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Chartbook on Health of Latinos in the Midwest

*by Roberto E. Torres, Ph.D.
Michigan State University*

Research Report No. 3
October 1990

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FOREWORD

According to the U.S. Bureau of the Census (1985), the Latino population will be the largest minority group in the United States by the end of the century. If the current rate of growth continues, these numbers will increase from 15.4 million to an estimated 39.4 million by the year 2000. Therefore, the growing presence of Latino individuals in the economic, political, and social life of the U.S. makes their current health status an issue of major consideration to American society (De la Rosa, 1989).

There exists very little information on the health status of Latinos in the U.S. Midwest region. The need to have knowledge on the health problems of Latinos in the Midwest acquires importance if we just consider that in 1980 a million Latinos resided in five midwestern states, that is, Illinois, Indiana, Michigan, Ohio and Wisconsin. Latino health statistics for this region are not only scarce, but also highly dispersed among a variety of different sources such as article journals, state health departments and unpublished documents. It is the intention of this Chartbook to present them in an organized fashion and in graphic form for easier interpretation. At the same time, the Chartbook can be used as a data resource for individuals interested in utilizing Midwest Latino health statistics.

The Julian Samora Research Institute is committed to the generation, transmission, and application of knowledge to serve the needs of Latino communities in the Midwest. To this end, it has organized a number of publication initiatives to facilitate the timely dissemination of current research and information relevant to Latinos. The Julian Samora Research Institute Research Report Series (RR) publishes monograph length reports of original empirical research on Latinos in the nation conducted by the Institute's faculty affiliates and research associates, and/or projects funded by grants to the Institute.

Chartbook on Health of Latinos in the Midwest

Table of Contents

List of Figures	<i>1</i>
Highlights	<i>3</i>
Data Sources and Limitations	<i>3</i>
General Mortality	<i>4</i>
Chronic Diseases	
Cirrhosis	<i>5</i>
Cancer	<i>5</i>
Heart Disease/Cerebrovascular Conditions	<i>6</i>
Diabetes	<i>8</i>
Maternal and Child Health	
Maternal Mortality	<i>9</i>
Pregnancy/Delivery-Related Complications and Concurrent Illnesses	<i>10</i>
Infant and Child Mortality	<i>11</i>
Prematurity	<i>13</i>
Low Birth Weight	<i>13</i>
Prenatal Care	<i>14</i>
Teenage Pregnancy	<i>15</i>
Drug Abuse	<i>16</i>
Acquired Immunodeficiency Syndrome (AIDS)	<i>16</i>
Tuberculosis	<i>18</i>
Homicide	<i>19</i>
Appendix: Definitions	<i>9, 20</i>
References	<i>21</i>

List of Figures

General Mortality

Fig. 1 Mortality Rate in Community Areas with High Concentrations of Latinos & the City of Chicago, 19864

Fig. 2 Average Age at Time of Death for Latino & White Non-Latino Populations in Nebraska, 19874

Chronic Diseases

CIRRHOSIS

Fig. 3 Mortality Rate Due to Cirrhosis in Logan Square (Latino Community) & the City of Chicago, 19865

CANCER

Fig. 4 Percentage of Mexican and Puerto Rican-Born Male Cancer Mortality Rates Below the Cancer Mortality Rate for White Non-Latino Males in Illinois, 1979-84.....5

Fig. 5 Percentage of Mexican & Puerto Rican-Born Female Cancer Mortality Rates Below the Cancer Mortality Rate for White Non-Latino Females in Illinois, 1979-845

HEART DISEASE/CEREBROVASCULAR CONDITIONS

Fig. 6 Percentage of Puerto Rican-Born Male & Female Heart Disease Mortality Rates Below or Above the Heart Disease Mortality Rates for White Non-Latino Males & Females in Metropolitan Chicago, 1979-816

Fig. 7 Percentage of Mexican-Born Male & Female Heart Disease Mortality Rates Below the Heart Disease Mortality Rates for White Non-Latino Males & Females in Metropolitan Chicago, 1979-816

Fig. 8 Percentage of Puerto Rican-Born Male & Female Cerebrovascular Disease Mortality Rates Below or Above the Cerebrovascular Disease Mortality Rates for White Non-Latino Males & Females in Metropolitan Chicago, 1979-817

Fig. 9 Percentage of Mexican-Born Male & Female Cerebrovascular Disease Mortality Rates Below the Cerebrovascular Disease Mortality Rates for White Non-Latino Males & Females in Metropolitan Chicago, 1979-817

DIABETES

Fig. 10 Percentage of Puerto Rican-Born Male & Female Diabetes Mortality Rates Below or Above the Diabetes Mortality Rates for White Non-Latino Males & Females in Metropolitan Chicago, 1979-818

Fig. 11 Percentage of Mexican-Born Male & Female Diabetes Mortality Rates Below or Above the Diabetes Mortality Rates for White Non-Latino Males & Females in Metropolitan Chicago, 1979-818

Maternal and Child Health

MATERNAL MORTALITY

Fig. 12 Maternal Mortality Rate in Humboldt Park (Puerto Rican Community) & the City of Chicago, 1984-869

PREGNANCY/DELIVERY-RELATED COMPLICATIONS AND CONCURRENT ILLNESSES

Fig. 13 Percentage of Latino & White Non-Latino Mothers Who Experienced Pregnancy-Related Complications in Wisconsin, 198810

Fig. 14 Percentage of Latino & White Non-Latino Mothers Who Experienced Concurrent Illnesses During Pregnancy in Wisconsin, 1988.....10

Fig. 15 Percentage of Latino & White Non-Latino Mothers Who Experienced Complications During Delivery in Wisconsin, 198810

INFANT AND CHILD MORTALITY

Fig. 16 Infant Mortality Rate for Latino & White Non-Latino Populations in Nebraska, 198711

Fig. 17 Infant Mortality Rate for Latino & White Non-Latino Populations in Wisconsin, 1982-86..11

Fig. 18 Infant Mortality Rate for Latinos & the Total Population in Lorain County, Ohio, 1981 ..12

Fig. 19 Mortality Rate Due to Diseases of Early Infancy in West Town, Logan Square, Humboldt Park (Latino Communities) & the City of Chicago, 1986.....12

PREMATURITY

Fig. 20 Percentage of Premature Births (Less Than 37 Weeks Gestation) for Latino & White Non-Latino Populations in Wisconsin, 198613

LOW BIRTH WEIGHT

Fig. 21 Low Birth Weight Rates for Latino & White Non-Latino Populations in Wisconsin, 1986 ..13

Fig. 22 Low Birth Weight (Less than 2,500 Grams) Rates for Mexican-Americans, Puerto Ricans, Cubans & White Non-Latinos in Chicago, 1983.....13

PRENATAL CARE

Fig. 23 Percentage of Latino & White Non-Latino Mothers with No Prenatal Care Started in the Third Trimester of Pregnancy in Nebraska, 198714

Fig. 24 Percentage of Latino & White Non-Latino Mothers Who Began Prenatal Care in the First Trimester in Wisconsin, 198814

Fig. 25 Percentage of Latino & White Non-Latino Mothers Having 10 or More Prenatal Care Visits During Their Pregnancy in Wisconsin, 1988.....14

TEENAGE PREGNANCY

Fig. 26 Incidence of Teenage Pregnancy in Humboldt Park (Puerto Rican Community) & the City of Chicago, 198615

Fig. 27 Percentage of Births for Mothers Under Age 20 for Latino & White Non-Latino Women in Wisconsin, 198815

Drug Abuse

Fig. 28 Admission Rates to Drug Abuse Treatment Programs for Latino & White Non-Latino Populations in Michigan, 1988.....16

Acquired Immunodeficiency Syndrome (AIDS)

Fig. 29 Cumulative Incidence of AIDS in Latino & White Non-Latino Populations in Michigan, 1990.....16

Fig. 30 Cumulative Incidence of AIDS in Latino & White Non-Latino Populations in the U.S. Midwest Region from 1981 to 1988.....17

Fig. 31 Cumulative Incidence of AIDS in Puerto Rican-Born, Cuban-Born & the White Non-Latino Populations in the Midwest Region, 1981-8817

Fig. 32 Cumulative Incidence of AIDS in Latino & White Homosexual Non-Intravenous Drug Abuser Populations in the Midwest Region, 1981-8817

Fig. 33 Cumulative Incidence of AIDS in Latino & White Heterosexual Intravenous Drug Abuser Populations in the Midwest Region, 1981-8818

Tuberculosis

Fig. 34 Tuberculosis Incidence Rate for Latino & White Non-Latino Populations in Michigan, 1986.....18

Homicide

Fig. 35 Percentage of Puerto Rican-Born Male & Female Homicide Mortality Rates Above the Homicide Mortality Rates for White Non-Latino Males & Females in Metropolitan Chicago, 1979-8119

Fig. 36 Percentage of Mexican-Born Male & Female Homicide Mortality Rates Above the Homicide Mortality Rates for White Non-Latino Males & Females in Metropolitan Chicago, 1979-8119

Highlights

- Puerto Rican and Mexican-born individuals in Illinois show a favorable cancer mortality rate in comparison to White non-Latinos.
- Mexican-Born Males in Chicago show a favorable heart disease mortality rate compared to White non-Latinos males; however, Puerto Rican-Born females exhibit an unfavorable heart disease mortality rate in comparison to the White non-Latino female population.
- Mexican-born individuals in Chicago show a favorable cerebrovascular disease mortality rate compared to White non-Latinos.
- Puerto Rican-Born males in Chicago exhibit a favorable cerebrovascular mortality rate compared to the White non-Latino population; in contrast, Puerto Rican-born females exhibit an unfavorable cerebrovascular disease mortality rate in comparison to the White non-Latino population.
- Puerto Rican-born males in Chicago show a favorable diabetes mortality rate compared with the White non-Latino male population; nevertheless, Puerto Rican-born females show an unfavorable diabetes mortality rate when compared with the White non-Latino female population in Chicago.
- Mexican-born females in Chicago exhibit a favorable diabetes mortality rate when compared with the White non-Latino female population; in contrast, Mexican-born males show an unfavorable diabetes mortality rate relative to the White non-Latino male population.
- Puerto Rican maternal mortality rate in Chicago is several times higher than the rate for the White non-Latino population.
- Infant and child mortality statistics reflect striking variations in the Midwest, from a favorable status in Nebraska and Wisconsin to an unfavorable condition in Ohio and Chicago.
- Low birth weight seems favorable for Latinos, especially for the Mexican-American population; in contrast, low birth weight seems unfavorable for the Puerto Rican population.
- Latino women delay prenatal care and receive significantly less prenatal care visits than the White non-Latino population, both crucial factors that certainly should be affecting Latino pregnancy outcomes and infant health.
- Latinos in the Midwest region show a higher AIDS cumulative incidence rate than the White non-Latino population; Puerto Ricans and Cubans exhibit the highest AIDS cumulative incidence rates among Latino subgroups.
- Puerto Rican and Mexican-born individuals in Chicago have a mortality rate due to homicide several times higher than the White non-Latino population; Puerto Rican and Mexican-born males show a higher homicide mortality rate than Puerto Rican and Mexican females in Chicago.

