

DOCUMENT RESUME

ED 345 437

EC 301 198

TITLE Child Health USA '91.  
 INSTITUTION Health Resources and Services Administration  
 (DHHS/PHS), Rockville, MD. Office for Maternal and  
 Child Health Services.  
 REPORT NO HRS-M-CH-91-1  
 PUB DATE Nov 91  
 NOTE 113p.; Photographs will not reproduce.  
 PUB TYPE Reports - General (140) -- Statistical Data (110)

EDRS PRICE MF01/PC05 Plus Postage.  
 DESCRIPTORS \*Child Health; Children; Demography; Health Needs;  
 \*Health Services; \*Individual Characteristics;  
 Infants; \*Physical Health  
 IDENTIFIERS Service Utilization

ABSTRACT

This booklet summarizes recent information on the current health status and service needs of America's children. The booklet is intended to present sentinel health measures in a readily accessible and readable format to illustrate what has been accomplished for children and to identify what challenges remain. The booklet's four sections cover: general population data (population of children, children in poverty, family composition, working mothers, child care, and school dropouts); data for selected health status measures such as mortality, hospitalization, child abuse, and teenage sexuality, organized by developmental stages (infancy, childhood, and adolescence); information on health services utilization, such as health care financing, physician visits, hospital utilization by income, prenatal care, and immunization; and State-specific data on infant health, including mortality and prenatal care, low birth weight, and births to women under 18 years of age. (Approximately 40 references) (JDD)

\*\*\*\*\*  
 \* Reproductions supplied by EDRS are the best that can be made \*  
 \* from the original document. \*  
 \*\*\*\*\*

ED34543

# CHILD HEALTH USA '91

U.S. DEPARTMENT OF EDUCATION  
Office of Educational Research and Improvement  
EDUCATIONAL RESOURCES INFORMATION  
CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

---

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

2  
FC 301198

**BEST COPY AVAILABLE**

---

---

# CHILD HEALTH USA '91

---



U.S. DEPARTMENT OF  
HEALTH & HUMAN SERVICES  
Public Health Service  
Health Resources and Services Administration  
Maternal and Child Health Bureau  
DHHS Pub No. HRS-M-CH 91-1      November 1991

<b>PREFACE</b>	<b>5</b>	<b>II. HEALTH STATUS</b>	<b>16</b>	<b>III. HEALTH SERVICES AND UTILIZATION</b>	<b>40</b>
<b>PRESIDENT HOOVER'S CHILDREN'S CHARTER</b>	<b>6</b>	<i>Infant</i>		Health Care Financing	41
<b>INTRODUCTION</b>	<b>8</b>	Comparison of National Infant Mortality Rates	17	Physician Visits	42
<b>I. POPULATION CHARACTERISTICS</b>	<b>10</b>	Infant Mortality	18	Place of Physician Contact	43
Population of Children	11	Neonatal and Postneonatal Mortality	19	Hospital Utilization by Income	44
Children in Poverty	12	Maternal Mortality	20	Service Utilization by Children with Chronic Conditions	45
Family Composition	13	Low Birth Weight	21	Dental Care Utilization	46
Working Mothers	14	Congenital Anomalies	22	Utilization by Medicaid Recipients	47
Child Care	14	Infant Feeding	23	Prenatal Care	48
School Dropouts	15	<i>Child</i>		Immunization	49
		Child Mortality	24	<b>IV. STATE-SPECIFIC DATA</b>	<b>50</b>
		Childhood Deaths Due to Injury Hospitalization	25	Infant, Perinatal, and Neonatal Mortality	50
		Hospital Discharge Trend	26	Prenatal Care, Low Birth Weight and Births to Women Under 18	51
		Limitation of Activity	27	<b>REFERENCES</b>	<b>52</b>
		Lead Exposure	28		
		Dental Caries	29		
		Child Abuse and Neglect	30		
		Pediatric AIDS	31		
		<i>Adolescent</i>			
		Adolescent Mortality	32		
		Adolescent Deaths Due to Injury	33		
		Teenage Sexuality	34		
		Childbearing	35		
		Adolescent AIDS	36		
		Young Adult AIDS	37		
		Substance Abuse	38		
			39		



*Child Health USA '91* summarizes the most recent information available on the current health status and service needs of America's children. The report is intended to present sentinel health measures in a readily accessible and readable format to illustrate what has been accomplished for children and to identify what challenges remain. The document highlights the health of children at various developmental stages in accordance with the World Health Organization's vision of children's health as "a state of complete physical, mental and social well being, and not merely the absence of disease or infirmity." In future annual updates, it is expected that this report will be expanded to respond to the dynamic health care needs of children.

*Child Health USA '91* is divided into four sections. The first section includes general population data which provide a context for measures of health status and services utilization. The second section, which focuses on current data for selected health status measures, is organized by broad developmental stages: infancy, childhood, and adolescence. Section three presents current information on health services utilization. The final section contains State-specific data on infant health which are

tabulated to illustrate the variability among States on basic health measures. The availability of comprehensive and current national data which include information on various racial, ethnic, and socioeconomic groups was the major criterion used to select the indicators presented in this report.

This report is a collaborative effort of the National Center for Health Statistics and the Bureau of Maternal and Child Health pursuant to the implementation of Section 509 (42 U.S.C. 701) Part (a) (5) of Title V of the Social Security Act as amended. The report provides a summary of key indicators of child health which may change quickly; consequently, *Child Health USA '91* should be viewed as a reference for promoting health and preventing disease among children. Specific sources of information presented in the publication are provided at the end of the document.



12

**PRESIDENT HOOVER'S WHITE HOUSE  
CONFERENCE ON CHILD HEALTH AND  
PROTECTION RECOGNIZING THE  
RIGHTS OF THE CHILD AS THE FIRST  
RIGHTS OF CITIZENSHIP PLEDGES  
ITSELF TO THESE AIMS FOR THE  
CHILDREN OF AMERICA**

*I For every child spiritual and moral training to help him to stand firm under the pressure of life*

*II For every child understanding and the guarding of his personality as his most precious right*

*III For every child a home and that love and security which a home provides; and for that child who must receive foster care, the nearest substitute for his own home*

*IV For every child full preparation for his birth, his mother receiving prenatal, natal, and postnatal care; and the establishment of such protective measures as will make childbearing safer*

*V For every child health protection from birth through adolescence, including: periodical health examinations and, where needed, care of specialists and hospital treatment; regular dental examination and care of the teeth; protective and preventive measures against communicable diseases; the insuring of pure food, milk, and pure water*

13

**VI** For every child from birth through adolescence, promotion of health, including health instruction and a health program, wholesome physical and mental recreation, with teachers and leaders adequately trained

**VII** For every child a dwelling place safe, sanitary, and wholesome, with reasonable provisions for privacy, free from conditions which tend to thwart his development; and a home environment harmonious and enriching

**VIII** For every child a school which is safe from hazards, sanitary, properly equipped, lighted and ventilated. For younger children nursery schools and kindergartens to supplement home care

**IX** For every child a community which recognizes and plans for his needs, protects him against physical dangers, moral hazards, and disease; provides him with safe and wholesome places for play and recreation; and makes provision for his cultural and social needs

**X** For every child an education which, through the discovery and development of his individual abilities, prepares him for life; and through training and vocational guidance prepares him for a living which will yield him the maximum of satisfaction

**XI** For every child such teaching and training as will prepare him for successful parenthood, homemaking, and the rights of citizenship; and,

for parents, supplementary training to fit them to deal wisely with the problems of parenthood

**XII** For every child education for safety and protection against accidents to which modern conditions subject him- to those which he is directly exposed and those which, through loss or maiming of his parents, affect him indirectly

**XIII** For every child who is blind, deaf, crippled, or otherwise physically handicapped, and for the child who is mentally handicapped, such measures as will early discover and diagnose his handicap, provide care and treatment, and so train him that he may become an asset to society rather than a liability. Expenses of these services should be born publicly where they cannot be privately met

**XIV** For every child who is in conflict with society the right to be dealt with intelligently as society's charge, not society's outcast; with the home, the school, the church, the court and the institution when needed, shaped to return him whenever possible to the normal stream of life

**XV** For every child the right to grow up in a family with an adequate standard of living and the security of a stable income as the surest safeguard against social handicaps

**XVI** For every child protection against labor that stunts growth, either physical or mental, that limits education, that deprives children of the right of comradeship, of play, and of joy

**XVII** For every rural child as satisfactory schooling and health services as for the city child, and an extension to rural families of social, recreational, and cultural facilities

**XVIII** To supplement the home and the school in the training of youth, and to return to them those interests of which modern life tends to cheat children, every stimulation and encouragement should be given to the extension and development of the voluntary youth organizations

**XIX** To make everywhere available these minimum protections of the health and welfare of children, there should be a district, county, or community organization for health, education, and welfare, with full-time officials, coordinating with a state-wide program which will be responsive to a nation-wide service of general information, statistics, and scientific research. This should include: a) Trained, full-time public health officials, with public health nurses, sanitary inspection, and laboratory workers b) Available hospital beds c) Full-time public welfare service for the relief, aid, and guidance of children in special need due to poverty, misfortune, or behavior difficulties, and for the protection of children from abuse, neglect, exploitation, or moral hazard

**For every child these rights, regardless of race, or color, or situation, wherever he may live under the protection of the American flag**

If the future of a society is to be shaped by its children, then a strong national commitment to develop their bodies, minds, and spirits is needed. The Federal Government has been committed to promoting child health throughout most of this century.

In 1912, the Children's Bureau was established to "investigate and report... upon all matters pertaining to the welfare of children and child life among all classes of our people." Initially, the bureau sought to improve vital registration and to study infant mortality and the link between the health of mothers and that of their infants. The Bureau's publications entitled "Prenatal Care" (1913) and "Infant Care" (1914) were designed to promote adequate prenatal care, good nutrition during pregnancy, and appropriate child care techniques. Revisions of these publications are still widely used.

In 1930, The Children's Charter was produced by President Hoover's White House Conference on Child Health and Protection. While the language of the Charter is somewhat dated, the agenda which it proposed was eloquent. Many of the objectives contained in the Charter continue to challenge the public health field.

Despite significant improvements in child health and well being during this century, there is an unfinished public health agenda in the United States. The current Public Health Service agenda set forth in *Healthy People 2000, National Health Promotion and Disease Prevention Objectives* identifies 332 objectives for improving the health of the American people, including 176 objectives which pertain to mothers and children. Some of the child health indicators contained in *Child Health USA '91* are related to these objectives. The chart on the opposite page summarizes the percent change that occurred from 1980 through 1988 for several health status indicators. The chart also displays the percent change that would be required between 1988 and the year 2000 in order to reach the targets specified in *Healthy People 2000*.

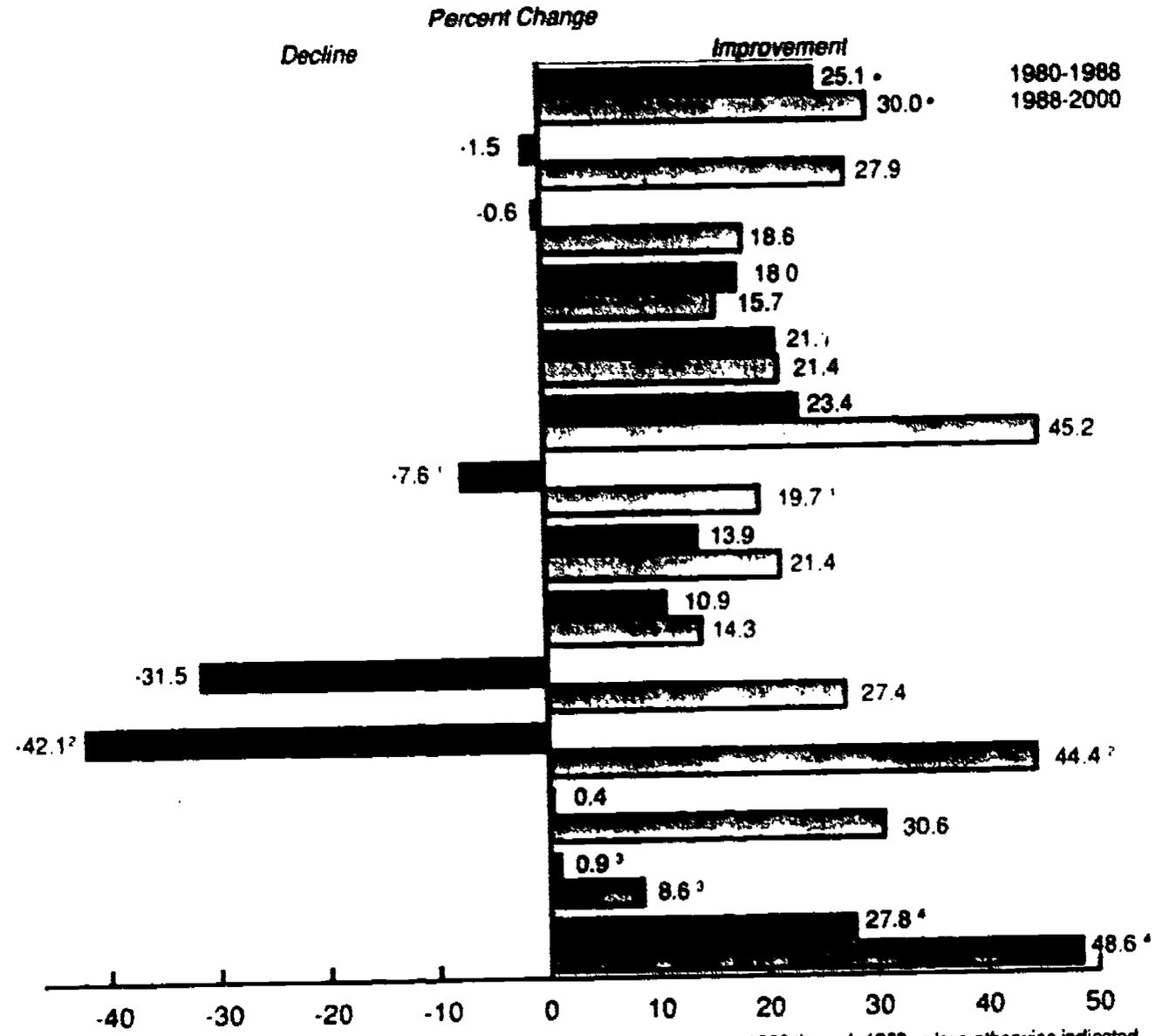
From 1980 through 1988 there were substantial improvements in several health measures, including a reduction in infant mortality, overall childhood death rates, and adolescent alcohol consumption. However, essentially no change occurred during the same period in the percent of low birth weight infants, the percent of women with first trimester prenatal care, and the teenage pregnancy rate.

Death rates due to homicide and suicide, and the percent of 15 year-olds who were sexually active, actually increased.

This glimpse suggests that there are some objectives for the year 2000 that can be reached if public health efforts follow the course charted during the 1980s, but it also suggests that fundamental changes may be needed to reach some of the other objectives. It is the collective responsibility of all agencies concerned with the health of children to assure healthy births and safe environments. It is hoped that the information provided in this year's version of *Child Health USA* will stimulate public health action.

Maternal and Child Health Bureau  
Health Resources and Services  
Administration

HEALTH STATUS INDICATOR	1980	1989	2000
<b>Infant Mortality Rate</b> (per 1,000 live births)	12.6	10.0	7.0
<b>Percent Low Birth Weight</b>	6.8	6.9	5.0
<b>Percent of Women with First Trimester Prenatal Care</b>	76.3	75.9	90.0
<b>Childhood Deaths</b> (per 100,000 children, ages 1-14)	38.5	33.2	28.0
<b>Fire-related Deaths</b> (per 100,000 children, ages 0-5)	5.2	4.2	3.3
<b>Drowning Deaths</b> (per 100,000 children, ages 1-4)	5.4	4.2	2.3
<b>Homicide Deaths</b> (per 100,000 children, ages 0-3)	3.6	3.9	3.1
<b>Motor Vehicle Accident Deaths</b> (per 100,000 children, ages 1-14)	8.1	7.0	5.5
<b>Motor Vehicle Accident Deaths</b> (per 100,000 adolescents, ages 15-24)	44.8	38.5	33.0
<b>Suicide Deaths</b> (per 100,000 adolescents, ages 15-19)	8.5	11.3	8.2
<b>Percent of 15 Year-olds Sexually Active</b>	19.0 <sup>2</sup>	27.0	15.0
<b>Teenage Pregnancy Rate</b> (per 1,000 women, ages 15-17)	72.4	72.0	50.0
<b>Completion of High School</b> (percent of 20-21 year-olds)	83.0	82.9 <sup>3</sup>	90.0
<b>Current Alcohol Usage: Past Month</b> (percent 12-17 year-olds)	30.2	24.5 <sup>4</sup>	12.6



<sup>1</sup> % change based on 1987 data  
<sup>2</sup> % change based on 1982 baseline  
<sup>3</sup> % change based on 1989 data  
<sup>4</sup> % change based on 1990 data

■ Actual percent change between 1980 and 1988, calculated by linear regression on the natural log of annual rates 1980 through 1988 unless otherwise indicated.  
 ■ Percent change required to meet Year 2000 target, based on 1988 data unless otherwise indicated.

\* Format for this figure was adapted from *Kids Count 1991*, published by the Annie E. Casey Foundation and the Center for the Study of Social Policy



20

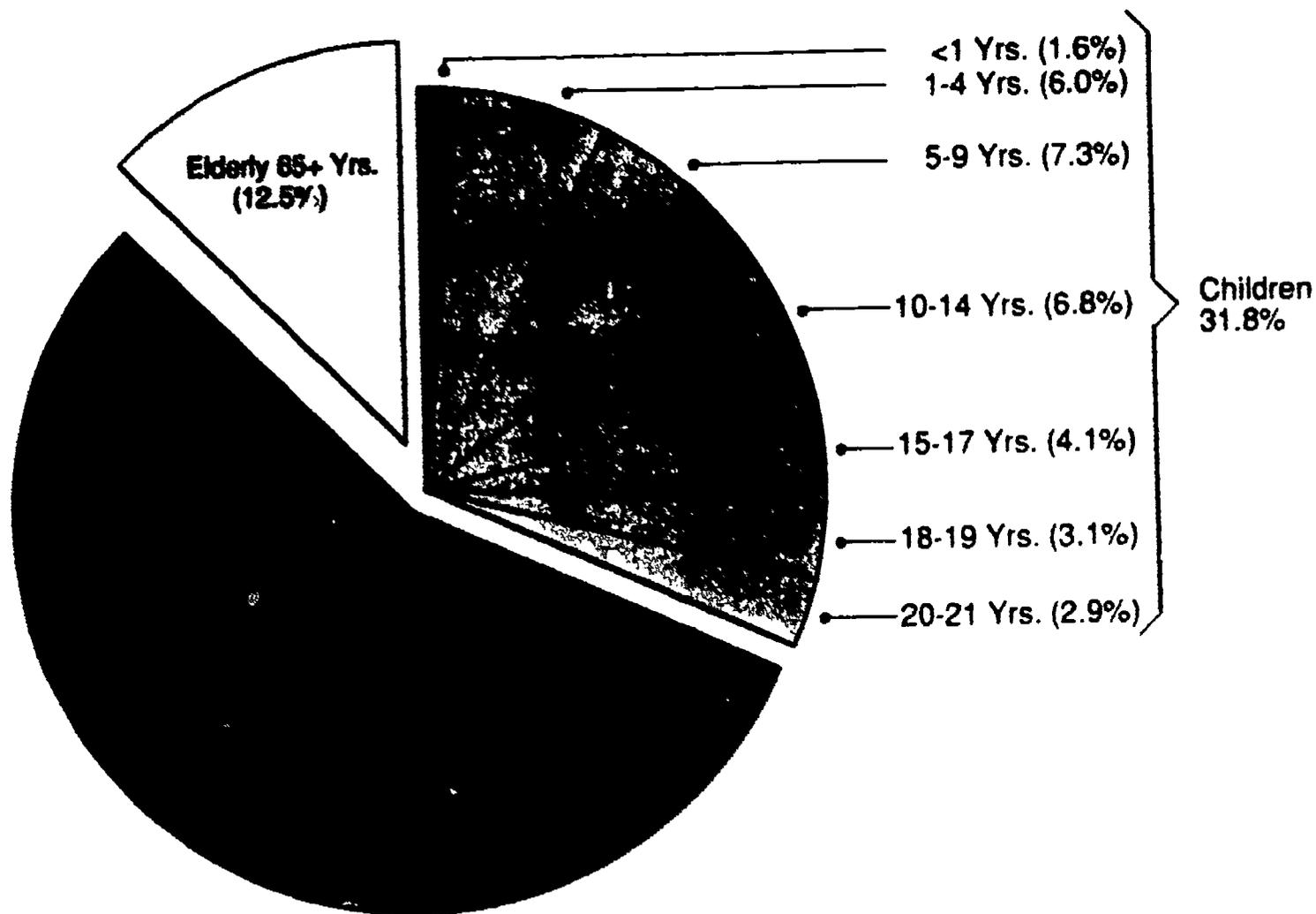
There are several sociodemographic characteristics that are used to describe the maternal and child population (i.e. race, age, poverty status). At the national, state and local levels, policy makers use this information to systematically address the health problems of the mothers and children they serve and to develop programs and allocate resources that best meet their needs.

We have provided information on the following population characteristics because of their potential impact on program development in maternal and child health: population distribution by age, poverty status, living arrangements, child care and school dropout rates.

21

**U.S. Population  
by Age Group 1989**

Source (11) U.S. Bureau of the Census



**POPULATION OF CHILDREN**

In 1989, there were 79 million children through the age of 21 in the United States, representing 31.8% of the total population.

Between 1980 and 1989, there was a 13.9% increase in the number of children under 5 years of age. Although there were 23 million more children younger than 22 in 1988 than in 1950, this age group is declining relative to other age groups in the population.

In 1989, persons aged 65 and over represented 12.5% of the total population. By the year 2000, this group is expected to increase by 12.6%, whereas the child population is expected to increase by only 2.1%.

**CHILDREN IN POVERTY**

In 1989, there were 12.6 million children under 18 years of age living in poverty. This age group contains nearly 40% of all the Nation's poor.

Black or Hispanic children are 3 times more likely to live in poverty than are white children.

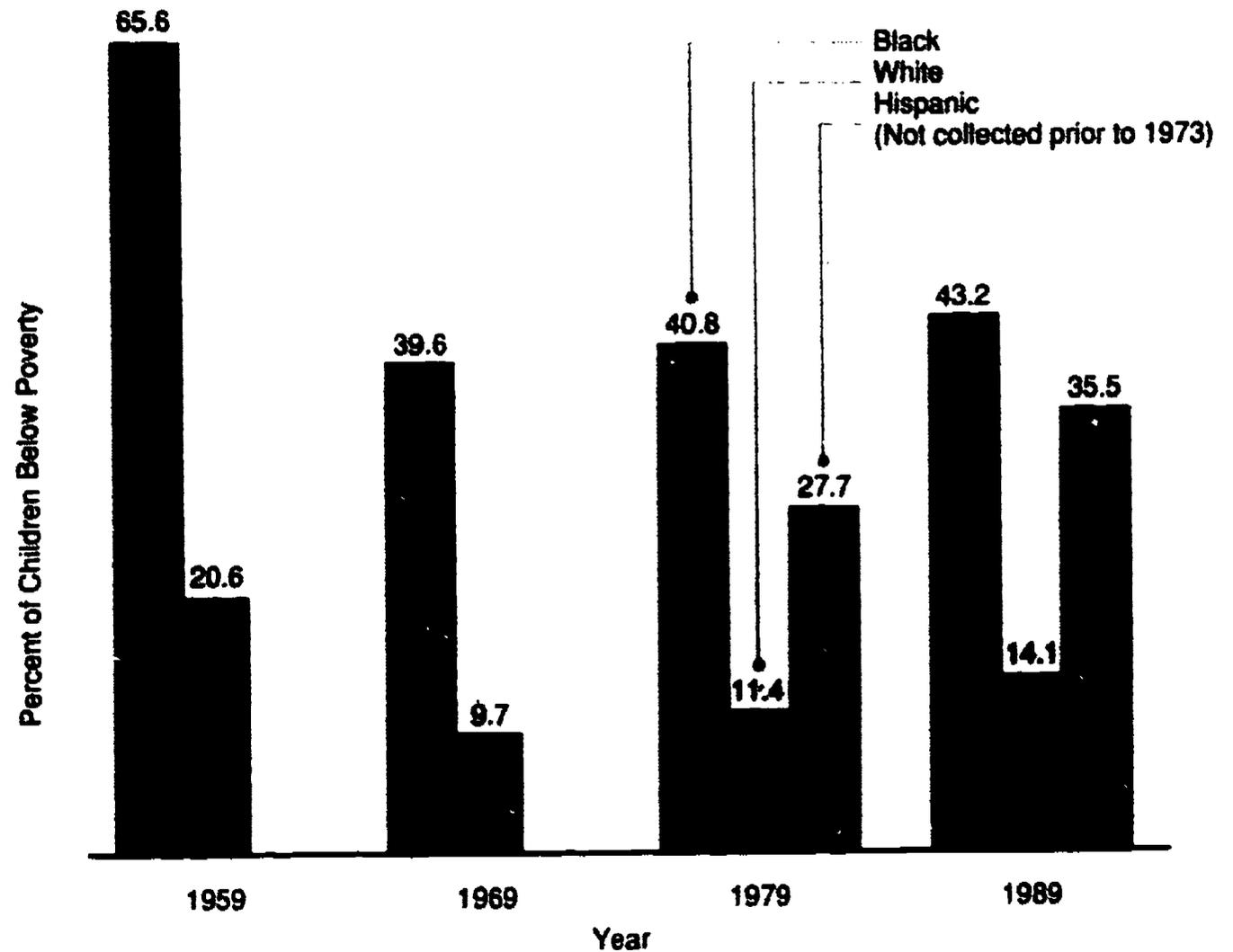
Between 1980 and 1989, the number of children living in poverty increased by 1 million. In contrast, the number of persons 65 years and over living in poverty decreased by 0.5 million.

