of those 65 years of age and older in the White population.

## Potential Public Health Interventions

Public health activities include epidemiological studies to determine and then prioritize the most important areas for public health programming.

## Data Source

Claritas, Inc.

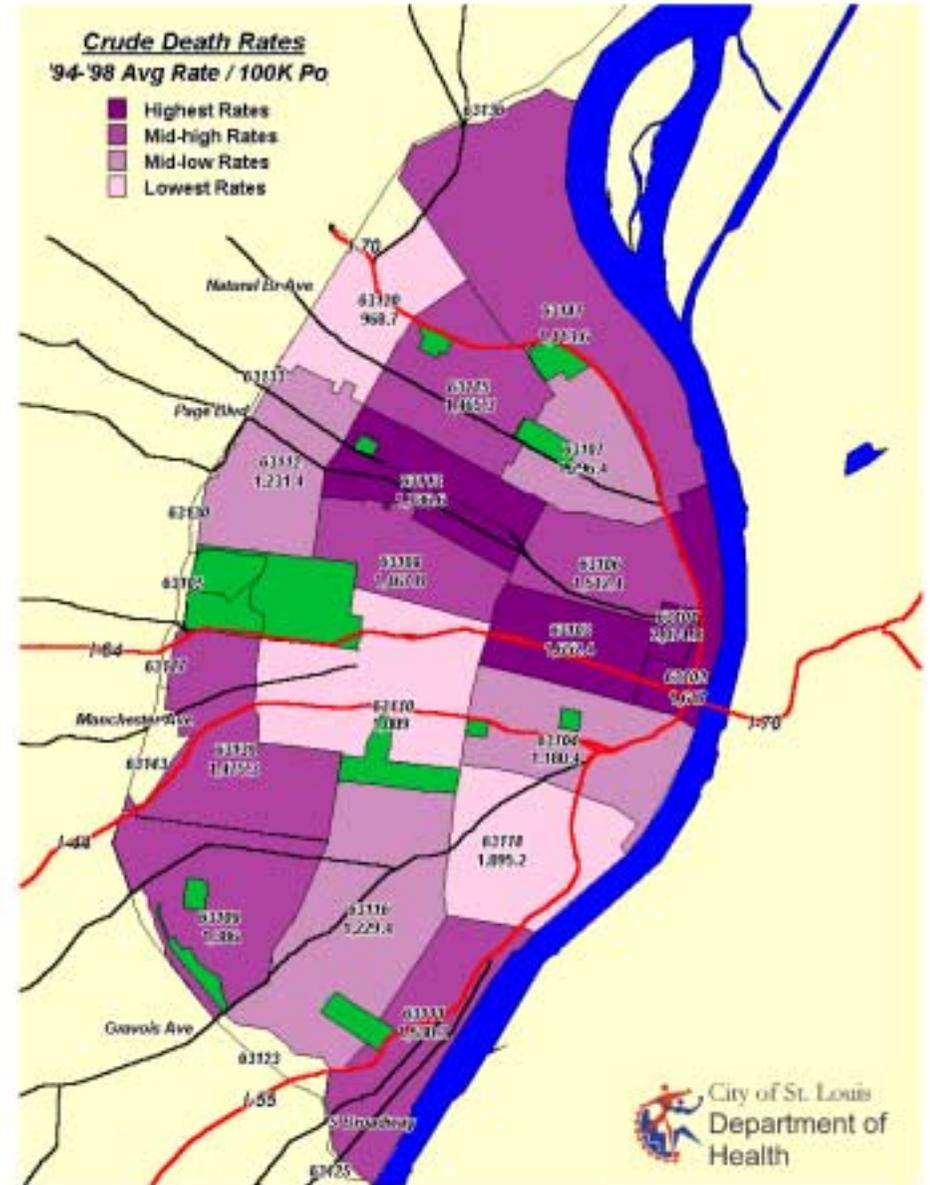


## Crude Death Rates

deaths/1000 population 94-98 average

Zip	94-98 avg
*63101	2,074.8
*north	1,937.5
63113	1,736.6
*63103	1,652.4
*63102	1,617.0
63111	1,530.3
63106	1,512.4
63139	1,475.3
63108	1,467.8
63115	1,465.3
63147	1,413.6
63109	1,386.0
63107	1,296.4
63112	1,231.4
63116	1,229.4
63104	1,180.4
63118	1,095.2
63110	1,009.0
63120	968.7
*south	961.3
*central	935.4

Zip	94-98 avg
Saint Louis	1,340.4
Missouri	1,015.2
U.S.	869.5
St.L White	1,463.0
St.L Black	1,286.5
U.S. White	1,019.7
U.S. Black	890.1



c r u d e   d e a t h   r a t e

# refugees processed

## Definition

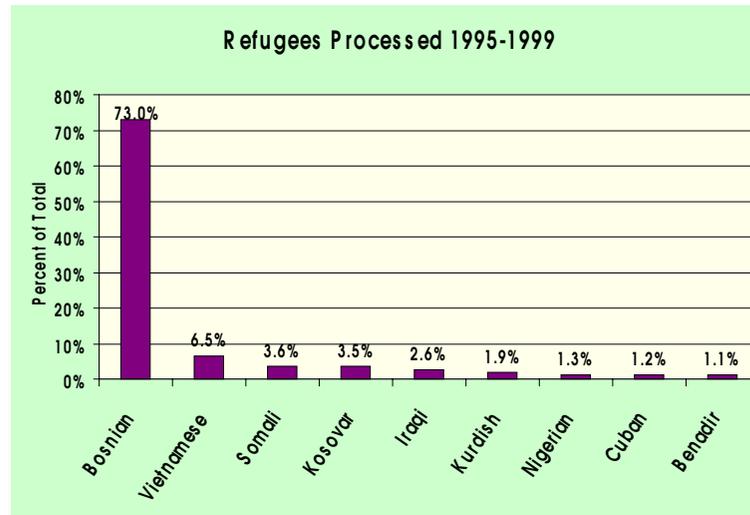
A refugee is defined as “any person who is outside any country nationality of such person’s nationality or, in the case of a person having no nationality, is outside any country in which such person last habitually resided, and who is unable or willing to return to, and is unable or unwilling to avail himself or herself of the protection of, that country because of persecution or well-founded fear of persecution on account of race, religion, nationality, membership in a particular social group, or political opinion.” [Section 101(a)(42) of the Immigration and Nationality Act] Immigrants are not included in this definition.

## Public Health Implications

“Though actual numbers of refugees in the city at any time may be relatively small, by definition, these new arrivals constitute a high-risk group from the standpoint of public health. A great number of refugees come from countries with standards of health care that are far different from the standards that are commonly promoted in our communities in the United States” (focus group facilitator)

## Saint Louis Rates and Comparative Info

The largest group of refugees processed in the City of Saint Louis between 1995 and 1999 are Bosnian. In that 5-year time period 73% of all the refugees processed were Bosnian. The next three largest groups processed were Vietnamese (6.5%), Somali (3.6%) and Kosovar (3.5%).



## Black/White Disparity

Not applicable, however close to 6,400 refugees were processed in the City of Saint Louis from 1995 through 1999.

## Focus Group Comments/Concerns

“In general, immigrant health has many difficulties.” “Refugee groups as well as more established immigrant populations are falling through the cracks.” “Differences in cultural mores, languages and literacy rates must be considered as programs are designed and communicated.”

## Potential Public Health Interventions

Epidemiological and descriptive studies to determine additional unique needs of the immigrant/refugee populations in Saint Louis City

Development of culturally sensitive educational materials

Collaboration with agencies that serve the refugee population

## Data Source

International Institute, City of Saint Louis

## Refugees Processed 1995-1999

Nationality	% of Total
<b>Bosnian</b>	73.0%
<b>Vietnamese</b>	6.5%
<b>Somali</b>	3.6%
<b>Kosovar</b>	3.5%
<b>Iraqi</b>	2.6%
<b>Kurdish</b>	1.9%
<b>Nigerian</b>	1.3%
<b>Cuban</b>	1.2%
<b>Benadir</b>	1.1%
<b>Afgan</b>	0.7%
<b>Russian</b>	0.7%
<b>Serbian</b>	0.6%
<b>Liberian</b>	0.4%
<b>Ethiopian</b>	0.4%
<b>Sierra Leone</b>	0.4%
<b>Ukranian</b>	0.4%
<b>Haitian</b>	0.3%
<b>Moldavian</b>	0.3%

Nationality	% of Total
<b>Amerasian</b>	0.2%
<b>Farsi</b>	0.2%
<b>Pashtoon</b>	0.2%
<b>Croatian</b>	0.1%
<b>Sudanese</b>	0.1%
<b>Ogos</b>	0.1%
<b>Iranian</b>	0.1%
<b>Burmese</b>	0.1%
<b>Tajak</b>	0.1%
<b>Armenian</b>	0.0%
<b>Albanian</b>	0.0%
<b>Azari</b>	0.0%
<b>Total</b>	100.0%
<b>Total #'s</b>	6,362

r e f u g e e s   p r o c e s s e d

# racial polarization

## Definition

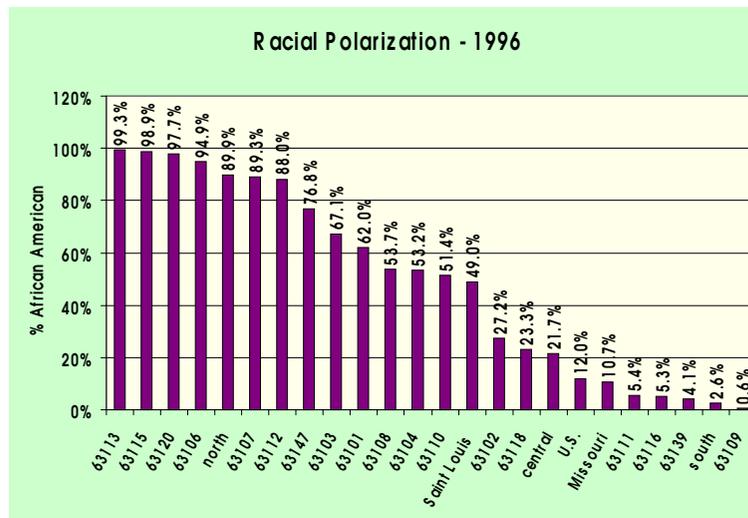
The demographic distribution in Saint Louis shows extreme racial imbalance in many Zip codes. For purposes of this analysis, all Zip codes with greater than 75% African-American population are considered racially isolated. 1996 population estimates were used. The City of Saint Louis has a history of being geographically racially divided.

## Public Health Implications

In the City of Saint Louis, the Zip codes that are identified as being racially isolated are consistently associated with less desirable rates with regard to the various health indicators. Racial polarization is also associated with poverty and diminished economic opportunity.

## Saint Louis Rates and Comparative Info

The City of Saint Louis is about half African American and half White. Nationally, African Americans represent about 12% of the population and the White population represents about 73% of the population.



## Black/White Disparity

The percentage of African Americans in individual Zip Codes ranges from 99.3% to only .6%. The Zip codes that are the most racially isolated in the City of Saint Louis are 63113, 63115, 63120, 63106, 63107 and 63112, all of which are located in the northern area of the city.

## Focus Group Comments/Concerns

“Racial polarity.” “Racial tension.” “Racism is still first.” “Acute separation between haves and have nots – economic and cultural.”

## Potential Public Health Interventions

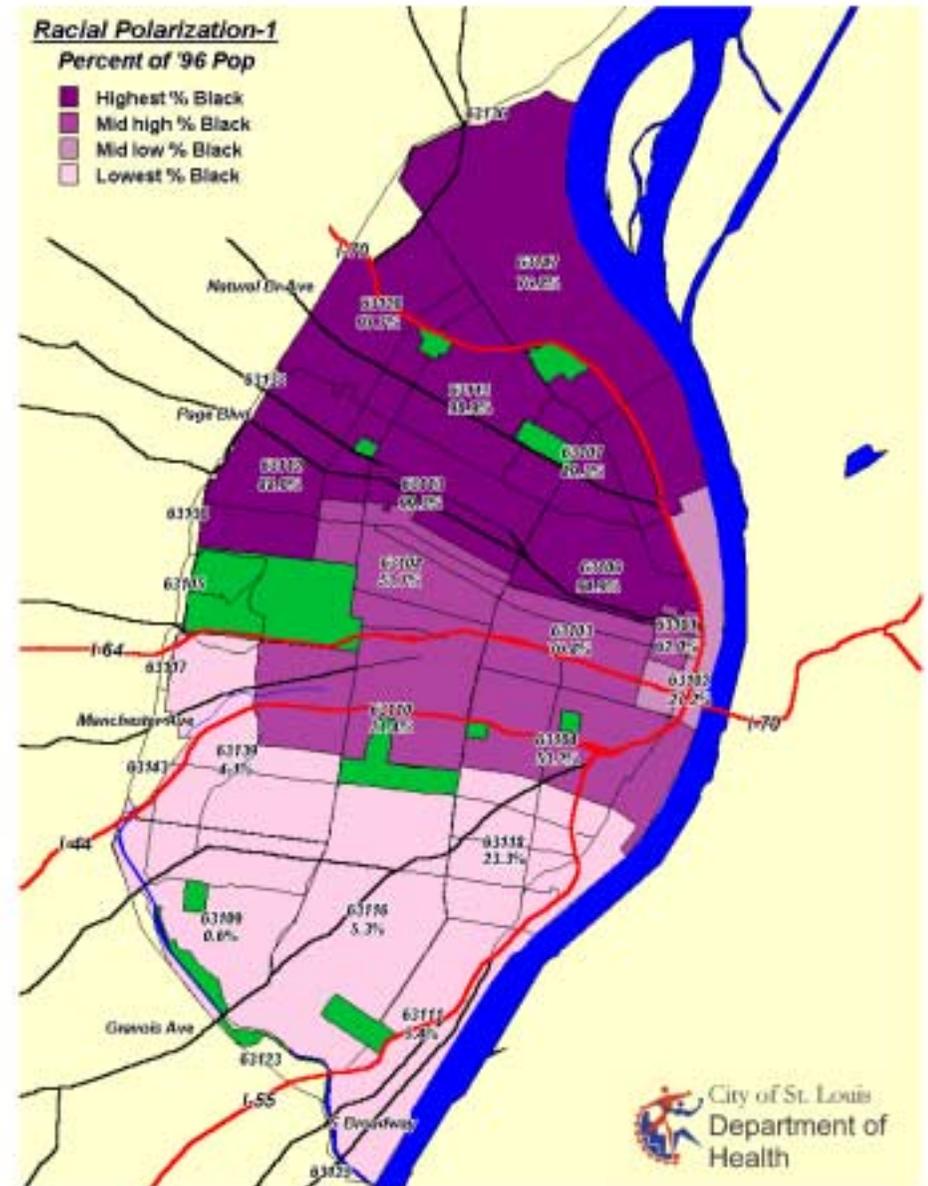
Areas of the city that are identified as racially isolated can be assessed and targeted with interventions and appropriate programs addressing such issues as immunization, lead poisoning, sexually transmitted diseases, HIV/AIDS to name a few.

## Data Source

Claritas, Inc.

## Racial Polarization - 1996

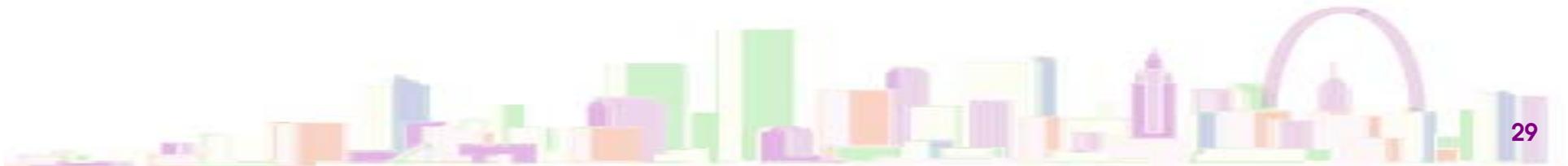
Zip	% White	% Black	% Other
63113	0.5%	99.3%	0.2%
63115	0.9%	98.9%	0.2%
63120	2.1%	97.7%	0.2%
63106	4.8%	94.9%	0.3%
*north	9.8%	89.9%	0.3%
63107	10.4%	89.3%	0.4%
63112	11.1%	88.0%	0.9%
63147	22.8%	76.8%	0.4%
*63103	31.8%	67.1%	1.1%
*63101	32.0%	62.0%	5.9%
63108	43.6%	53.7%	2.7%
63104	44.8%	53.2%	1.9%
63110	46.1%	51.4%	2.5%
*63102	71.0%	27.2%	1.7%
63118	72.4%	23.3%	4.3%
*central	75.6%	21.7%	2.7%
63111	93.4%	5.4%	1.2%
63116	92.6%	5.3%	2.1%
63139	94.2%	4.1%	1.7%
*south	96.1%	2.6%	1.4%
63109	98.6%	0.6%	0.8%
<b>Saint Louis</b>	<b>49.5%</b>	<b>49.0%</b>	<b>1.5%</b>
<b>Missouri</b>	<b>86.5%</b>	<b>10.7%</b>	<b>2.8%</b>
<b>U.S.</b>	<b>73.3%</b>	<b>12.0%</b>	<b>14.7%</b>



racial polarization



# SOCIO-ECONOMIC



# average household income

## Definition

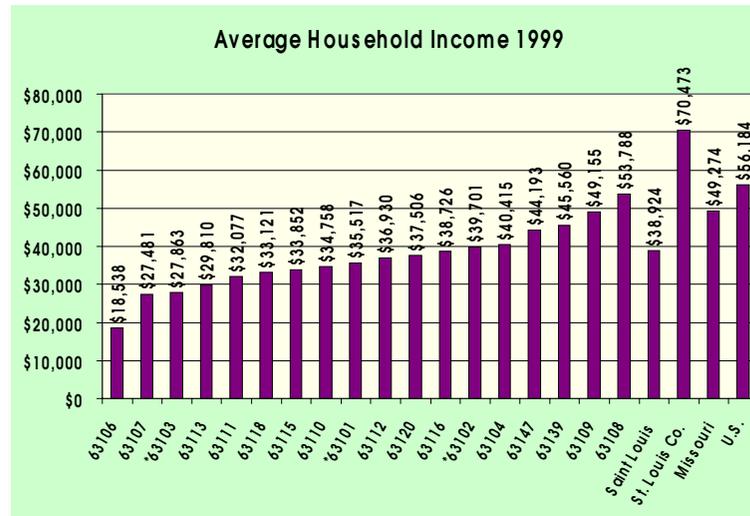
Average household income is defined as the total money received in a calendar year by all household members 15 years old and over. It is a measure of the economic strength of a community.

## Public Health Implications

Average household income is a proxy to determine poorer areas of the city. Lower economic strength is correlated with negative public health and health outcomes related to such indicators as lead poisoning, infant mortality, sexually transmitted diseases, mortality and morbidity rates and environmental conditions.

## Saint Louis Rates and Comparative Info

In 1999 dollars, the average household income in the U.S. was almost 1.5 times higher than that in the City of Saint Louis. The Zip codes with the lowest average household income, in 1999 dollars, are 63106 and 63107. Those with the highest average household income are 63108, 63109 and 63139.



## Black/White Disparity

Specific Black/White income data are not available however those Zip codes that are predominantly African American have, on the whole, lower average household incomes when compared to those Zip codes that are predominantly White. The average household income in Zip code 63109, which is 99% White, is 2.7 times higher than the average household income in 63106 (95% Black) in estimated 1999 dollars, \$49,155 vs. \$18,538.

## Focus Group Comments/Concerns

“A major concern is low income – not on welfare but earning low wages.” “Working poor – uninformed about services to access.” “Middle and upper income families have been driven from the city.”

## Potential Public Health Interventions

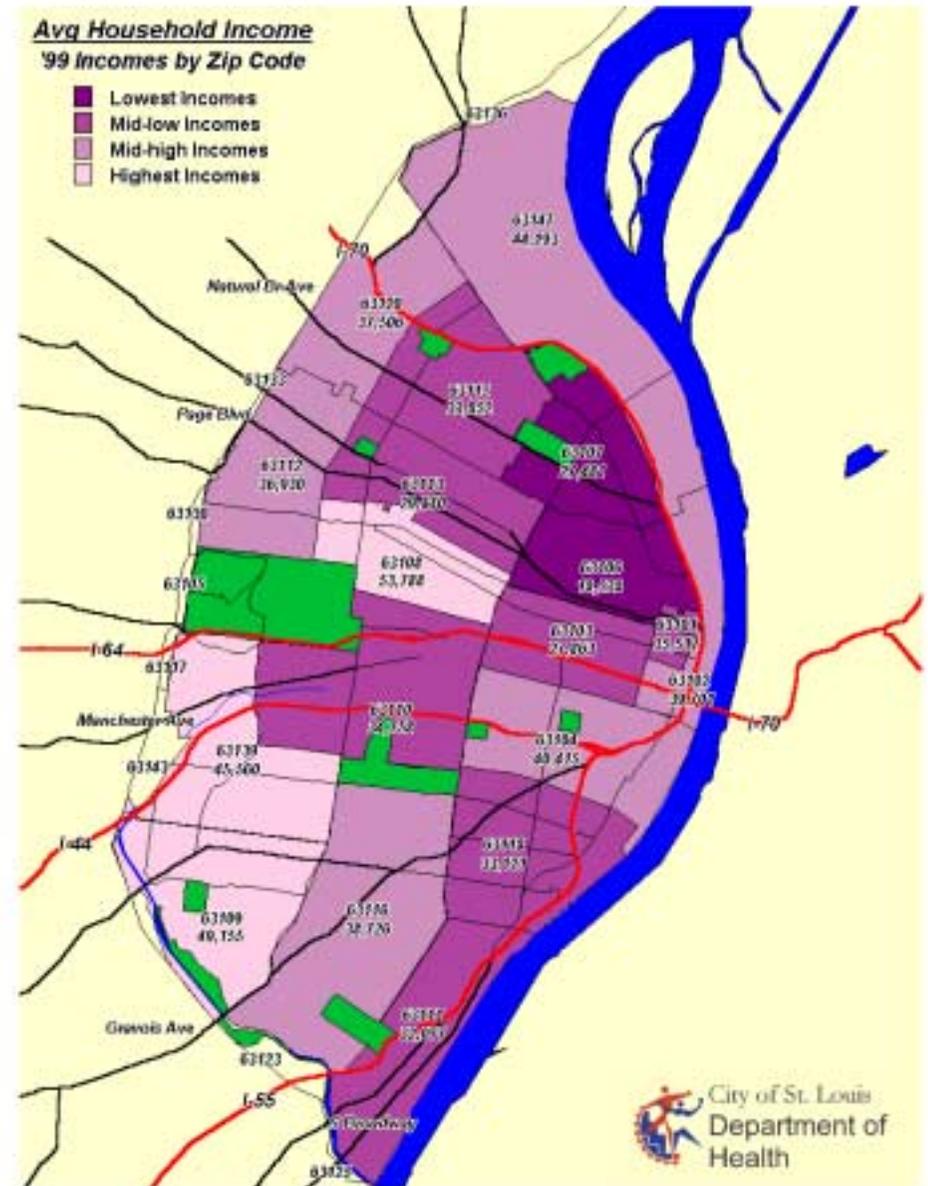
Epidemiological studies to determine target populations and areas of the city for public health policy and program development

## Data Source

Claritas, Inc.

## Average Household Income - 1999

Zip	Avg Income
63106	\$18,538
63107	\$27,481
*63103	\$27,863
63113	\$29,810
63111	\$32,077
63118	\$33,121
63115	\$33,852
63110	\$34,758
*63101	\$35,517
63112	\$36,930
63120	\$37,506
63116	\$38,726
*63102	\$39,701
63104	\$40,415
63147	\$44,193
63139	\$45,560
63109	\$49,155
63108	\$53,788
*central	N/A
*north	N/A
*south	N/A
Saint Louis	\$38,924
St. Louis Co.	\$70,473
Missouri	\$49,274
U.S.	\$56,184



average household income

# households below poverty

## Definition

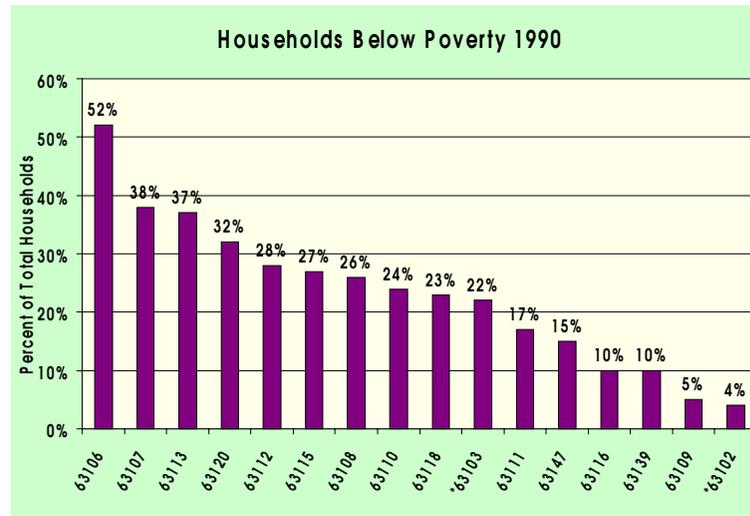
1990 census poverty data were used to determine the percentage of households that are below poverty. Households below poverty are not projected. New information will be available in the 2000 census data due around mid 2001.

## Public Health Implications

Children living below the poverty line are more likely to suffer from poor general health, to have high levels of blood lead, and to have no consistent source of health care. They are also more likely to experience housing problems and hunger, less likely to be enrolled in early childhood education and less likely to have a parent working full-time all year.

## Saint Louis Rates and Comparative Info

Comparative household poverty data were not available for this document.



## Black/White Disparity

Specific poverty data are not presented by African-American and White populations. However, the Zip codes that are predominately African American show higher percentages of households below poverty. Those Zip codes are 63106, 63107 and 63113. The Zip codes with the lowest percentages of households below poverty are 63109, 63139 and 63116 which are predominately White.

## Focus Group Comments/Concerns

“Saint Louis has a number of concentrated, underclass neighborhoods that are ineffective or incapable of accessing resources.” “Poverty is the greatest challenge. Everything else flows from that.” “All the social issues that come with poverty are here.”

## Potential Public Health Interventions

Identification of areas with high rates of poverty and targeting populations with appropriate programs such as immunization, lead poisoning, MC+ enrollment assistance to name a few

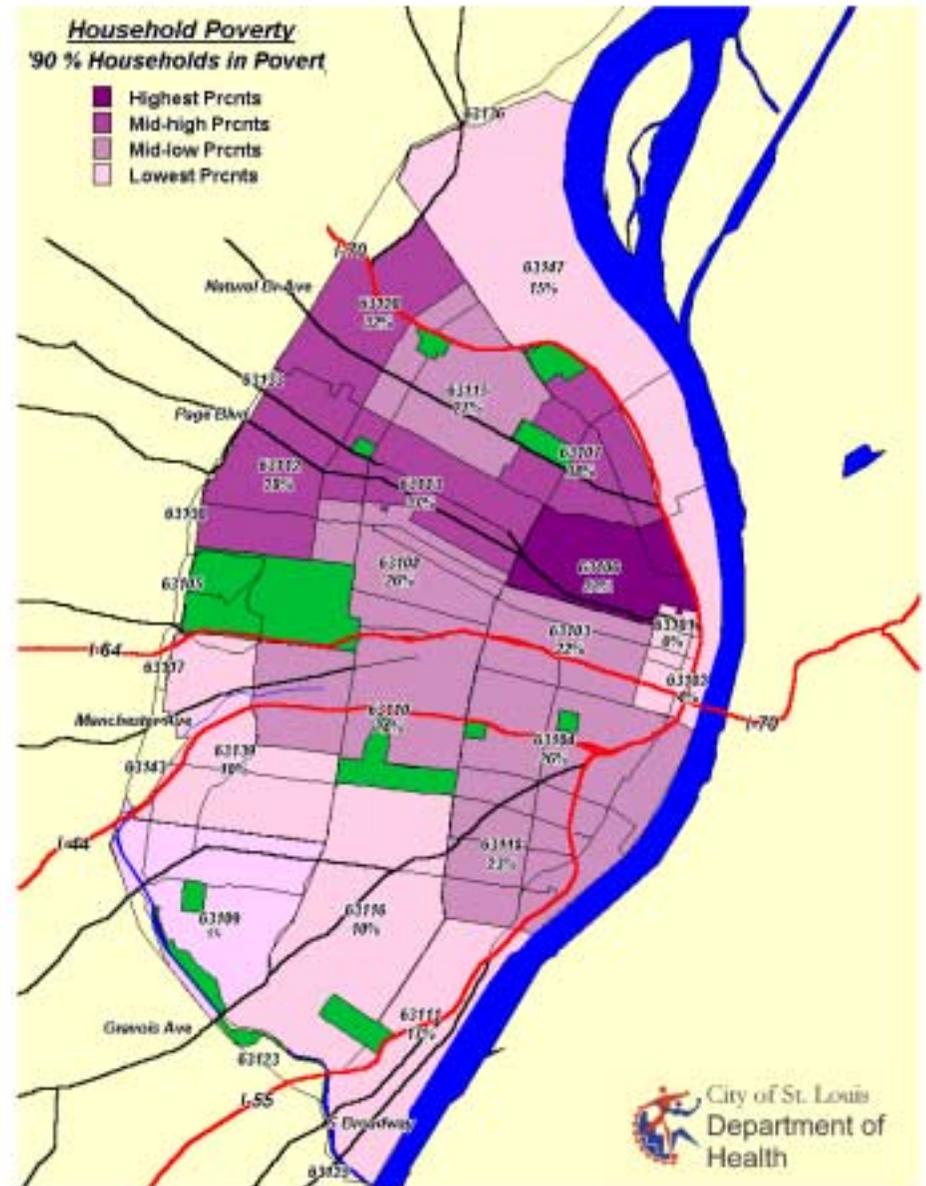
## Data Source

Claritas, Inc.

## Households Below Poverty - 1990

ZIP	% Below
63106	52%
63107	38%
63113	37%
63120	32%
63112	28%
63115	27%
63108	26%
63110	24%
63118	23%
*63103	22%
63111	17%
63147	15%
63116	10%
63139	10%
63109	5%
*63102	4%

Data for 63101 and 63104 are unavailable



households below poverty

# female head of household

## Definition

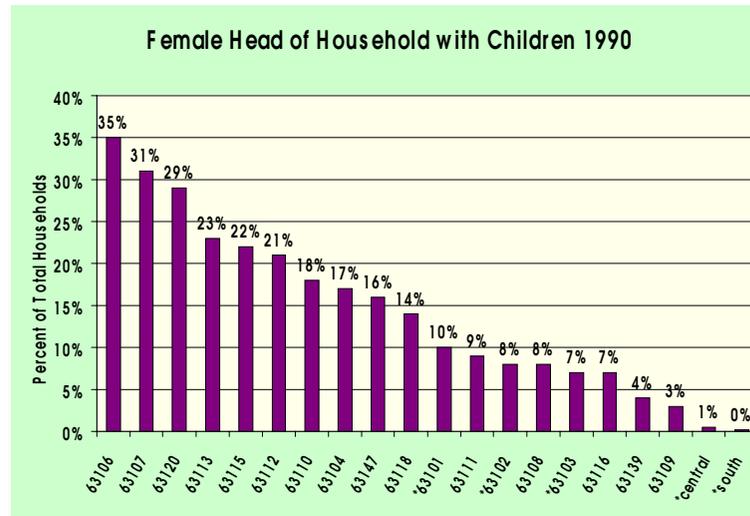
This represents the percent of households that are headed by a female with children. This census data is not projected so the information is from 1990. The percentages may be higher when the 2000 census data are released in mid 2001.

## Public Health Implications

Female headed households are associated with lower socioeconomic status and the associated health and public health issues and concerns.

## Saint Louis Rates and Comparative Info

Comparative rates are not available.



## Black/White Disparity

Specific race data are not available for this report however, the Zip codes with the highest percentages of female head of households with children are predominately African American. Those Zip codes are 63106, 63107 and 63120. The Zip codes with the lowest percentages are 63109 and 63139 which are predominately White.

## Focus Group Comments/Concerns

“There is the need for recreational facilities and structured activities, games and sports, to engage students outside academic work. This need is even more significant because most of the children are from single-parent households where there are no father figures to guide and support them.”

## Potential Public Health Interventions

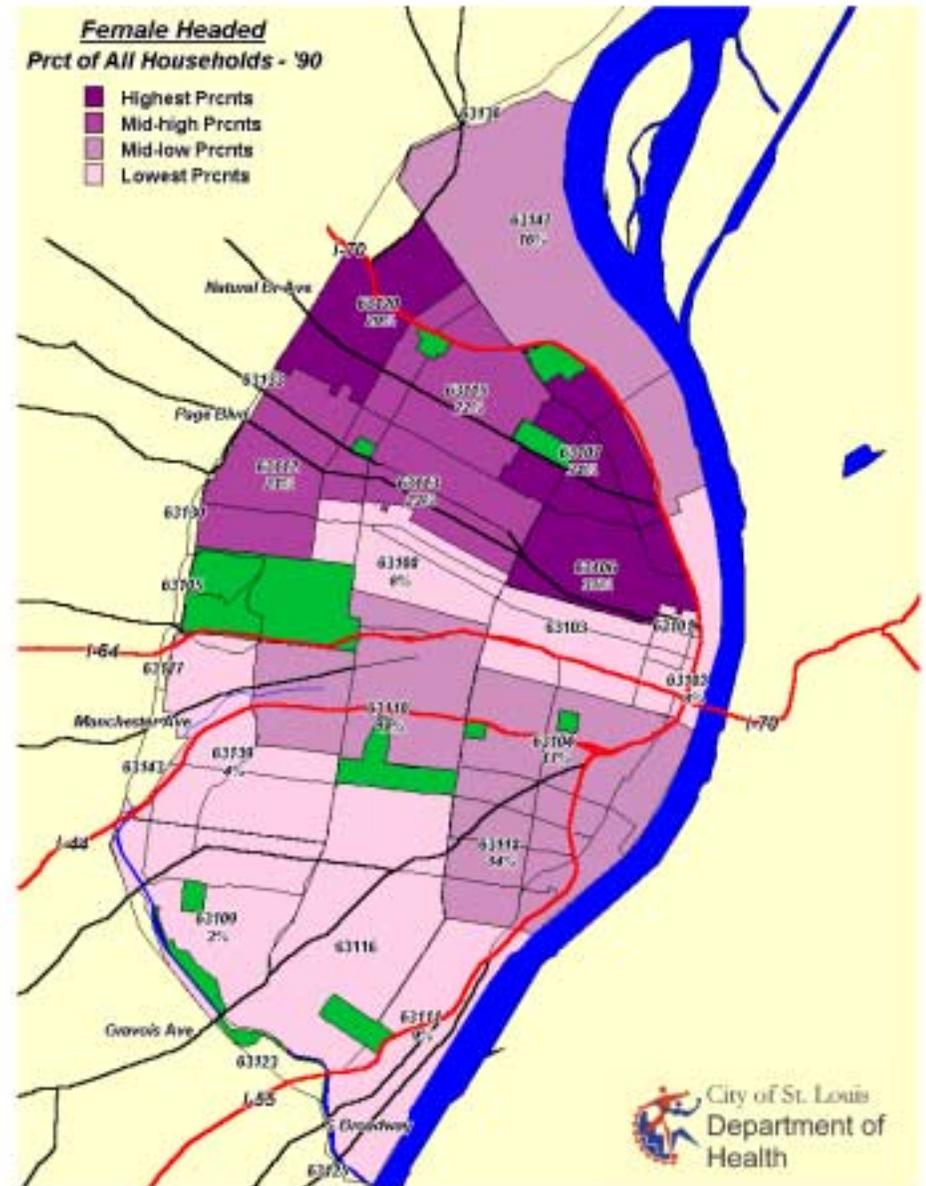
Community surveys to determine needs, MC+ registration and Maternal, Child and Family Health programs to name a few

## Data Source

Claritas, Inc.

## Female Head of Household with Children - 1990

ZIP	% of Total
63106	35.0%
63107	31.0%
63120	29.0%
63113	23.0%
63115	22.0%
63112	21.0%
63110	18.0%
63104	17.0%
63147	16.0%
63118	14.0%
*63101	10.0%
63111	9.0%
*63102	8.0%
63108	8.0%
*63103	7.0%
63116	7.0%
63139	4.0%
63109	3.0%
*central	0.5%
*north	N/A
*south	0.2%



female head of household

# education level

## Definition

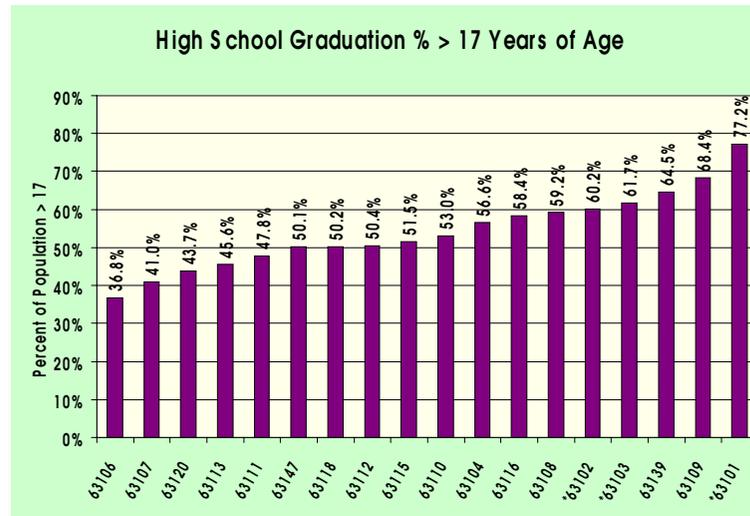
Education level is determined by the percent of city resident's 18 years of age and older who have completed high school. 1990 census data are used. Education level is used as an indicator of economic status.

## Public Health Implications

Communities with low education levels are more likely to experience poor health outcomes. Lower educational levels are associated with unemployment, higher birth rates, poverty, poorer housing standards and thus all the associated public health and health issues related with poverty.

## Saint Louis Rates and Comparative Info

Nationally in 1990, the percentage of high school graduates is 64%. In the 1990 census, graduation rates by Zip code, in Saint Louis City, range from a high of 68.4% in 63109 to a low of 36.8% in 63106.



## Black/White Disparity

Specific information is not available by race for this document. However, the Zip codes that are predominately African American have the lowest rates of high school graduation. Those Zip codes are 63106 and 63107. The Zip codes with the highest graduation rates are 63109 and 63139 which are overwhelmingly White.

## Focus Group Comments/Concerns

"We have a high drop out rate in high school."  
"Illiteracy rate is over 22%." "Kids don't have good access to information because they are not in school."

## Potential Public Health Interventions

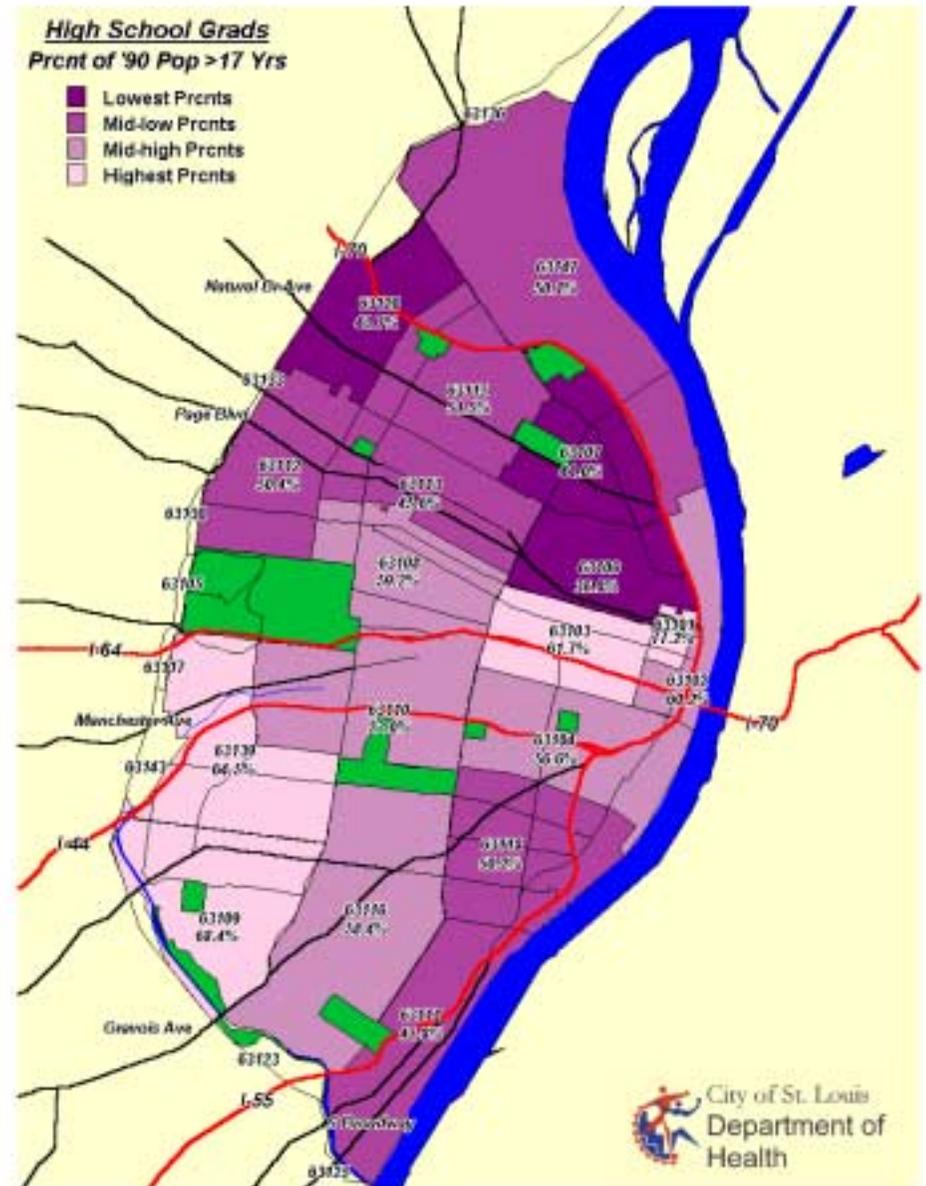
Access to care assistance, culturally sensitive educational literature and programs

## Data Source

Claritas, Inc.

## High School Graduation % > 17 years of age 1990

Zip	%
63106	36.8%
63107	41.0%
63120	43.7%
63113	45.6%
63111	47.8%
63147	50.1%
63118	50.2%
63112	50.4%
63115	51.5%
63110	53.0%
63104	56.6%
63116	58.4%
63108	59.2%
*63102	60.2%
*63103	61.7%
63139	64.5%
63109	68.4%
*63101	77.2%
U.S.	64.0%



education level

# unemployment rates

## Definition

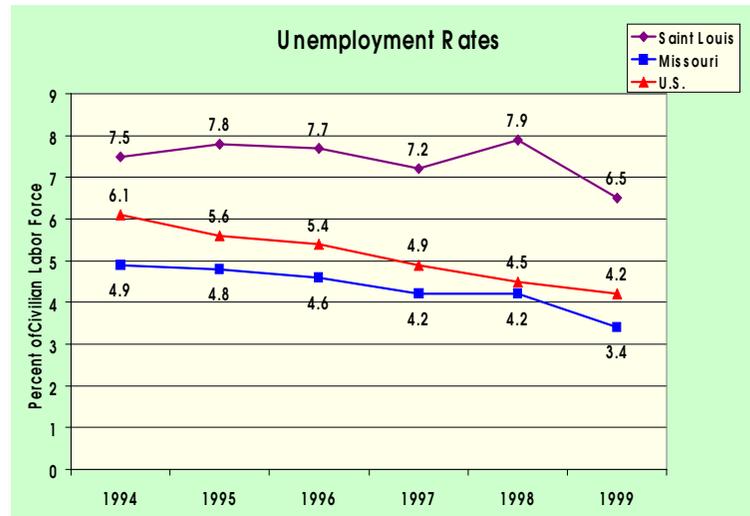
Unemployment measures the average percent of the civilian, noninstitutional labor force that is unemployed during the year. The rate is expressed as percent, i.e. the number of unemployed divided by the total civilian labor force. The rate is an average of 1994 through 1999 data.

## Public Health Implications

Unemployment is an indirect way to measure lack of access to insurance and health care services provided by employers and employees' ability to pay for health care. The indicator is also associated with decreased economic strength and thus poorer health outcomes.

## Saint Louis Rates and Comparative Info

Overall, the unemployment rates in Saint Louis City, between 1994 and 1999, have consistently been 1.7 times higher than the Missouri rates and 1.5 times higher than the U.S. rates.



## Black/White Disparity

Specific rates are not available by race, however, the Zip codes with the rates of most concern (63106, 63107 and 63113) are predominately African American and the most favorable rates are in predominately White Zip codes (63109, 63139 and 63116).

## Focus Group Comments/Concerns

“Unemployment could become a crisis if not addressed – need economic development, jobs which pay a living wage.” “Rates of unemployment.” “Under-employment and jobs with no benefits lead to poverty.” “For those with minimal skills, opportunities for employment in the city geographic area are limited.”

