

**Surveillance of
Family Planning Services
at Title X Clinics
and Characteristics of Women
Receiving These Services, 1991**

**Abortion Surveillance —
United States, 1991**

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control
and Prevention (CDC)
Atlanta, Georgia 30333



The *MMWR* series of publications is published by the Epidemiology Program Office, Centers for Disease Control and Prevention (CDC), Public Health Service, U.S. Department of Health and Human Services, Atlanta, GA 30333.

SUGGESTED CITATION

General: Centers for Disease Control and Prevention. *CDC Surveillance Summaries*, May 5, 1995. MMWR 1995;44(No. SS-2).
Specific: [Author(s)]. [Title of particular article]. In: *CDC Surveillance Summaries*, May 5, 1995. MMWR 1995;44(No. SS-2):[inclusive page numbers].

Centers for Disease Control and Prevention..... David Satcher, M.D., Ph.D.
Director

The production of this report as an *MMWR* serial publication was coordinated in:

Epidemiology Program Office..... Stephen B. Thacker, M.D., M.Sc.
Director

Richard A. Goodman, M.D., M.P.H.
Editor, MMWR Series

Scott F. Wetterhall, M.D., M.P.H.
Associate Editor, CDC Surveillance Summaries

Scientific Information and Communications Program

CDC Surveillance Summaries Suzanne M. Hewitt, M.P.A.
Managing Editor

Lanette B. Wolcott
Project Editor

Rachel J. Wilson
Writer-Editor

Phillip C. Bourque
Sandra L. Ford

Morie M. Higgins
Peter M. Jenkins

Visual Information Specialists

Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human Services.

Copies can be purchased from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402-9325. Telephone: (202) 783-3238.

Contents

Reports Published in <i>CDC Surveillance Summaries</i> Since January 1, 1985	i
Surveillance of Family Planning Services at Title X Clinics and Characteristics of Women Receiving These Services, 1991	1
Introduction.....	2
Methods.....	2
Definitions.....	3
Maximizing the Data	3
Results	4
Evaluation of Data-Collection Methods.....	4
Characteristics of Family Planning Patients.....	5
Discussion	13
Conclusion.....	18
Abortion Surveillance — United States, 1991	23
Introduction.....	23
Methods.....	24
Results	24
Discussion	33
State and Territorial Epidemiologists and Laboratory Directors.....	Inside back cover

Reports Published in *CDC Surveillance Summaries* Since January 1, 1985

Subject	Responsible CIO/Agency*	Most Recent Report
Abortion	NCCDPHP	1995; Vol. 44, No. SS-2
AIDS/HIV		
Distribution by Racial/Ethnic Group	NCID	1988; Vol. 37, No. SS-3
Among Black & Hispanic Children & Women of Childbearing Age	NCEHC	1990; Vol. 39, No. SS-3
Behavioral Risk Factors	NCCDPHP	1991; Vol. 40, No. SS-4
Birth Defects		
B.D. Monitoring Program (see also Malformations)	NCEH	1993; Vol. 42, No. SS-1
Contribution of B.D. to Infant Mortality		
Among Minority Groups	NCEHC	1990; Vol. 39, No. SS-3
Breast & Cervical Cancer	NCCDPHP	1992; Vol. 41, No. SS-2
<i>Campylobacter</i>	NCID	1988; Vol. 37, No. SS-2
Chancroid	NCPS	1992; Vol. 41, No. SS-3
Chlamydia	NCPS	1993; Vol. 42, No. SS-3
Cholera	NCID	1992; Vol. 41, No. SS-1
Congenital Malformations, Minority Groups	NCEHC	1988; Vol. 37, No. SS-3
Contraception Practices	NCCDPHP	1992; Vol. 41, No. SS-4
Cytomegalovirus Disease, Congenital	NCID	1992; Vol. 41, No. SS-2
Dengue	NCID	1994; Vol. 43, No. SS-2
Dental Caries & Periodontal Disease Among Mexican-American Children	NCPS	1988; Vol. 37, No. SS-3
Diabetes Mellitus	NCCDPHP	1993; Vol. 42, No. SS-2
Dracunculiasis	NCID	1992; Vol. 41, No. SS-1
Ectopic Pregnancy	NCCDPHP	1993; Vol. 42, No. SS-6
Elderly, Hospitalizations Among	NCCDPHP	1991; Vol. 40, No. SS-1
Endometrial & Ovarian Cancers	EPO, NCCDPHP	1986; Vol. 35, No. 2SS
<i>Escherichia coli</i> O157	NCID	1991; Vol. 40, No. SS-1
Evacuation Camps	EPO	1992; Vol. 41, No. SS-4
Family Planning Services at Title X Clinics	NCCDPHP	1995; Vol. 44, No. SS-2
Foodborne Disease	NCID	1990; Vol. 39, No. SS-1
Gonorrhea & Syphilis, Teenagers	NCPS	1993; Vol. 42, No. SS-3
Hazardous Substances Emergency Events	ATSDR	1994; Vol. 43, No. SS-2
Health Surveillance Systems	IHPO	1992; Vol. 41, No. SS-4
Hepatitis	NCID	1985; Vol. 34, No. 1SS
Homicide	NCEHC	1992; Vol. 41, No. SS-3
Homicides, Black Males	NCEHC	1988; Vol. 37, No. SS-1
Hysterectomy	NCCDPHP	1986; Vol. 35, No. 1SS
Infant Mortality (see also National Infant Mortality; Birth Defects; Postneonatal Mortality)	NCEHC	1990; Vol. 39, No. SS-3
Influenza	NCID	1993; Vol. 42, No. SS-1
Injury		
Death Rates, Blacks & Whites	NCEHC	1988; Vol. 37, No. SS-3
Drownings	NCEHC	1988; Vol. 37, No. SS-1
Falls, Deaths	NCEHC	1988; Vol. 37, No. SS-1
Firearm-Related Deaths, Unintentional	NCEHC	1988; Vol. 37, No. SS-1
Head & Neck	NCIPC	1993; Vol. 42, No. SS-5
In Developing Countries	NCEHC	1992; Vol. 41, No. SS-1

***Abbreviations**

ATSDR	Agency for Toxic Substances and Disease Registry
CIO	Centers/Institute/Offices
EPO	Epidemiology Program Office
IHPO	International Health Program Office
NCCDPHP	National Center for Chronic Disease Prevention and Health Promotion
NCEH	National Center for Environmental Health
NCEHC	National Center for Environmental Health and Injury Control
NCID	National Center for Infectious Diseases
NCIPC	National Center for Injury Prevention and Control
NCPS	National Center for Prevention Services
NIOSH	National Institute for Occupational Safety and Health

Reports Published in *CDC Surveillance Summaries* Since January 1, 1985 — Continued

Subject	Responsible CIO/Agency*	Most Recent Report
In the Home, Persons <15 Years of Age	NCEHIC	1988; Vol. 37, No. SS-1
Motor Vehicle-Related Deaths	NCEHIC	1988; Vol. 37, No. SS-1
Objectives of Injury Control, State & Local	NCEHIC	1988; Vol. 37, No. SS-1
Objectives of Injury Control, National	NCEHIC	1988; Vol. 37, No. SS-1
Residential Fires, Deaths	NCEHIC	1988; Vol. 37, No. SS-1
Tap Water Scalds	NCEHIC	1988; Vol. 37, No. SS-1
Lead Poisoning, Childhood	NCEHIC	1990; Vol. 39, No. SS-4
Low Birth Weight	NCCDPHP	1990; Vol. 39, No. SS-3
Maternal Mortality	NCCDPHP	1991; Vol. 40, No. SS-2
Measles	NCPS	1992; Vol. 41, No. SS-6
Meningococcal Disease	NCID	1993; Vol. 42, No. SS-2
Mining	NIOSH	1986; Vol. 35, No. 2SS
National Infant Mortality (see also Infant Mortality; Birth Defects)	NCCDPHP	1989; Vol. 38, No. SS-3
<i>Neisseria gonorrhoeae</i> , Antimicrobial Resistance in	NCPS	1993; Vol. 42, No. SS-3
Nosocomial Infection	NCID	1986; Vol. 35, No. 1SS
Occupational Injuries/Disease		
Asthma	NIOSH	1994; Vol. 43, No. SS-1
Hazards, Occupational	NIOSH	1985; Vol. 34, No. 2SS
In Meatpacking Industry	NIOSH	1985; Vol. 34, No. 1SS
Silicosis	NIOSH	1993; Vol. 42, No. SS-5
State Activities	NIOSH	1987; Vol. 36, No. SS-2
Parasites, Intestinal	NCID	1991; Vol. 40, No. SS-4
Pediatric Nutrition	NCCDPHP	1992; Vol. 41, No. SS-7
Pertussis	NCPS	1992; Vol. 41, No. SS-8
Plague	NCID	1985; Vol. 34, No. 2SS
Plague, American Indians	NCID	1988; Vol. 37, No. SS-3
Poliomyelitis	NCPS	1992; Vol. 41, No. SS-1
Postneonatal Mortality	NCCDPHP	1991; Vol. 40, No. SS-2
Pregnancy Nutrition	NCCDPHP	1992; Vol. 41, No. SS-7
Pregnancy, Teenage	NCCDPHP	1993; Vol. 42, No. SS-6
Rabies	NCID	1989; Vol. 38, No. SS-1
Racial/Ethnic Minority Groups	Various	1990; Vol. 39, No. SS-3
Respiratory Disease	NCEHIC	1992; Vol. 41, No. SS-4
Rotavirus	NCID	1992; Vol. 41, No. SS-3
<i>Salmonella</i>	NCID	1988; Vol. 37, No. SS-2
Sexually Transmitted Diseases in Italy	NCPS	1992; Vol. 41, No. SS-1
Smoking	NCCDPHP	1990; Vol. 39, No. SS-3
Smoking-Attributable Mortality	NCCDPHP	1994; Vol. 43, No. SS-1
Tobacco-Use Behaviors	NCCDPHP	1994; Vol. 43, No. SS-3
Streptococcal Disease (Group B)	NCID	1992; Vol. 41, No. SS-6
Sudden Unexplained Death Syndrome Among Southeast Asian Refugees	NCEHIC, NCPS	1987; Vol. 36, No. 1SS
Suicides, Persons 15–24 Years of Age	NCEHIC	1988; Vol. 37, No. SS-1
Syphilis, Congenital	NCPS	1993; Vol. 42, No. SS-6
Syphilis, Primary & Secondary	NCPS	1993; Vol. 42, No. SS-3
Tetanus	NCPS	1992; Vol. 41, No. SS-8
Trichinosis	NCID	1991; Vol. 40, No. SS-3
Tuberculosis	NCPS	1991; Vol. 40, No. SS-3
Waterborne Disease Outbreaks	NCID	1993; Vol. 42, No. SS-5
Years of Potential Life Lost	EPO	1992; Vol. 41, No. SS-6
Youth Risk Behaviors	NCCDPHP	1995; Vol. 44, No. SS-1

Surveillance of Family Planning Services at Title X Clinics and Characteristics of Women Receiving These Services, 1991

Jack C. Smith, M.S.¹
Barbara Franchino, M.S.²
Joan F. Henneberry³

¹*Division of Reproductive Health,
National Center for Chronic Disease
Prevention and Health Promotion,
Centers for Disease Control and Prevention*
²*University of Minnesota, Minneapolis, MN*
³*Colorado Department of Health, Denver, CO*

Abstract

Problem/Condition: Public health surveillance data describing family planning services at Title X clinics and characteristics of women receiving these services during 1991 are contained in this report. These data update previously published information concerning characteristics of women and services at such clinics during 1981.

Reporting Period Covered: 1991.

Description of System: Data characterizing patients and services were reported by family planning clinics to Title X grantees. These data for 1991 were provided by all 75 grantees to CDC's Family Planning Services Surveillance (FPSS) project.

Results: In 1991, 4.2 million women received services at Title X clinics. Overall, 69.5% of family planning patients had chosen oral contraceptives as their method of contraception, and 64.7% of patients were at or below the federal poverty level. In addition to information characterizing patients and services at Title X clinics, this report also evaluated current data-collection methods used by Title X grantees. Complexities in the analysis reflected variations in the quality and availability of data, including differences in definitions, data-collection instruments at the clinic level, and data categories.

Interpretation: The number and characteristics of family planning patients receiving services at Title X clinics during 1991 were similar to the number and characteristics during 1981. Furthermore, these results underscore the need to improve the quality and timeliness of family planning data and to facilitate program planning and operations at the grantee level.

Actions Taken: These surveillance findings have been communicated to state family planning administrators and to national Title X program administrators. This information will be used to assess how publicly funded family planning clinics currently contribute to health-care delivery and how these clinics might contribute to a national system of reproductive health-care services in the future.

INTRODUCTION

In 1970, federal legislation created a national family planning program funded by Title X of the Public Health Services Act.* Since then, Title X has been the primary source of funding for subsidized family planning services in the United States (1). From 1970 through 1981, agencies receiving Title X funds were required to report program activities and information characterizing women who received family planning services. This information was compiled into reports for program planning and policy development. Since 1981, however, neither data collection nor reporting methods have been standardized; therefore, no recent compilation of information is comparable to that of previous years.

In 1991, the organization representing state family planning administrators, who manage family planning program activities funded by Title X, requested assistance from CDC's National Center for Chronic Disease Prevention and Health Promotion, Division of Reproductive Health, in developing a comprehensive statistical report of family planning services based on state and local data. The goals of the Family Planning Services Surveillance (FPSS) project were a) to evaluate existing data-collection methods and objectively describe these methods and b) to characterize women who received family planning services at Title X clinics during 1991. Information from this report will be used to assess the role of publicly funded family planning services and to guide in improving data collection.

METHODS

The Title X family planning funds are administered through 75 grantees in the 50 states and the District of Columbia. Because these grantees have used different patient record forms, the number of data items available and the methods used to collect and categorize the information varied. The FPSS project relied on an initial effort by U.S. Department of Health and Human Services (DHHS) Region X family planning officials to determine which data were available nationally.