In 1989, a family of four was considered to be living in poverty if its annual income was below \$12,675.

*Note: Hispanic data are not available prior to 1973.*

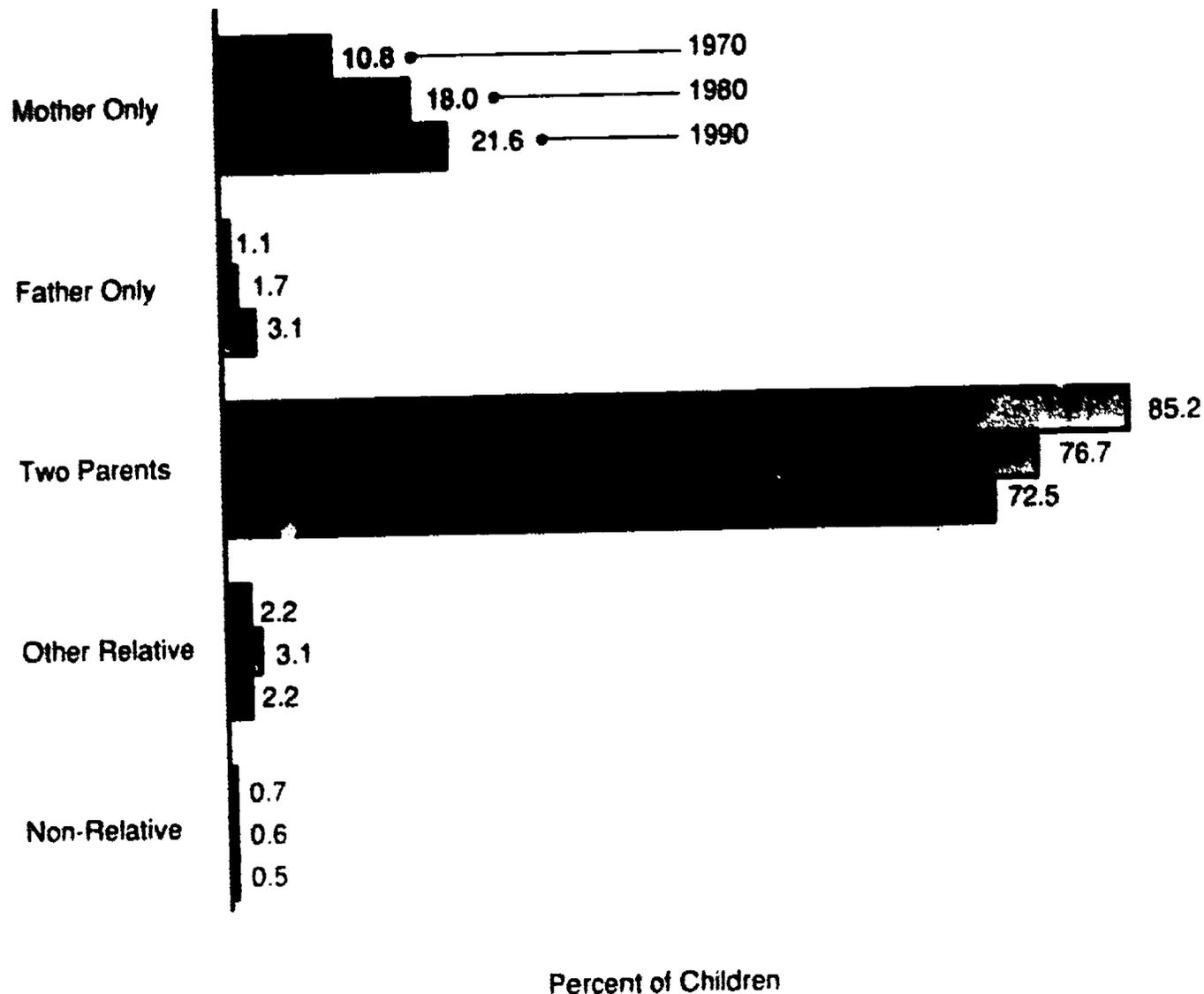
**Children in Poverty  
Under 18 Years of Age: 1989**

Source (1,2): U.S. Bureau of the Census



**Living Arrangements of Children Under 18 Years of Age: 1970-1990**

Source (1.3): U.S. Bureau of the Census



**FAMILY COMPOSITION**

In 1990, 15.9 million children lived in families with only one parent. This group represented 24.7% of children younger than 18 years.

In 1990, the vast majority of single parent families consisted of children living with their mothers.

Nearly 40% of the children living with only one parent were in families with an annual income of less than \$10,000.

Over the past two decades, the percentage of children living with single parents has increased from 11.9% to 24.7%. A rise in the divorce rate and the number of unmarried parents have contributed to this increase.

Black children are nearly 3 times as likely as white children to live with a single parent.

*Note: A parent may be a stepparent or parent by adoption.*

**WORKING MOTHERS**

In 1990, over half of preschool-aged children (younger than 6 years) had mothers in the labor force, reflecting a two-fold increase since 1970.

Currently, about 10.9 million children younger than 6 and 25.8 million children ages 6-17 have working mothers.

Between 1970 and 1990 the fastest increase in work force participation has been by mothers of children under 6 years old. Presently, there are about 9.4 million working women with preschool-aged children.

**CHILD CARE**

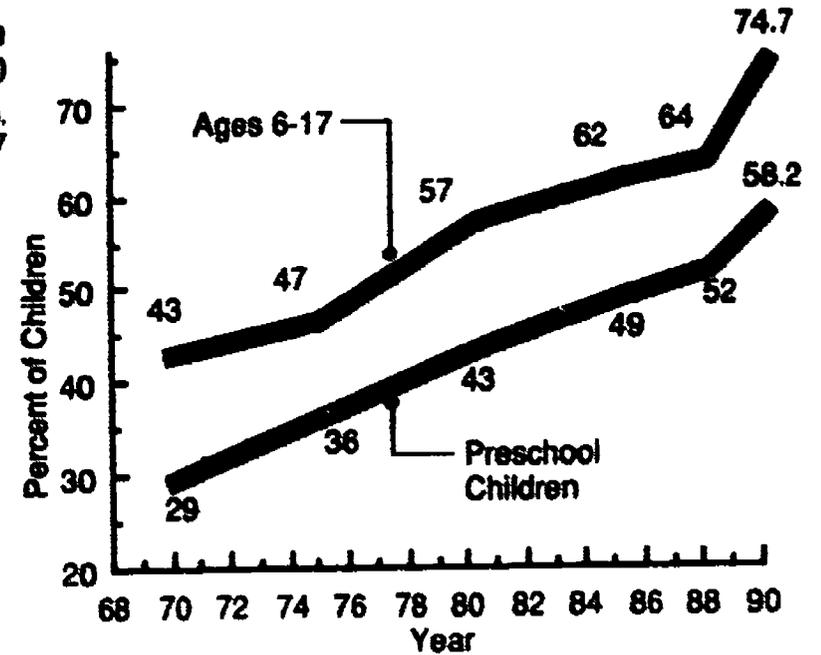
In 1987, almost one fourth of children younger than 5 (2.2 million) whose mothers worked outside of the home spent their days in non-residential day care centers.

The largest shift in child care arrangements in the last 10 years has been away from in-home care toward day-care center or nursery school settings.

Women who work full time tend to use day-care centers while women who work part time are more likely to use in-home care.

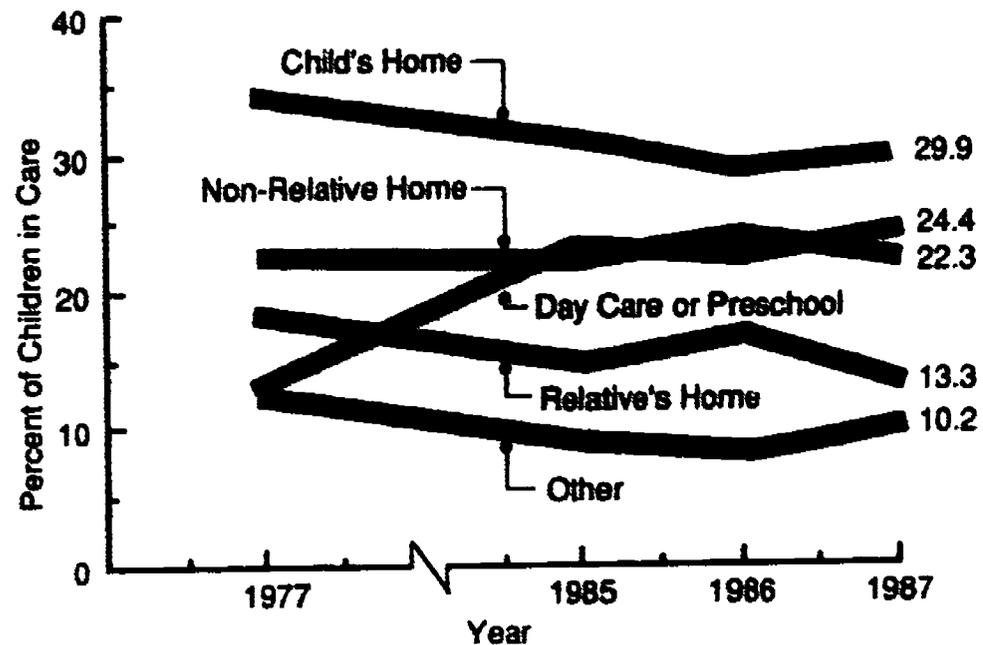
**Children with Mothers in the Work Force: 1970-1990**

Source (I.4): U.S. Bureau of Labor Statistics; Hofferth, SL and DA Phillips, 1987



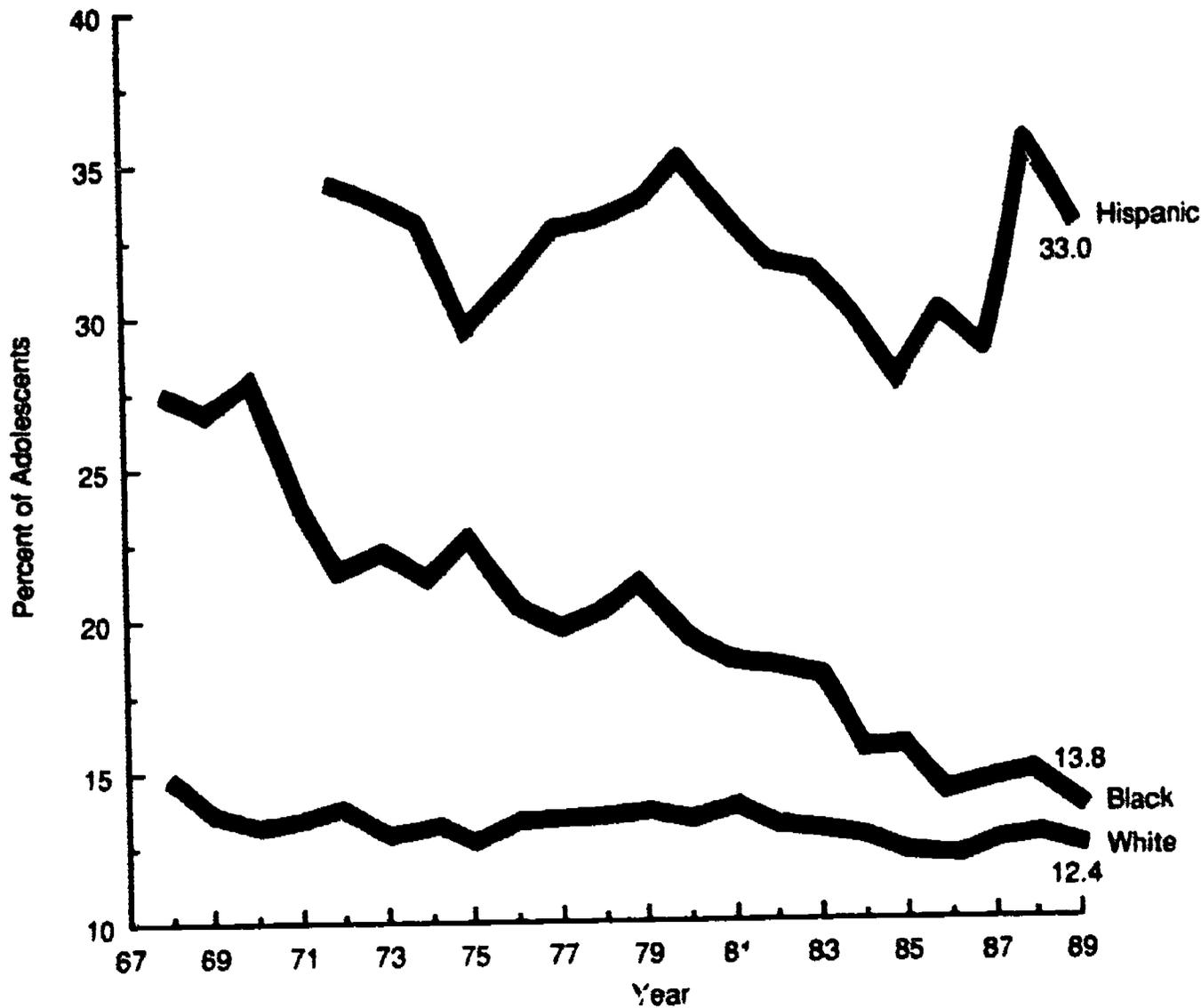
**Place of Care for Preschool-Aged Children: 1977-1987**

Source (I.5): U.S. Bureau of the Census



**School Dropout Status for Adolescents  
Ages 16-24 by  
Race/Ethnicity: 1968-1989**

Source (I.6): U.S. Department of Education



30

**SCHOOL DROPOUTS**

In 1989, 4 million 16 to 24 year-olds were out of school and had not completed high school. The dropouts represent nearly 13% of young adults.

In 1989, nearly 33% of young Hispanics were dropouts. This relatively high percentage may have been influenced by high immigration rates of Hispanics in recent years.

The difference between the dropout rates of black and white young adults has narrowed considerably in the last twenty years, as the dropout rate decreased faster for blacks than for whites.

In a 1980-1982 cohort survey, American Indians had the highest dropout rate (35.5%) of any group, almost two and one half times as high as that of whites (14.8%). Asians had the lowest dropout rate (8.2%).

31



32

**BEST COPY AVAILABLE**

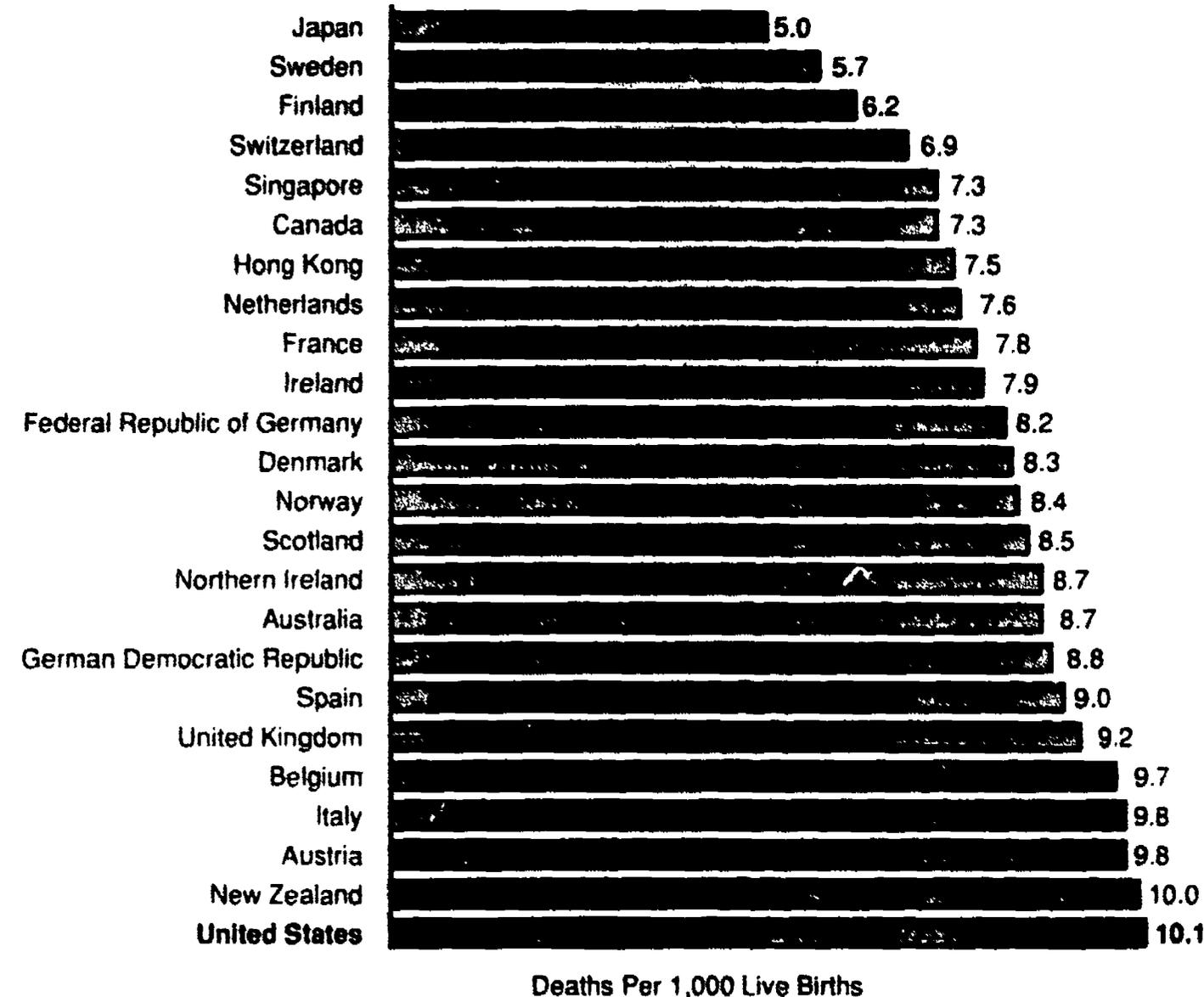
The measurement of the health status of our children is important because it enables us to assess the impact of past and current programs and to plan future efforts. The health status indicators in this section are based on vital statistics and national surveys. Although the sample surveys are limited in size, the data are representative of the populations we serve.

Health status indicators used in this section are presented by age group: infant, child, and adolescent. This categorization is intended to reflect the changing needs of children as they grow and develop.

33

### Comparison of National Infant Mortality Rates: 1987

Source (II 1) Health United States, 1990



### COMPARISON OF NATIONAL INFANT MORTALITY RATES

The infant mortality rate reflects the health status of women before and during pregnancy and the quality of risk-appropriate primary health care accessible to pregnant women and their infants. Although the United States has greatly reduced its infant mortality rate since 1965, the nation still ranks lower than 23 other industrialized countries.

Since 1980, Japan has had the lowest infant mortality rate in the world. In 1987, the risk of a child dying in infancy (5.0 per 1,000 live births) was less than half that observed in the United States (10.1 per 1,000 live births).

## INFANT MORTALITY

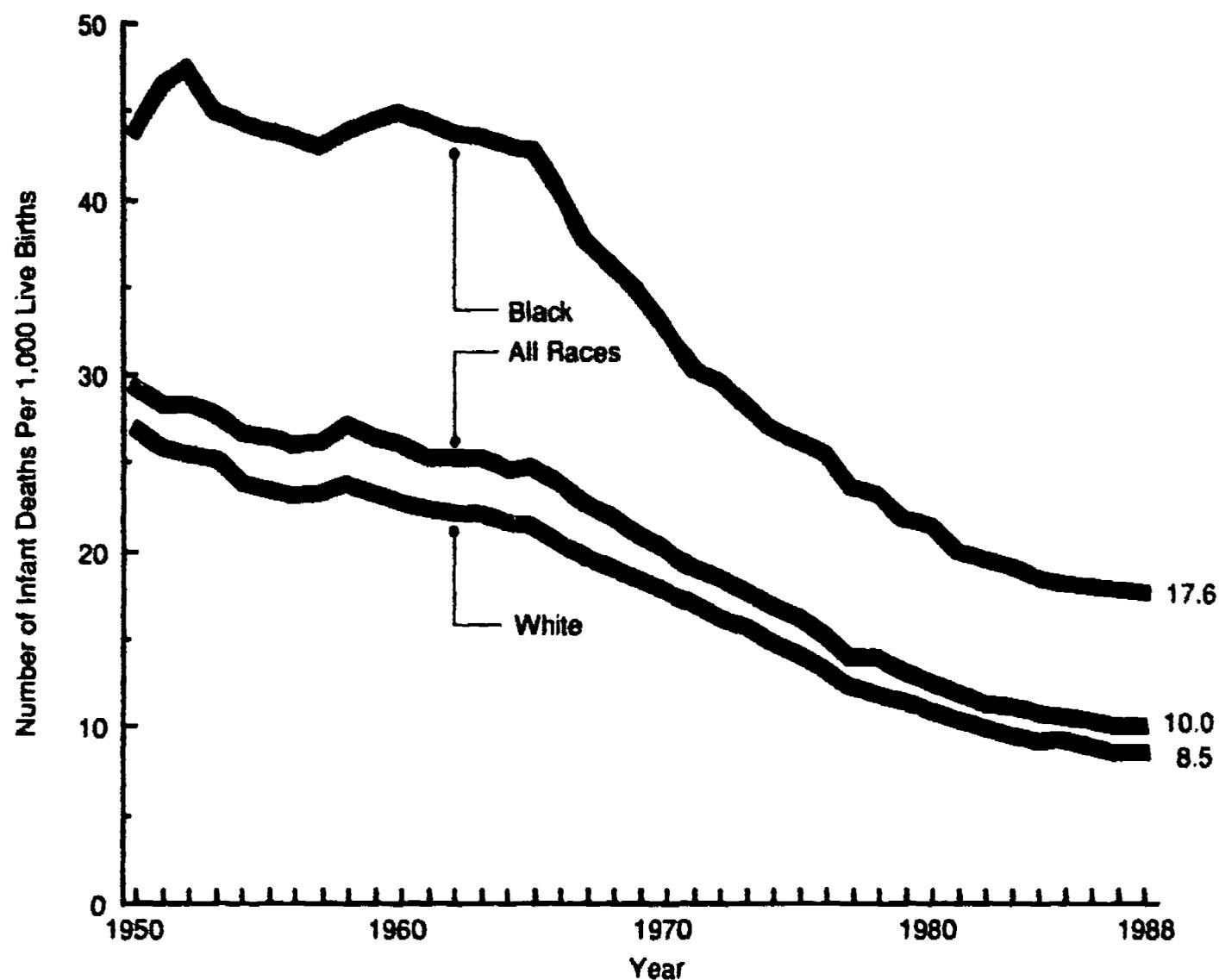
In 1988, 3,909,510 babies were born in the United States. During that same year, 38,910 infants died before their first birthday. The infant mortality rate was 10.0 deaths per 1,000 live births.

The rapid decline in infant mortality, which began in the mid 1960s, slowed for both blacks and whites during the 1980s.

The infant mortality rate for black infants remains about twice as high as that for white infants.

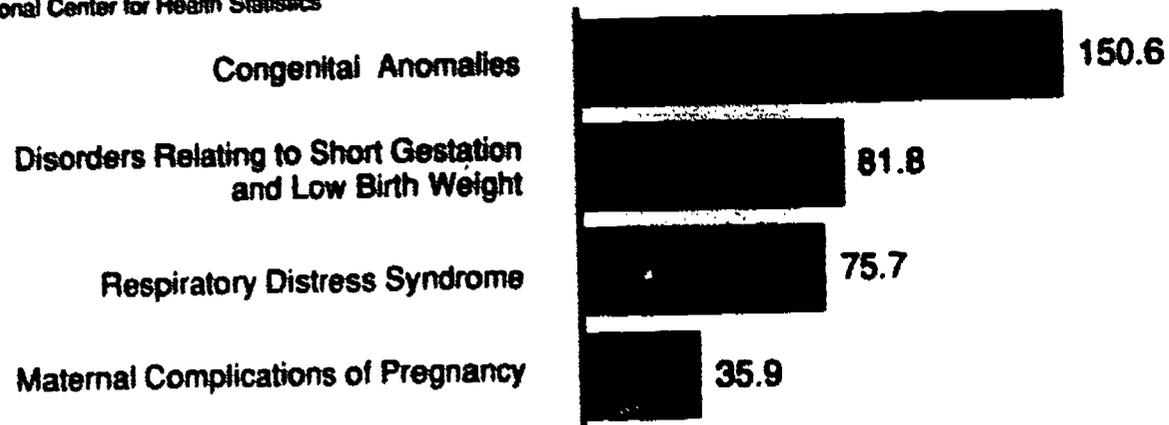
## U.S. Infant Mortality Rates by Race: 1988

Source (II.2): National Center for Health Statistics



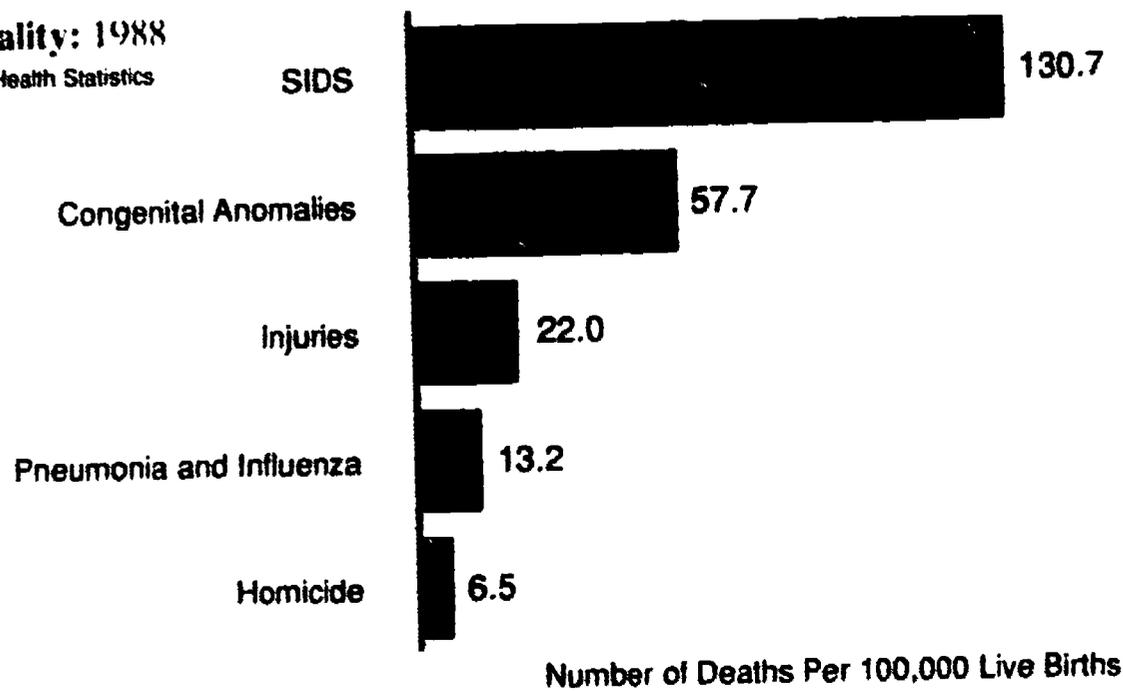
**Leading Causes of Neonatal Mortality: 1988**

Source (II.3): National Center for Health Statistics



**Leading Causes of Postneonatal Mortality: 1988**

Source (II.3): National Center for Health Statistics



**NEONATAL AND POSTNEONATAL MORTALITY**

*Neonatal*

In 1988, 24,690 infants younger than 28 days died; the neonatal mortality rate was 632 deaths per 100,000 live births.