## Potential Public Health Interventions

Assisting in enrolling children in the MC+ Medicaid program, assisting the community in access to care

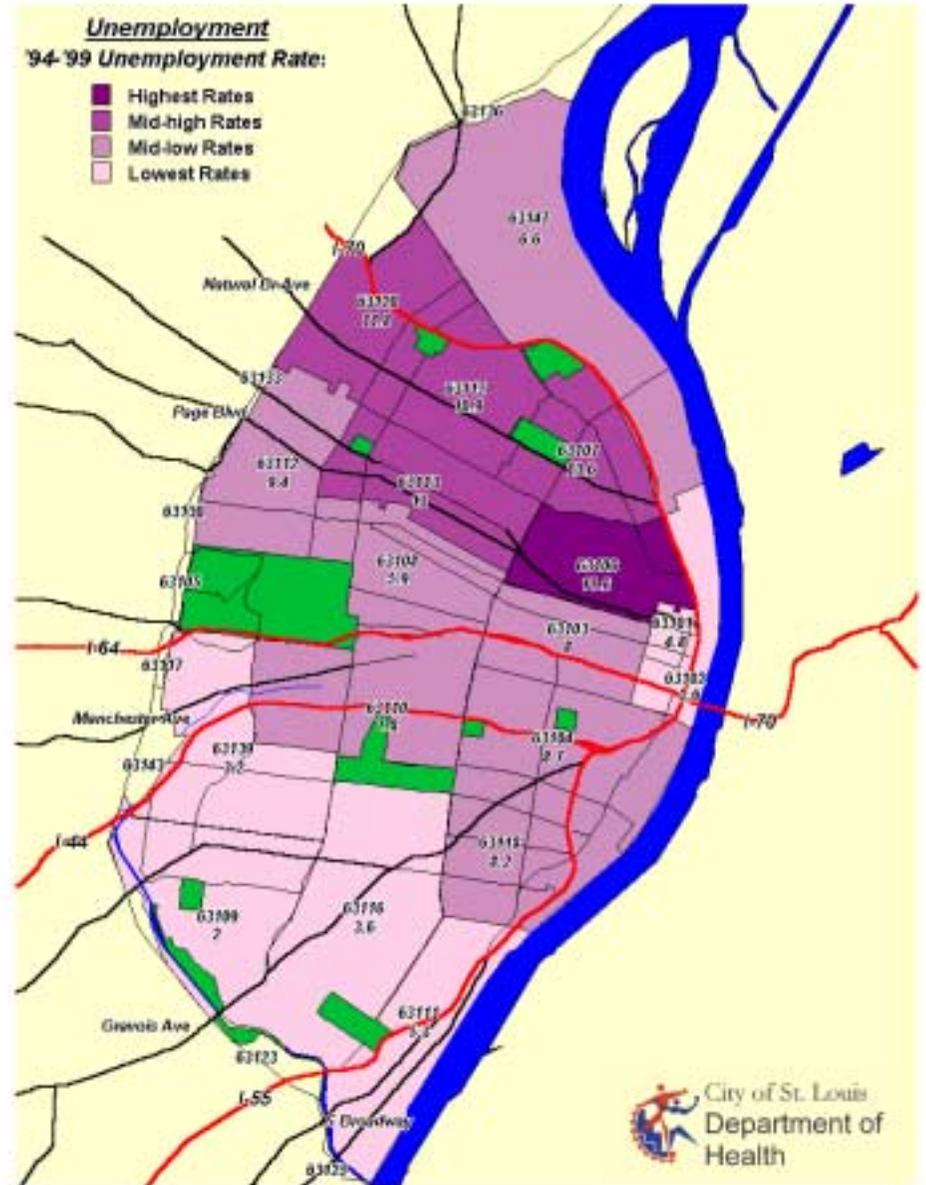
## Data Source

Missouri Department of Labor and Industrial Relations

# Unemployment Rates

1994 - 1999 average

Zip	94-99 avg
63106	17.6
63107	13.6
63113	13.0
63120	11.8
63115	10.9
63112	9.4
63104	8.7
63118	8.2
*63103	8.0
63110	7.8
63147	6.6
63108	5.9
63111	5.3
*central	5.0
*63101	4.8
63116	3.6
63139	3.2
*63102	2.6
63109	2.0
*south	N/A
*north	N/A
<b>Saint Louis</b>	7.4
<b>Missouri</b>	4.4
<b>U.S.</b>	5.1



unemployment rates

# crimes against property

## Definition

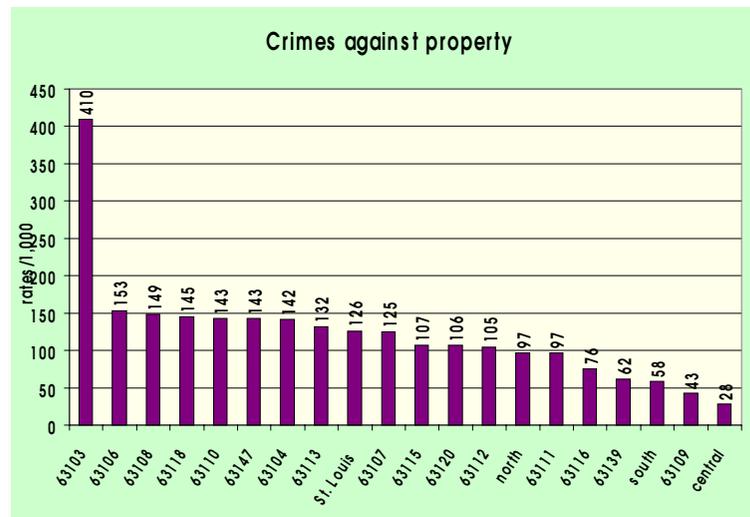
“Crimes against property”, for this analysis, is defined as burglary, larceny and auto theft. These crimes are differentiated from “crimes against persons” which are of a violent nature. The crimes were committed within the specified Zip codes. They do not represent the residence of the perpetrator. The rate is an average of data from 1995 through 1998 and presented per 1000 population. Zip codes 63101, 63102 and 63103 have small populations and thus the rates appear very high.

## Public Health Implications

Crime has a negative impact on city residents, which could potentially cause residents to abandon the city as well as discourage the influx of new population. Loss of population leads to less economic stability. Many more public health issues could manifest resulting in the increase need to fund public health programming.

## Saint Louis Rates and Comparative Info

Comparative information is not available for this descriptive analysis.



## Black/White Disparity

The crime data are not available by race. However, the Zip codes with the lowest average property crime rates between 1995 and 1998 are in the predominately White Zip codes of 63109 and 63139. The highest averaged rate, disregarding the low population Zip codes of 63101, 63102 and 63103, is in the predominately African-American Zip code 63106.

## Focus Group Comments/Concerns

“Crime, so people don’t want to live in the city.”

## Potential Public Health Interventions

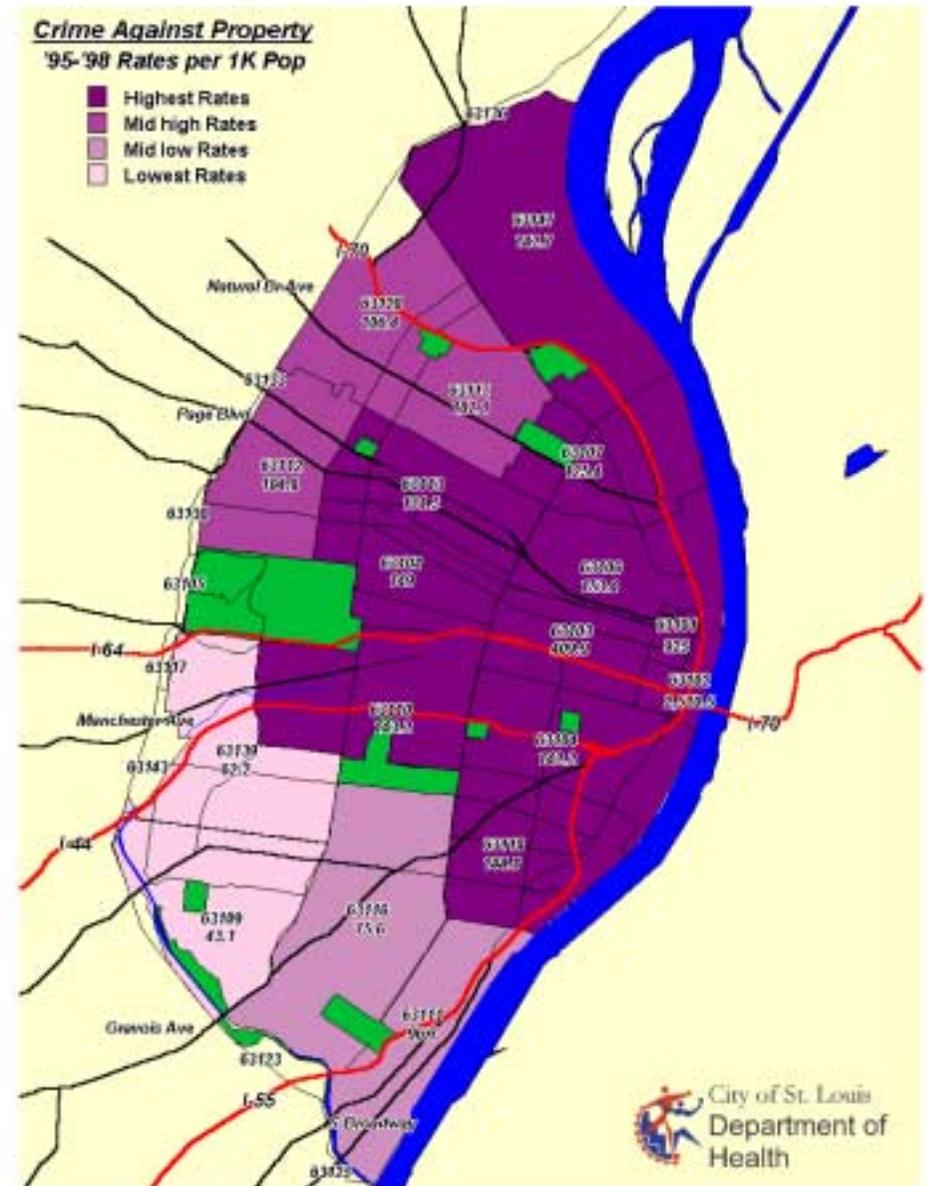
There is a need for increase funding to address all the public health issues that result from lower socioeconomic status. Services would include lead poisoning screening, environmental awareness, health education and sexually transmitted disease surveillance and services.

## Data Source

City of Saint Louis Police Department

## Crimes Against Property \*\* /1000 population 95-98 average

Zip	95-98 avg
*63102	2,510.5
*63101	925.0
*63103	409.9
63106	153.4
63108	149.0
63118	144.8
63110	143.2
63147	142.7
63104	142.2
63113	131.5
63107	125.4
63115	107.1
63120	106.4
63112	104.8
*north	96.8
63111	96.7
63116	75.6
63139	62.2
*south	58.3
63109	43.1
*central	28.0
St. Louis	125.6
Missouri	N/A
U.S.	N/A



\*\*Burglary, larceny, auto theft

crimes against property

# crimes against persons

## Definition

“Crimes against person”, for this analysis, is defined as homicide, rape, robbery and aggravated assault. These are crimes of a violent nature. The crime is counted in the Zip code where the crime was committed. It is not the residence of the perpetrator. The rate is an average of data from 1995 through 1998. The rate is per 1000 population. Zip code 63102 has a low population and thus a very high rate.

## Public Health Implications

Violence has been recognized as a public health issue largely because of its impact on the health and well being of the country's youth. Violent injury and death disproportionately affect children, adolescents and young adults in the United States.

## Saint Louis Rates and Comparative Info

Comparative data are not available for this analysis.



## Black/White Disparity

The crime data are not available by race. However, the Zip codes with the rates of most concern are located in the predominately African-American Zip codes of 63106 and 63107. The most favorable rates are in 63109 and 63139 which are predominately White.

## Focus Group Comments/Concerns

“Crime and violence and their effects on quality of community life is of great concern to many residents.” “Violence – pockets of concentrated violence and crime.” “Violence in the schools and community leads to flight from City.” “Our kids are found dead on the corners everyday.”

## Potential Public Health Interventions

Development of surveillance systems to monitor firearm injuries and other violent crimes and related risk behaviors

Development of strategies and youth oriented programs designed to prevent and reduce aggressive and violent behavior

Study the epidemiology of youth violence specific to the City of Saint Louis

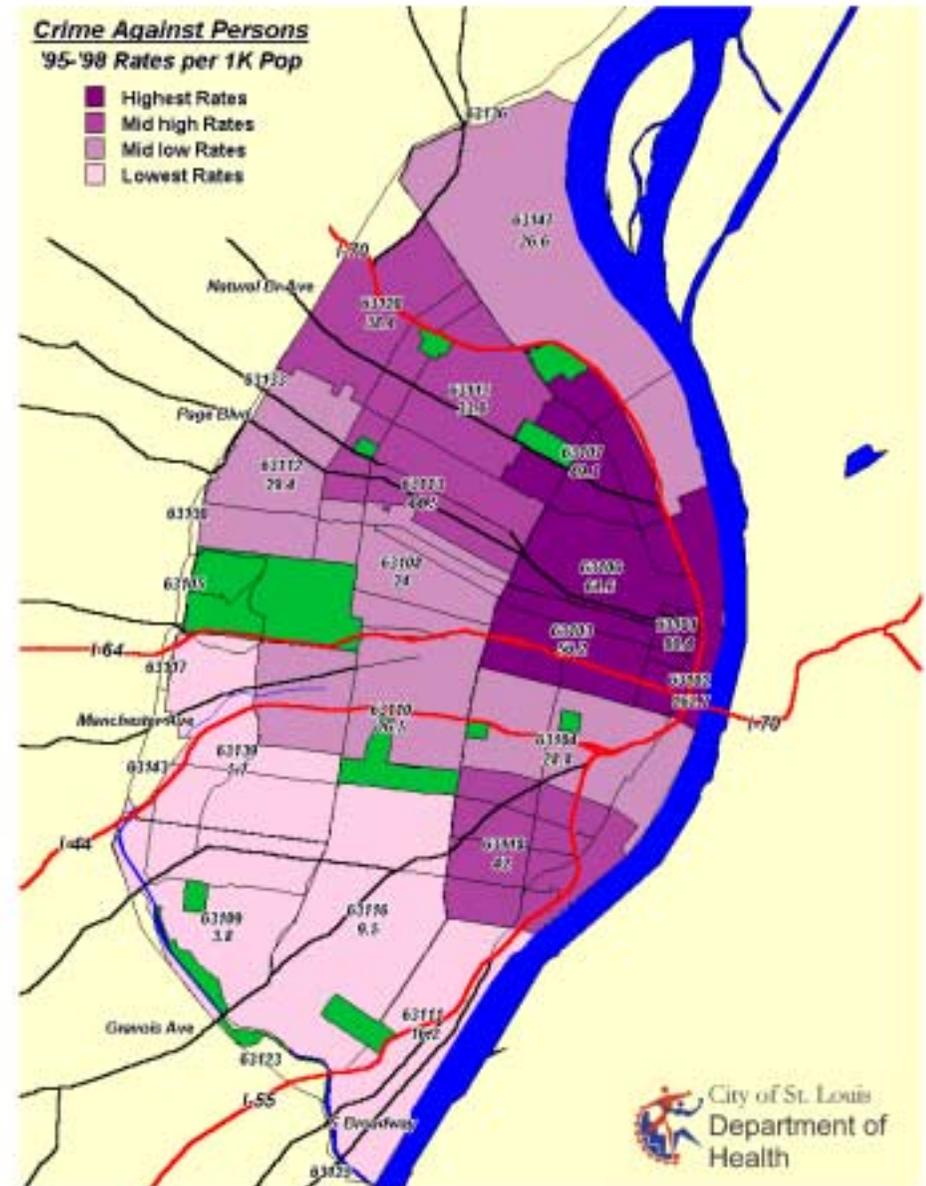
## Data Source

City of Saint Louis Police Department

# Crimes Against Persons \*\*

/ 1,000 population 95-98 average

Zip	95-98 avg
*63102	262.7
*63101	80.4
63106	61.6
*63103	56.2
63107	49.1
63113	44.5
63118	42.0
63120	38.4
63115	33.6
*north	30.3
63112	29.4
63104	28.8
63147	26.6
63110	26.5
63108	24.0
63111	16.2
63116	9.5
*south	6.8
63139	5.7
63109	3.8
*central	2.7
<b>Saint Louis</b>	27.4
<b>Missouri</b>	N/A
<b>U.S.</b>	N/A



\*\*homicide, rape, robbery, aggravated assault

# crimes against persons

# vacant lots

## Definition

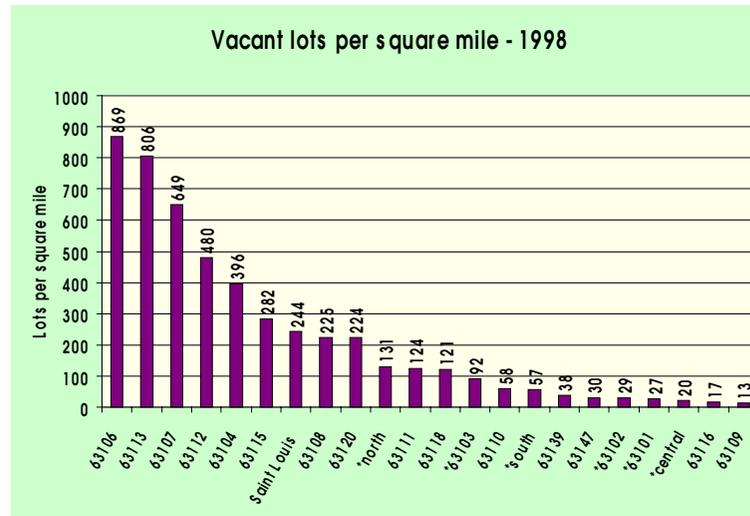
The number of vacant lots in each Zip code was divided by the square mileage of the respective Zip code. This created a ratio of the number of vacant lots per square mile. Increasing numbers of vacant lots decrease tax revenue, create increased sanitation problems and reduce the population. 1998 vacant lot data were used.

## Public Health Implications

This is an indicator of the stability and economic strength of a city. An increase in negative health outcomes due to increased poverty could result. Vacant lots could also lead to sanitation and vector problems.

## Saint Louis Rates and Comparative Info

In 1998 there were an estimated 15,000 vacant lots in the City of Saint Louis. Comparative information is not available.



## Black/White Disparity

The Zip codes with the highest vacant lot ratios in 1998 are 63106 and 63113 and are predominately African American. The Zip codes with the lowest ratios in 1998 are 63109 and 63116 where the majority of the population is White.

## Focus Group Comments/Concerns

"...these vacant lots that's surrounding the neighborhood and everything...they should clean these lots. Either put playgrounds on them or build community centers for the kids to come after school." "Vacant property." "Need to clean up the city – trash is illegally dumped on vacant lots."

## Potential Public Health Interventions

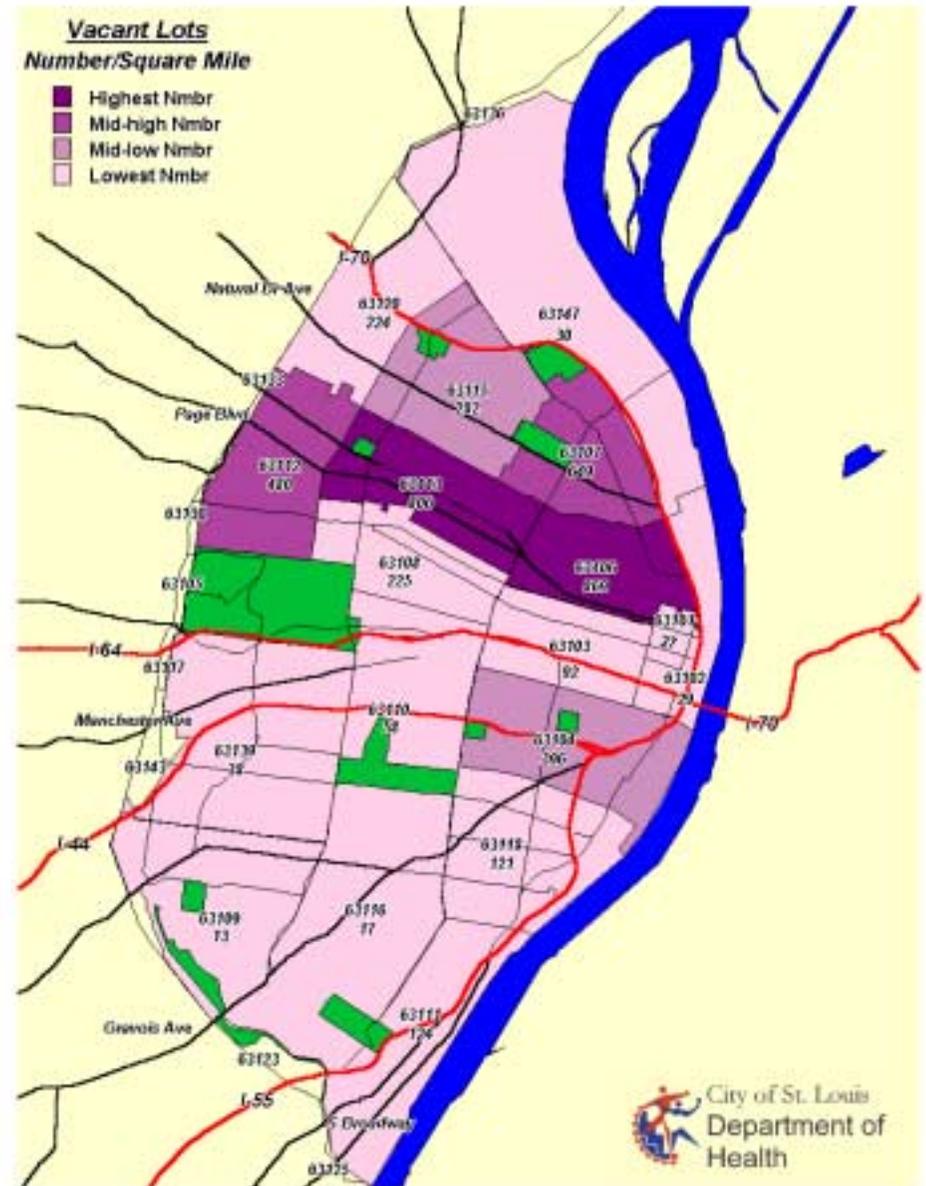
Increased environmental health services such as sanitation and vector control

## Data Source

City of Saint Louis Assessor's Office (# of vacant lots in 1998)

## Vacant Lots per square mile - 1998

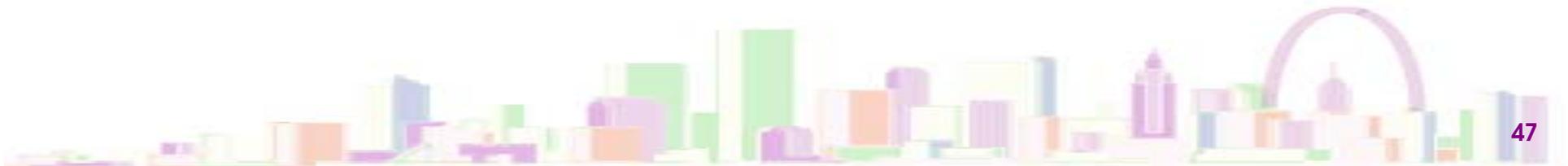
Zip	# / sq mile
63106	869
63113	806
63107	649
63112	480
63104	396
63115	282
63108	225
63120	224
*north	131
63111	124
63118	121
*63103	92
63110	58
*south	57
63139	38
63147	30
*63102	29
63101	27
*central	20
63116	17
63109	13
<b>Saint Louis</b>	<b>244</b>



vacant lots



# QUALITY / ACCESS



# clinics/hospitals

## Definition

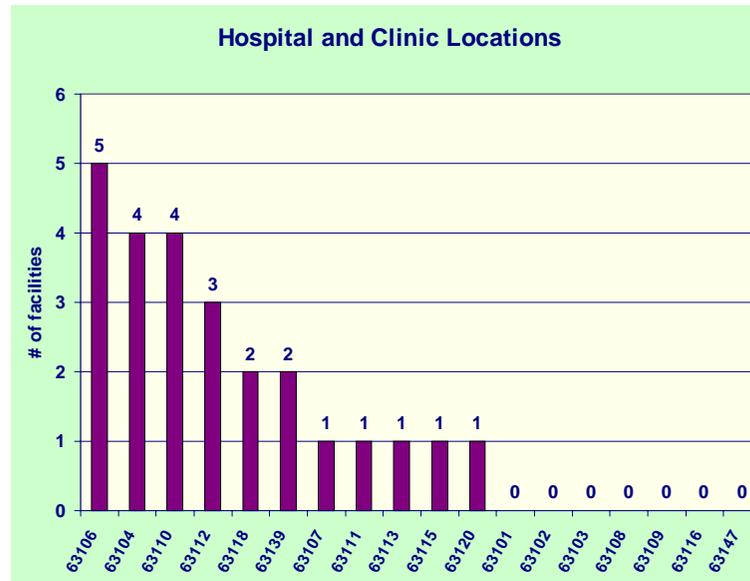
The map identifies hospitals and clinics located within the City of Saint Louis. The clinics include City Health Centers run by ConnectCare, Federally funded neighborhood Health Centers and independent Health Centers. The hospitals include acute as well as psychiatric.

## Public Health Implications

Inadequate access to health care is linked to a variety of poor health outcomes, delays in seeking care, poor quality of life indicators and higher morbidity and mortality.

## Saint Louis Rates and Comparative Info

Not applicable.



## Black/White Disparity

The address mapping shows that the majority of community based health centers are located in the areas of the city that are predominately African American. The hospitals are located centrally or in the south side of the city.

## Focus Group Comments/Concerns

“Access to health care is of a major concern to the participants. However, people in North Saint Louis, predominately African American, expressed the greatest unmet need.” “Geographic access to health care, especially in North Saint Louis.” “Times clinics are open – we need extended hours.”

## Potential Public Health Interventions

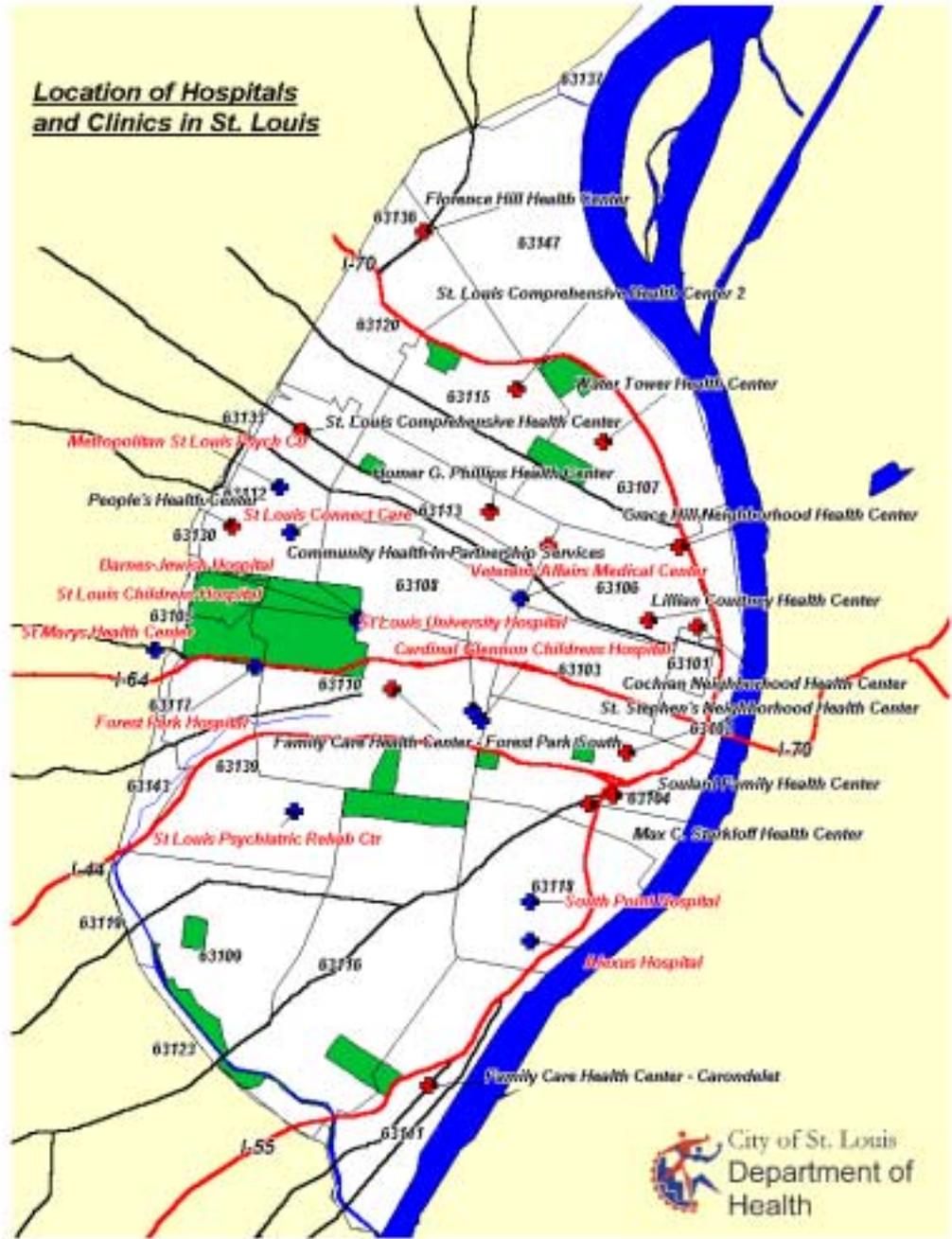
Assist city residents in locating health services for prevention activities such as screening and prenatal care

Provide immunizations, lead screening and STD services

Conduct community surveys to determine needs

## Data Source

Southwestern Bell Yellow Pages; City of Saint Louis Department of Health



clinics/hospitals

# primary care physicians

## Definition

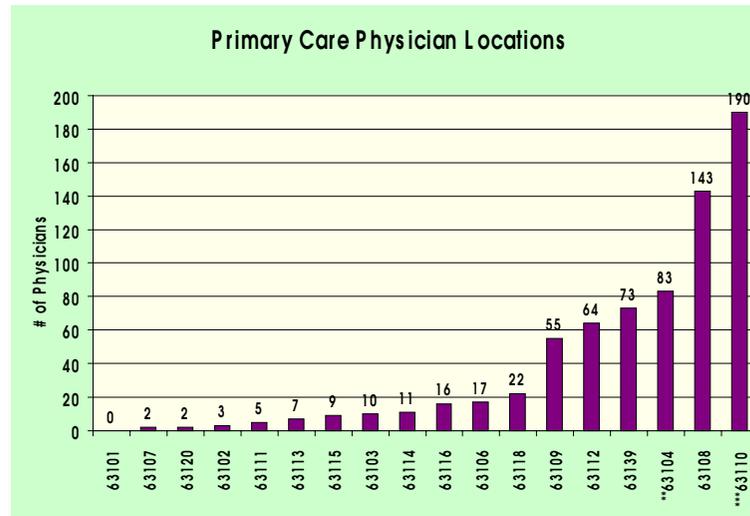
Primary care physicians are defined as General Practitioners, Family Practitioners, Internists, Pediatricians and Obstetricians/Gynecologists. Inadequate supplies of primary care physicians is considered a barrier to access that results in poor health outcomes.

## Public Health Implications

The inability to access primary care physicians contributes to decreased immunizations, chronic disease complications, premature mortality and poorer health outcomes in general.

## Saint Louis Rates and Comparative Info

Not applicable



## Black/White Disparity

The address mapping and data show that very few primary care providers are located in the predominately African-American, northern areas of the city. There are concentrations of primary care physicians located around the major teaching hospitals located in the city, i.e. Barnes Jewish, Children's Hospital, Cardinal Glennon Children's Hospital and Saint Louis University Hospital that are located in 63110 and 63104 and are adjacent to 63108.

## Focus Group Comments/Concerns

"There is little continuity of care with health care providers." "Health care providers operate on provider's convenience."

## Potential Public Health Interventions

Assisting city residents locate health services for prevention activities such as screening and prenatal care

Provision of immunizations, lead screening and STD services at clients' convenience

## Data Source

American Medical Association Master list

## Primary Care Physicians\*

Zip	#
63101	0
63107	2
63120	2
63102	3
63111	5
63113	7
63115	9
63103	10
63114	11
63116	16
63106	17
63118	22
63109	55
63112	64
63139	73
**63104	83
63108	143
***63110	190

\*General & Family Practitioners,  
Internists, Pediatricians and  
Obstetricians/Gynecologists

\*\*Cardinal Glennon Children's Hospital

\*\*\*Barnes Jewish Hospital,  
Washington University Medical Center,  
Saint Louis University Hospital



# hospital admission rates

## Definition

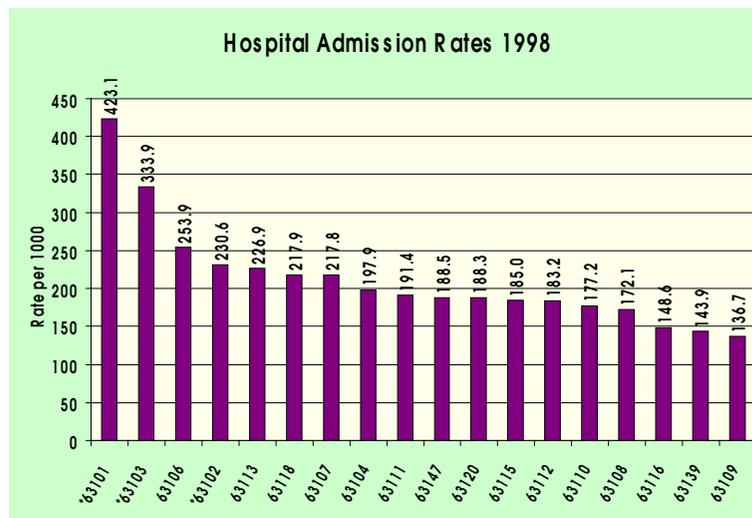
Hospital admission rates are a proxy for the amount of morbidity in the community. This is a very crude measure. A study of admission rates by Diagnostic Related Groupings would target specific morbidity. The rate is expressed as hospital admissions per 1000 population.

## Public Health Implications

The admission rates give an indication of the amount and types of morbidity in a community.

## Saint Louis Rates and Comparative Info

Comparative information is not available for this analysis.



## Black/White Disparity

Although specific race data are not available, the Zip codes with the rates of most concern are 63106 and 63113 which are predominately African American. The most favorable rates are in the predominately White Zip codes of 63109, 63139 and 63116.

## Focus Group Comments/Concerns

“Need more focus on the health of the community not just medical care.”

## Potential Public Health Interventions

Epidemiological studies, community health surveys, disease surveillance and health education programs

## Data Source

Missouri Hospital Association, Hospital Industry Data Institute; Hospital Discharge Data



# avoidable hospitalizations

## Definition

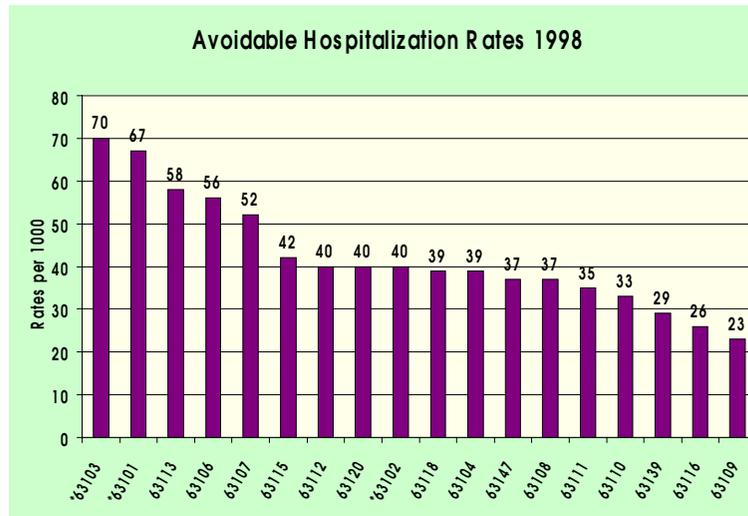
Avoidable hospitalizations are those that might not have occurred had timely and effective outpatient primary medical care and disease management been received for certain chronic and acute diseases. Investigators have classified a number of conditions as “avoidable” including angina, congestive heart failure, hypertension, pneumonia, asthma/bronchitis, and diabetes. The rate is per 1000 population for 1998.

## Public Health Implications

Hospital admission rates for avoidable hospital conditions have been found to be related to poverty, insurance status and availability of primary care. Avoidable hospital condition admission rates can serve as an indicator of the need for primary care access.

## Saint Louis Rates and Comparative Info

Comparative data are not available for this report.



## Black/White Disparity

Specific race information is not available for this assessment. However, the Zip codes with rates of most concern are predominately African American. They are 63113, 63106 and 63107. The most favorable rates are seen in the predominately White Zip codes of 63109, 63116 and 63139. The highest rates are about twice as high as the lowest rates.

## Focus Group Comments/Concerns

“I have a concern about the closing of clinics, closing of Regional and possibly of the clinics, the neighborhood clinics.” “There should be something there for the older, senior citizens and the younger people who need it, to have a way to take care of themselves.”

## Potential Public Health Interventions

Assist in access to primary care through outreach services

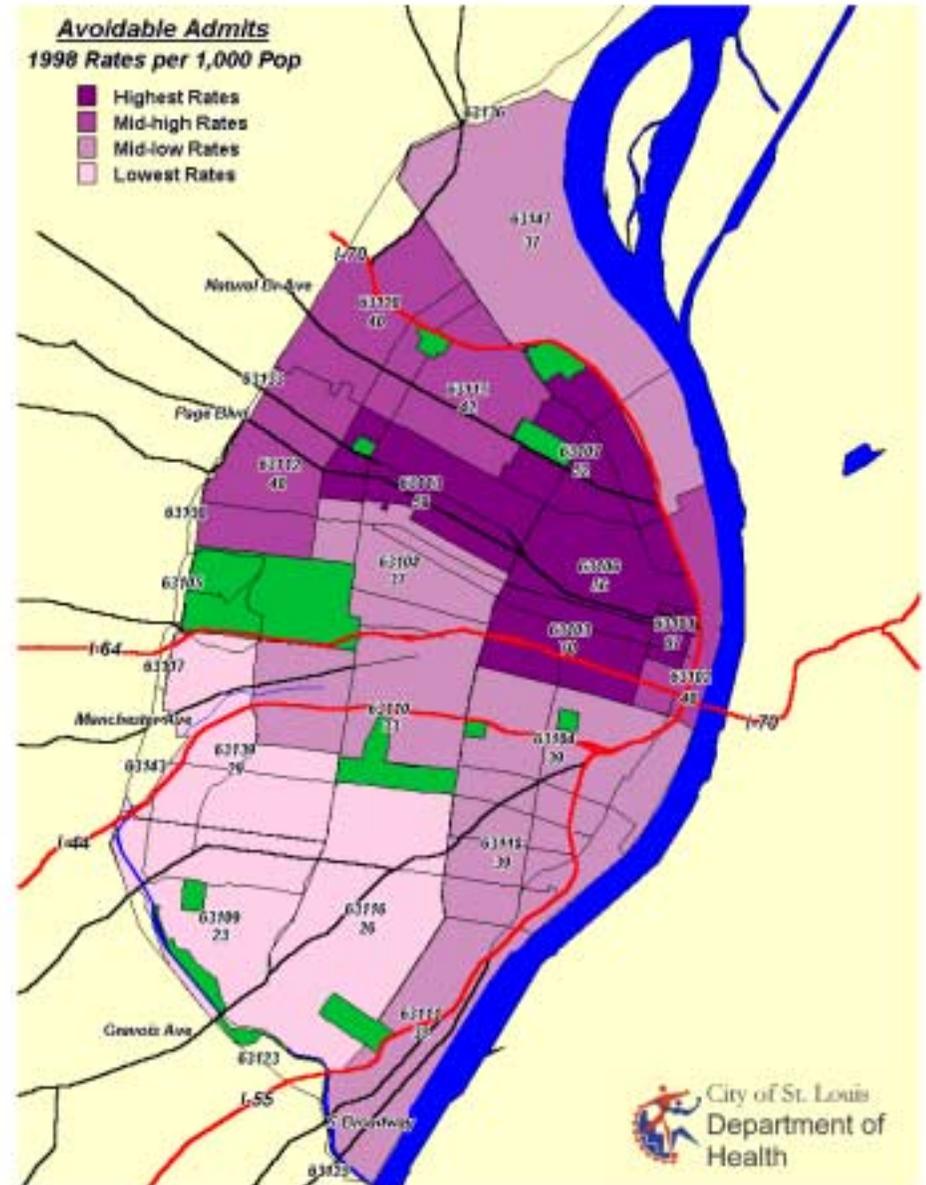
Epidemiological studies to determine primary avoidable conditions and appropriate health education programs

## Data Source

Missouri Hospital Association, Hospital Industry Data Institute; Hospital Discharge Data

## Avoidable Hospitalizations / 1000 population 1998

Zip	Rate
*63103	70.0
*63101	67.0
63113	58.0
63106	56.0
63107	52.0
63115	42.0
63112	40.0
63120	40.0
*63102	40.0
63118	39.0
63104	39.0
63147	37.0
63108	37.0
63111	35.0
63110	33.0
63139	29.0
63116	26.0
63109	23.0



avoidable hospitalizations

# emergency room visits

## Definition

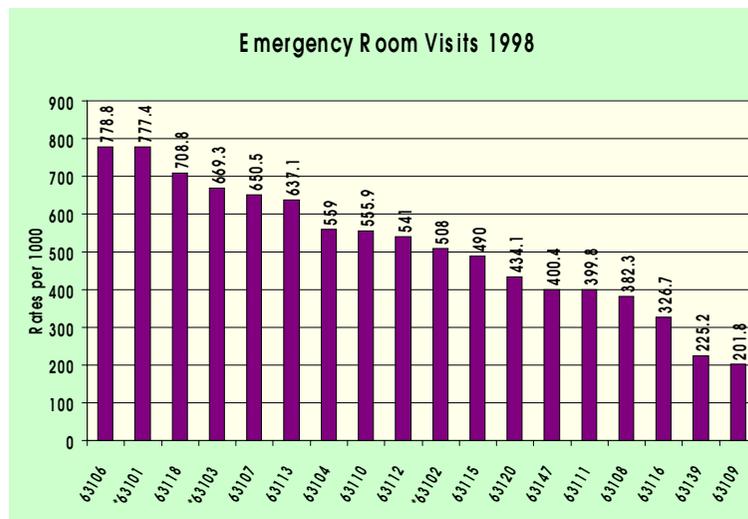
Emergency room visit rates may be an indication of a lack of access to primary care services. The rate is expressed as emergency room visits per 1000 population for 1998.

## Public Health Implications

Lack of primary care access leads to poor health outcomes either due to delay in diagnosis and treatment or not receiving and practicing prevention activities. Barriers may be financial that would include lack of health insurance as well as non-financial which could include transportation or education.

## Saint Louis Rates and Comparative Info

Comparative data are not available for this analysis.



## Black/White Disparity

Specific race information is not available for this analysis, however the Zip code with the rate of most concern is 63106 which is predominately African American. The most favorable rates are in 63109 and 63139 which are predominately White.

## Focus Group Comments/Concerns

“People don’t know how to access health services which are available or they don’t follow-up.” “Misuse of emergency system.” Hospitals are primary care providers-the emergency rooms are packed.”

## Potential Public Health Interventions

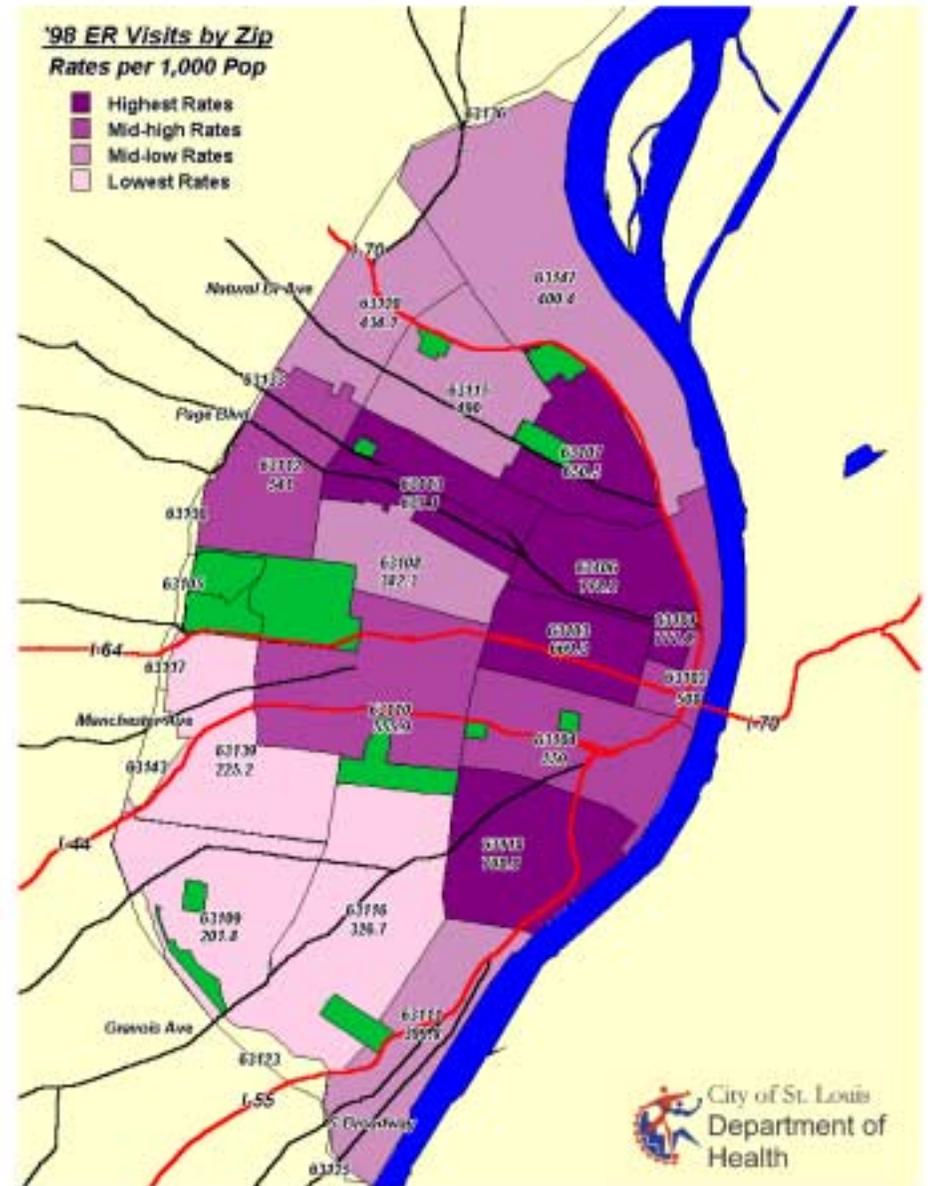
Epidemiological studies to determine primary care access and other programmatic needs

## Data Source

Missouri Hospital Association, Hospital Industry Data Institute; Hospital Discharge Data

## Emergency Room Visits / 1000 population - 1998

Zip	1998 rate
63106	778.8
*63101	777.4
63118	708.8
*63103	669.3
63107	650.5
63113	637.1
63104	559.0
63110	555.9
63112	541.0
*63102	508.0
63115	490.0
63120	434.1
63147	400.4
63111	399.8
63108	382.3
63116	326.7
63139	225.2
63109	201.8
*central	N/A
*north	N/A
*south	N/A



emergency room visits

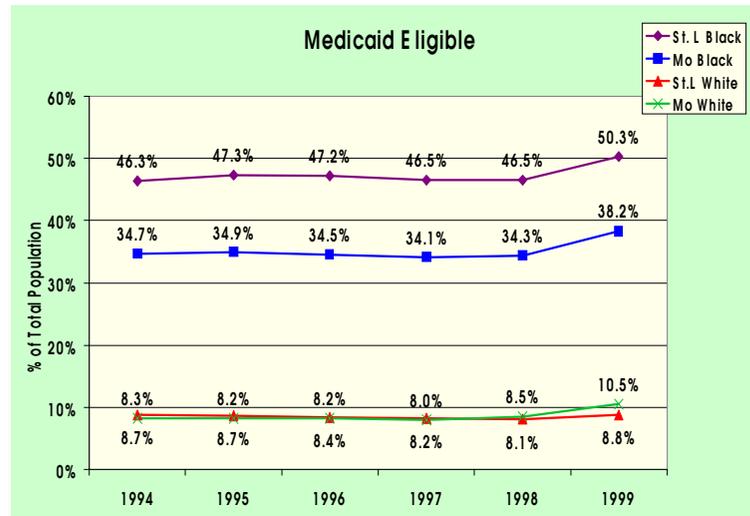
# medicaid eligible

## Definition

The Medicaid Program, authorized by federal legislation in 1965, provides health care access to low income persons who are age 65 or older, blind, disabled or members of families with dependent children. Since that time, legislative options and mandates have expanded the categories of eligibility to include Medicaid coverage for children and pregnant women in poverty, qualified newborns, refugees and children in state care. Effective September 1, 1995, the State of Missouri introduced a new health care delivery system called Managed Care Plus (MC+) to serve certain Medicaid recipients that meet specified eligibility criteria to improve accessibility and quality while reducing costs. The Missouri Medicaid program is jointly financed by the federal government and Missouri State Government, and is administered by the State of Missouri. The agency charged with administration of the Medicaid program is the Division of Medical Services, a division within the Department of Social Services. The rate is presented as a percent of the total population averaged over 1994-1999.