Data Sources and Limitations

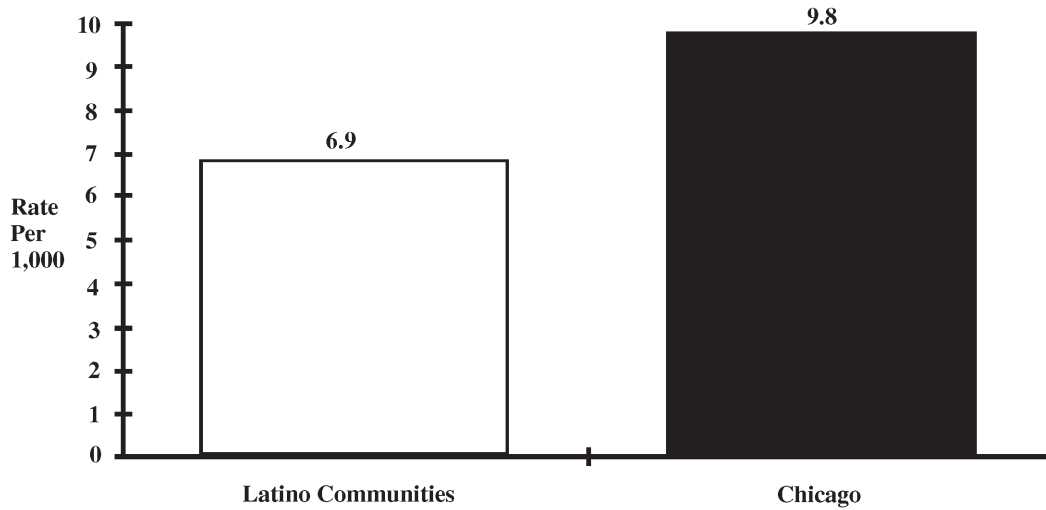
There is a critical lack of health status data relating to Latinos, specially in the Midwest region. The limited nature of the data to be presented in this report does not allow drawing definitive conclusions about the Latino health status in the Midwest. Information is uneven and incomplete. However, these statistics provide clues as to the magnitude and nature of the health problems suffered by Latinos in this region.

The Latino statistics presented in this report were obtained from studies published in scientific journals, statistical reports prepared by state health departments, reports prepared by Spanish Speaking Affairs Commissions and unpublished data from government agencies. It should be highlighted that the Shai and Rosenwaik study (1987) was an exceptionally important data source in the preparation of this report, since it is one of the few studies analyzing the mortality patterns of Mexicans and Puerto Ricans in a Midwest urban setting (in this case, in metropolitan Chicago, the largest Latino concentration in the region).

However, several limitations should be made explicit. For example, statistics from the Shai and Rosenwaik study (1987) refer only to the population 15-74 year old. It should be also noted that statistics from this study as well as from the Mallin and Anderson study (1988) refer to first-generation Puerto Rican and Mexican-Born individuals in Chicago and Illinois respectively, which excludes Puerto Rican and Mexicans born and raised in the U.S. If more detailed information is necessary, readers should consult cited sources on the concepts and methodologies used.

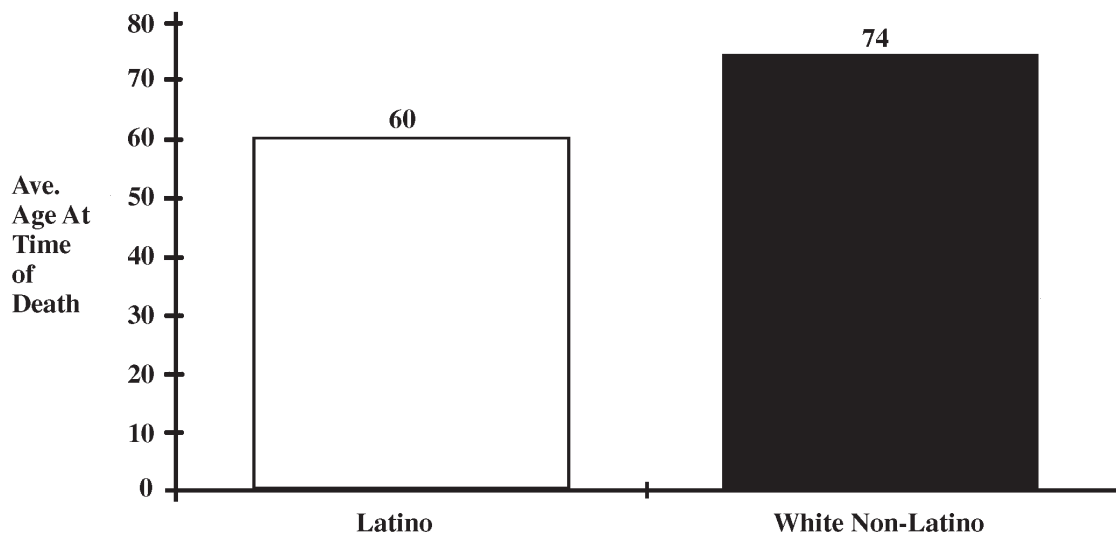
GENERAL MORTALITY

Fig. 1 Mortality Rate in Community Areas with High Concentrations of Latinos and the City of Chicago, 1986



Source: Chicago Department of Health, 1988.

Fig. 2 Average Age at Time of Death for the Latino and White Non-Latino Populations in Nebraska, 1987

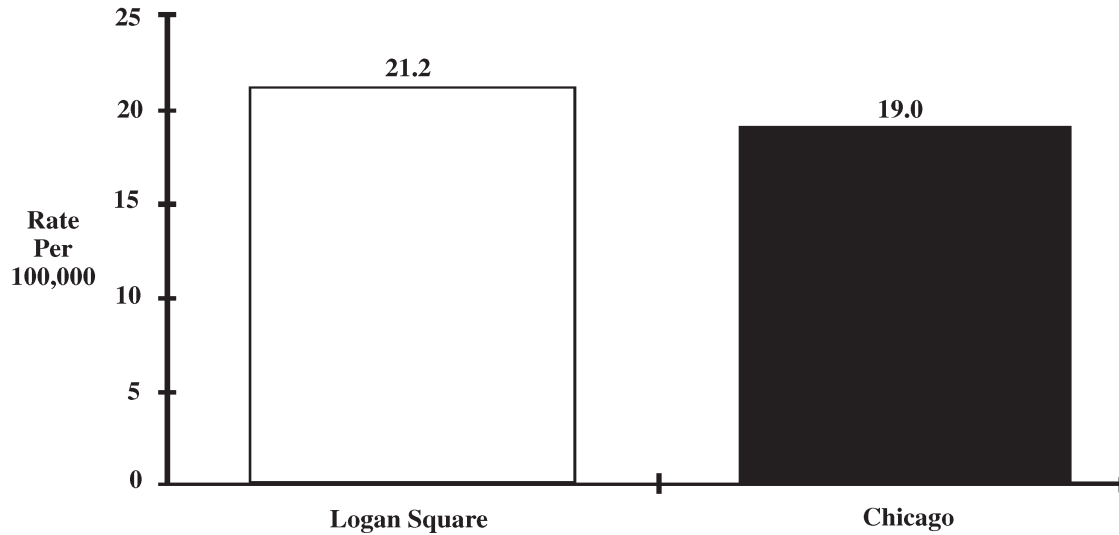


Source: Nebraska Department of Health

CHRONIC DISEASES

Cirrhosis

Fig. 3 Mortality Rate Due to Cirrhosis in Logan Square (Latino Community) and the City of Chicago, 1986

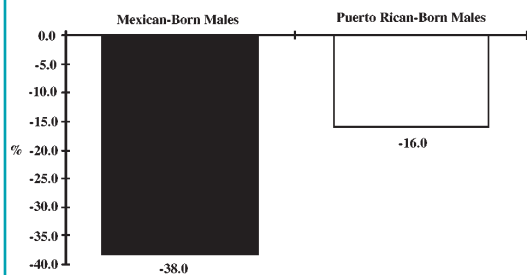


Source: Chicago Department of Health, 1988.

CHRONIC DISEASES

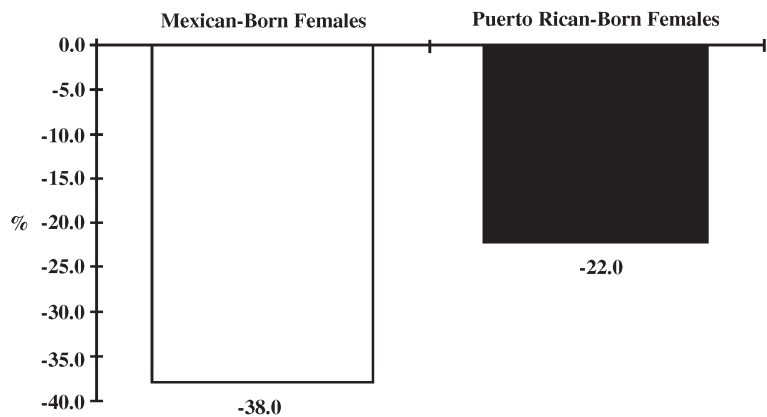
Cancer

Fig. 4 Percentage of Mexican and Puerto Rican-Born Male Cancer Mortality Rates Below the Cancer Mortality Rate for White Non-Latino Males in Illinois, 1979-84



Source: Mallin and Anderson, 1988.

Fig. 5 Percentage of Mexican and Puerto Rican-Born Female Cancer Mortality Rates Below the Cancer Mortality Rate for White Non-Latino Females in Illinois 1979-84

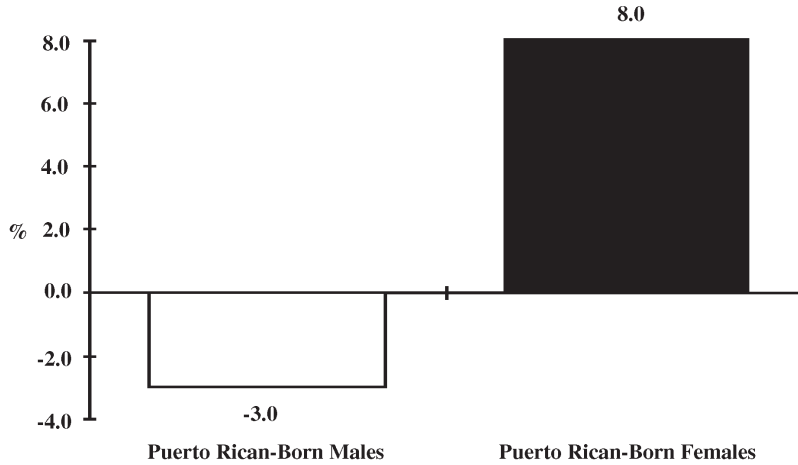


Source: Mallin and Anderson, 1988.