*Postneonatal*

In 1988, 14,220 infants 28 days to one year old died; the postneonatal mortality rate was 364 deaths per 100,000 live births.

Of the five leading causes of postneonatal death, injuries and homicides may be prevented with appropriate intervention.

Between 1960 and 1988, the postneonatal mortality rate decreased faster for black infants than for white infants.

## MATERNAL MORTALITY

During the past several decades, there has been a dramatic decrease in maternal mortality in the United States. Since 1980, however, the rate of decline has slowed.

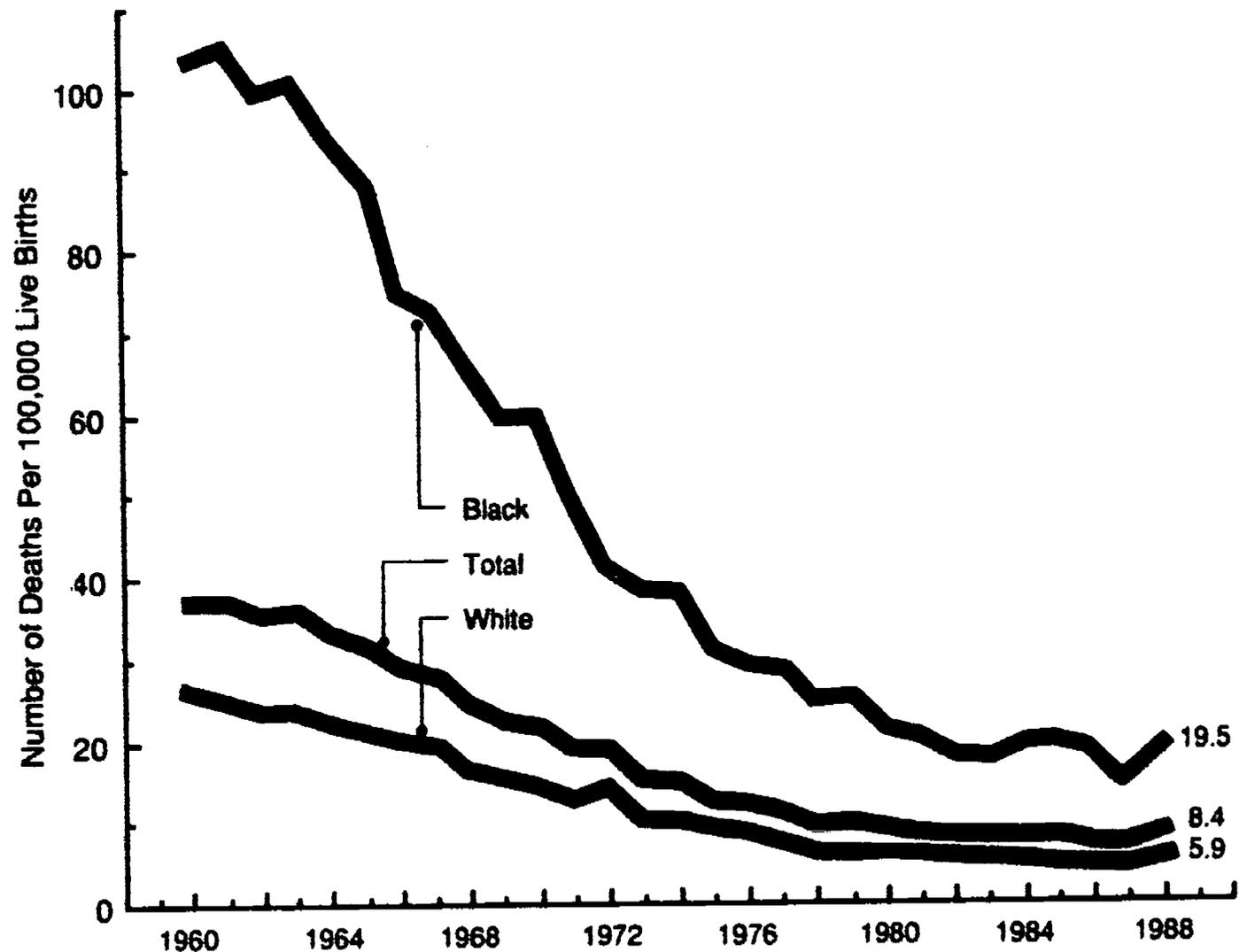
In 1988, there were 330 maternal deaths which resulted from complications of pregnancy, childbirth or the postpartum period.

The risk of maternal death remains more than three times greater for black women (19.5 per 100,000 live births) than for white women (5.9 per 100,000 live births). Despite the fact that less than 20% of all births were to black women in 1988, 40% of all maternal deaths were black women.

Regardless of race, the risk of maternal death increases for women over 30; women 35-39 years old have more than twice the risk of those aged 20-24 years.

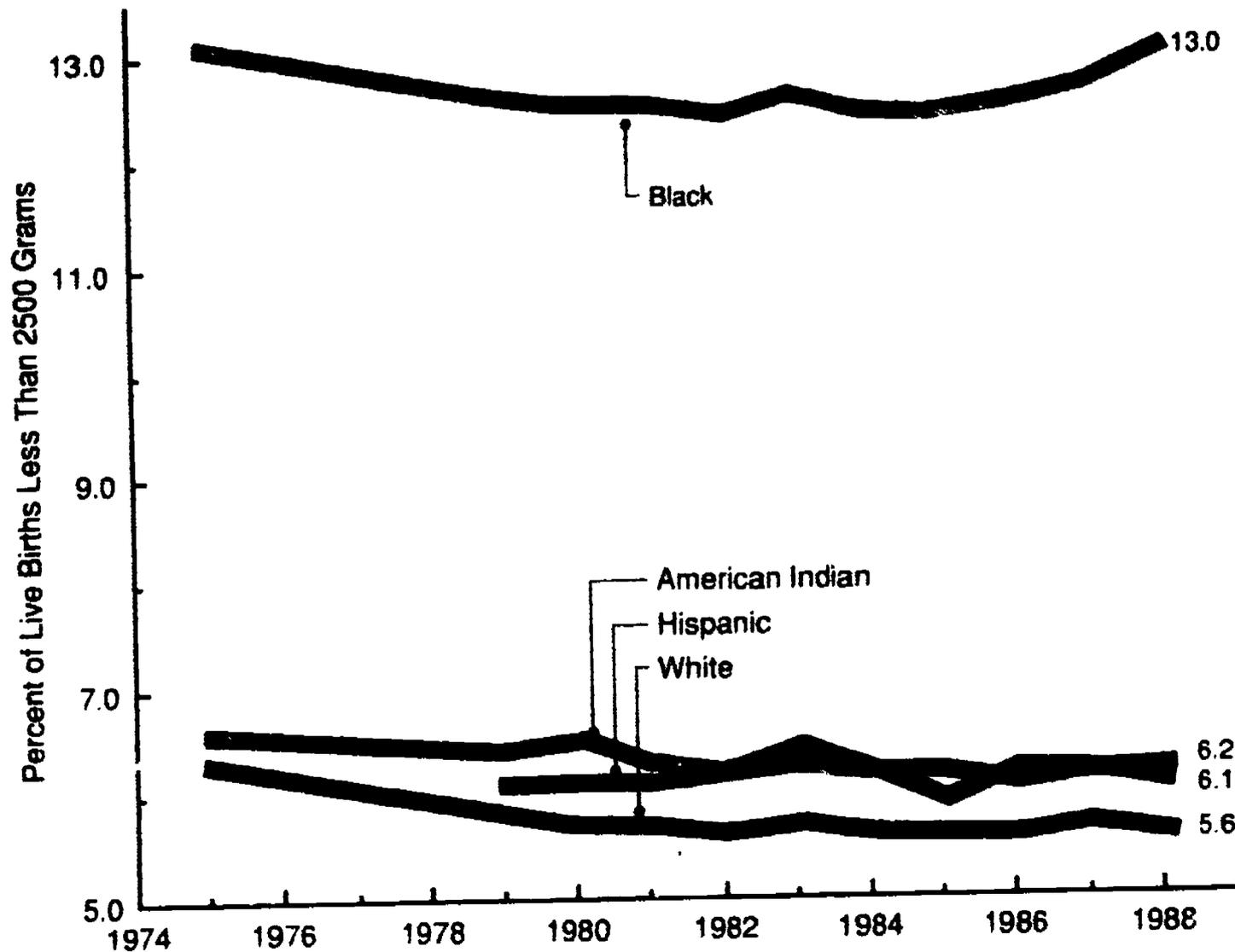
## Maternal Mortality Rates by Race: 1960-1988

Source (H.4): National Center for Health Statistics



**Percent of Low Birth Weight Infants  
by Race: 1975-1988**

Source (II.5): National Center for Health Statistics



42

**LOW BIRTH WEIGHT**

In 1988, 6.9% of all live births (270,681 babies) were low birth weight, weighing less than 2,500 grams, or 5.5 pounds, at birth.

The percent of low birth weight births did not decrease between 1980 and 1988.

Low birth weight is the factor most closely associated with neonatal mortality. Low birth weight infants are more likely to experience long term disabilities or to die during the first year of life than normal weight infants.

Social factors associated with increased risk of low birth weight include poverty, low level of educational attainment, unmarried status and minority status.

43

## CONGENITAL ANOMALIES

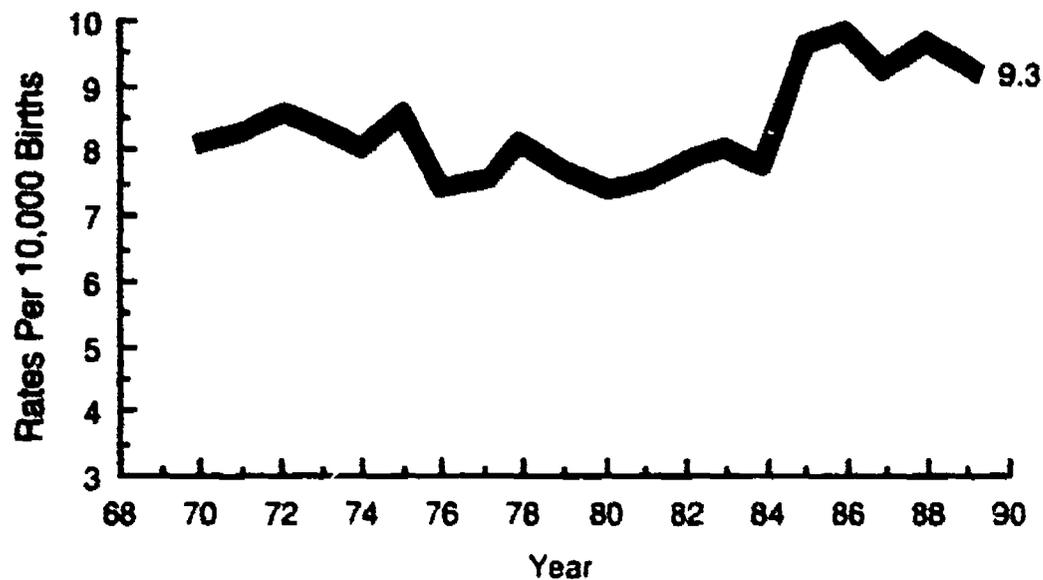
### Down Syndrome

Down syndrome is one of the leading causes of mental retardation.

Recent increases in its incidence may be due to an increasing proportion of births to older women who are at higher risk of giving birth to an infant with Down syndrome.

### Down Syndrome: 1970-1989

Source (II.6): Centers for Disease Control



44

### Spina Bifida

Based on data from the Birth Defects Monitoring Program at the Centers for Disease Control (CDC), the rate of infants born with spina bifida decreased from 1980 to 1989 from 5.2 to 4.0 per 10,000 live births.

However, the proportion of these infants who survive into childhood is increasing each year.

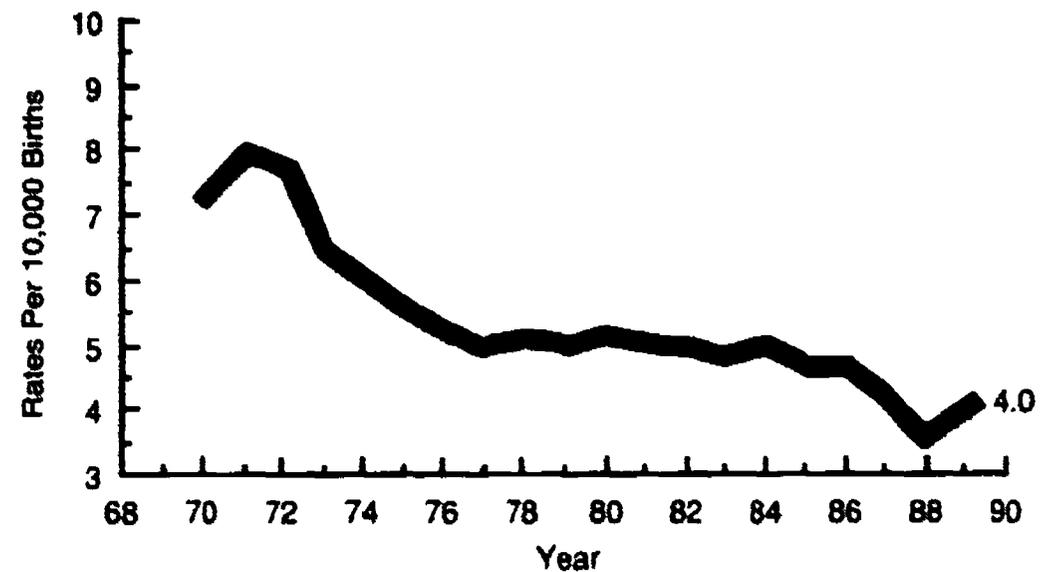
Approximately 100,000 infants are born each year in the United States with serious congenital anomalies.

Each year, 1.2 million infants, children, and adults are hospitalized for treatment of congenital anomalies.

Provisional 1990 data indicate that there were 8,510 infant deaths related to congenital anomalies, accounting for 22% of all infant deaths.

### Spina Bifida without Anencephalus: 1970-1989

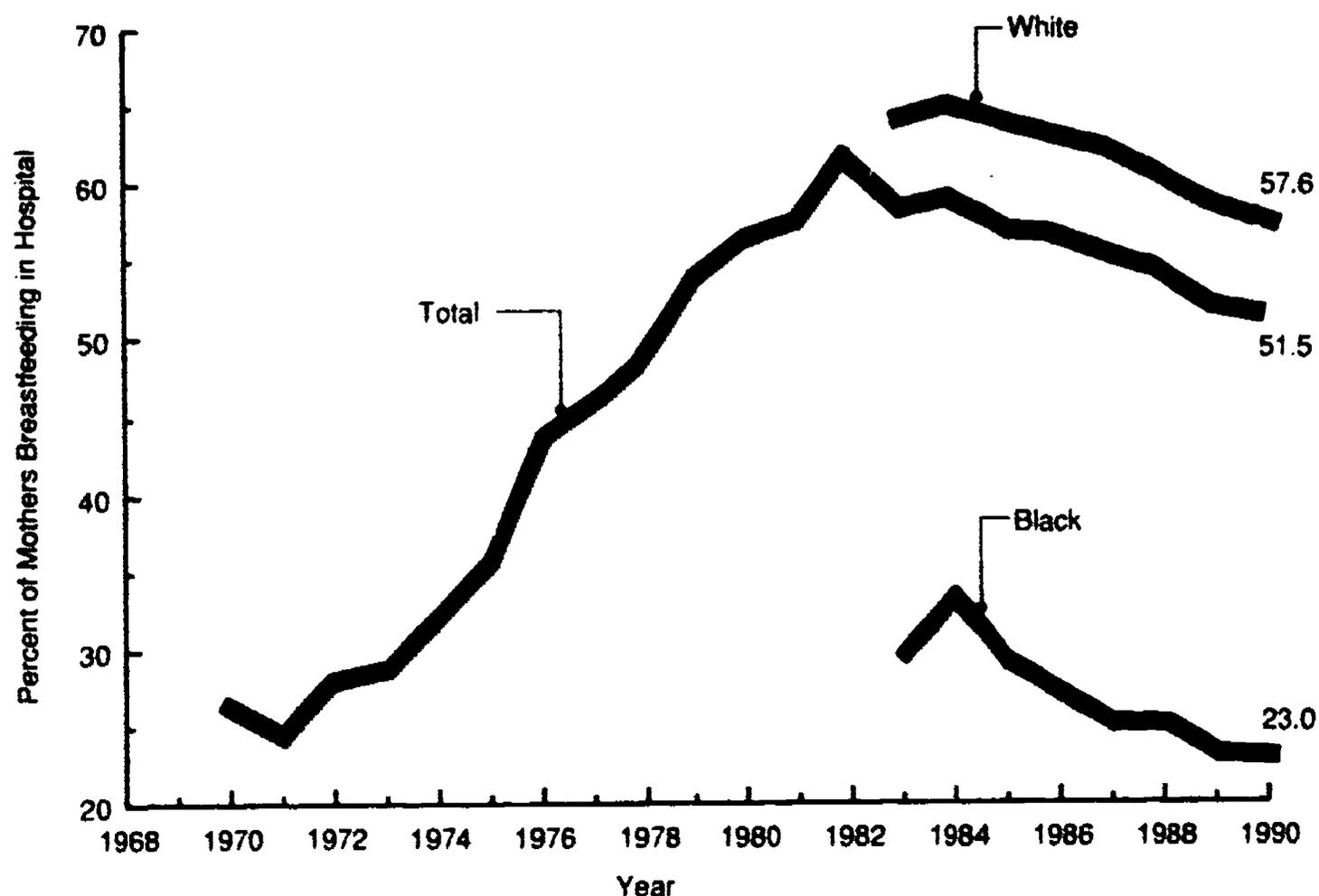
Source (II.6): Centers for Disease Control; National Center for Health Statistics



45

## Trends in Breastfeeding by Race: 1970-1990

Source (H.7): Ross Laboratories



## INFANT FEEDING

From 1971 to 1982, the percent of mothers who began breastfeeding in the hospital increased steadily to a high of 62%. Since then there has been a gradual decline to 51.5% in 1990.

Consistently, the rate of breastfeeding has been more than twice as high for white women as for black women.

However, in 1990, breastfeeding rates for women of both races decreased by nearly 70% between delivery and 6 months postpartum.

After 6 months, only 20% of white women and 6% of black women were breastfeeding.

Breastfeeding rates are highest among women who are older, better-educated, relatively affluent, and/or who live in the western United States.

Women least likely to breastfeed are those who have low-income, are black, under 20 years of age, and/or who live in the southeastern United States.

## CHILD MORTALITY

There were 11,786 deaths of children ages 1-9 years in 1988.

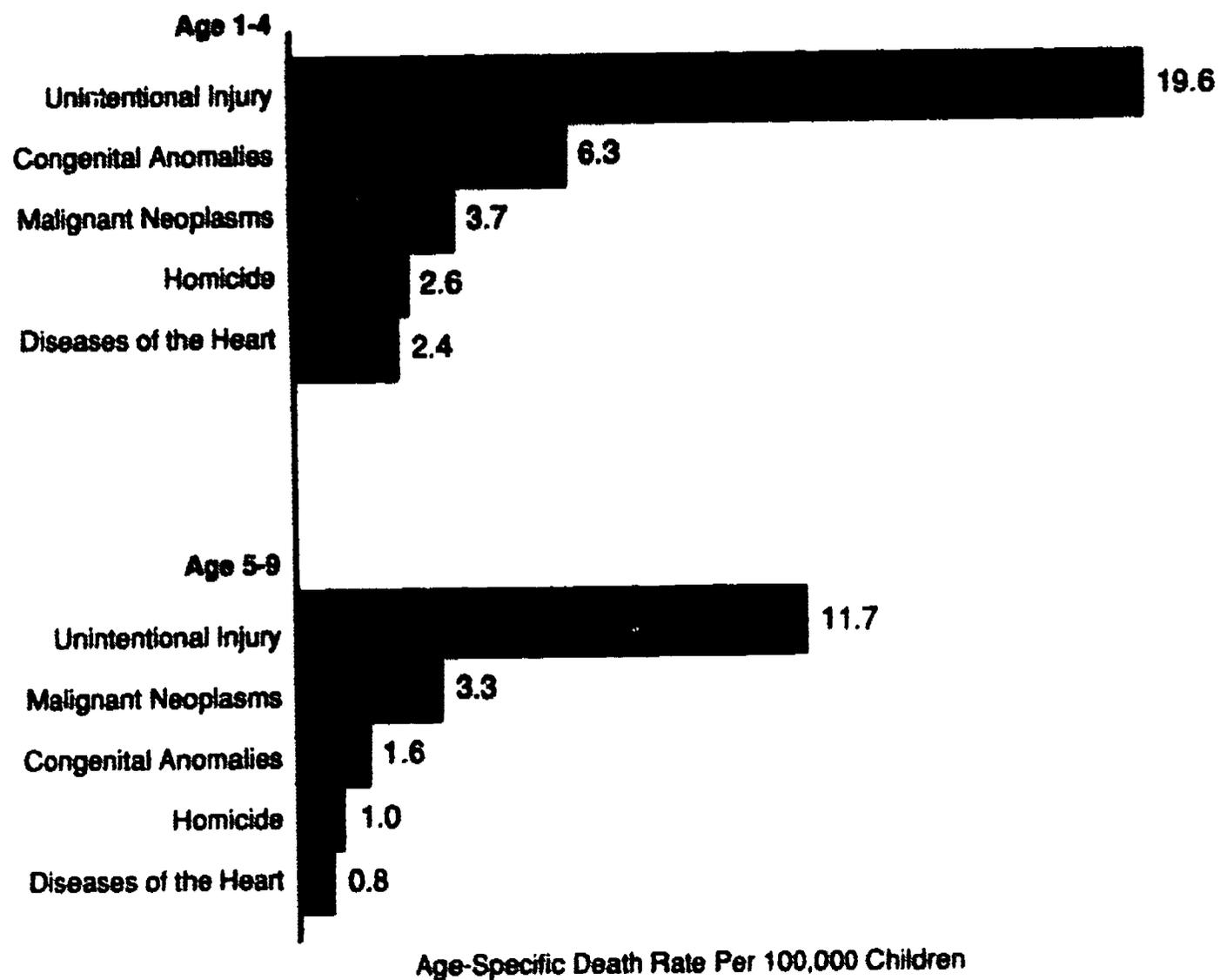
The leading cause of death for children of all ages is unintentional injury, which claimed nearly 5000 lives among children 1-9 years old in 1988.

During the past several decades, childhood mortality rates have substantially declined.

However, the death rate due to homicide has nearly tripled since 1960, becoming the fourth leading cause of death of children ages 1-9 years.