## Public Health Implications

“Medicaid eligible” is a double-edge sword. It is a positive indicator in that it increases access to medical care but a negative indicator in that it is associated with poverty.



## Saint Louis Rates and Comparative Info

The Saint Louis City 1994 through 1999 averaged Medicaid “eligible” percentage is 2.5 times higher than the averaged State of Missouri rate in the same time period. In 1999, there were an estimated 104,000 people eligible for Medicaid in the City of Saint Louis. The Zip code with the rate of most concern is 63106. The Zip codes with the most favorable rates are 63109 and 63139.

## Black/White Disparity

The African-American population in Saint Louis City has an averaged “eligible” percentage that is 5.5 times higher than the White population in Saint Louis City. The Saint Louis City African-American community has an averaged “eligible” percentage that is 1.3 times higher than Missouri African Americans averaged percentages.

## Focus Group Comments/Concerns

“Many Medicaid eligibles are not enrolled in the system.” “Half of the kids eligible for Medicaid aren’t enrolled”.

## Potential Public Health Interventions

Assistance with the identification and enrollment for Medicaid “eligibles” with emphasis on children

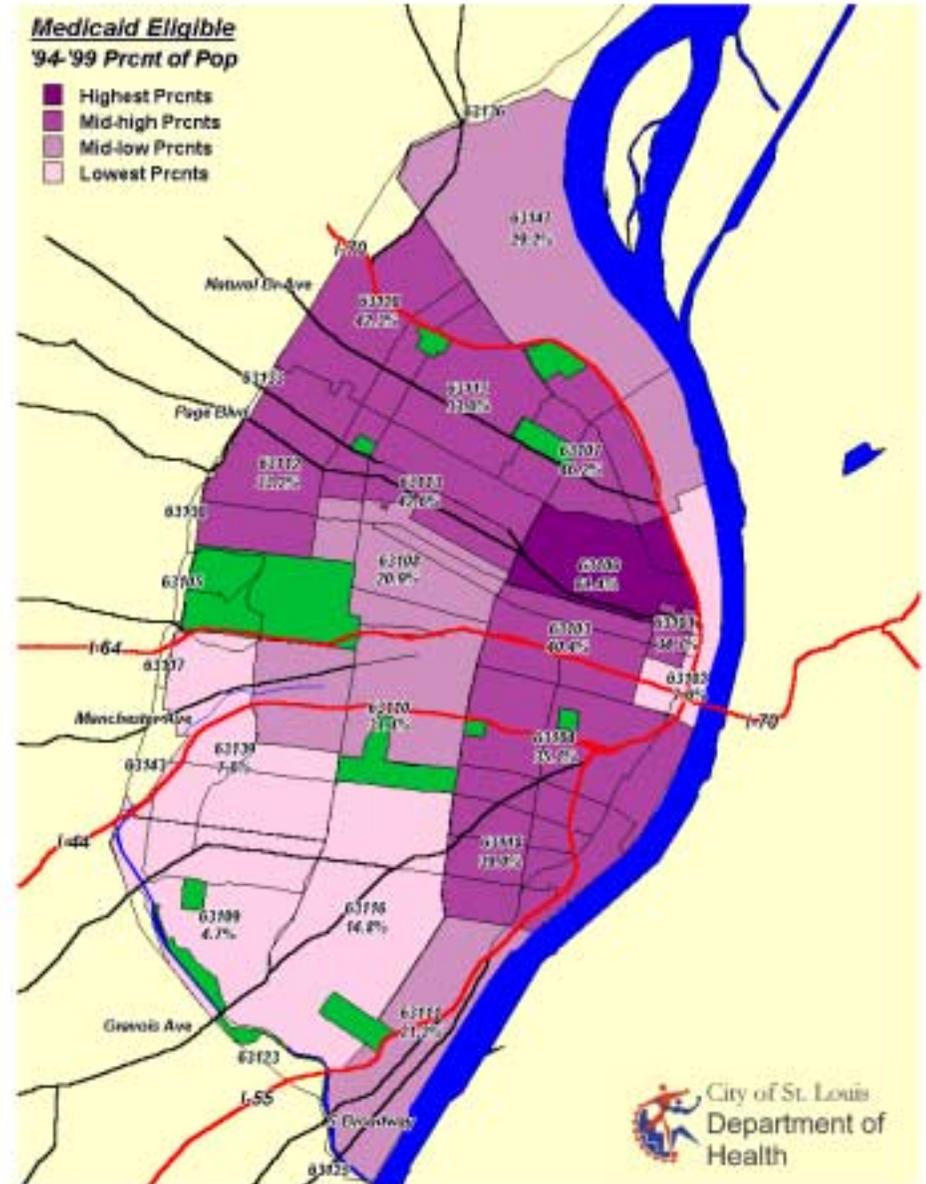
## Data Source

Missouri Department of Social Services, Research and Evaluation Unit

## Medicaid Eligible % of population 94-99 average

Zip	94-99 avg
63106	61.4%
*north	46.7%
63107	46.2%
63113	42.6%
63120	42.3%
*63103	40.4%
63118	39.0%
63104	35.1%
*63101	34.7%
63115	33.6%
63112	33.2%
63110	31.1%
63147	29.2%
63111	21.2%
63108	20.9%
63116	14.8%
*south	11.4%
63139	7.6%
*63102	7.6%
63109	4.7%
*central	1.5%

Zip	94-99 avg
Saint Louis	28.4%
Missouri	11.5%
U.S.	N/A
St. L White	8.5%
St. L Black	47.3%
Mo White	8.6%
Mo Black	35.1%



medicaid eligible

# prenatal care

## Definition

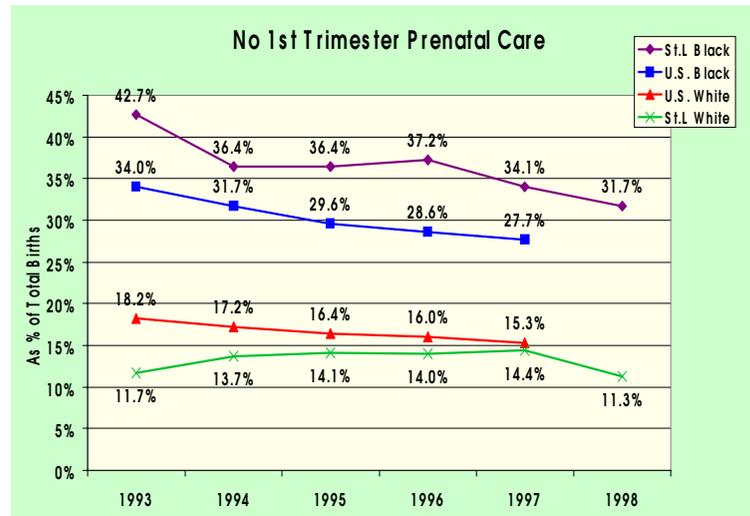
Prenatal care begins when a physician or other health professional first examines and/or counsels the pregnant woman. Verification of pregnancy alone is not prenatal care. The rate presented for this analysis is the percent of live births where the mother did not receive prenatal care in the first trimester. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

Pregnant women not receiving sufficient or early prenatal care may result in adverse birth outcomes including low-birth weight, infant mortality, disability and other negative birth outcomes.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate from 1993 through 1998 is 1.8 times higher than the Missouri average rate and 1.5 times higher than the U.S. average rate. In 1998, about 1,400 pregnant women did not receive 1st trimester prenatal care in the City of Saint Louis out of 5,550 births. This represents 25% of all births in 1998. The rates of most concern are in 63113, 63120 and 63106. The most favorable rates are in 63109 and 63139.



## Black/White Disparity

The averaged African-American rate is 2.8 times higher than the White averaged rate in Saint Louis City. The African-American rate for Saint Louis City is 1.2 times higher than the averaged African-American rate for the U.S.

## Focus Group Comments/Concerns

"The state and availability of prenatal care for mothers is unsatisfactory to many residents."  
"Lack of prenatal care is at a crisis level."

## Potential Public Health Interventions

Outreach services for pregnant women including educational programs

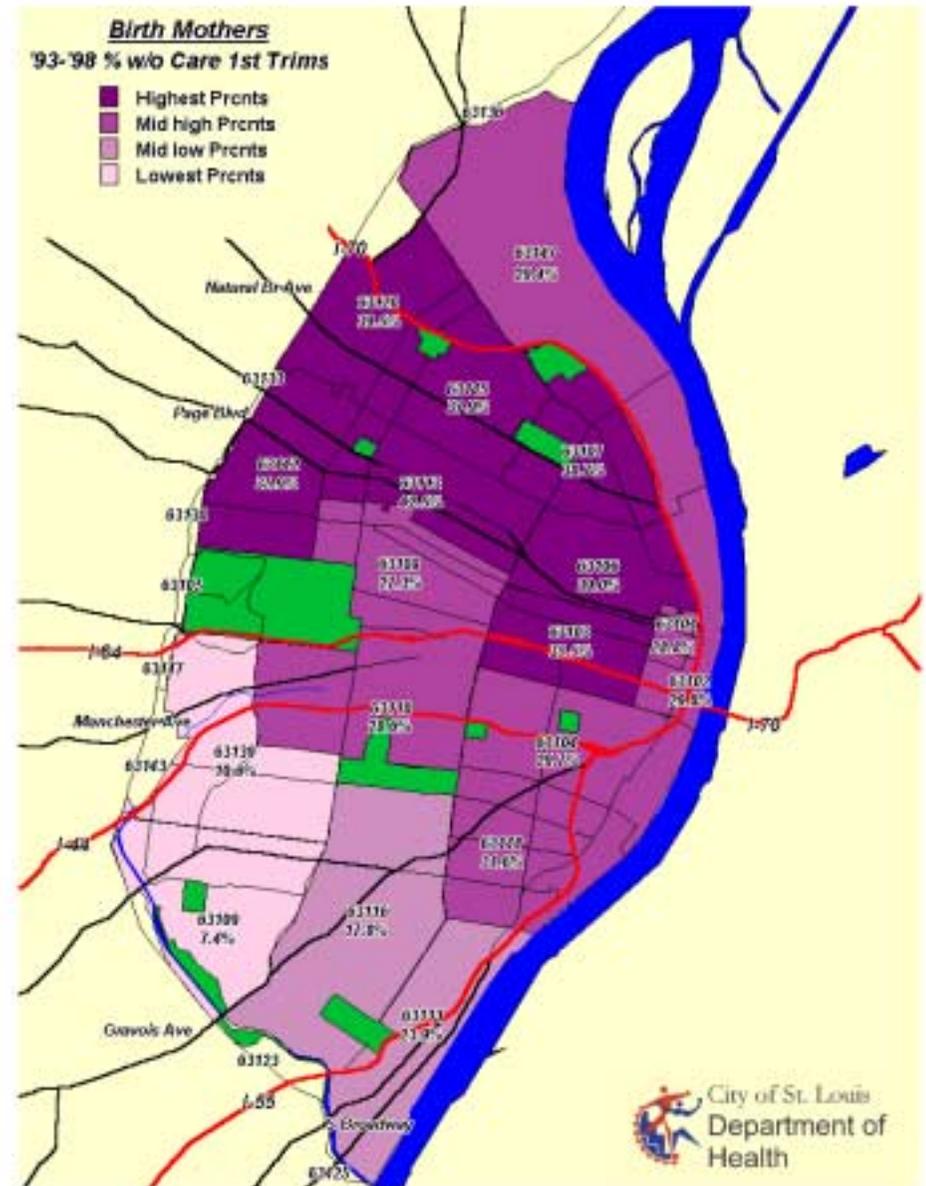
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Birth Mothers - % No 1st Trimester Prenatal Care 93-98 average

Zip	93-98 avg
63113	42.5%
63120	39.5%
63106	39.0%
63107	38.7%
63115	37.9%
63112	35.9%
*63103	35.5%
*north	34.7%
63118	31.6%
*63102	29.8%
63104	29.7%
63147	29.4%
*63101	28.8%
63110	28.6%
63108	27.3%
63111	23.9%
63116	17.8%
*south	16.4%
*central	13.3%
63139	10.6%
63109	7.4%

Zip	93-98 avg
Saint Louis	29.2%
Missouri	16.6%
U.S.	19.0%
St. L White	13.1%
St. L Black	36.8%
Mo White	13.7%
Mo Black	31.6%
U.S. White	16.6%
U.S. Black	30.3%



# low birth weight

## Definition

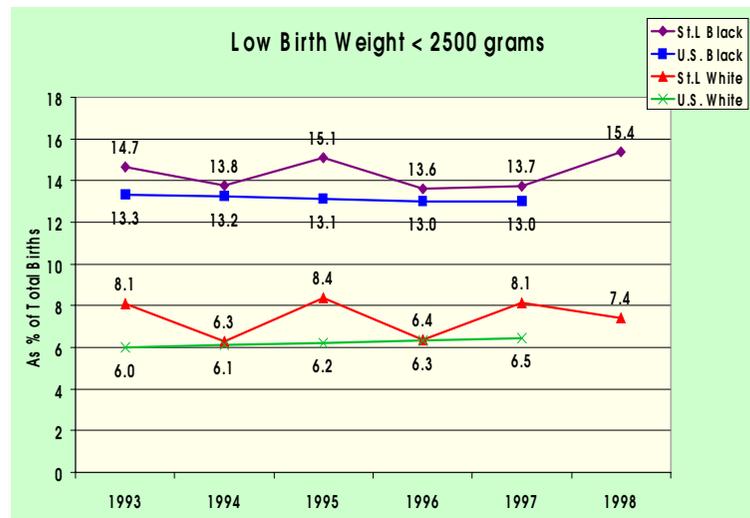
Low-birth weight infants are those born weighing less than 2,500 grams, or about 5.5 pounds. Some are born prematurely, some are full-term but small for their gestational age and some are both premature and small. The rate is presented as a percent of live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. The U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

Low-birth weight infants are at higher risk of death or long-term illness and disability than are infants of normal weight. Birth weight is one of the most important predictors of an infant's subsequent health and survival.

## Saint Louis Rates and Comparative Info

The average 1993 through 1998 low-birth weight rate in Saint Louis City is about 1.6 times higher than the averaged Missouri and U.S. rates. The rate for Saint Louis City did not decline between 1993 and 1998. In 1998, about 700 babies were born weighing less than 2,500 grams in the City of Saint Louis out of about 5,550 births. This represents 12.5% of all births in 1998. The Zip codes with rates of most concern are 63113, 63106 and 63107. The most favorable rates are in 63109 and 63139.



## Black/White Disparity

The average 1993-1998 low-birth weight rate for African-American births in Saint Louis City is 1.9 times higher than the averaged rate for White births in Saint Louis City. The averaged rate for African-American low-birth weight babies in Saint Louis City is similar to the averaged African-American rates for Missouri and U.S.

## Focus Group Comments/Concerns

“Prenatal care is a very high priority.” “Prenatal care through churches in specific Zip codes.” “We are seeing a real serious issue with low-birth weight babies.” “Lack of prenatal care is at a crisis level.”

## Potential Public Health Interventions

Assisting in enrolling pregnant women in WIC and food stamp programs

Identifying pregnant women and referring to prenatal care services.

## Data Source

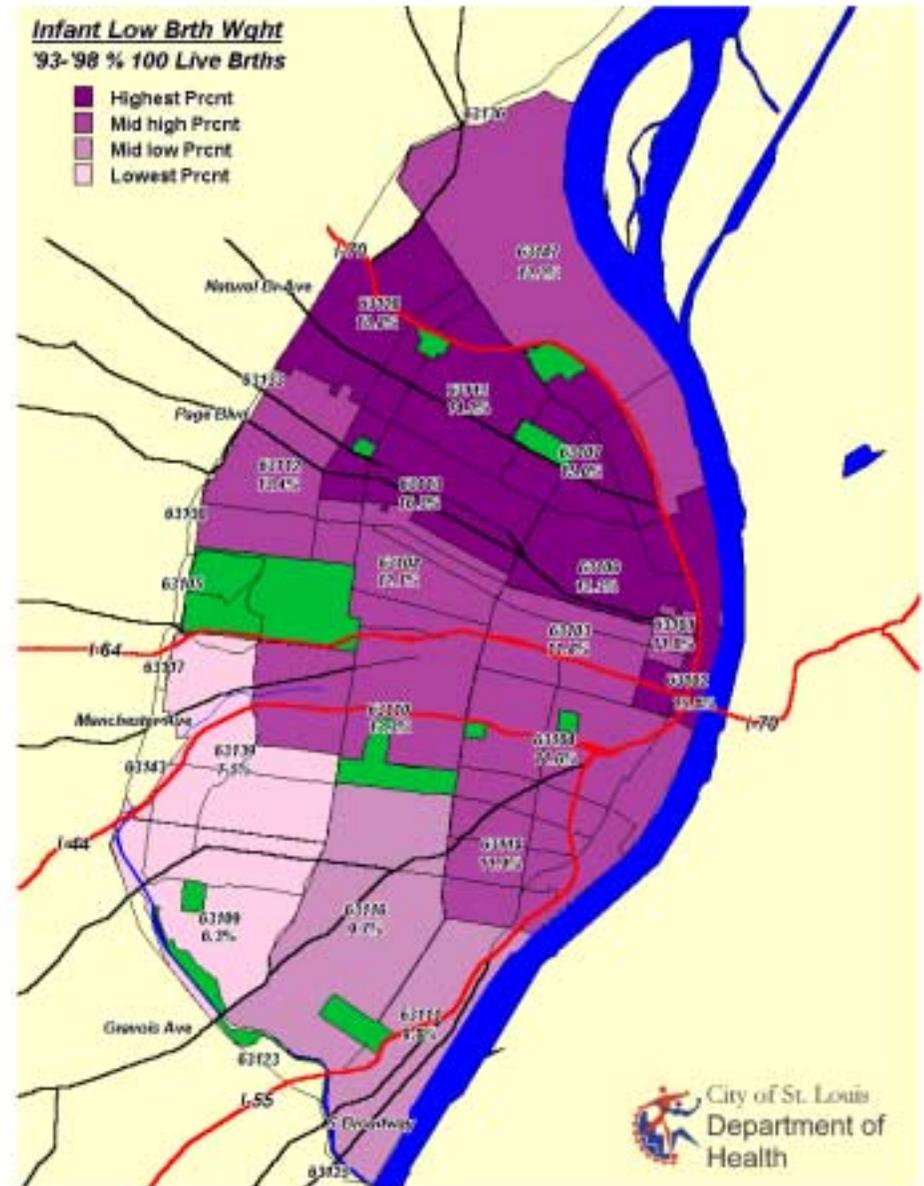
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Low Birth Weight <2,500 grams

% of live births 93-98 average

Zip	93-98 avg
63113	16.3
*63102	15.8
63106	15.3
63107	15.0
63115	14.2
63120	13.8
63112	13.4
63110	13.3
*north	12.6
63147	12.2
63108	12.1
63118	11.9
*63103	11.8
*63101	11.8
63104	11.6
63116	9.7
*south	9.2
63111	8.8
63139	7.5
*central	6.7
63109	6.3

Zip	93-98 avg
Saint Louis	12.0
Missouri	7.6
U.S.	7.3
St. L White	7.5
St. L Black	14.4
Mo White	6.5
Mo Black	13.6
U.S. White	6.2
U.S. Black	13.1



low birth weight

# teen pregnancy 10 to 17

## Definition

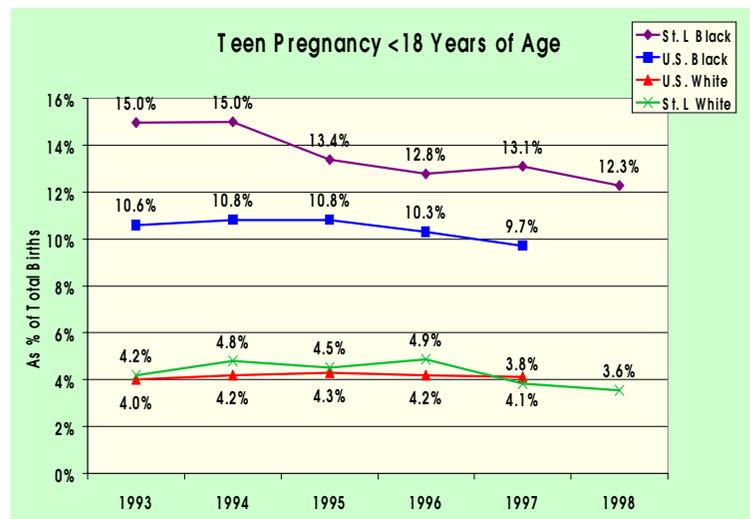
The teen pregnancy rate, for this assessment, is defined as the number of live births to 10 to 17 year olds expressed as a percentage of total live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

Bearing a child during teen years is associated with long-term difficulties for the mother, the child and society. These consequences are often attributable to poverty and other adverse socioeconomic circumstances that frequently accompany early childbearing. Babies born to teen mothers are at a higher risk of low birth weight and infant mortality.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for 1993 through 1998 is 2 times higher than the averaged Missouri or the U.S. rates. In 1998, there were about 500 babies born to teens less than 18 years of age in the City of Saint Louis. The Zip codes with rates of most concern are 63113, 63107 and 63120. The Zip codes with the most favorable rates are 63109, 63139 and 63116.



## Black/White Disparity

The averaged teen pregnancy rate in 10 to 17 year old African Americans in Saint Louis City is 3.2 times higher than the averaged rate for White teens in Saint Louis City.

## Focus Group Comments/Concerns

"Teen pregnancy rate is almost three times the rate as the rest of the state." "Lack of sex education in the schools." "More education with males about their responsibilities."

## Potential Public Health Interventions

Programs that provide appropriate, accurate sexual and reproductive health education and abstinence programs

Studying the epidemiology of teen pregnancy to determine interventions specific to the Saint Louis teen population

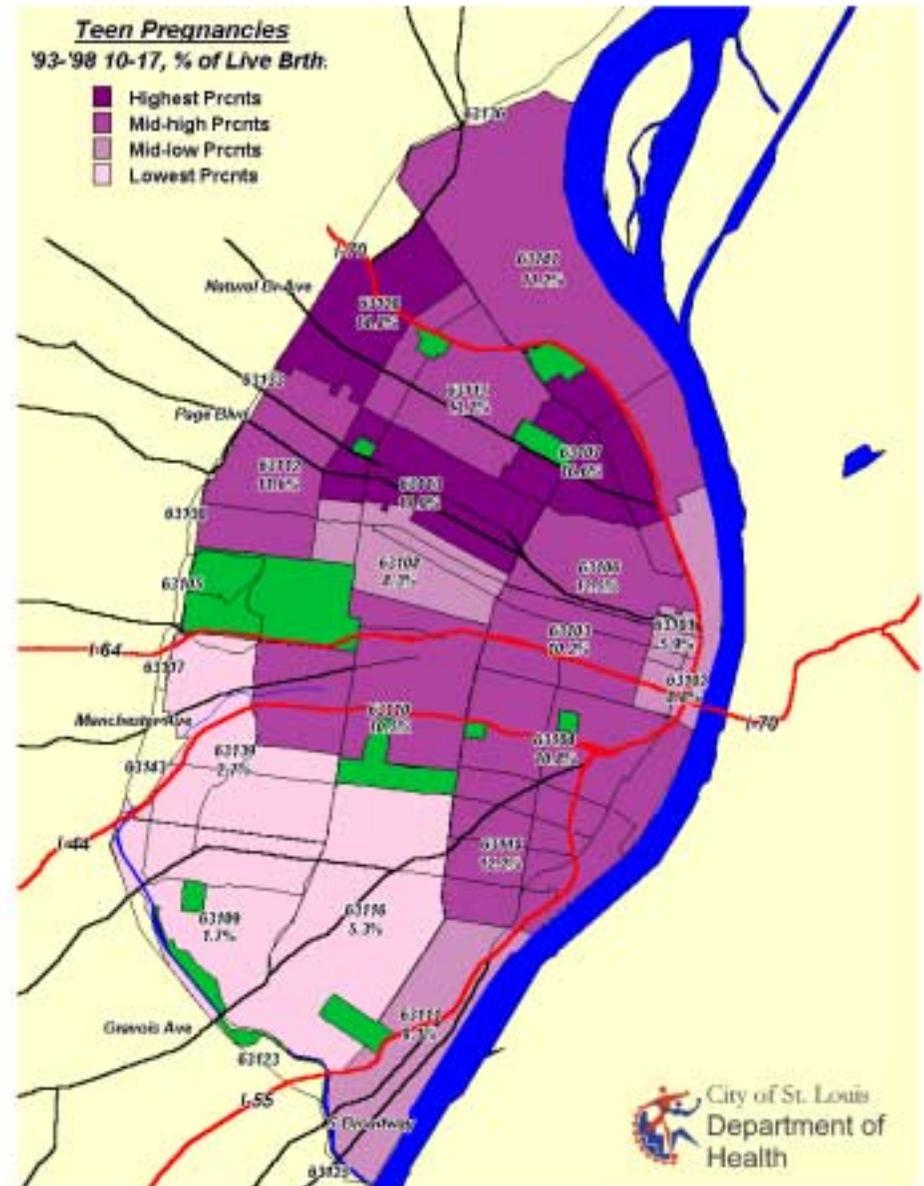
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Teen Pregnancies Ages 10-17 % of live births 93-98 average

Zip	93-98 avg
63113	17.9%
63107	16.6%
63120	14.8%
63115	13.7%
*north	13.4%
63106	12.5%
63118	12.2%
63112	11.6%
63147	11.2%
63104	10.8%
63110	10.5%
*63103	10.2%
*63102	8.8%
63108	8.3%
63111	8.1%
*central	6.7%
*63101	5.9%
*south	5.8%
63116	5.3%
63139	2.7%
63109	1.7%

Zip	93-98 avg
Saint Louis	10.5%
Missouri	5.2%
U.S.	5.1%
St. L White	4.3%
St. L Black	13.7%
Mo White	4.1%
Mo Black	11.7%
U.S. White	4.2%
U.S. Black	10.4%



teen pregnancy 10 to 17

# teen pregnancy 10 to 14

## Definition

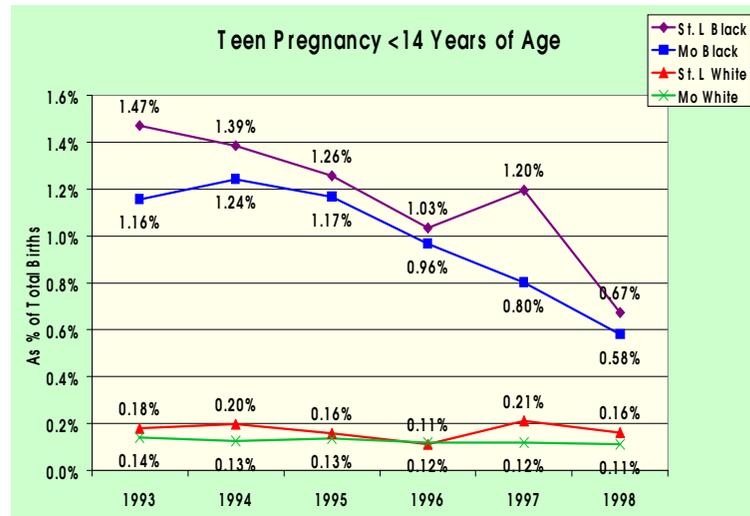
This teen pregnancy rate is for the youngest teens, those less than 15 years of age. The rate, for this assessment, is defined as the number of live births to 10 to 14 year olds expressed as a percentage of total live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

Although the rates are low, this is an even more troubling indicator than the older teens. These are children having children. Teens of this age lack information about reproduction and often do not have support systems ranging from prenatal care to emotional and economic support. These babies are at an even higher risk of low-birth weight and infant mortality.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for 1993 through 1998 is over three times higher than the averaged Missouri rate. In 1997, there were 50 babies born to mothers between 10 and 14 years of age in the City of Saint Louis. The Zip codes with rates of most concern are 63113, 63120 and 63107. The Zip codes with the most favorable rates are 63109, 63139 and 63116.



## Black/White Disparity

The Saint Louis City African-American average rate for the years 1993 through 1998 is 7 times higher than the averaged White rate in Saint Louis in the same time period. However, the rate for the African-American community has continued to decline in the 1993 through 1998 time period.

## Focus Group Comments/Concerns

"It was remarkable to hear teens in the group express their views on teenage pregnancy. Some are as appalled as the adults are about the fact that children are having children."

## Potential Public Health Interventions

Programs that provide appropriate, accurate sexual and reproductive health education and abstinence programs in the schools

Studying the epidemiology of teen pregnancy to determine interventions specific to the Saint Louis City teen population

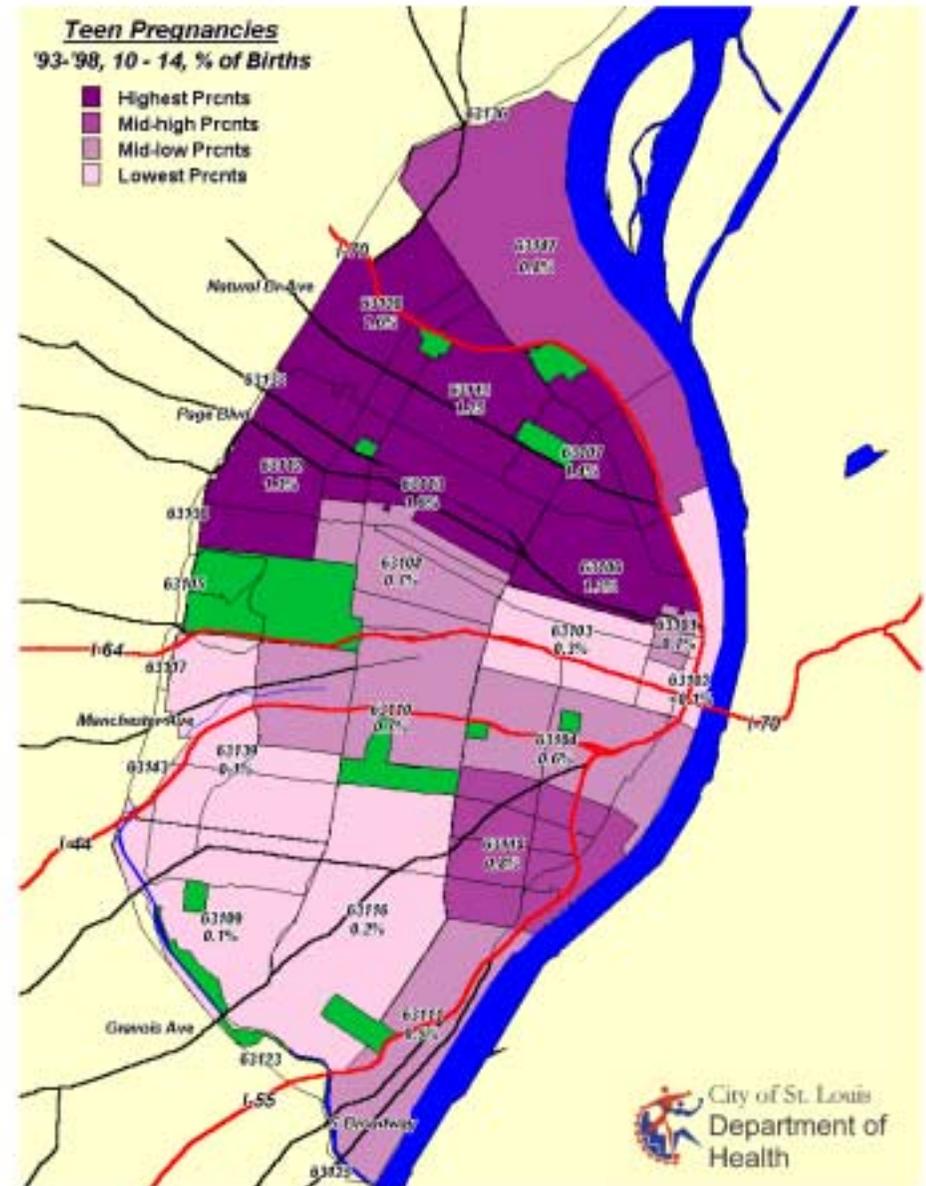
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Teen Pregnancies Ages 10-14 % of live births 93-98 average

Zip	93-98 avg
*central	2.2%
63113	1.6%
63120	1.6%
63107	1.4%
*north	1.4%
63106	1.3%
63112	1.3%
63115	1.2%
63118	0.8%
63147	0.8%
63110	0.7%
63108	0.7%
*63101	0.7%
63104	0.6%
63111	0.5%
*63103	0.3%
*south	0.3%
63116	0.2%
63139	0.1%
63109	0.1%
*63102	0.0%

Zip	93-98 avg
Saint Louis	0.85%
Missouri	0.26%
U.S.	N/A
St. L White	0.17%
St. L Black	1.20%
Mo White	0.12%
Mo Black	0.99%
U.S. White	N/A
U.S. Black	N/A



teen pregnancy 10 to 14

# infant mortality

## Definition

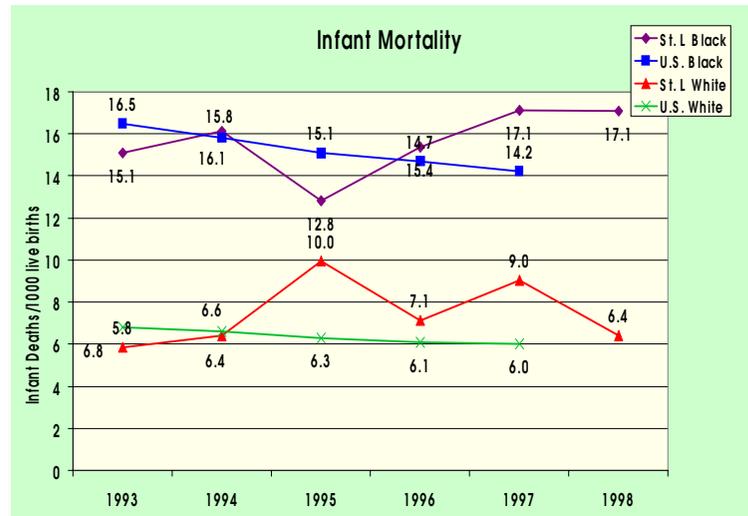
Infant mortality is defined as the death of an infant before his or her first birthday. The rate is expressed as infant deaths per 1,000 live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

The infant mortality rate is an important measure of the well-being of infants, children and pregnant women because it is associated with many factors including the health of the mother, quality and access to care for mother and infant, socioeconomic conditions and public health practices. Infant mortality is often considered preventable and thus can be influenced by various education and care programs.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for 1993 through 1998 is 1.6 times higher than the averaged Missouri and U.S. rates. In 1998, there were 73 infant deaths in the City of Saint Louis out of 5,550 births. The Zip codes with rates of most concern are 63120, 63106 and 63113. The Zip codes with the most favorable rates are 63109 and 63139.



## Black/White Disparity

The Saint Louis City African-American average rate for the years 1993 through 1998 is 2.1 times higher than the Saint Louis averaged White rate. The Saint Louis City African-American average rate for the years 1993 through 1998 is just about the same as the averaged Missouri and U.S. African-American rates.

## Focus Group Comments/Concerns

"Look at infant mortality rates – we need prenatal care not just NICU beds."

## Potential Public Health Interventions

Programs to identify women at risk and educate them to healthy behaviors during and after pregnancy including nutrition and smoking cessation

Assistance in accessing prenatal care

## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data.



# out-of-wedlock births

## Definition

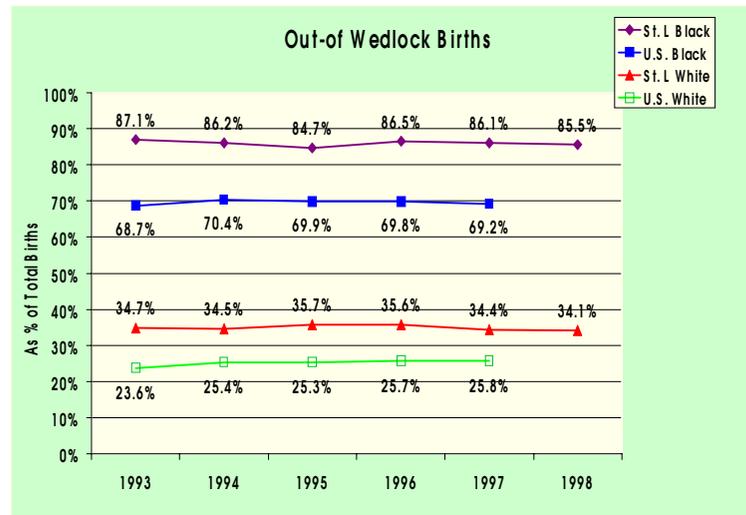
For birth certificate purposes, the mother is considered married "if the mother was married at the time of conception, the time of delivery, or any time between conception and delivery and states husband is the father." The rate is the number of live births to unmarried mothers expressed as a percent of total live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

Increases in births to unmarried women are among the many changes in American society that have affected family structure and economic security to children. Children of unmarried mothers are at higher risk of having adverse birth outcomes, such as low birth weight and infant mortality and are more likely to live in poverty than children of married mothers. In a recent study, the infant mortality rate was twice as high for unmarried women as for married women.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for 1993 through 1998 is 2.1 times higher than the averaged Missouri and U.S. rates. The Zip codes with rates of most concern are 63106, 63107 and 63120. The Zip codes with the most favorable rates are 63109 and 63139.



## Black/White Disparity

The Saint Louis City African-American average rate for the years 1993 through 1998 is 2.5 times higher than the Saint Louis averaged White rate. The Saint Louis City African-American average rate for the years 1993 through 1998 is slightly higher than the averaged African-American rates for Missouri and the U.S. In 1998 there were more than 3,700 babies born out-of-wedlock in the City of Saint Louis, over 3,000 of which were African American.

## Focus Group Comments/Concerns

"I think that our kids don't have role models...The family unit, the structure, is all in itself, is kind of broken down." "Marital status vs. single parent families vs. income - multiple problems."

## Potential Public Health Interventions

Epidemiological studies to determine populations at risk in order to develop appropriated programs and collaboration efforts

## Data Source

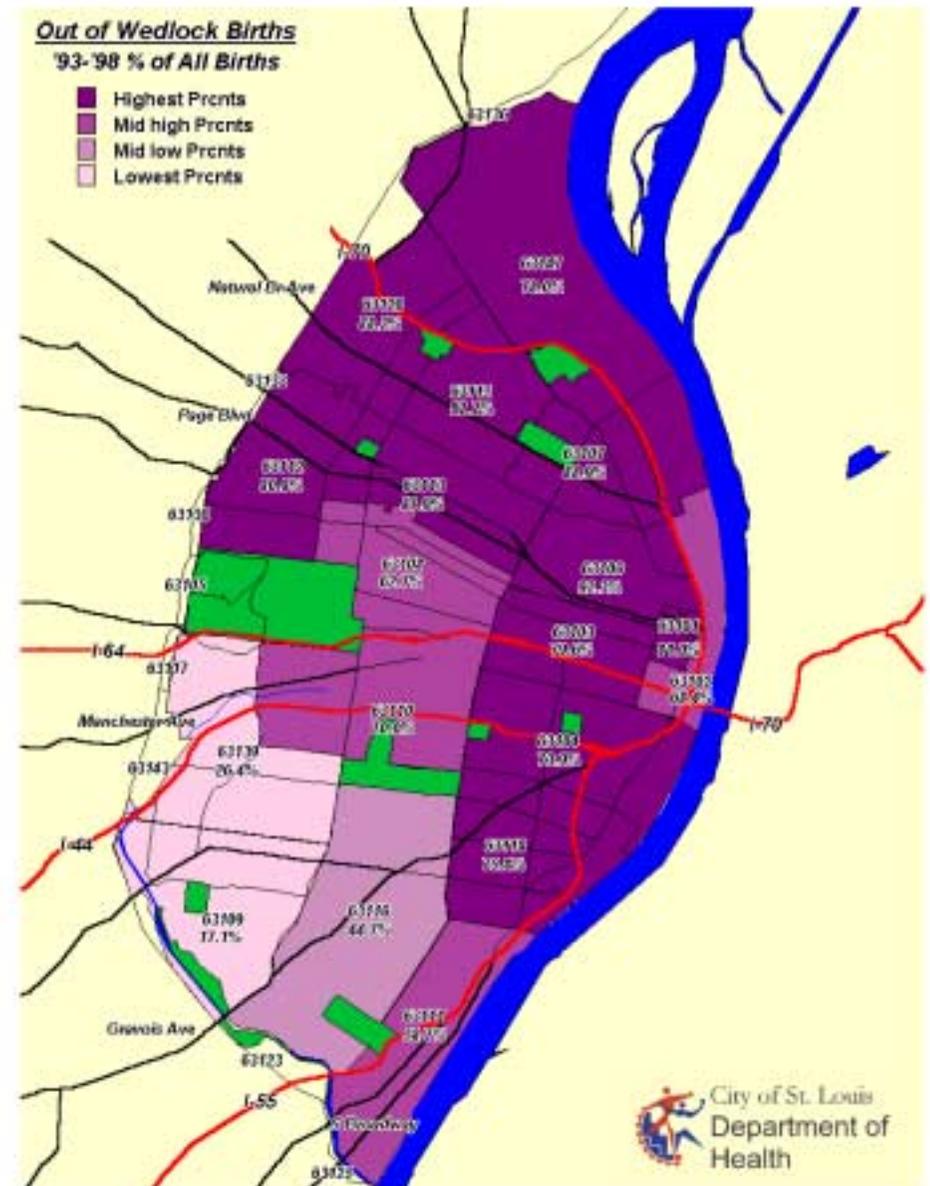
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Out of Wedlock Births

% of live births 93-98 average

Zip	93-98 avg
63106	92.3%
63107	88.9%
63120	88.2%
63113	87.9%
63115	87.7%
*north	85.1%
*63101	81.0%
63112	80.8%
*63103	79.6%
63147	78.0%
63118	75.8%
63104	73.9%
63110	70.0%
*63102	68.4%
63108	62.7%
63111	58.7%
63116	44.7%
*south	38.3%
63139	26.4%
*central	24.4%
63109	17.1%

Zip	93-98 avg
Saint Louis	68.6%
Missouri	32.9%
U.S.	32.1%
St. L White	34.8%
St. L Black	86.1%
Mo White	24.5%
Mo Black	78.2%
U.S. White	25.2%
U.S. Black	69.6%



out-of-wedlock births

# teen abortions 10 to 17

## Definition

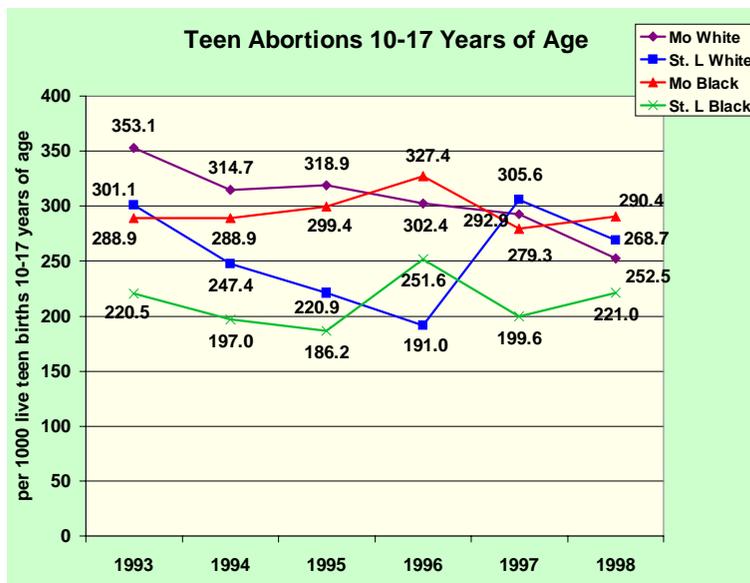
The teen abortion ratio in this analysis is the number of abortions to teens 10 through 17 years of age per 1000 total live births to teens 10 through 17 years of age. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

The problem of teen abortions relates back to the bigger problem of teen pregnancies. Nationally, about 1 million teens become pregnant each year. Ninety-five percent of those pregnancies are unintended, and almost one third end in abortions.

## Saint Louis Rates and Comparative Info

The Missouri average rate for the time period 1993 through 1998 is 1.4 times higher than the Saint Louis City averaged rate for the same time period. In 1998, there were about 115 abortions in the 10 to 17 year old age group in the City of Saint Louis. The Zip code with the rate of most concern is 63109. The Zip codes with the lowest rates are 63111 and 63118.



## Black/White Disparity

The Saint Louis City average rate for the years 1993 through 1998 in the White population is 1.2 times higher than the Saint Louis City averaged African-American rate. The Missouri African-American average rate for the years 1993 through 1998 is 1.4 times higher than the Saint Louis City averaged African-American rates. In the same time period, the Missouri White population averaged rate is 1.2 times higher than the Saint Louis City White population averaged rate.

## Focus Group Comments/Concerns

"...the issue of sex and teenage pregnancy is related to the general lack of opportunities for the teenagers outside their school activities as well as failed parental care."