Before contacting the grantees, CDC sought input from several groups and organizations about the scope of the project, preferred definitions for data items that were collected, sources of data, and availability and categorization of data items. CDC staff communicated directly with all 10 DHHS Regional Program Consultants for family planning, the National Family Planning and Reproductive Health Association, the Planned Parenthood Federation of America, the Public Health Foundation, the DHHS Office of Population Affairs, and The Alan Guttmacher Institute (AGI). In 1983, AGI had produced the most recent report concerning national family planning services; this report contained information for 1981 and included data from organized family planning providers other than Title X clinics (2). CDC staff also consulted with the two private contractors that process family planning clinic information for Title X grantees in several states.

The FPSS project was limited to information provided by Title X grantees regarding female patients who had received family planning services during 1991 from clinics funded entirely or partially with Title X funds. A mailing list was developed that contained the names of the 75 grantees that provided contraceptive services. Grantees

*Family Planning Services and Population Research Act of 1970 (P.L. 91-572). Public Health Service Act, Title X.

that provided only counseling or informational services were excluded, as were grantees not located in the 50 states or the District of Columbia. Clinics that had multiple sources of funding were not asked to identify patients by source of payment. Grantees were asked for information at the highest level of aggregation possible, which was usually at the state level.

Definitions

Grantees were given the following preferred definitions to use for data-collection purposes. These definitions enabled us to compare 1991 data with that from AGI's national report for 1981.

- **Family planning patient:** Any woman of reproductive age (i.e., ages 15–44 years) who made at least one initial/annual visit or return visit for medical family planning services during 1991. Medical family planning services included a medical examination related primarily to the provision of a method for postponing or preventing pregnancy (including the rhythm method or natural family planning). **Included** as family planning patients were women receiving infertility services. **Excluded** were women receiving *only* counseling and/or referral services or *only* services unrelated to family planning services (e.g., pregnancy testing or screening and/or treatment for sexually transmitted diseases [STDs]).
- **Family planning visit:** Any visit at which medical services were provided in conjunction with contraceptive services and recorded in the patient's clinic record. Grantees were asked not to report visits unrelated to family planning services (e.g., visits during which contraceptive supplies were obtained but no medical services were provided).
- **Family planning user:** An operational definition for the purpose of reporting family planning patients as a part of the Bureau of Common Reporting Requirements (BCRR) (3). Family planning "user" and family planning "patient" are similar, but not identical, terms. For example, a person who receives only counseling could be a "user" but not a "patient" according to the preferred definition for this report.

Maximizing the Data

We used as much of the data reported by grantees as possible. Many grantees could report data for a given variable, but not for the specific categories requested. Thus, distributions of data in requested categories were used to estimate data for non-standard categories. For example, the age distribution of family planning patients ≤ 19 years of age was requested by single year of age. Thirty-two grantees reported data this way, and these data were used to estimate single-year data for grantees reporting combinations of age groupings for patients ≤ 19 years of age.

RESULTS

Evaluation of Data-Collection Methods

Availability and Sources of Data

We identified seventy-five Title X grantees that had funded contraceptive services during 1991. All 75 grantees had collected and compiled data regarding family planning services, and they provided all the data they had available for the specific categories of characteristics.

Thirty-five states (including the District of Columbia) had only one Title X grantee; in 27 of these states, the state health department was the grantee. In eight states, the grantee was a statewide family planning council or association that served as an umbrella organization for administering family planning funds. Three of the umbrella organizations were Planned Parenthood agencies. Sixteen states had more than one Title X grantee; however, in 12 of these states, one of the grantees was the state health department. Thus, in 39 states the state health department was either the sole grantee or one of the grantees.

Although no uniform data-collection system exists nationally for family planning clinics funded by Title X, two data-processing contractors were used by 24 grantees in 16 states to process data and produce reports. These data represent approximately 28% of all family planning patients who received services at Title X clinics during 1991. In DHHS Region I, all 10 grantees used Contractor A, whereas all seven grantees in DHHS Region X used Contractor B. Thus, states in Regions I and X provided one consolidated data set per state, regardless of the number of grantees in the state. One grantee outside of Region I used the data-processing services of Contractor A. Six grantees in five states other than those in Region X used the data-processing services of Contractor B. All grantees who used Contractor A had used a clinic reporting form that was essentially uniform in content and definitions. Likewise, all grantees who used Contractor B had used an essentially uniform clinic reporting form. However, the forms used by the two contractors were not the same and had several major content and definitional differences.

In cooperation with the regional offices and grantees in Regions I and X and with the grantees directly in other states, arrangements were made with the contractors of the two consolidated data systems to provide, as uniformly as possible, the requested tabulations at the state level.

Quality of the Data

The data that were collected by grantees and available for this report varied in quality because of the lack of uniform definitions, dissimilar data-collection instruments at the clinic level, different categorizations of data, and infrequent use and scrutiny of existing data by grantees. In addition, the accuracy of the reported data was not assessed.

Poverty status was the most completely reported variable. All grantees could provide data in the categories requested, primarily because information concerning poverty status was requested exactly as it is reported routinely via BCRR. We did not determine the validity of poverty status, but relied entirely on the definitions, data, and categories operative for BCRR reporting.

All grantees provided some data concerning patients' ages; however, less than half could provide data in the exact categories requested. Thirty-two (42.7%) grantees reported data as requested by single year of age for patients ≤ 19 years of age, and 37 (49.3%) reported as requested by 5-year age groups for patients ≥ 20 years of age.

The variables "type of visit," "patient type," and "family planning services," although fundamental to record keeping by grantees, were defined differently by them. Six grantees could not separate data for male and female patients, but these data did not substantially affect national statistics because male patients represented $< 1\%$ of the total number of family planning patients. The two grantees that could not provide data for calendar year 1991 submitted data for fiscal year 1991 instead (i.e., October 1, 1990, through September 30, 1991).

Many data collection and data compilation methods used in 1991 had been developed and implemented before 1981, when more specific program data were required of family planning providers. Thus, data-collection forms and computer-generated reports reflected past data needs and reporting requirements. Several grantees mentioned periodic data reports that had been developed previously but were of uncertain value to family planning needs during 1991; these statistical reports were rarely used but were still being generated by computerized data systems.

Characteristics of Family Planning Patients

Family Planning Patients

The total number of family planning patients reported by the 75 grantees was 4,218,412 (Table 1). All grantees reported the total number of patients who received services, but only 40 grantees (representing 57.5% of the total number of patients reported) could report these patients by type of patient. The total number included at least 3,469 men (i.e., $< 1\%$ of family planning patients).

The term "family planning patient" was defined inconsistently by grantees (e.g., for all patient records processed by Contractor B, the definition of "patient" included persons who had received counseling only). In addition, some grantees could not separate data for male and female patients in the statistics they reported.

A precise definition of a "family planning patient" was not provided by most grantees. For some of these grantees, we assumed that the definitions of a family planning "patient" and a family planning "user," as required for BCRR reporting, were the same because the number of patients they reported was identical to the total number of users they reported in the BCRR reporting system.

Type of patient was estimated based on reporting from 57.5% of total patients. The original data-collection request asked that patients be categorized into four patient types: a) initial medical, b) annual medical, c) other medical, and d) other family planning. After reviewing the data, we decided that grouping the visits into two groups, initial/annual and continuing/revisit, maximized the data received. An estimated 2.6 million patients had either an initial or annual medical examination, and an estimated 1.6 million patients returned (continuing/revisit) for medical services other than an initial or annual medical examination.

TABLE 1. Number and percentage of family planning patients* and visits† at Title X family planning clinics, by type — United States, 1991

Category	No.	(%)
Type of patient[§]		
Initial/Annual	2,631,544	(62.4)
Continuing/Revisit	1,586,868	(37.6)
Total	4,218,412	(100.0)
Type of visit[¶]		
Initial medical	1,244,186	(19.3)
Annual medical	1,832,417	(28.4)
Other**	3,373,299	(52.3)
Total	6,449,902	(100.0)

*Includes data for $\geq 3,469$ (0.1%) male patients.

†Includes data for $\geq 29,298$ (0.5%) visits made by male patients.

§Number of patients was reported by all grantees, but not all reported type of patients as requested; thus, percentages are based on data from 40 grantees that provided data as requested (representing 57.5% of the total 4,218,412 patients).

¶Number of visits was reported by all but two grantees, but not all reported type of visit as requested; thus, percentages are based on data from 33 grantees that provided data as requested (representing 43.8% of the total 6,449,902 visits).

**Data for visits by four visit types were requested: a) initial medical, b) annual medical, c) other medical, and d) other family planning; however, because different definitions were used to categorize visits by type, other medical and other family planning visits were combined into one "other" visit category.

Family Planning Visits

Approximately 6.4 million family planning visits by women were reported for 1991 (Table 1). Almost half the visits were for either an initial medical examination (19.3%) or a repeat annual medical examination (28.4%).

Among Title X grantees, the definition of a family planning "visit" was complex and varied; thus, the data for 6,449,902 visits—reported by 73 of the 75 grantees—contain both inclusions and exclusions from the intended definition. The operational definition of a family planning visit excluded visits made for procurement of counseling only, pregnancy testing, STD treatment, and routine supplies without medical contact; however, visit counts for some grantees contained some or all of the above types of visits. Furthermore, the ability of grantees to identify from the patient records the types of visits made (e.g., an initial medical visit for a new patient or a repeat annual medical visit for a returning patient) was difficult, and categorization by types of visits varied.

The intended definition included women only, but some grantees could not separate family planning visits on the basis of patients' sex. We estimated, however, that <1% of visits were made by male patients.

Ages of Family Planning Patients

Overall, 34.5% of family planning patients were 20–24 years of age, and 27.3% were 15–19 years of age (Table 2). The number of patients by age was reported by all grantees.

Race and Ethnicity of Family Planning Patients

Race and ethnicity are two separate variables, and the ability of grantees to report data for both variables differed. Some grantees that were able to report race were not able to report ethnicity. Thus, this report presents data by race and Hispanic ethnicity from 59 grantees (representing 71.7% of the total number of patients) and by race only from 71 grantees (representing 97.5% of the total number of patients).

Data by race and ethnicity indicate that most (61.9%) family planning patients were non-Hispanic whites (Table 3). The percentage of Hispanic and black women receiving family planning services was 14.9% and 17.3%, respectively, and other minorities represented <5% of all patients.

Twelve grantees that provided data by race did not provide data by ethnicity; seven of these 12 grantees were state health departments from southern states. These states have a proportionately larger black patient population than do the states represented by grantees that reported both race and ethnicity. The distribution of data by race alone indicates a larger percentage of black patients (23.0%) (Table 4) compared with 17.3% for the distribution of data by race and ethnicity (Table 3).

Number of Previous Live Births

The number of previous live births is often used by clinicians as a surrogate for pregnancy history in advising female patients about choices of contraceptive methods and other gynecologic services. Most (58.5%) family planning patients had had no live births, and few (7.5%) had had more than two live births (Table 5).

TABLE 2. Number and percentage of family planning patients* at Title X family planning clinics, by age group† — United States, 1991

Age (yrs)[§]	No.	(%)
<15	64,618	(1.5)
15–19	1,150,203	(27.3)
(15)	(101,572)	(2.4)
(16)	(173,264)	(4.1)
(17)	(246,075)	(5.8)
(18)	(298,133)	(7.1)
(19)	(331,159)	(7.9)
20–24	1,451,277	(34.5)
25–29	845,129	(20.1)
30–34	437,422	(10.4)
35–39	162,445	(3.9)
40–44	57,719	(1.4)
≥45	34,746	(0.8)
Unknown	3,548	(0.1)
Total	4,207,107	(100.0)

*Includes data for ≥5,339 (0.1%) male patients.

†Number of patients by age group was reported by all grantees (representing 99.7% of the total 4,218,412 patients).

§Many grantees provided age data in groupings other than those requested: 37 grantees provided age data as requested for women ≥20 years of age (representing 39.9% of all patients); 32 grantees provided age data as requested for women ≤19 years of age (representing 37.3% of all patients).

The number of live births was reported by 35 grantees, and the number of living children by 10 grantees, together representing 53.8% of all patients. The distributions of the data for live births and for living children were similar enough to warrant combining the two categories.

Methods of Contraception

Method of contraception was reported by 66 grantees, representing 91.9% of all patients. However, the categories that grantees used to describe methods of contraception differed. For example, only 26 grantees reported data for all of the following three categories: foam/jelly/cream, foam and condom, and condom. Other grantees used combinations of these categories.

Oral contraceptives were the most frequently chosen method of contraception (i.e., 69.5% of patients had chosen this method) (Table 6). The next most frequently chosen methods were condoms only (6.2%) and foam and condoms (5.1%). The category "none" (which comprised women who were a) receiving infertility services, b) pregnant, c) receiving counseling only, or d) abstaining from sexual intercourse) was reported for 11.3% of patients.

TABLE 3. Number and percentage of family planning patients* at Title X family planning clinics, by race/ethnicity† — United States, 1991

Race/Ethnicity	No.	(%)
Hispanic	451,323	(14.9)
White (non-Hispanic)	1,870,463	(61.9)
Black (non-Hispanic)	524,095	(17.3)
Native American	15,784	(0.5)
Asian/Pacific Islander	37,615	(1.2)
Other	71,022	(2.4)
Unknown	53,823	(1.8)
Total	3,024,125	(100.0)

*Includes ≥9,328 (0.3%) male patients.

†Both race and Hispanic ethnicity were reported by 59 grantees (representing 73.6% of the 4,111,769 patients for whom race was reported and 71.7% of the total 4,218,412 patients).

TABLE 4. Number and percentage of family planning patients* at Title X family planning clinics, by race† — United States, 1991

Race	No.	(%)
White [§]	2,952,381	(71.8)
Black	947,112	(23.0)
Other [¶]	142,973	(3.5)
Unknown	69,303	(1.7)
Total	4,111,769	(100.0)

*Includes ≥10,543 (0.3%) male patients.

†By aggregating race and ethnicity into the above racial categories, data were available from 71 grantees (representing 97.5% of the total 4,218,412 patients).

[§]Includes Hispanics and non-Hispanic whites.

[¶]Includes Native Americans and Asians/Pacific Islanders.

The category "other," reported for 1.2% of patients, represented unlisted methods of contraception, including contraceptive implants. Nineteen grantees indicated specifically that the "other" category included use of Norplant®.