## Leading Causes of Death in Children Ages 1-9: 1988

Source (U.S.): National Center for Health Statistics



48

49

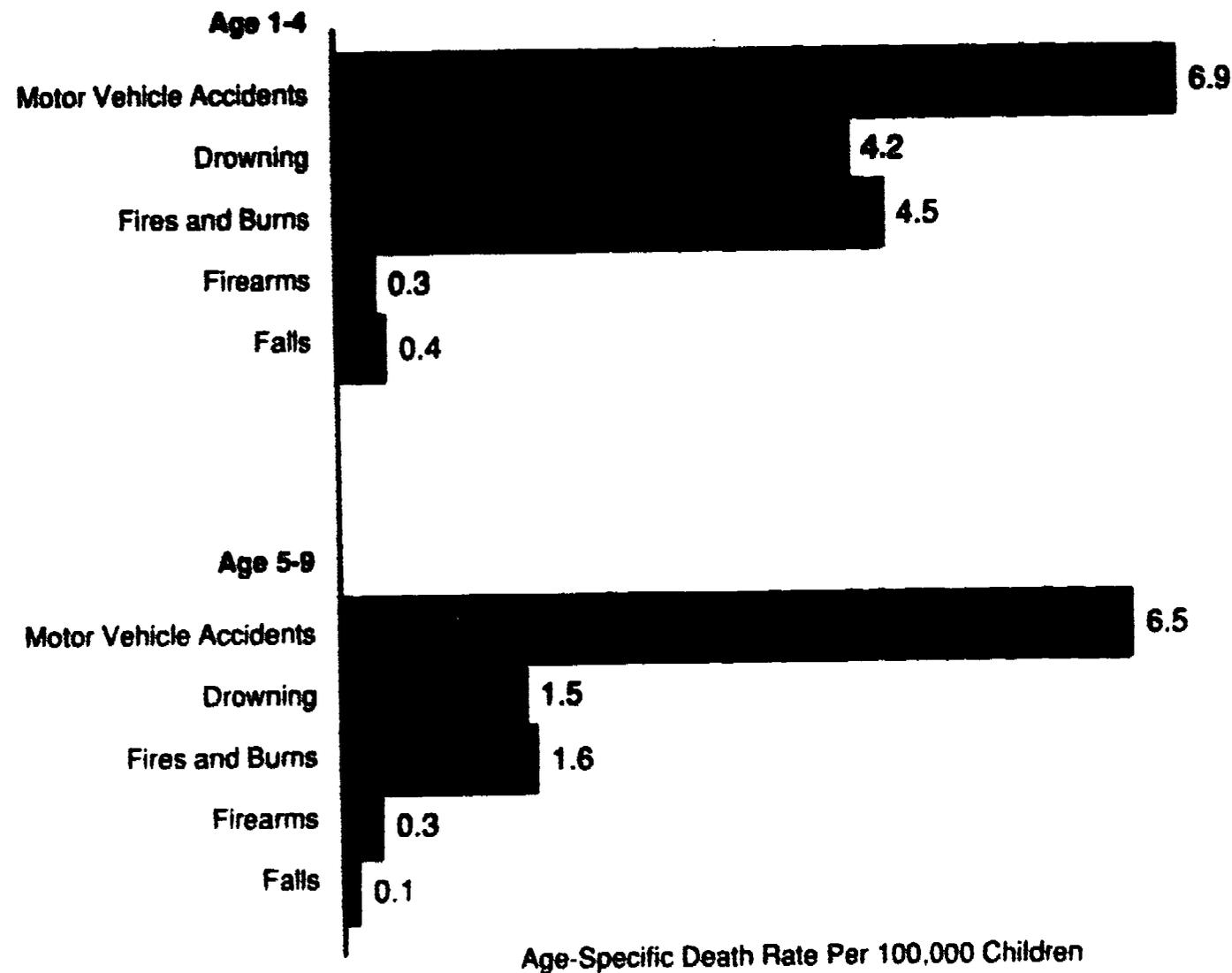
**Childhood Deaths  
Due to Unintentional Injury  
by Cause and Age: 1988**

Source (11.9): National Center for Health Statistics

**CHILDHOOD DEATHS DUE TO INJURY**

In 1988, there were 2,858 deaths of children ages 1-4 and 2,102 deaths of youngsters ages 5-9 caused by unintentional injuries. Motor vehicle accidents are the single largest contributing cause of injury death in children 1-9 years old. About 45% of the motor vehicle deaths involved children as pedestrians.

Following motor vehicle accidents, fires and related burns, and drowning are the leading causes of unintentional injury death for children. The death rates from fires and drowning are three times higher in toddlers than in school-age children.



50

51

**HOSPITALIZATION**

In 1989, there were over 4 million hospital discharges of children younger than 22 years old, indicating that there were 5 discharges per 100 children during the year.

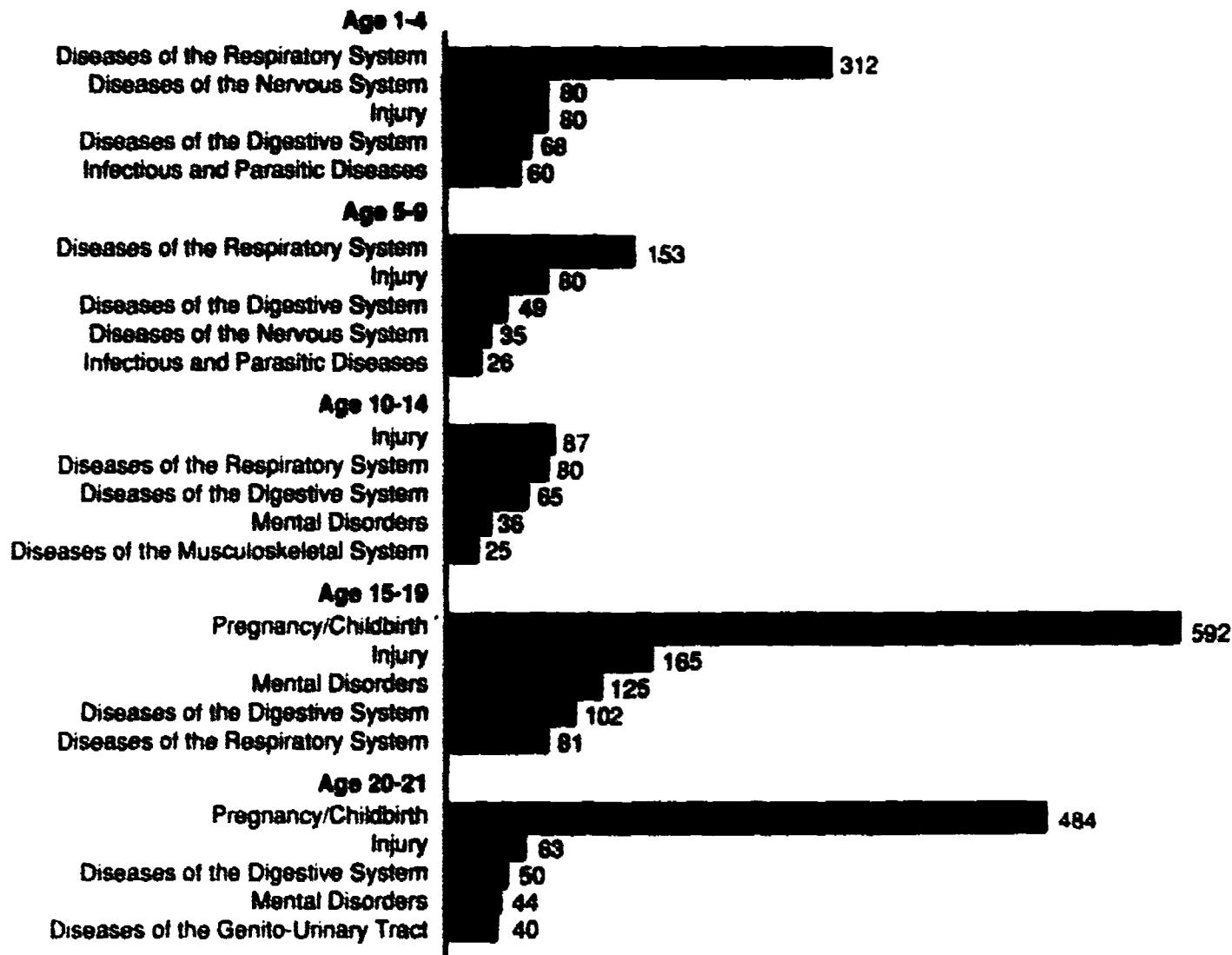
Diseases of the respiratory system were the major cause of hospitalization of children 1-9 years of age and accounted for 35% of all discharges.

Hospital discharge rates decrease with age until age 14 and then increase during later adolescence.

While injuries are the leading cause of death for children older than 1 year, this category accounted for only 14% of the hospital discharges of children 1-14 years in 1989. Pregnancy and childbirth related hospitalizations accounted for 65% of discharges of young women ages 15-21.

**Major Causes of Hospitalization by Age: 1989**

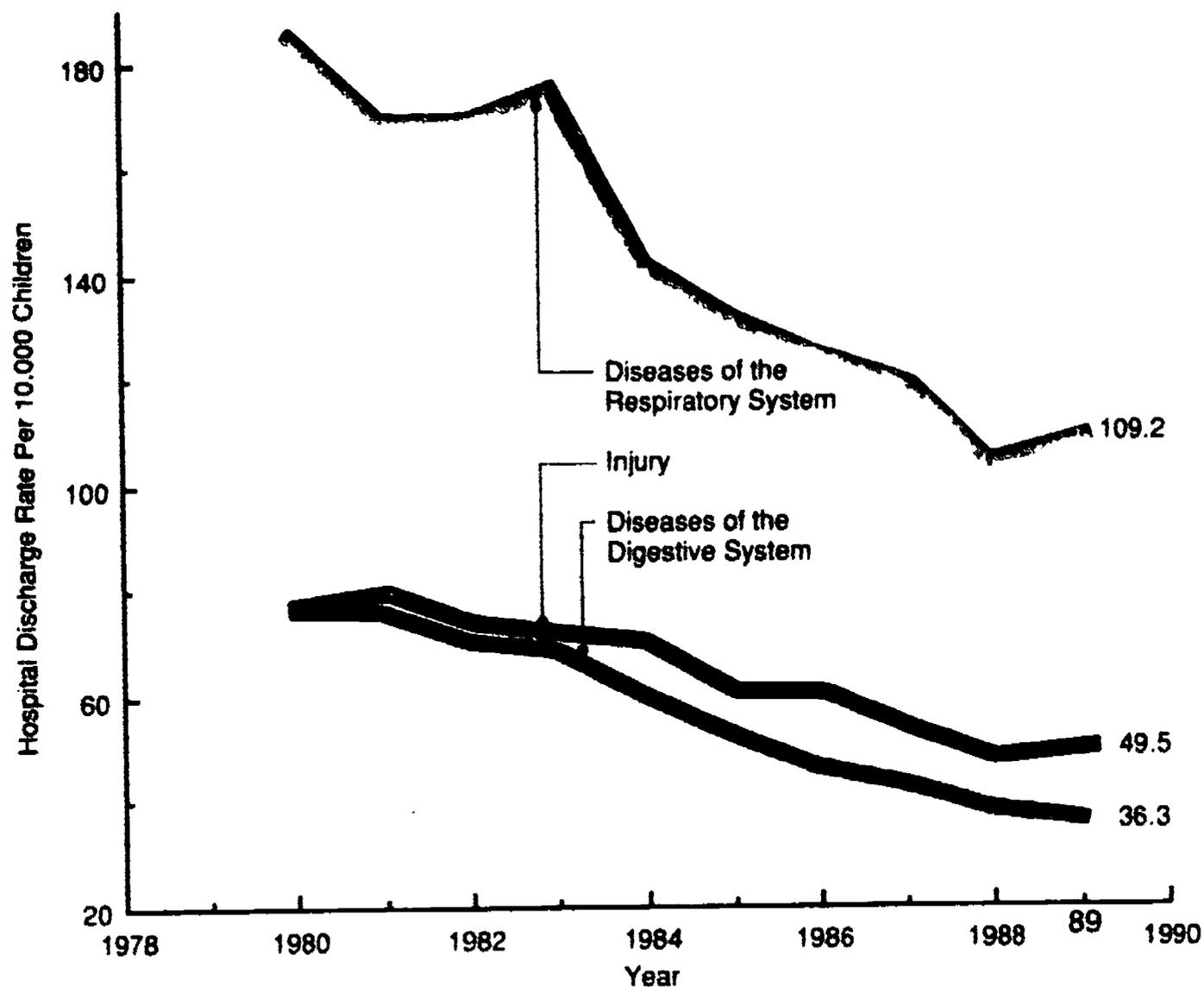
Source (II.10): National Center for Health Statistics



Number of Hospital Discharges (in 1,000's)

## Discharge Rate of Patients 1-14 Years Old for Selected Diagnoses: 1980-1989

Source (H.10): National Center for Health Statistics



## HOSPITAL DISCHARGE TREND

Since 1980, there has been a 39% decrease in overall hospital discharge rates for children aged 1-14 years.

Between 1980 and 1989, there was a 41% decline in the hospital discharge rate for diseases of the respiratory system in children aged 1-14 years.

Three diagnostic categories (diseases of the digestive system, diseases of the respiratory system, and unintentional injury) accounted for 54% of the discharges of children aged 1-14 years in 1989.

**LIMITATION OF ACTIVITY DUE TO CHRONIC CONDITIONS**

**Male/Female**

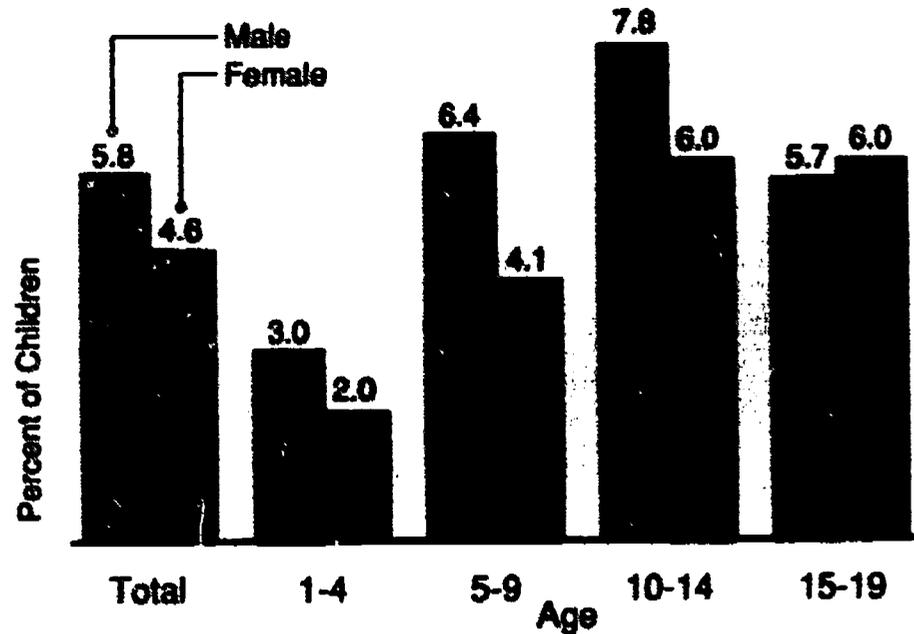
In children younger than 20 years, the percent of males with limitation of activity due to chronic illness is higher than the percent of females.

In 1990, more than 3.5 million children aged 1-19 years (5.2%) were limited in their usual activities because of chronic illnesses and impairments.

**Income**

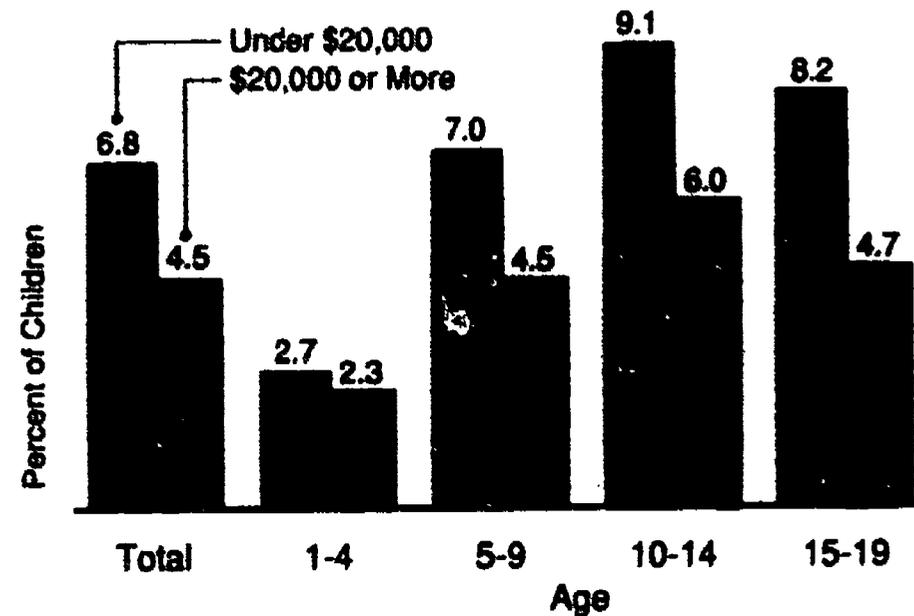
Consistently, more children in families with annual incomes below \$20,000 were limited in activity due to chronic conditions than children in families with incomes above \$20,000.

The proportion of children with limitation of activity has doubled since 1960. A number of factors may have contributed to this trend, including improved data collection, greater awareness of chronic conditions, greater sensitivity to impairment, and improvements in lifesaving medical technology.



**Limitation of Activity due to Chronic Conditions by Age and Sex: 1990**

Source (H.11): National Center for Health Statistics



**Limitation of Activity due to Chronic Conditions by Age and Income: 1990**

Source (H.11): National Center for Health Statistics

**LEAD EXPOSURE**

Nationwide, it is estimated that nearly 900,000 urban children ages 6 months through 5 years may be affected by lead exposure, representing 31% of the total population in this age group.

In 1984, nearly 70% of black children between 6 months and 5 years of age in urban families with income less than \$6,000 per year were estimated to have blood lead concentrations exceeding 15 ug/dl. This

percentage represented about 235,000 children. It is estimated that over 36,000 of these youngsters may have had blood lead concentrations which exceeded 25 ug/dl.

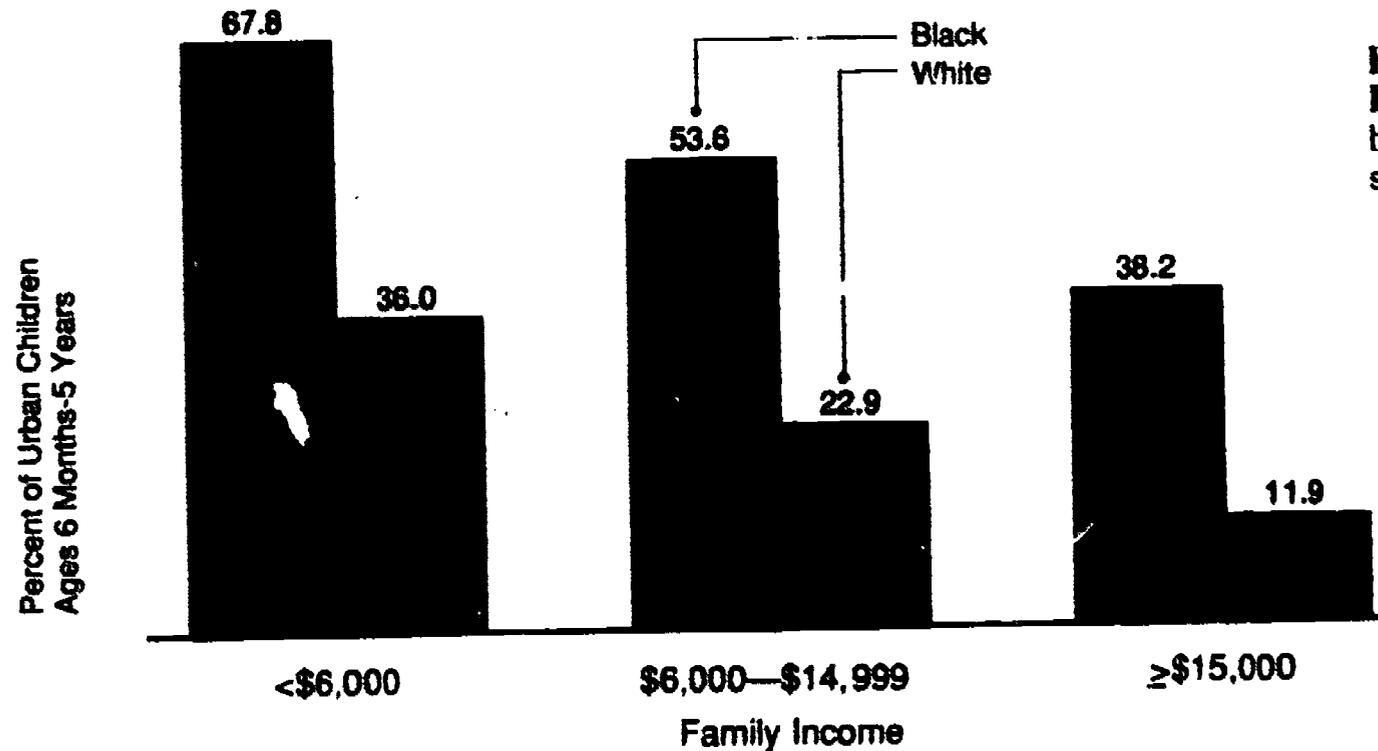
Regardless of race, as family income decreases, the prevalence of elevated lead levels increases, suggesting that children in poverty are more vulnerable to lead exposure.

The most common sources of lead exposure are household paint used in homes built prior

to 1950, dust and soil deposits from leaded gasoline, and water supplies contaminated by leaded pipes or solder.

Levels of lead measured in the blood exceeding 25 ug/dl have been shown to cause anemia and poor regulation of vitamin D. More severe exposure is related to convulsions, coma and death.

Recently, studies have shown that blood lead absorption between 15 and 25 ug/dl may be related to delayed cognitive development and reduced IQ in school-aged children.



**Estimated Percent of Urban Children with Blood Lead Levels Greater than 15 ug/dl by Race and Family Income: 1984**

Source (II.12): Centers for Disease Control

## DENTAL CARIES

Between 1971 and 1987, there was a decline in the prevalence of dental caries for children ages 5-17.

The prevalence of dental caries increases with age, and the average number of decayed, missing or filled surfaces increases as household income or education decreases.

Decreases in the incidence of dental decay have been largely attributed to the addition of fluoride to community water supplies and toothpaste.

### Untreated Dental Decay

"Persons more seriously affected by oral diseases include those with other special health needs; those lacking access to prevention and routine care; those having low incomes and lacking education; those in certain racial, cultural, and ethnic groups; and those in nonfluoridated communities."

Estimates indicate that the rate of untreated dental decay in American Indian and Alaska Native children is nearly 2.4 times greater than in the general population.

60

### Baby Bottle Tooth Decay

Baby Bottle Tooth Decay (BBTD), attributed to prolonged feeding or sleeping with a bottle containing liquids promoting decay, afflicts approximately 5% of children ages 2-4 years.

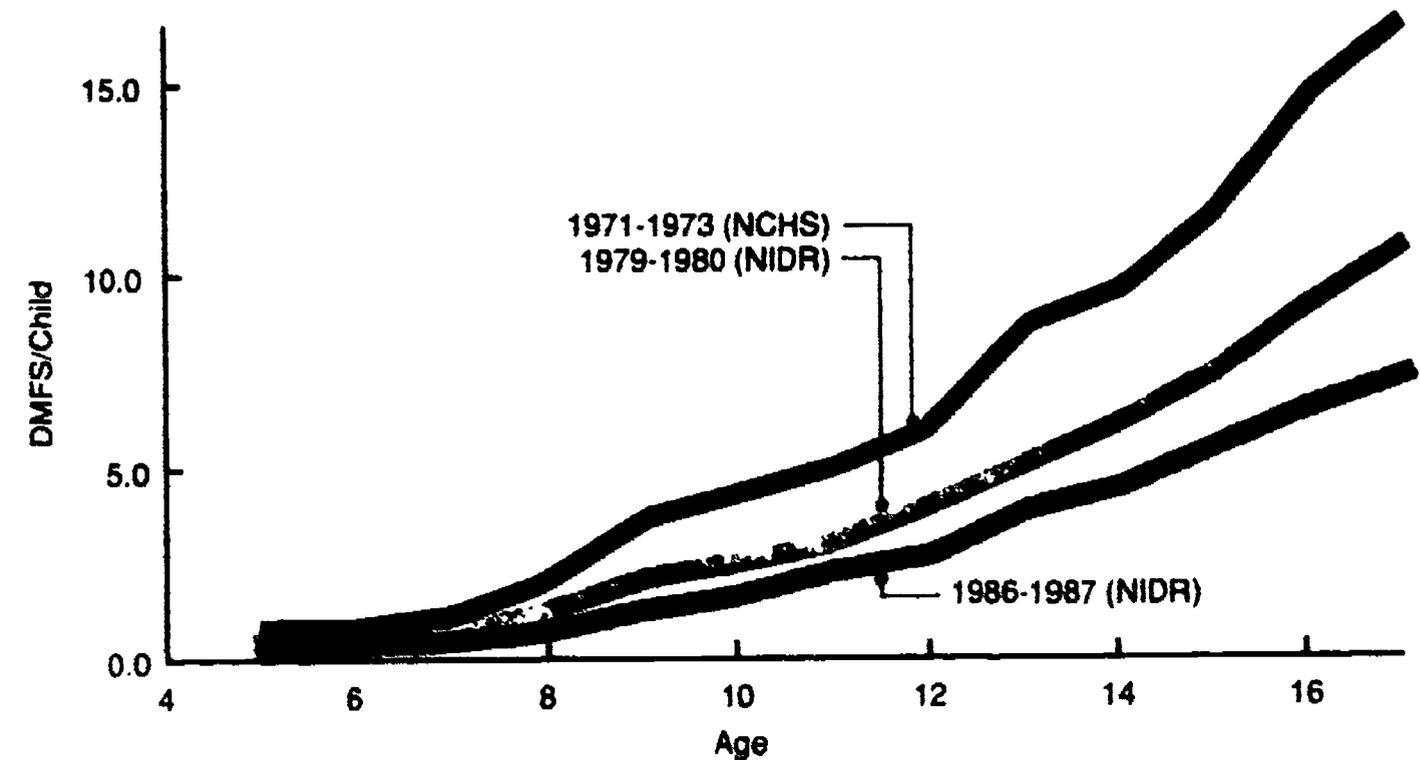
The prevalence of BBTD varies with race/ethnicity and income level. A study of children ages 3-5 years in Southwestern

Head Start Programs indicated that the BBTD prevalence in low-income children is four times that observed in the general population. A study of American Indian children ages 2-4 indicated that the BBTD prevalence in this population may be as high as 53%.