CHRONIC DISEASES

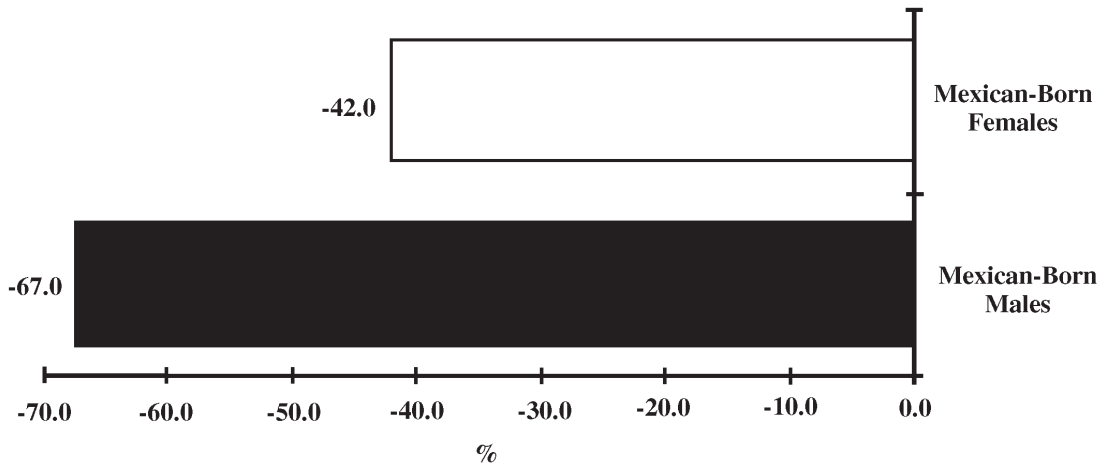
Heart Disease and Cerebrovascular Conditions

Fig. 6 Percentage of Puerto Rican-Born Male and Female Heart Disease Mortality Rates Below or Above the Heart Disease Mortality Rates for White Non-Latino Males and Females in Metropolitan Chicago, 1979-81



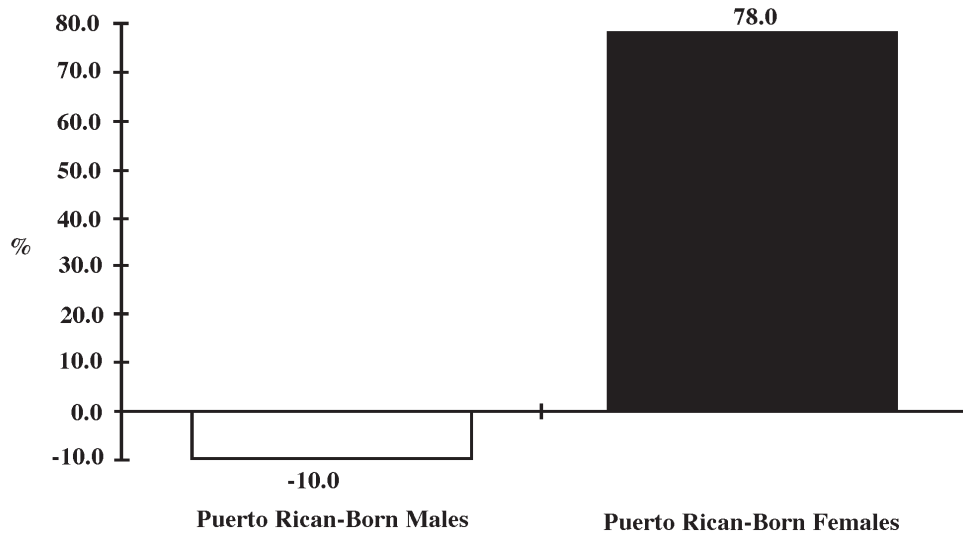
Source: Shai and Rosenwaik, 1987.

Fig. 7 Percentage of Mexican-Born Male and Female Heart Disease Mortality Rates Below the Heart Disease Mortality Rates for White Non-Latino Males and Females in Metropolitan Chicago, 1979-81



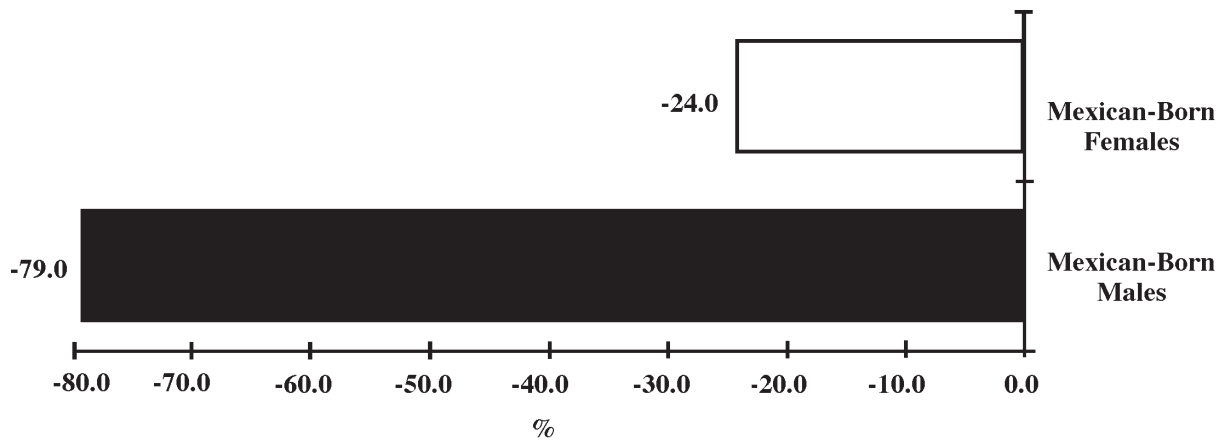
Source: Shai and Rosenwaik, 1987.

Fig. 8 Percentage of Puerto Rican-Born Male and Female Cerebrovascular Disease Mortality Rate Below or Above the Cerebrovascular Disease Mortality Rate for White Non-Latino Males and Females in Metropolitan Chicago, 1979-81



Source: Shai and Rosenwaike, 1987.

Fig. 9 Percentage of Mexican-Born Male and Female Cerebrovascular Disease Mortality Rates Below the Cerebrovascular Disease Mortality Rates for White Non-Latino Males and Females in Metropolitan Chicago, 1979-81

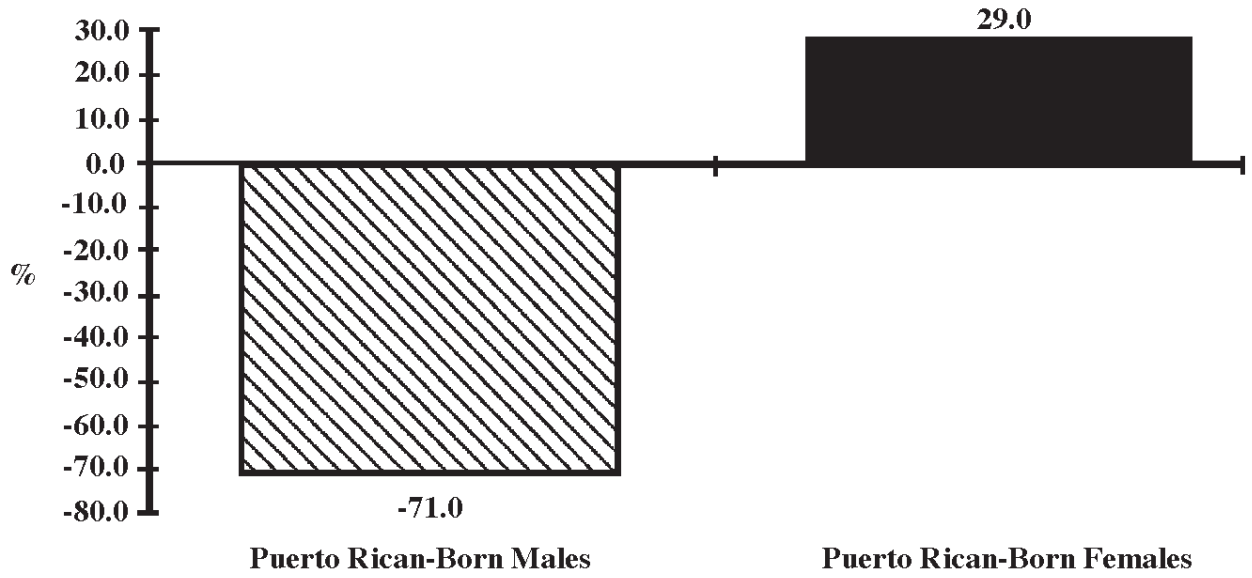


Source: Shai and Rosenwaike, 1987.

CHRONIC DISEASES

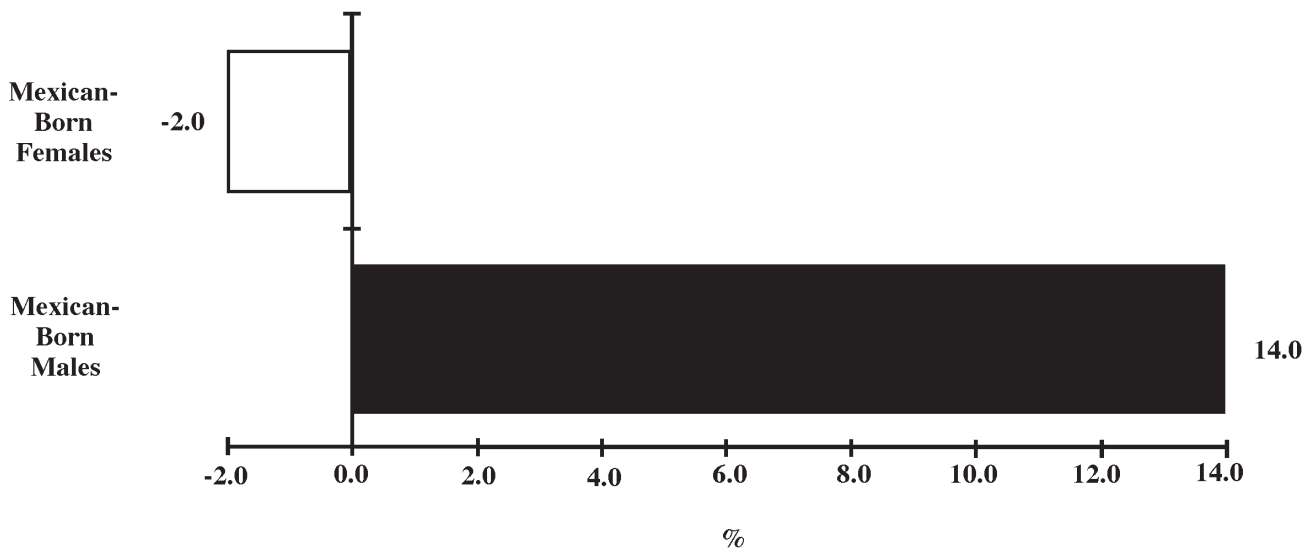
Diabetes

Fig. 10 Percentage of Puerto Rican-Born Male and Female Diabetes Mortality Rates Below or Above the Diabetes Mortality Rates for White Non-Latino Males and Females in Metropolitan Chicago, 1979-81



Source: Shai and Rosenwaide, 1987.

Fig. 11 Percentage of Mexican-Born Male and Female Diabetes Mortality Rates Below or Above the Diabetes Mortality Rates for White Non-Latino Males and Females in Metropolitan Chicago, 1979-81

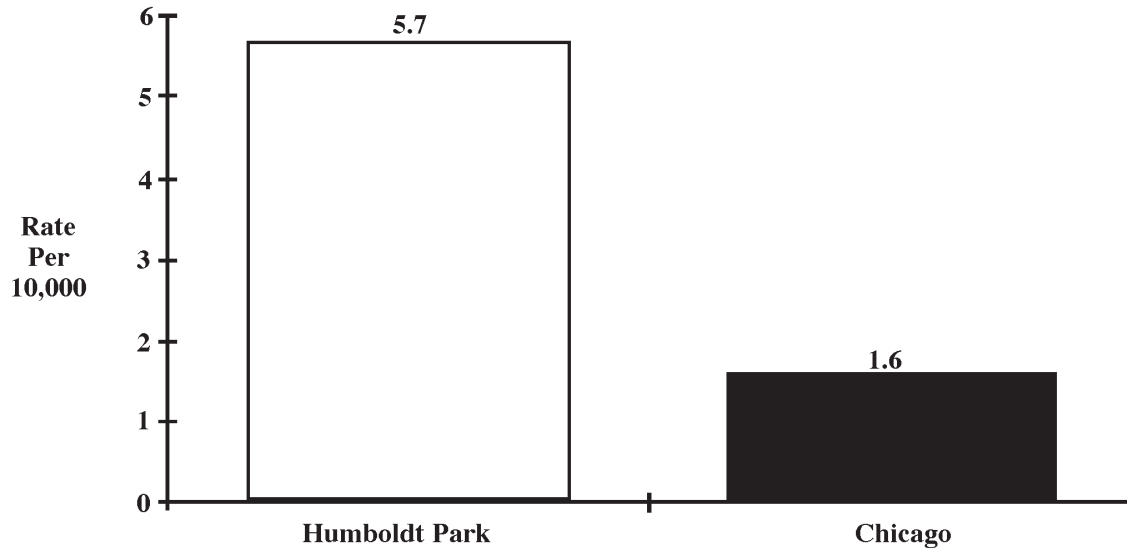


Source: Shai and Rosenwaide, 1987.