Services Provided to Family Planning Patients

The variable most difficult for grantees to report and for us to interpret pertained to services provided. Definitions of what constituted a service, classification and categorization of services, and manner of counting patients who received services differed among grantees. For example, many grantees overcounted services for women

TABLE 5. Number and percentage of family planning patients at Title X family planning clinics, by number of previous live births* — United States, 1991

No. of previous live births	Family planning patients	
	No.	(%)
0	1,267,364	(58.5)
1	466,322	(21.5)
2	270,849	(12.5)
3	105,164	(4.8)
≥4	59,129	(2.7)
Total	2,168,828	(100.0)

*Number of previous live births (or living children) was reported by 45 grantees (representing 2,270,162 [53.8%] of the total 4,218,412 patients); excluded were 101,334 patients reported as having an unknown number of previous live births (or living children). Ten grantees reported number of living children rather than number of live births (representing 629,119 [27.7%] of the total 2,270,162 patients for whom number of live births [or living children] were reported).

TABLE 6. Number and percentage of family planning patients* at Title X family planning clinics, by method of contraception† — United States, 1991

Method of contraception	No.	(%)
Oral contraceptive	2,692,993	(69.5)
Condom	242,057	(6.2)
Foam and condom	196,180	(5.1)
Sterilization	103,427	(2.7)
Diaphragm	52,963	(1.4)
Intrauterine device	29,948	(0.8)
Foam/Jelly/Cream	28,221	(0.7)
Sponge	14,640	(0.4)
Natural	10,010	(0.3)
Cervical cap	2,923	(0.1)
Other [§]	48,321	(1.2)
None [¶]	439,538	(11.3)
Unknown	14,194	(0.4)
Total	3,875,415	(100.0)

*Includes ≥23,064 (0.6%) male patients.

†Method of contraception was reported by 66 grantees (representing 91.9% of the total 4,218,412 patients).

§Includes patients using unlisted methods of contraception (e.g., Norplant®).

¶Includes women who were a) receiving infertility services, b) pregnant, c) receiving counseling only, or d) abstaining from sexual intercourse.

because data for male and female patients had been combined. Some grantees counted patients, not services; thus, multiple services for the same patient during the same year were not reported, resulting in undercounting of total services provided.

For all grantees that reported services, 20,582,565 total services were provided to 2,832,153 patients during 4,801,353 visits. Thus, patients received an average of 7.27 services per year and an average of 4.29 services per visit. Total services provided included all services specified plus "other" services (18.7% of all services) and "unknown" services (0.04%). The category "other" included a broad range of services (e.g., measuring patients' height or weight, infertility screening, and unspecified services that may or may not have been classifiable in one or more of the specified service categories listed).

The service ratio is the number of times a specific service is provided by grantees that report the service divided by the total number of patients receiving services from those grantees. This ratio indicates the frequency with which specific services are performed in relation to the total number of patients who received services. Papanicolaou (Pap) smear testing was the most frequently reported type of service provided to family planning patients (56 grantees) (Table 7). The ratio of the total number of Pap smears to the total number of patients was 0.79. The highest service ratios (i.e., >1.00) were for blood pressure testing and treatment or testing for STDs; the lowest service ratio (0.29) was for pregnancy testing. Grantees were asked not to provide data for patients who had had only pregnancy tests. Ratios of specific services provided per total patients receiving services varied. For example, >90% of grantees had a ratio for breast examinations within the range 0.60–0.99. The ratios for STD treatment or testing, however, did not cluster around any central range of values.

Male Patients Receiving Family Planning Services

The number of male patients receiving family planning services (89,643) was reported from 73 of the 75 grantees. The counting and reporting of male patients

TABLE 7. Selected information regarding services provided to family planning patients* at Title X family planning clinics — United States, 1991

Service	No. of grantees reporting	Service ratio[†]	Range of ratios[§]	Grantees in range of ratios (%)
Blood pressure test	52	1.24	0.90–1.69	86.5
Breast examination	52	0.73	0.60–0.99	94.2
Hemoglobin/Hematocrit	52	0.61	0.20–0.99	96.2
Papanicolaou (PAP) smear test	56	0.79	0.60–1.09	92.9
Pelvic examination	52	0.87	0.70–1.19	86.5
Pregnancy test	55	0.29	0.10–0.49	90.9
Test or treatment for STD(s) [¶]	54	1.07	**	—
Urinalysis	50	0.56	0.20–0.99	88.0

*Some grantees included male patients in services reported.

[†]The number of times specific services were provided by grantees that reported the service divided by the total number of patients served by those grantees. This ratio indicates the frequency with which specific services are performed in relation to the total number of patients served.

[§]Includes approximately 90% of grantees.

[¶]Sexually transmitted disease(s).

**Broad range of ratios (0.10–2.19), with no central grouping of ratios.

differed greatly, but the ratio of male-to-female patients reported was uniformly low (overall ratio of 1:47). All but four grantees reporting data on the number of male patients had had <5% male patients.

Poverty-Level Status of Family Planning Users

Data concerning poverty-level status of family planning users were collected by grantees as part of required reporting by BCRR.* All but one grantee provided data. The one grantee that did not provide poverty-status information did provide total number of family planning users, and that grantee's data were distributed on the basis of data from the other 74 grantees. Thus, information on poverty level is presented for all users from all grantees.

Almost two thirds (64.7%) of family planning users were at or below the federal poverty level (Table 8). Another 18.9% of family planning users were within 101%–150% of the poverty level; only 13.9% were above the poverty level by >150%. In aggregate, 4.2 million family planning patients received services (Table 1), compared with 4.4 million family planning users who received services (Table 8). The difference likely reflects the broader definition of family planning users.

Age Group, Race, and Ethnicity of Family Planning Patients

Grantees were asked to provide cross-tabulations of age by race and ethnicity. Usable cross-tabulations were available for 1,652,637 family planning patients from 35 grantees (Table 9). These patients represented 39.2% of all family planning patients and 54.6% of the patients reported by race and ethnicity (Table 3). In the percentage distribution of patients (Table 10), the total percentage distributions from the cross-tabulations by age group and race/ethnicity are similar to those of the respective univariate distributions (Tables 2 and 3, respectively).

Among the racial and ethnic groups, the distributions of patients by age differed notably. The largest number of patients ≤19 years of age were non-Hispanic whites (Tables 9 and 10). Almost one third (31.1%) of non-Hispanic white patients were in this age group, and more than two thirds (68.6%) were <25 years of age. Similarly, 31.5%

*BCRR mandates that Title X grantees report poverty status of family planning users (3). Poverty statistics are based on a definition originated by the Social Security Administration in 1964 and subsequently modified by federal interagency committees in 1969 and 1980 and prescribed by the Office of Management and Budget as the standard that federal agencies use for statistical purposes.

TABLE 8. Number and percentage of family planning users* at Title X family planning clinics, by poverty level† — United States, 1991

Poverty level	No.	(%)
≤100%	2,831,254	(64.7)
101%–150%	826,093	(18.9)
>150%	606,497	(13.9)
Unknown	111,776	(2.6)
Total	4,375,620	(100.0)

*Family planning "user" (as defined by the Bureau of Common Reporting Requirements [BCRR], Section III.C.2 [3]) and family planning "patient" are similar, but not identical, terms (e.g., "user" includes persons receiving only family planning counseling).

†Poverty level as defined by BCRR. Poverty level was reported by all but one grantee; however, that grantee reported the total number of family planning users, which was distributed into poverty-level categories based on data from the other grantees.

TABLE 9. Number of family planning patients at Title X family planning clinics, by age group and race/ethnicity* — United States, 1991

2

Age group (yrs)	Race/Ethnicity							Total
	Hispanic	Non-Hispanic white	Non-Hispanic black	Native American	Asian/Pacific Islander	Other	Unknown	
<15	2,901	12,973	8,289	210	172	932	109	25,586
15-19	42,892	307,425	84,897	2,045	4,196	11,531	3,899	456,885
(15-17)	(16,669)	(137,024)	(41,720)	(1,019)	(1,675)	(5,649)	(1,409)	(205,165)
(18-19)	(26,223)	(170,401)	(43,177)	(1,026)	(2,521)	(5,882)	(2,490)	(251,720)
20-24	68,590	386,827	91,839	2,191	6,290	14,115	8,420	578,272
25-29	51,849	192,340	57,231	1,998	4,200	10,330	5,529	323,477
30-34	30,257	89,282	31,568	1,101	2,887	5,965	3,147	164,207
≥35	26,478	42,587	21,266	1,114	2,542	4,200	2,320	100,507
Unknown	53	261	148	0	1	6	3,234	3,703
Total	223,020	1,031,695	295,238	8,659	20,288	47,079	26,658	1,652,637

*Thirty-five grantees provided data both in the age groups requested and by race and Hispanic ethnicity (representing 39.2% of the total 4,218,412 patients and 54.6% of the 3,024,125 patients for whom race and ethnicity were available).

TABLE 10. Percentage of family planning patients at Title X family planning clinics, by age group and race/ethnicity* — United States, 1991

MIMWR

Age group (yrs)	Race/Ethnicity							Total
	Hispanic	Non-Hispanic white	Non-Hispanic black	Native American	Asian/Pacific Islander	Other	Unknown	
<15	1.3	1.3	2.8	2.4	0.8	2.0	0.4	1.5
15-19	19.3	29.8	28.7	23.6	20.7	24.5	14.6	27.6
(15-17)	(7.5)	(13.3)	(14.1)	(11.8)	(8.3)	(12.0)	(5.3)	(12.4)
(18-19)	(11.8)	(16.5)	(14.6)	(11.8)	(12.4)	(12.5)	(9.3)	(15.2)
20-24	30.7	37.5	31.1	25.3	31.1	30.0	31.7	35.1
25-29	23.2	18.6	19.4	23.1	20.7	21.9	20.7	19.6
30-34	13.6	8.7	10.7	12.7	14.2	12.7	11.8	9.9
≥35	11.9	4.1	7.2	12.9	12.5	8.9	8.7	6.1
Unknown	0.0	0.0	0.1	0.0	0.0	0.0	12.1	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
% of total	13.5	62.5	17.9	0.5	1.2	2.8	1.6	100.0

*Thirty-five grantees provided data both in the age groups requested and by race and Hispanic ethnicity (representing 39.2% of the total 4,218,412 family planning patients and 54.6% of the 3,024,125 patients for whom race and ethnicity were available).

May 5, 1995

of black patients were ≤ 19 years of age; however, 17.9% of black patients were ≥ 30 years of age, compared with 12.8% for non-Hispanic white patients. For Hispanics, Native Americans, and Asians/Pacific Islanders, more than one fourth of patients were ≥ 30 years of age.

By aggregating the racial and ethnic categories into white, black, and "other," data were usable from 42 grantees (Table 11), representing 57.9% of the total number of family planning patients and 59.4% of the patients reported by race only. Again, the total percentage distributions (Table 12) closely match the univariate distributions (Tables 2 and 4).

When we combined Hispanics and non-Hispanic whites into one racial group, the distributions for whites and blacks were similar. The percentage of patients ages 15–19 years was 27.6% for whites and 28.8% for blacks; the percentage of patients ages ≥ 25 years was 35.3% for whites and 37.6% for blacks. For the "other" racial category, almost half (45.6%) the patients were ≥ 25 years of age.

Age Group and Number of Previous Live Births of Family Planning Patients

Data cross-tabulated by age group and number of previous live births were usable from 36 grantees, representing 45.7% of the total number of family planning patients (Tables 13 and 14). Most (54.0%) women reported having had no previous live births, and 2.9% had had four or more live births. Almost 20% of patients ages 15–19 years had had one or more live births.

Age Group and Method of Contraception of Family Planning Patients

Data cross-tabulated by age groups and method of contraception were usable from 43 grantees, representing 61.3% of the total number of family planning patients reported (Tables 15 and 16). To maximize usable data, we combined foam, jelly, cream, and condoms into one category. For some grantees, the category "other" might contain some of the methods specified categorically.

For every age group, oral contraceptives were the most preferred method of contraception; the next preferred category of contraceptives for every age group included foam/jelly/cream or condoms. Most (72.6%) teenagers used oral contraceptives, and 11.7% used foam/jelly/cream or condoms. For women ≥ 30 years of age, 48.5% used oral contraceptives, and 17.7% used foam/jelly/cream or condoms.

The age distribution of patients differed by method of contraception. Most (62.9%) women who chose sterilization were ≥ 30 years of age, and most users of intrauterine devices (IUDs) (54.0%) and the cervical cap (51.0%) were in this same age group. Two thirds (67.5%) of women who used oral contraceptives and 56.2% of users of foam/jelly/cream or condoms were < 25 years of age. The age distribution of women who received no method of contraception at their last visit parallels the age distribution of the patient population as a whole.

DISCUSSION

From the beginning of the national family planning program in 1970 until 1982, a data-collection system was in place to characterize patients receiving services from the program. In 1982, federal involvement in collecting and compiling national family planning statistics through a unified reporting system was discontinued. Currently, DHHS's Office of Population Affairs periodically monitors services to and

characteristics of Title X patients at the national level by using information from CDC's National Survey of Family Growth (NSFG). Additional information related specifically to staffing and costs is available to the Office of Population Affairs because Title X grantees are required to report data annually to the BCRR system of the Bureau of Community Health Services. In 1983, AGI compiled data concerning family planning patients who had received services during 1981 from "organized family planning

TABLE 11. Number of family planning patients at Title X family planning clinics, by age group and race* — United States, 1991

Age group (yrs)	Race				Total
	White [†]	Black	Other [§]	Unknown	
<15	21,504	15,390	1,584	223	38,701
15-19	473,974	164,913	22,337	8,121	669,345
(15-17)	(208,386)	(82,628)	(10,417)	(3,183)	(304,615)
(18-19)	(265,588)	(82,285)	(11,920)	(4,938)	(364,730)
20-24	613,686	175,780	29,592	14,623	833,681
25-29	344,479	116,432	21,848	13,947	496,706
30-34	168,474	62,628	12,927	8,800	252,829
≥35	93,739	36,084	10,175	6,255	146,253
Unknown	572	555	19	4,484	5,630
Total	1,716,428	571,782	98,482	56,453	2,443,145

*Forty-two grantees provided data both in the age groups requested and by race (representing 57.9% of the total 4,218,412 family planning patients and 59.4% of the 4,111,769 patients for whom race was reported).