Note: DMFS. Decayed, Missing, Filled Surfaces

### Trend in Prevalence of Dental Caries by Age: 1971-1987

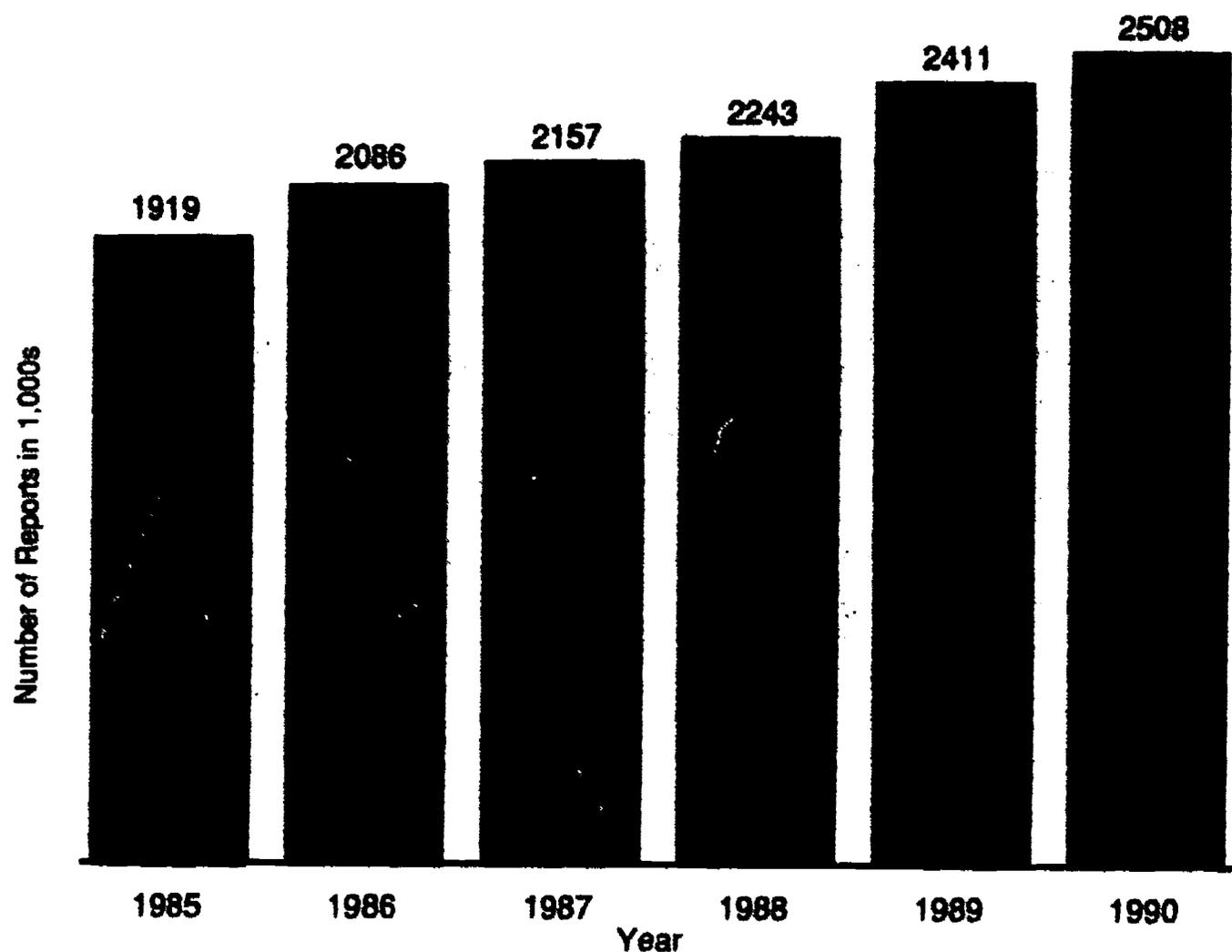
Source (II.13): National Institute on Dental Research; Maternal and Child Health Bureau; Indian Health Service; Barnes, et al., in press.



61

### National Estimates of Child Abuse and Neglect Reports: 1985-1990

Source (II.14): National Committee for Prevention of Child Abuse



### CHILD ABUSE AND NEGLECT

There were more than 2.5 million reports of suspected abused or neglected children nationwide in 1990, indicating that 39 of every 1,000 children may have been reported. The number of reports in 1990 represented an increase of 31% since 1985.

Economic stress and substance abuse are frequently cited as contributing factors to child abuse and neglect. Better recognition of physical and emotional neglect as forms of maltreatment and improved statewide reporting systems may also be related to the recent rise in reporting rates.

Estimates have suggested that between 35 and 50% of reports are substantiated upon investigation, and that approximately 1,200 fatalities result from child maltreatment annually.

In 1990, 47% of the substantiated child maltreatment cases involved neglect, 25% involved physical abuse, and 14% involved sexual abuse.

**PEDIATRIC AIDS**

As of June 30, 1991, 3,140 cases of AIDS in children younger than 13 years had been reported in the U.S. This cumulative total included 406 cases reported from July 1990 through June 1991.

Pediatric cases of AIDS represent approximately 1.7% of all cases reported.

The majority of pediatric AIDS cases result from transmission by mothers at risk for human immunodeficiency virus (HIV) infection, with a disproportionate number of cases occurring in black and Hispanic children. Recently, infants have been one of the fastest growing groups of patients with AIDS.

The number of cases of AIDS, as reported by the Centers for Disease Control (CDC), does not include children infected with HIV who are either asymptomatic or in the early stage of disease.

*Notes:*

*HIV Risk Mother = Mother with/at risk for HIV infection*

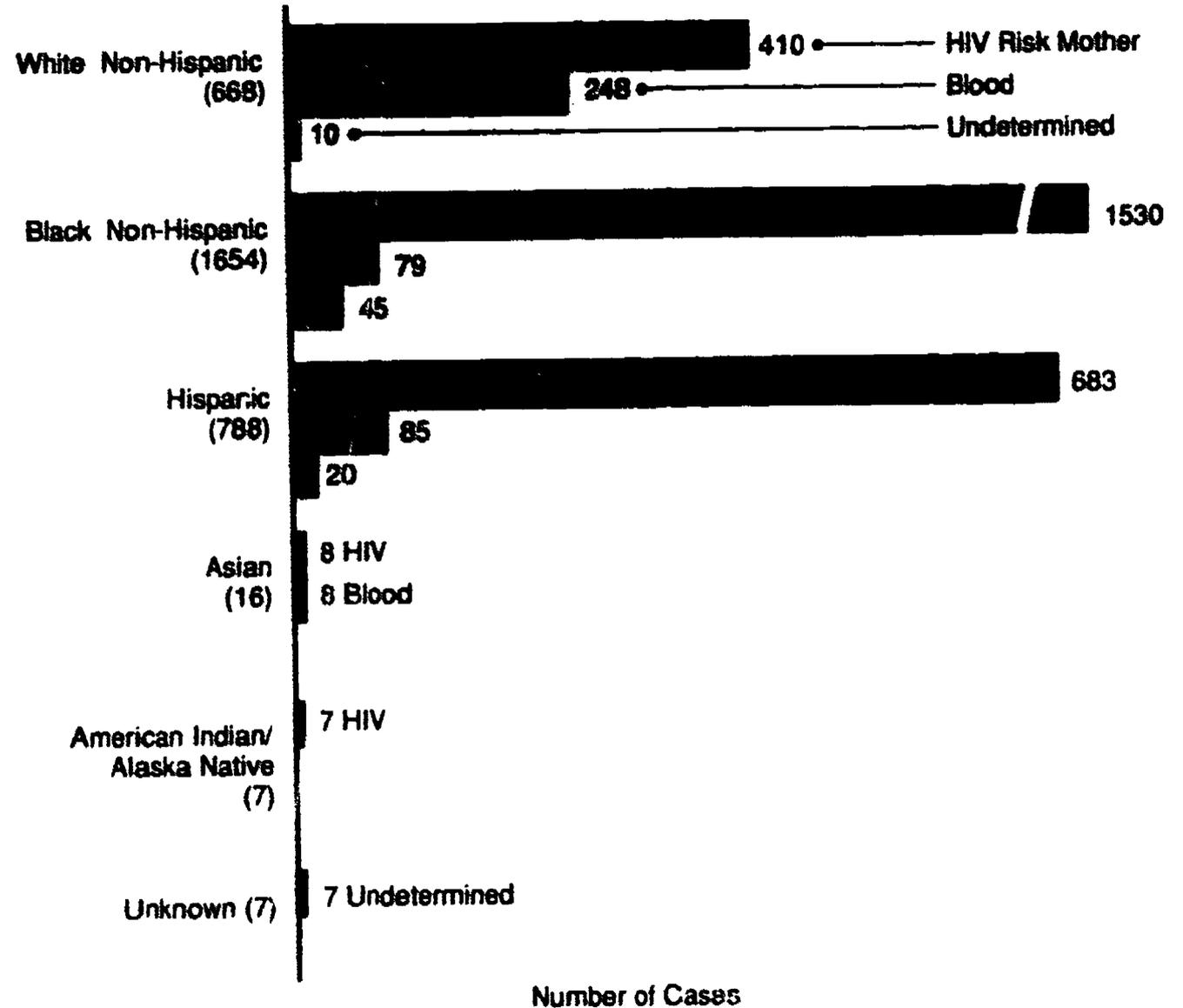
- IV drug use
- Sex with IV drug user
- Sex with bisexual male
- Sex with person with hemophilia
- Born in Pattern-II country
- Sex with person from Pattern-II country
- Sex with transfusion recipient with HIV infection
- Sex with person with HIV infection, risk not specified
- Receipt of transfusion of blood, blood components, or tissue
- Has HIV infection, risk not specified

*Blood:*

- Hemophilia coagulation disorder
- Receipts of blood transfusions, blood components, or tissue

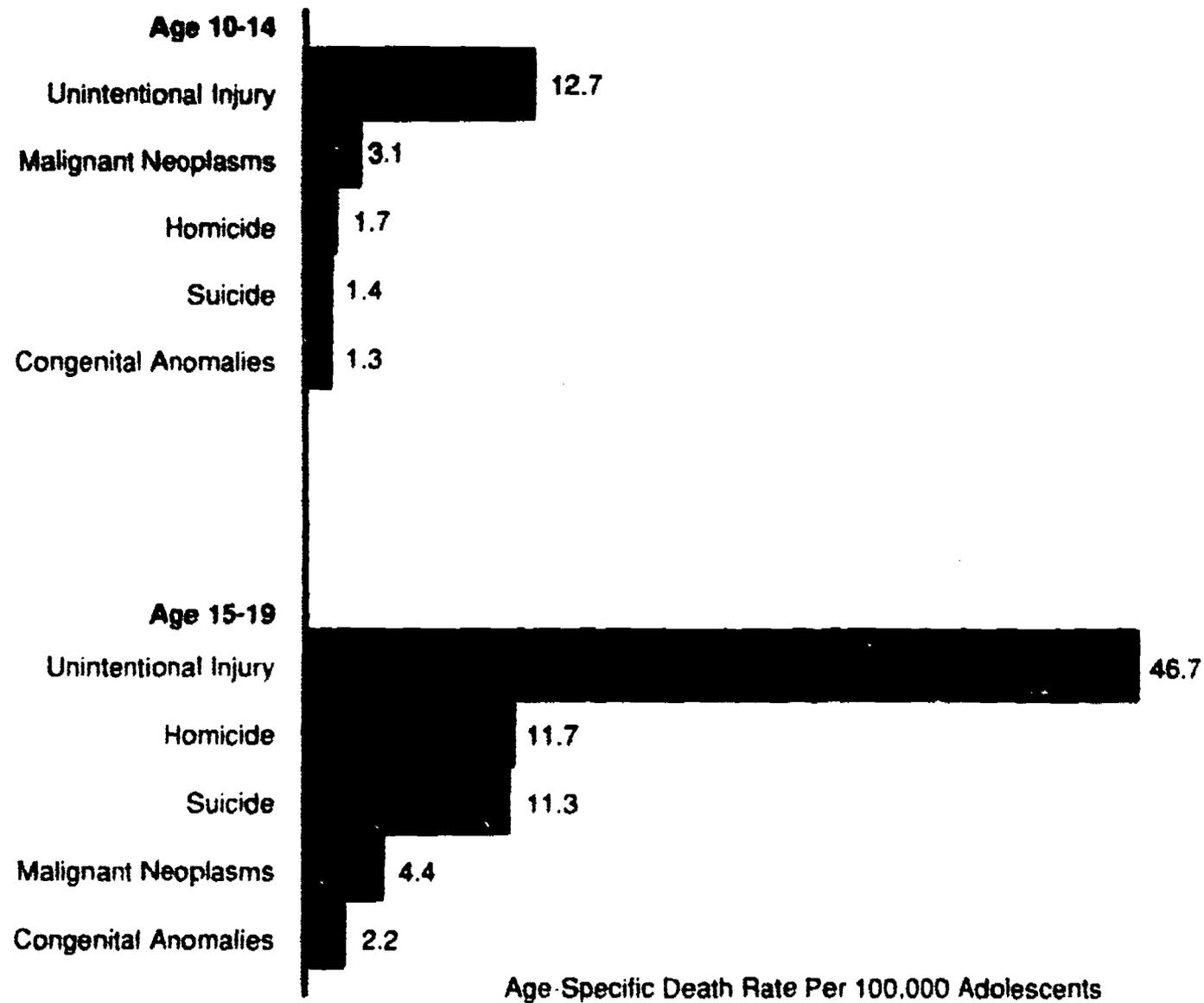
**Pediatric AIDS  
by Race and Exposure Category: 1991**

Source (II.15): Centers for Disease Control



## Leading Causes of Death in Adolescents by Age: 1988

Source (H.16): National Center for Health Statistics



66

## ADOLESCENT MORTALITY

In 1988, there were 20,599 deaths of adolescents aged 10-19 years. In both age categories, the leading cause of death was unintentional injury.

The higher rate of unintentional injury death in older adolescents was primarily due to a greater number of motor vehicle accident deaths in this age group.

Homicide is the fourth leading cause of death in children ages 1-9 years. However, for adolescents 10-14 years old, homicide ranks third, and for adolescents 15-19 years old, it is the second leading cause of death.

In 1988, there were 280 homicide deaths among adolescents aged 10-14 and 2,135 homicide deaths of adolescents aged 15-19 years.

The death rate for homicide is over eight times higher for black adolescents ages 15-19 years than for whites of the same age. Conversely, the rate of suicide in 15-19 year-olds is twice as high in white teens than in black teens.

While the overall adolescent death rate has declined in the past several decades, deaths attributed to suicide and homicide have increased since 1960.

67

**ADOLESCENT DEATHS DUE TO INJURY**

In 1988, there were 2,113 deaths of children 10-14 years old and 8,498 deaths of adolescents 15-19 years old resulting from unintentional injuries.

In both age groups, injuries from motor vehicle accidents were the largest single cause of adolescent mortality.

The motor vehicle accident death rate for adolescents aged 15-19 years was at least five times greater than the rate for any other childhood age category. For 15-19 year-olds, the rate of motor vehicle deaths was two times greater for whites than for blacks.

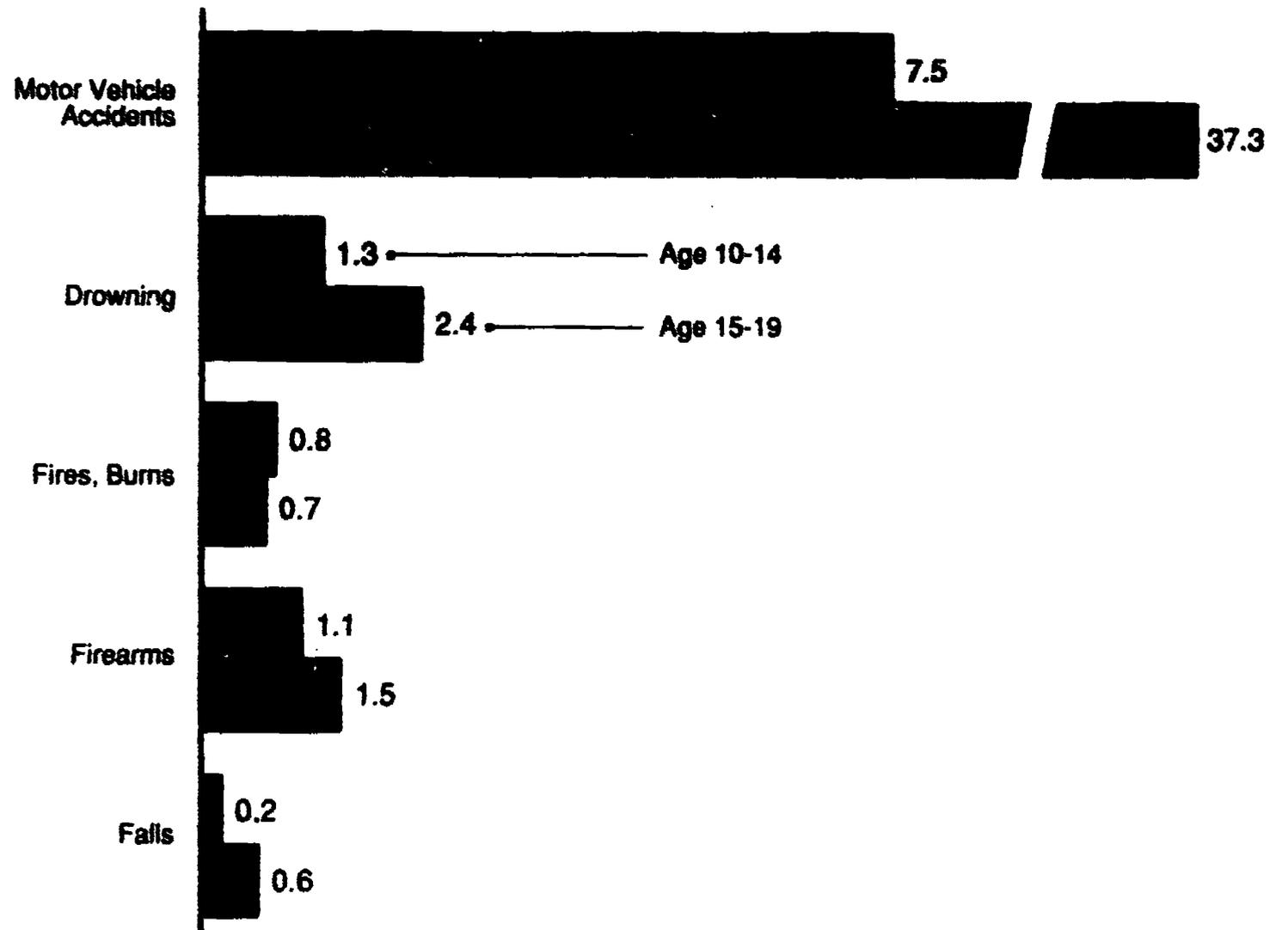
About 24% of motor vehicle deaths in 10-14 year-olds involved pedestrians, whereas only 6% of motor vehicle deaths in 15-19 year-olds involved pedestrians.

Nearly 64% of the deaths from motor vehicle accidents in 15-19 year-olds involved vehicle occupants.

68

**Adolescent Deaths Caused by Unintentional Injury by Age: 1988**

Source (U.17): National Center for Health Statistics



Age-Specific Death Rate Per 100,000 Adolescents

69

**TEENAGE SEXUALITY**

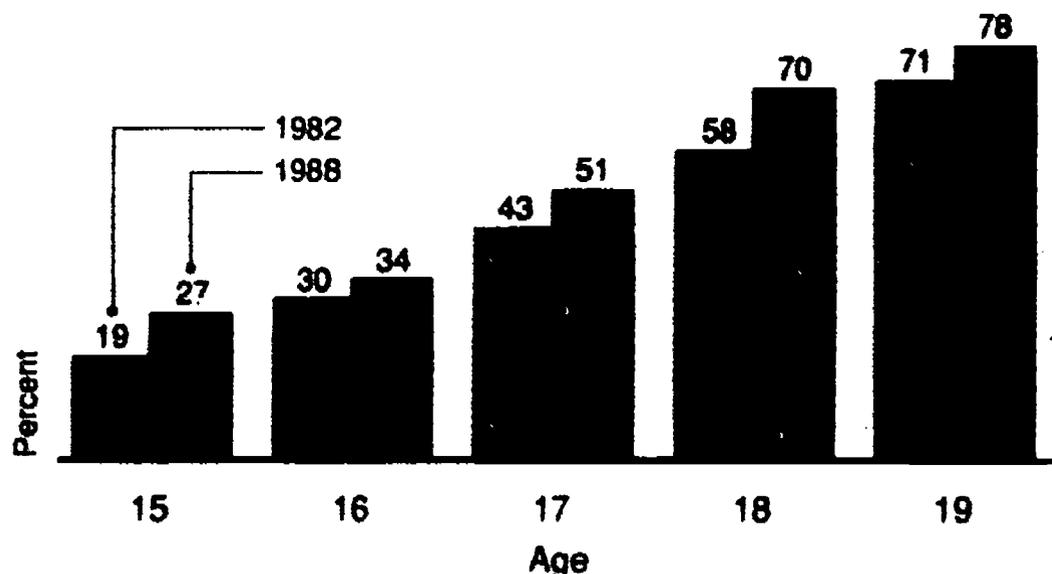
**Sexual Activity**

In 1988, the percent of teenage women having had sexual intercourse increased with age from 27% among 15 year-olds to 78% among 19 year-olds.

Between 1982 and 1988, the proportion of women 15-19 years of age who were sexually experienced increased from 47% to 53%. This represents the largest increase in sexual activity in any comparable period since at least 1970.

**Percent of Women Ages 15-19 Who Have Ever Had Intercourse: 1982-1988**

Source (II.18) National Center for Health Statistics



71

**Teen Pregnancy**

Estimates indicate that 1,014,620 teenagers became pregnant in 1987; of these women, 30,000 were younger than 15. It is estimated that the pregnancy outcomes included 472,623 live births, 406,790 induced abortions, and 135,210 miscarriages and stillbirths.

In 1987, more than half of all pregnancies to teenagers under 15 years were reported to end in abortion. The percent of pregnancies ending in abortion decreased with age, to 38% in women 18-19 years. Women

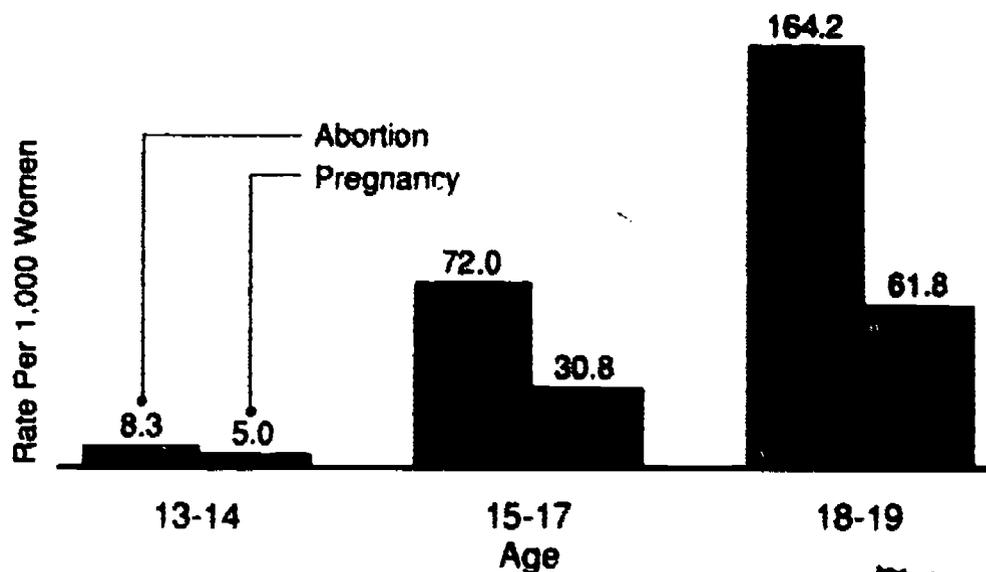
younger than 20 years accounted for 26% of all abortions and 12% of all births.

Each year, one in every 11 American females aged 15-19 has a birth or abortion, as compared with fewer than one teen in 20 in Canada, England or France.

The abortion and pregnancy rates in the United States are the highest of any country that publishes accurate abortion statistics, although it is possible that certain Eastern European countries for which data are unavailable have equally high teenage pregnancy rates.