## Potential Public Health Interventions

Epidemiological studies to determine populations at risk in order to develop programs and policies

Collaboration with appropriate agencies

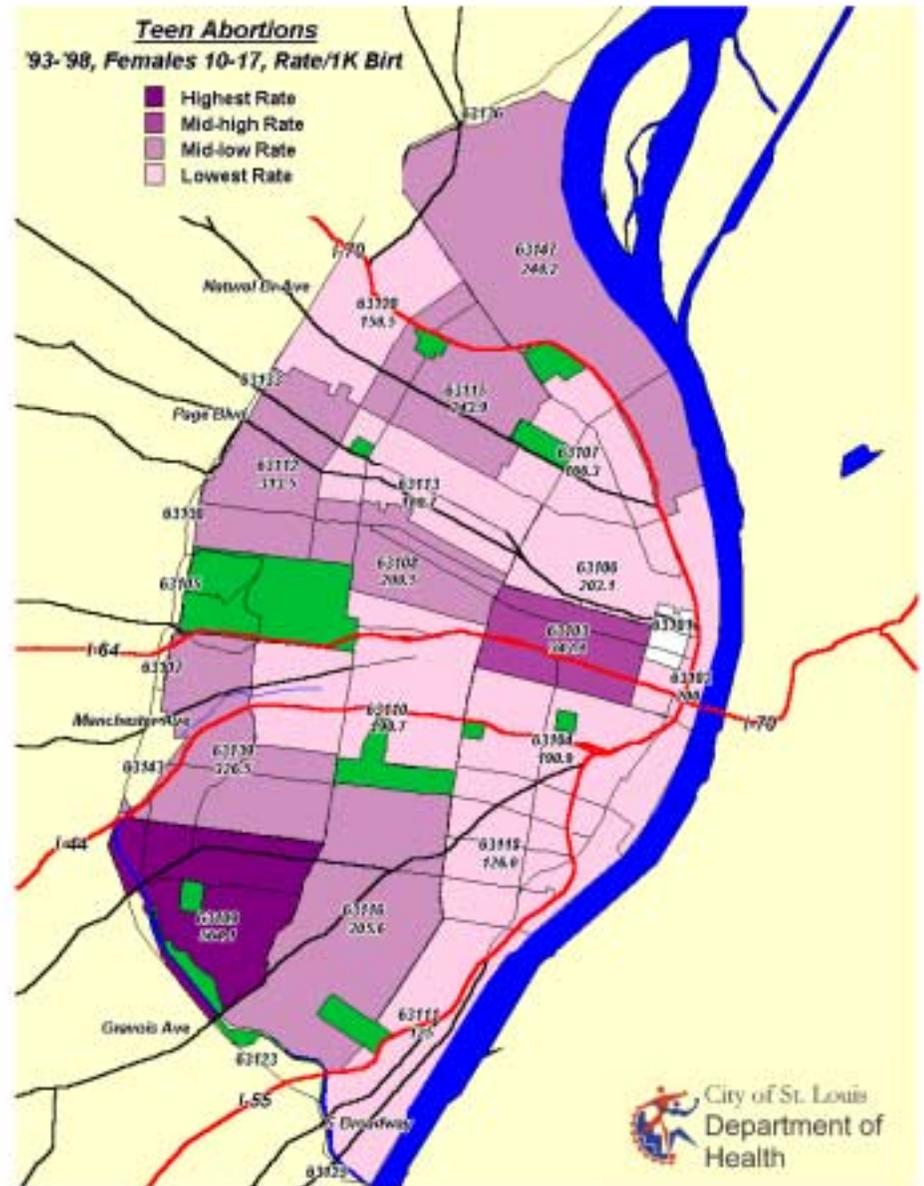
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Teen Abortions Ages 10-17 ratio/1000 live births 10-17 93-98 average

Zip	93-98 ratio
63109	564.1
*63103	343.8
63139	326.5
63112	313.5
63116	305.6
63108	288.5
*north	281.3
63147	248.2
63115	243.9
63106	203.1
*63102	200.0
63104	190.9
63110	190.7
*south	190.5
63113	189.7
63107	166.3
63120	158.5
63118	126.8
63111	125.0
*central	0.0

Zip	93-98 ratio
Saint Louis	217.5
Missouri	304.7
St. L White	254.0
St. L Black	212.0
Mo White	305.9
Mo Black	295.5



teen abortions 10 to 17

# birth - medicaid

## Definition

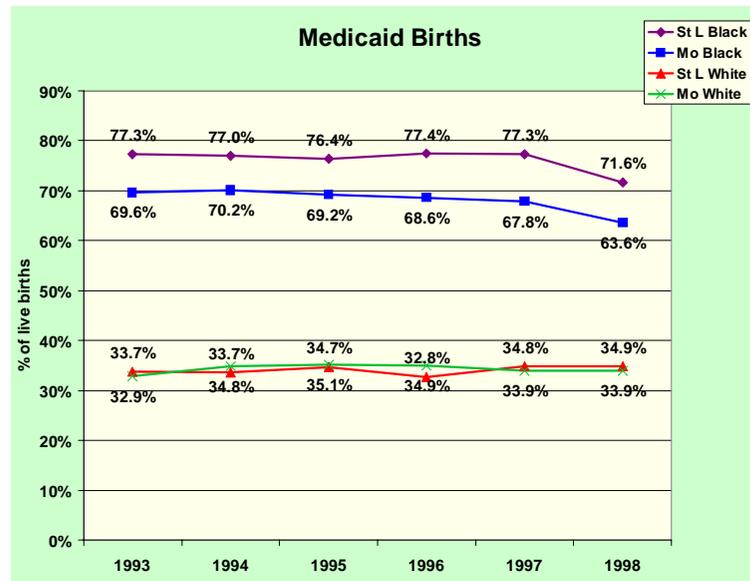
Birth mother Medicaid participation is mothers who were Medicaid program participants during pregnancy. The rate is presented as the number of birth mothers that are Medicaid participants as a percent of total live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

High Medicaid participation is both positive and negative. The positive aspect is increase access to care during pregnancy. The negative aspect is that it is an indicator of poverty that is associated with poorer health outcomes. Medicaid participation, along with the food stamp program and WIC participation can be used to determine possible effects of these interventions on the adequacy of preventive care and pregnancy outcomes.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for the time period 1993 through 1998 is 1.6 times higher than the averaged Missouri rate. In 1998 in the City of Saint Louis, there were more than 3,200 birth mothers that were Medicaid participants out of 5,550 births. The Zip codes with the rates of most concern are 63106, 63107 and 63120. The Zip codes with the most favorable rates are 63109 and 63139.



## Black/White Disparity

The Saint Louis City African-American average rate for the years 1993 through 1998 is 2.2 times higher than the Saint Louis City White averaged rate. The Saint Louis City African-American average rate for the years 1993 through 1998 is 1.1 times higher than the averaged Missouri African-American rate.

## Focus Group Comments/Concerns

“Almost half the kids in the city are on public assistance and reform will have serious impacts on this population – particularly in the city where there are no jobs.” “Medicaid and uninsured population and poverty that accompanies that.”

## Potential Public Health Interventions

Assist in MC+ enrollment

## Data Source

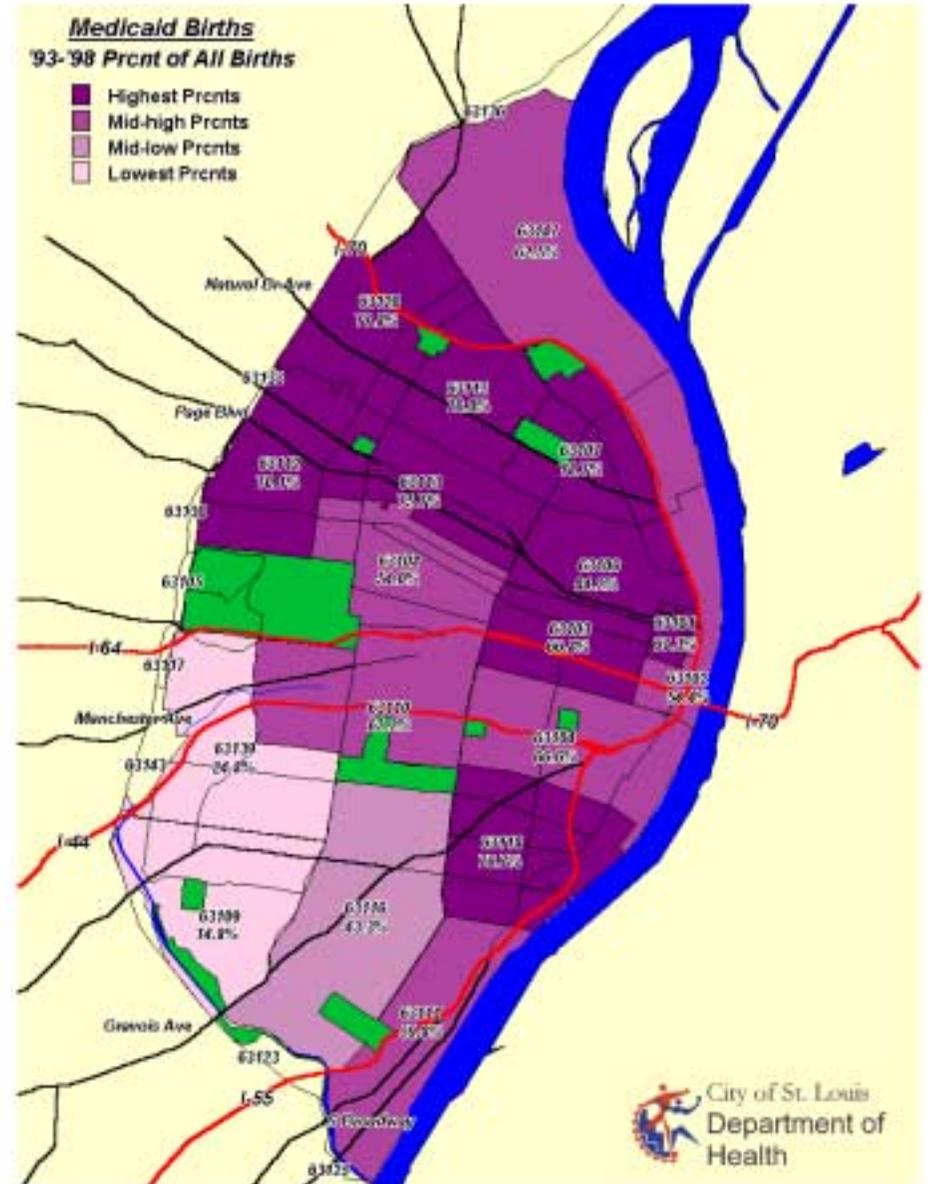
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Medicaid Births

% of live births 93-98 average

Zip	93-98 avg
63106	84.2%
63107	78.7%
63120	77.8%
63118	76.7%
63115	76.0%
63113	75.7%
*north	72.9%
63112	70.1%
*63101	67.3%
*63103	66.8%
63104	66.6%
63110	65.2%
63147	62.5%
63111	59.8%
*63102	54.4%
63108	54.0%
63116	43.3%
*south	39.4%
63139	24.8%
*central	17.8%
63109	14.8%

Zip	93-98 avg
Saint Louis	62.3%
Missouri	39.5%
U.S.	N/A
St. L White	34.1%
St. L Black	76.3%
Mo White	34.2%
Mo Black	68.2%
U.S. White	N/A
U.S. Black	N/A



birth - medicaid

# birth - wic

## Definition

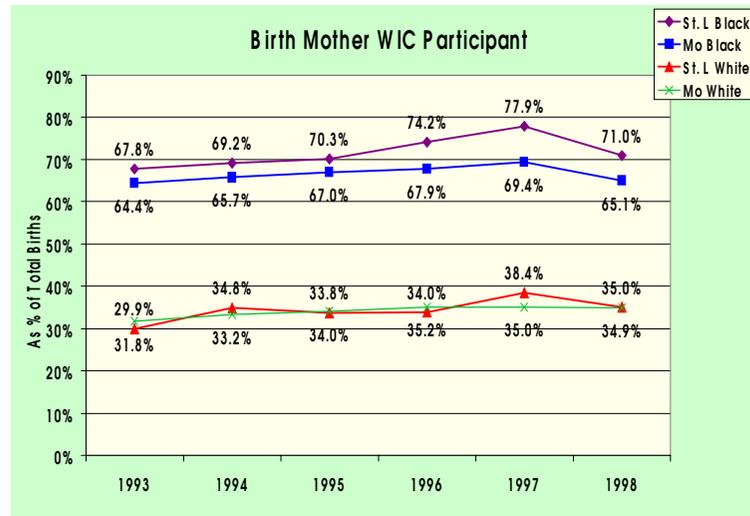
The WIC participant rate is the number of mothers who participated in the WIC program during pregnancy expressed as a percent of total live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

WIC participation, along with the food stamp program and Medicaid participation can be used to determine possible effects of these interventions on the adequacy of preventive care and pregnancy outcomes. The positive aspect of high rates is enhanced nutrition during pregnancy to help improve outcomes. The negative side is that the WIC program is associated with poverty status.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for 1993 through 1998 is 1.5 times higher than the averaged Missouri rate. In 1998, 3,240 births were to mothers participating in the WIC program out of a total of 5,550 births in the City of Saint Louis. This represents 58% of all births in 1998. The Zip codes with the rates of most concern are 63106, 63107 and 63118. The Zip codes with the most favorable rates are 63109 and 63139.



## Black/White Disparity

The Saint Louis City African-American average rate for the years 1993 through 1998 is 2 times higher than the Saint Louis City averaged White rate. The Saint Louis City African-American average rate for the years 1993 through 1998 is about the same as the Missouri African-American averaged rate.

## Focus Group Comments/Concerns

“We need to have health education going on in the community where people are – in grocery stores and barber shops.” “Nutrition – no grocery stores in the poor neighborhoods and this impacts nutrition and entire life.”

## Potential Public Health Interventions

Nutritional education programs

## Data Source

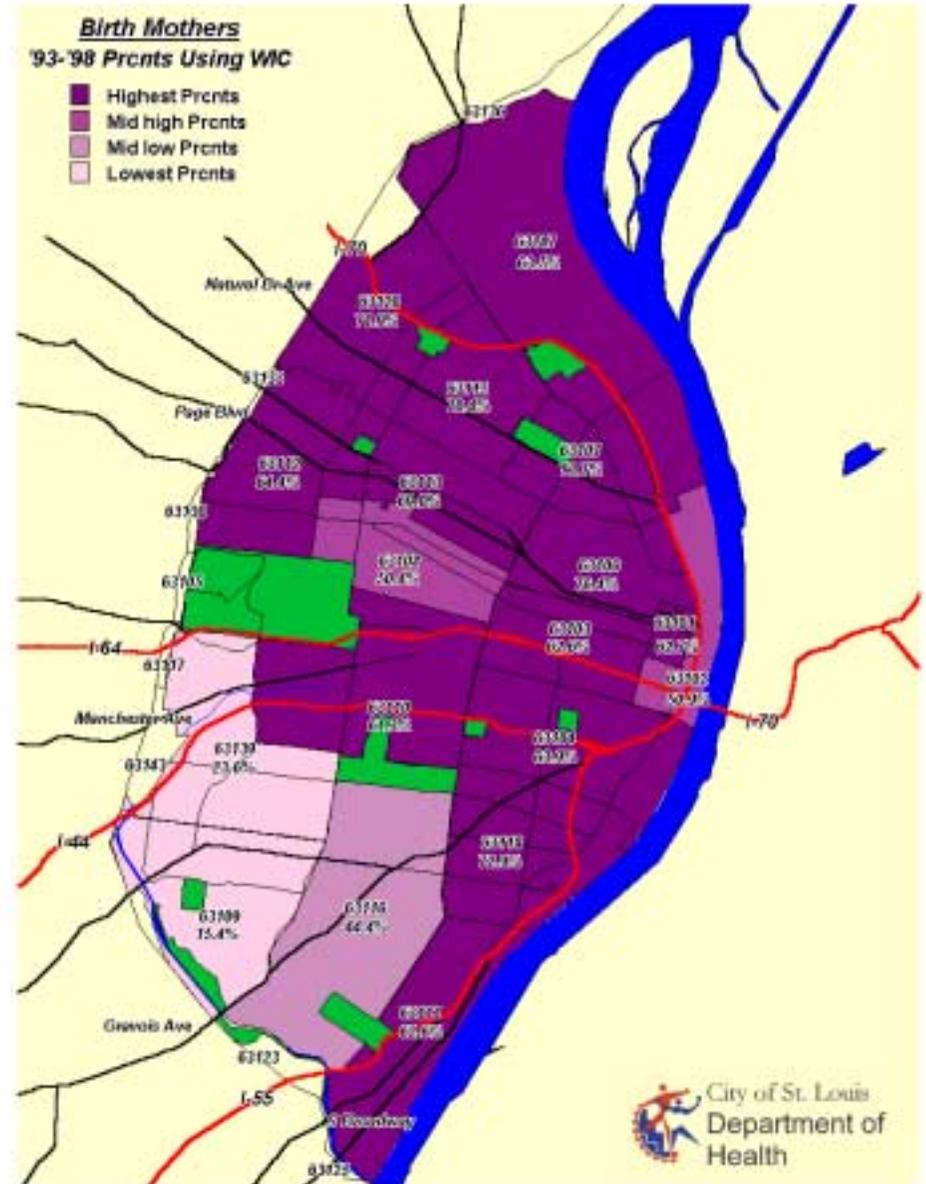
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Birth Mothers WIC

% of live births 93-98 average

Zip	93-98 avg
63106	76.4%
63107	73.7%
63118	72.9%
63120	71.9%
63115	70.4%
*north	69.5%
63113	69.0%
63112	64.4%
63104	63.9%
63147	63.5%
*63101	62.7%
*63103	62.6%
63111	62.6%
63110	61.3%
*63102	50.9%
63108	50.4%
63116	44.4%
*south	37.5%
63139	23.6%
*central	15.6%
63109	15.4%

Zip	93-98 avg
Saint Louis	59.2%
Missouri	39.1%
U.S.	N/A
St. L White	34.2%
St. L Black	71.4%
Mo White	34.0%
Mo Black	66.5%
U.S. White	N/A
U.S. Black	N/A



# birth – food stamps

## Definition

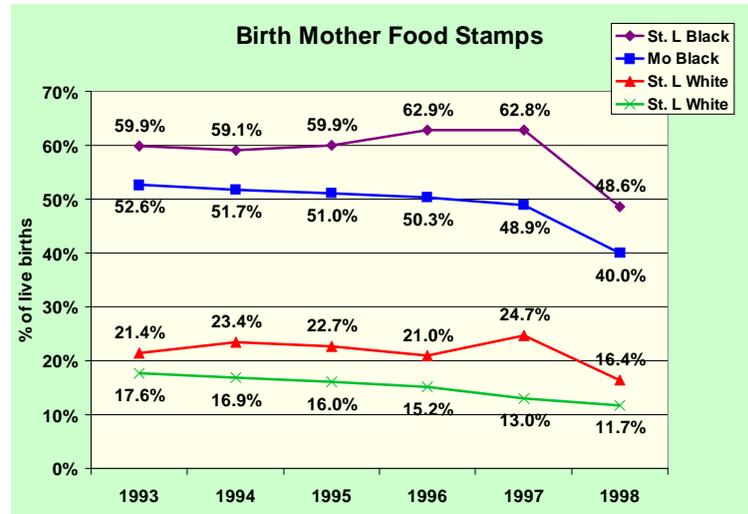
Birth mother food stamp participation is the number of mothers participating in the food stamp program during pregnancy. The rate is presented as the number of birth mother food stamp program participants expressed as a percent of total live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

Food stamp participation, along with WIC and Medicaid participation can be used to determine possible effects of these interventions on the adequacy of preventive care and pregnancy outcomes. The positive aspect of high rates is enhanced nutrition for birth mothers. The negative side is the association with poverty.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for 1993 through 1998 is 2.3 times higher than the averaged Missouri rate. In 1997, over 2,800 births were to mothers participating in the Food Stamp Program in the City of Saint Louis out of 5,700 births. This represents 49% of all births in 1997. The Zip codes with the rates of most concern are 63106, 63120 and 63118. The Zip codes with the most favorable rates are 63109 and 63139.



## Black/White Disparity

The Saint Louis City African-American average rate for the years 1993 through 1998 is 2.7 times the Saint Louis averaged White rate. The Saint Louis City African-American average rate for the years 1993 through 1998 is 1.2 times higher than the Missouri averaged African-American rate.

## Focus Group Comments/Concerns

“To me it would be kind of futile to send a kid over to a twelve o'clock recreation center and he ain't had nothing to eat. He can do all the basketball and baseball and activities and fun games and stuff and all information, but if he is hungry, he's not going to retain anything.”  
“Nutrition – maybe getting better in cafeterias in schools but they are not getting the information back home.” “Nutrition – no grocery stores in the poor neighborhoods and this impacts nutrition and entire life.”

## Potential Public Health Interventions

Nutritional education programs.

## Data Source

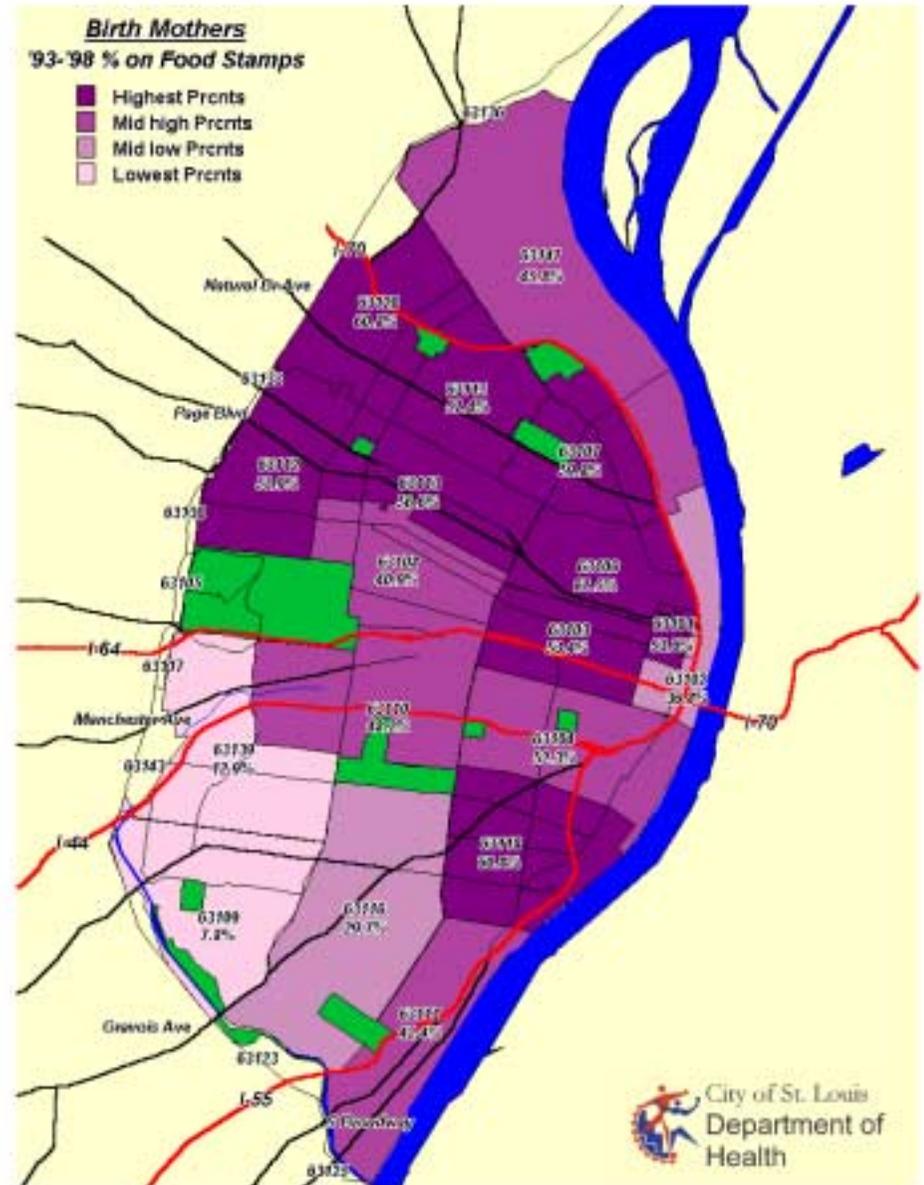
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Birth Mothers Food Stamps

% of live births 93-98 average

Zip	93-98 avg
63106	67.5%
63120	60.8%
63118	60.8%
63107	59.8%
63115	57.4%
63113	56.6%
63112	53.9%
*north	53.8%
*63101	53.6%
*63103	53.4%
63104	52.3%
63110	48.2%
63147	45.8%
63111	42.4%
63108	40.9%
*63102	36.8%
63116	29.7%
*south	22.8%
63139	12.9%
*central	8.9%
63109	7.8%

Zip	93-98 avg
Saint Louis	46.7%
Missouri	20.4%
U.S.	N/A
St. L White	21.6%
St. L Black	59.0%
Mo White	15.0%
Mo Black	49.2%
U.S. White	N/A
U.S. Black	N/A



birth - food stamps

# birth - smoking

## Definition

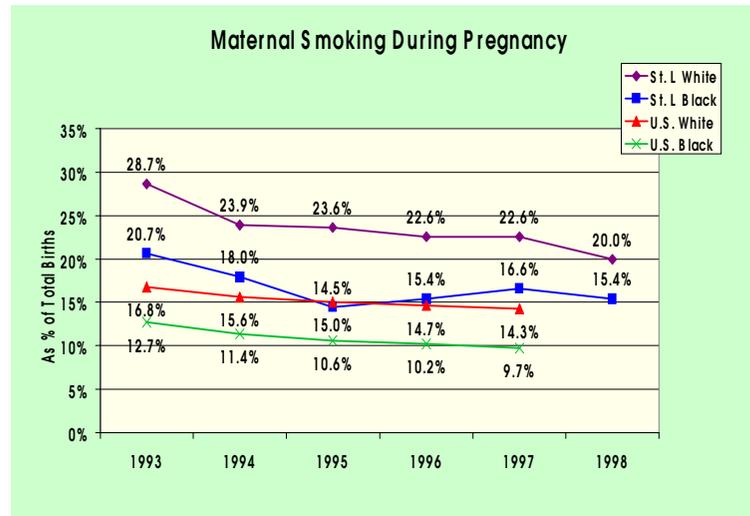
This information is taken from the birth certificate and is considered “yes” if the mother smoked at any time during the pregnancy. This information is self reported and therefore may possibly be underreported. The rate for this analysis is mothers who smoked during pregnancy as a percent of total live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

Women who smoke during pregnancy are at risk for premature birth, pregnancy complications, low-birth weight infants, still birth and a higher rate of infant mortality. Smoking also puts the babies at risk for sudden infant death syndrome (SIDS), poor lung development, asthma and respiratory infections.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for the time period 1993 through 1998 is 1.3 times higher than the averaged U.S. rate. However the averaged Missouri rate is slightly higher. In 1998, about 1,000 birth mothers reported that they smoked during the pregnancy out of 5,550 births in Saint Louis City. The Zip codes with the rates of most concern are 63111 and 63118. The Zip codes with the most favorable rates are 63109 and 63108.



## Black/White Disparity

The Saint Louis City average White rate for the time period 1993 through 1998 is 1.4 times higher than the Saint Louis averaged African-American rate in the same time period. The Saint Louis City averaged White rate is even greater than the U.S. averaged White rate, by a factor of 1.5.

## Focus Group Comments/Concerns

“Education of consumers about health.” “In the Black community I see liquor and cigarette advertisements. These are subliminal messages about what an appropriate lifestyle is.”

## Potential Public Health Interventions

Surveillance, epidemiological studies and health education programs

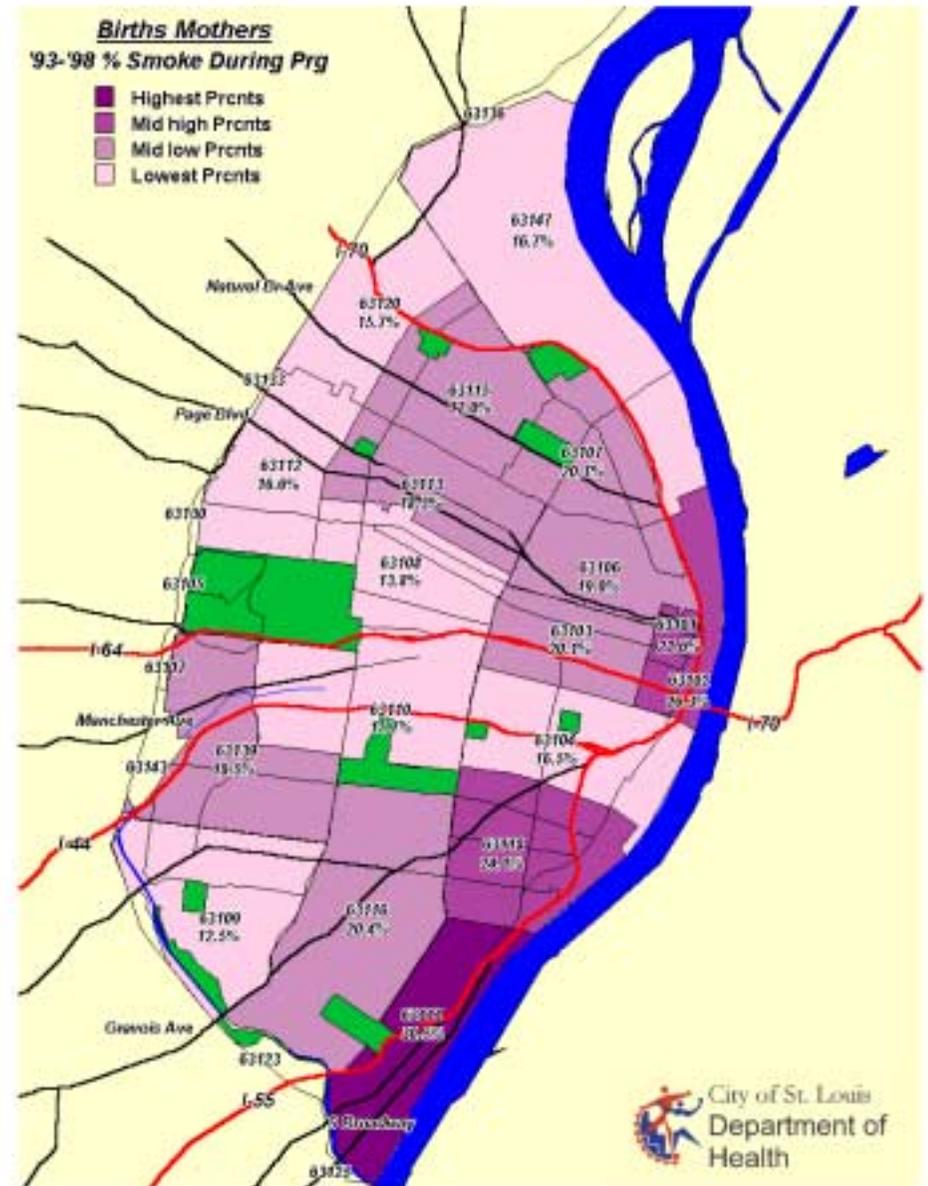
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Birth Mothers Smoking % of live births 93-98 average

Zip	93-98 avg
63111	30.4%
*63102	26.3%
63118	24.1%
*south	22.2%
*63101	21.6%
63116	20.4%
*63103	20.1%
63107	20.1%
*north	19.8%
63106	19.0%
63139	18.5%
63113	18.3%
63115	17.0%
63147	16.7%
63112	16.6%
63104	16.5%
63110	15.7%
63120	15.7%
63108	13.8%
63109	12.5%
*central	6.7%

Zip	93-98 avg
Saint Louis	18.9%
Missouri	20.1%
U.S.	14.2%
St. L White	23.7%
St. L Black	17.0%
Mo White	21.4%
Mo Black	14.8%
U.S. White	15.3%
U.S. Black	10.9%



birth - smoking

# birth - alcohol

## Definition

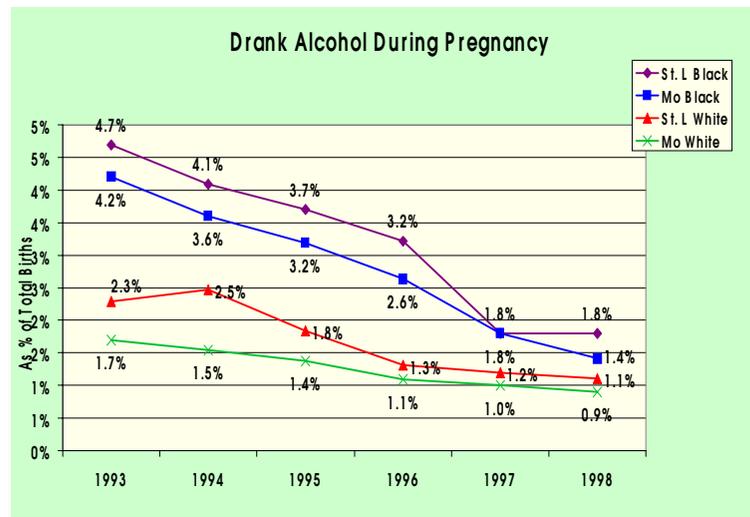
This information is taken from the birth certificate and is considered “yes” if the mother consumed alcoholic beverages at any time during the pregnancy. This information is self reported and therefore may be underreported. The rate is the number of mothers who drank alcohol during pregnancy expressed as a percent of total live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

Birth defects can be an outcome of the use of alcohol during pregnancy. In utero alcohol exposure can cause lifelong consequences such as mental retardation, learning disabilities and serious behavioral problems.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for 1993 through 1998 is 1.9 times higher than the averaged Missouri rate. In 1998, 90 birth mothers reported that they drank alcohol during the pregnancy in the City of Saint Louis. This represents 1.6% of the total births in 1998, down from 3.9% in 1993. The Zip codes with the rates of most concern are 63108, 63113 and 63115. The Zip codes with the most favorable rates are 63109 and 63116. Since 1993 the rates have improved significantly.



## Black/White Disparity

The Saint Louis City African-American average rate for the years 1993 through 1998 is 2 times higher than the Saint Louis averaged White rate in the same time period. However, between 1993 and 1998 the rate for the Saint Louis City African-American population improved significantly, from 4.7% in 1993 to 1.8% in 1998.

## Focus Group Comments/Concerns

“Prenatal care and education is a priority.” “In the black community I see liquor and cigarette advertisements. These are subliminal messages about what an appropriate lifestyle is.”

## Potential Public Health Interventions

Educational programs and media advocacy regarding drinking alcohol during pregnancy

## Data Source

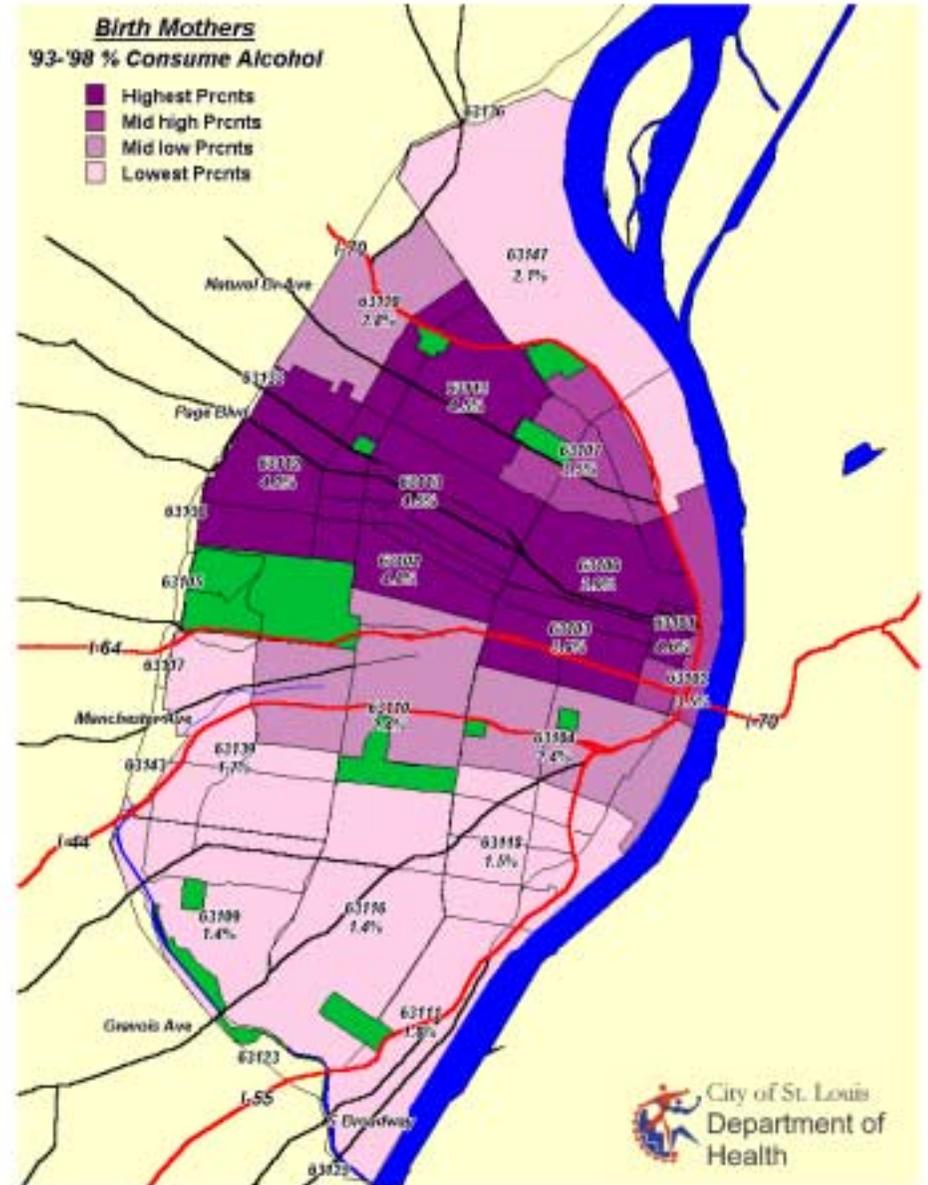
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

# Drank Alcohol During Pregnancy

% of live births 93-98 average

Zip	93-98 avg
*63103	5.8%
63108	4.8%
*63101	4.6%
63113	4.5%
63115	4.5%
*central	4.4%
63112	4.2%
63106	3.9%
63107	3.5%
*63102	3.5%
*north	3.5%
63120	2.8%
63110	2.4%
63104	2.4%
63147	2.1%
63111	1.8%
*south	1.8%
63139	1.7%
63118	1.5%
63116	1.4%
63109	1.4%

Zip	93-98 avg
Saint Louis	2.8%
Missouri	1.5%
U.S.	N/A
St. L White	1.6%
St. L Black	3.3%
Mo White	1.3%
Mo Black	2.8%
U.S. White	N/A
U.S. Black	N/A



birth - alcohol

# birth - education

## Definition

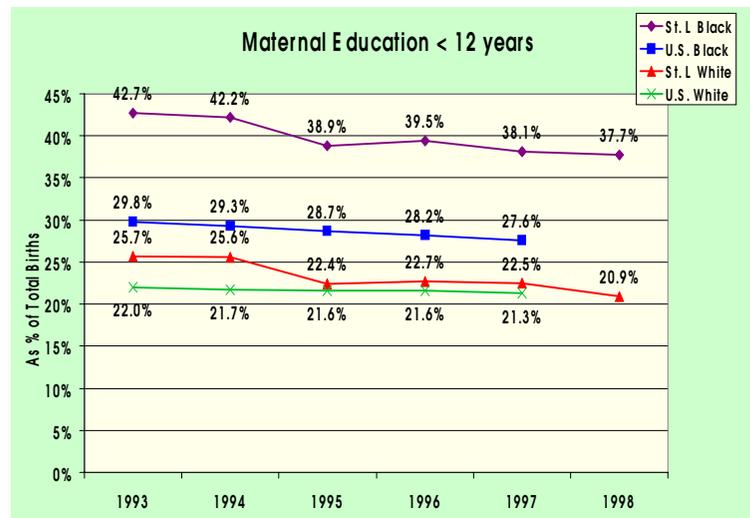
This represents the percent of birth mothers that completed less than 12 years of education. The rate is the number of birth mothers that completed less than 12 years of education expressed as a percent of total live births. Saint Louis City and Missouri data are averaged for the time period 1993 through 1998. U.S. data are averaged for the time period 1993 through 1997.

## Public Health Implications

Education is correlated with fertility and birth outcome and is used as an indicator of socioeconomic status. It is used to measure the effect of education and socioeconomic status on health, childbearing and infant mortality. In general, infant mortality declines with increasing education of the mother. In a recent study, mothers who had not completed high school had infant mortality rates more than twice that of women with college education.

## Saint Louis Rates and Comparative Info

The Saint Louis City average rate for 1993 through 1998 is 1.8 times higher than the averaged Missouri rate and 1.5 times higher than the averaged U.S. rate. In 1998 in the City, close to 1,800 birth mothers had less than 12 years of education. The Zip codes with the rates of most concern are 63118, 63107 and 63106. The Zip codes with the most favorable rates are 63109 and 63139.



## Black/White Disparity

The Saint Louis City African-American average rate for the years 1993 through 1998 is 1.7 times higher than the Saint Louis averaged White rate. The Saint Louis City African-American average rate for the years 1993 through 1998 is 1.4 times higher than the U.S. averaged African-American rate in the same time period.

## Focus Group Comments/Concerns

“Literacy rates – high drop-out rates.” “High drop-out rate results in teen pregnancy, illiteracy, etc.”

## Potential Public Health Interventions

Health education programs

Collaborative efforts with appropriate agencies

## Data Source

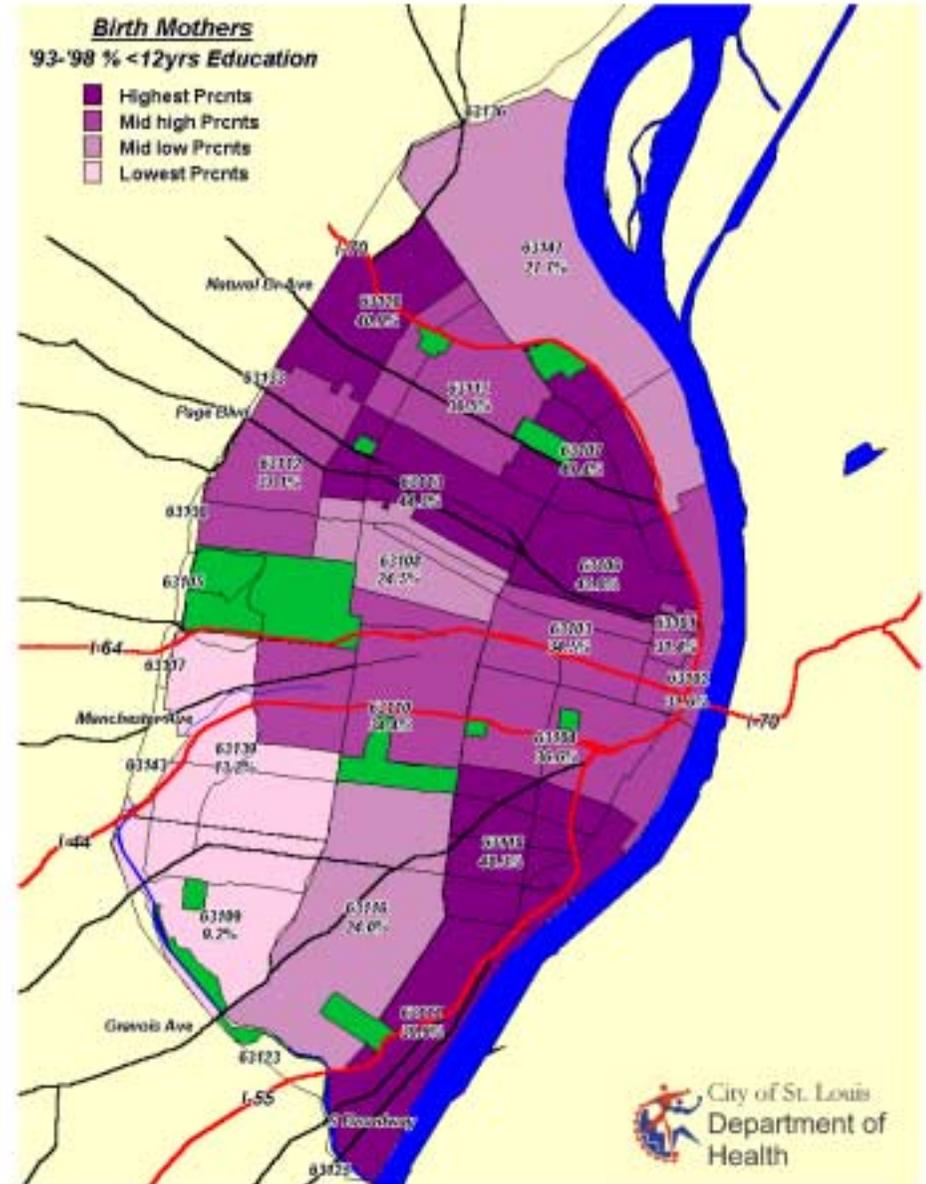
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Birth Mother Education

% < 12 Years Education 93-98 average

Zip	93-98avg
63118	48.3%
63107	47.4%
63106	45.0%
63113	44.3%
63120	40.9%
63111	39.9%
63112	37.1%
63104	36.6%
63115	36.5%
*north	35.6%
*63103	34.5%
63110	34.4%
*63102	31.6%
*63101	31.4%
63147	27.7%
*south	25.0%
63108	24.5%
63116	24.0%
63139	13.2%
63109	9.2%
*central	8.9%

Zip	93-98avg
Saint Louis	34.5%
Missouri	19.4%
U.S.	22.7%
St. L White	23.4%
St. L Black	40.1%
Mo White	17.2%
Mo Black	31.4%
U.S. White	21.6%
U.S. Black	28.7%



birth - education



# EPIDEMIC



# hiv infection

## Definition

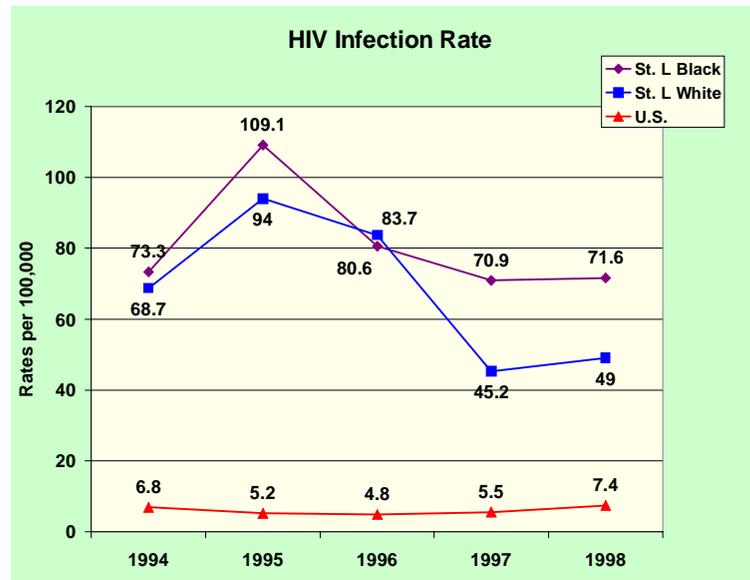
Human immunodeficiency virus (HIV) - infected individuals are individuals greater than 18 months of age who have a diagnosis of HIV infection documented by either a laboratory test or a physician. The rates are presented as the number of cases per year per 100,000 population and are averaged over the 1994 through 1998 time period.

## Public Health Implications

New advancements in the treatment of HIV disease, namely combination therapy, appear to increase the quality of and prolong life for people with HIV infection. Over time, persons with HIV infection who subsequently develop AIDS are reported as an AIDS case.

## Saint Louis Rates and Comparative Info

The number of reported cases was highest in Saint Louis City in 1995. The reported averaged rate of HIV cases in Saint Louis City is 7.5 times that in Missouri, and over 12 times that seen in the United States. In 1998, there were about 200 new cases of HIV infection reported in the City of Saint Louis. The Zip codes with the rates of most concern of HIV cases are 63104 and 63108. The Zip codes with the most favorable rates are 63109 and 63147.