[†]Includes Hispanics and non-Hispanic whites.

[§]Includes Native Americans and Asians/Pacific Islanders.

TABLE 12. Percentage of family planning patients at Title X family planning clinics, by age group and race* — United States, 1991

Age group (yrs)	Race				Total
	White [†]	Black	Other [§]	Unknown	
<15	1.3	2.7	1.6	0.4	1.6
15-19	27.6	28.8	22.7	14.4	27.4
(15-17)	(12.1)	(14.4)	(10.6)	(5.6)	(12.5)
(18-19)	(15.5)	(14.4)	(12.1)	(8.8)	(14.9)
20-24	35.7	30.7	30.1	25.9	34.2
25-29	20.1	20.4	22.2	24.7	20.3
30-34	9.8	11.0	13.1	15.6	10.3
≥35	5.5	6.3	10.3	11.1	6.0
Unknown	0.0	0.1	0.0	7.9	0.2
Total	100.0	100.0	100.0	100.0	100.0
% of total	70.3	23.4	4.0	2.3	100.0

*Forty-two grantees provided data both in the age groups requested and by race (representing 57.9% of the total 4,218,412 family planning patients and 59.4% of the 4,111,769 patients for whom race was reported).

[†]Includes Hispanics and non-Hispanic whites.

[§]Includes Native Americans and Asians/Pacific Islanders.

TABLE 13. Number of family planning patients at Title X family planning clinics, by age group and number of previous live births* — United States, 1991

Age group (yrs)	No. of previous live births [†]					Unknown	Total
	0	1	2	3	≥4		
<15	22,564	1,709	134	24	16	2,619	27,066
15–19	383,498	78,046	14,145	2,099	424	36,421	514,633
(15–17)	(184,845)	(26,591)	(2,971)	(316)	(84)	(16,736)	(231,543)
(18–19)	(198,653)	(51,455)	(11,174)	(1,783)	(340)	(19,685)	(283,090)
20–24	358,481	156,549	70,737	19,708	4,991	47,051	657,517
25–29	131,649	101,218	84,271	35,983	12,416	29,471	395,008
30–34	46,418	46,295	51,966	32,722	16,779	15,541	209,721
≥35	21,432	19,297	28,996	25,278	17,542	8,797	121,342
Unknown	224	108	101	63	117	43	656
Total	964,266	403,222	250,350	115,877	52,285	139,943	1,925,943

*Thirty-six grantees provided data both in the requested age groups and by number of previous live births (or number of living children). Patients served by these grantees represented 45.7% of the total 4,218,412 patients.

[†]Number of living children reported by five grantees.

providers"; these providers included Title X clinics (2). The report, which AGI published in December 1983, includes data for 1981 and selected earlier years.*

Although the definition of a family planning patient used by AGI for the 1981 data was almost identical to that used for the FPSS data collection for 1991, the scope of the 1981 AGI report was somewhat broader. AGI's population of interest included women receiving family planning services from "organized family planning providers," whereas our population of interest was restricted to women receiving such services from clinics funded partially or entirely by Title X.

A comparison of our data for 1991 with data compiled by AGI for selected years indicates that 1.4 million patients received family planning services at Title X clinics during 1970, compared with 4.6 million patients during both 1980 and 1981 and 4.2 million patients during 1991 (Table A-1). The percentage of family planning patients below the 150% poverty threshold increased from approximately 80% in 1981 to 86% in 1991 (Table A-2). In 1973, 28% of patients were at or above the 150% poverty threshold; in 1991, only 14% of patients were at that threshold. The age distribution of patients did not change over time; approximately 70% of patients in 1991 and for selected years since 1975 have been ≥ 20 years of age (Table A-3).

In both 1981 and 1991, the pregnancy histories of women using family planning services were similar (Table A-4). Approximately 60% of women had had no previous live births or living children, and <10% had had three or more live births or living children.

Characteristics of all U.S. women who practice contraception, regardless of the source of contraceptive supplies, are collected periodically using NSFG. Data from the most recent NSFG indicate that oral contraceptives were the most frequently used birth control method during 1988 (6). In 1991, oral contraceptives were also the most frequently used method among women receiving services at Title X clinics. Nationally, however, approximately 31% of women used oral contraceptives, compared with 69% of women included in FPSS data. The age distribution of women who used oral

*Appendix A presents data from that AGI report for comparison with the 1991 data compiled for this report.

TABLE 14. Percentage* of family planning patients at Title X family planning clinics, by age group and number of previous live births† — United States, 1991

Age group (yrs)	No. of previous live births [§]					Total
	0	1	2	3	≥ 4	
<15	92.3	7.0	0.5	0.1	0.1	100.0
15-19	80.2	16.3	3.0	0.4	0.1	100.0
(15-17)	(86.1)	(12.4)	(1.4)	(0.1)	(0.0)	(100.0)
(18-19)	(75.5)	(19.5)	(4.2)	(0.7)	(0.1)	(100.0)
20-24	58.8	25.6	11.6	3.2	0.8	100.0
25-29	36.0	27.7	23.1	9.8	3.4	100.0
30-34	23.9	23.8	26.8	16.9	8.6	100.0
≥ 35	19.0	17.1	25.8	22.5	15.6	100.0
Total	54.0	22.6	14.0	6.5	2.9	100.0

*Excluding unknown.

†Thirty-six grantees provided data both in the requested age groups and by number of previous live births (or number of living children). Patients served by these grantees represented 45.7% of the total 4,218,412 patients.

§Number of living children reported by five grantees.

TABLE 15. Number of family planning patients at Title X family planning clinics, by patient* age group and method of contraception† — United States, 1991

Age group (yrs)	Method of contraception											Total
	Oral contraception	IUD [§]	Diaphragm	Foam [¶] and/or condom	Natural	Sponge	Cervical cap	Sterilization	Other**	None	Unknown	
<15	24,559	25	91	6,547	75	59	1	107	1,001	5,994	205	38,664
15-19	508,985	1,031	3,871	79,199	669	1,038	36	1,480	12,140	84,684	2,961	696,094
(15-17)	(226,372)	(351)	(1,376)	(38,872)	(280)	(434)	(12)	(670)	(5,611)	(38,656)	(1,388)	(314,022)
(18-19)	(282,613)	(680)	(2,495)	(40,327)	(389)	(604)	(24)	(810)	(6,529)	(46,028)	(1,573)	(382,072)
20-24	660,535	3,975	10,163	89,375	1,444	2,097	152	6,233	15,134	96,939	3,532	889,579
25-29	361,125	5,552	9,680	59,657	1,616	1,843	185	12,049	10,233	58,797	1,975	522,712
≥30	209,448	12,464	16,513	76,563	2,906	2,785	390	33,673	14,713	60,269	1,882	431,606
Unknown	3,654	26	90	548	7	13	1	59	471	415	65	5,349
Total	1,768,306	23,073	40,408	311,889	6,717	7,835	765	53,601	53,692	307,098	10,620	2,584,004

*Includes ≥19,856 (0.8%) male patients.

† Forty-three grantees provided data both in the requested age groups and by method of contraception (representing 61.3% of the total 4,218,412 patients).

§ Intrauterine device.

¶ Includes foam/jelly/cream.

**May contain some of the specified methods.

TABLE 16. Percentage of family planning patients at Title X family planning clinics, by patient* age group and method of contraception† — United States, 1991

Age group (yrs)	Method of contraception											Total
	Oral contraception	IUD [§]	Diaphragm	Foam [¶] and/or condom	Natural	Sponge	Cervical cap	Sterilization	Other**	None	Unknown	
<15	1.4	0.1	0.2	2.1	1.1	0.8	0.1	0.2	1.9	2.0	1.9	1.5
15-19	28.8	4.5	9.6	25.4	10.0	13.2	4.7	2.7	22.6	27.6	27.9	27.0
(15-17)	(12.8)	(1.5)	(3.4)	(12.5)	(4.2)	(5.5)	(1.6)	(1.2)	(10.4)	(12.6)	(13.1)	(12.2)
(18-19)	(16.0)	(3.0)	(6.2)	(12.9)	(5.8)	(7.7)	(3.1)	(1.5)	(12.2)	(15.0)	(14.8)	(14.8)
20-24	37.4	17.2	25.2	28.7	21.5	26.8	19.9	11.6	28.1	31.6	33.3	34.4
25-29	20.4	24.1	24.0	19.1	24.1	23.5	24.2	22.5	19.1	19.1	18.6	20.2
≥30	11.8	54.0	40.8	24.5	43.2	35.5	51.0	62.9	27.4	19.6	17.7	16.7
Unknown	0.2	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.9	0.1	0.6	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
% of total	68.3	0.9	1.6	12.1	0.3	0.3	0.0	2.1	2.1	11.9	0.4	100.0

*Includes ≥19,856 (0.8%) male patients.

† Forty-three grantees provided data both in the requested age groups and by method of contraception (representing 61.3% of the total 4,218,412 patients).

§ Intrauterine device.

¶ Includes foam/jelly/cream.

**May contain some of the specified methods.

contraceptives nationally was different from patients who received services at Title X clinics. In the NSFG, 59% of women 15–19 years of age who practiced contraception were using oral contraceptives; in comparison, at Title X clinics, 84% of women 15–19 years of age who practiced contraception were using oral contraceptives.

Differences by racial or ethnic group in the percentage of family planning patients receiving services might be influenced by sociocultural phenomena and might be important variables to consider when assessing service-delivery practices. For example, black women are disproportionately represented among family planning patients at Title X clinics. Although black women constitute 13.4% of all women of reproductive age in the United States, they represent 23.0% of patients at Title X clinics (7).

Recently, interest has been generated in assessing how funding patterns for public family planning services have changed during the 1980s and how those changes might have affected the characteristics of women who receive family planning services at Title X clinics. Reports published during the period 1981–1991 indicated that revenues for Title X clinics decreased both absolutely (43% in constant dollars) and as a proportion of total federal spending for family planning, and that the total number of Title X clinics decreased by 19% (1,4). However, the effects of decreases in Title X funding on the number and characteristics of family planning patients at Title X clinics are difficult to assess because of varying definitions and different study methodologies and time frames. Title X administrative data from BCRR and NSFG indicate that the number of patients has remained steady or has increased (1).

In 1991, AGI initiated a new effort to monitor the current status of family planning needs and services; this activity included gathering information about the scope of the Title X family planning program. A report issued in 1992 indicated that in 1990 an estimated 5.3 million family planning patients received services in all clinics administered by Title X grantees (5). Thus, the data compiled by AGI indicate that approximately 1.1 million (26%) more family planning patients received services in 1990 than our data indicate for 1991. However, data for 1990 from AGI are not comparable with data from our report or with previous AGI data cited in the appendices of this report. The definition of "family planning patients" used in the most recent AGI study was broader than our definition and than that used in previous AGI studies.

CONCLUSION

The FPSS project characterizes women in the United States who receive family planning services at Title X clinics. Such clinics provided services to >4 million women during 1991. Although the agencies funded by Title X monies collect and compile information about their patients, the usefulness of these data is limited because definitions, data items, data management, and statistical reporting are not standardized. Furthermore, because of inadequate staff resources, use of data by grantees for program planning and operations is given low priority. The need for national- and program-level data on family planning services, however, was expressed by all grantees.

Despite important data limitations, the results from the FPSS project and related efforts by other organizations (5,8) will assist in characterizing the role of publicly funded family planning clinics in relation to current and future health-care delivery systems. In addition, improvements in the quality and timeliness of information about family planning services are needed to assist in formulating and evaluating national

strategies and, at the state and local level, program planning and operation by grantees.

References

1. Ku L. Publicly supported family planning in the United States: financing of family planning services. Washington, DC: The Urban Institute and Child Trends, Inc., 1993.
2. The Alan Guttmacher Institute. Current functioning and future priorities in family planning services delivery. New York: The Alan Guttmacher Institute, 1983.
3. Bureau of Community Health Services. Program guidelines for project grants for family planning services. Rockville, MD: US Department of Health and Human Services, Public Health Service, Bureau of Community Health Services, 1990.
4. Gold RB, Daley D. Public funding of contraception, sterilization and abortion services, fiscal year 1990. *Fam Plann Perspect* 1991;23:204-11.
5. The Alan Guttmacher Institute. Title X family planning clinic network. New York: The Alan Guttmacher Institute, 1992.
6. Mosher WD. National Survey of Family Growth: findings from the 1988 cycle. *Dialogues in Contraception* 1990;3(2):4-6.
7. National Center for Health Statistics. *Health, United States, 1992*. Hyattsville, MD: US Department of Health and Human Services, Public Health Service, CDC, 1993; DHHS publication no. (PHS)93-1232.
8. Burt MR. Legislative and policy history: implications for the 1990s. Washington, DC: The Urban Institute and Child Trends, Inc., 1993.

APPENDIX A

TABLE A-1. Number of family planning patients* — United States, selected years

Source	Year [†]	No. served
AGI [§]	1970	1,410,000
AGI	1975	3,924,000
AGI	1980	4,644,000
AGI	1981	4,609,000
FPSS [¶]	1991	4,215,000

*Female patients only.

[†]For 1970, the number of patients served during the fiscal year October 1, 1969, through September 30, 1970. For all other selected years, totals reflect the number served during the calendar year.

[§]The Alan Guttmacher Institute. During 1970, 1975, 1980, and 1981, patients were served by organized family planning providers (4).

[¶]Family Planning Services Surveillance project. During 1991, patients were served by clinics receiving Title X funds.

TABLE A-2. Percentage of family planning patients,* by poverty status of patients — United States, selected years

Source	Year [†]	Poverty level			Total (%)
		<150%	150%–200%	>200%	
AGI [§]	1973	72	13	15	100
AGI	1975	78	11	11	100
AGI	1980	81	10	9	100
AGI	1981	80	NA [¶]	NA	—
FPSS**	1991	86	—	—	100

*Female patients only.

[†]For 1973, the number of patients served during the fiscal year October 1, 1972, through September 30, 1973. For all other selected years, totals reflect the number served during the calendar year.

[§]The Alan Guttmacher Institute. During 1973, 1975, 1980, and 1981, patients were served by organized family planning providers (4).

[¶]Not available.