MATERNAL AND CHILD CARE

Maternal Mortality

Fig. 12 Maternal Mortality Rate in Humboldt Park (Puerto Rican Community) and the City of Chicago, 1984-86



Source: Chicago Department of Health, 1988.

Appendix: Definitions

The following technical terms used in this Chartbook are defined in the following pages to provide a clear understanding of the statistics presented:

1) Mortality Rate (also known as death rate) — an estimate of the proportion of a population that dies during a specific period. The numerator is the number of persons dying during the period; the denominator is the size of the population, usually estimated as the mid-year population. The mortality rate in a population is generally calculated by the formula:

$$\frac{\text{Number of deaths during a specified period} \times 1000 \text{ (or 100,000)}}{\text{Number of persons at risk of dying during the period}}$$

In this report, the term “general mortality” refers to the *overall* mortality rate of a population (e.g. Latino, Puerto Rican, White Non-Latino, etc.), considering all causes of death of that group. Mortality rates by specific cause such as cirrhosis, cancer, etc. are calculated using the same formula, only that the numerator includes the number deaths *assigned to a specific cause* during a specified period. This rate is usually expressed by 100,000 inhabitants.

2) Maternal Mortality Rate — the risk of dying from causes associated with childbirths; for this purpose the deaths used in the numerator are those arising during pregnancy or from puerperal causes, i.e., deaths occurring during and/or due to deliveries, complications of pregnancy, childbirth, and the puerperium. Women exposed to the risk of dying from puerperal causes are those who have been pregnant during that period. Their number being unknown, the number of live births is used as the conventional denominator for computing comparable maternal mortality rates.

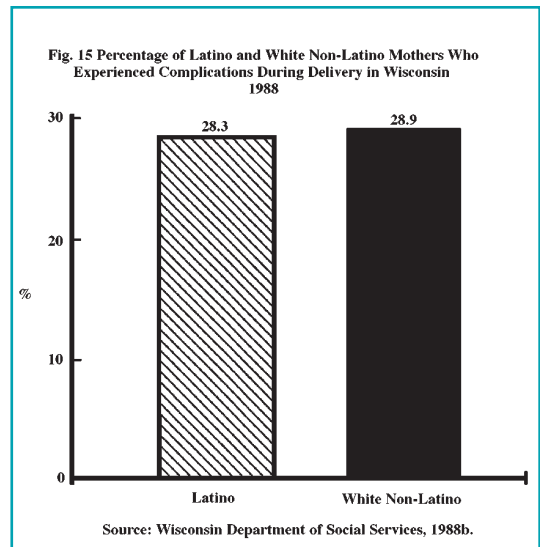
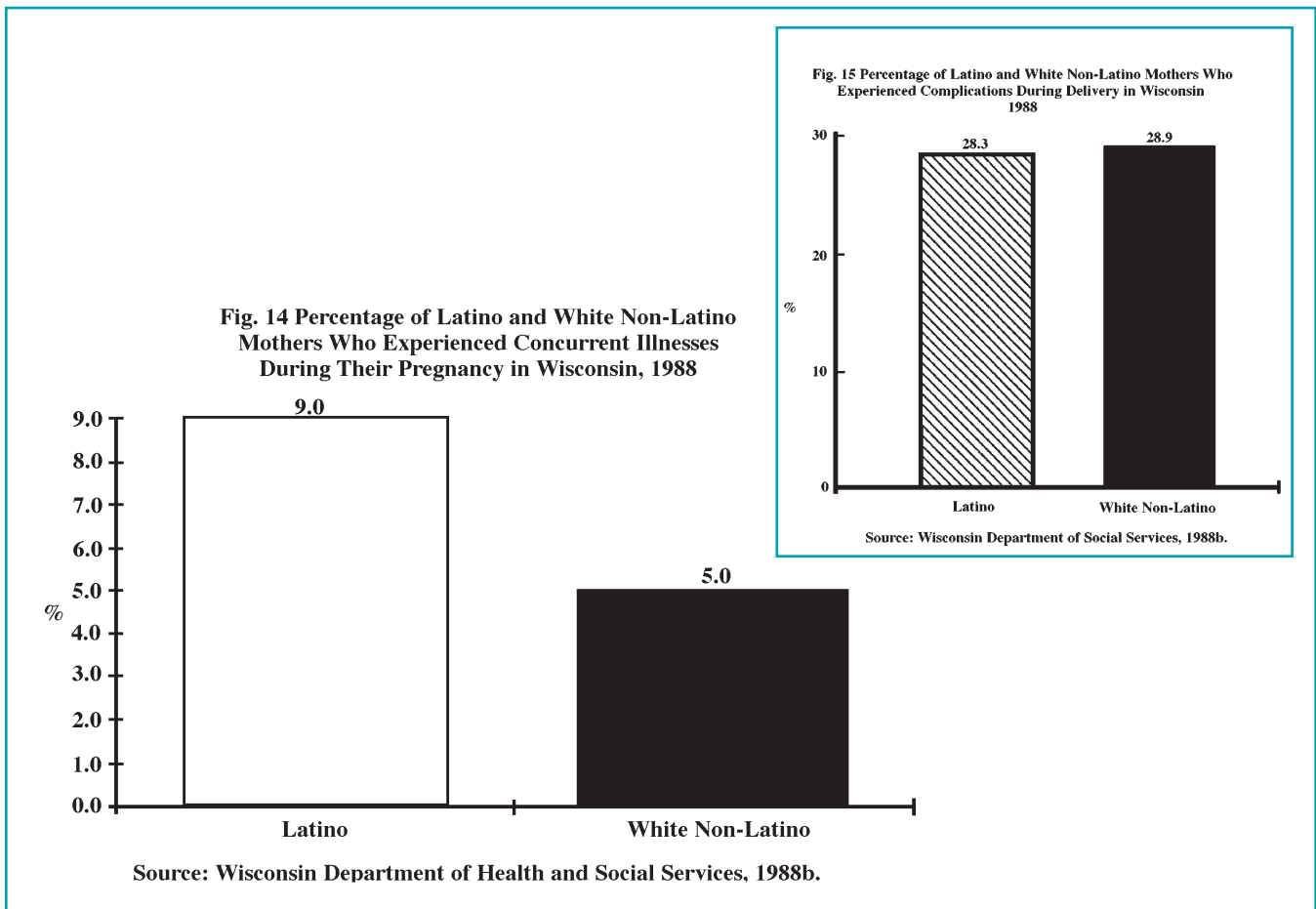
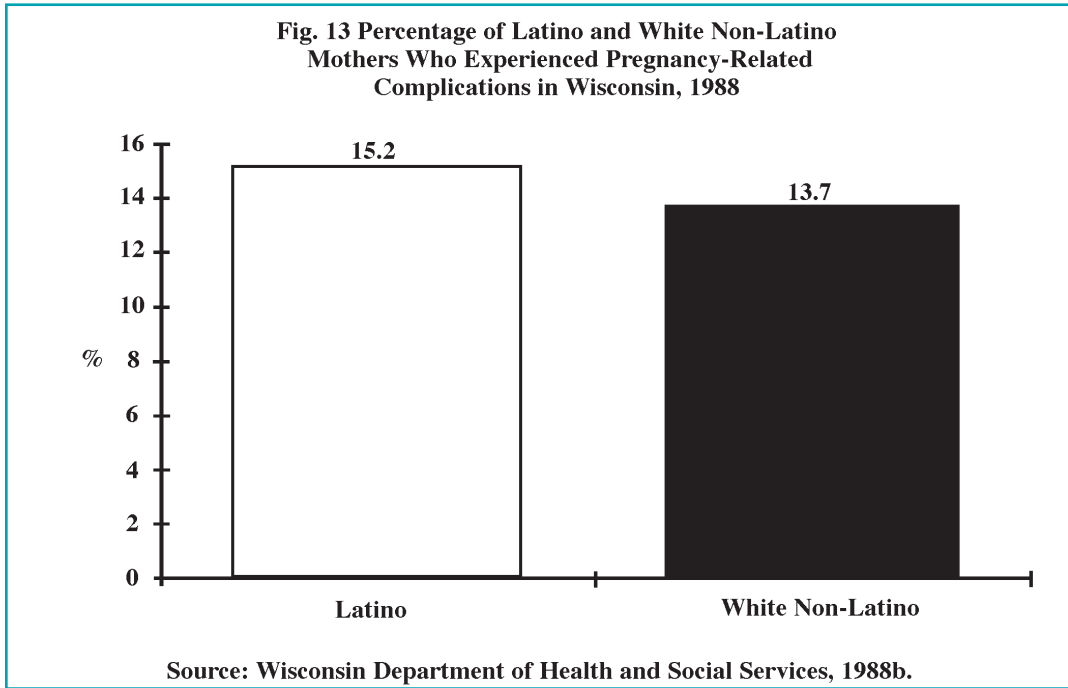
The formula is:

$$\frac{\text{Number of deaths from puerperal causes in a given geographical area during a given year} \times 1000 \text{ (or 100,000)}}{\text{Number of live births that occurred among the population of the given geographic area during the same year}}$$

(continued on Page 24)

MATERNAL AND CHILD CARE

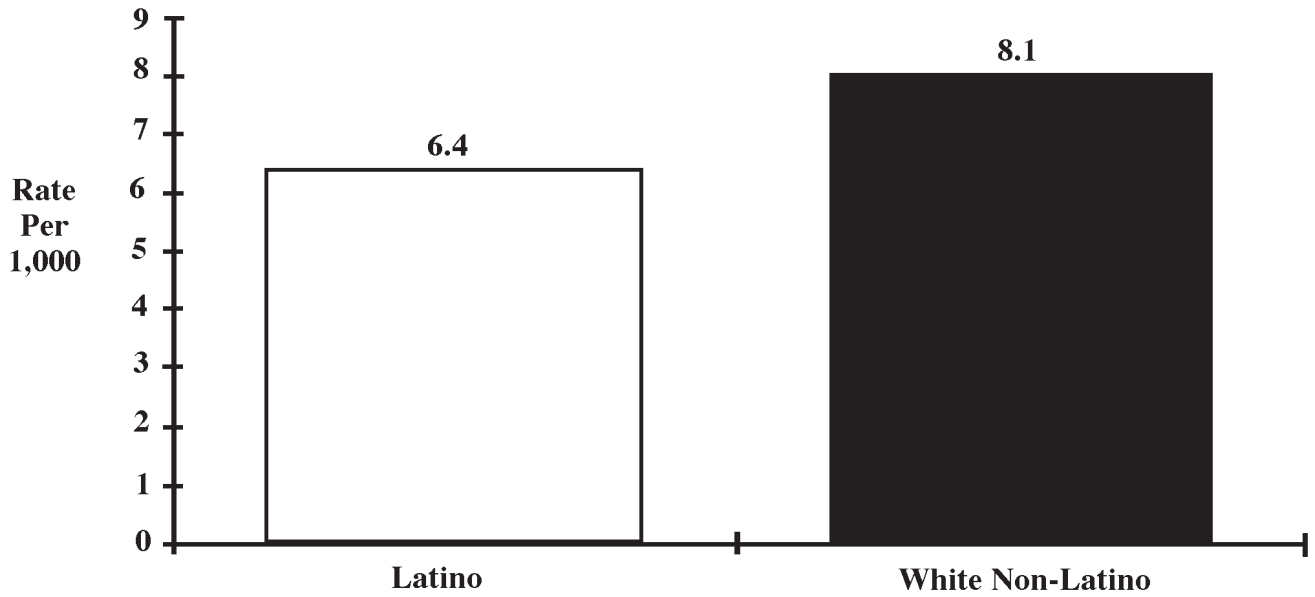
Pregnancy/Delivery-Related Complications and Concurrent Illnesses