## Black/White Disparity

The Saint Louis City African-American average rate for the years 1994 through 1998 is 1.2 times higher than the Saint Louis averaged White rate. The HIV infection rate in the City of Saint Louis now continues to be higher in the African-American Community.

## Focus Group Comments/Concerns

"HIV/AIDS." "We are now a Level I HIV city – that's a crisis." "Increase in HIV/AIDS rates especially in African-American and Latino communities." "HIV in African-American women."

## Potential Public Health Interventions

Prevention of HIV infection remains the best and most cost-effective tool for controlling the epidemic. The CDC has developed HIV prevention programs which are comprehensive, culturally competent, and scientifically sound for use in communities and high-risk populations.

## Data Source

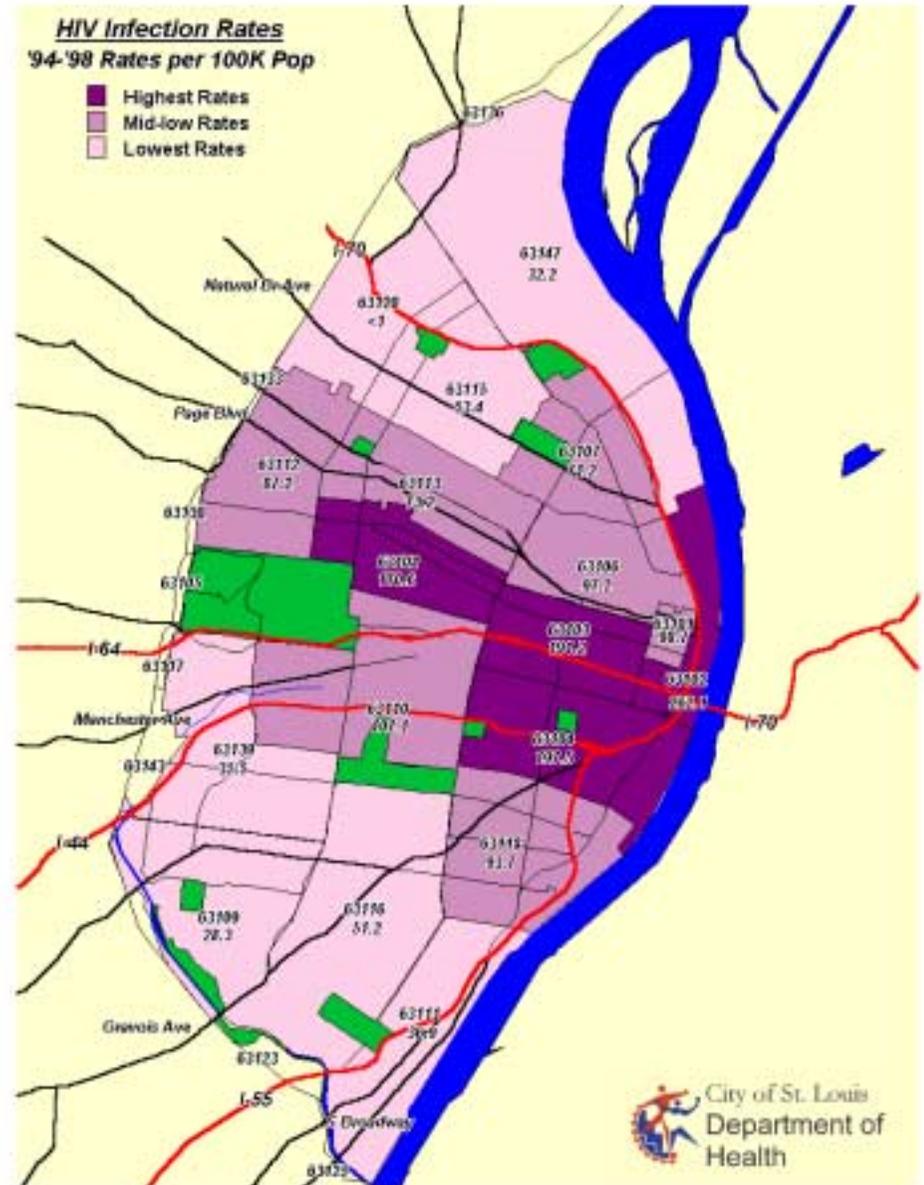
The City of Saint Louis Department of Health, Communicable Disease Section

## HIV Infection Rates\*\* /100,000 population 94-98 average

Zip	94-98 avg
*63102	262.1
63104	197.5
*63103	191.2
63108	170.6
63110	107.1
*63101	98.7
63106	97.2
63118	93.7
63112	87.2
63113	73.2
63107	71.2
63115	53.4
63116	51.2
63111	36.9
63139	35.5
63147	32.2
63109	28.3
*central	0.0
*south	0.0
*north	0.0

Zip	94-98 avg
Saint Louis	73.5
Missouri	9.8
U.S.	5.9
St. L White	68.2
St. L Black	81.1

\*\*persons reported with HIV infection who have not developed AIDS



hiv infection

# aids cases

## Definition

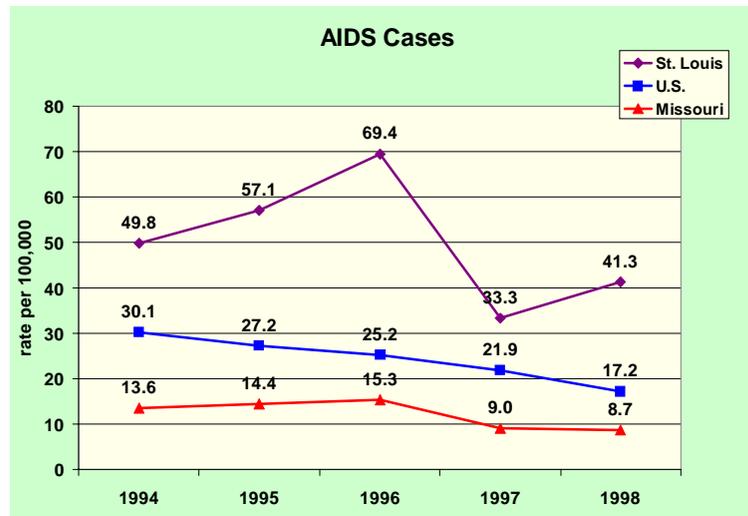
The surveillance case definition for acquired immunodeficiency syndrome (AIDS), as defined by the Center for Disease Control, is based on the case's (1) clinical condition, (2) human immunodeficiency virus (HIV) antibody test results, and (3) laboratory measures of the effect of the virus on the immune system (CD4+ test results). The rates are presented as the number of cases per year per 100,000 population and are averaged over the 1994 through 1998 time period.

## Public Health Implications

AIDS cases classified as "men who have sex with men" continue to account for the largest proportion of reported cases. Among women, heterosexual contact and injecting drug use account for the majority of reported cases. Persons of African-American or Hispanic race/ethnicity have higher rates than Whites; women continue to represent an increasing proportion of AIDS cases. Sixty-four percent of all people diagnosed with AIDS, to date, have died.

## Saint Louis Rates and Comparative Info

AIDS cases were highest in Saint Louis City in 1996, and have declined since then. U.S. rates have been declining consistently since 1994. The averaged 1994-1998 rate for AIDS in Saint Louis City is two times that seen in the United States, and 4.1 times that seen in Missouri averaged over the same time period. The Zip codes with the rates of most concern are 63104 and 63108. The Zip code with the most favorable rate is 63109.



## Black/White Disparity

In 1998, there were 142 new cases of AIDS reported in the City of Saint Louis, 82 of which were in the African-American community.

## Focus Group Comments/Concerns

"Extended care for young people, i.e., with AIDS." "Blacks with AIDS." "...concern about HIV and AIDS epidemic." "Still worried about AIDS with a sexually active teen population."

## Potential Public Health Interventions

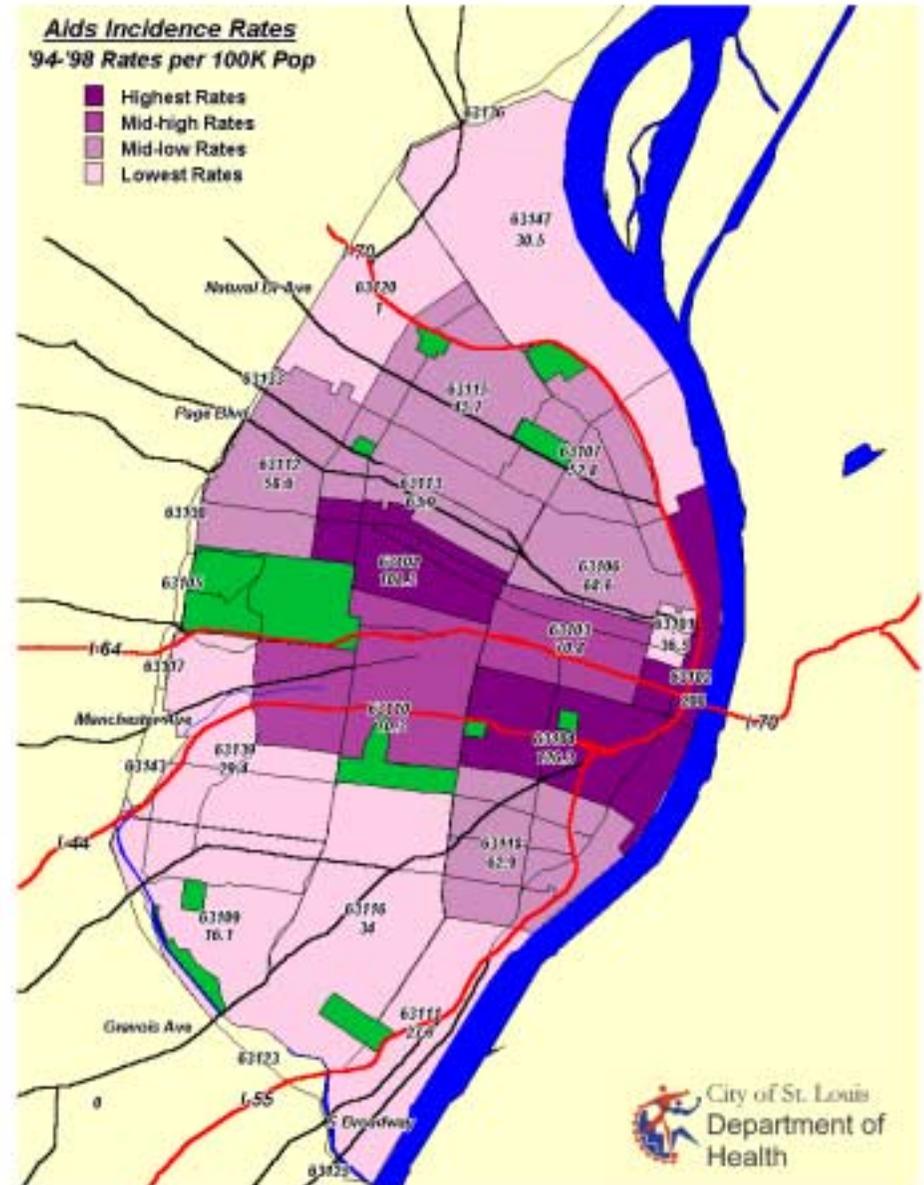
AIDS prevention activities include education programs in schools, disease monitoring, and behavioral and epidemiologic studies designed to identify the most effective interventions to combat HIV. For example, as AIDS increasingly affects women, it is critical that prevention methods be developed that are easily within women's control, such as female condoms and effective microbicides that can kill HIV. Secondary prevention for infected individuals through case management services is another intervention. Prevention case management encourages infected individuals to disclose their status to potential partners and to always practice protected sex or to choose other expressions of sexuality that do not potentially expose partners to the virus.

## Data Source

The City of Saint Louis Department of Health, Communicable Disease Section

## AIDS Cases / 100,000 population 94-98 average

Zip	94-98 avg
*63102	200.0
63104	126.3
63108	108.3
*63103	70.8
63110	70.3
63106	68.6
63113	63.9
63118	62.9
63112	58.6
63107	52.8
63115	45.7
*63101	36.5
63116	34.0
63147	30.5
63139	29.4
63111	27.7
63109	16.1
*central	0.0
*south	0.0
*north	0.0
<b>St. Louis</b>	50.2
<b>Missouri</b>	12.2
<b>U.S.</b>	24.3

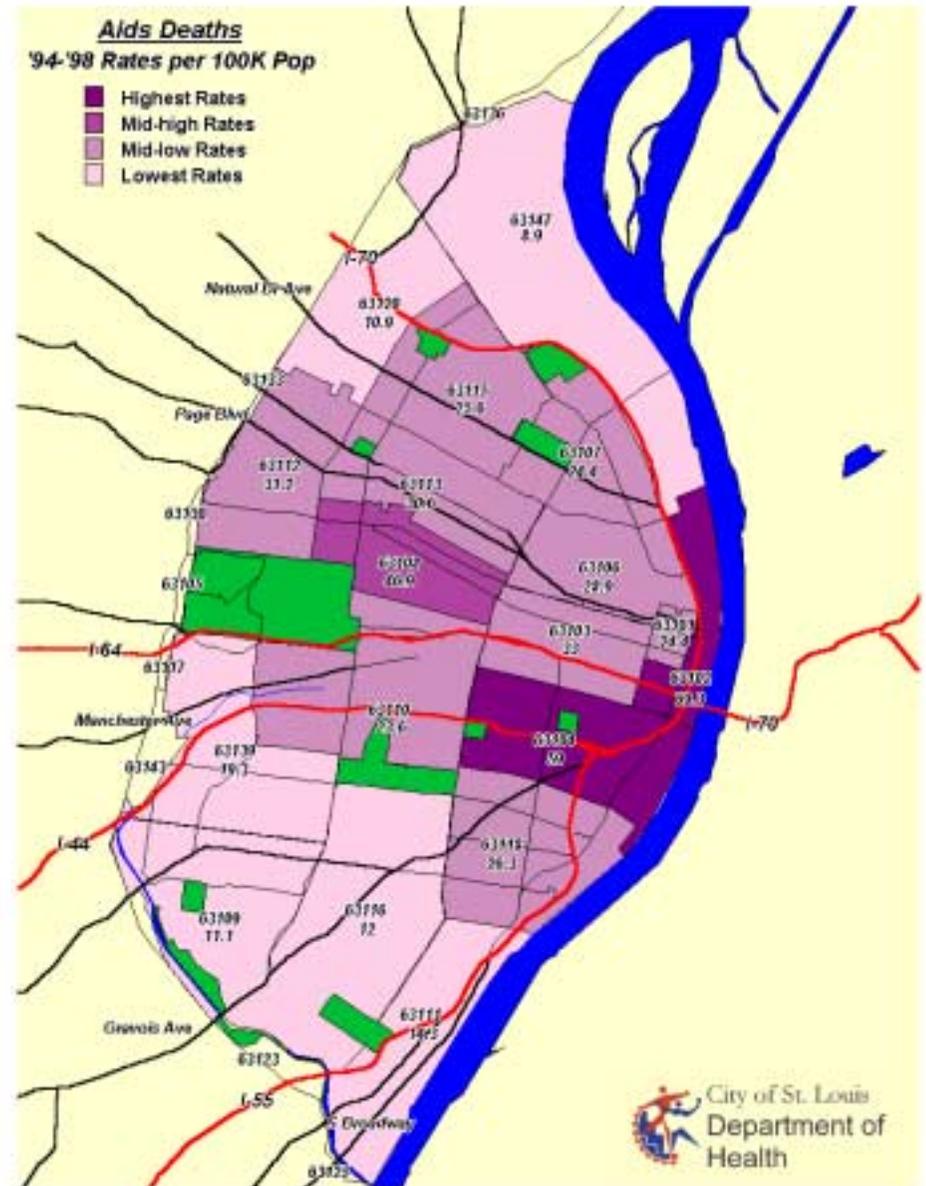


aids cases

## AIDS Mortality Rates / 100,000 94-98 average

Zip	Age-adj avg
*63102	69.3
63104	59.0
63108	46.9
63103	33.0
*south	31.7
*north	31.6
63112	31.2
63113	30.6
63106	28.9
63118	26.3
63115	25.6
*63101	24.4
63107	24.4
63110	23.6
63139	19.3
*central	16.1
63111	14.3
63116	12.0
63109	11.1
63120	10.9
63147	8.9

Zip	Age-adj avg
<b>Saint Louis</b>	24.8
<b>Missouri</b>	6.4
<b>U.S.</b>	15.0
<b>St.L White</b>	23.0
<b>St.L Black</b>	27.8
<b>MO White</b>	4.7
<b>MO Black</b>	20.2
<b>U.S. White</b>	10.7
<b>U.S. Black</b>	47.7



# aids mortality

## Definition

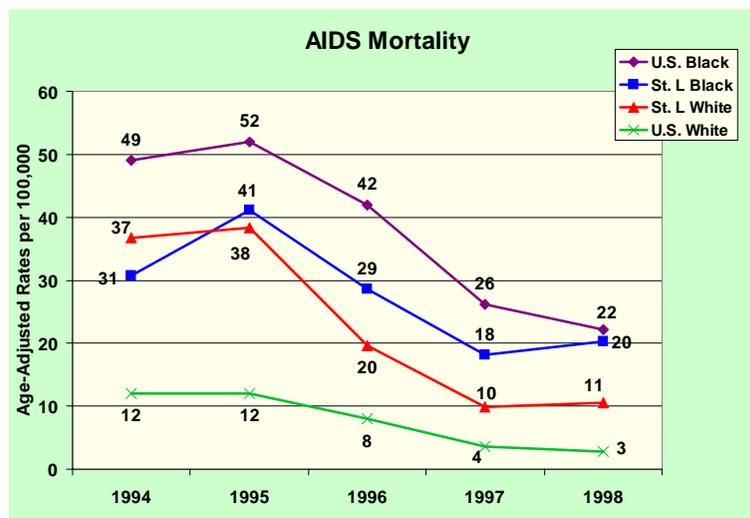
AIDS stands for “acquired immunodeficiency syndrome”. HIV (human immunodeficiency virus) is the virus that causes AIDS. An HIV-infected person receives a diagnosis of AIDS after developing one of the CDC-defined AIDS indicator illnesses. An HIV-positive person who has not had any serious illnesses also can receive an AIDS diagnosis on the basis of certain blood tests (CD4+ counts). Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994 through 1998 time period.

## Public Health Implications

New advancements in the treatment of HIV disease, namely combination therapy, appear to increase the quality of and prolong life for people with HIV infection. AIDS remains the leading cause of death among African-American men ages 25 through 44, and the third leading cause of death among African-American women in the same age group.

## Saint Louis Rates and Comparative Info

The age-adjusted death rate from AIDS in the U.S. declined an estimated 21 percent to a rate of 4.6 deaths per 100,000 in 1998, the lowest rate since 1987, after a 48 percent decline from 1996 to 1997. HIV mortality has declined more than 70 percent since 1995. In Saint Louis City, the AIDS averaged death rate is 1.6 times that seen in the U.S.



In 1998, there were 50 deaths due to AIDS in the City of Saint Louis. The Zip codes with the rates of most concern are 63104 and 63108. The Zip codes with the most favorable rates are 63147, 63120 and 63109.

## Black/White Disparity

The Saint Louis City AIDS death rate averaged over the 1994 through 1998 time period is 1.2 times higher in the African-American population than in the White population.

## Focus Group Comments/Concerns

“HIV/AIDS patients are not accessing care because they don’t want people to find out they are infected.”

## Potential Public Health Interventions

Prevention of HIV infection remains the best and most cost-effective tool for saving lives. The Centers for Disease Control funds HIV prevention programs for high-risk populations that are comprehensive, culturally competent, and scientifically sound.

## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

# syphilis

## Definition

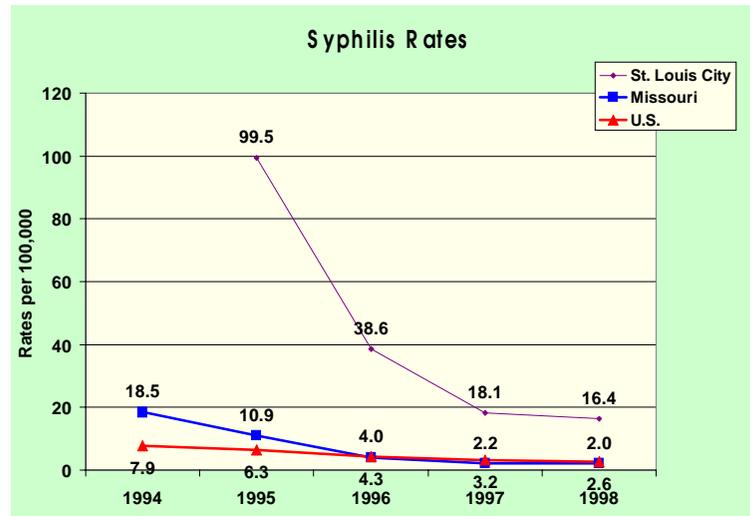
Syphilis is a systemic disease caused by bacterium *Treponema pallidum*. Infections may be detected by signs or symptoms of the infection, or by serologic testing during the latent stage of the disease. Rates described here are for primary and secondary syphilis. The rates are presented as cases per year per 100,000 population and are averaged over the 1995-1998 time period.

## Public Health Implications

Although the U.S. syphilis rate declined in 1998 to its lowest level in many years, syphilis remains an important problem in certain geographic areas, particularly among African Americans. Untreated early syphilis during pregnancy results in perinatal death in up to 40% of cases. If acquired during the four years prior to pregnancy, it can lead to infection of the fetus in over 70% of cases. The Healthy People 2000 national objective for syphilis is 4 cases per 100,000 persons.

## Saint Louis Rates and Comparative Info

Syphilis rates in Saint Louis City have decreased dramatically since 1995; from 99.5 per 100,000 to 16.4 in 1998. Saint Louis experienced a syphilis epidemic starting in 1992. Comparing average rates from 1995-1998, the Saint Louis City rate is 5.8 times that seen in Missouri, and 10.5 times that seen in the U.S. However, Saint Louis City has dropped from the number one city in the U.S. in the the mid-nineties to number eight in 1999. The Zip codes with the rates of most concern are 63106 and 63113. In 1999, there were 51 cases of primary and secondary syphilis in the City of St. Louis. The Zip codes with the most favorable rates are 63109, 63116 and 63139.



## Black/White Disparity

Specific rates are not presented by race due to the potential underreporting in the White population. For syphilis, as for other STD's, differential reporting of cases from public and private sectors may magnify the differences in reported rates by race and ethnicity. However for those cases reported, the highest averaged rates were reported in Zip codes that are predominately African American.

## Focus Group Comments/Concerns

"High rates of STD's." "STD's" "STD's"

## Potential Public Health Interventions

Adolescents and young adults, especially minorities, are disproportionately affected by STD's. Prevention of STD's is based on changing the sexual behaviors that place persons at risk for infection. The most effective way to prevent sexual transmission of syphilis and other STD's is to avoid sexual intercourse with an infected partner. For individuals diagnosed with syphilis, Disease Intervention Specialists (DIS) aggressively interview patients for their contacts and then locate them for examination and preventative treatment. Extensive risk reduction counseling to avoid future infection is also provided. Saint Louis City is currently participating in The CDC's National Syphilis Elimination Project.

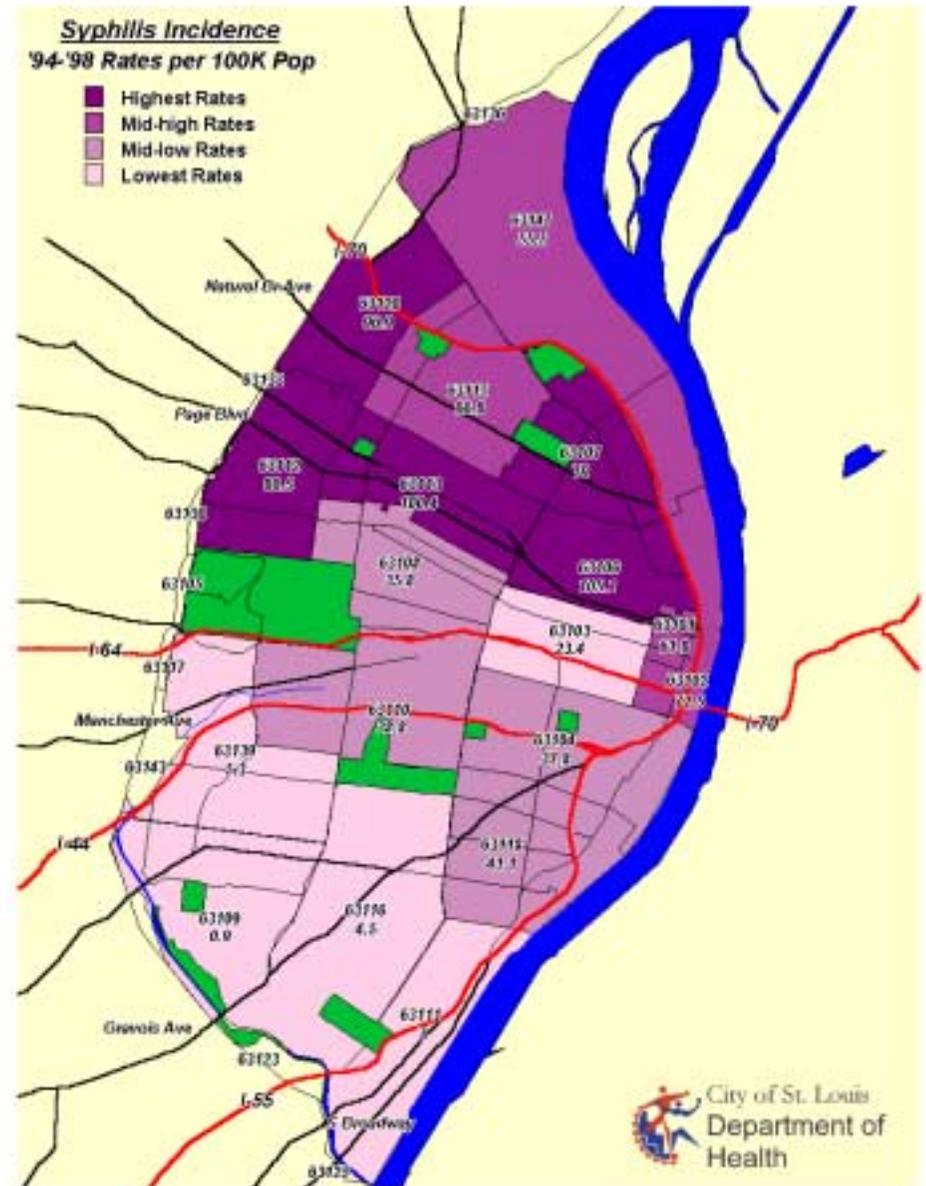
## Data Source

The City of Saint Louis Department of Health, Communicable Disease Section

## Syphilis\*\* / 100,000 94-98 average

Zip	94-98 avg
63106	105.1
63113	100.4
63120	96.9
63112	80.5
63107	79.0
*north	73.5
*63102	72.5
63115	66.8
*63101	61.8
63147	55.5
63118	41.1
63110	38.8
63104	37.8
63108	35.8
*63103	23.4
63111	7.0
*south	6.0
63139	5.3
63116	4.5
63109	0.9
*central	0.0
St. Louis	43.2
Missouri	7.5
U.S.	4.1

\* primary and secondary syphilis



syphilis

# gonorrhoea

## Definition

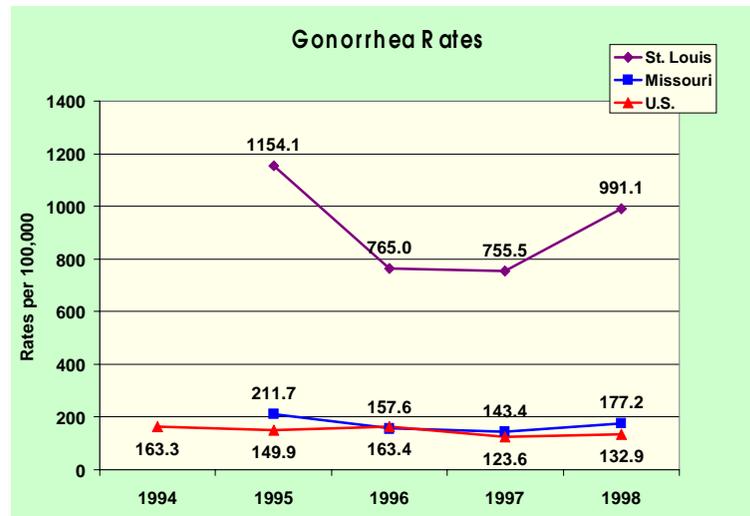
Neisseria gonorrhoea is a sexually transmitted bacterial disease that differs in males and females in course, severity, and ease of recognition. It is second only to chlamydial infection in the number reported to the Centers for Disease Control. The rates are presented as the number of cases per year per 100,000 population and are averaged over the 1995-1998 time period.

## Public Health Implications

The rate of gonorrhoea in the U.S. has continued to decline since 1975. If not adequately treated, 10-40 percent of women infected with gonorrhoea develop upper genital tract infection, also called pelvic inflammatory disease (PID). Among women with PID, scarring will result in involuntary infertility in 20 percent, potentially fatal ectopic pregnancy in 9 percent, and chronic pelvic pain in 18 percent. Ectopic pregnancy is the leading cause of first trimester pregnancy-related deaths among American women. Reporting of gonococcal infections has likely been biased towards reporting of infections in persons of minority race or ethnicity who attend public STD clinics. The Healthy People 2000 national objective for gonorrhoea is 100 cases per 100,000 persons.

## Saint Louis Rates and Comparative Info

Rates of gonorrhoea in Saint Louis City declined in the years from 1994-1997; a slight increase was observed in 1998. This pattern was also seen in Missouri and the U.S. although not as steep. The average rate of gonorrhoea in Saint Louis City during the time period from 1994-1998 was 5.5 times higher than rates in Missouri; the averaged Saint Louis City rate was 7.2 times that seen in the U.S. In 1999, 2,876 cases of Gonorrhoea were reported in the City of St. Louis.



The Zip codes with the rates of most concern are 63106, 63120 and 63107. The Zip codes with the most favorable rates are 63109 and 63139.

## Black/White Disparity

Specific rates by race for Saint Louis City are not presented in this report due to the percentage of cases that do not identify race. However, when looking at the averaged rates by Zip code, the rates of most concern were reported in Zip codes that are predominately African American.

## Focus Group Comments/Concerns

"One of the major issues impacting health in Saint Louis is communicable diseases among city residents, primarily the lower income groups." "Ignorance of adolescents about unprotected sex."

## Potential Public Health Interventions

Most infections among men produce symptoms that cause them to seek curative treatment. But, because gonococcal infections among women are often asymptomatic, an important component of gonorrhoea control in the United States continues to be the screening of women at high risk for STDs. The highest rates of gonorrhoea and chlamydia in women are in 15- to 19-year-olds. For individuals diagnosed with gonorrhoea, Disease Intervention Specialists (DIS) aggressively interview the patients for their contacts and then locate these individuals for examination and preventative treatment. Extensive risk reduction counseling to avoid future infection is also provided.

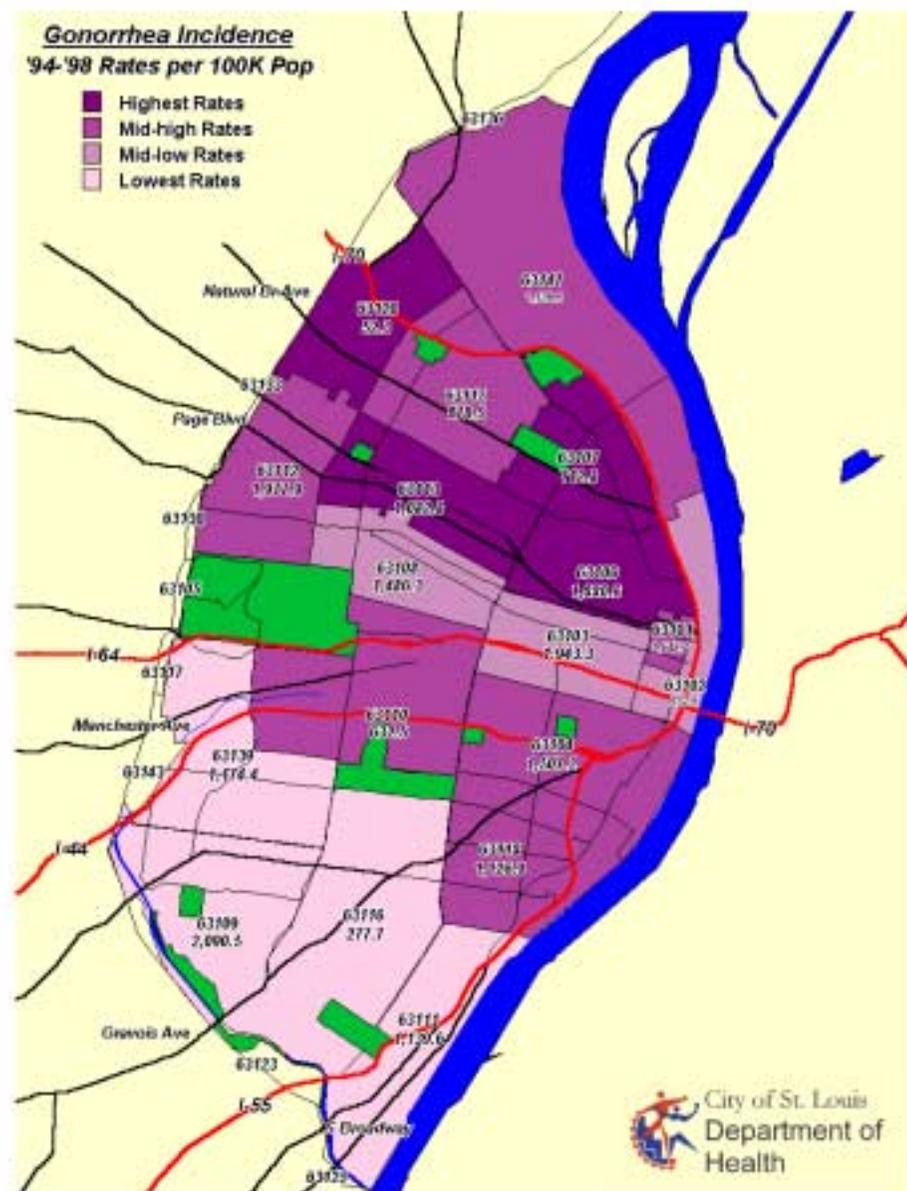
## Data Source

The City of Saint Louis Department of Health, Communicable Disease Section

# Gonorrhea

/ 100,000 94-98 average

Zip	94-98 avg
63106	2,090.5
63120	1,977.9
63107	1,943.3
*north	1,923.2
63113	1,880.6
*63101	1,545.7
63115	1,507.2
63112	1,486.3
63104	1,174.4
63147	1,139.6
63110	1,126.9
63118	1,082.8
*63103	878.5
63108	712.8
*63102	632.5
63111	337.0
63116	277.7
*south	167.3
63139	86.6
*central	61.5
63109	52.3
<b>St. Louis</b>	1,019.2
<b>Missouri</b>	185.0
<b>U.S.</b>	142.5



gonorrhea

# chlamydia

## Definition

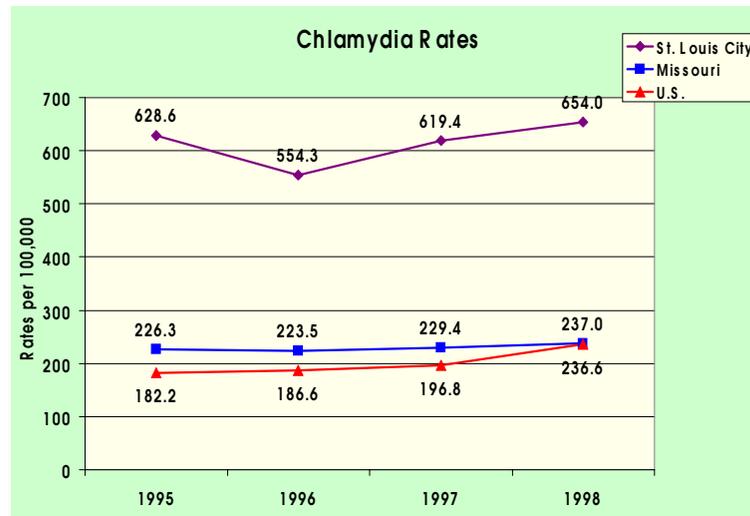
Chlamydia trachomatis is the chief agent of this sexually transmitted disease. Clinical manifestations of this genital infection are similar to gonorrhea; in males primarily as a urethritis and in females by mucopurulent cervicitis. In Saint Louis City most of the cases are female because mostly females are tested. The rates described here are cases per year per 100,000 population and are averaged over the 1995-1998 time period.

## Public Health Implications

Infections are frequently asymptomatic in both females and males; chlamydia infections have been found in 1-10% of sexually active men. In females, infection during pregnancy may result in conjunctival or pneumonic infections of the child. Since clinical manifestations are similar to gonorrhea, it is recommended that both organisms be treated if one is suspected.

## Saint Louis Rates and Comparative Info

Rates in Saint Louis City have fluctuated in the period from 1995-1998, ranging from a low of 554.3 per 100,000 in 1996 to 654.0 in 1998. Comparing the average rate from 1995-1998, Saint Louis City chlamydia infection rates are 2.7 times that seen in Missouri, and 3.1 times that seen in the U.S. The Zip codes with the rates of most concern are 63106 and 63120. In 1999, 3,000 cases of Chlamydia were reported in the City of St. Louis. The Zip codes with the most favorable rates are 63109 and 63139.



## Black/White Disparity

Specific rates by race for Saint Louis City are not presented in this report due to the percentage of cases that do not identify race. However, when looking at the averaged rates by Zip code, the rates of most concern were reported in Zip codes that are predominately African American.

## Focus Group Comments/Concerns

"Higher than average rates of STD's." "High level of STD's."

## Potential Public Health Interventions

As with other sexually transmitted diseases, health and sex education are important strategies for prevention and control. When used consistently and correctly, condoms are effective in preventing many STD's, including chlamydia. Due to the asymptomatic nature of the disease, increased screening is recommended. Screening for chlamydia should occur at the same time when screening for gonorrhea.

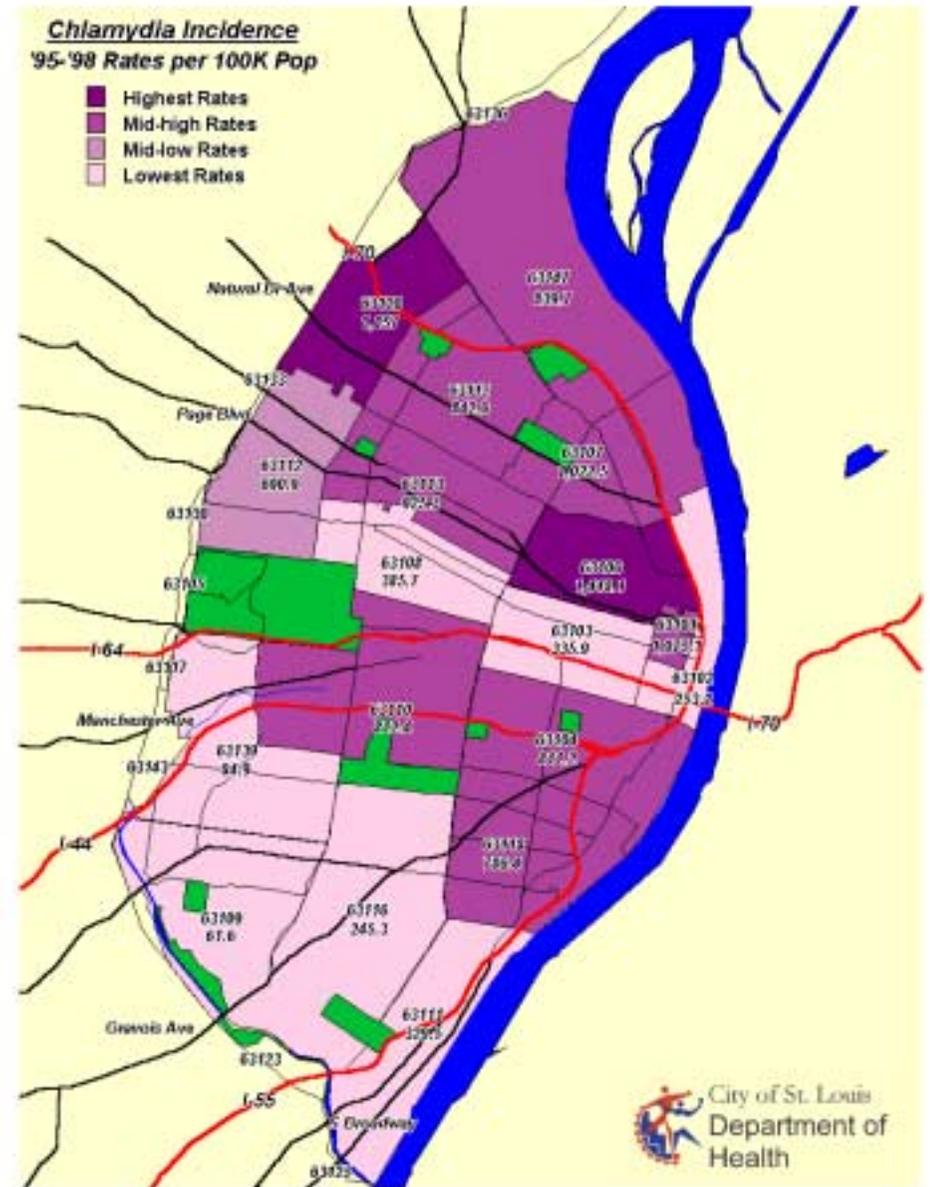
## Data Source

The City of Saint Louis Department of Health, Communicable Disease Section

# Chlamydia

/100,000 95-98 average

Zip	95-98 avg
63106	1418.1
*north	1171.2
63120	1157.0
*63101	1075.1
63107	1022.5
63113	925.3
63115	842.6
63147	839.7
63110	812.4
63104	811.2
63118	786.4
63112	690.9
63108	385.7
*63103	335.9
63111	329.5
*63102	253.2
63116	245.3
*south	129.9
63139	84.9
63109	61.6
*central	16.0
St. Louis	614.1
Missouri	229.1
U.S.	200.6



chlamydia

# tb cases

## Definition

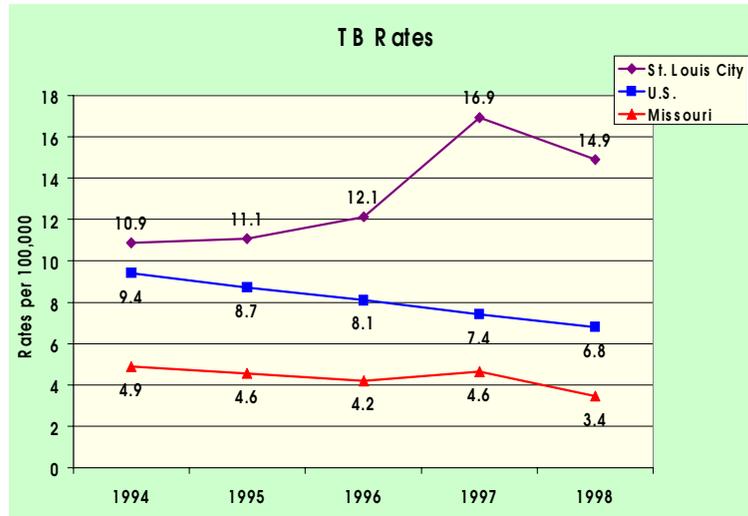
TB, or tuberculosis, is a disease caused by bacteria called *Mycobacterium tuberculosis*. The bacteria can attack any part of the body, but usually attacks the lungs. The rates are presented as the number of cases per year per 100,000 and are also averaged over the 1994-1998 time period.

## Public Health Implications

TB is spread through the airborne droplets from sputum of individuals with infectious TB disease. TB disease was once the leading cause of death in the United States. As a result of drug therapy developed in the 1940's, TB slowly began to disappear in the United States. However, after 1984, the number of TB cases reported in the United States began to increase. More than 25,000 cases were reported in 1993.

## Saint Louis Rates and Comparative Info

TB rates in Saint Louis City increased from 1994-1997; a slight decline was seen in 1998. During this time period, rates in the U.S. have steadily declined. During the 1994-1998 time period, the average rate of TB in Saint Louis City was 3.1 times that in Missouri, and 1.6 times greater than the U.S. In 1999 in Saint Louis City, there were 41 cases of TB. The Zip codes with the rates of most concern are 63108, 63106 and 63113. The Zip codes with the most favorable rates are 63139 and 63109.



## Black/White Disparity

The 1994-1998 average rate in the Saint Louis City African-American population is 3.8 times that in the Saint Louis City White population for the same time period.

## Focus Group Comments/Concerns

"Infectious diseases, TB, hepatitis A, B and C".

## Potential Public Health Interventions

A TB skin test is the most effective way to diagnose a TB infection. People who are infected with TB do not have any symptoms and cannot spread TB, but may develop TB disease at some time in the future. For individuals with weak immune systems, such as babies, young children, and people infected with HIV, the bacteria can become active and cause TB disease. Between 1997 and 2000, 9 cases of Multi-drug resistant TB have been reported in the City of Saint Louis. The CDC considers 9 cases to be a high number and thus resources are being committed to engage in partner and contact elicitation.