**Rate of Pregnancy and Abortion by Age: 1987**

Source (II.18) Alan Guttmacher Institute



71

**CHILDBEARING**

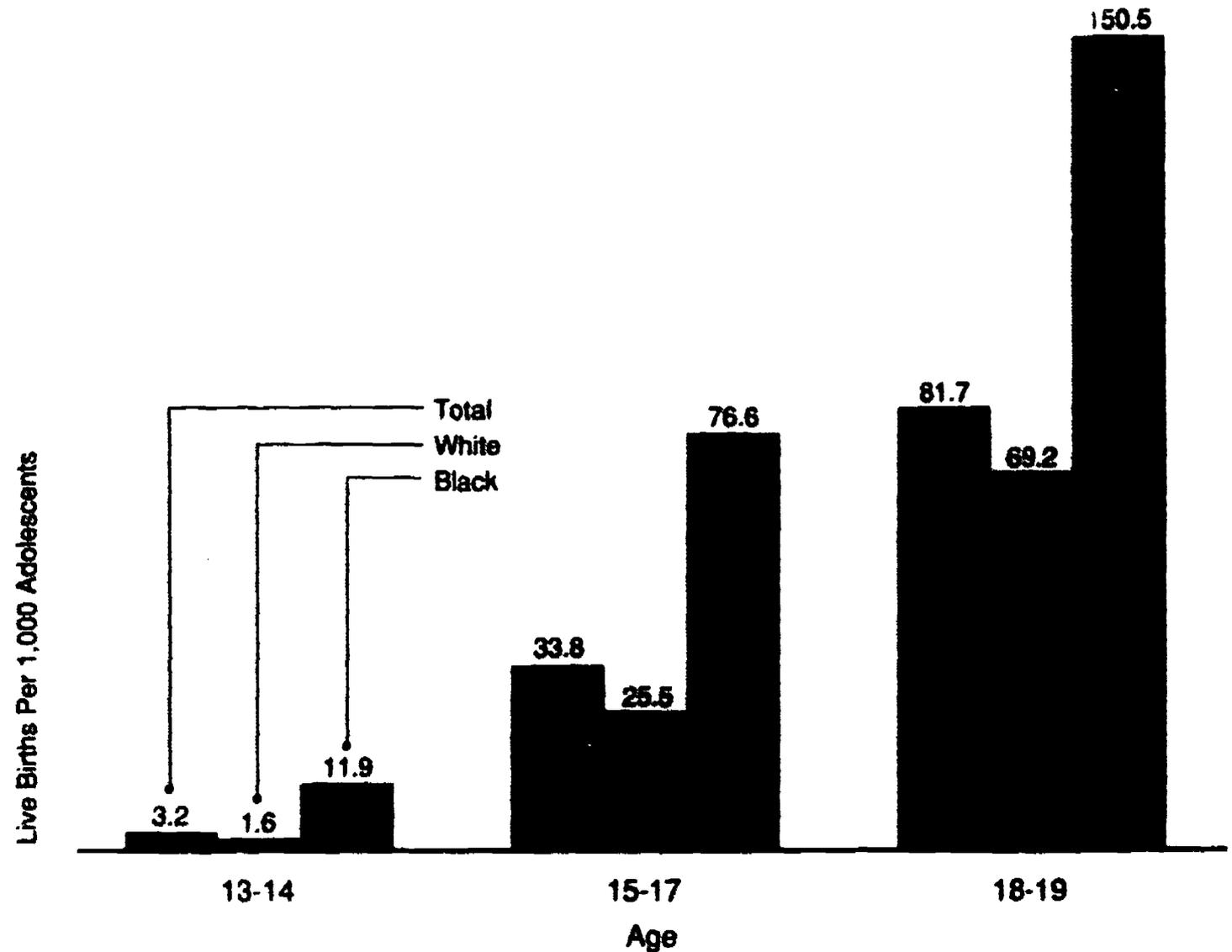
In 1988, the live birth rate per 1000 individuals was 3.2 for teenagers aged 13-14, 33.8 for those 15-17, and 81.7 for those 18-19 years old.

In 1988, there were 70,015 live births among black females younger than 18 years of age, which represented 10.4% of all births to black women. There were 110,980 births to white females under 18, which represented 3.6% of all births to white women.

In 1988, approximately 58 million women were of childbearing age (15-44 years) in the United States.

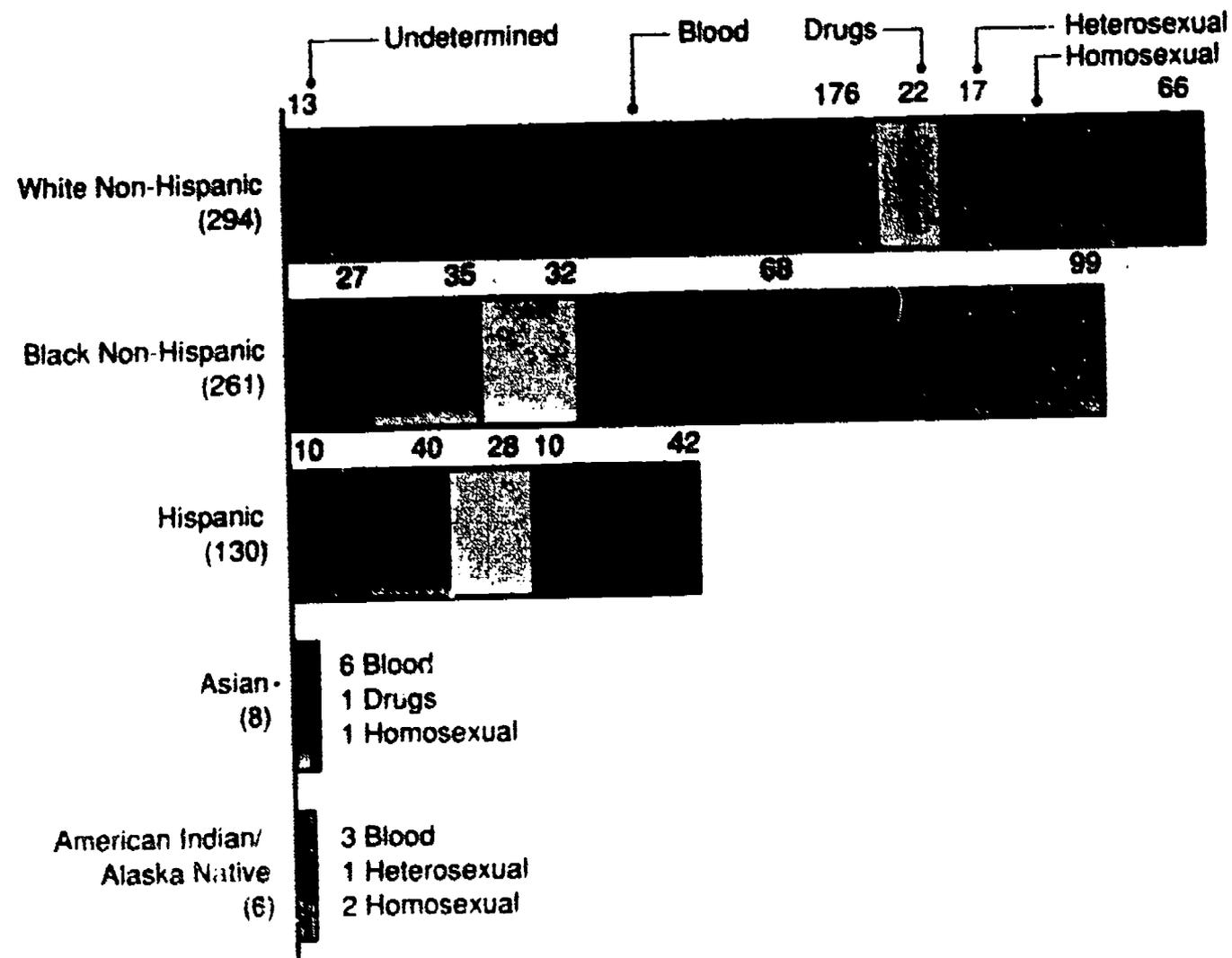
**Live Births by Age and Race of Mother: 1988**

Source (II.18): National Center for Health Statistics



**Adolescent AIDS by Race and Exposure Category for Ages 13-19: 1991**

Source (II.19): Centers for Disease Control



Number of Cases

74

**ADOLESCENT AIDS**

As of June 30, 1991, 699 cases of AIDS were reported in adolescents aged 13 through 19 years. This cumulative total included 158 cases reported from July 1990 through June 1991.

Among white, non-Hispanic, adolescents the largest single source of exposure to HIV is blood transfusion. This exposure category accounts for almost 60% of the known AIDS cases in this group.

In black, non-Hispanics, on the other hand, sexual activity accounts for over 60% of the known AIDS cases in adolescents. Exposure through blood products only accounts for 13% of the cases.

*Note: Blood exposure: Hemophilia/coagulative disorders, receipts of blood transfusions, blood components or tissue*

75

**YOUNG ADULT AIDS**

As of June 30, 1991, 7417 cases of AIDS were reported in young adults aged 20-24 years. This total included 1502 cases reported from July 1990 through June 1991.

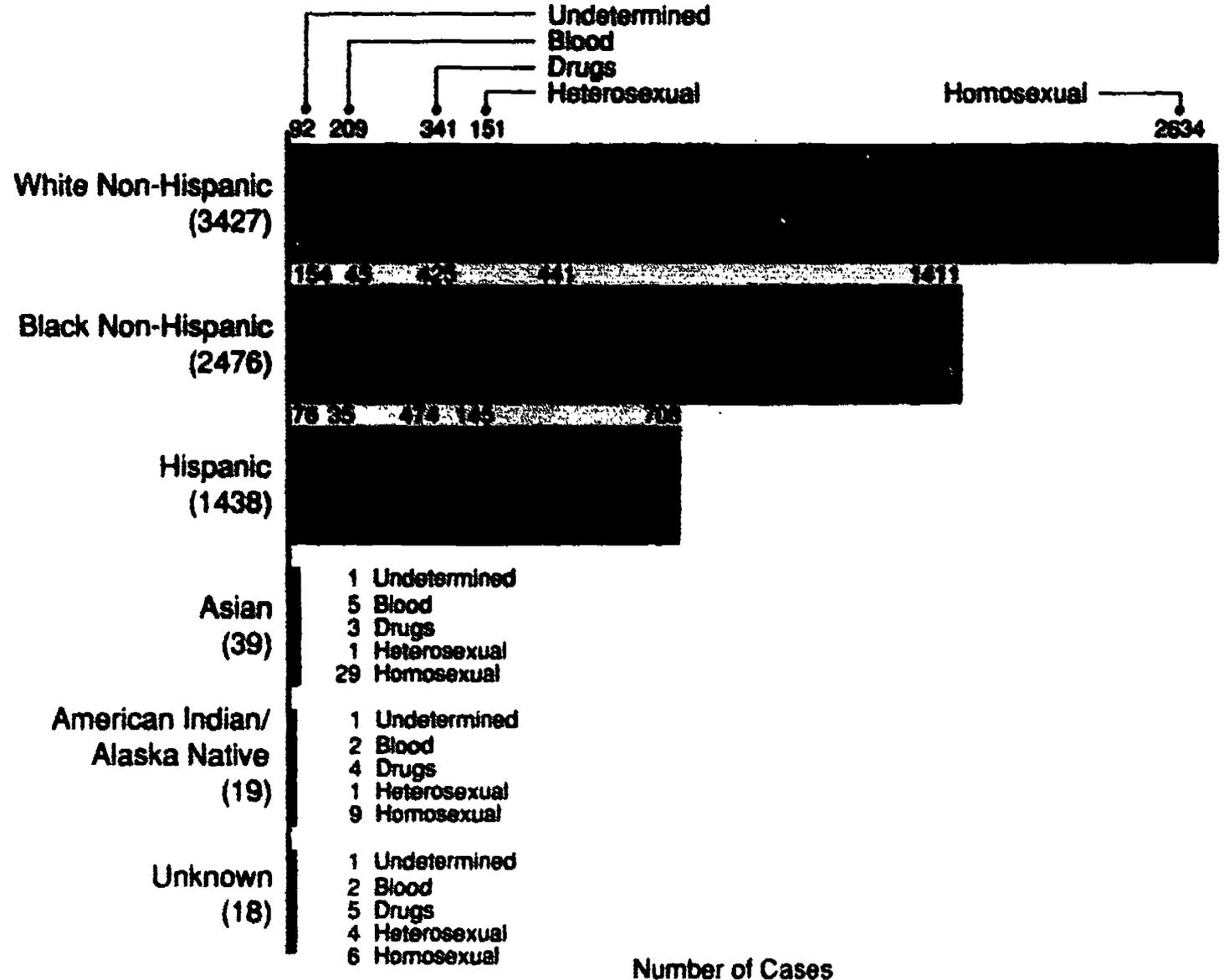
Across all racial/ethnic groups, homosexual activity is the major exposure category associated with known AIDS cases in young adults. Drug related exposure, however, is a significant contributing factor in the Hispanic population.

Due to the long latency period (up to 9 years) the majority of cases seen in this age group were the result of exposure occurring during adolescence.

*Note: Blood exposure: Hemophilial/coagulative disorders, receipts of blood transfusions, blood components or tissue*

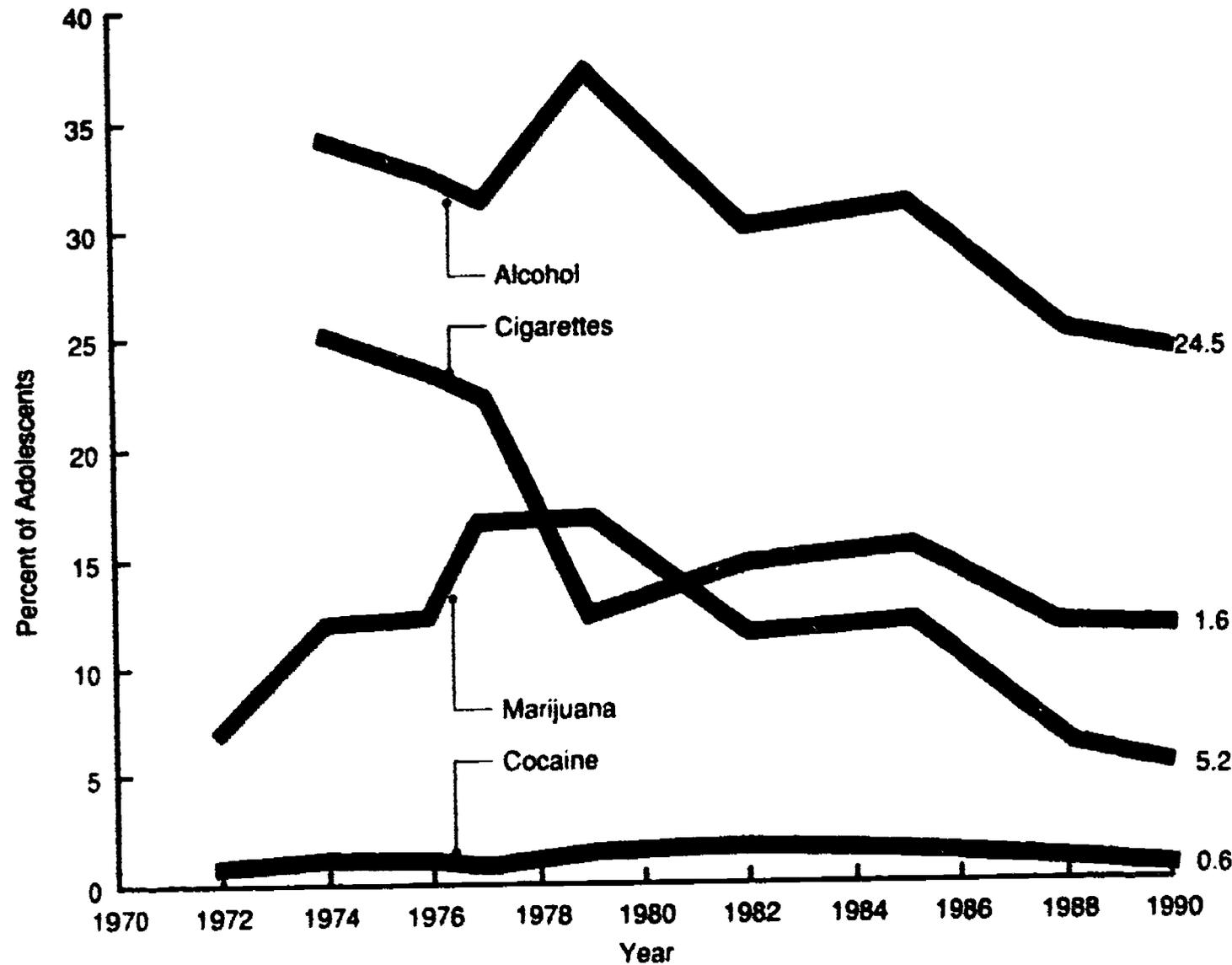
**Young Adult AIDS by Race and Exposure Category for Ages 20-24: 1991**

Source (11.20): Centers for Disease Control



**Use of Selected Substances in the Past Month by Adolescents Aged 12-17: 1972-1990**

Source (H.21): National Institute on Drug Abuse



78

**SUBSTANCE ABUSE**

Alcohol continues to be the most widely abused substance among youth aged 12-17 years.

Cigarette smoking has declined steadily over the past decade.

Although the use of marijuana peaked in the late 1970s with 17% indicating use in the past month, there has been an apparent decline in the 1980s. A similar trend has been observed in alcohol consumption.

Among 12-17 year-olds, 15.9% reported using an illicit drug in the past year and 8.1% reported using an illicit drug at least once in the past month. Illicit drugs include marijuana, nonmedical use of psychotherapeutics, inhalants, cocaine, hallucinogens, and heroin.

The oldest youth in the 12-17 year-old age group were more likely to report illicit use of these substances in the past month, as evidenced in the following table:

	Percent Use in Past Month by Age		
	12-13	14-15	16-17
Alcohol	8	26	38
Cigarettes	2	14	18
Marijuana	*	5	10

\* Estimate unreliable

79



80

**BEST COPY AVAILABLE**

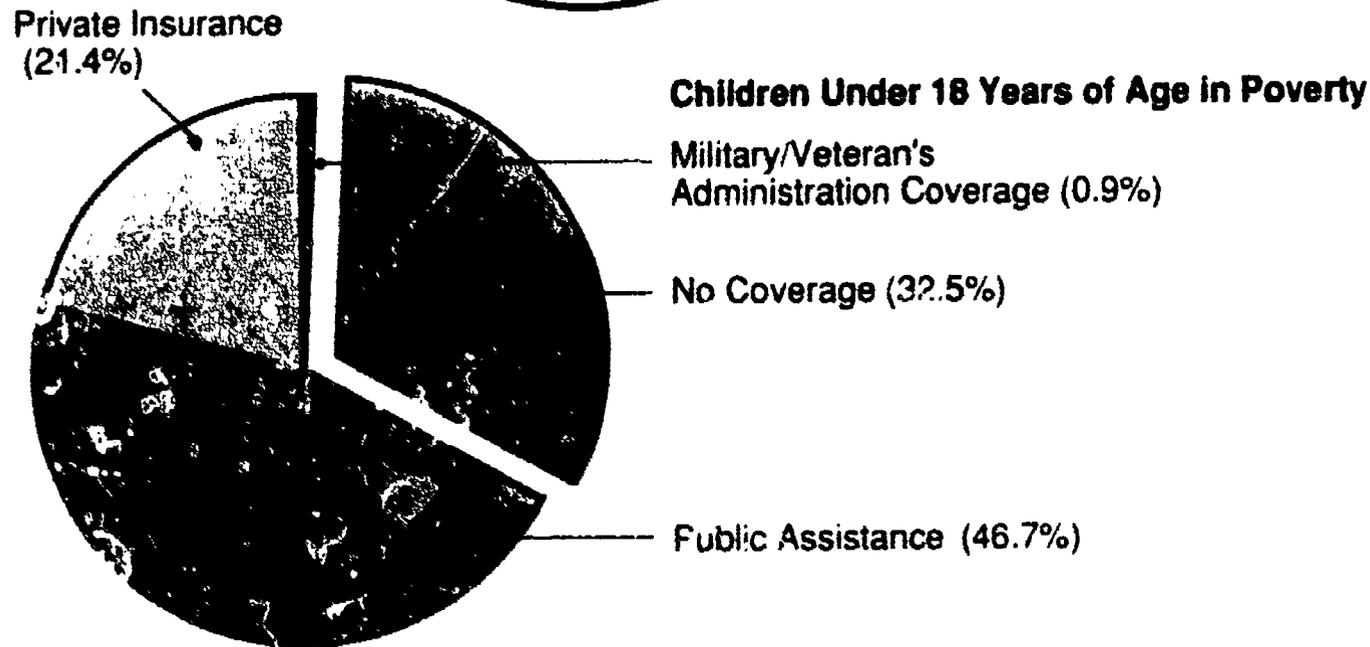
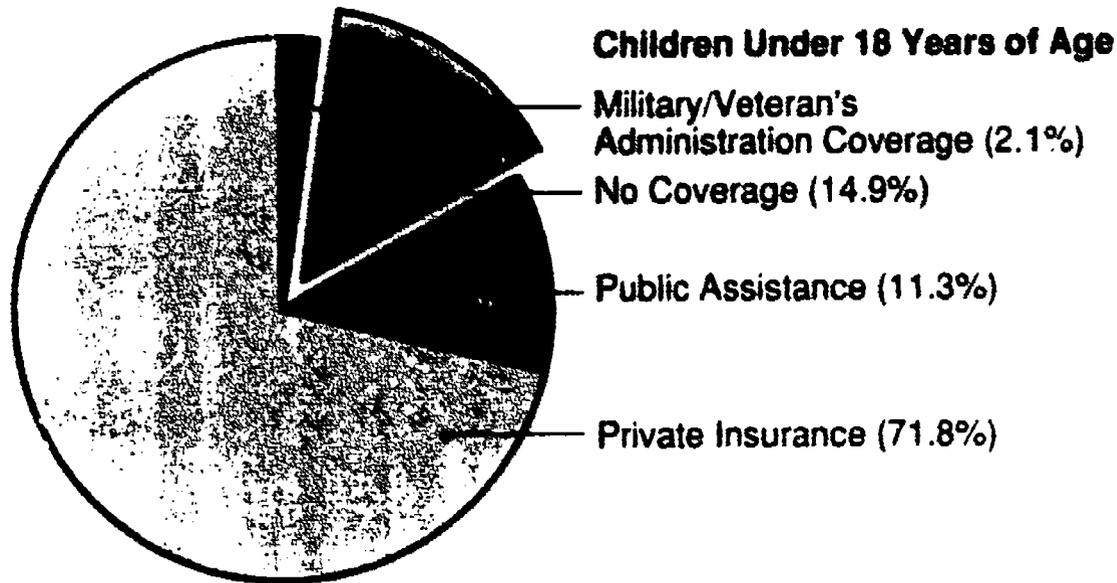
The availability of and access to quality health care directly affect the health of mothers and children, especially those at high medical and social risk. There is no universal coverage for women and children in the United States, and it is estimated that nearly 34 million Americans do not have health care coverage. Although some private physicians and hospitals provide "free" care, many Americans are still unable to receive needed primary care and preventive services. Many people wait for life-threatening events to occur before they seek care or use hospital emergency room services as their usual source of care. Even the most effective intervention programs are of little value if they are not accessible to those they target.

This section summarizes recent data on the utilization of health care services by source, type and place of service.

81

**Health Insurance Coverage, 1989**

Source (III 1) National Center for Health Statistics



**HEALTH CARE FINANCING**

Data from the 1989 National Health Interview Survey indicated that almost 15% or 9.5 million children younger than 18 had no insurance coverage.

Over 11% of children were publicly insured, primarily through Medicaid, and nearly 72% were covered by private insurance.

Of children younger than 18 whose families live in poverty, 46.7% were publicly insured and 21.4% have private coverage. However, 32.5% of children in poverty had no health coverage in 1989.

In 1989, over 75% of white children younger than 18 had private health insurance. Of black children, 52% have private coverage.

**PHYSICIAN VISITS**

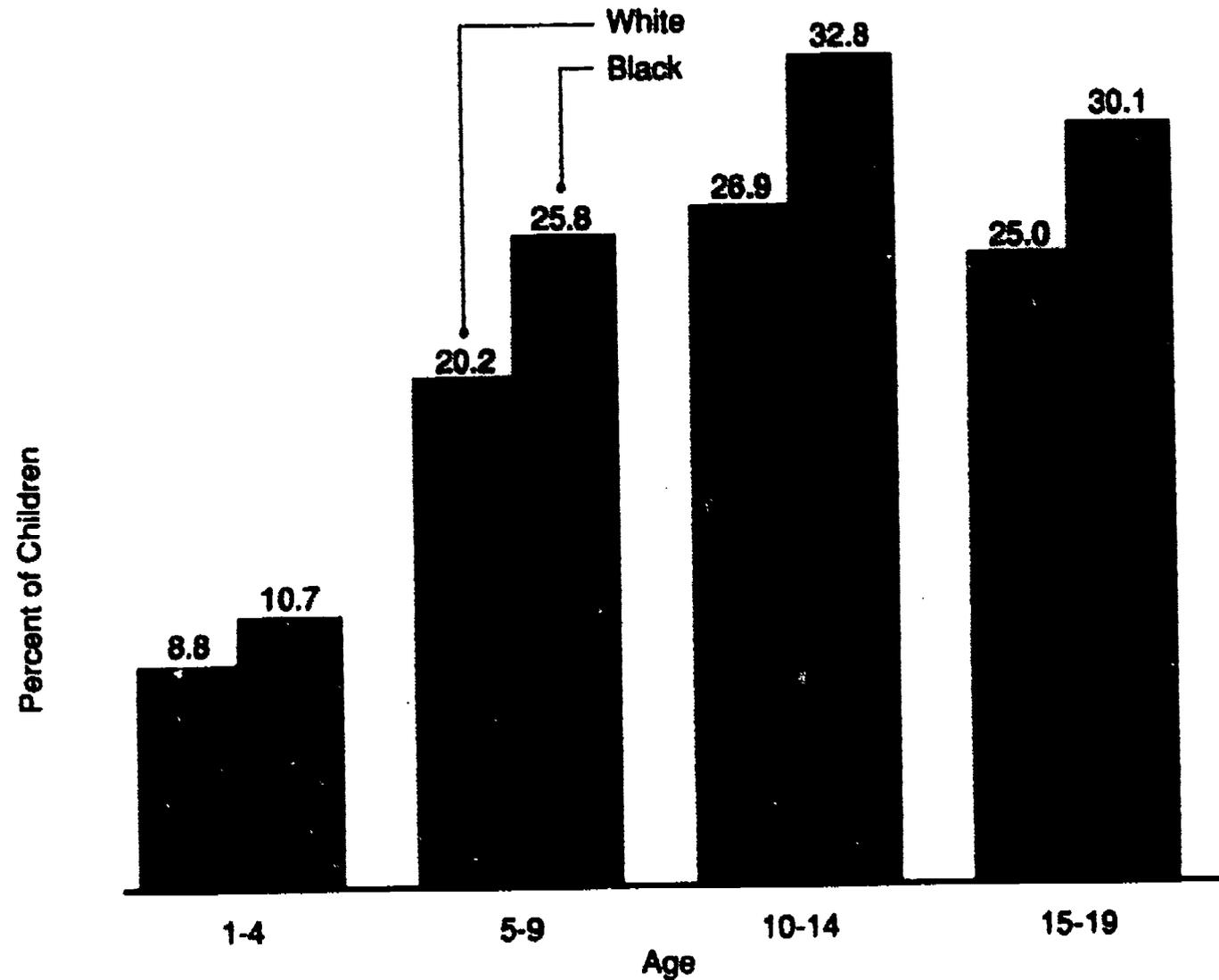
In all age groups, more black children than white children had not been seen by a physician in the past year.