**Family Planning Services Surveillance project. During 1991, patients were served by clinics receiving Title X funds.

TABLE A-3. Percentage of family planning patients,* by selected age groups — United States, selected years

Source	Year†	Age group (yrs)		
		<18	<20	≥20
AGI‡	1970	NA¶	21	NA
AGI	1975	12	30	70
AGI	1980	15	33	67
AGI	1981	15	33	67
FPSS**	1991	14	29	71

*Female patients only.

†For 1970, the number of patients served during the fiscal year October 1, 1969, through September 30, 1970. For all other selected years, totals reflect the number served during the calendar year.

‡The Alan Guttmacher Institute. During 1970, 1975, 1980, and 1981, patients were served by organized family planning providers (4).

¶Not available.

**Family Planning Services Surveillance project. During 1991, patients were served by clinics receiving Title X funds.

TABLE A-4. Percentage of family planning patients,* by pregnancy history of patient — United States, selected years

Source	Year†	Percentage of patients			
		No. of live births or living children*			Total
		0	1-2	≥3	
AGI†	1975	49	36	15	100
AGI	1980	54	36	10	100
AGI	1981	60	32	8	100
FPSS‡	1991	58	34	8	100

*For 1991, the number of previous live births, which is often used as a surrogate for pregnancy history, was reported by 35 grantees. Ten grantees provided number of living children instead of number of live births. Altogether, these grantees represented 54% of the total 4,218,412 patients.

†The Alan Guttmacher Institute. During 1975, 1980, and 1981, patients were served by organized family planning providers (4).

‡Family Planning Services Surveillance project. During 1991, patients were served by clinics receiving Title X funds.

Abortion Surveillance — United States, 1991

Lisa M. Koonin, M.N., M.P.H.

Jack C. Smith, M.S.

Merrell Ramick

Division of Reproductive Health

National Center for Chronic Disease Prevention and Health Promotion

Abstract

Problem/Condition: From 1980 through 1991, the number of legal induced abortions reported to CDC remained stable, varying each year by $\leq 5\%$.

Reporting Period Covered: This report summarizes and reviews information reported to CDC regarding legal induced abortions obtained in the United States during 1991.

Description of System: For each year since 1969, CDC has compiled abortion data received from 52 reporting areas: 50 states, the District of Columbia, and New York City.

Results: In 1991, 1,388,937 abortions were reported—a 2.8% decrease from 1990. The abortion ratio was 339 legal induced abortions per 1,000 live births, and the abortion rate was 24 per 1,000 women 15–44 years of age. Women who were undergoing an abortion were more likely to be young, white, and unmarried; most had had no previous live births and had been obtaining an abortion for the first time. More than half (52%) of all abortions were performed at or before the 8th week of gestation, and 88% were before the 13th week. Younger women (i.e., women <19 years of age) were more likely to obtain abortions later in pregnancy than were older women.

Interpretation: Since 1980, the number and rate of abortions have remained relatively stable, with only small year-to-year fluctuations of $\leq 5\%$. However, since 1987, the abortion-to-live-birth ratio has declined; in 1991, the abortion ratio was the lowest recorded since 1977. An increasing rate of childbearing may partially account for this decline.

Actions Taken: An accurate assessment of the number and characteristics of women who obtain abortions in the United States is necessary both to monitor efforts to prevent unintended pregnancy and to identify and reduce preventable causes of morbidity and mortality associated with abortions.

INTRODUCTION

In 1969, CDC began abortion surveillance to document the number and characteristics of women obtaining legal induced abortions and to assist efforts to identify and reduce preventable causes of morbidity and mortality associated with abortions. This report is based on abortion data for 1991 provided to CDC's National Center for Chronic Disease Prevention and Health Promotion, Division of Reproductive Health.

METHODS

For 1991, CDC compiled data from 52 reporting areas: 50 states, the District of Columbia, and New York City. The total number of legal induced abortions was available from all reporting areas, and most of these areas provided information on the characteristics of women who obtained abortions. For 47 reporting areas, data were provided from the central health agency*; for the other five areas, data were provided from hospitals and other medical facilities. Abortions were reported by the state in which they were performed.

Women who obtained legal induced abortions were grouped by 5-year age groups. Both ratios (i.e., the number of abortions per 1,000 live births) and rates (the number of abortions per 1,000 women) are presented by age group. Ratios were calculated by using the number of live births provided by each state's central health agency (except where noted), and rates were calculated by using the number of women recorded in special unpublished tabulations provided by the U.S. Bureau of the Census. Rates for women <15 years of age were based on the number of women ages 10–14 years, and rates for women \geq 40 years of age were based on the number of women ages 40–44 years.

Race was categorized by either three groups ([a] white [which included Hispanics], [b] black, and [c] all other races) or two groups ([a] white [which included Hispanics] and [b] black and other races). Other races included Asians/Pacific Islanders, Native Americans, Alaskan Natives, and those classified as "other race." In 1990, data regarding Hispanic ethnicity were first available on abortion reports submitted by central health agencies to CDC. In this report for 1991, Hispanic ethnicity was reported separately by race.

Gestational age (in weeks) at the time of abortion was reported by most states from estimates derived from the time elapsed since the woman's last menstrual period. In six states, gestational age was reported on the basis of the physician's estimate, which could have included information from the clinical examination and the time elapsed since the last menstrual period.

RESULTS

For 1991, 1,388,937 legal abortions were reported to CDC—a 2.8% decrease from the number reported for 1990 (1) (Table 1). From 1970 through 1982, the reported number of legal abortions in the United States increased every year (Figure 1); the largest percentage increase occurred from 1970 to 1972. From 1976 through 1982, the annual increase declined continuously and reached a low of 0.2% for 1980–1981. From 1980 through 1991, the number of abortions remained relatively stable; year-to-year fluctuations were \leq 5%.

The national abortion ratio increased from 1970 to 1980, peaked at 364 per 1,000 live births in 1984, and began to decline steadily after 1987 to 339 per 1,000 in 1991 (Figure 1; Table 2). The national abortion rate increased from 17 abortions per 1,000 women ages 15–44 years in 1974 to 25 per 1,000 in 1980 and has since remained at a rate of 23–24 per 1,000.

*Includes state health departments and the health departments of New York City and the District of Columbia.

TABLE 1. Characteristics of women who obtained legal abortions — United States, selected years, 1972–1991

Characteristic	1972	1973	1976	1980	1985	1986	1987	1988	1989	1990	1991
Reported no. of legal abortions	586,760	615,831	988,267	1,297,606	1,328,570	1,328,112	1,353,671	1,371,285	1,396,658	1,429,577	1,388,937
	Percent distribution*										
Residence											
In-state	56.2	74.8	90.0	92.6	92.4	92.4	91.7	91.4	91.0	91.8	91.6
Out-of-state	43.8	25.2	10.0	7.4	7.6	7.6	8.3	8.6	9.0	8.2	8.4
Age (yrs)											
≤19	32.6	32.7	32.1	29.2	26.3	25.3	25.8	25.3	24.2	22.4	21.0
20–24	32.5	32.0	33.3	35.5	34.7	34.0	33.4	32.8	32.6	33.2	34.4
≥25	34.9	35.3	34.6	35.3	39.0	40.7	40.8	41.9	43.2	44.4	44.6
Race											
White	77.0	72.5	66.6	69.9	66.6	67.0	66.4	64.4	64.2	64.8	63.8
Black	23.0 [†]	27.5 [†]	33.4 [†]	30.1 [†]	29.8	28.7	29.3	31.1	31.2	31.8	32.5
Other [§]	—	—	—	—	3.5	4.3	4.3	4.5	4.6	3.4	3.7
Hispanic origin											
Hispanic	—	—	—	—	—	—	—	—	—	9.8	13.5
Non-Hispanic	—	—	—	—	—	—	—	—	—	90.2	86.5
Marital status											
Married	29.7	27.4	24.6	23.1	19.3	20.2	20.8	20.3	20.1	21.7	21.4
Unmarried	70.3	72.6	75.4	76.9	80.7	79.8	79.2	79.7	79.9	78.3	78.6
No. of live births[¶]											
0	49.4	48.6	47.7	58.4	56.3	55.1	53.6	52.4	52.2	49.2	47.8
1	18.2	18.8	20.7	19.4	21.6	22.1	22.8	23.4	23.6	24.4	25.3
2	13.3	14.2	15.4	13.7	14.5	14.9	15.5	16.0	15.9	16.9	17.5
3	8.7	8.7	8.3	5.3	5.1	5.3	5.5	5.6	5.7	6.1	6.4
≥4	10.4	9.7	7.9	3.2	2.5	2.6	2.6	2.6	2.6	3.4	3.0
Type of procedure											
Curettage	88.6	88.4	92.8	95.5	97.5	97.0	97.2	98.6	98.8	98.8	98.9
Suction curettage	65.2	74.9	82.6	89.8	94.6	94.5	93.4	95.1	97.1	96.0	97.3
Sharp curettage	23.4	13.5	10.2	5.7	2.9	2.5	3.8	3.5	1.7	2.8	1.6
Intrauterine instillation	10.4	10.4	6.0	3.1	1.7	1.4	1.3	1.1	0.9	0.8	0.7
Other ^{**}	1.0	1.2	1.2	1.4	0.8	1.6	1.5	0.3	0.3	0.4	0.4
Weeks of gestation											
≤8	34.0	36.1	47.0	51.7	50.3	51.0	50.4	48.7	49.8	51.6	52.3
9–10	30.7	29.4	28.1	26.2	26.6	25.8	26.0	26.4	25.8	25.3	25.1
11–12	17.5	17.9	14.4	12.2	12.5	12.2	12.4	12.7	12.6	11.7	11.5
13–15	8.4	6.9	4.5	5.1	5.9	6.1	6.2	6.6	6.6	6.4	6.1
16–20	8.2	8.0	5.1	3.9	3.9	4.1	4.2	4.5	4.2	4.0	3.9
≥21	1.2	1.7	0.9	0.9	0.8	0.8	0.8	1.1	1.0	1.0	1.1

* Because the number of states that reported each characteristic varies from year to year, temporal comparisons should be made cautiously. Percentage distributions are based on data from all areas reporting a given characteristic and exclude unknown values.

[†] Reported as black and other races.

[§] Includes all other races.

[¶] For 1972–1976, data indicate number of living children.

** Includes hysterotomy and hysterectomy.

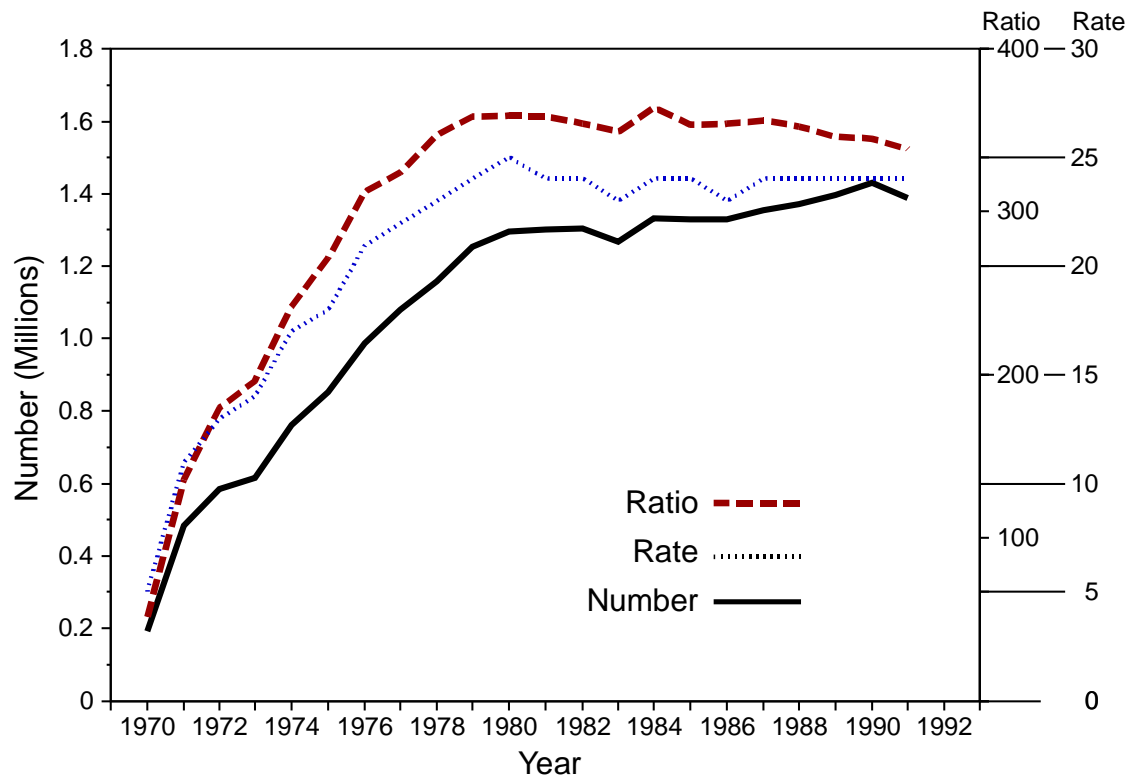
— Not available.

In 1991, as in previous years, most abortions were performed in California, New York City, and Texas; the fewest were performed in North Dakota, South Dakota, West Virginia, and Wyoming (1,2) (Table 3). For women whose state of residence was known, about 92% had obtained the abortion within their own state. The percentage of abortions obtained by out-of-state residents ranged from approximately 51% in the District of Columbia to <1% in Hawaii. Ten reporting areas could not provide data concerning abortions obtained by out-of-state residents.

In 1991, 41 states, the District of Columbia, and New York City reported legal abortions by age. Women ages 20–24 years obtained 34% of all abortions; women ages <15 years obtained <1% of all abortions (Table 4). Abortion ratios were highest for the youngest women (767 abortions per 1,000 live births for women ages <15 years and 462 per 1,000 for women ages 15–19 years) and the oldest women (469 per 1,000 for women ages ≥40 years); the ratio was lowest for women ages 30–34 years (187 per 1,000 women) (Figure 2). Among teenagers, the abortion ratio was highest for those who were <15 years of age and lowest for those who were 19 years of age (Table 5). Abortion rates were highest for women ages 20–24 years (42 per 1,000 women) and lowest for women at the reproductive-age extremes (one abortion per 1,000 women ages <15 years and two abortions per 1,000 women ages ≥40 years) (Table 4).