MATERNAL AND CHILD CARE

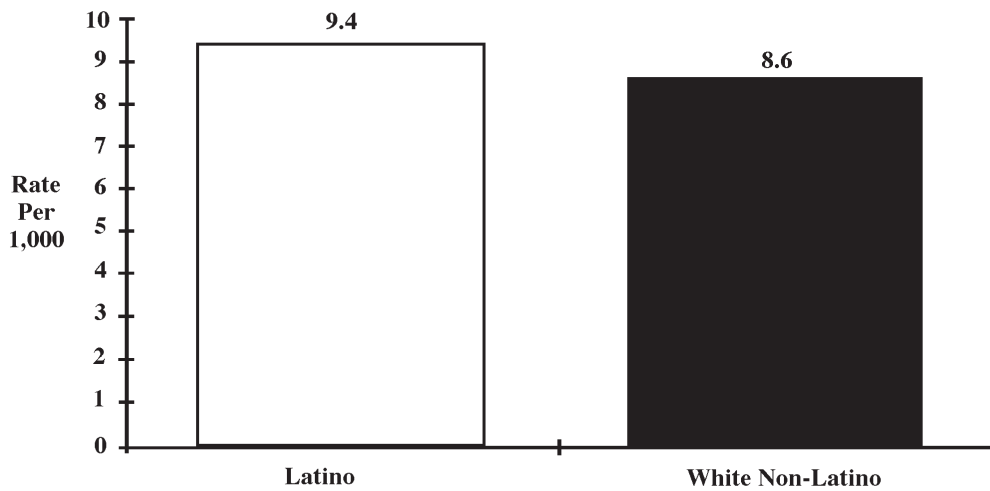
Infant and Child Mortality

Fig. 16 Infant Mortality Rate for the Latino and White Non-Latino Populations in Nebraska, 1987



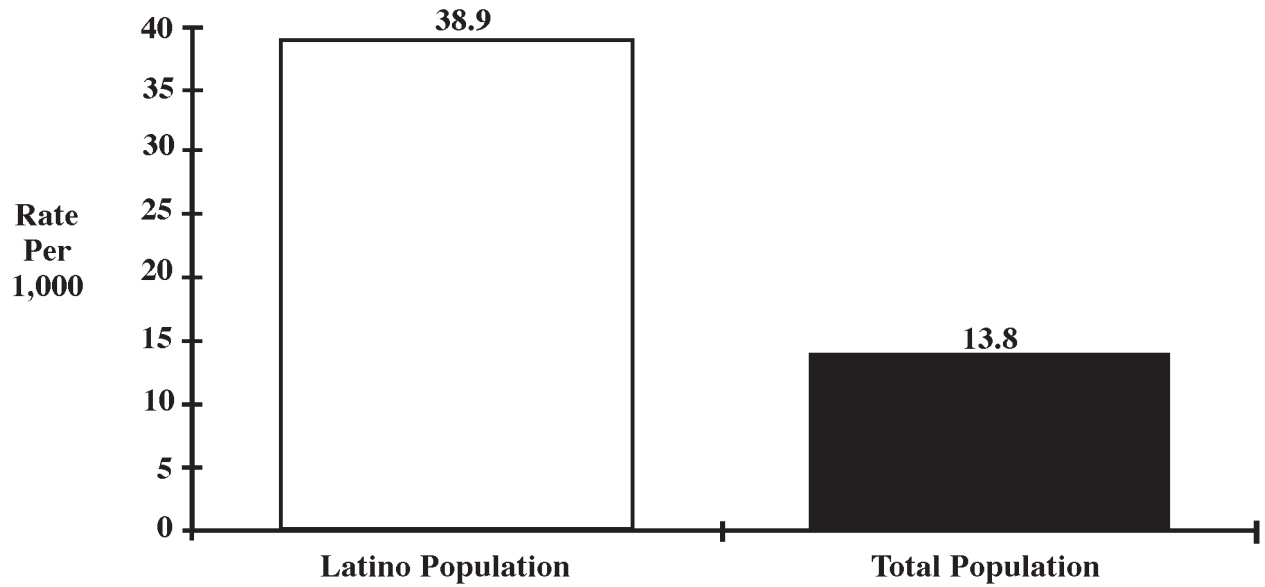
Source: Nebraska Department of Health

Fig. 17 Infant Mortality Rate for the Latino and White Non-Latino Populations in Wisconsin, 1982-86



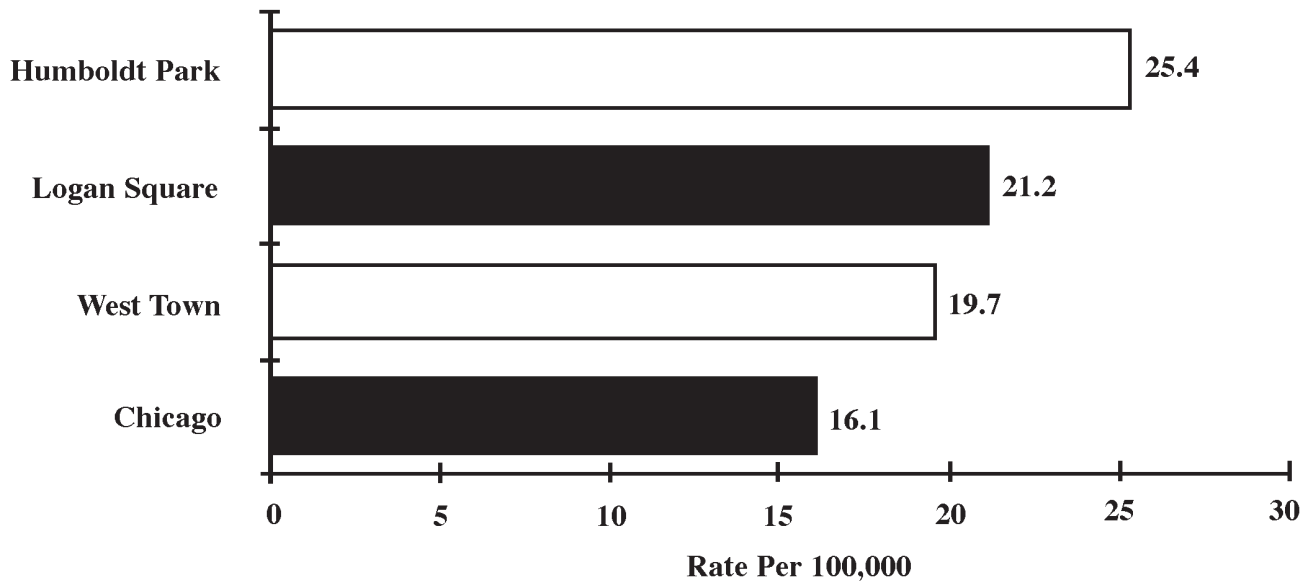
Source: Wisconsin Department of Health and Social Services, 1988a.

Fig. 18 Infant Mortality Rate for the Latino Population and the Total Population in Lorain County, Ohio 1981



Source: De la Rosa, 1985; Ohio Department of Health, 1980.

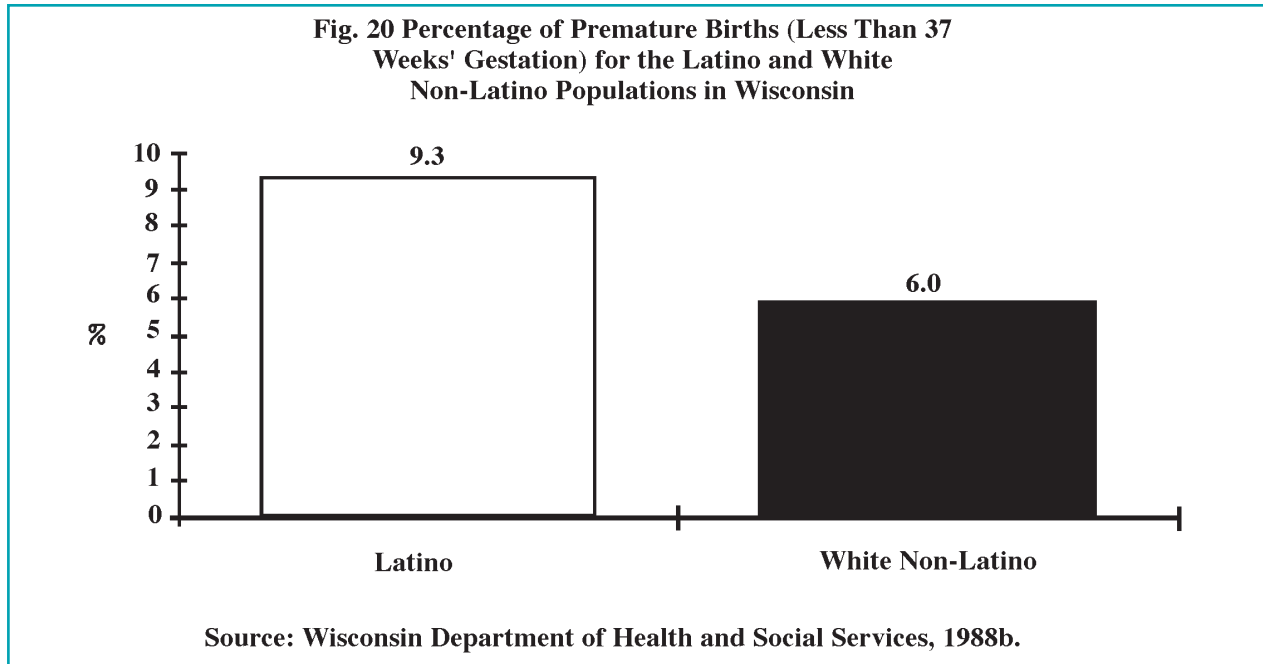
Fig. 19 Mortality Rate Due to Diseases of Early Infancy in West Town, Logan Square, Humboldt Park (Latino Communities) and the City of Chicago, 1986



Source: Chicago Department of Health, 1988.