During 1990, nearly 9% of white and 11% of black children ages 1-4 had not been seen by a physician.

In 1990, about 21% of children younger than 20 years, or nearly 14 million children, were not seen by a physician in the past year

**Percent of Children with No Physician Visits in the Past Year by Age: 1990**

Source (11.2): National Center for Health Statistics

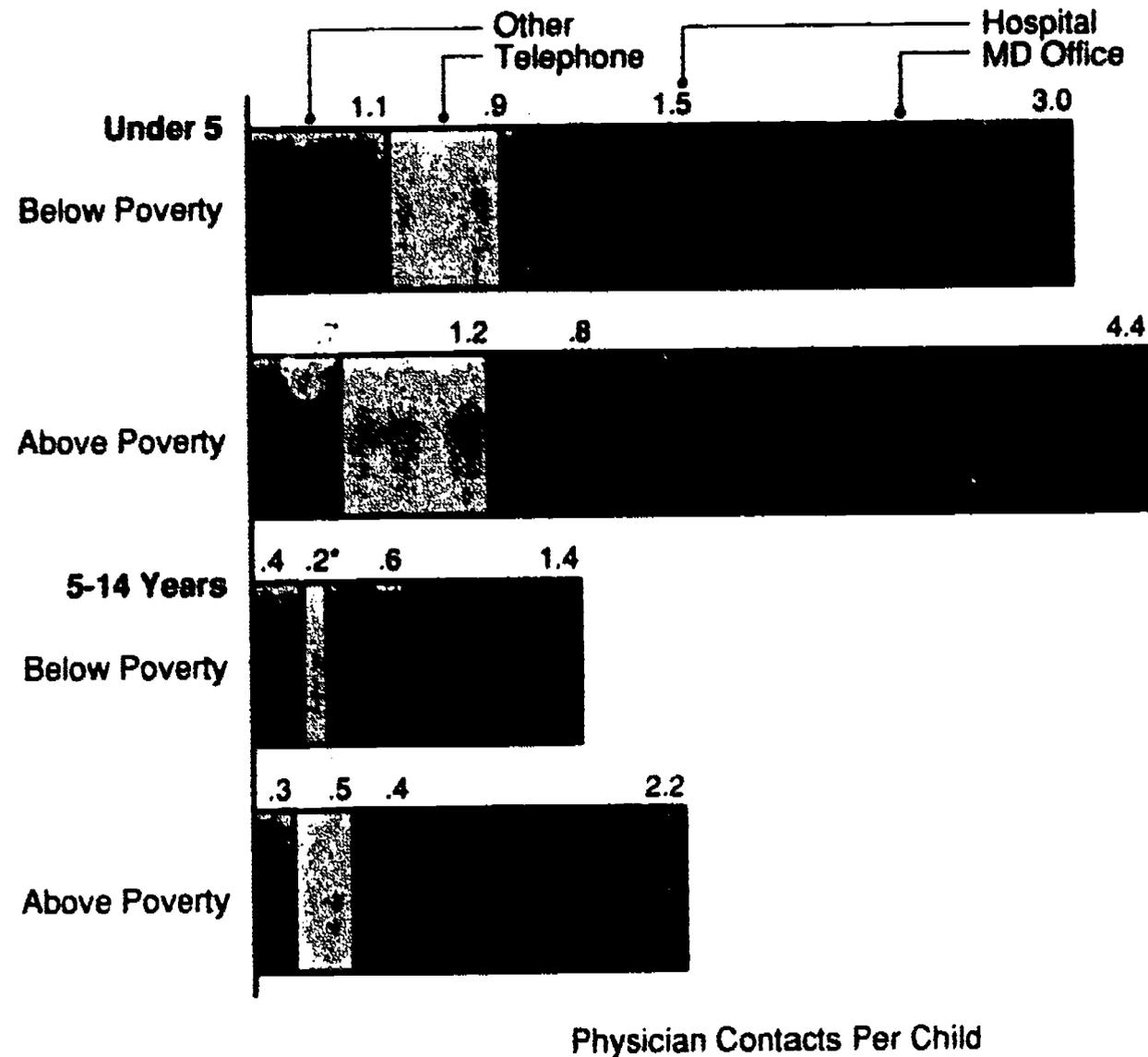


84

85

**Place of Physician Contact  
by Age and Poverty Status: 1990**

Source (III.3): National Center for Health Statistics



**PLACE OF PHYSICIAN CONTACT**

Among children who saw a physician during the past year, children younger than 5 years averaged more physician contacts than school-aged children.

Children whose family income was above the poverty level used more physician services than children in poverty.

Children in poverty were more likely to see physicians in hospitals and other places and less likely to see physicians in offices than children above poverty.

\* Relative Standard Error (RSE) of numerator is more than 30%

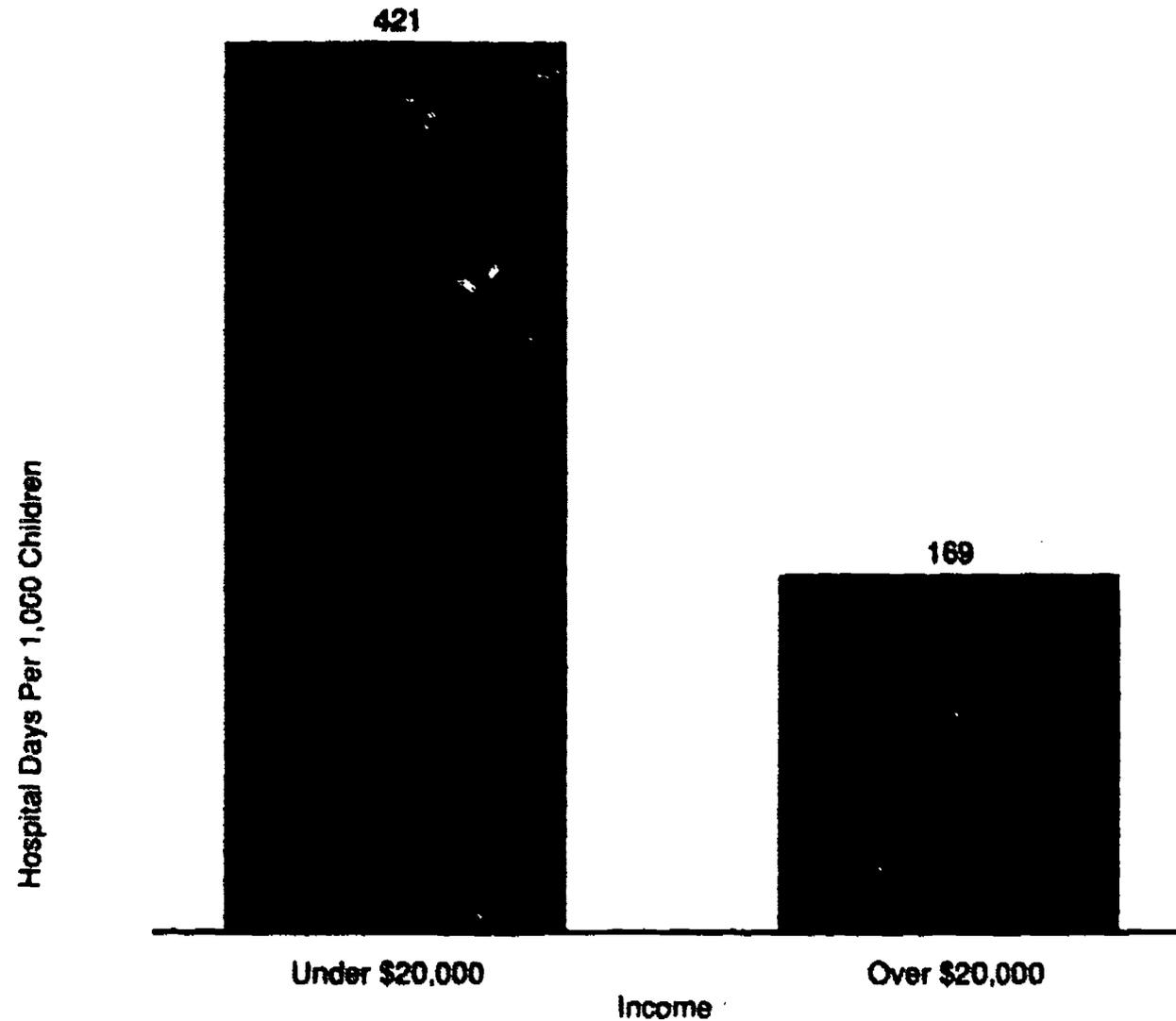
### **HOSPITAL UTILIZATION BY INCOME**

In 1990, children younger than 18 in families with incomes less than \$20,000 averaged nearly 60% more hospital days than children from higher income families.

This observation suggests that children from poorer families did not receive health care until later in the course of their illness, and as a result, required longer hospitalization.

### **Hospital Utilization by Income: 1990**

Source (III.4): National Center for Health Statistics

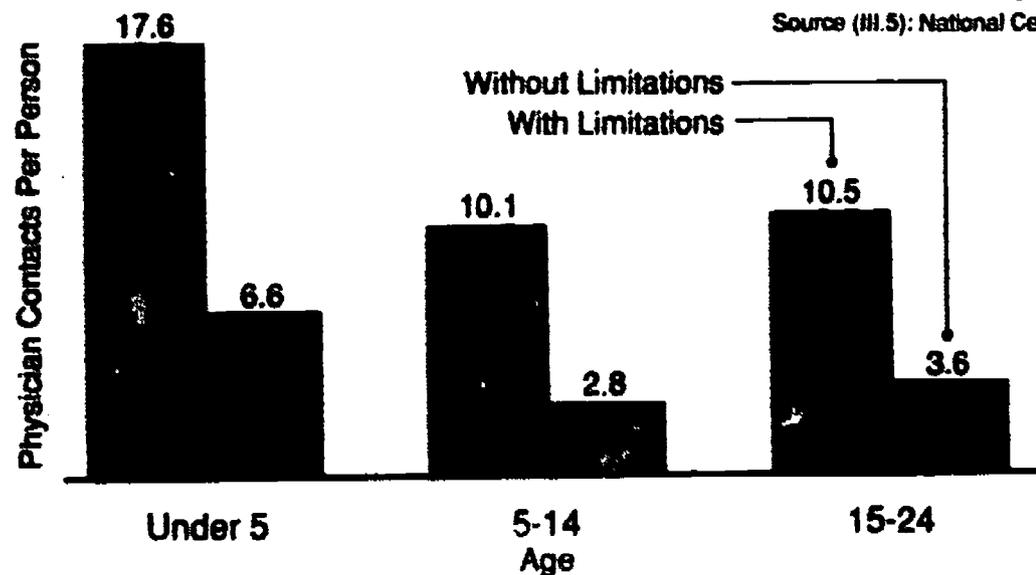


88

89

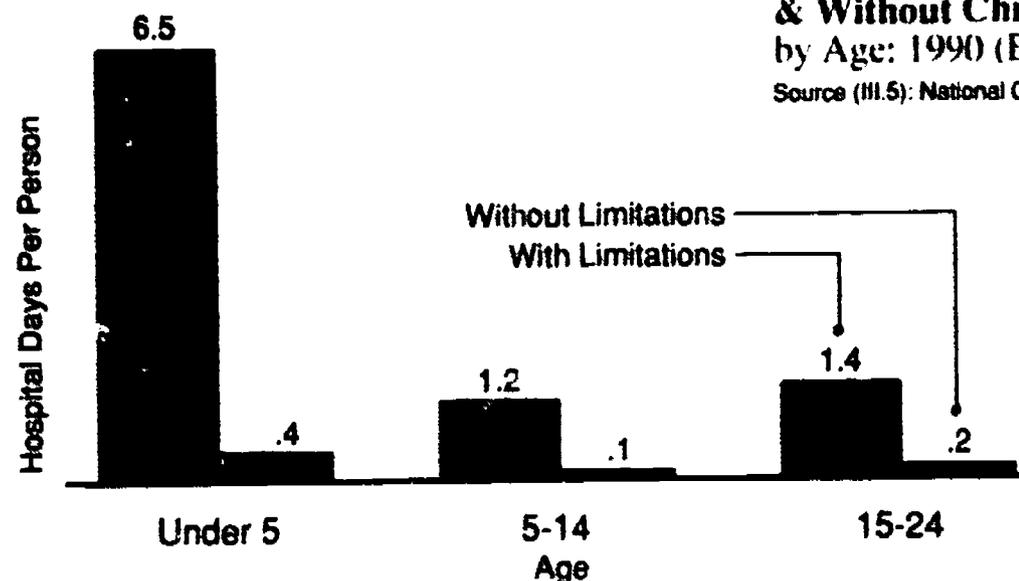
### Physician Utilization by Children with Chronic Activity Limitations by Age: 1990

Source (III.5): National Center for Health Statistics



### Hospital Utilization by Children With & Without Chronic Activity Limitations by Age: 1990 (Excluding deliveries)

Source (III.5): National Center for Health Statistics



### SERVICE UTILIZATION BY CHILDREN WITH CHRONIC CONDITIONS

#### Physician Utilization

Five percent of all U.S. children have activity limitations; however, this group accounts for 11% of all physician contacts among children.

In 1990, children who were limited in activities had over 2.5 times as many physician contacts as children without chronic conditions.

#### Hospital Utilization

Children with chronic conditions spend nearly 10 times as many days in the hospital as children without activity limitations.

Although they represent only 5% of all U.S. children, children with chronic conditions account for 40% of all hospital days among children 1-19 years of age.

**DENTAL CARE UTILIZATION**

Data from the 1989 National Health Interview Survey indicated that almost 28 percent of all children aged 5-17 did not have a dental visit in the preceding year. Dental service utilization varied across sociodemographic populations.

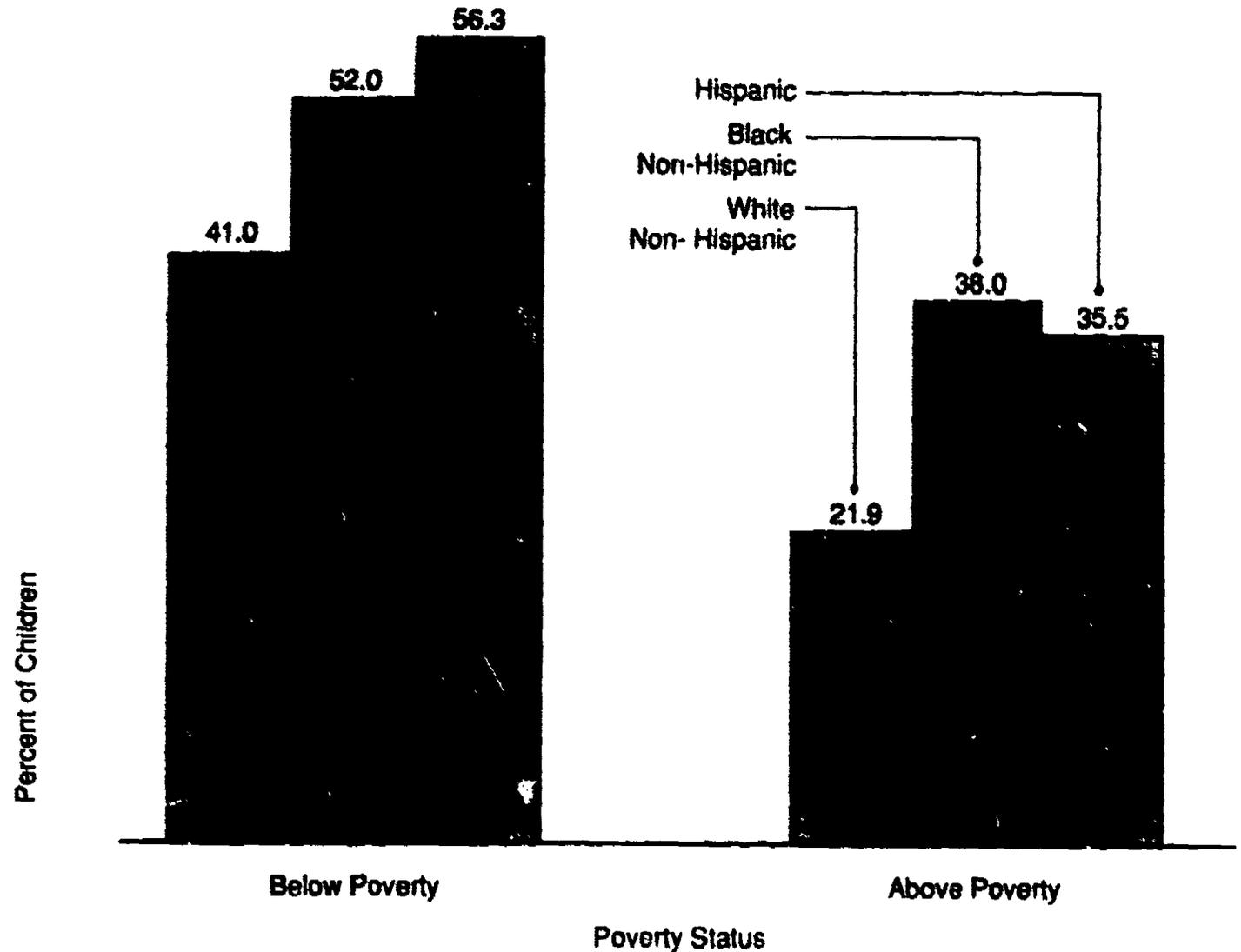
Regardless of race or ethnicity, children ages 5-17 years whose families live in poverty are less likely than other children to visit the dentist.

In 1989, more than half of all black and Hispanic children in poverty reported having no dental visit in the past 12 months.

About 41% of white, non-Hispanic children in poverty had no dental visit in 1989. On the other hand, nearly 80% of white, non-Hispanic children living above the poverty level reported visiting the dentist at least one time during the past 12 months.

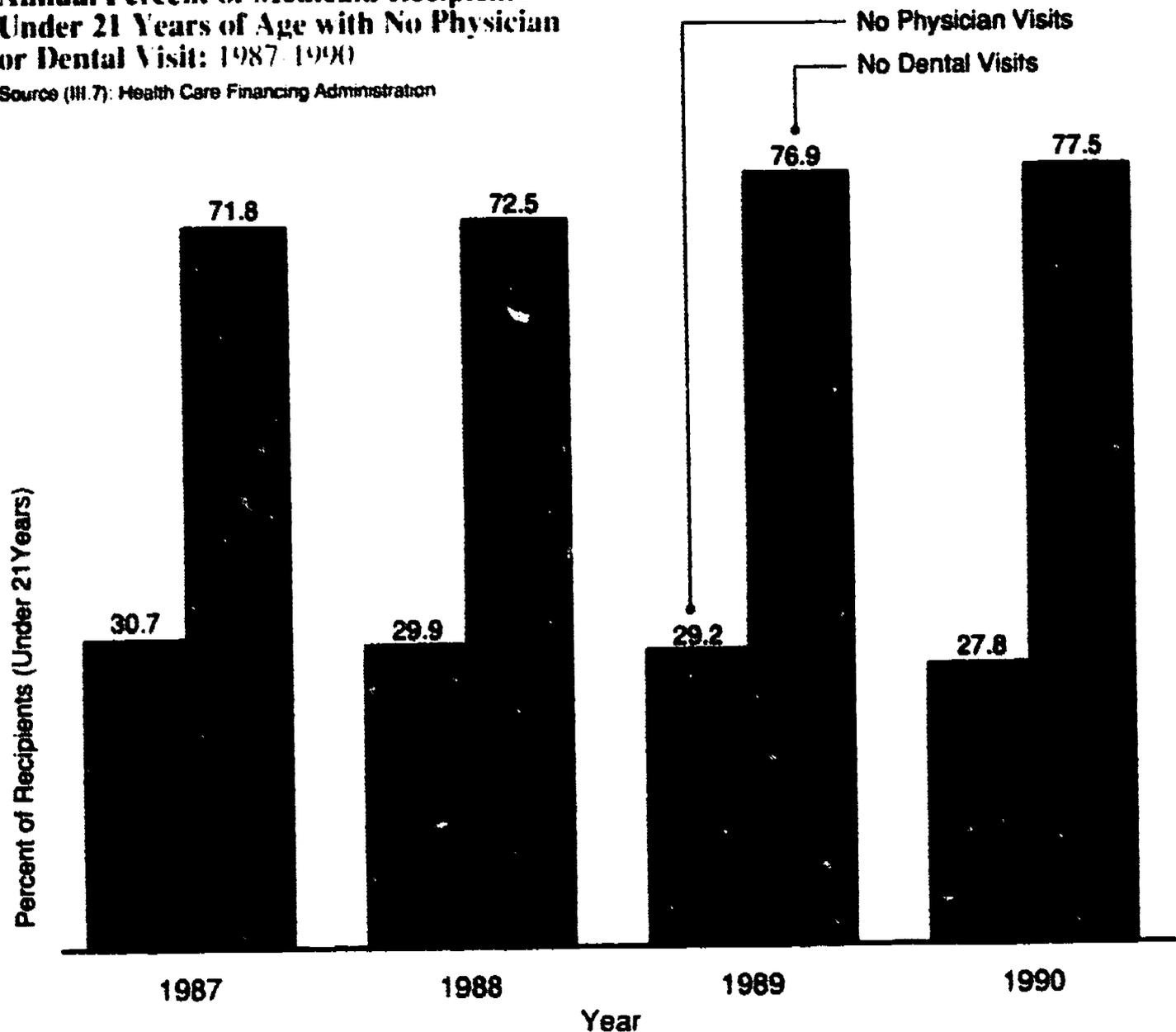
**Percent of Children without a Dental Visit in the Past 12 Months by Race/Ethnicity and Poverty Status: 1989**

Source (H1.6): National Center for Health Statistics



**Annual Percent of Medicaid Recipients Under 21 Years of Age with No Physician or Dental Visit: 1987-1990**

Source (III.7): Health Care Financing Administration



**MEDICAL AND DENTAL SERVICE UTILIZATION BY MEDICAID RECIPIENTS**

Public assistance programs, such as Medicaid, have not resulted in improved access for medical and dental services for all children.

In 1990, 28% of all Medicaid recipients younger than 21 years had no physician visit and almost 80% received no dental services.

Although there has been a slight increase in the percent of Medicaid recipients younger than 21 visiting a physician at least one time per year between 1987 and 1990, the rate of dental care utilization declined during the same period.

Between 1987 and 1990, the total number of children receiving Medicaid coverage increased by 10%. In 1990, there were nearly 12 million Medicaid recipients.

## PRENATAL CARE

### Early Prenatal Care

Overall, 76% of all mothers received prenatal care in the first trimester of pregnancy, the same proportion that has been observed since 1979.

There is a substantial racial disparity in the timely receipt of prenatal care. In 1988, 79% of white mothers as compared to 61% of black mothers received early prenatal care.

Women younger than 20 years of age are less likely than older women to receive early prenatal care.

### No Prenatal Care

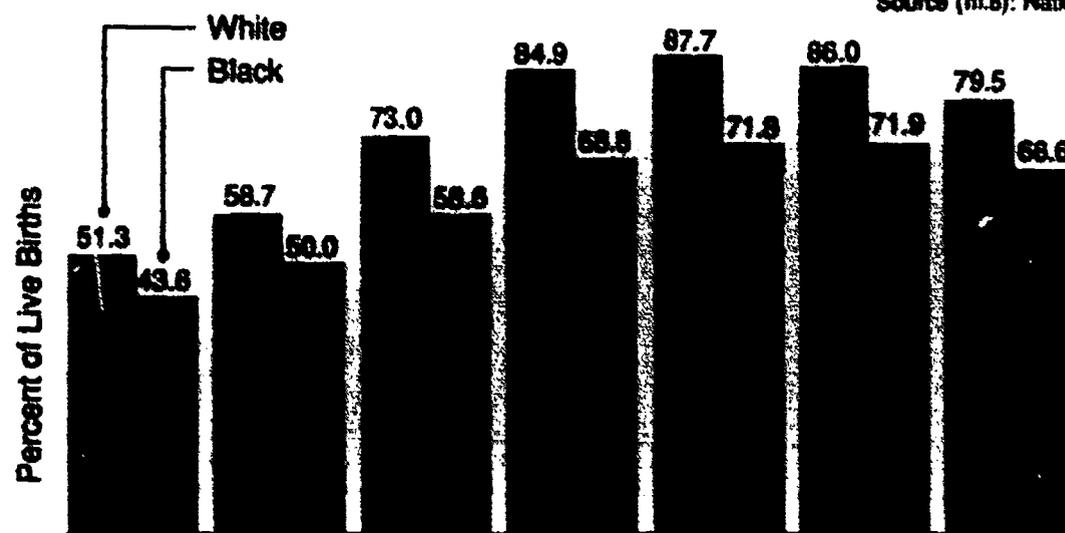
Each year since 1983, 6% of infants were born to mothers who initiated care during the third trimester or received no prenatal care.

Regardless of age, black women are less likely to receive prenatal care than white women.

Risk factors for not receiving prenatal care include having age less than 18 years, unmarried status, low educational attainment, and being of minority status.