## Data Source

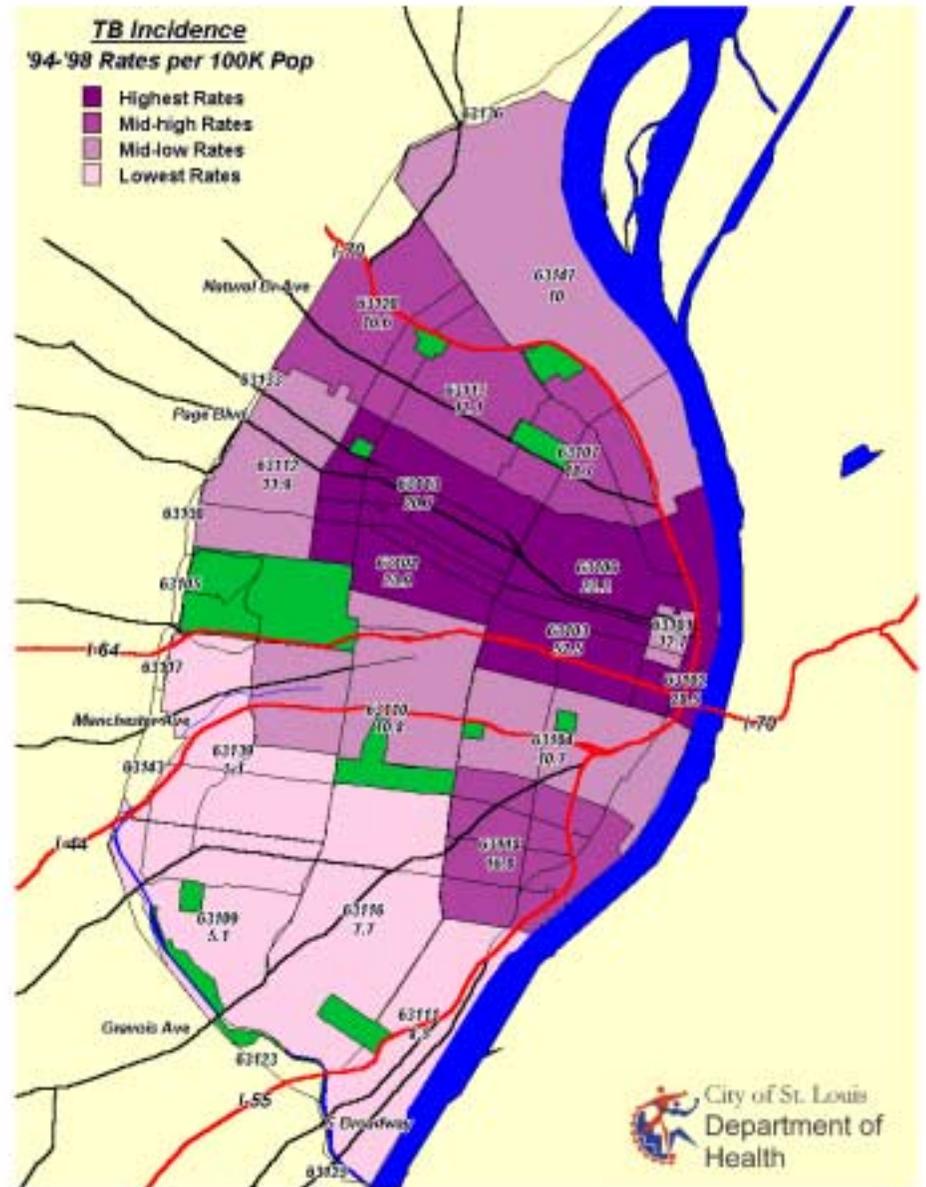
The City of Saint Louis Department of Health, Communicable Disease Section

# TB Cases

/ 100,000 94-98 average

Zip	94-98 avg
*63103	52.5
*63102	28.5
63108	23.9
63106	22.2
63113	20.7
63107	18.7
63115	17.1
63118	16.8
63120	16.6
*63101	12.7
63112	11.9
63110	10.8
63104	10.7
63147	10.0
63111	8.5
63116	7.7
*north	6.0
63109	5.1
63139	5.1
*central	0.0
*south	0.0

Zip	94-98 avg
St. Louis	13.2
Missouri	4.3
US	8.1
St. L White	5.2
St. L Black	19.8



t b c a s e s

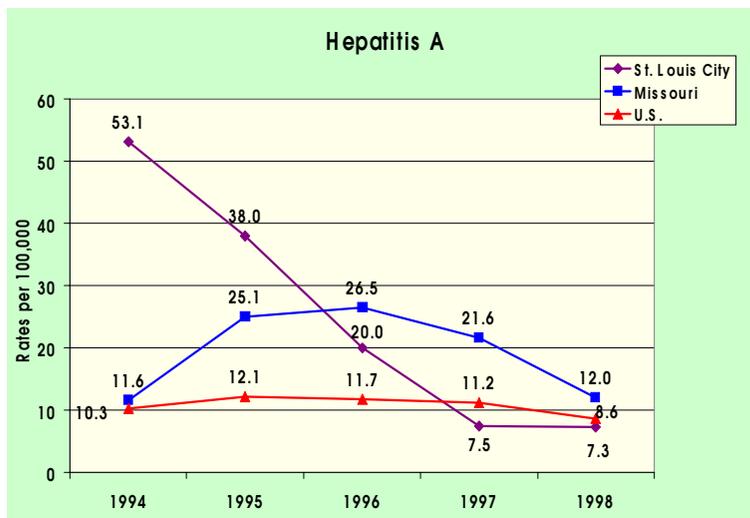
# hepatitis a

## Definition

Hepatitis A is a liver disease caused by hepatitis A virus (HAV), which appears to induce lifelong protection against subsequent infection. The severity of clinical disease associated with HAV infection increases with age. Close personal contact and contaminated food and water can serve as vehicles of HAV transmission. Transmission of HAV generally occurs as a result of ingestion by a susceptible person of virus shed in the feces of an infected person. This transmission is called "fecal-oral". Complications of hepatitis A include fulminant hepatitis in which the case fatality rate can be >50%, cholestatic hepatitis and relapsing hepatitis. The rates are presented as the number of cases per year per 100,000 population and are averaged over 1994-1998 time period.

## Public Health Implications

During the past several decades, the incidence of hepatitis A in the United States has been cyclic, with nationwide epidemics occurring every 10 to 15 years; the latest epidemic occurred in 1989. Between epidemics, hepatitis A continues to occur at relatively high levels. Children play an important role in the transmission of HAV in the United States; children who are infected before age 5 have unrecognized asymptomatic infection. There is an estimated 125,000 – 200,000 total infections per year in the U.S.



## Saint Louis Rates and Comparative Info

In Saint Louis City, rates of Hepatitis A decreased dramatically in the period from 1994 to 1998, from 53.1 per 100,000 in 1994 to 7.3 per 100,000 in 1998. When comparing average rates over the 1994-1998 time period, Saint Louis City experienced a rate of Hepatitis A 1.3 times that seen in Missouri, and 2.3 times that seen in the U.S. Zip codes with the rates of most concern are 63118 and 63104. The Zip codes with the most favorable rates are 63109 and 63147.

## Black/White Disparity

Specific rates by race for Saint Louis City are not presented in this report due to the percentage of cases that do not identify race.

## Focus Group Comments/Concerns

"Infectious diseases, TB, hepatitis A, B and C."

## Potential Public Health Interventions

Good personal hygiene and proper sanitation can help prevent hepatitis A. Vaccines are also available for long-term prevention of hepatitis A virus infection in persons 2 years of age and older. Immune globulin is available for short-term prevention in all ages.

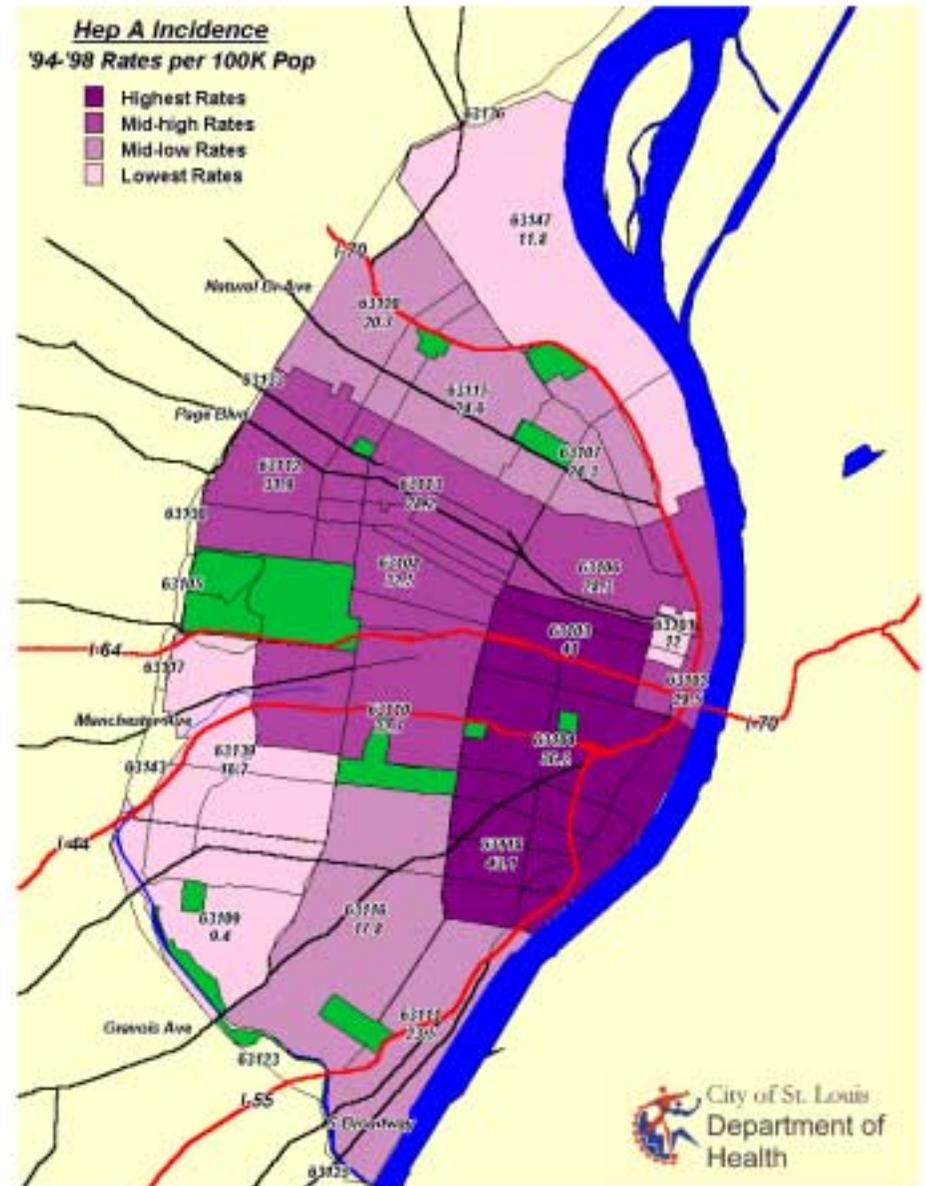
## Data Source

The City of Saint Louis Department of Health, Communicable Disease Section

# Hepatitis A

/ 100,000 94-98 average

Zip	94-98 avg
63118	43.1
*63103	41.0
63104	36.2
63110	32.7
63108	32.5
63112	31.9
*63102	29.5
63106	28.3
63113	28.2
63115	24.6
63107	24.3
63111	23.5
63120	20.7
*north	20.2
63116	17.8
63139	16.7
*south	14.5
*63101	12.0
63147	11.8
63109	9.4
*central	0.0
St. Louis	25.2
Missouri	19.3
U.S.	10.8



hepatitis a

# hepatitis b

## Definition

Hepatitis B is a serious disease caused by a virus that attacks the liver. The virus, which is called hepatitis B virus (HBV), can cause lifelong infection, cirrhosis (scarring) of the liver, liver cancer, liver failure and death. HBV is transmitted by percutaneous or permucosal exposure to infectious blood or body fluids from persons who have either acute or chronic HBV infection. Blood exposure and sex contact are relatively efficient modes of transmission. The rates are presented as the number of cases per year per 100,000 population and are averaged over the 1994-1998 time period as well.

## Public Health Implications

In the United States, hepatitis B is largely a disease of young adults; the rate of reported cases is highest for persons 20-39 years of age. High risk groups include: injection drug users, sexually active heterosexuals, men who have sex with men, health care workers and hemodialysis patients. There are approximately 140,000 – 320,000 infections per year in the U.S.

## Saint Louis Rates and Comparative Info

During the 1994-1998 time period, the rates for Hepatitis B in Saint Louis City were lowest in 1996 and 1997. Rates in Missouri and the U.S. during this same time period steadily decreased. Averaged rates in the 5 year period 1994-1998, indicated that rate in Saint Louis City was 7.1 times that in Missouri, and 12.5 times that seen in the U.S. The Zip codes of most concern are 63118, 63104 and 63106. The Zip code with the most favorable rate is 63109.

## Black/White Disparity

Specific rates by race for Saint Louis City are not presented in this report due to the percentage of cases that do not identify race.

## Focus Group Comments/Concerns

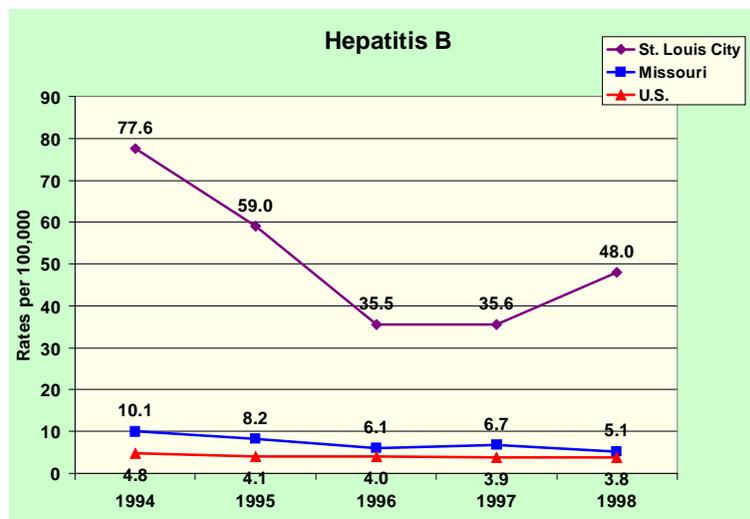
“Infectious diseases, TB, hepatitis A, B and C.”

## Potential Public Health Interventions

The current hepatitis B vaccination strategy in the United States has an overall goal of eliminating HBV transmission. Because most of the serious consequences related to HBV occur among persons with chronic HBV infection, the primary objectives of this strategy are to prevent chronic HBV infection and its consequences, cirrhosis and liver cancer.

## Data Source

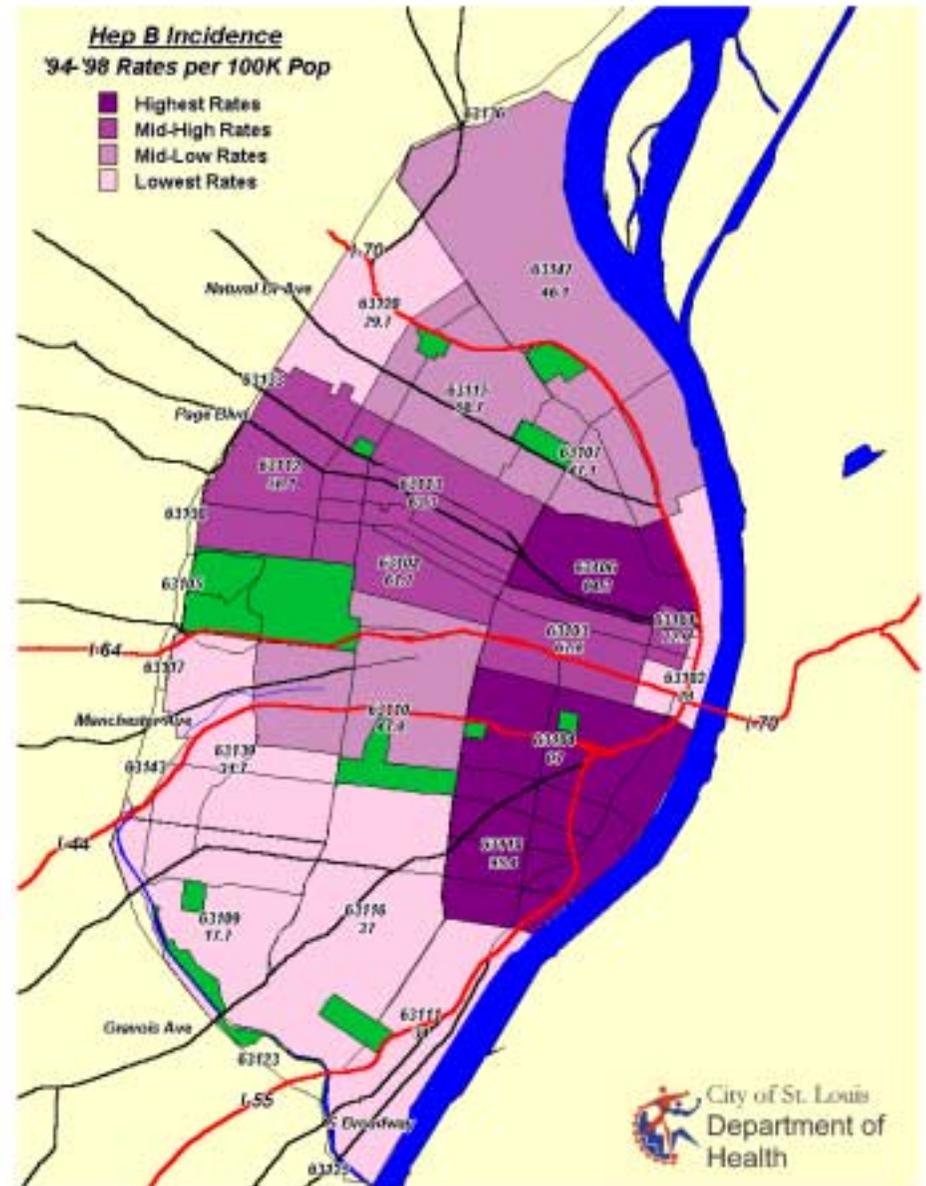
The City of Saint Louis Department of Health, Communicable Disease Section



# Hepatitis B

/ 100,000 94-98 average

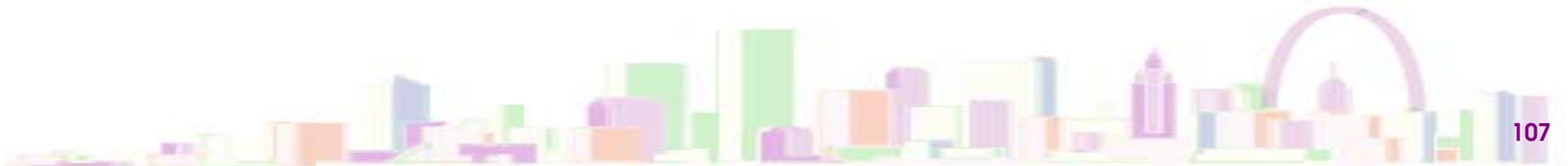
Zip	94-98 avg
63118	95.4
63104	87.0
63106	84.3
*63101	72.9
*63103	67.8
63113	63.3
63108	61.7
63112	58.1
63115	50.7
63110	47.8
63107	47.1
63147	46.1
*north	44.6
63116	37.0
63111	34.0
63139	31.7
63120	29.7
*63102	28.0
*south	24.3
63109	17.7
*central	0.0
St. Louis	51.2
Missouri	7.2
U.S.	4.1



hepatitis b



# ENVIRONMENTAL



# lead poisoning

## Definition

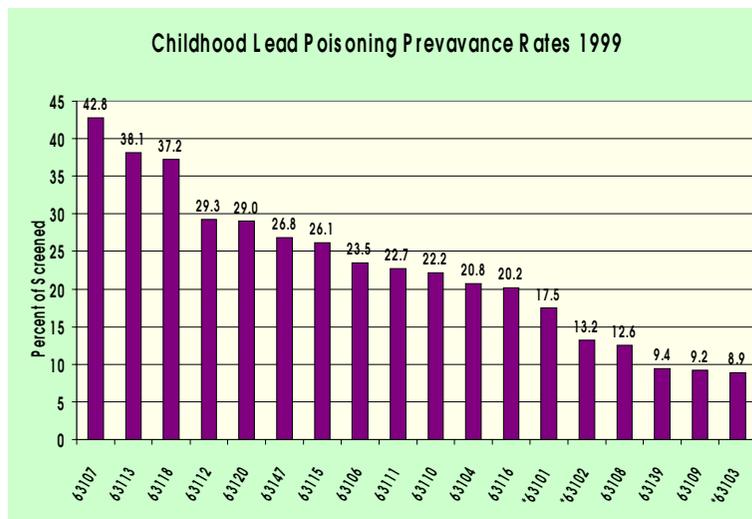
Lead poisoning results from the ingestion of lead. It primarily affects children between the ages of 6 months and 6 years. The major source of lead is from chipping lead-based paint in housing. Lead poisoning, in this document, is defined as those children less than six years of age that have a blood lead level of 10 µg/dl (micrograms per deciliter) or higher. The rates presented are the percent of lead poisoned children that have been screened and are referred to as “screened prevalence rates” (SPR). The rates do not represent all children under six years of age.

## Public Health Implications

Childhood lead poisoning is considered to be entirely preventable but remains a major environmental health problem in the United States. Lead poisoning can adversely affect intelligence, behavior and development. Minority and poor children are disproportionately affected.

## Saint Louis Rates and Comparative Info

Missouri and United States comparative data are not available for this report. In 1999, there were close to 3,500 children under the age of 6 reported as having elevated blood lead levels.



## Black/White Disparity

In Saint Louis City in 1999 the screened prevalence rate for African-American children was 28.8 whereas the rate in White children was 16.5. The two Zip codes with the highest screened prevalence rates are in the predominately African-American areas of the city. They are Zip codes 63107 and 63113. However 63118, which is predominately White is also a Zip code with rates of concern.

## Focus Group Comments/Concerns

“There is a general lack of appreciation for or understanding of the problem of childhood lead poisoning and its impact on families (particularly among African-American families).” “Most of these old houses are located in Zip code areas that show the highest rates of childhood lead poisoning.” “In the accounts of the various participants, there are generations of lead-poisoned children in many families.”

## Potential Public Health Interventions

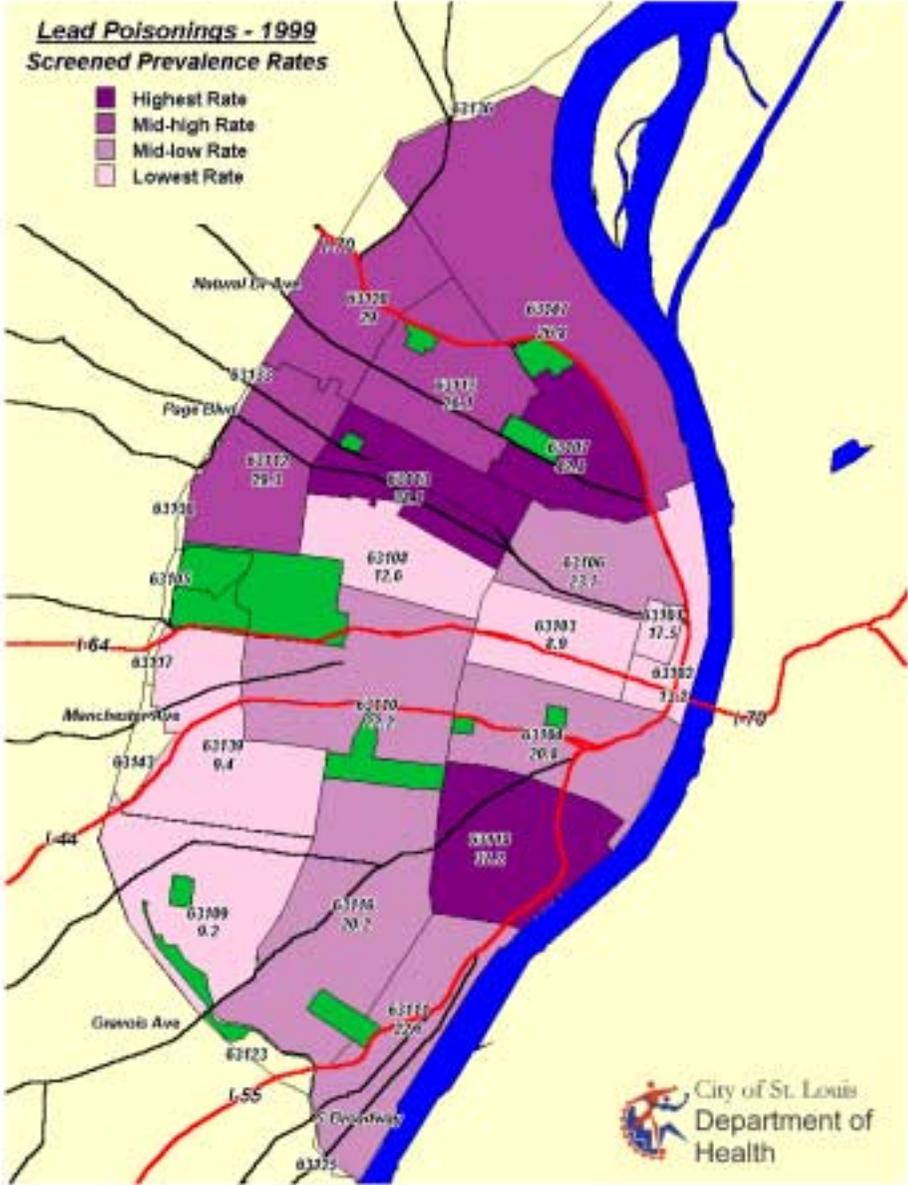
Screening programs, education programs, epidemiological assessments to determine high risk areas, prevention programs, remediation efforts and policy development

## Data Source

City of Saint Louis Department of Health, Childhood Lead Poisoning Program

# Childhood Lead Poisoning Screened Prevalence Rates - 1999

Zip	Rate
63107	42.8
63113	38.1
63118	37.2
63112	29.3
63120	29.0
63147	26.8
63115	26.1
63106	23.5
63111	22.7
63110	22.2
63104	20.8
63116	20.2
*63101	17.5
*63102	13.2
63108	12.6
63139	9.4
63109	9.2
*63103	8.9
*central	N/A
*north	N/A
*south	N/A
Saint Louis	26.1



lead poisoning

# asthma

## Definition

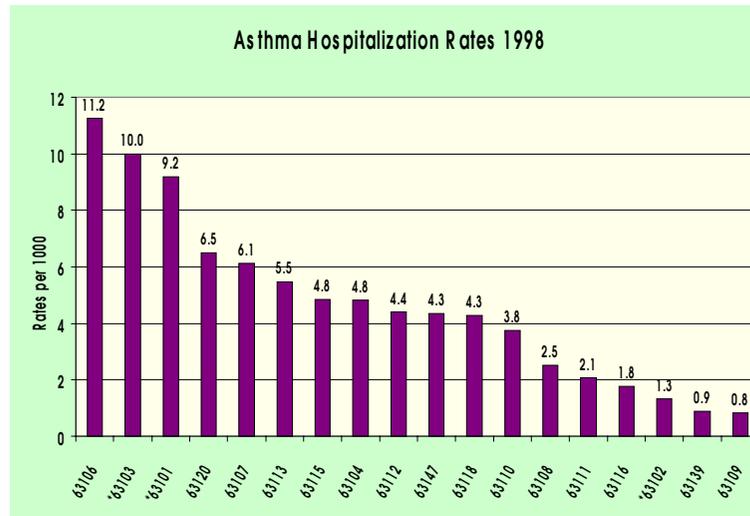
Asthma is a long-term, often progressive disease in which the airways in the lungs become temporarily blocked through inflammation causing episodes of breathing difficulty. Asthma triggers include dust, tobacco smoke, cockroaches and some chemicals. A long-term multifaceted approach is required to prevent and manage asthma. Asthma currently cannot be cured, only controlled. The rates are presented as the number of asthma hospitalizations in 1998 per 100,000 population.

## Public Health Implications

Asthma is one of the most common and costly diseases in the United States. More than 5% of the population has asthma and the numbers are growing. The number of asthma sufferers has more than doubled from 6.7 million in 1980 to 17.3 million in 1998. An estimated 4.8 million are children. Asthma is disproportionately affecting poor, inner-city dwellers. Collectively, people with asthma experience well over a million days of restricted activity each year.

## Saint Louis Rates and Comparative Info

Comparable national and State rates are not available for this report. The Zip code with the rate of most concern is 63106. The Zip codes with the most favorable rates are 63109 and 63139.



## Black/White Disparity

Race information is not provided, however the Zip codes with the rates of most concern are predominately African American and the Zip codes with the most favorable rates are predominately White.

## Focus Group Comments/Concerns

“Asthma.” “Asthma.” “Asthma – dust, pets, old buildings.”

## Potential Public Health Interventions

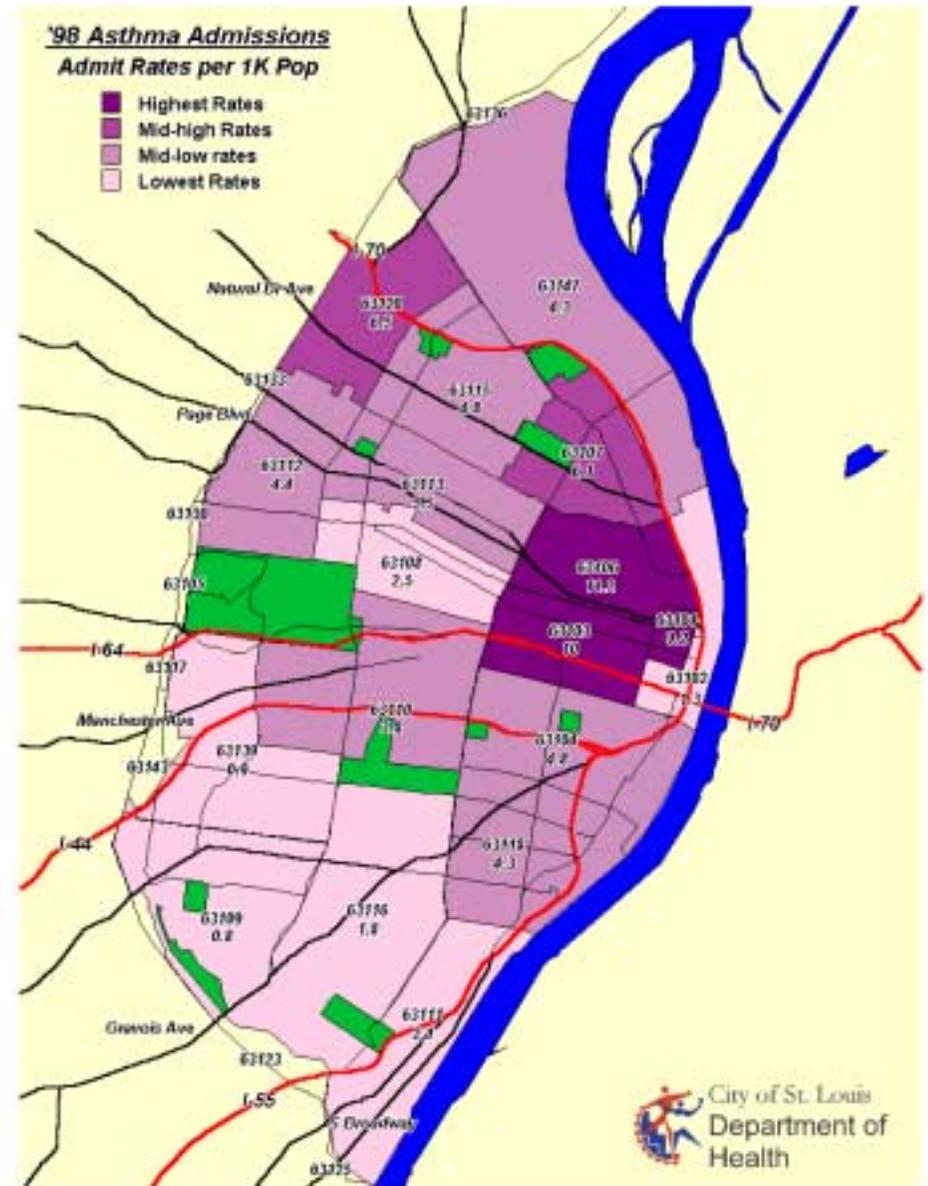
Public health programming includes assisting in access to primary care, health education and environmental sanitation interventions

## Data Source

Missouri Hospital Association, Hospital Industry Data Institute; Hospital Discharge Data

## Asthma Hospital Admission Rates / 1000 Population - 1998

Zip	Rate
63106	11.2
*63103	10.0
*63101	9.2
63120	6.5
63107	6.1
63113	5.5
63115	4.8
63104	4.8
63112	4.4
63147	4.3
63118	4.3
63110	3.8
63108	2.5
63111	2.1
63116	1.8
*63102	1.3
63139	0.9
63109	0.8



asthma

# foodborne illness

## Definition

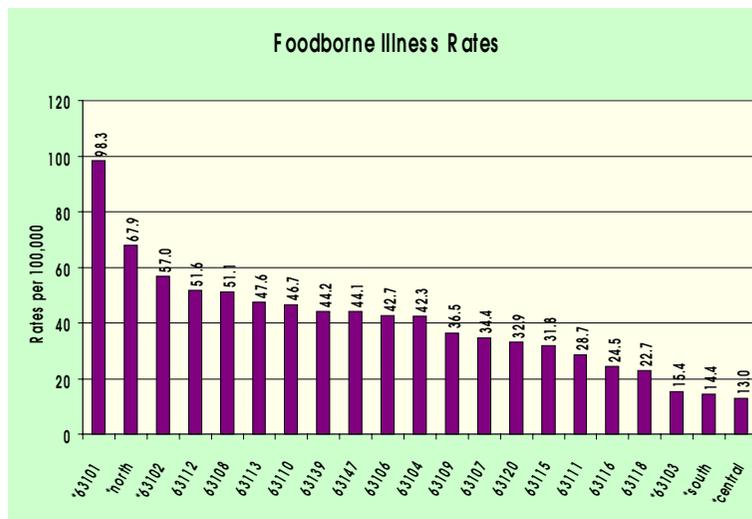
More than 250 different diseases have been described that can be caused by contaminated food or drink. A foodborne disease outbreak is defined as a group of people developing the same illnesses after ingesting the same food. Four of the most common foodborne diseases caused by bacteria: Shigella, Salmonella, Campylobacter, and Escherichia coli are used for this analysis. The rates presented are per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

The great majority of food items which cause foodborne diseases are raw or undercooked foods of animal origin such as meat, milk, eggs, cheese, fish, or shellfish. While, the causes and effects of foodborne diseases are better understood today, emerging risks need to be monitored for several reasons. The food supply of the United States has changed dramatically, consumer habits are changing, and new and emerging foodborne pathogens are being identified, which can cause diseases unrecognized 50 years ago. Constant vigilance is necessary to identify new problems requiring new solutions as they emerge.

## Saint Louis Rates and Comparative Info

Rates of reported foodborne illness in Saint Louis City decreased over the time period from 1994-1997, but rose in 1998. Compared to the average rate in Missouri from 1994-1998, Saint Louis City reported a foodborne illnesses rate of only 1.1 times greater. The Zip codes with the rates of most concern are 63112, 63108 and 63113. The Zip code with the most favorable rate is 63118.



## Black/White Disparity

The data were not generated by race. Reporting foodborne illness by zip code is not entirely very meaningful since it is not known where the person may have been exposed.

## Focus Group Comments/Concerns

“Environmental and sanitation issues.”

## Potential Public Health Interventions

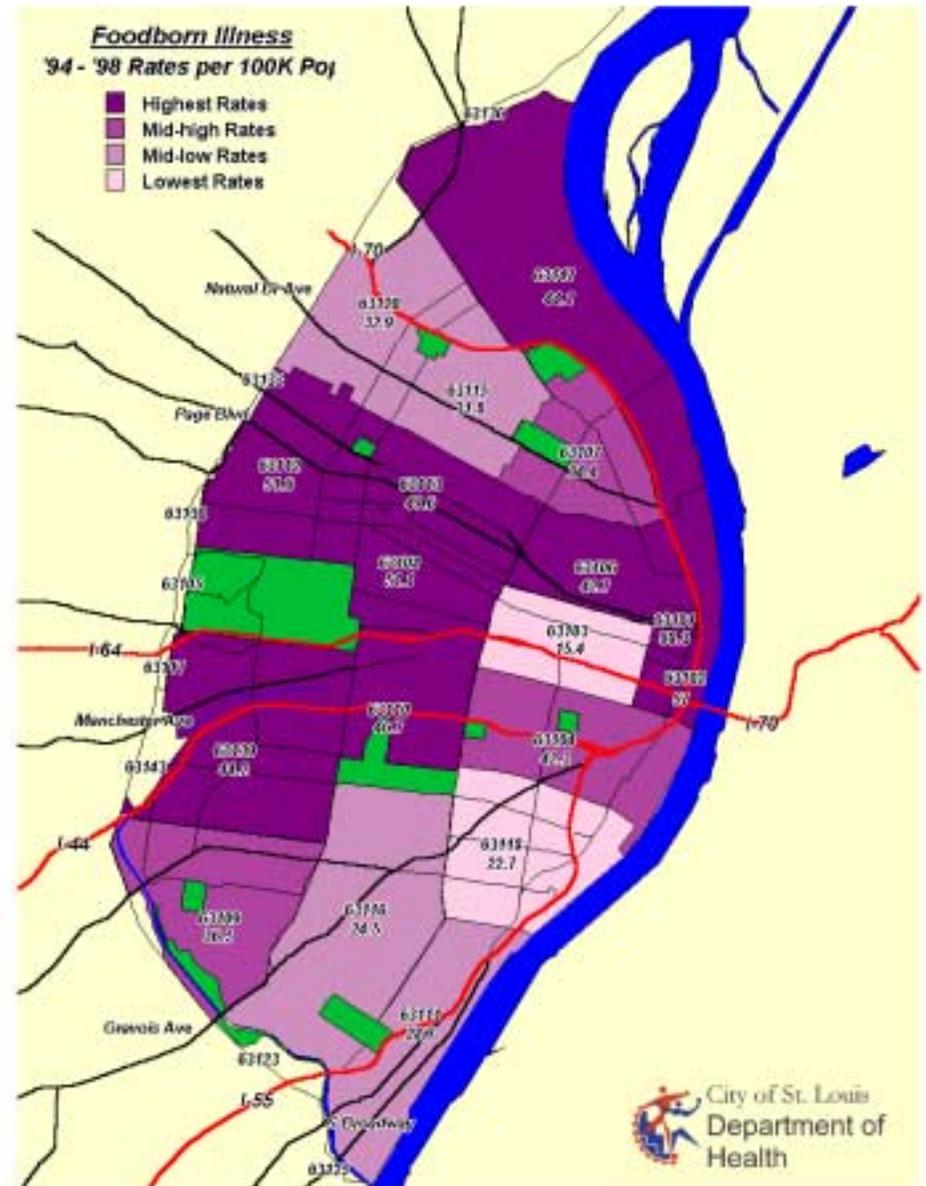
Thorough cooking kills almost all foodborne bacteria, viruses and parasites, and is the single most important step in preventing foodborne disease. Preventing spread of contamination from raw foods in the kitchen is also important. Washing one's hands, cutting board, and knife with soap and water immediately after handling raw meat, raw poultry, raw seafood or raw eggs will help keep the food handler from contaminating any other foods in the kitchen. Persons who are ill with diarrhea or vomiting should not prepare food for others. Special care is needed in the preparation of food for infants, the elderly, and persons whose immune systems are compromised by underlying illness or medical treatment of illness.

## Data Source

The City of Saint Louis Department of Health, Communicable Disease Section

## Food Borne Illness / 100,000 94-98 average

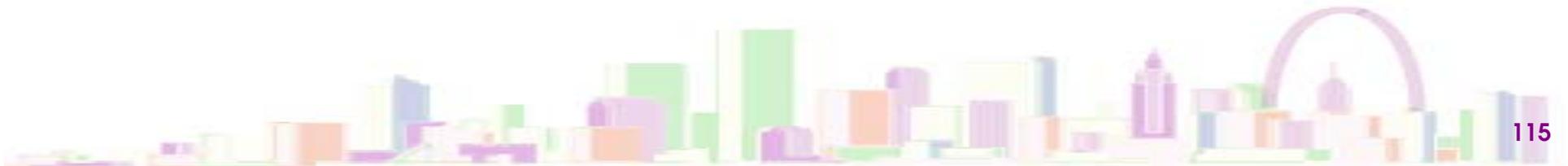
Zip	94-98 avg
*63101	98.3
*north	67.9
*63102	57.0
63112	51.6
63108	51.1
63113	47.6
63110	46.7
63139	44.2
63147	44.1
63106	42.7
63104	42.3
63109	36.5
63107	34.4
63120	32.9
63115	31.8
63111	28.7
63116	24.5
63118	22.7
*63103	15.4
*south	14.4
*central	13.0
Saint Louis	37.3
Missouri	32.9
U.S.	47.7



foodborne illness



# INJURY



# motor vehicle accident mortality

## Definition

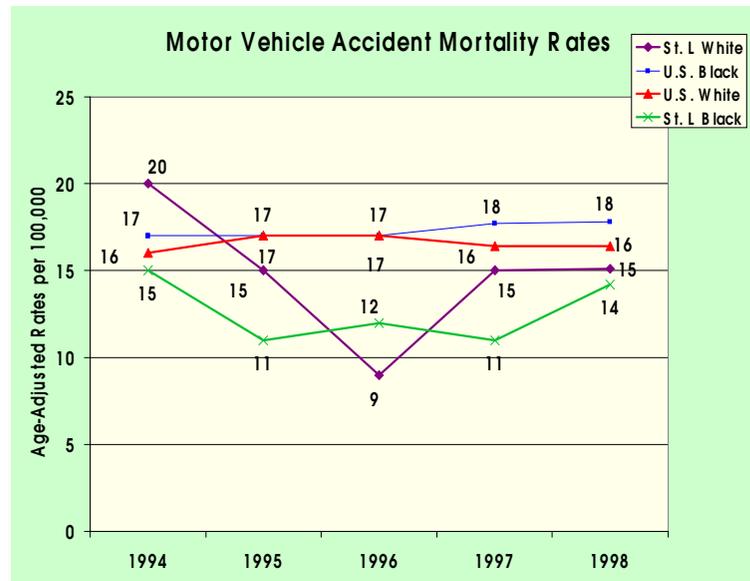
Deaths from motor vehicle accidents are described as a transport accident involving a motor vehicle, and includes both motor vehicle traffic and non-traffic accidents. The death is recorded in the Zip code of the accident victim's residence, not where the accident occurred. Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

In the U.S., traffic injuries are the leading cause of injury deaths and the leading cause of all deaths for people ages 6 to 27. According to the National Highway Traffic Safety Administration (NHTSA), the percentage of traffic fatalities that were alcohol-related in 1996 was approximately 41%. In the U.S., traffic injuries are also the leading cause of on-the-job fatalities.

## Saint Louis Rates and Comparative Info

In St. Louis City, the average rate for the time period 1994 through 1998 for traffic accident deaths is 0.8 times that seen in U.S., and 0.6 times the averaged rate in Missouri in the same time period. In 1998, there were 53 City of Saint Louis residents that died from motor-vehicle accidents. The three Zip codes with rates of most concern are 63111, 63147, and 63118. The Zip codes with the most favorable rates are 63113 and 63120.



## Black/White Disparity

The Saint Louis City average rate for the White population for the years 1994 through 1998 is 1.2 times higher than the Saint Louis City averaged African-American rate in the same time period.

## Focus Group Comments/Concerns

"Lack of respect for authority – traffic lights."  
"Commuting – road rage."

## Potential Public Health Interventions

The quickest, easiest, and most effective way to prevent traffic injuries and fatalities is to make certain that every vehicle occupant is properly buckled up on every trip. Research has found that lap/shoulder belts, when used properly, reduce the risk of fatal injury to front seat passenger car occupants by 45 percent and the risk of moderate-to-critical injury by 50 percent. For light truck occupants, seat belts reduce the risk of fatal injury by 60 percent and moderate-to-critical injury by 65 percent.

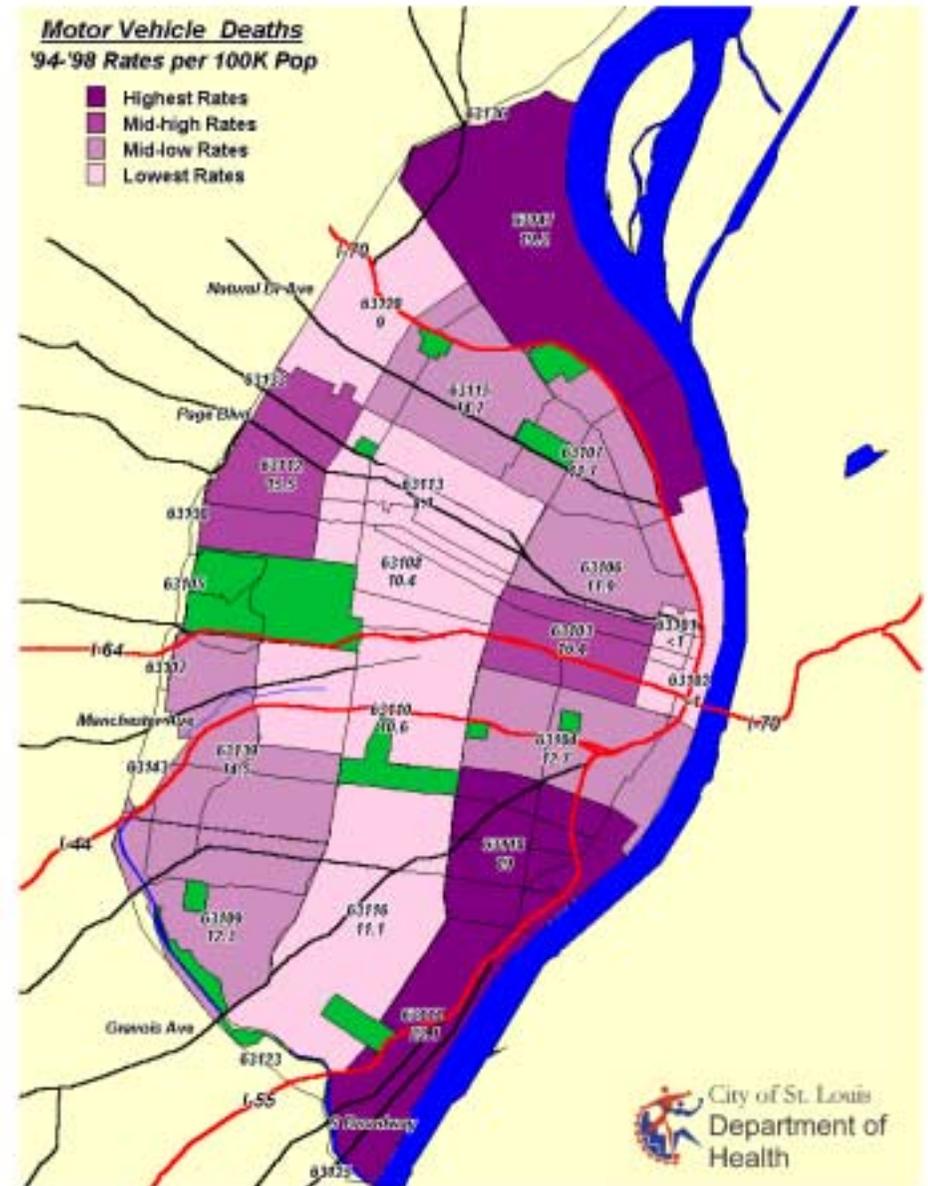
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Motor Vehicle Accident Mortality Rates / 100,000 94-98 average

Zip	Age-adj rate
63111	22.1
63147	19.2
63118	19.0
*north	16.9
*63103	16.4
63112	15.5
63115	14.7
63139	14.5
63104	12.7
63109	12.3
63106	11.9
63107	11.7
63116	11.1
63110	10.6
63108	10.4
*central	9.7
63120	9.0
63113	8.1
*south	3.5
*63101	0.0
*63102	0.0

Zip	Age-adj rate
Saint Louis	13.6
Missouri	21.6
U.S.	16.6
St. L White	14.8
St. L Black	12.5
Mo White	22.2
Mo Black	17.0
U.S. White	16.4
U.S. Black	17.3



motor vehicle accident mortality

# non-motor vehicle accident mortality

## Definition

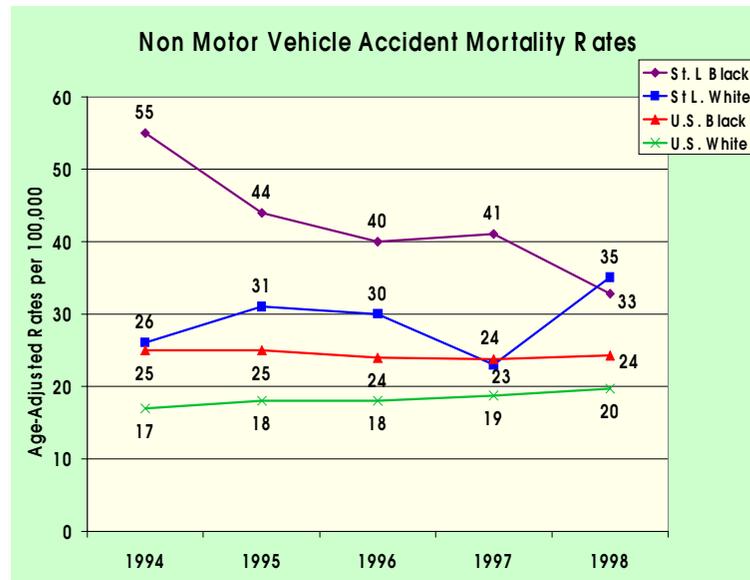
Deaths from “non-motor vehicle accidents” and adverse events include railway accidents, water and air transport accidents, poisonings, falls, and fires. Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

In the U.S., the leading causes of death from unintentional injuries are motor vehicle crashes, fires, burns, falls, drownings, and poisonings. Unintentional injuries are the leading cause of death in the United States for people aged 1-44. After motor vehicle crashes, drowning is the second leading cause of death due to unintentional injuries among children and young adults, aged 1-24. Among people over age 65, falls account for about 7,400 deaths a year. Alcohol is involved in many injuries, including about 40% of deaths in residential fires.