For most age groups, the abortion ratio rose between 1974 and the early to mid-1980s and declined thereafter, particularly for the youngest and oldest women of reproductive age (Figure 3). The abortion ratios for women ages <15 years and, since

FIGURE 1. Number, ratio,* and rate† of legal abortions performed annually — United States, 1970–1991



*Per 1,000 live births.

†Per 1,000 women 15–44 years of age.

TABLE 2. Number, ratio,* and rate[†] of legal abortions and source of reporting — United States, 1970–1991

Year	Total no. of legal abortions	Ratio	Rate	No. of areas reporting	
				Central health agency [§]	Hospitals/Facilities [¶]
1970	193,491	52	5	18	7
1971	485,816	137	11	19	7
1972	586,760	180	13	21	8
1973	615,831	196	14	26	26
1974	763,476	242	17	37	15
1975	854,853	272	18	39	13
1976	988,267	312	21	41	11
1977	1,079,430	325	22	46	6
1978	1,157,776	347	23	48	4
1979	1,251,921	358	24	47	5
1980	1,297,606	359	25	47	5
1981	1,300,760	358	24	46	6
1982	1,303,980	354	24	46	6
1983	1,268,987	349	23	46	6
1984	1,333,521	364	24	44	8
1985	1,328,570	354	24	44	8
1986	1,328,112	354	23	43	9
1987	1,353,671	356	24	45	7
1988	1,371,285	352	24	45	7
1989	1,396,658	346	24	45	7
1990	1,429,577	345	24	46	6
1991	1,388,937	339	24	47	5

*Number of abortions per 1,000 live births.

[†]Number of abortions per 1,000 women 15–44 years of age.

[§]Abortion data reported from central health agency.

[¶]Abortion data reported from hospitals and/or other medical facilities in state.

1983, those ages 15–19 years were higher than for the other age groups. During 1991, abortion ratios decreased for the fourth consecutive year for women <20 years of age. The abortion ratio for women <15 years of age was the lowest recorded ratio for the time period, and the ratio for women 15–19 years of age was the lowest recorded since 1974. The abortion ratio for women 20–34 years of age (i.e., the group with the highest fertility rate) remained relatively stable after 1974 (3).

During 1991, approximately 52% of reported legal abortions were obtained at or before 8 weeks of gestation, and about 88% were obtained before 13 weeks (Table 6). Approximately 4% of abortions were obtained at 16–20 weeks of gestation, and approximately 1% were obtained at ≥21 weeks.

Approximately 98% of legal abortions were performed by curettage, and <1% by intrauterine saline or prostaglandin instillation (Table 7). Hysterectomy and hysterotomy were used rarely; <0.02% of abortions were performed by these methods.

Thirty-four states, the District of Columbia, and New York City reported the race of women who obtained legal abortions. As in previous years, almost two thirds of women who obtained abortions were white (1,2) (Table 8). The abortion ratio for black

women (502 per 1,000 live births), however, was more than twice that for white women (246 per 1,000 live births). The abortion ratio for women of other races (300 per 1,000 live births) was 1.2 times greater than that for white women. In addition, the

TABLE 3. Reported number,* ratio,[†] and rate[§] of legal abortions and percentage of abortions obtained by out-of-state residents,[¶] by state of occurrence — United States, 1991

State	Total no. of legal abortions	Ratio	Rate	Percentage of legal abortions obtained by out-of-state residents
Alabama	14,097	224	15	8.3
Alaska	1,718**	147	12	—
Arizona	15,491	228	18	2.7
Arkansas	6,211	175	12	3.2
California	350,983 ^{††}	576	49	—
Colorado	11,402	212	14	8.2
Connecticut	18,534	382 ^{§§}	24	—
Delaware	5,547	496	34	—
District of Columbia	18,899	— ^{¶¶}	— ^{***}	50.5
Florida	71,254	368	25	—
Georgia	38,407	348	23	8.2
Hawaii	5,714	286	22	0.3
Idaho	1,647	98	7	10.3
Illinois	46,502	239 ^{§§}	17	—
Indiana	13,493	158	10	3.6
Iowa	7,029**	181	11	—
Kansas	7,318	194	13	45.6
Kentucky	9,590	179	11	28.7
Louisiana	12,190	169	12	—
Maine	3,827	228	13	7.9
Maryland	18,994	240 ^{§§}	16	4.7
Massachusetts	37,071	420	25	3.7
Michigan	34,556	231	16	4.2
Minnesota	16,177	241	16	10.5
Mississippi	8,184	190	14	25.0
Missouri	15,473	197	13	10.3
Montana	3,226	281	18	26.3
Nebraska	6,194	259	17	19.4
Nevada	7,484	337	25	11.1
New Hampshire	3,842**	235	14	—
New Jersey	37,541	309 ^{§§}	21	3.0
New Mexico	5,745	207	16	4.3
New York	158,761	553	37	3.3
City	105,195 ^{†††}	819	—	2.9
State	53,566	337	—	4.0
North Carolina	36,420	356	23	8.4
North Dakota	1,602	180	12	38.4
Ohio	41,705	257	16	16.6
Oklahoma	10,533**	220 ^{§§}	15	—
Oregon	14,310	337	21	10.0
Pennsylvania	50,988	304	19	6.4
Rhode Island	7,412	503 ^{§§}	31	20.7
South Carolina	12,538	218	15	6.1
South Dakota	984	90	7	21.3
Tennessee	19,779	266	17	16.6
Texas	91,947	289	22	4.6
Utah	4,213	117	10	13.4
Vermont	3,015	379	22	30.8

TABLE 3. Reported number,* ratio,[†] and rate[§] of legal abortions and percentage of abortions obtained by out-of-state residents,[¶] by state of occurrence — United States, 1991 — Continued

State	Total no. of legal abortions	Ratio	Rate	Percentage of legal abortions obtained by out-of-state residents
Virginia	31,943	330	21	5.9
Washington	30,243	380	26	4.1
West Virginia	1,598	71	4	9.1
Wisconsin	16,237	225	14	5.2
Wyoming	369	55	3	11.7
Total	1,388,937	339	24	8.4

*Abortion data from central health agency unless otherwise noted.

[†]Abortions per 1,000 live births (live-birth data from central health agency unless otherwise specified).

[§]Abortions per 1,000 women 15–44 years of age (number of women in this age group obtained from the U.S. Department of Commerce, Bureau of the Census, *Current Population Survey*, March 1991, tape technical documentation, Washington, DC).

[¶]Based on number of abortions for which residence status of women was known.

**Reported from hospitals and/or other medical facilities in state.

††CDC estimate.

^{§§}Live births reported from CDC's National Center for Health Statistics, *Advance Report of Final Natality Statistics*, 1991, vol. 42, no. 3, supplement, September 9, 1993.

^{¶¶}>1,000 abortions per 1,000 live births.

^{***}>1,000 abortions per 1,000 women 15–44 years of age.

^{†††}Reported by New York City Department of Health.

—Not reported.

abortion rate for black women (41 per 1,000 black women) was 2.6 times greater than the rate for white women (16 per 1,000 white women).

Twenty states, the District of Columbia, and New York City reported data on legal abortions classified by Hispanic ethnicity (Table 9). The percentage of Hispanic women who obtained abortions in these reporting areas ranged from <1% in several states to approximately 38% in New Mexico. For Hispanic women in these reporting areas, the abortion ratio was 300 per 1,000 live births—slightly lower than the ratio for non-Hispanics in the same areas (332 per 1,000 live births). However, the abortion rate per 1,000 Hispanic women (28 per 1,000 women) was slightly greater than the rate per 1,000 non-Hispanic women (22 per 1,000 women).

Seventy-six percent of women who obtained abortions were unmarried (Table 10). The percentage varied by state, from 59% in Utah to 82% in Kansas. The abortion ratio was more than nine times greater for unmarried women than for married women (815 vs. 89 abortions per 1,000 live births).

Approximately 47% of women who obtained legal abortions had had no previous live births, and about 89% had had two or fewer previous live births (Table 11). The abortion ratio was highest for women who had had no live births and lowest for women who had had four or more live births.

About 55% of women had been obtaining an abortion for the first time. Approximately 16% of women had had at least two previous abortions (Table 12).

The age distribution of women who obtained a legal abortion differed only slightly by race (Table 13). However, for women <15 years of age, the percentage who were

TABLE 4. Reported legal abortions, by age of women who obtained an abortion and state in which the procedure was performed — selected states,* United States, 1991

State	Age group (yrs)																	
	<15		15-19		20-24		25-29		30-34		35-39		≥40		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Alabama	193	1.4	3,525	25.0	4,910	34.8	2,705	19.2	1,622	11.5	904	6.4	224	1.6	14	0.1	14,097	100.0
Arizona	83	0.5	3,037	19.6	5,095	32.9	3,389	21.9	2,096	13.5	1,032	6.7	235	1.5	524	3.4	15,491	100.0
Arkansas	66	1.1	1,586	25.5	2,190	35.3	1,232	19.8	685	11.0	342	5.5	95	1.5	15	0.2	6,211	100.0
Colorado	88	0.8	2,575	22.6	3,669	32.2	2,284	20.0	1,572	13.8	933	8.2	251	2.2	30	0.3	11,402	100.0
Dist. of Columbia	90	1.0	1,905	20.7	3,173	34.6	2,098	22.9	1,199	13.1	578	6.3	138	1.5	0	0.0	9,181 [†]	100.0
Georgia	414	1.1	7,663	20.0	13,270	34.6	8,631	22.5	5,076	13.2	2,545	6.6	643	1.7	165	0.4	38,407	100.0
Hawaii	62	1.1	1,071	18.7	1,864	32.6	1,282	22.4	776	13.6	507	8.9	149	2.6	3	0.1	5,714	100.0
Idaho	12	0.7	414	25.1	508	30.8	330	20.0	219	13.3	125	7.6	38	2.3	1	0.1	1,647	100.0
Indiana	99	0.7	2,977	22.1	4,837	35.8	2,829	21.0	1,599	11.9	860	6.4	246	1.8	46	0.3	13,493	100.0
Kansas	55	0.8	2,014	27.5	2,444	33.4	1,383	18.9	828	11.3	460	6.3	127	1.7	7	0.1	7,318	100.0
Kentucky	136	1.4	2,595	27.1	3,380	35.2	1,713	17.9	1,053	11.0	529	5.5	130	1.4	54	0.6	9,590	100.0
Louisiana	128	1.1	2,562	21.0	4,221	34.6	2,549	20.9	1,543	12.7	878	7.2	274	2.2	35	0.3	12,190	100.0
Maine	19	0.5	869	22.7	1,289	33.7	767	20.0	523	13.7	268	7.0	64	1.7	28	0.7	3,827	100.0
Maryland	183	1.0	3,712	19.5	6,443	33.9	4,475	23.6	2,672	14.1	1,204	6.3	305	1.6	0	0.0	18,994	100.0
Massachusetts	190	0.5	6,505	17.5	12,427	33.5	8,660	23.4	5,213	14.1	2,724	7.3	757	2.0	595	1.6	37,071	100.0
Michigan	297	0.9	7,850	22.7	12,093	35.0	7,002	20.3	4,454	12.9	2,225	6.4	581	1.7	54	0.2	34,556	100.0
Minnesota	91	0.6	3,134	19.4	5,670	35.0	3,480	21.5	2,193	13.6	1,067	6.6	348	2.2	194	1.2	16,177	100.0
Mississippi	108	1.3	2,078	25.4	2,772	33.9	1,567	19.1	932	11.4	468	5.7	147	1.8	112	1.4	8,184	100.0
Missouri	175	1.1	3,127	20.2	5,313	34.3	3,434	22.2	2,120	13.7	1,030	6.7	268	1.7	6	0.0	15,473	100.0
Montana	20	0.6	808	25.0	1,028	31.9	624	19.3	423	13.1	260	8.1	63	2.0	0	0.0	3,226	100.0
Nebraska	36	0.6	1,488	24.0	2,173	35.1	1,244	20.1	723	11.7	407	6.6	120	1.9	3	0.0	6,194	100.0
Nevada	50	0.7	1,240	16.6	2,383	31.8	1,823	24.4	1,185	15.8	599	8.0	154	2.1	50	0.7	7,484	100.0
New Jersey [§]	284	0.8	7,838	20.9	12,931	34.4	8,657	23.1	4,847	12.9	2,267	6.0	686	1.8	31	0.1	37,541	100.0
New Mexico	36	0.6	1,311	22.8	1,813	31.6	1,203	20.9	755	13.1	450	7.8	151	2.6	26	0.5	5,745	100.0
New York	1,153	0.7	27,329	17.2	51,024	32.1	38,735	24.4	23,649	14.9	11,764	7.4	3,347	2.1	1,760	1.1	158,761	100.0
City	815	0.8	16,268	15.5	32,274	30.7	27,125	25.8	16,838	16.0	8,295	7.9	2,388	2.3	1,192	1.1	105,195	100.0
State	338	0.6	11,061	20.6	18,750	35.0	11,610	21.7	6,811	12.7	3,469	6.5	959	1.8	568	1.1	53,566	100.0
North Carolina	373	1.0	8,647	23.7	12,971	35.6	7,230	19.9	4,069	11.2	2,107	5.8	524	1.4	499	1.4	36,420	100.0
North Dakota	14	0.9	403	25.2	561	35.0	289	18.0	195	12.2	110	6.9	30	1.9	0	0.0	1,602	100.0
Ohio	220	0.5	6,907	16.6	14,263	34.2	8,146	19.5	5,006	12.0	2,472	5.9	733	1.8	3,958	9.5	41,705	100.0
Oregon	98	0.7	3,203	22.4	4,741	33.1	2,972	20.8	1,836	12.8	1,048	7.3	266	1.9	146	1.0	14,310	100.0
Pennsylvania	431	0.8	11,052	21.7	17,751	34.8	10,621	20.8	6,614	13.0	3,576	7.0	941	1.8	2	0.0	50,988	100.0
Rhode Island	40	0.5	1,366	18.4	2,681	36.2	1,619	21.8	1,049	14.2	513	6.9	144	1.9	0	0.0	7,412	100.0
South Carolina	102	0.8	2,842	22.7	4,509	36.0	2,697	21.5	1,493	11.9	728	5.8	167	1.3	0	0.0	12,538	100.0
South Dakota	6	0.6	253	25.7	331	33.6	170	17.3	125	12.7	76	7.7	23	2.3	0	0.0	984	100.0
Tennessee	226	1.1	4,593	23.2	6,725	34.0	4,065	20.6	2,432	12.3	1,412	7.1	320	1.6	6	0.0	19,779	100.0
Texas	463	0.5	15,953	17.4	32,235	35.1	21,059	22.9	13,112	14.3	6,772	7.4	2,067	2.2	286	0.3	91,947	100.0