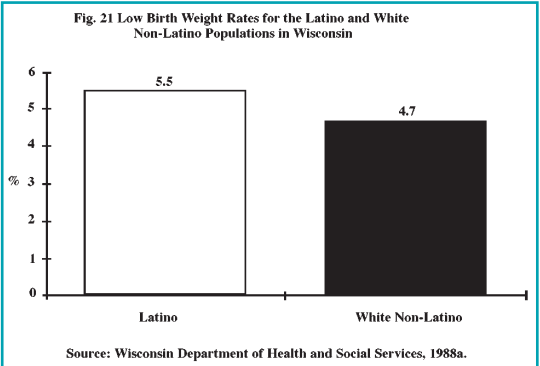
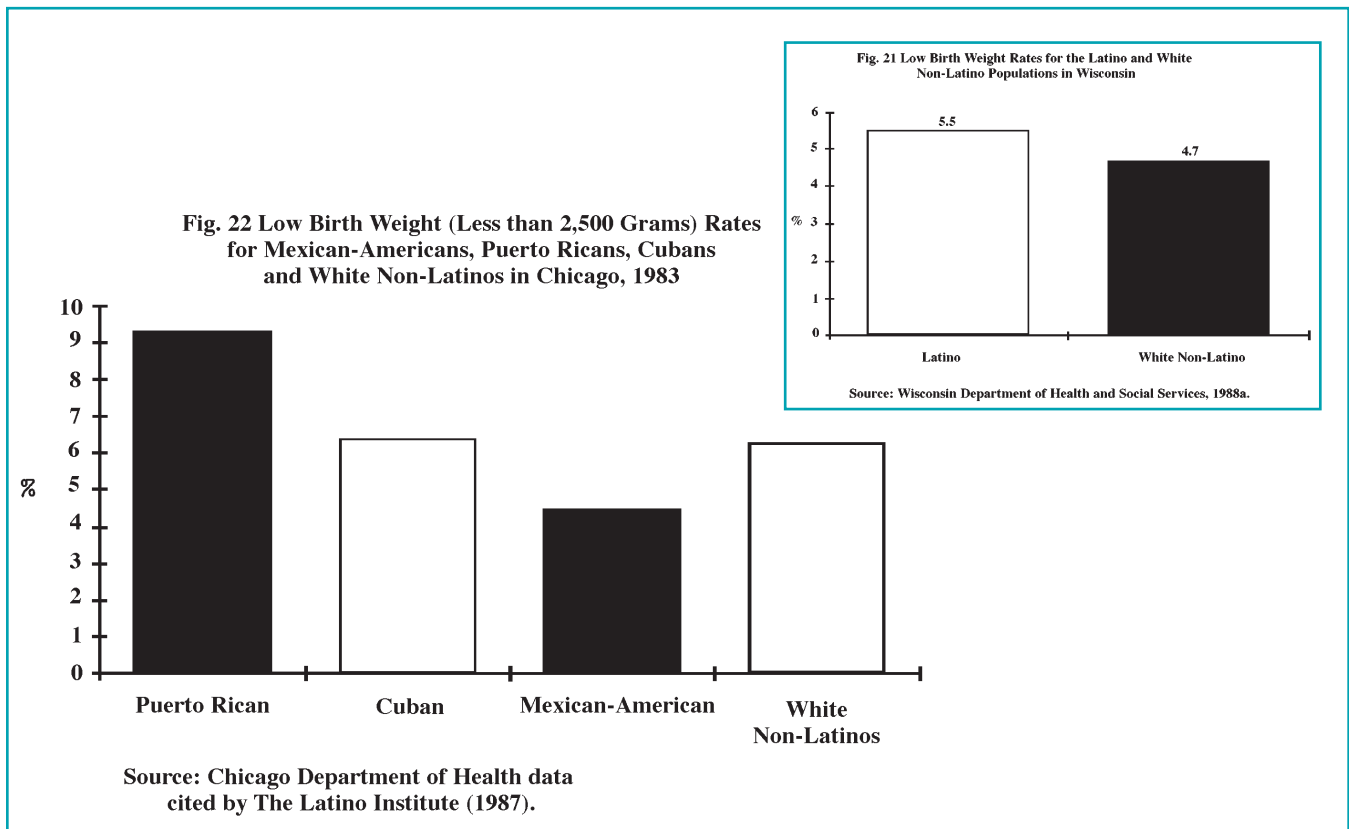
MATERNAL AND CHILD CARE

Prematurity



MATERNAL AND CHILD CARE

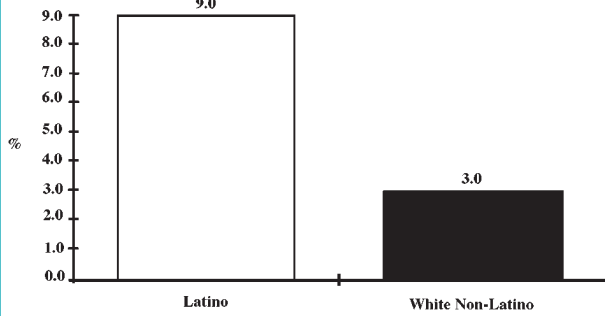
Low Birth Weight



MATERNAL AND CHILD CARE

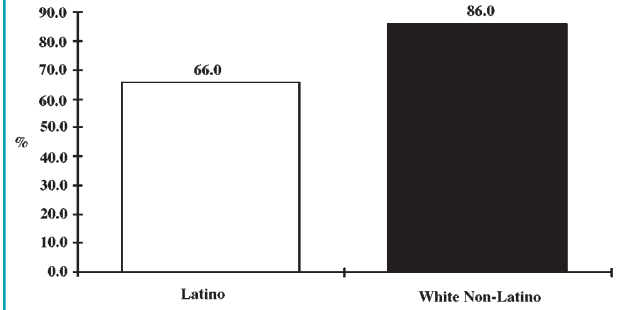
Prenatal Care

Fig. 23 Percentage of Latino and White Non-Latino Mothers With No Prenatal Care Started in the Third Trimester of Pregnancy in Nebraska 1987



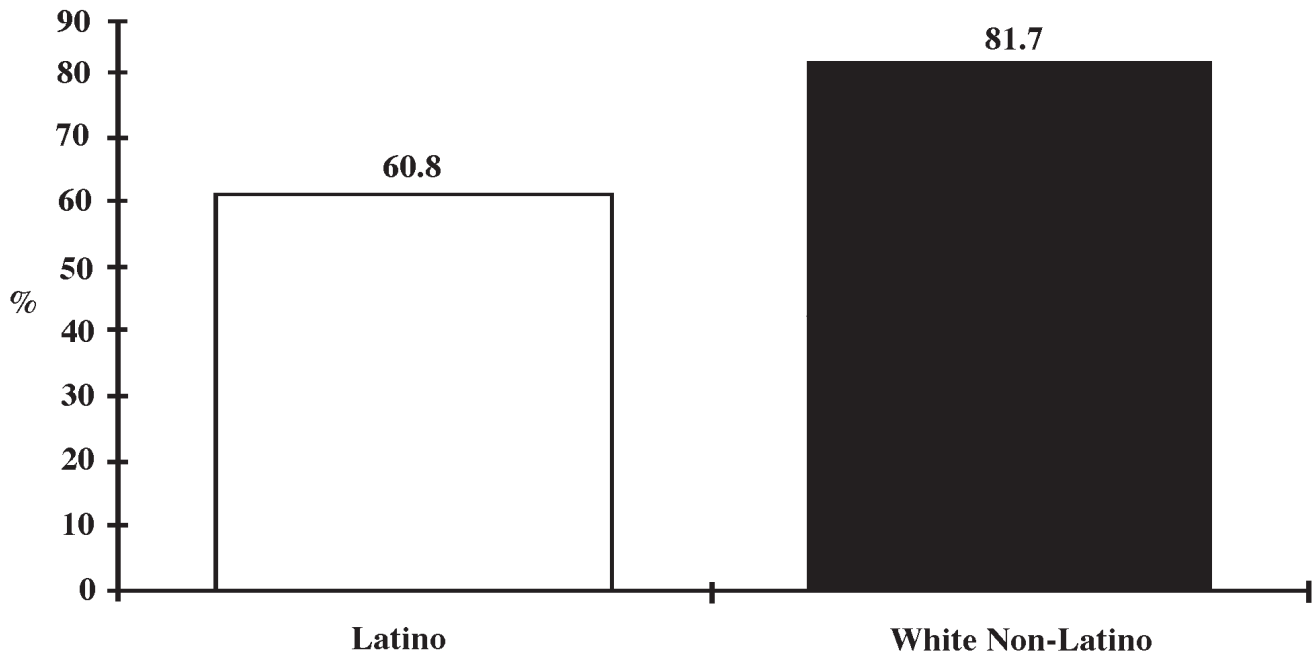
Source: Nebraska Department of Health

Fig. 24 Percentage of Latino and White Non-Latino Mothers Who Began Prenatal Care in the First Trimester in Wisconsin, 1988



Source: Wisconsin Department of Health and Social Services, 1988b.

Fig. 25 Percentage of Latino and White Non-Latino Mothers That Had Ten or More Prenatal Care Visits During Their Pregnancy in Wisconsin, 1988

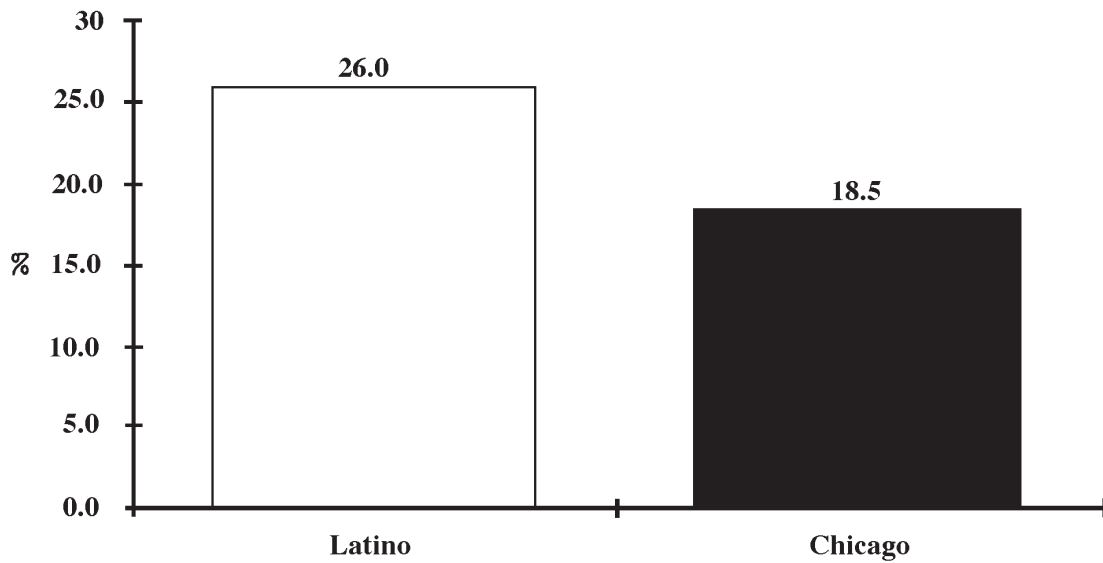


Source: Wisconsin Department of Health and Social Services, 1988b.