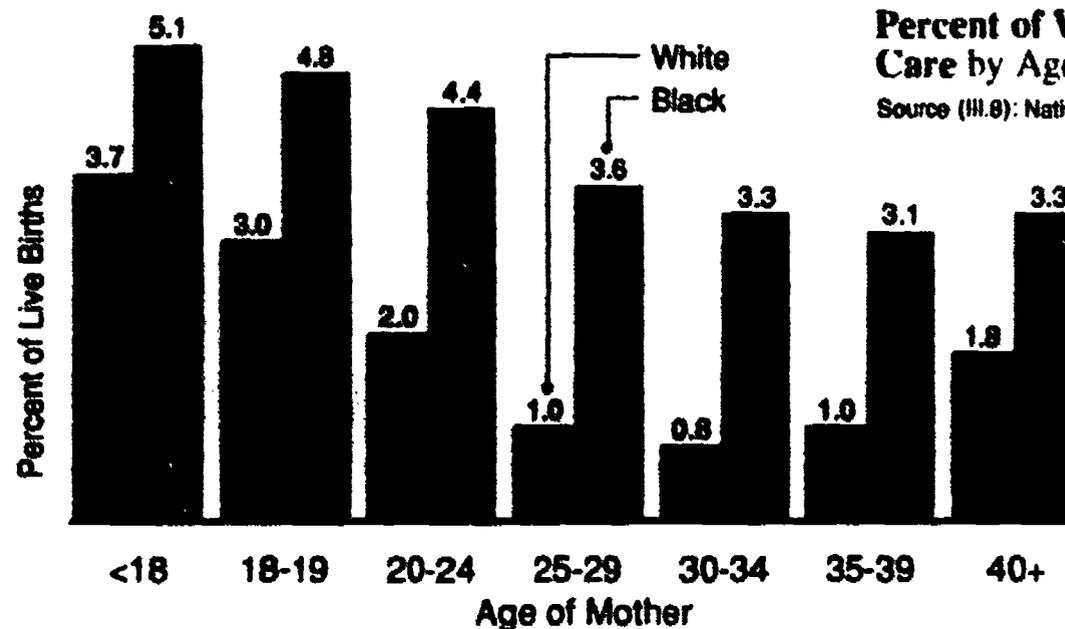
### Percent of Women with Early Prenatal Care by Age and Race: 1988

Source (III.8): National Center for Health Statistics



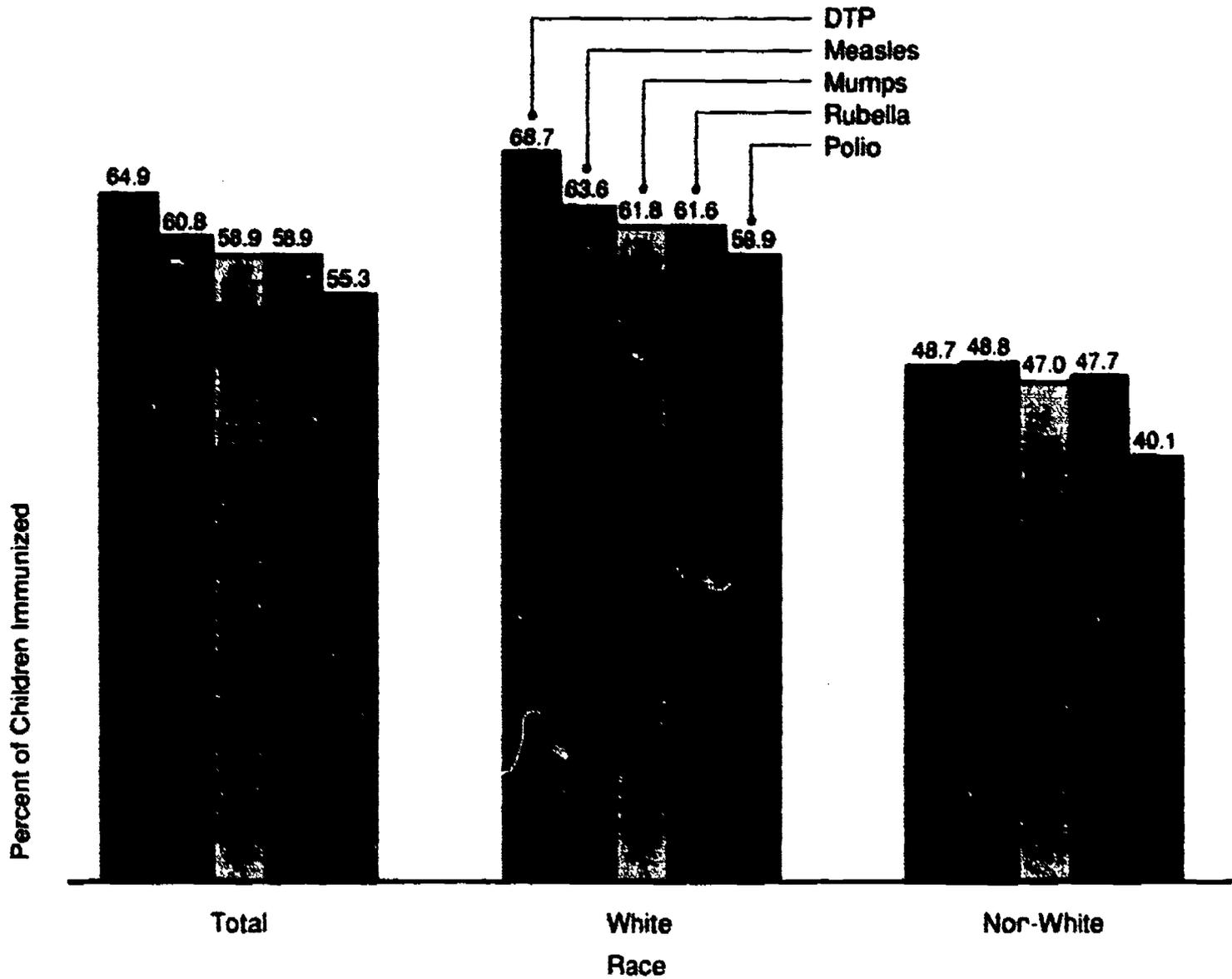
### Percent of Women with No Prenatal Care by Age and Race: 1988

Source (III.8): National Center for Health Statistics



**Immunization Rates for Children  
Ages 1-4 by Race and Vaccine: 1985**

Source (III.9): Centers for Disease Control



**IMMUNIZATION**

More than one third of white children and over one half of non-white children ages 1-4 years have not been properly immunized against five common childhood diseases.

While most children have received their immunizations by the time they enter school (97%), many are not vaccinated as early as recommended.

Recent reports of measles outbreaks indicate that there are some geographic areas and demographic groups with dangerously low immunization levels.

## Infant, Perinatal, and Neonatal Mortality Rates by Race and State: 1988

Source (IV.1): National Center for Health Statistics

State	Infant Mortality			Perinatal Mortality			Neonatal Mortality		
	All	White	Black	All	White	Black	All	White	Black
UNITED STATES	10.0	8.5	17.6	9.7	8.4	16.5	6.3	5.4	11.5
ALABAMA	12.1	9.3	17.2	12.1	9.7	16.4	8.0	6.2	11.4
ALASKA	11.6	9.8	*	7.2	5.8	20.0	5.1	4.4	9.3
ARIZONA	9.7	9.4	17.9	8.6	8.2	18.8	5.9	5.7	14.0
ARKANSAS	10.7	8.7	17.4	10.5	8.5	17.5	6.4	5.1	10.8
CALIFORNIA	8.6	8.2	15.9	8.7	8.3	14.7	5.2	4.9	9.7
COLORADO	9.6	9.6	12.0	8.7	8.6	11.0	5.6	5.6	8.5
CONNECTICUT	8.9	8.0	15.5	9.1	8.4	14.6	6.2	5.6	10.7
DELAWARE	11.8	9.1	21.1	11.7	8.7	21.8	8.8	6.4	17.0
DISTRICT OF COL.	23.2	19.9	26.0	21.2	13.8	24.4	17.6	12.6	20.1
FLORIDA	10.6	8.5	17.4	11.2	9.0	18.2	6.9	5.7	11.0
GEORGIA	12.6	9.2	18.9	12.3	9.1	18.2	8.3	5.8	12.8
HAWAII	7.2	7.2	*	8.4	9.1	7.8	5.2	5.0	6.7
IDAHO	8.8	8.5	*	6.6	6.7	—	3.7	3.6	12.5
ILLINOIS	11.3	8.7	20.7	10.7	8.7	17.9	7.2	5.8	12.6
INDIANA	11.0	9.9	19.9	10.0	9.0	18.5	6.5	5.8	12.2
IOWA	8.7	8.3	19.9	8.9	8.9	11.2	5.4	5.3	10.4
KANSAS	8.0	7.0	16.5	8.1	7.3	15.4	4.9	4.2	11.3
KENTUCKY	10.7	10.0	17.4	10.3	9.7	16.3	6.2	5.7	10.7
LOUISIANA	11.0	9.0	14.3	11.0	8.8	14.5	7.0	5.6	9.3
MAINE	7.9	8.0	*	8.7	8.3	76.9	5.2	5.3	—
MARYLAND	11.3	8.5	17.8	10.6	8.0	16.8	8.0	5.8	13.0
MASSACHUSETTS	7.9	7.3	15.4	8.2	7.7	15.2	5.4	5.1	10.1
MICHIGAN	11.1	8.6	21.9	9.4	7.2	18.9	7.7	5.7	16.5
MINNESOTA	7.8	7.2	19.5	7.9	7.3	18.6	4.7	4.4	11.9
MISSISSIPPI	12.3	8.7	16.1	11.7	8.8	14.9	7.6	5.4	9.9
MISSOURI	10.1	9.0	16.2	9.5	8.6	14.3	6.4	5.6	10.4
MONTANA	8.7	8.8	*	9.0	9.0	12.8	4.5	5.1	12.8
NEBRASKA	9.0	8.1	22.4	9.2	8.6	19.4	5.4	4.9	11.9
NEVADA	8.4	7.5	18.7	7.8	7.0	17.0	3.7	3.3	8.1
NEW HAMPSHIRE	8.3	8.4	*	8.2	8.1	32.9	5.2	5.2	*
NEW JERSEY	9.9	7.9	18.5	10.2	8.2	17.4	6.8	5.5	12.0
NEW MEXICO	10.0	9.7	*	8.9	8.7	12.7	6.1	6.1	*
NEW YORK	10.8	8.9	18.1	11.1	9.2	18.1	7.4	6.2	12.2
NORTH CAROLINA	12.5	9.6	19.5	11.9	9.3	18.1	8.0	6.2	12.3
NORTH DAKOTA	10.5	10.0	*	8.2	7.8	11.5	5.6	5.7	—
OHIO	9.7	8.6	15.9	9.3	8.6	13.2	6.1	5.5	9.6
OKLAHOMA	9.0	9.3	12.6	9.2	9.1	12.4	5.2	5.5	6.3
OREGON	8.6	8.5	*	7.5	7.4	13.7	4.6	4.5	*
PENNSYLVANIA	9.9	8.1	19.8	10.3	9.0	17.7	6.7	5.6	13.1
RHODE ISLAND	8.2	7.5	*	8.2	7.6	12.0	6.1	5.5	*
SOUTH CAROLINA	12.3	9.6	16.6	12.6	10.2	16.4	8.2	7.3	11.1
SOUTH DAKOTA	10.1	9.7	*	9.0	8.7	17.5	5.4	6.0	—
TENNESSEE	10.8	8.2	18.6	10.1	7.6	17.7	6.5	4.8	11.5
TEXAS	9.0	8.3	14.2	8.7	8.1	13.2	5.6	5.1	8.7
UTAH	8.0	7.9	*	5.7	5.8	—	3.7	3.9	—
VERMONT	6.8	6.7	*	6.6	6.7	—	4.2	4.2	—
VIRGINIA	10.4	8.1	17.9	10.5	8.3	17.8	6.8	5.1	12.5
WASHINGTON	9.0	8.7	16.1	7.1	6.8	11.6	4.6	4.5	7.5
WEST VIRGINIA	9.0	8.5	21.6	9.8	9.4	19.3	5.9	5.6	*
WISCONSIN	8.4	7.5	16.4	8.1	7.6	13.6	5.0	4.7	8.7
WYOMING	8.9	8.8	*	7.9	8.2	8.4	4.3	4.2	*

Neonatal Mortality: Deaths < 28 days. Perinatal Mortality: Fetal deaths ≥ 28wks. + infant deaths < 7 days.

\* Fewer than 20 infant deaths, rates not shown

— Quantity zero

**Percent of Low Birth Weight Infants, Women Receiving First Trimester Prenatal Care, and Births to Women Under 18 by Race and State, 1988**

State	Percent Low Birth Weight			Percent With Early Prenatal Care			Percent of Births to Women <18			State	Percent Low Birth Weight			Percent With Early Prenatal Care			Percent of Births to Women <18		
	All	White	Black	All	White	Black	All	White	Black		All	White	Black	All	White	Black	All	White	Black
UNITED STATES	6.9	5.6	13.0	75.9	79.4	61.1	4.5	3.6	10.4	MONTANA	6.0	5.9	**	77.7	80.9	72.4	3.5	2.7	6.4
ALABAMA	8.0	6.0	11.9	73.1	80.6	58.9	7.2	5.0	11.6	NEBRASKA	5.5	5.1	12.5	82.4	84.0	65.0	3.2	2.5	*
ALASKA	5.0	4.6	9.2	79.3	82.8	80.4	3.1	2.2	3.6	NEVADA	7.5	6.7	14.5	72.0	74.7	52.2	4.6	3.8	11.3
ARIZONA	6.2	6.0	12.4	67.9	70.1	61.5	5.3	4.8	9.8	NEW HAMPSHIRE	4.8	4.8	**	84.1	84.3	69.7	2.2	2.2	4.0
ARKANSAS	8.2	6.7	13.0	68.3	74.0	50.0	7.6	5.5	14.3	NEW JERSEY	7.0	5.4	13.3	79.7	84.4	61.1	3.5	2.0	9.7
CALIFORNIA	6.0	5.1	12.7	75.3	75.5	69.0	4.1	3.9	7.6	NEW MEXICO	7.2	7.4	11.1	54.9	56.6	46.6	5.9	5.8	7.8
COLORADO	7.8	7.5	12.9	77.4	78.4	66.3	3.8	3.6	7.3	NEW YORK	7.8	5.9	14.0	74.8	80.4	56.9	3.5	2.6	*
CONNECTICUT	6.7	5.7	13.2	83.1	86.3	62.2	3.4	*	10.6	NORTH CAROLINA	8.0	6.1	12.4	75.7	82.6	60.4	6.2	4.0	11.1
DELAWARE	7.4	5.6	13.0	79.7	85.1	61.2	5.0	3.0	11.5	NORTH DAKOTA	4.8	4.6	**	81.9	84.1	80.1	2.2	1.5	1.5
DISTRICT OF COL	14.3	5.3	16.9	61.2	86.9	56.8	8.4	0.9	10.2	OHIO	6.9	5.7	13.0	81.6	84.3	66.6	4.9	3.7	11.2
FLORIDA	7.7	6.0	12.9	70.1	75.7	52.9	5.7	3.7	*	OKLAHOMA	6.5	6.0	11.8	73.6	77.7	58.2	6.0	4.9	11.9
GEORGIA	8.4	6.1	12.5	73.3	80.1	61.3	6.7	4.6	*	OREGON	5.2	5.0	11.7	73.9	74.6	61.9	4.0	3.9	9.5
HAWAII	6.9	5.8	8.8	76.6	83.7	82.8	2.8	1.1	1.6	PENNSYLVANIA	6.9	5.5	14.4	78.9	83.7	53.8	4.2	2.9	11.1
IDAHO	5.1	5.1	**	74.8	75.1	78.5	3.9	3.9	1.3	RHODE ISLAND	6.0	5.6	9.3	84.0	86.2	69.2	3.8	3.3	*
ILLINOIS	7.5	5.5	14.1	78.1	82.8	62.7	5.2	3.0	12.9	SOUTH CAROLINA	9.0	6.3	13.1	64.7	75.1	48.5	6.9	4.5	10.7
INDIANA	6.6	5.8	12.4	78.2	80.3	62.0	5.1	4.2	12.5	SOUTH DAKOTA	4.7	4.6	**	76.6	80.7	69.6	3.7	2.6	4.5
IOWA	5.4	5.2	11.7	85.4	85.9	72.3	3.2	2.9	12.1	TENNESSEE	7.9	6.3	12.7	75.5	79.2	64.3	6.7	5.2	*
KANSAS	6.1	5.5	12.2	81.6	83.5	67.6	3.8	3.2	10.3	TEXAS	6.8	5.9	12.2	66.9	68.1	56.8	6.1	5.4	*
KENTUCKY	6.7	6.2	11.8	76.7	78.3	63.5	6.6	6.1	*	UTAH	5.7	5.6	11.8	82.6	83.6	66.2	3.4	3.4	4.7
LOUISIANA	8.8	6.0	12.9	74.3	84.6	60.0	6.8	4.0	10.8	VERMONT	5.0	4.9	**	80.6	80.8	65.5	2.7	2.7	0.0
MAINE	4.9	4.8	**	82.8	83.0	76.7	3.5	3.5	4.2	VIRGINIA	7.0	5.4	11.9	80.7	85.1	67.7	4.0	2.8	8.0
MARYLAND	8.1	5.8	12.9	81.2	87.4	68.2	4.4	2.3	9.1	WASHINGTON	5.3	4.8	10.8	77.1	78.8	63.4	3.6	3.3	7.3
MASSACHUSETTS	6.0	5.4	11.2	83.4	85.7	67.2	3.0	2.6	7.3	WEST VIRGINIA	6.4	6.2	10.9	71.2	72.0	54.0	6.3	6.2	*
MICHIGAN	7.3	5.7	14.2	79.9	82.9	67.8	4.8	3.1	11.9	WISCONSIN	5.4	4.7	12.9	83.1	86.1	63.8	3.5	2.2	14.3
MINNESOTA	5.0	4.6	11.7	79.8	82.2	55.6	2.4	1.8	9.8	WYOMING	7.0	7.2	**	78.4	79.2	71.8	3.7	3.6	9.2
MISSISSIPPI	8.7	6.0	11.8	75.9	85.6	65.4	9.1	5.1	*	** Fewer than 20 births less than 2500 grams, not shown									
MISSOURI	6.8	5.6	12.9	79.2	82.0	65.4	5.1	3.7	11.7	* Fewer than 20 births to women < 18 not shown									



104

### **I. POPULATION CHARACTERISTICS:**

(I.1) U.S. Bureau of the Census. 1990. **United States Population Estimates, by Age, Sex, Race, and Hispanic Origin: 1989.** Current Population Reports. Series P-25, No. 1057. Washington: U.S. Government Printing Office.

U.S. Bureau of the Census. 1989. **Projections of the Population of the United States, by Age, Sex, and Race, 1988 to 2080.** Current Population Reports. Series P-25, No. 1018. Washington: U.S. Government Printing Office.

(I.2) U.S. Bureau of the Census. 1990. **Money Income and Poverty Status in the United States: 1989.** Current Population Reports. Series P-60, No. 168. Washington: U.S. Government Printing Office.

(I.3) U.S. Bureau of the Census. 1991. **Marital Status and Living Arrangements, 1990.** Current Population Reports. Series P-20, No. 450. Washington: U.S. Government Printing Office.

105

(I.4) U.S. Department of Labor. Bureau of Labor Statistics. Marital and Family Characteristics of the Labor Force. Current Population Survey, March 1990. Unpublished Data.

Hofferth, Sandra L. and Phillips, Deborah A. 1987. "Child Care in the United States, 1970 to 1995." *Journal of Marriage and the Family*, 49 (August), 559-571.

(I.5) U.S. Bureau of the Census. Who's Minding the Kids? Child Care Arrangements: Winter 1986-1987. Current Population Reports, Household Economic Studies, Series P-70, No. 20. Washington: U.S. Government Printing Office.

(I.6) U.S. Department of Education. 1990. Office of Educational Research and Improvement. Dropout Rates in the United States: 1989. NCES 90-659. Washington: U.S. Government Printing Office.

U.S. Department of Education. National Center for Education Statistics. High School and Beyond Survey, unpublished data.

## II. HEALTH STATUS:

(II.1) National Center for Health Statistics. 1991. Health United States, 1990. DHHS Pub. No. (PHS) 91-1232. Public Health Service. Hyattsville, MD.

(II.2) National Center for Health Statistics. 1990. Advance Report of Final Mortality Statistics, 1988. Monthly Vital Statistics Report, Vol. 39 (7) Supplement. Public Health Service, Hyattsville, MD.

(II.3) National Center for Health Statistics. 1991. Vital Statistics of the United States, Vol. II Mortality, Part A. Public Health Service. Washington.

(II.4) National Center for Health Statistics. 1990. Advance Report of Final Mortality Statistics, 1988. Monthly Vital Statistics Report, Vol. 39 (7) Supplement. Public Health Service. Hyattsville, MD.

(II.5) National Center for Health Statistics. 1990. Advance Report of Final Natality Statistics, 1988. Monthly Vital Statistics Report, Vol. 39 (4) Supplement. Public Health Service. Hyattsville, MD.

(II.6) Centers for Disease Control. 1991. Division of Birth Defects and Developmental Disabilities. Congenital Malformations Surveillance. Unpublished data.

National Center for Health Statistics. Births, Marriages, Divorces, and Deaths: January 1991. Monthly Vital Statistics Report, Vol. 40 (1). Public Health Service. Hyattsville, MD.

(II.7) Ross Laboratories. 1991. Ross Laboratories Mothers Survey, 1990. Division of Abbott Laboratories, USA. Columbus, OH. Unpublished data.

(II.8-9) National Center for Health Statistics. 1991. Division of Vital Statistics. Public Health Service. Unpublished data.

(II.10) National Center for Health Statistics. Hospital Discharge Survey, 1989. Centers for Disease Control, Public Health Service. Unpublished data.

(II.11) National Center for Health Statistics. 1990. National Health Interview Survey, 1989. Public Health Service. Unpublished data.

(II.12) Centers for Disease Control. Agency for Toxic Substances and Disease Registry. 1988. The Nature and Extent of Lead Poisoning in Children in the United States: A Report to Congress. Public Health Service. Atlanta, GA.

(II.13) National Institutes of Health. 1988. National Institute of Dental Research. National Dental Caries Prevalence Survey of U.S. Schoolchildren 1986-87. News Release.

Public Health Service. 1989. Equity and Access for Mothers and Children, Strategies from the PHS Workshop on Oral Health of Mothers and Children. Sept. 9-12, 1989. National Center for Education in Maternal and Child Health. Washington, D.C.

National Institutes of Health. National Institute of Dental Research. 1987. Oral Health in United States Children. National Survey of Dental Caries in U.S. School Children, 1986-1987. Pub. No. (NIH) 87-2868. Public Health Service. Bethesda, MD.

Indian Health Service. Survey of American Indians and Alaska Natives, 1983-1984. Unpublished data.

Barnes GP, Parker WA, Lyon TC, Drum MA, and GC Coleman. 1991. Baby Bottle Tooth Decay and Caries Prevalence in Head Start Children: Ethnicity, Site Location, Age and Fluoridation Factors. Accepted for publication, Public Health Reports.

(II.14) National Committee for Prevention of Child Abuse. Current Trends in Child Abuse Reporting and Fatalities: Results of the 1990 Annual Fifty State Survey. Working paper.

(II.15) Centers for Disease Control. 1991. Division of HIV/AIDS Surveillance, National Center for Infectious Diseases. Public Health Service. Unpublished data.

Centers for Disease Control. 1991. HIV/AIDS Surveillance Report, July, 1991. National Center for Infectious Disease. Public Health Service. Atlanta, GA.

(II.16-17) National Center for Health Statistics. 1991. Division of Vital Statistics. Public Health Service. Unpublished data.

(II.18) National Center for Health Statistics. National Survey of Family Growth, Cycle III (1982) and Cycle IV (1988). Public Health Service. Unpublished data.

The Alan Guttmacher Institute. 1991. New York, NY. Unpublished data.

National Center for Health Statistics. 1990. Advance Report of Final Natality Statistics, 1988. Monthly Vital Statistics Report, Vol. 39 (4) Supplement. Public Health Service. Hyattsville, MD.

(II.19-20) Centers for Disease Control. 1991. Division of HIV/AIDS Surveillance, National Center for Infectious Diseases. Public Health Service. Unpublished data.

Centers for Disease Control. 1991. HIV/AIDS Surveillance Report, July, 1991. National Center for Infectious Diseases. Public Health Service. Atlanta, GA.

(II.21) National Institute on Drug Abuse. National Household Survey on Drug Abuse: Main Findings, 1990. National Institutes of Health. Public Health Service. Unpublished data.

### **III. HEALTH SERVICES AND UTILIZATION:**

(III.1) National Center for Health Statistics. Ries, P. Characteristics of persons with and without health coverage: United States, 1989. Advance Data from Vital and Health Statistics; no. 201. Public Health Service. Hyattsville, MD.

(III.2-6) National Center for Health Statistics. 1990. National Health Interview Survey, 1989. Public Health Service. Unpublished data.

(III.7) Health Care Financing Administration: 1991. Bureau of Data Management and Strategy. Division of Medicaid Statistics. Unpublished data.

(III.8) National Center for Health Statistics. 1990. Advance Report of Final Natality Statistics, 1988. Monthly Vital Statistics Report, Vol. 39 (4) Supplement. Public Health Service. Hyattsville, MD.

(III.9) Centers for Disease Control. 1990. Division of Immunizations. Public Health Service. Unpublished data.

### **IV. STATE-SPECIFIC DATA:**

(IV.1-2) National Center for Health Statistics. 1990. Advance Report of Final Natality Statistics, 1988. Monthly Vital Statistics Report, Vol. 39 (4) Supplement. Public Health Service. Hyattsville, MD.

1 1 1

1 1 1



**U.S. DEPARTMENT OF  
HEALTH & HUMAN SERVICES**

**Public Health Service**

**Health Resources and Services Administration**

**Maternal and Child Health Bureau**

**DHHS Pub No. HRS-M-CH 91-1**

**November 1991**

**112**

**113**