TABLE 4. Reported legal abortions, by age of women who obtained an abortion and state in which the procedure was performed — selected states,* United States, 1991 — Continued

State	Age group (yrs)																Total	
	<15		15-19		20-24		25-29		30-34		35-39		≥40		Unknown		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Utah	36	0.9	881	20.9	1,411	33.5	897	21.3	583	13.8	293	7.0	90	2.1	22	0.5	4,213	100.0
Vermont	16	0.5	731	24.2	980	32.5	619	20.5	363	12.0	229	7.6	74	2.5	3	0.1	3,015	100.0
Virginia	240	0.8	6,374	20.0	10,843	33.9	7,292	22.8	4,357	13.6	2,162	6.8	626	2.0	49	0.2	31,943	100.0
Washington	187	0.6	6,014	19.9	10,196	33.7	6,732	22.3	4,232	14.0	2,210	7.3	642	2.1	30	0.1	30,243	100.0
West Virginia	21	1.3	416	26.0	585	36.6	290	18.1	166	10.4	94	5.9	26	1.6	0	0.0	1,598	100.0
Wisconsin	122	0.8	3,520	22.9	5,434	35.3	3,205	20.8	1,931	12.5	899	5.8	266	1.7	12	0.1	15,389 [†]	100.0
Wyoming	1	0.3	87	23.6	108	29.3	76	20.6	59	16.0	25	6.8	12	3.3	1	0.3	369	100.0
Total	6,664	0.8	172,455	20.0	293,245	34.0	190,075	22.0	115,579	13.4	59,152	6.9	16,492	1.9	8,767	1.0	862,429	100.0
Abortion ratio [¶]	767		462		378		221		187		262		469				295	
Abortion rate ^{**}	1		28		42		25		14		8		2				17	

* All 41 states for which data were available, the District of Columbia, and New York City.

[†] Includes residents only.

[‡] Based on known distribution for 1990 data.

[¶] Calculated as the number of legal abortions obtained by women in a given age group per 1,000 live births to women in the same age group for these states. For each state, abortions obtained by women of unknown age are distributed according to the known age distribution for that state. Excludes states reporting age unknown for >15% of women who obtained abortions.

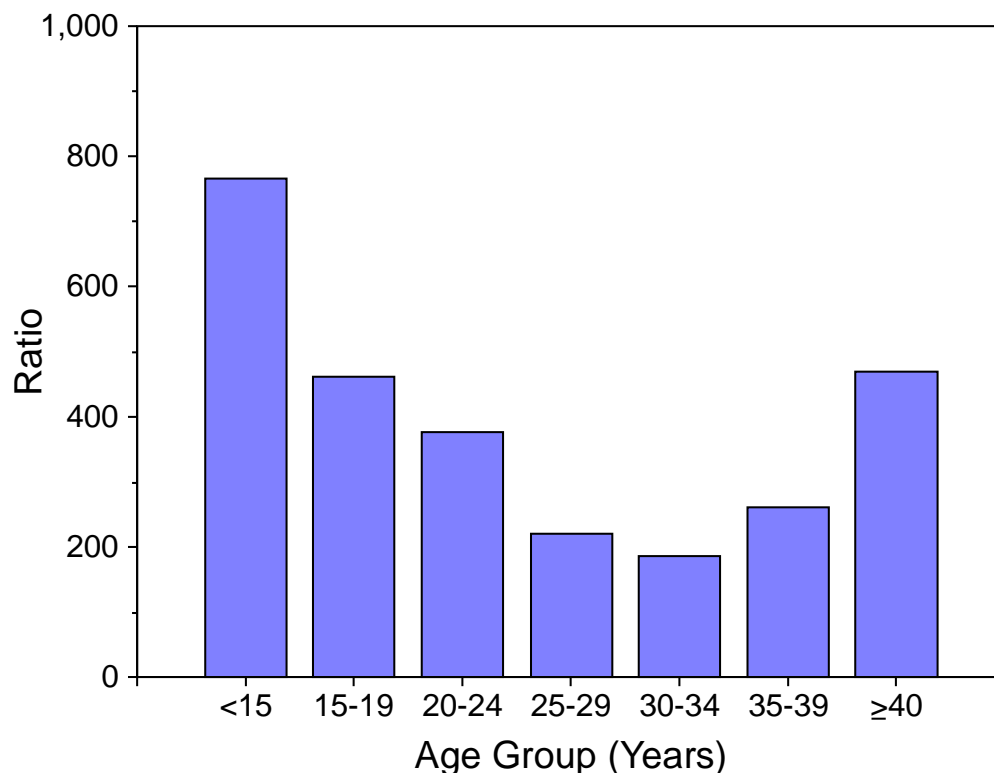
^{**} Calculated as the number of legal abortions obtained by women in a given age group per 1,000 women in the same age group for these states. For each state, abortions obtained by women of unknown age are distributed according to the known age distribution for that state. Excludes states reporting age unknown for >15% of women who obtained abortions.

black or of other races, although small (1.3%), was more than twice the percentage who were white (0.6%). The percentage of unmarried women who were black or of other races (81%) was also slightly higher than the percentage who were white (76%). Few differences were found by age and Hispanic ethnicity (Table 14), but among married women who had obtained an abortion, a greater percentage were Hispanic than non-Hispanic.

Most women obtained an abortion during the first 12 weeks of pregnancy; however, teenagers (i.e., women ages <19 years) were more likely than older women to obtain abortions later in pregnancy (Table 15). The percentage of women who obtained an abortion early in pregnancy (i.e., at ≤ 8 weeks of gestation) increased with age, and the percentage who obtained an abortion late in pregnancy (at ≥ 16 weeks of gestation) decreased with age (Figure 4). Women who were black or of other races were more likely to obtain an abortion later in pregnancy than were white women (Table 15). Although Hispanic women were more likely than non-Hispanic women to have had an abortion at ≤ 8 weeks of gestation, the overall differences between Hispanic and non-Hispanic women in the timing of abortions were minimal.

More than 99% of abortions at ≤ 12 weeks of gestation were performed by curettage (primarily suction procedures) (Table 16). After 12 weeks of gestation, the most frequently used procedure was also curettage, although it was usually reported as dilatation and evacuation (D&E). Most intrauterine instillations involved the use of saline and were performed at ≥ 16 weeks of gestation.

FIGURE 2. Abortion ratios,* by age group of women who obtained a legal abortion — United States, 1991



*Per 1,000 live births.

DISCUSSION

Although the annual number of abortions remained relatively stable, in 1991 the national abortion-to-live-birth ratio was the lowest recorded since 1977. The abortion ratio increased steadily from 1970 through 1980, decreased slightly during 1981–1983, increased to its highest level in 1984, remained fairly stable until 1987, and then began to decline (Figure 1). Increased birth rates for women of all ages might have contributed to this decline (3). Other factors that could have affected the decline in the abortion ratio include reduced access to abortion services, changes in contraceptive practices, attitudinal changes concerning abortion and/or carrying unplanned pregnancies to term, and the possibility that the number of unintended pregnancies have decreased (4–6).

In other countries, the rate for legal abortions per 1,000 women of reproductive age ranged from >100 in the former Soviet Union to five in the Netherlands (7). The induced abortion rate in the United States was higher than that reported by Australia, Canada, and Western European countries, and lower than that reported by China, Cuba, the Eastern European countries, and the Newly Independent States of the Soviet Union (7). Abortion rates for teenagers were higher in the United States than in most Western European countries and some Eastern European countries (7).

The abortion ratio in 1991 varied substantially by age. Although the ratio was highest for teenagers, the percentage of legal abortions obtained by women <19 years of age has decreased steadily since the mid-1980s—from 26% in 1984 to 24% in 1989 and to 21% in 1991 (2,8). Since 1980, the abortion ratio declined for most age groups—particularly for women <15 years of age and ≥40 years of age. In 1991, the abortion ratio for women 15–19 years of age was the lowest ratio CDC had ever recorded for that age group. Increasing rates of childbearing among teenage women and women ≥35 years of age may have accounted for some of the decline in abortion ratios for these age groups (3). The decline in the abortion ratio for teenagers might also be associated with reduced access to abortion services (5), recent changes in abortion laws (e.g., parental consent or notification laws), and mandatory waiting periods, all of which are likely to disproportionately affect adolescents (9,10).

During 1991, the abortion ratio for black women was more than twice that for white women, and the abortion rate for black women was about three times that for white women. Race-specific differences in abortion ratios and rates may reflect differences in factors such as socioeconomic status, contraceptive use, and access to family planning, contraceptive, and abortion services.

The abortion-to-live-birth ratio for Hispanic women during 1991 was slightly lower than that for non-Hispanic women. Other published reports indicate that pregnant Hispanic women are less likely than pregnant non-Hispanic women to obtain an abortion (11). The abortion rate per 1,000 Hispanic women was higher than that for non-Hispanic women. Other studies using previously published data also reported higher abortion rates for Hispanic women than for non-Hispanic women (11). For women in all age groups, fertility was higher for Hispanic than for non-Hispanic women (3). However, in 1991, only 20 states, the District of Columbia, and New York City reported the number and percentage of abortions by Hispanic ethnicity; these geographic areas represent approximately 44% of all Hispanic women of reproductive age in the United States (CDC, unpublished data). Thus, the number, ratio, and rate of abortions for

TABLE 5. Reported legal abortions obtained by teenagers, by age and state of occurrence — selected states,* United States, 1991

State	Age (yrs)													
	<15		15		16		17		18		19		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Alabama	193	5.2	282	7.6	486	13.1	595	16.0	1,010	27.2	1,152	31.0	3,718	100.0
Arizona	83	2.7	203	6.5	312	10.0	530	17.0	932	29.9	1,060	34.0	3,120	100.0
Arkansas	66	4.0	102	6.2	191	11.6	253	15.3	506	30.6	534	32.3	1,652	100.0
Colorado	88	3.3	178	6.7	377	14.2	584	21.9	685	25.7	751	28.2	2,663	100.0
Georgia	414	5.1	567	7.0	1,032	12.8	1,398	17.3	2,186	27.1	2,480	30.7	8,077	100.0
Hawaii	62	5.5	88	7.8	154	13.6	207	18.3	281	24.8	341	30.1	1,133	100.0
Idaho	12	2.8	23	5.4	43	10.1	74	17.4	147	34.5	127	29.8	426	100.0
Indiana	99	3.2	203	6.6	323	10.5	403	13.1	1,014	33.0	1,034	33.6	3,076	100.0
Kansas	55	2.7	175	8.5	293	14.2	446	21.6	526	25.4	574	27.7	2,069	100.0
Kentucky	136	5.0	213	7.8	378	13.8	609	22.3	638	23.4	757	27.7	2,731	100.0
Louisiana	128	4.8	195	7.2	284	10.6	389	14.5	804	29.9	890	33.1	2,690	100.0
Maine	19	2.1	56	6.3	118	13.3	185	20.8	249	28.0	261	29.4	888	100.0
Maryland	183	4.7	278	7.1	483	12.4	664	17.0	1,035	26.6	1,252	32.1	3,895	100.0
Massachusetts	190	2.8	322	4.8	607	9.1	998	14.9	2,033	30.4	2,545	38.0	6,695	100.0
Michigan	297	3.6	546	6.7	953	11.7	1,350	16.6	2,394	29.4	2,607	32.0	8,147	100.0
Minnesota	91	2.8	191	5.9	376	11.7	523	16.2	969	30.0	1,075	33.3	3,225	100.0
Mississippi	108	4.9	178	8.1	300	13.7	389	17.8	597	27.3	614	28.1	2,186	100.0
Missouri	175	5.3	241	7.3	397	12.0	410	12.4	968	29.3	1,111	33.6	3,302	100.0
Montana	20	2.4	52	6.3	118	14.3	160	19.3	236	28.5	242	29.2	828	100.0
Nebraska	36	2.4	93	6.1	190	12.5	277	18.2	441	28.9	487	32.0	1,524	100.0
Nevada	50	3.9	78	6.0	163	12.6	233	18.1	366	28.4	400	31.0	1,290	100.0
New Jersey†	284	3.5	525	6.5	932	11.5	1,467	18.1	2,244	27.6	2,670	32.9	8,122	100.0
New Mexico	36	2.7	108	8.0	175	13.0	260	19.3	378	28.1	390	29.0	1,347	100.0
New York	1,153	4.0	1,978	6.9	3,528	12.4	5,447	19.1	7,579	26.6	8,797	30.9	28,482	100.0
City	815	4.8	1,272	7.4	2,168	12.7	3,209	18.8	4,454	26.1	5,165	30.2	17,083	100.0
State	338	3.0	706	6.2	1,360	11.9	2,238	19.6	3,125	27.4	3,632	31.9	11,399	100.0
North Carolina	373	4.1	596	6.6	1,143	12.7	1,667	18.5	2,501	27.7	2,740	30.4	9,020	100.0
North Dakota	14	3.4	27	6.5	44	10.6	60	14.4	132	31.7	140	33.6	417	100.0
Ohio	220	3.1	388	5.4	746	10.5	1,205	16.9	1,884	26.4	2,684	37.7	7,127	100.0
Oregon	98	3.0	217	6.6	424	12.8	621	18.8	894	27.1	1,047	31.7	3,301	100.0
Pennsylvania	431	3.8	871	7.6	1,435	12.5	2,027	17.7	3,017	26.3	3,702	32.2	11,483	100.0

TABLE 5. Reported legal abortions obtained by teenagers, by age and state of occurrence — selected states,* United States, 1991 — Continued

State	Age (yrs)													
	<15		15		16		17		18		19		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Rhode Island	40	2.8	74	5.3	134	9.5	179	12.7	461	32.8	518	36.8	1,406	100.0
South Carolina	102	3.5	185	6.3	300	10.2	551	18.7	807	27.4	999	33.9	2,944	100.0
South Dakota	6	2.3	21	8.1	31	12.0	49	18.9	74	28.6	78	30.1	259	100.0
Tennessee	226	4.7	328	6.8	609	12.6	836	17.3	1,312	27.2	1,508	31.3	4,819	100.0
Texas	463	2.8	808	4.9	1,748	10.6	2,897	17.6	4,406	26.8	6,094	37.1	16,416	100.0
Utah	36	3.9	52	5.7	114	12.4	134	14.6	289	31.5	292	31.8	917	100.0
Vermont	16	2.1	37	5.0	100	13.4	146	19.5	217	29.0	231	30.9	747	100.0
Virginia	240	3.6	430	6.5	819	12.4	1,201	18.2	1,799	27.2	2,125	32.1	6,614	100.0
Washington	187	3.0	378	6.1	769	12.4	1,226	19.8	1,657	26.7	1,984	32.0	6,201	100.0
West Virginia	21	4.8	29	6.6	42	9.6	69	15.8	127	29.1	149	34.1	437	100.0
Wisconsin	122	3.3	221	6.1	457	12.5	632	17.4	990	27.2	1,220	33.5	3,642 [§]	100.0
Wyoming	1	1.1	9	10.2	10	11.4	14	15.9	27	30.7	27	30.7	88	100.0
Total	6,574	3.7	11,546	6.5	21,138	11.9	31,365	17.7	48,812	27.6	57,689	32.6	177,124	100.0
Abortion ratio [¶]	765		570		498		439		480		427		466	
Abortion rate ^{**}	1		10		18		26		40		42		14	

* All 41 states for which data were available and New York City.