MATERNAL AND CHILD CARE

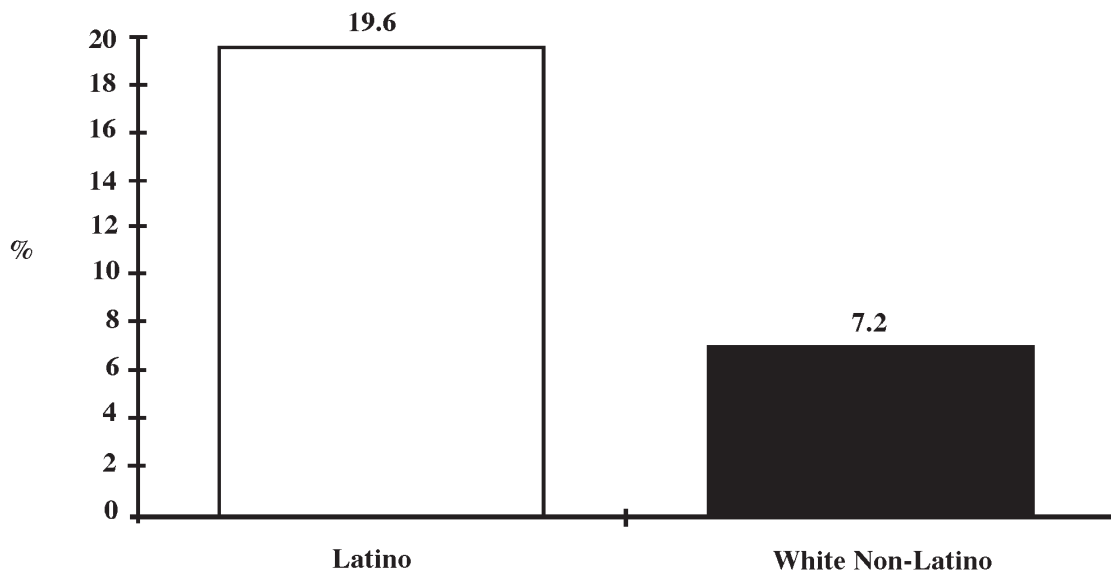
Teenage Pregnancy

Fig. 26 Incidence of Teenage Pregnancy in Humboldt Park (Puerto Rican Community) and the City of Chicago, 1986



Source: Chicago Department of Health, 1988.

Fig. 27 Percentage of Births for Mothers Under Age 20 for Latino and White Non-Latino Women in Wisconsin 1988

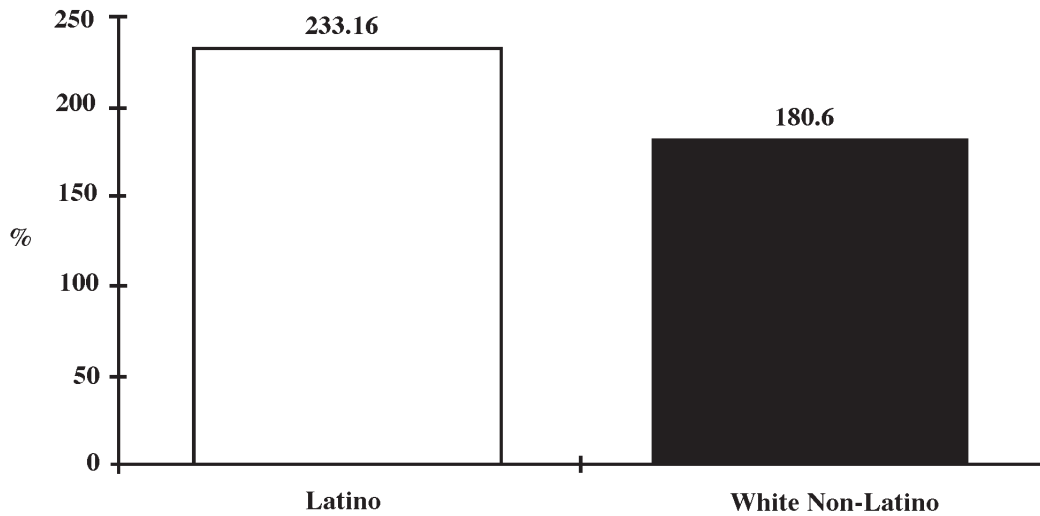


Source: Wisconsin Department of Health and Social Services, 1988b.

MATERNAL AND CHILD CARE

Drug Abuse

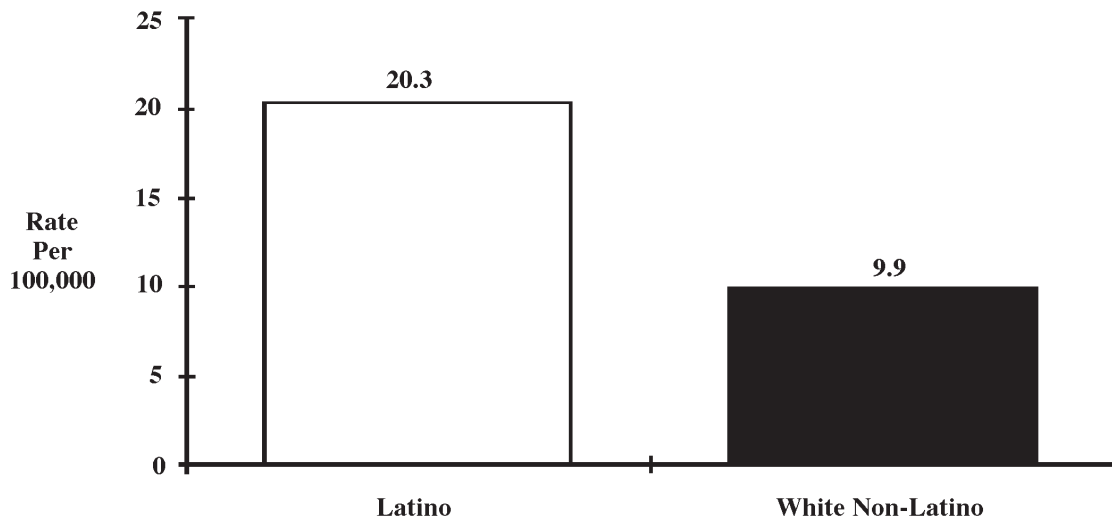
Fig. 28 Admission Rates to Drug Abuse Treatment Programs for the Latino and White Non-Latino Populations in Michigan, 1988



Source: Michigan Department of Public Health, 1988.

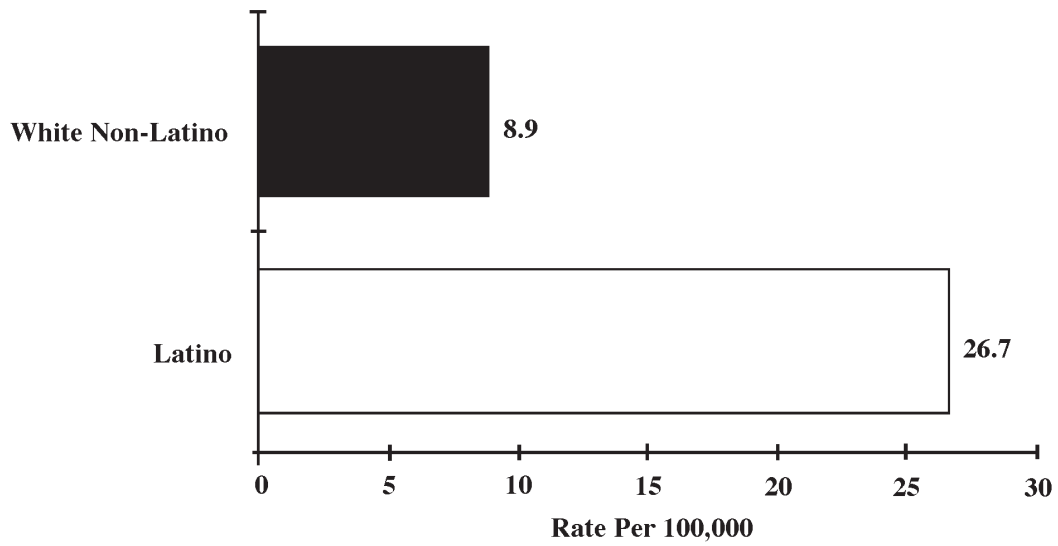
ACQUIRED IMMUNODEFICIENCY SYNDROME (AIDS)

Fig. 29 Cumulative Incidence of AIDS in the Latino and White Non-Latino Populations in Michigan, 1990



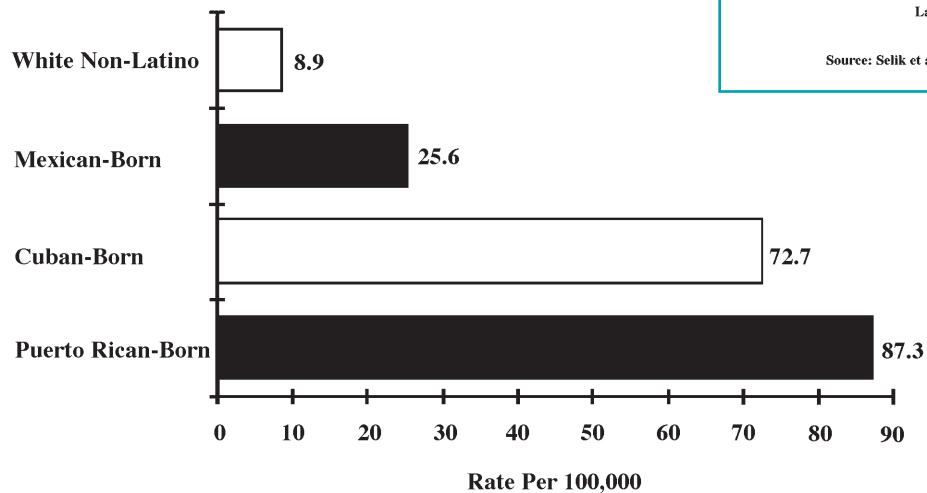
Source: Michigan Department of Public Health, March, 1990.

Fig. 30 Cumulative Incidence of AIDS in the Latino and White Non-Latino Populations in the U.S. Midwest Region from 1981 to 1988



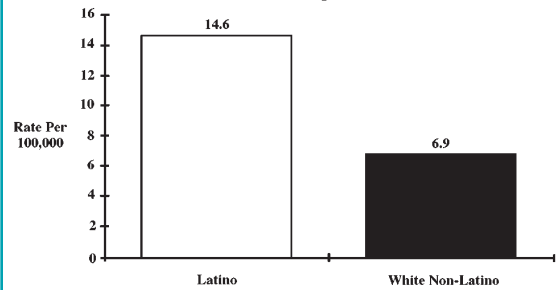
Source: Selik et al., 1989.

Fig. 31 Cumulative Incidence of AIDS in the Puerto Rican-Born, Cuban-Born and the White Non-Latino Population in the Midwest Region, 1981-88



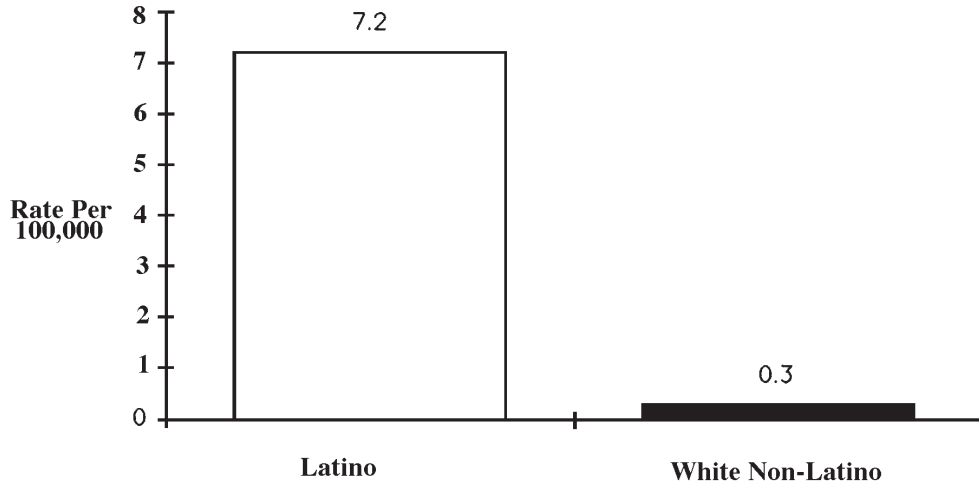
Source: Selik et al., 1989.