## Saint Louis Rates and Comparative Info

In St. Louis City, the rate of accidental death not due to motor vehicle accidents for the 1994-1998 time period, is 1.7 times that seen in the U.S., and 1.6 times the rate in Missouri. In 1998 there were 133 deaths to Saint Louis City residents due to non motor-vehicle accidents. The Zip code of most concern is 63106. The Zip code with the most favorable rate is 63109.



## Black/White Disparity

In Saint Louis City, the average rate for the 1994 through 1998 time period for accidental death not due to motor vehicle accidents is 1.4 times higher in the African-American community than in the White community. When comparing these rates to those seen in the U.S., Saint Louis City African Americans have a 1.7-fold increase over U.S. African Americans averaged for the same time period; Whites have a 1.6-fold increase over U.S. Whites.

## Focus Group Comments/Concerns

“Safety in the community.”

## Potential Public Health Interventions

The Division of Unintentional Injury Prevention (at CDC) monitors trends in unintentional injuries in the U.S., and conducts research to better understand risk factors, and evaluates interventions to prevent these injuries. Current activities include studies on: risk factors for drowning among minorities; risk factors associated with fatal and nonfatal residential fires, including faulty heating systems, smoking, the absence of functioning smoke detectors, and the use of alcohol by occupants; studies on the risk factors for falls, such as alcohol use, medication, and bone density; the evaluation of programs to increase the use of bicycle helmets.

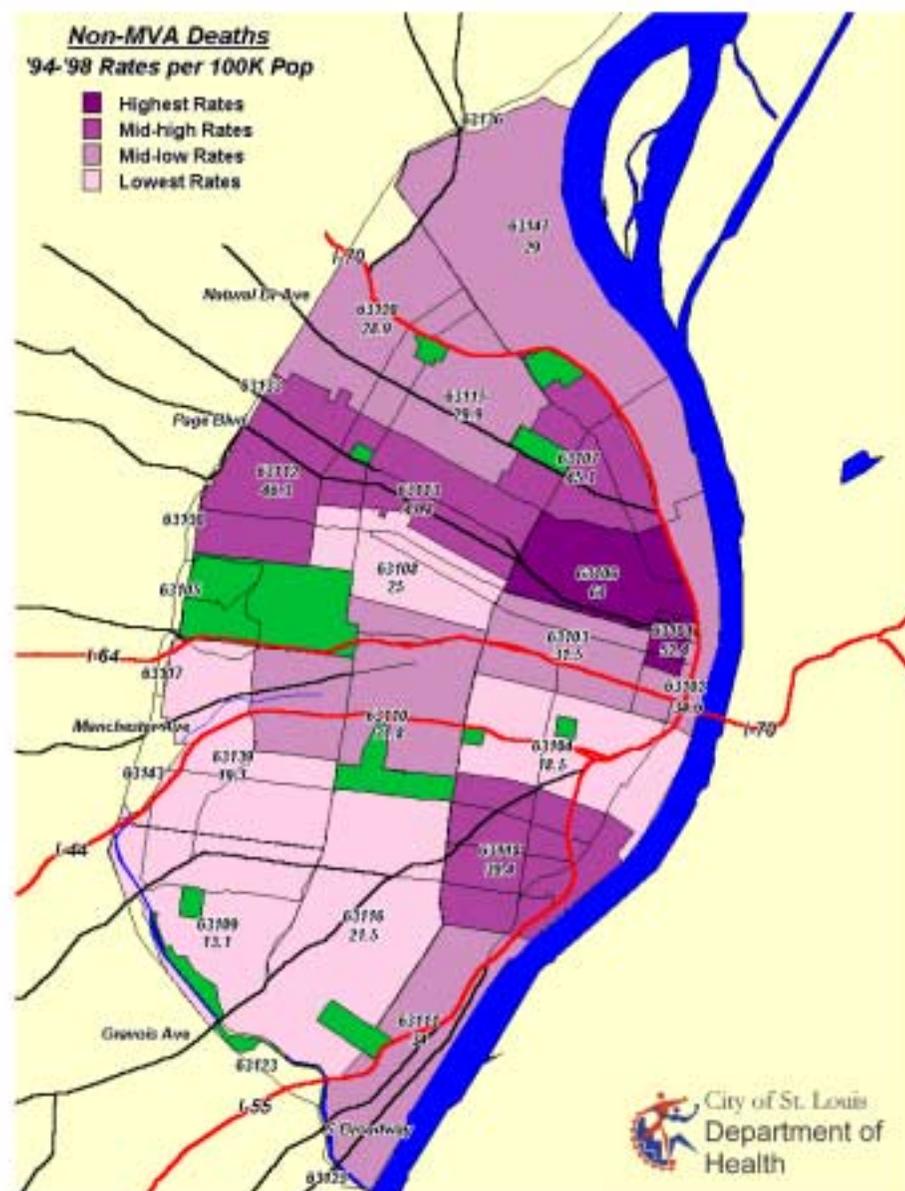
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Non-Motor Vehicle Accident Mortality Rates / 100,000 94-98 average

Zip	Age-adj rate
63106	61.0
*63101	52.4
63113	47.8
63112	46.3
63107	45.1
63118	39.4
*63102	34.6
63111	34.0
63110	31.8
*63103	31.5
*south	29.9
63115	29.9
63147	29.0
63120	28.9
63108	25.0
63116	21.5
63139	19.1
63104	18.5
*north	15.8
63109	13.1
*central	0.0

Zip	Age-adj rate
Saint Louis	32.1
Missouri	19.5
U.S.	18.8
St. L White	29.0
St. L Black	41.0
Mo White	18.6
Mo Black	28.7
U.S. White	18.4
U.S. Black	24.3



non-motor vehicle accident mortality

# overall accident mortality

## Definition

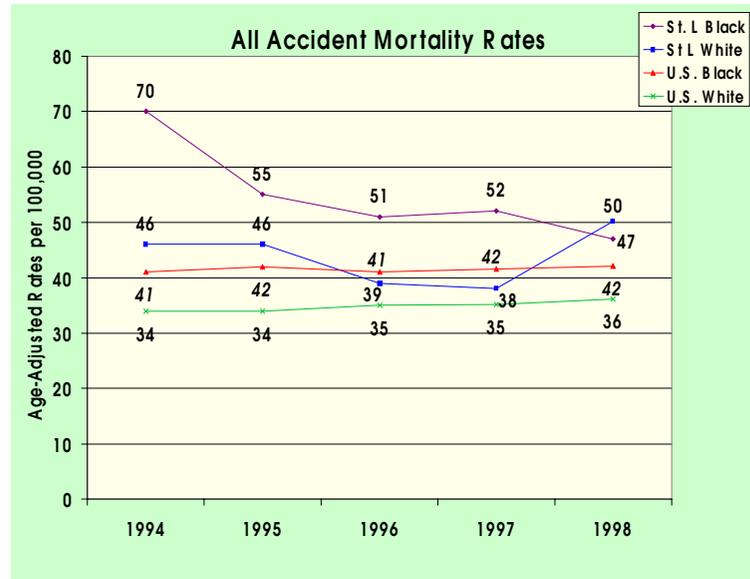
Deaths from accidents and adverse events includes non-motor vehicle and motor vehicle accidents. Non-motor vehicle accidents include falls, fires, poisonings, railway and water and air transport accidents. Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

The vast majority of all fatal and non-fatal injuries in America, including traffic injuries, are predictable and preventable. Injuries are a major health care problem and are the leading cause of death for people age 1 to 42. Fatalities, however, are only a small part of the total injury picture. For each injury-related death, there are 19 hospitalizations for injury and another 300 injuries that require medical attention. Injury patterns vary by age group, gender, and cultural group.

## Saint Louis Rates and Comparative Info

In the entire U.S. population, deaths due to accidents ranks fifth; in the 1-4, 5-14, and 15-24 year age groups, accidents ranked first as the cause of death. The averaged overall death rate due to accidents is 1.3 times higher in Saint Louis City than in the U.S. The averaged Saint Louis City rate is only slightly higher than the Missouri rate. In 1998 there were 186 deaths to Saint Louis residents due to all accidents. The Zip codes with the rates of most concern are 63106 and 63147. The Zip codes with the most favorable rates are 63109 and 63104.



## Black/White Disparity

In Saint Louis City, the averaged 1994-1998 African-American rate is 1.2 times higher than the rate in the White community in the same time period. When comparing Saint Louis City African Americans to U.S. African Americans, the averaged rate is 1.3 times higher in Saint Louis; for the Saint Louis City White population, the averaged rate is also 1.3 times higher than in the U.S.

## Focus Group Comments/Concerns

“Safety in the community.”

## Potential Public Health Interventions

The most common causes of injuries seen in emergency departments are from traffic crashes, falls, and violence. Studies of conventional trauma care show that as many as 35% of trauma patient deaths could have been prevented if optimal urgent care had been available. Epidemiological studies and health education are potential public health activities.

## Data Source

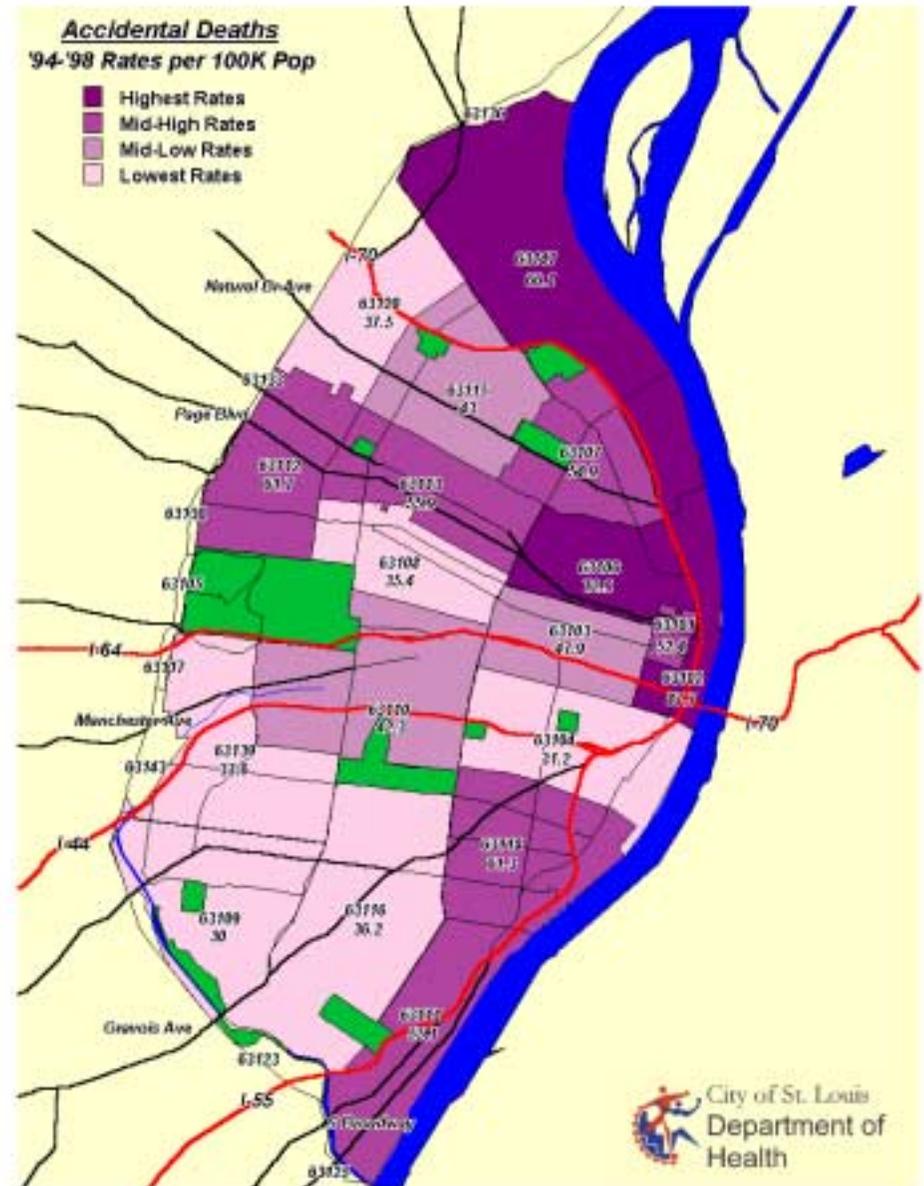
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

# Overall Accident Mortality Rates

/ 100,000 94-98 average

Zip	Age-adj rate
*63102	87.7
63106	72.9
63147	66.1
63112	61.7
63118	61.3
63113	55.9
63111	55.1
63107	54.9
*63101	52.4
*63103	47.9
63115	43.0
63110	42.3
63120	37.5
63116	36.2
63108	35.4
63139	33.6
*south	33.5
*north	32.3
63104	31.2
63109	30.0
*central	19.5

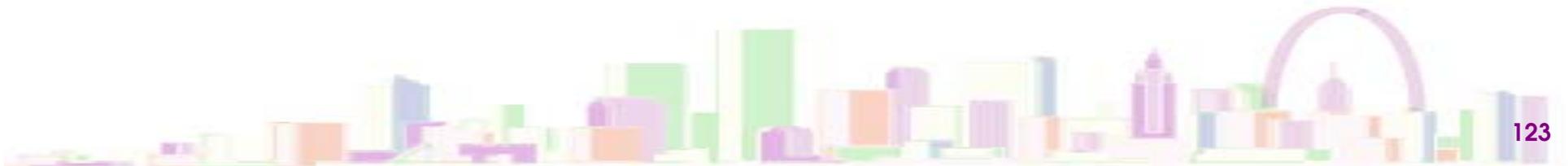
Zip	Age-adj rate
Saint Louis	46.1
Missouri	41.1
U.S.	35.8
St. L White	43.8
St. L Black	53.5
Mo White	40.8
Mo Black	45.6
U.S. White	34.8
U.S. Black	41.6



overall accident mortality



# BEHAVIOR



# homicide

## Definition

Deaths from homicides and legal intervention include injuries inflicted by another person with the intent to injure or kill, by any means, and injuries inflicted by police or other law-enforcing agents in the course of legal action. Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

More than 70% of homicides are committed with a firearm. Homicide is the second leading cause of death for persons 15 to 24 years of age and is the leading cause of death for African-American and Hispanic youth in this age group. It is also the second most frequent cause of work-related death; it accounts for 41% of all occupational deaths among women in the workplace compared to 10% in men in the 1980's.

## Saint Louis Rates and Comparative Info

The homicide rate in the U.S. increased sharply between 1985 and 1991, and then began to decline in 1992. In 1995, homicide ranked as the 11th leading cause of death in the U.S. overall and the 6th leading cause among persons 25-44 years of age. In Saint Louis City, the 1994-1998 average age-adjusted homicide rate is 5.7 times that seen in the U.S., and 4.9 times that in Missouri. In 1998 there were 100 deaths due to homicide and legal intervention to residents in the City of Saint Louis. This is down from 238 in 1993. The Zip codes with the rates of most concern are 63107, 63106, and 63113. The Zip codes with the most favorable rates are 63109 and 63139.



## Black/White Disparity

In Saint Louis City, African Americans have a 7 times higher averaged death rate due to homicide than that seen in the White population in the 1994-1998 time period. The averaged age-adjusted homicide rate among Saint Louis City African Americans is 2.8 times higher than that seen in the U.S. African-American population; for the Saint Louis City White population, the averaged homicide rate is 2.4 times that seen in U.S. Whites in the 1994 through 1998 time period. The homicide rate in the Saint Louis City African-American population decreased significantly between 1994 and 1998 from 122 to 53 per 100,000.

## Focus Group Comments/Concerns

"Violence, especially among African-American teenagers." "Violence and fear of violence."

## Potential Public Health Interventions

Violence is a multifaceted and complex problem of enormous social consequence. Public health activities should include evaluation of specific interventions that may reduce injuries and deaths related to interpersonal violence, particularly among adolescents and young adults.

## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data



# suicide

## Definition

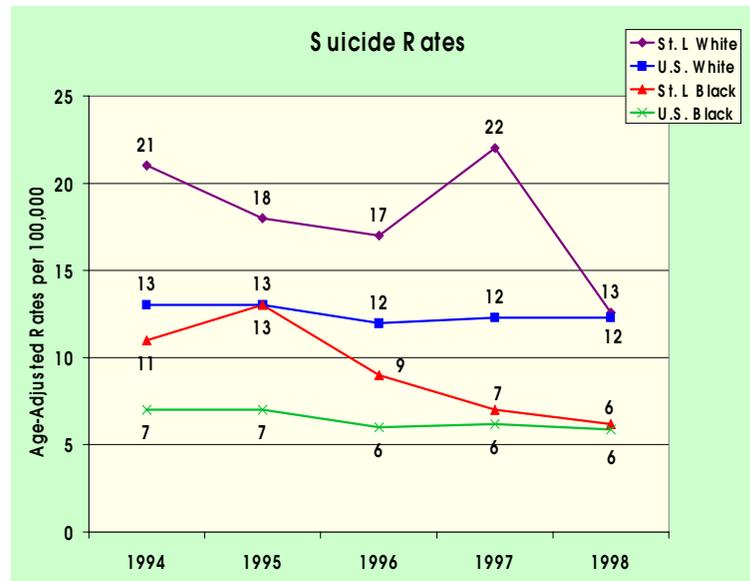
Suicide and attempted suicide are described as self-inflicted injuries specified as intentional. The determination of suicide on a death certificate requires that the death be established as both self-inflicted and intentional. Because suicide is particularly subject to inaccurate determination, the incidence of suicide may be underestimated by anywhere from 10%-50%. Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

Persons suffering from mental disorders, particularly affective illnesses, are at markedly increased risk of committing suicide. Other predictors of suicide include: substance abuse, stressful life events, loss or disruption of normal social support networks, absent or inadequate social support networks, and ready accessibility of firearms - firearms are the most frequently used method of suicide.

## Saint Louis Rates and Comparative Info

In 1994 and 1995 suicide was the ninth leading cause of death in the U.S. Suicide rates tend to be higher for men than women, higher for elderly than for younger persons, and higher among American Indian or Alaska Native and White persons than other race groups. In Saint Louis City, the average suicide rate is 1.1 times that in the U.S., and similar to rates seen in Missouri. In 1998 there were 34 suicides by City residents. The Zip codes with the rates of most concern are 63118, 63111 and 63108. The most favorable rates are in 63120 and 63113.



## Black/White Disparity

In Saint Louis City, the average rate for the 1994-1998 time period for the White population is twice the rate of suicide seen in the African-American population. When compared to U.S. rates, the averaged rate in Saint Louis City African Americans is 1.4 times that in U.S. African Americans; and the averaged rate in the Saint Louis City White population is 1.4 times higher than the U.S. White average rate in the 1994 through 1998 time period.

## Focus Group Comments/Concerns

“Low self-esteem.” “Mental health – few providers willing to see Medicaid patients.” “Mentally ill people – don’t know about services or are afraid to take advantage of the services.”

## Potential Public Health Interventions

Identifying and treating persons with mental disorders remains an important mainstay of suicide prevention. Screening programs conducted in schools to identify high-risk youths are useful in identifying young persons who should receive in-person counseling and, if warranted, referral and treatment.

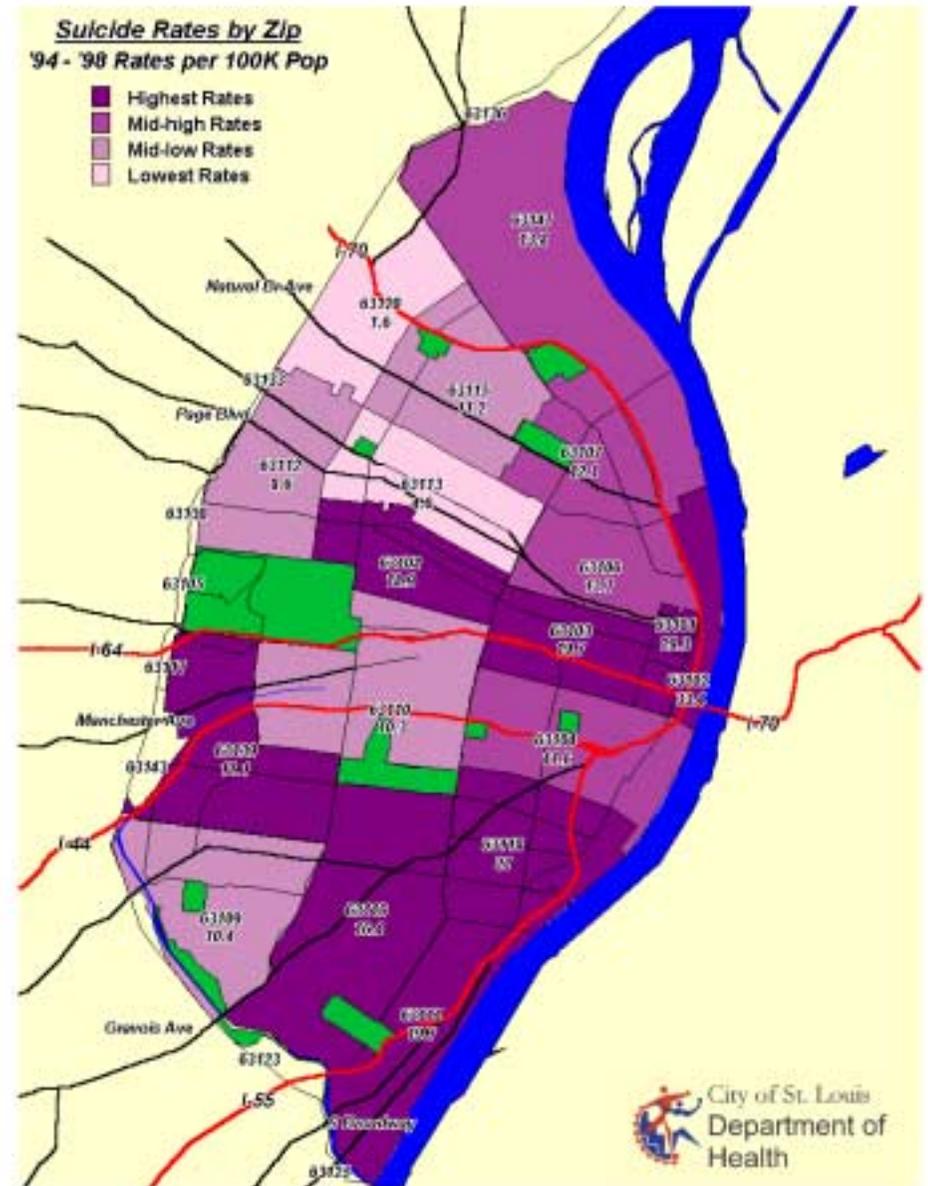
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Suicide Rates / 100,000 94-98 average

Zip	Age-adj rate
*63102	33.4
*63101	29.3
63118	21.0
*63103	19.7
63111	19.7
63108	18.9
63139	17.1
63116	16.4
63147	13.8
63106	13.7
*south	12.4
63107	12.1
63104	11.6
63115	11.2
63109	10.4
63110	10.3
*north	9.6
63112	8.6
63113	4.6
63120	1.6
*central	0.0

Zip	Age-adj rate
Saint Louis	13.5
Missouri	13.6
U.S.	11.8
St. L White	18.1
St. L Black	9.3
Mo White	14.2
Mo Black	9.0
U.S. White	12.5
U.S. Black	6.4



suicide

# Leading causes of death

## Definition

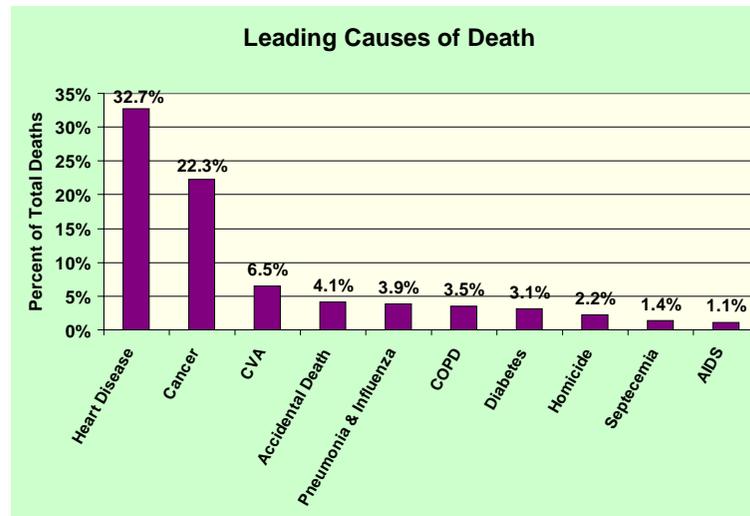
Data on the cause of death is information reported on all death certificates. The “underlying cause of death” is defined as “the disease or injury which initiated the train of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury” (World Health Organization). Underlying causes of death are determined using procedures in coding the cause of death, and are then coded using the Ninth Revision, International Classification of Diseases, 1975 (ICD-9 codes).

## Public Health Implications

The underlying cause of death is a well-accepted measure of mortality, and is useful as a means of standardizing classification of deaths. Mortality rates may be used to determine high-risk populations in a community.

## Saint Louis Rates and Comparative Info

In the U.S., the leading causes of death in 1998 were: 1) heart disease, 2) cancer, 3) cerebrovascular disease (stroke), 4) chronic obstructive pulmonary disease (COPD), 5) accidents, 6) pneumonia and influenza, 7) diabetes, 8) suicide, 9) Nephritis and 10) chronic liver disease and cirrhosis. The three leading causes of death in Saint Louis City from 1994 to 1998 were heart disease, cancer, and cerebrovascular disease. In Saint Louis City, homicide fell from fourth in 1994 to 8th in 1998. In 1998 there was a total of 4,500 deaths to residents of the City of Saint Louis. In the City of Saint Louis the top ten causes of death account for 80% of all deaths.



## Black/White Disparity

In 1998, the top three leading causes of death for both the African-American community and the White community in Saint Louis City were heart disease, cancer and cerebrovascular disease (stroke). However, where homicide was the 4<sup>th</sup> leading cause of death in the Saint Louis City African-American community in 1998 it did not appear in the top ten causes of death in the Saint Louis White population.

## Focus Group Comments/Concerns

“People don’t feel responsible in their own health care decisions- they can’t take responsibility for their own health.” “Fast pace – stress levels – schools need to teach relaxation and stress reduction.”

## Potential Public Health Interventions

It has been estimated, that in the U.S., 40% to 50% of premature mortality occurs in tobacco users. Tobacco has been attributed to heart disease, cancer, CVA, COPD, pneumonia and influenza. Epidemiological studies, surveillance and health education activities are potential public health interventions.

## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Leading Causes of Death - 1998

	Cause	%
<b>Total population</b>		
1	Heart Disease	32.7%
2	Cancer	22.3%
3	CVA	6.5%
4	Accidental Death	4.1%
5	Pneumonia & Influenza	3.9%
6	COPD	3.5%
7	Diabetes	3.1%
8	Homicide	2.2%
9	Septecemia	1.4%
10	AIDS	1.1%
<b>White</b>		
1	Heart Disease	36.1%
2	Cancer	21.0%
3	CVA	7.1%
4	Accidental death	4.6%
5	Pneumonia & Influenza	4.3%
6	COPD	3.8%
7	Diabetes	2.8%
8	Septicemia	1.2%
9	Suicide	1.0%
10	Liver Disease	1.0%
<b>Black</b>		
1	Heart Disease	29.2%
2	Cancer	23.7%
3	CVA	6.0%
4	Homicide	4.1%
5	Accidental death	3.6%
6	Pneumonia & Influenza	3.5%
7	Diabetes	3.4%
8	COPD	3.2%
9	Septicemia	1.6%
10	AIDS	1.5%

leading causes of death

# overall mortality

## Definition

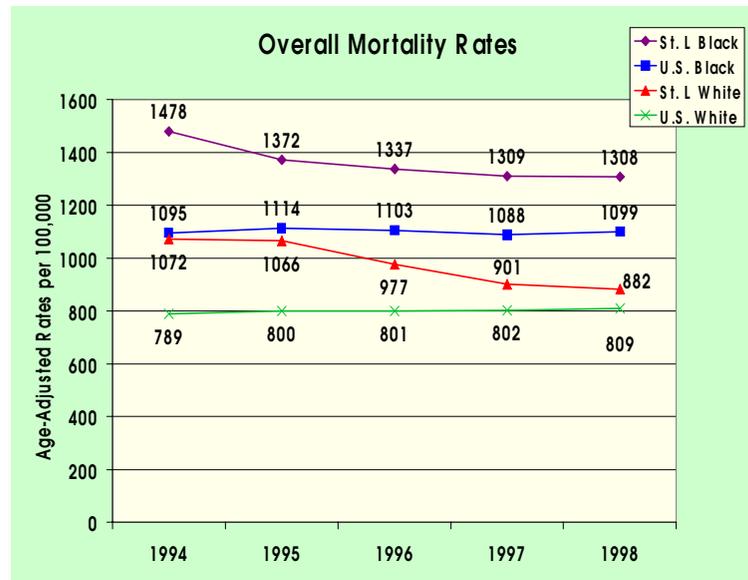
Mortality statistics are an important public health surveillance tool that fulfills both legal and social functions. U.S. mortality statistics are based on information coded by the states and provided to the National Center for Health Statistics. The age-adjusted mortality rates are presented per year per 100,000 population, and are averaged over the 1994-1998. Rates are age-adjusted to account for differences in the age distribution of the population in each Zip code.

## Public Health Implications

Mortality statistics are essential data in epidemiological studies for research in areas such as heart disease, cancer and injury control, for identifying high-risk populations, and geographic differences in rates of selected causes of death

## Saint Louis Rates and Comparative Info

The average age-adjusted overall death rate in Saint Louis City for the time period 1994 through 1998 is 1.3 time higher that seen in the U.S in the same time period. The Saint Louis City averaged rate is also 1.3 times higher than that experienced in Missouri. In 1998 there were 4,500 deaths to residents of the City of Saint Louis City. The Zip codes with the rates of most concern are 63106 and 63113. The Zip codes with the most favorable rates are 63109, 63116 and 63139.



## Black/White Disparity

In Saint Louis City, both the White population and the African-American population have seen a decline in age-adjusted mortality rates since 1994. Both races, however, show higher mortality rates than seen in the U.S. population. The averaged rate in the Saint Louis City African-American community is 1.4 times higher than that seen in the Saint Louis City White community. The averaged rate in the Saint Louis City African-American population and the Saint Louis City White population are 1.2 times that in the respective U.S. populations.

## Focus Group Comments/Concerns

"If you can't see the benefits of staying well you don't seek preventive care." "Ignorance on basic health care." "Lifestyle issues with the elderly." "Stress getting care early – through many communication channels – churches, food pantry, etc."

## Potential Public Health Interventions

This long-term downward trend in mortality, which is reflected in the U.S. age-adjusted death rates, has continued since 1940. The most recent downward trends reflect reduced mortality for African Americans, Whites, Asian or Pacific Islander, and Hispanic populations. This decline was also seen in most age groups, with the greatest mortality decline occurring in the 25-34 year old males, and the 1-4 year age group in females. Public health interventions include surveillance and epidemiological studies to determine high-risk behaviors and populations.

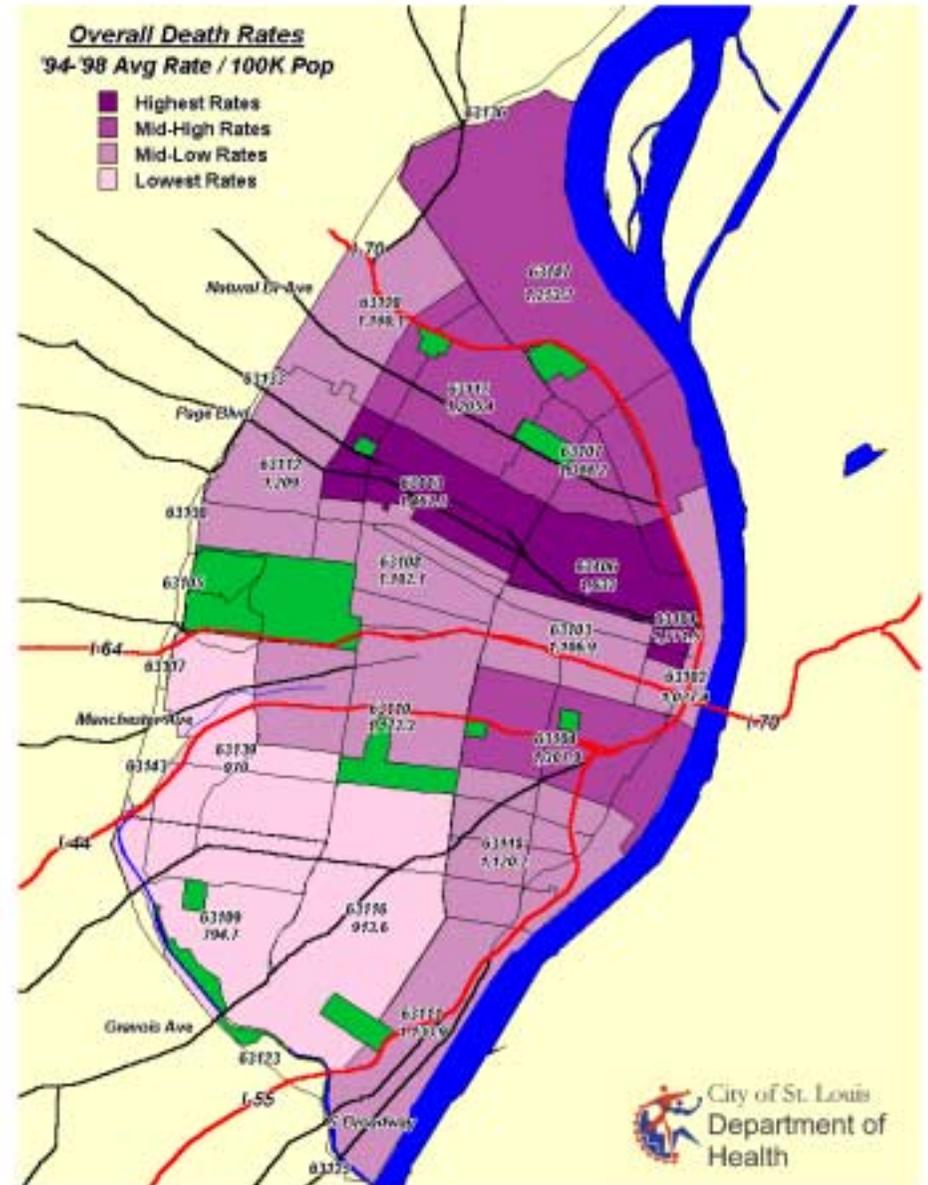
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

## Overall Mortality Rates / 100,000 94-98 average

Zip	Age-adj rate
*63101	1771.5
63106	1632.0
63113	1467.5
63107	1388.2
*north	1308.7
63104	1307.9
63115	1285.4
63147	1253.3
*south	1241.8
63112	1209.0
63120	1180.1
63110	1172.3
63111	1133.9
63118	1120.2
*63103	1106.9
63108	1102.1
*63102	1027.4
63139	978.0
63116	913.6
*central	796.3
63109	794.7

Zip	Age-adj rate
<b>Saint Louis</b>	<b>1141.3</b>
<b>Missouri</b>	<b>888.4</b>
<b>U.S.</b>	<b>857.9</b>
<b>St. L White</b>	<b>979.8</b>
<b>St. L Black</b>	<b>1361.2</b>
<b>Mo White</b>	<b>858.1</b>
<b>Mo Black</b>	<b>1223.4</b>
<b>U.S. White</b>	<b>800.1</b>
<b>U.S. Black</b>	<b>1099.9</b>



overall mortality

# heart disease mortality

## Definition

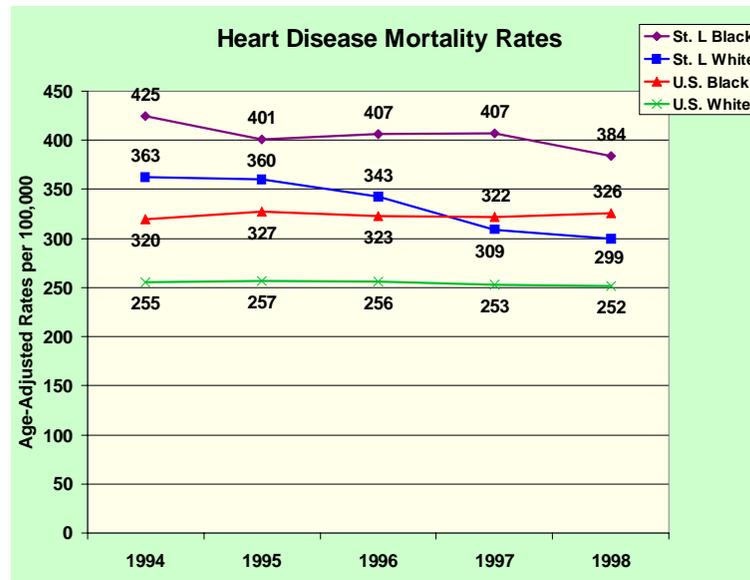
Diseases of the heart are a common cause of ill health and the number one cause of death. The types of heart disease are many and varied and include rheumatic heart disease, hypertensive disease, ischemic heart disease, and diseases of pulmonary circulation. The rates are presented as the number of deaths per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

The American Heart Association has identified several risk factors for coronary heart disease, which can lead to a heart attack, and death. Some of them can be changed, treated or modified, and some cannot. The more risk factors a person has, the greater the chance that he or she will develop heart disease. Risk factors include: increasing age, male sex, heredity (including race), cigarette and tobacco smoke, high blood pressure, high blood cholesterol levels, physical inactivity, obesity and overweight and diabetes mellitus.

## Saint Louis Rates and Comparative Info

Death rates due to heart disease in Saint Louis City have seen a slight decline in the period from 1994-1998, but the averaged rate remains 1.3 times higher than that seen in the U.S and 1.2 times that in Missouri. In 1998, there were 1,473 deaths due to heart disease to residents of the City of Saint Louis. The Zip codes with the rates of most concern from death due to heart disease are 63147 and 63106. The Zip codes with the most favorable rates are 63109, 63116 and 63108.



## Black/White Disparity

In Saint Louis City, African Americans have a 1.2 times higher averaged death rate due to heart disease than the Saint Louis City White population in the 1994 through 1998 time period. When compared to the U.S. population, the White population in Saint Louis City has consistently seen death rates due to heart disease 1.3 times higher than the U.S. White population; the Saint Louis City averaged African-American population rate is 1.2 times higher than the U.S. African-American population.

## Focus Group Comments/Concerns

"Compliance with medical regimes – health education, cost of medicines." "Saint Louis City is a "fat" city." "...nutrition and exercise."

## Potential Public Health Interventions

The most effective public health activities would include targeting areas with high death rates due to heart disease, and developing educational programs to encourage smoking cessation, healthier eating habits, and increased physical activity.

## Data Source

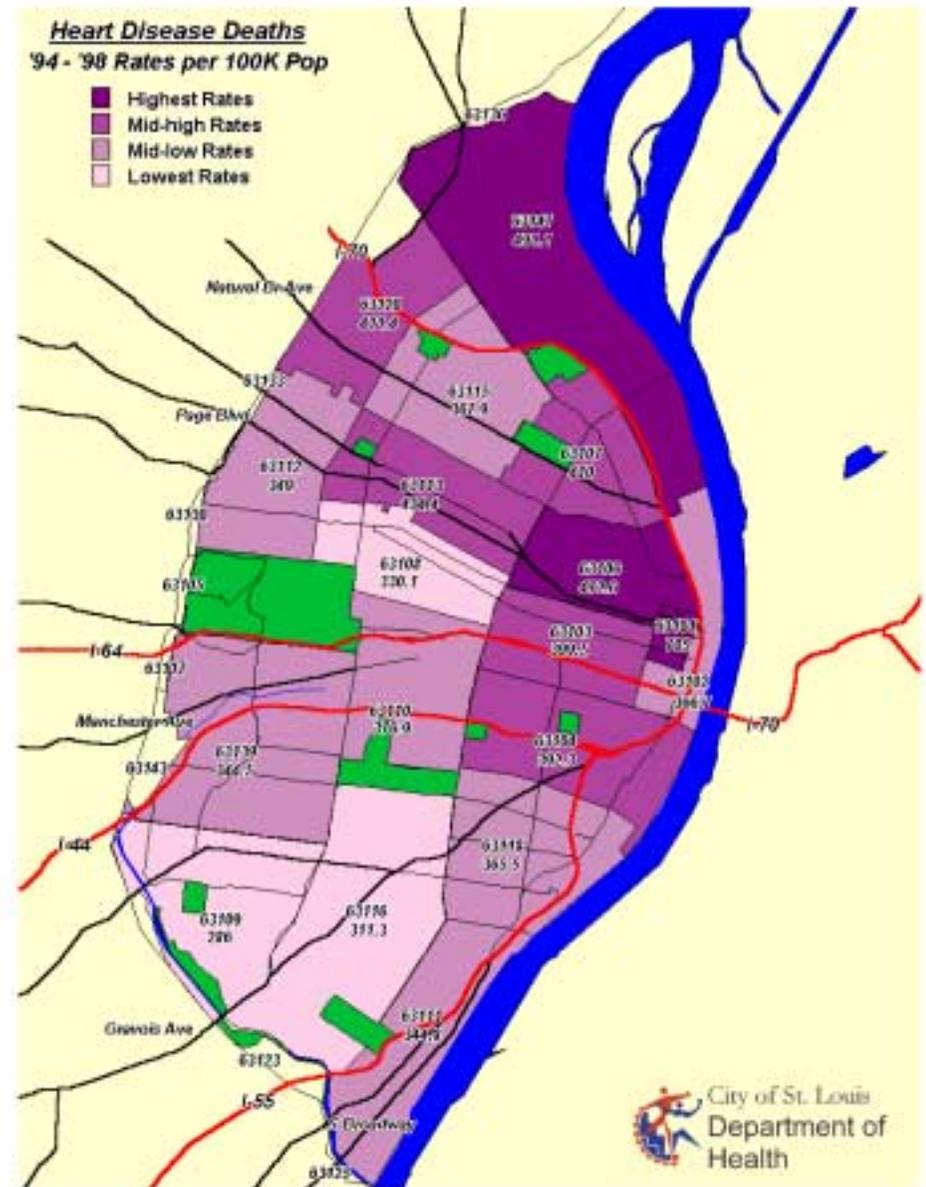
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

# Heart Disease Mortality Rates

/ 100,000 94-98 average

Zip	Age-adj rate
*63101	705.0
63147	491.1
63106	472.6
*south	437.3
63113	434.4
63120	411.4
63107	410.0
*63103	399.5
63104	392.3
*north	381.6
63110	376.9
63115	367.9
*63102	366.7
63118	365.5
63112	349.0
63111	344.8
63139	344.5
63108	330.1
63116	311.3
63109	286.0
*central	221.5

Zip	Age-adj rate
Saint Louis	362.7
Missouri	293.1
U.S.	270.5
St. L White	334.2
St. L Black	403.9
Mo White	286.8
Mo Black	373.4
U.S. White	254.8
U.S. Black	323.8



heart disease mortality

# cancer mortality

## Definition

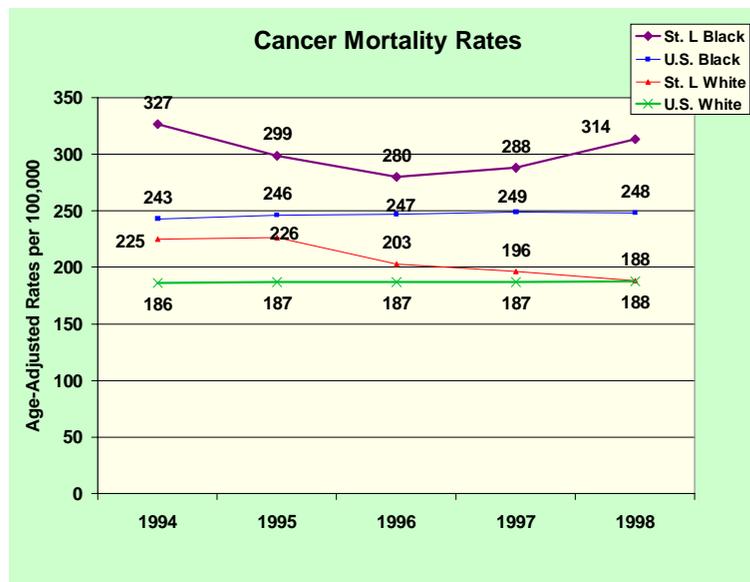
Cancer is a general term frequently used to indicate any of various types of malignant neoplasms, most of which invade surrounding tissues. Deaths from cancer include solid malignant neoplasms and neoplasms of the lymphatic and hematopoietic tissues. Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

Different risk factors are attributed to different cancer types. Tobacco use is the single best recognized cause of cancer, and is now responsible for 30% of all cancer deaths in the U.S. Other causes of cancer include high-fat and low-fiber diets, physical inactivity, and genetics.