Fig. 32 Cumulative Incidence of AIDS in the Latino and White Homosexual Non-Intravenous Drug Abuser Populations in the Midwest Region, 1981-88



Source: Selik et al., 1989.

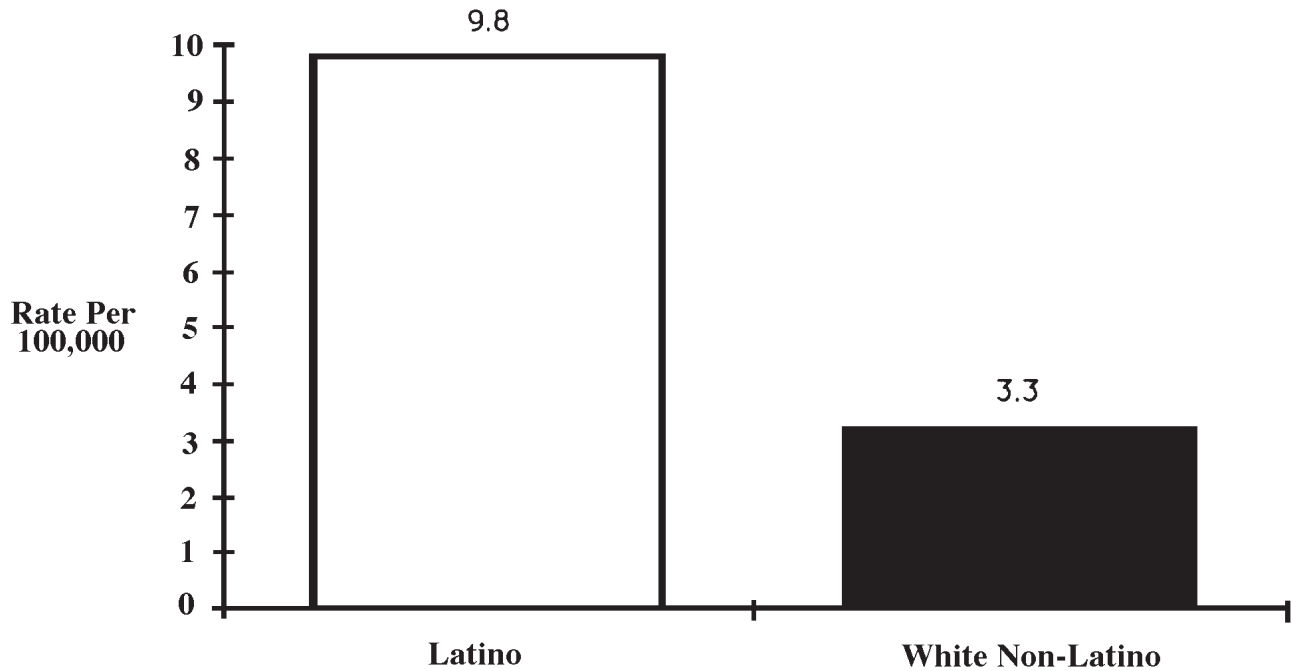
Fig. 33 Cumulative Incidence of AIDS in the Latino and White Heterosexual Intravenous Drug Abuser Populations in the Midwest Region, 1981-88



Source: Selik et al., 1989.

TUBERCULOSIS

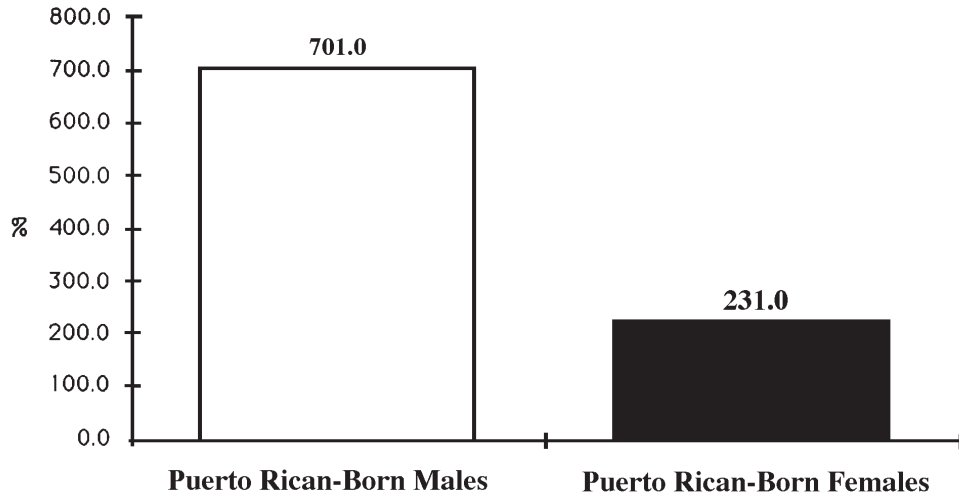
Fig. 34 Tuberculosis Incidence Rate for the Latino and White Non-Latino Populations in Michigan, 1986



Source: Michigan Department of Public Health, 1988.

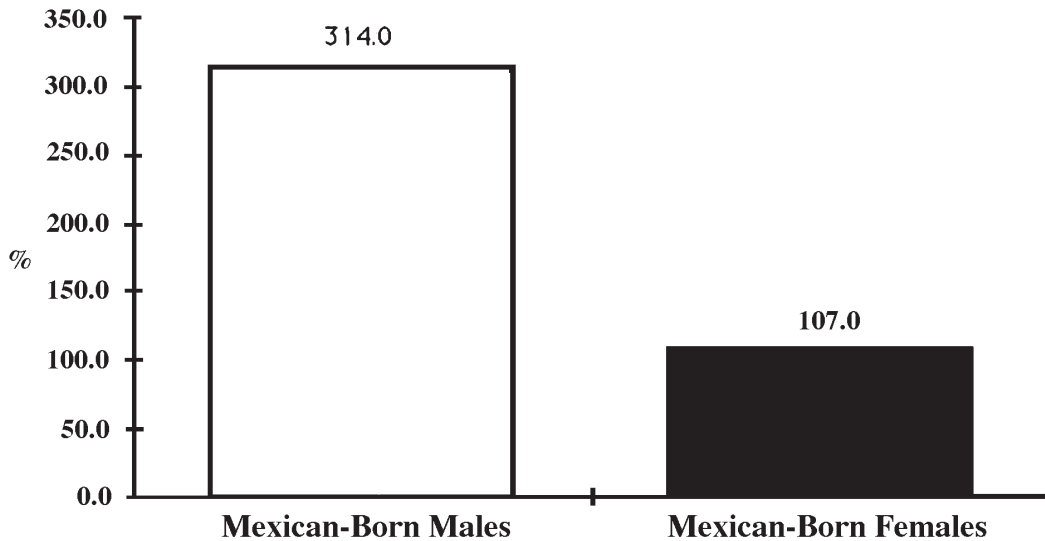
HOMICIDE

Fig. 35 Percentage of Puerto Rican-Born Male and Female Homicide Mortality Rate Above the Homicide Mortality Rate for White Non-Latino Males and Females in Metropolitan Chicago, 1979-81



Source: Shai and Rosenwaik, 1987.

Fig. 36. Percentage of Mexican-Born Male and Female Homicide Mortality Rates Above the Homicide Mortality Rate for White Non-Latino Males and Females in Metropolitan Chicago, 1979-81



Source: Shai and Rosenwaik, 1987.

Appendix: Definitions

(continued from Page 9)

3) Infant Mortality Rate — a measure of the yearly rate of deaths in children less than one year old. The denominator is the number of live births in the same year.

The formula is:

$$\frac{\text{Number of deaths in a year of children less than 1 year of age} \times 1000}{\text{Number of Live Births during the same year}}$$

4) Cumulative Incidence Rate — the number or proportion of a group of people who experience the onset of a health-related event during a specified time interval; to calculate the figures presented in this Chartbook, the number of AIDS cases in an specific ethnic group (e.g. Latinos, Mexican-Americans, etc.) was divided by the total population of that ethnic group and multiplied by 100,000.

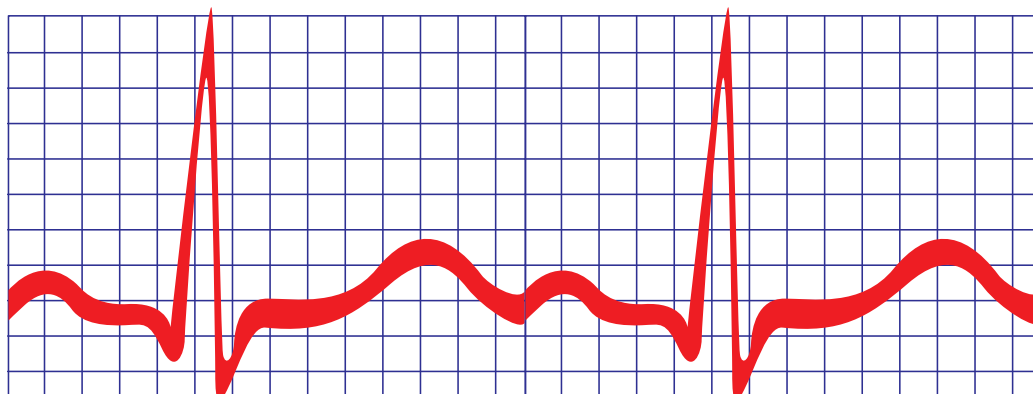
5) Incidence Rate — the rate at which new events occur in a population; the incidence rate most often used in public health practice is calculated by the formula:

$$\frac{\text{Number of new events in a specified period} \times 100 \text{ (or other base)}}{\text{Number of persons exposed to risk during this period}}$$

6) Latino — refers to U.S. residents of Mexican, Puerto Rican, Cuban, Central or South American origin living in the mainland; residents from Puerto Rico were not included in this definition.

7) Midwest — the region's definition for this report includes Illinois, Indiana, Michigan, Ohio, Wisconsin, Nebraska, Kansas, Minnesota, Missouri, Iowa, and North and South Nebraska.

It is also important to note that a number of graphics in this report are expressed in terms of the percentage of the Latino mortality rate that is below or above the White Non-Latino mortality rate in Metropolitan Chicago. These percentages were obtained by utilizing the standardized mortality ratio (SMR) statistic presented in the Shai and Rosenwaike study (1987). Since the SMR is hard to interpret by non-health profession readers, a decision was made to translate the ratio to a percentage-wise format. The SMR is calculated by dividing the mortality rate of the Latino group by the mortality rate for the White Non-Latino group. For example, in Fig. 10, the 29% of Puerto Rican-Born female mortality rate due to diabetes above the White Non-Latino female rate was obtained by dividing the rate for Puerto Rican-born females by the rate for White Non-Latino females. In this case, the SMR is 1.29, which indicates that the Latino rate is 29% higher than the White Non-Latino rate. This percentage was calculated by subtracting 1.29 from 1.0 and multiplying the difference by 100. When interpreting the SMR statistic, any value higher than 1.0 indicates a higher mortality rate for the Latino group compared to the White Non-Latino group. An SMR of 1.0 indicates that both groups have the same mortality rate. Any value less than 1.0 indicates a lower mortality rate for the Latino group in comparison to the White Non-Latino group. For example, according to Fig. 10, the percentage of Puerto Rican-born male mortality due to diabetes in Metropolitan Chicago is 71% below the mortality rate for the White Non-Latino male population. The SMR for this groups was .29 in the Shai and Rosenwaike study. The method to derive the -71% was to subtract .29 from 1.0 and multiplying the difference by 100.



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