## Saint Louis Rates and Comparative Info

In general, cancer deaths are reported by the type of cancer. When looking at overall cancer death rates in the U.S., African Americans, Hawaiians, Alaska natives and Whites have higher rates than other populations. For all racial and ethnic groups, women have lower mortality rates than men. The Saint Louis City average rate for cancer for the time period 1994 through 1998 is 1.2 times higher than that seen in the United States and in Missouri. In 1998, there were 1,000 deaths due to cancer in the City of Saint Louis. The Zip codes with the rates of most concern are 63113, 63106 and 63107. The Zip codes with the most favorable rates are 63109 and 63116



## Black/White Disparity

The averaged rate in the Saint Louis City African-American population is 1.5 times that in the Saint Louis City White population in the 1994 through 1998 time period. The Saint Louis City averaged African-American rate is 1.2 times higher than that of the U.S. African-American population in the same time period.

## Focus Group Comments/Concerns

"People who are poor don't put a priority on health care. When you worry about money for food you don't have time to worry about preventive care."  
"Rapid change in the number of cancers which are evolving in parts of the Midwest."

## Potential Public Health Interventions

Smoking cessation is a critical component in the reduction of cancer mortality. Diet is another important area in cancer prevention; some estimate that healthier eating habits will reduce cancer rates, and decrease cancer deaths by 9%. Early detection of cancer and cancer screening programs, particularly in high-risk populations, such as in individuals with strong family history of cancer, can also decrease mortality rates.

## Data Source

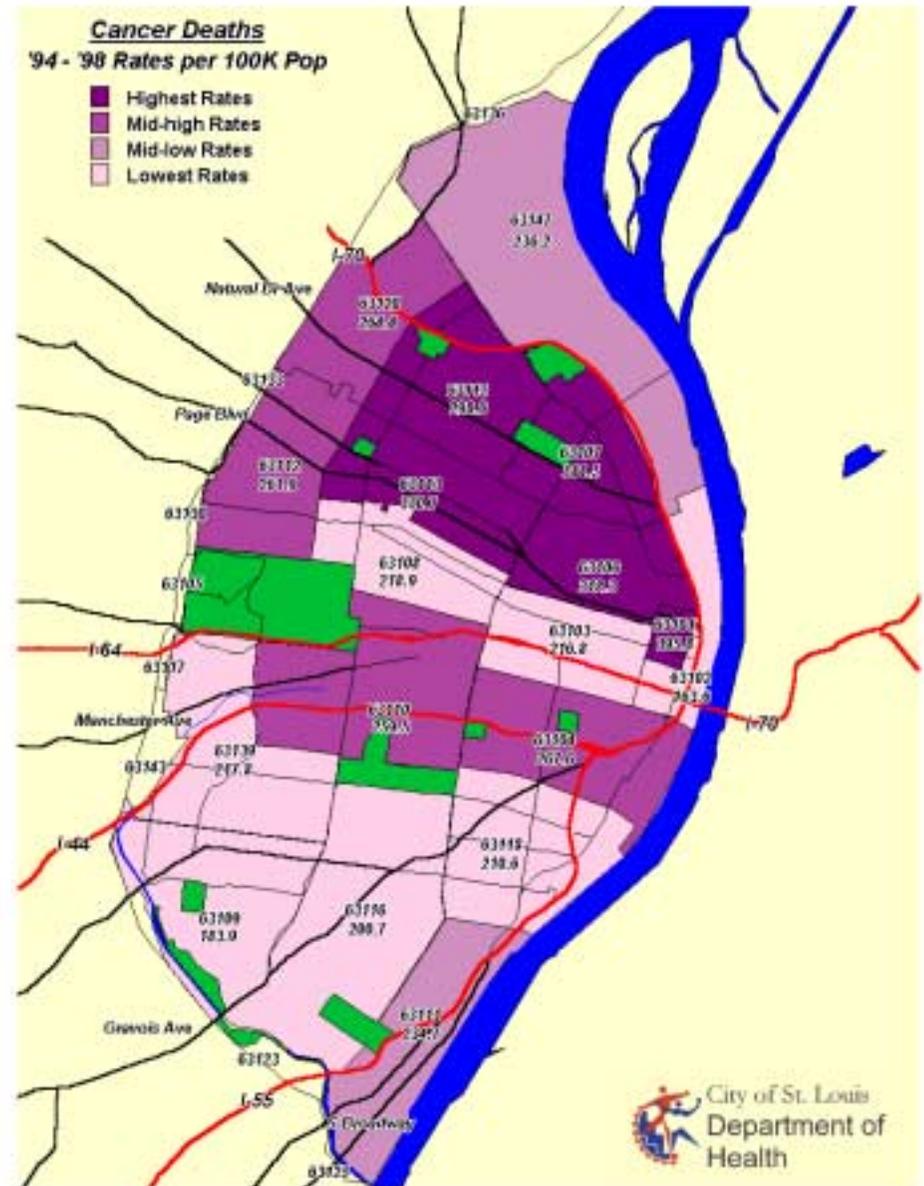
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

# Cancer Mortality Rates

/ 100,000 94-98 average

Zip	Age-adj rate
*63101	395.8
63113	330.7
*north	320.1
63106	318.3
63107	311.5
63115	298.6
*south	267.6
63104	267.6
63120	264.4
63112	261.9
63110	259.5
63147	236.2
63111	234.7
63108	218.9
63139	217.8
*63103	216.8
63118	210.6
63116	200.7
*central	187.4
63109	183.9
*63102	163.6

Zip	Age-adj rate
Saint Louis	242.8
Missouri	198.8
U.S.	199.0
St. L White	207.5
St. L Black	301.6
Mo White	192.3
Mo Black	284.3
U.S. White	186.9
U.S. Black	246.5



cancer mortality

# c v a mortality

## Definition

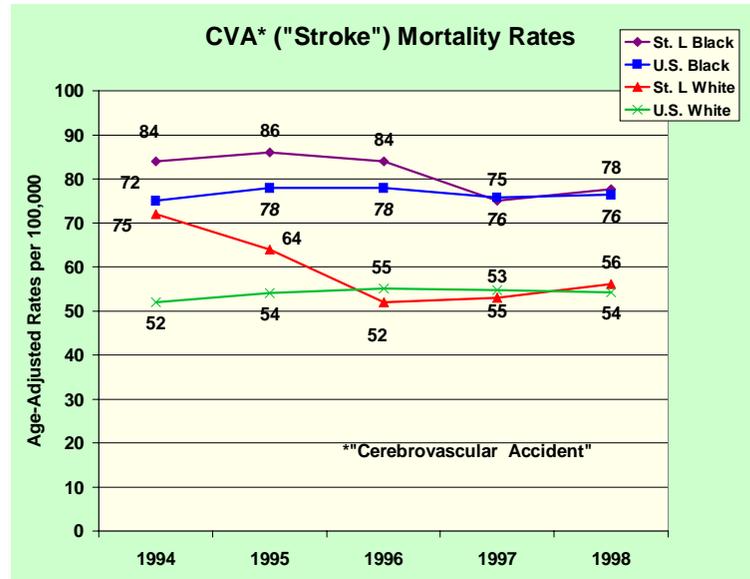
Cerebrovascular disease is a general term for brain dysfunction caused by an abnormality of the cerebral blood supply. Deaths from cerebrovascular diseases, commonly called "stroke", usually result from a cerebral hemorrhage, thrombosis causing infarction, or an embolism which generally originates from the heart. Age-adjusted rates are presented per year per 100,000 population and averaged over the 1994-1998 time period.

## Public Health Implications

Some stroke risk factors are based on heredity or natural processes that can't be changed: strokes more than double for each decade of life after age 55. Men have about a 19% greater chance of stroke than women. African Americans have a much higher risk of death due to CVA, in part due to a greater incidence of high blood pressure. Factors that can be changed include controlling high blood pressure and not smoking cigarettes.

## Saint Louis Rates and Comparative Info

The average rate for the time period 1994 through 1998 for death due to stroke in Saint Louis City is somewhat higher than that seen in the U.S. and Missouri, 1.2 and 1.1 times, respectively. In 1998, there were 293 deaths due to CVA. The Zip code with the rate of most concern is 63106. The most favorable Zip codes are 63109 and 63139.



## Black/White Disparity

In Saint Louis City the average death rate for the time period 1994 through 1998 is 1.4 times higher in the African-American community than in the White population. Compared to African Americans in the U.S., the averaged death rate for stroke in Saint Louis City African Americans is similar. For the Saint Louis City White population, the averaged rate for strokes is 1.1 times that seen in the U.S. White population.

## Focus Group Comments/Concerns

"We need a holistic model, not a medical model."

## Potential Public Health Interventions

Education on lowering high blood cholesterol and lipids, increasing physical activity, controlling obesity and quitting smoking are factors that can be intervened upon to reduce the mortality rate due to stroke.

## Data Source

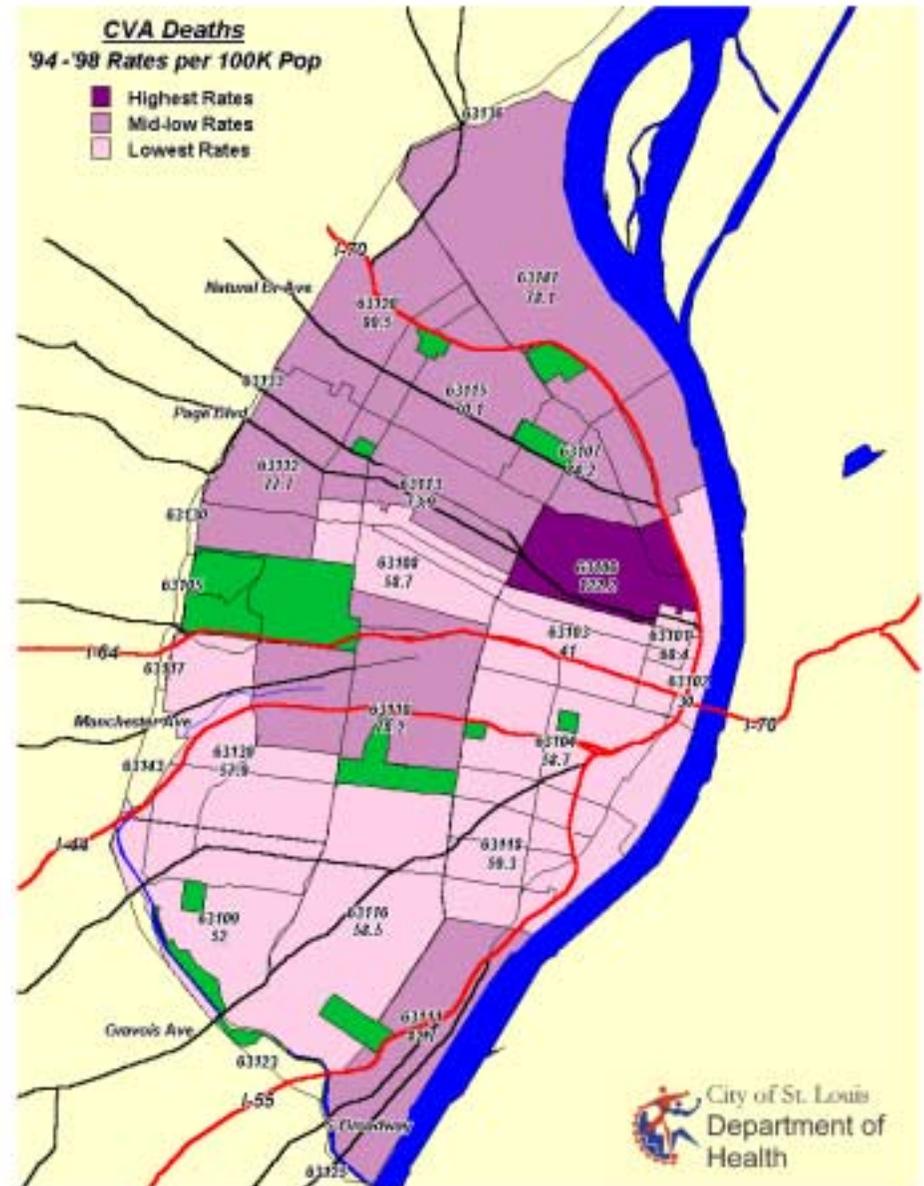
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

# Cerebrovascular Disease Mortality Rates

/ 100,000 94-98 average

Zip	Age-adj rate
63106	122.2
*central	103.7
*south	91.9
63107	84.2
63111	82.7
63120	80.5
63110	78.2
63147	78.1
63112	77.7
63113	73.9
63115	70.1
*63101	68.4
*north	64.9
63118	59.3
63108	58.7
63104	58.7
63116	58.5
63139	57.9
63109	52.0
*63103	41.0
*63102	30.0

Zip	Age-adj rate
Saint Louis	68.5
Missouri	62.6
U.S.	58.6
St. L White	59.4
St. L Black	81.4
Mo White	61.2
Mo Black	78.2
U.S. White	54.0
U.S. Black	76.6



c v a m o r t a l i t y

# influenza and pneumonia mortality

## Definition

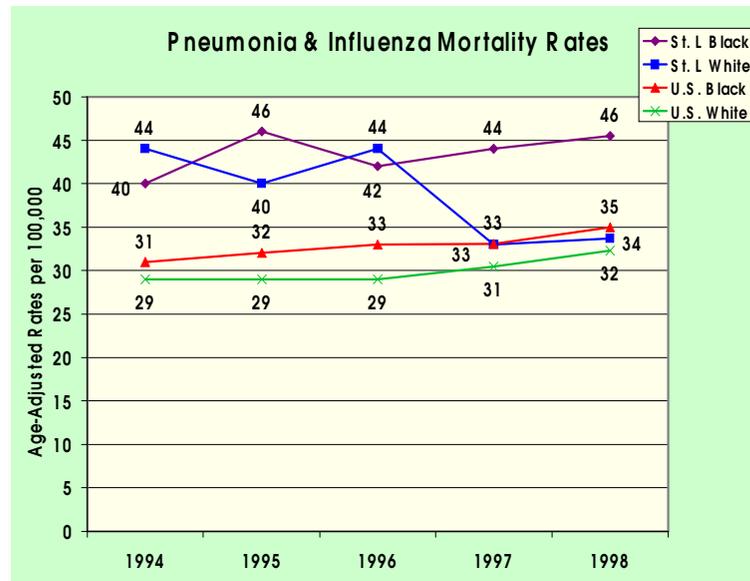
Influenza, commonly called "the flu," is an infection of the respiratory tract caused by the influenza virus. Compared with most other viral respiratory infections, such as the common cold, influenza infection often causes a more severe illness. Most people who get the flu recover completely in 1 to 2 weeks, but some people develop serious and potentially life-threatening medical complications, such as pneumonia. Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

In an average year, influenza is associated with more than 20,000 deaths nationwide and more than 100,000 hospitalizations. Flu-related complications can occur at any age. However, the elderly and people with chronic health problems are much more likely to develop serious complications after influenza infection than younger, healthier people.

## Saint Louis Rates and Comparative Info

In the U.S., the deaths due to influenza and pneumonia are consistently in the top 10 leading causes of death within every age group. In Saint Louis City, the average rate for the time period 1994 through 1998 for death due to influenza and pneumonia is 1.3 times the rate in the U.S. In 1998 there were 176 deaths due to pneumonia and influenza to residents of the City of Saint Louis. The Zip codes with the rates of most concern are 63111, 63107 and 63112. The Zip codes with the most favorable rates are 63109 and 63110.



## Black/White Disparity

In Saint Louis City the average death rate is only 1.1 times higher in the African-American community than in the White population for the time period 1994 through 1998. Compared to the U.S. averaged rates for African Americans and the White population, the averaged death rate for pneumonia and influenza in Saint Louis City is 1.3 times higher for both African Americans and the White population.

## Focus Group Comments/Concerns

"Vaccinations"

## Potential Public Health Interventions

Much of the illness and death caused by influenza can be prevented by annual influenza vaccination. Influenza vaccine is specifically recommended for people who are at high risk for developing serious complications as a result of influenza infection. These high-risk groups include all people aged 50 years or older and people of any age with chronic diseases of the heart, lung or kidneys, diabetes, immunosuppression, or severe forms of anemia.

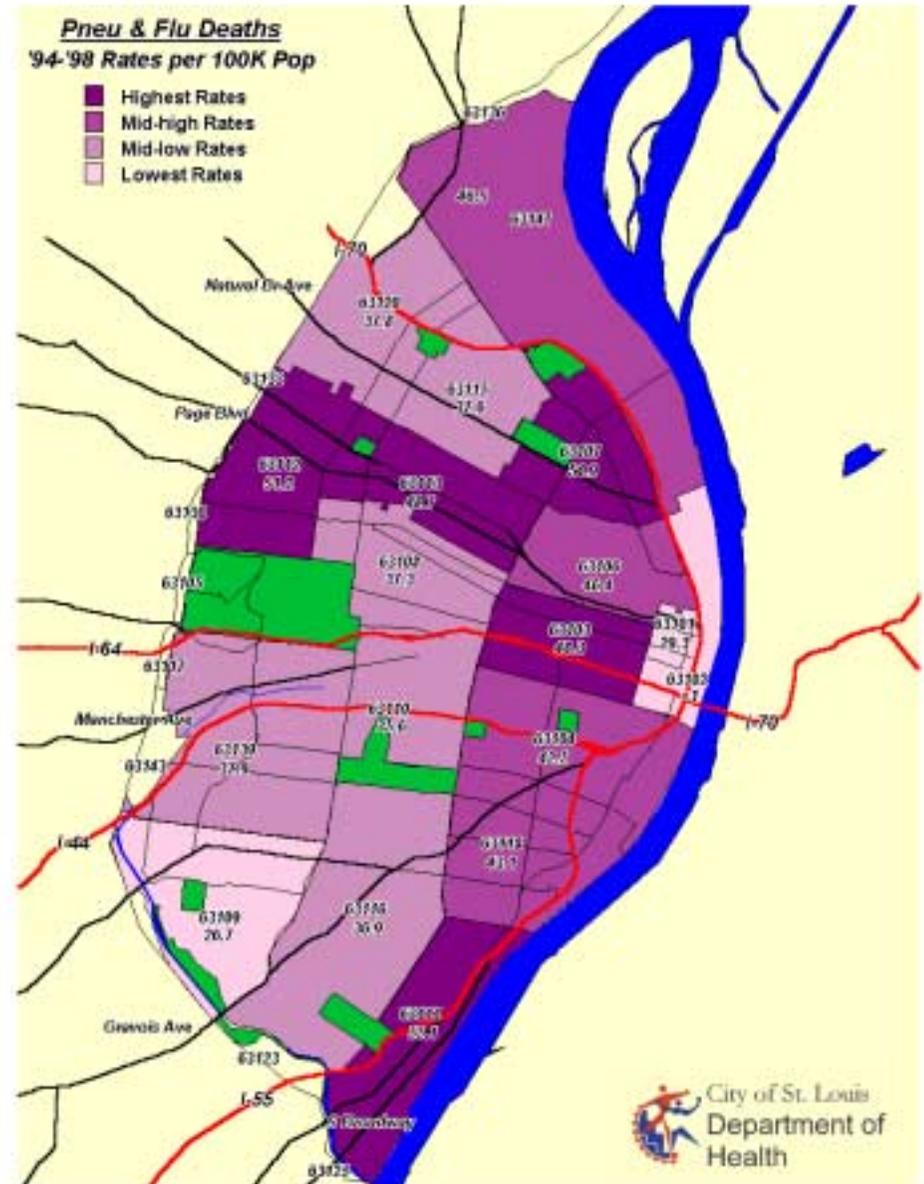
## Data Source

Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

# Pneumonia and Influenza Mortality Rates / 100,000 94-98 average

Zip	Age-adj rate
<b>*south</b>	56.6
<b>63111</b>	55.1
<b>63107</b>	54.9
<b>63112</b>	51.2
<b>63113</b>	48.7
<b>*63103</b>	48.3
<b>63147</b>	46.5
<b>63106</b>	46.4
<b>63118</b>	43.1
<b>63104</b>	42.5
<b>*central</b>	38.9
<b>63139</b>	37.9
<b>63120</b>	37.8
<b>63115</b>	37.6
<b>63108</b>	37.3
<b>63116</b>	36.9
<b>63110</b>	35.6
<b>*63101</b>	29.3
<b>63109</b>	26.7
<b>*north</b>	24.3
<b>*63102</b>	0.0

Zip	Age-adj rate
<b>Saint Louis</b>	41.2
<b>Missouri</b>	36.2
<b>U.S.</b>	31.7
<b>St. L White</b>	38.9
<b>St. L Black</b>	43.6
<b>Mo White</b>	36.0
<b>Mo Black</b>	38.4
<b>U.S. White</b>	30.0
<b>U.S. Black</b>	32.9



influenza and pneumonia mortality

# c o p d m o r t a l i t y

## Definition

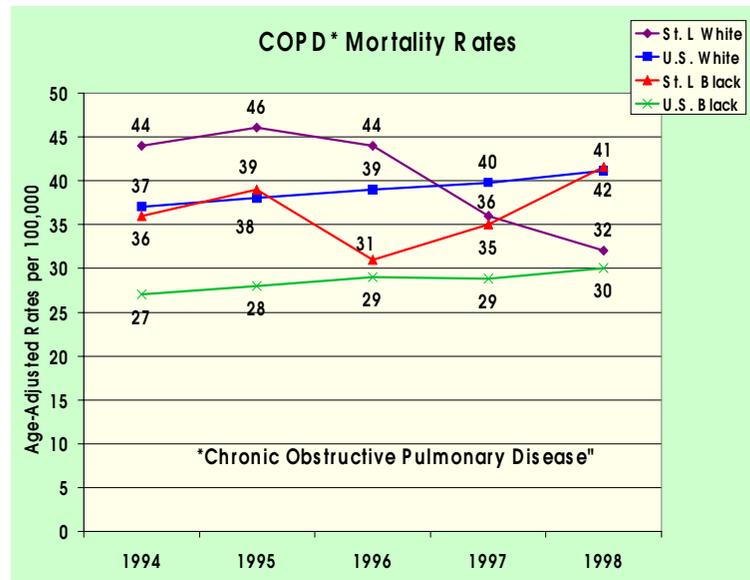
Chronic obstructive pulmonary disease (COPD) is a general term that comprises those conditions that are accompanied by chronic or recurrent reduction in expiratory airflow within the lung, due to the narrowing of the small bronchi. Deaths from chronic obstructive pulmonary diseases and allied conditions include deaths due to bronchitis, emphysema, asthma, and chronic airway obstruction. Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

Both emphysema and chronic bronchitis are diseases of longtime smokers: 82 percent of those who die of COPD are smokers, and smokers are ten times more likely than non-smokers to die of COPD. Higher rates of chronic bronchitis are also found among coal miners, grain handlers, metal molders, and other workers exposed to dust and irritating fumes. Chronic bronchitis symptoms worsen when atmospheric concentrations of sulfur dioxide and other air pollutants increase.

## Saint Louis Rates and Comparative Info

In all groups, the death rate in the U.S. for men is more than double that for women, reflecting the difference between the sexes in smoking over the years. Overall in Saint Louis City, the average death rate for the 1994-1998 time period for COPD is similar to that in the U.S., and slightly lower than the averaged rate in Missouri. In 1998, there were 159 deaths to residents of the City of Saint Louis due to COPD. The Zip codes with the rates of most concern are 63110 and 63111. The Zip codes with the most favorable rates are 63108, 63120 and 63113.



## Black/White Disparity

The average rate for the 1994 through 1998 time period in Saint Louis City due to COPD is 1.1 times higher in the White population than in the African-American population. Comparing rates to the U.S. population, the averaged death rate in Saint Louis City African Americans is 1.3 times that seen in the U.S. African-American population. Although, the annual rate in the Saint Louis White population has been dropping while the annual rate in the Saint Louis African-American community has been rising since 1996.

## Focus Group Comments/Concerns

"Need to take services to people – prevention, education and need to introduce prevention to their lives."

## Potential Public Health Interventions

Prevention of COPD involves reducing controllable risks

Health education activities relating to smoking and avoidance of exposure to secondhand smoke whenever possible

Policy development relating to clean air quality both in the workplace and in the community

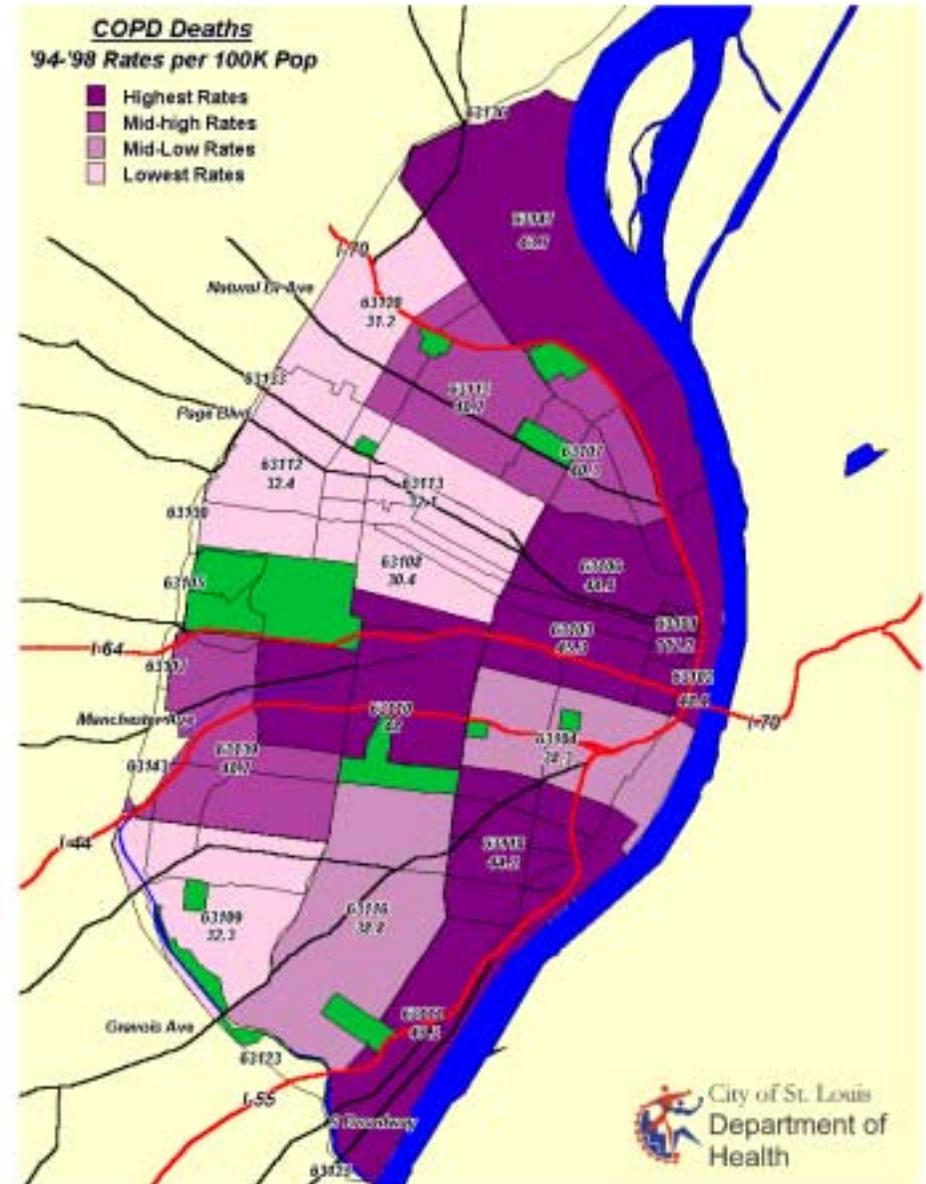
## Data Source

Missouri Department of Health, Center for Health Management Information & Epidemiology

## COPD Mortality Rates\*\* / 100,000 94-98 average

Zip	Age-adj rate
*63101	117.2
*63102	48.4
63110	48.0
63111	47.3
*63103	45.3
63106	44.8
63118	44.2
63147	43.7
63115	40.7
63139	40.7
63107	40.3
*central	38.9
63116	38.8
63104	38.3
*north	33.4
63112	32.4
63109	32.3
63113	32.1
*south	31.8
63120	31.2
63108	30.4

Zip	Age-adj rate
Saint Louis	39.1
Missouri	41.2
U.S.	38.1
St. L White	40.2
St. L Black	36.4
Mo White	41.7
Mo Black	34.2
U.S. White	38.9
U.S. Black	28.4



\*\*Chronic Obstructive Pulmonary Disease

# diabetes mortality

## Definition

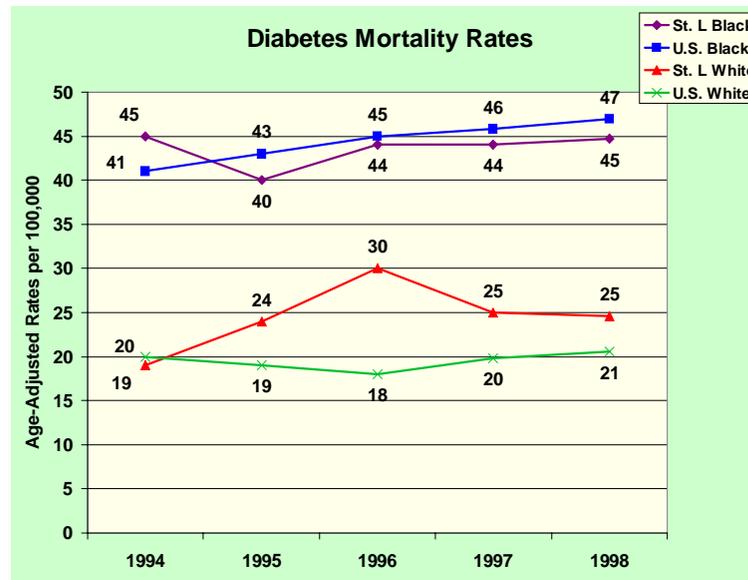
Diabetes mellitus is a metabolic disease, caused by an absolute or relative deficiency of insulin. Death from diabetes mellitus is usually due to long-term complications. Age-adjusted rates are presented per year per 100,000 population and are averaged over the 1994-1998 time period.

## Public Health Implications

Heart disease is the leading cause of diabetes-related deaths, with a heart disease death rate about 2 to 4 times as high as that of adults without diabetes. People with diabetes are also at a higher risk of stroke and are more likely to die of pneumonia or influenza than people who do not have diabetes. A genetic susceptibility to this disease, coupled with diet, physical inactivity, and increasing age increases the risk of diabetes.

## Saint Louis Rates and Comparative Info

In the U.S., the age-adjusted death rate for diabetes has been gradually increasing since 1994 for both men and women. In the U.S. in 1995, compared to non-Hispanic Whites, diabetes death rates were 2.5 times higher among African-American persons, 2.4 times higher among American Indians or Alaska natives, and 1.7 times higher among persons of Hispanic origin. The average death rate for the time period 1994 through 1998 due to diabetes in Saint Louis City is 1.4 times that seen in the U.S., and 1.5 times that seen in Missouri. In 1998, there were 139 deaths to residents of the City of Saint Louis as a result of diabetes. The Zip code with by far the rate of most concern is 63106. The Zip code with by far the most favorable rate is 63109.



## Black/White Disparity

In the time period between 1994 and 1998, the average death rate in the Saint Louis City African-American community is 1.8 times that seen in the White population. Comparing African Americans, average death rate in Saint Louis City is similar to the rates in the U.S. and Missouri; for the White population, the average rate in Saint Louis City is 1.3 times that seen in the U.S.

## Focus Group Comments/Concerns

"Late care for chronic diseases – lack of money for prescriptions."

## Potential Public Health Interventions

Diabetes detection and diabetes-related preventive-care practices are important for reducing the development and progression of diabetes complications and disability. Effective strategies should focus among groups at highest risk in the City of Saint Louis such as African-American and pregnant women.

## Data Source

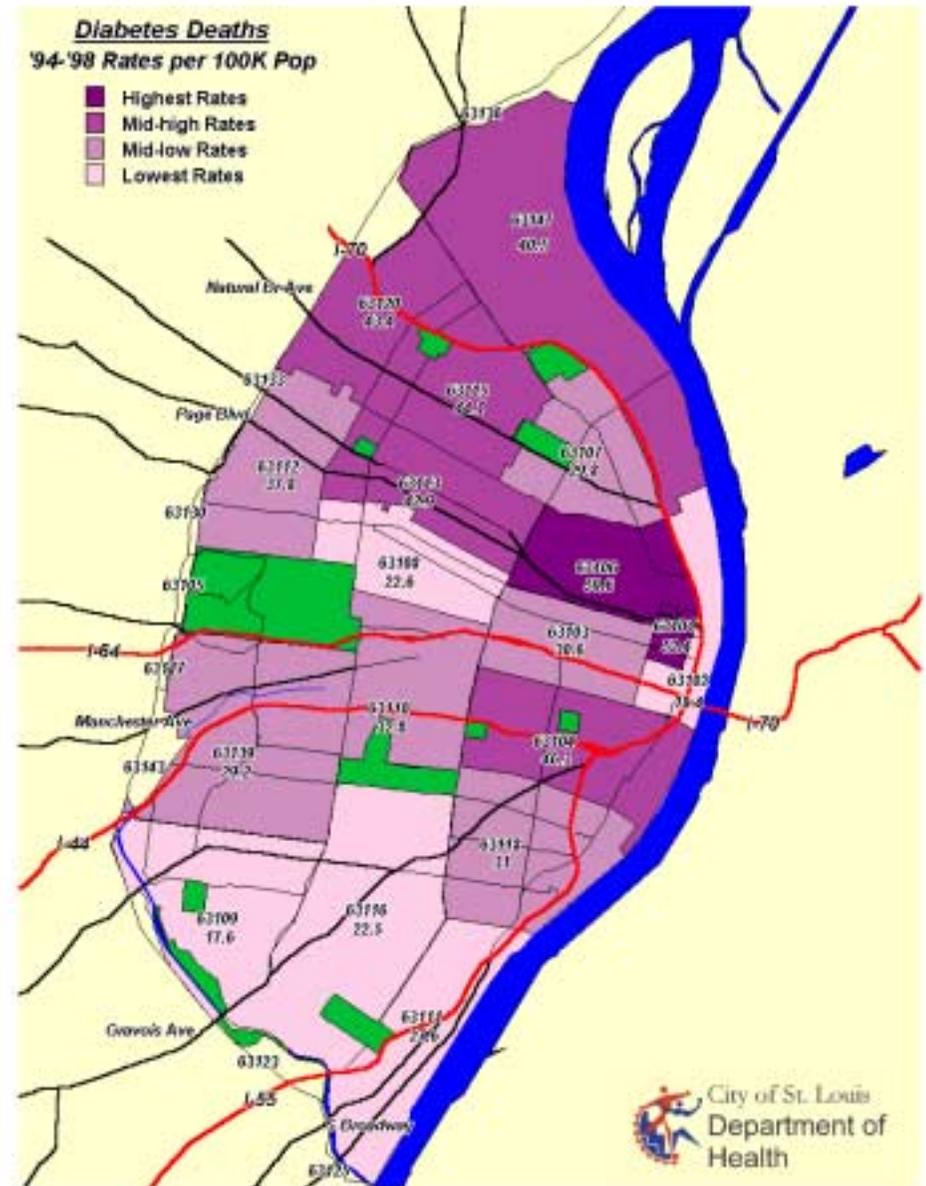
Missouri Department of Health, Center for Health Information Management & Epidemiology; Vital Records Data

# Diabetes Mortality Rates

/ 100,000 94-98 average

Zip	Age-adj rate
63106	59.6
*63101	52.4
*north	50.3
*south	49.4
63104	46.3
63115	44.1
63120	43.4
63113	42.9
63147	40.5
63112	37.8
63110	32.8
63118	31.0
*63103	30.6
63107	29.8
63139	29.2
63111	27.6
63108	22.6
63116	22.5
*63102	18.4
63109	17.6
*central	9.7

Zip	Age-adj rate
Saint Louis	32.1
Missouri	21.1
U.S.	22.5
St. L White	24.6
St. L Black	43.6
Mo White	19.5
Mo Black	42.7
U.S. White	19.5
U.S. Black	44.1



diabetes mortality

# glossary

## Accidental deaths

ICD-9 codes: E800-E949.

## Age-adjusted rates

since the difference in the age composition of the population will influence mortality rates, it is preferable to use age specific mortality rates when comparing the mortality experiences in geographic areas or population groups. For this report, a direct method of calculating age-adjusted mortality rates is used to calculate a summary statistic. For this report the 1990 U.S. population is used as the “standard population”, the age stratum may differ from other published age-adjusted rates.

## Cancer

ICD-9 codes: 140-208.

## Case

In epidemiology, a person in the population or study group identified as having the particular disease, health disorder or condition under investigation. A variety of criteria may be used to identify cases. The epidemiologic definition of a case is not necessarily the same as the ordinary clinical definition.

## CDC Centers for Disease Control and Prevention

The CDC is one of the major operating components of the Department of Health and Human Services. It “is recognized as the lead federal agency for protecting the health and safety of people-at home and abroad, providing credible information to enhance health decisions, and promoting health through strong partnerships. CDC serves as the national focus for developing and applying disease prevention and control, environmental health, and health promotion and education activities designed to improve the health of the people of the United States”. CDC, located in Atlanta, Georgia, is an agency of the Department of Health and Human Services.

## Cerebrovascular accident

ICD-9 codes: 430-438, “stroke”.

## Chronic Obstructive Pulmonary Disease (COPD)

ICD-9 codes: 490-496.

## Descriptive statistics

are used to simply describe the data and to provide simple summaries. Descriptive statistics help to simplify large amounts of data in a manageable and sensible way. Description statistics are distinguished from inferential statistics where inferences are drawn from the data such as making judgements of probability.

## Diabetes

ICD-9 code: 250.

## Diagnosis-related group (DRG) system

organizes ICD-9-CM diagnosis and procedure codes into a complex, comprehensive system based on a few simple principles. The DRG system enables providers to recover the appropriate payment for services rendered, which is consistent with the intent of the federal government when it devised the DRG system. A DRG is one of 511 currently valid groups that classify patients into clinically cohesive groups that demonstrate similar consumption of hospital resources and length-of-stay patterns.

## Epidemic

from the Greek epi (upon) and demos (people); the occurrence in a community or region of cases of an illness, specific health-related behavior, or other health-related events clearly in excess of normal expectancy. The community or region and the period of time in which the cases occur are precisely specified.

## Epidemiology

the study of the distribution and determinants of health-related states or events in defined populations.

## Focus groups

a qualitative research technique that involves 1 to 2 hour structured discussions among 6 to 10 participants, led by a trained neutral moderator from a list of topic areas or questions. People chosen to participate in the group are chosen to meet certain criteria designed to ensure that they have the requisite target audience characteristics. Results are not to be projected to the general population from which participants were drawn.

## Healthy People 2000

now revised to Healthy People 2010, is a national health promotion and disease prevention initiative. Its goals are to increase the quality and years of healthy life and eliminate disparities. It is a statement of national opportunities—a tool that identifies the most significant preventable threats to health and focuses public and private sector efforts to address those threats. The first set of national health targets, published in 1997 was supported by objectives with 1990 targets. Healthy People 2010 builds on initiatives pursued over the last two decades to achieve over the first decade of the 21<sup>st</sup> Century.

## Heart disease

ICD-9 codes 390-398, 402, 404-429.

## Homicide

ICD-9 codes: E960-E978.

## ICD-9 codes

Ninth Revision, International Classification of Diseases, 1975, World Health Organization, which is the classification structure used to code and classify mortality data from death certificates. It is designed to promote international comparability in the collection, processing, classification and presentation of mortality statistics. The ICD has been revised periodically to incorporate changes in the medical field. To date, there have been 10 revisions of the ICD. The mortality data in this report are based on the 9<sup>th</sup> revision. The 10<sup>th</sup> revision has been used since 1999.

## Incidence

a measurement of only the new cases of a disease or other event occurring during a given period of time. Incidence rates have new cases as the numerator and the population at risk for being a case as the denominator. See “prevalence”.

## Mean

the average, the sum of all the values divided by the number of values.



# glossary

## Morbidity

refers to illness or some other (morbid) condition, it does not refer to death.

## Mortality

refers to death, usually measured through death certificates. In the United States, State laws require death certificates for all deaths, and Federal law mandates national collection and publication of deaths and other vital statistics data. Underlying causes of death are determined using procedures in coding the cause of death and are then coded using the Ninth Revision, International Classification of Diseases, 1975 (ICD-9).

## Motor vehicle accidents

ICD-9 codes: E810-E825.

## Non motor vehicle accidents

ICD-9 codes: E800-E807, E826-E949.

## Pneumonia and influenza

ICD-9 codes: 480-487.

## Population at risk

the population consisting of those to whom an event could happen to, whether it did or not.

## Prevalence

a measurement of all cases of disease or other events prevailing at a given time. It includes new cases and old cases that are still around. Prevalence rates have new and past existing cases as the numerator and the population at risk for being a case as the denominator. See "incidence".

## Primary source data

an original source of data such as that information obtained from interviews, focus groups and surveys.

## Quartile

division of the total cases or observations into four groups of equal size.

## Rate

a measure of the frequency of occurrence of a phenomenon. In epidemiology, demography and vital statistics, a rate is an expression of the frequency with which an event occurs in a defined population. The use of rates rather than raw numbers is essential for comparison of experience between populations at different times, different places or among different classifications of persons. The components of a rate are the numerator (all the events that happened), the denominator (all of the population that the event could have happened to), the specified time in which events occurred and usually a multiplier, a power of 10 frequently 1000 or 100,000, which converts the rate from an awkward fraction or decimal to a whole number.

## Ratio

the value obtained by dividing one quantity by another. A ratio is an expression of the relationship between a numerator and a denominator where the two are usually separate and distinct quantities, neither being included in the other.

## Risk factor

a factor that increases the risk of some event happening.

## Secondary source data

a source that provides non-original data or information such as vital records data.

## Standard deviation (SD)

a measure of dispersion or variance. It is the most widely used measure of dispersion of a frequency distribution. It is equal to the positive square root of the variance. The mean tells where the values for a group are centered. The standard deviation is a summary of how widely dispersed the values are around this center.

## Standard population

a population in which the age composition is known precisely, for all practical purposes as a result of a census. A standard population is used as a comparison group in age adjustment such as in the calculation of mortality rates.

## Surveillance

the ongoing systematic collection, analysis and interpretation of health data that are essential to the planning, implementation and evaluation of public health practice. By observing trends in time, place and persons, changes can be observed or anticipated and appropriate action, including investigation or control measures, can be taken. Sources of data may relate directly to disease or to factors influencing disease.

## Suicide

ICD-9 codes: E950-E959.

## Vital statistics

systematically tabulated information concerning births, deaths, marriages, divorces and separations based on registration of these vital events through birth and death certificates etc.

## Weighted data

any information given different weights or importance in calculations;  
one criterion counts more than another criterion.



# appendix a

## Zip Codes – City of Saint Louis

These zip codes are entirely contained within the city limits:

63101  
63102  
63103  
63104  
63106  
63107  
63108  
63109  
63110  
63111  
63112  
63113  
63115  
63116  
63118  
63120  
63139  
63147

These zip codes are shared with Saint Louis County, only a very small portion of each zip code is contained within the city limits:

63105	Central fringe
63117	South fringe
63119	South fringe
63123	South fringe
63125	South fringe
63143	South fringe
63130	North fringe
63133	North fringe
63136	North fringe
63137	North fringe

# appendix b

## Zip code level

This report presents data available by Zip code. This unique approach makes it easier to identify the health concerns of specific areas of the city and therefore target programs, resources, and other interventions where they are most needed.

## Fringe zip codes

St. Louis City includes small portions of 10 Zip codes that are primarily in St. Louis County. To provide large enough populations for meaningful data, the report groups these partial Zip codes as follows: north (63130, 63133, 63136 and 63137), central (63105) and south (63117, 63119, 631123, 63125 and 63143). Even grouped, these Zip codes represent very small populations.

## Rates

This report presents most of its information in the form of "rates," making it possible to compare different groups. We reach these rates by dividing the number of events (such as TB cases, heart disease deaths, infant deaths) by the total number in a particular group (such as residents of a particular Zip code, or members of a race or gender). The report gives rates per 100, 1,000 and 100,000 population. The larger the population, the more reliable and meaningful the data. When there is a small population in the sample (also known as a small denominator), the data is less reliable. Note that Zip codes 63101, 63102 and 63103 as well as the grouped fringe Zip codes of north, central and south are asterisked throughout the report. This is because of the small populations they represent which may make any comparisons with other Zip codes misleading.

## Descriptive statistics

This report uses tables, graphs, maps and narrative to statistically describe the factors that affect the health of people in the City of St. Louis.

By looking at the City Zip code by Zip code, the report pinpoints areas of concern and of success and points out the differences between areas of the city. The report, however, is descriptive only and does not attempt to draw statistically significant conclusions.

## Quartiles

This report places the Zip codes for each of the variables studied into one of four groups, or quartiles. Those Zip codes that fall in the top quartile represent the areas of most concern and those Zip codes that fall in the bottom quartile represent the most favorable areas. The map that is displayed under each of the indicators displays the Zip codes by their assigned quartile.

## Summary statistic

For this report, each Zip code received a summary "overall rating" between 1 and 4 reached by averaging the quartile assignments for each of the Zip code's 60 variables that were ratable.

## Age-adjusted death rates

This report provides age-adjusted death rates in all cases. This makes it possible to compare death rates in communities where the average age of its citizens may be very different.

## Comparative data for U.S. and Missouri

Whenever possible, this report includes comparative data for Missouri and the United States. Generally this data also includes separate statistics for African Americans and Whites.

## Trend data

Whenever possible, the report includes data from several previous years to show trends. The trend data for the United States and for Missouri, which are based on larger samples, are more consistent or stable than the trend data for St. Louis City because smaller numbers are involved.

## Focus groups

Two sets of focus groups and numerous individual interviews provided extensive information for this report on what individuals see as the major issues impacting health in the City of St. Louis. One set of focus groups concentrated on community leaders and representatives of community-based organizations. An independent agency conducted these focus groups with a total of more than 100 persons representing healthcare providers, church leaders, ethnic minorities, African Americans, those with special health needs, neighborhood stabilization officers, women, children and youth, the homeless, refugees, the unemployed, public safety, the United Way, school officials, the Department of Health, business leaders and the media. Major concerns voiced in these groups were deteriorating infrastructure of the City, racial polarization, poverty and the results of poverty, communications, and access to health care.

Saint Louis University School of Public Health's Division of Environmental and Occupational Health conducted the 12 focus groups with community members as well as 10 interviews with key individuals. Included were senior citizens, youth (teenagers), Health Department employees, refugees, single mothers, and a cross section of residents from neighborhoods in both north and south St. Louis City. Major concerns voiced in these groups and interviews were access to health care, limited employment opportunities, service delivery at the St. Louis City Department of Health, refugee health, lack of after-school recreational programs, neighborhood safety and violence, teenage sex and related issues, public transportation, substandard housing and sanitation.

Comments and concerns from the focus groups and interviews are incorporated throughout the report.