† Based on known distribution for 1990 data.

§ Includes residents only.

¶ Calculated as the number of legal abortions obtained by women of a given age per 1,000 live births to women of the same age for these states.

** Calculated as the number of legal abortions obtained by women of a given age per 1,000 women of the same age for these states.

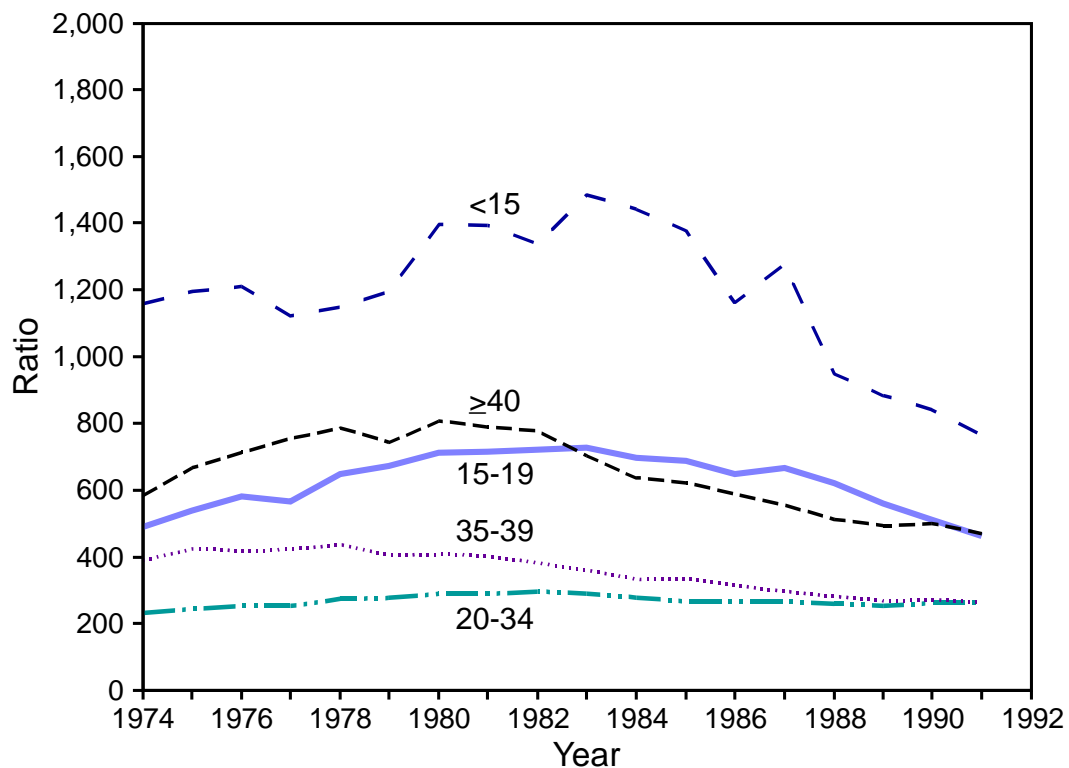
Hispanic women in this surveillance summary might not be representative of the overall Hispanic population in the United States (i.e., these data might reflect utilization of abortion services only in these states).

The percentage distribution of abortions by gestational age was stable from 1980 through 1991 (Table 1). In this and previous reports, age was inversely associated with timing of abortion (i.e., younger women were more likely to obtain an abortion later in gestation than were older women) (2,12,13).

The percentage of women who were obtaining an abortion for the first time decreased from 75% in 1974 to 55% in 1991 (Table 12) (14). During this period, the percentage of women who previously had had one induced abortion increased from 10% in 1974 to 25% in 1985 and to 27% in 1991 (8). The percentage who had had two previous abortions increased from approximately 1% in 1974 to approximately 10% in 1985; from 1985 through 1991, the percentage remained at approximately 9%–10%. The percentage who had had three or more abortions increased from 0.4% in 1974, to approximately 5% in 1985; during 1990 and 1991, this percentage remained at 6%. Because the proportion of all legal induced abortions that are repeat procedures increases with the abortion rate, the proportion of repeat procedures increased during the 1970s and early 1980s as the abortion rate rose; since then, the abortion rate and the proportion of repeat procedures have stabilized (13,15,16).

From 1972 to 1991, the percentage of abortions performed by curettage (which includes D&E) increased from 89% to 99% (Table 1), and the percentage of abortions

FIGURE 3. Abortion ratios,* by age group† of women who obtained a legal abortion — United States, 1974–1991



*Per 1,000 live births.

†In years.

performed by intrauterine instillation and by hysterectomy and hysterotomy declined sharply (from 10% to 1% and from 0.6% to 0.01%, respectively). From 1974 through 1991, the percentage of second-trimester abortions performed by D&E increased from 31% to 92%; the percentage of second-trimester abortions performed by intrauterine instillation decreased from 57% to 5% (14). The increasing use of D&E might have resulted from the lower risk for complications associated with the procedure (17,18).

The numbers, ratios, and rates of abortion from this analysis are conservative estimates because the number of legal abortions reported to CDC for 1991 was probably lower than the number actually performed. Totals provided by central health agencies are often lower than those obtained by direct surveys of abortion providers (19). For example, the total number of abortions reported to CDC for 1991 was approximately 12% lower than that reported by The Alan Guttmacher Institute, a private organization that directly contacts abortion providers to obtain information on the number of abortions performed (6).

Despite these limitations, findings from ongoing national surveillance of legal induced abortion are used for several purposes. First, data from abortion surveillance are used to identify characteristics of women at high risk for unintended pregnancy. Second, ongoing surveillance is essential to monitor trends in the number, ratio, and rate of abortions in the United States. Third, statistics on the number of pregnancies ending in abortion are used in conjunction with birth statistics to estimate pregnancy rates (e.g., pregnancy rates among teenagers) (20) and other outcome rates (e.g., the rate of ectopic pregnancies per 1,000 pregnancies). Fourth, abortion and pregnancy rates can be used to evaluate the effectiveness of family planning programs and programs for preventing unintended pregnancy. Fifth, ongoing surveillance also provides data for assessing changes in clinical practice patterns related to abortion (e.g., longitudinal changes in the types of procedures). Finally, abortion data are used as the denominator in calculating abortion morbidity rates and case-fatality rates.

Induced abortions are linked usually to unintended pregnancies, which often occur despite use of contraception (11,21,22). In the late 1980s, about 1.2 million live births occurred for which the pregnancy was unintended (i.e., either mistimed or unwanted at conception) (23). Improved contraceptive practices, as well as access to and education regarding safe, effective, and low-cost contraception and family planning services, can help minimize abortion in the United States (24).

Not all states have acknowledged the need for state-based abortion surveillance, and some states that have recognized the need have been unable to gather such information. Some states emphasize the prevention of unintended pregnancy, particularly among teenagers. To help guide this effort, however, an ongoing, accurate assessment of abortion is needed in all states to determine the number and characteristics of women who obtain abortions.

Additional statistical and epidemiologic information about legal induced abortions is available from CDC's automated Reproductive Health Information System, which provides information by fax, voice recordings, or mail. Telephone (404) 330-1230.

TABLE 6. Reported legal abortions, by weeks of gestation and state of occurrence — selected states,* United States, 1991

State	Weeks of gestation														Total	
	≤8		9-10		11-12		13-15		16-20		≥21		Unknown			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Alabama	7,825	55.5	3,735	26.5	1,211	8.6	728	5.2	279	2.0	177	1.3	142	1.0	14,097	100.0
Arkansas	3,479	56.0	1,464	23.6	575	9.3	284	4.6	96	1.5	11	0.2	302	4.9	6,211	100.0
Colorado	4,096	35.9	4,092	35.9	1,749	15.3	800	7.0	507	4.4	110	1.0	48	0.4	11,402	100.0
Dist. of Columbia	4,539	49.4	2,078	22.6	1,296	14.1	761	8.3	356 [†]	3.9	26 [§]	0.3	125	1.4	9,181 [¶]	100.0
Georgia	13,823	36.0	10,677	27.8	6,459	16.8	3,040	7.9	1,699	4.4	664	1.7	2,045	5.3	38,407	100.0
Hawaii**	3,078	53.9	1,332	23.3	591	10.3	320	5.6	293	5.1	41	0.7	59	1.0	5,714	100.0
Idaho	877	53.2	506	30.7	231	14.0	22	1.3	7	0.4	1	0.1	3	0.2	1,647	100.0
Indiana	9,955	73.8	2,490	18.5	666	4.9	123	0.9	26	0.2	4	0.0	229	1.7	13,493	100.0
Kansas	3,113	42.5	1,859	25.4	907	12.4	536	7.3	502	6.9	374	5.1	27	0.4	7,318	100.0
Kentucky	4,462	46.5	1,960	20.4	1,157	12.1	762	7.9	820	8.6	336	3.5	93	1.0	9,590	100.0
Louisiana	5,362	44.0	3,866	31.7	1,275	10.5	676	5.5	761	6.2	154	1.3	96	0.8	12,190	100.0
Maine**	1,911	49.9	1,227	32.1	447	11.7	180	4.7	25 [†]	0.7	19 [§]	0.5	18	0.5	3,827	100.0
Maryland**	10,951	57.7	4,422	23.3	2,091	11.0	934	4.9	532	2.8	4	0.0	60	0.3	18,994	100.0
Michigan	16,860	48.8	8,701	25.2	4,565	13.2	2,413	7.0	959	2.8	205	0.6	853	2.5	34,556	100.0
Minnesota	7,978	49.3	4,187	25.9	2,029	12.5	970	6.0	827	5.1	84	0.5	102	0.6	16,177	100.0
Mississippi	4,690	57.3	1,755	21.4	793	9.7	464	5.7	186	2.3	41	0.5	255	3.1	8,184	100.0
Missouri	5,801	37.5	4,975	32.2	2,899	18.7	1,148	7.4	552	3.6	90	0.6	8	0.1	15,473	100.0
Montana**	1,839	57.0	648	20.1	328	10.2	232	7.2	172	5.3	0	0.0	7	0.2	3,226	100.0
Nevada	4,613	61.6	1,459	19.5	788	10.5	342	4.6	179	2.4	0	0.0	103	1.4	7,484	100.0
New Jersey ^{††}	19,395	51.7	7,586	20.2	3,149	8.4	3,962	10.6	2,761	7.4	688	1.8	0	0.0	37,541	100.0
New Mexico	2,830	49.3	1,072	18.7	505	8.8	357	6.2	314	5.5	44	0.8	623	10.8	5,745	100.0
New York	86,246	54.3	35,384	22.3	15,747	9.9	8,288	5.2	7,157	4.5	2,562	1.6	3,377	2.1	158,761	100.0
City	58,605	55.7	22,061	21.0	9,610	9.1	5,215	5.0	5,770	5.5	2,346	2.2	1,588	1.5	105,195	100.0
State	27,641	51.6	13,323	24.9	6,137	11.5	3,073	5.7	1,387	2.6	216	0.4	1,789	3.3	53,566	100.0
North Carolina	17,782	48.8	9,115	25.0	4,697	12.9	2,550	7.0	853	2.3	88	0.2	1,335	3.7	36,420	100.0
North Dakota	885	55.2	369	23.0	185	11.5	140	8.7	21	1.3	0	0.0	2	0.1	1,602	100.0
Oregon	7,002	48.9	4,067	28.4	1,534	10.7	764	5.3	509	3.6	216	1.5	218	1.5	14,310	100.0
Pennsylvania	24,800	48.6	13,857	27.2	6,584	12.9	3,339	6.5	1,963	3.8	383	0.8	62	0.1	50,988	100.0
Rhode Island	3,983	53.7	2,159	29.1	639	8.6	365	4.9	242	3.3	5	0.1	19	0.3	7,412	100.0
South Carolina	6,933	55.3	3,526	28.1	1,678	13.4	237	1.9	61	0.5	31	0.2	72	0.6	12,538	100.0

TABLE 6. Reported legal abortions, by weeks of gestation and state of occurrence — selected states,* United States, 1991 — Continued

State	Weeks of gestation														Total	
	≤8		9–10		11–12		13–15		16–20		≥21		Unknown		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
South Dakota	612	62.2	267	27.1	104	10.6	1	0.1	0	0.0	0	0.0	0	0.0	984	100.0
Tennessee**	10,094	51.0	5,400	27.3	2,622	13.3	1,473	7.4	152	0.8	16	0.1	22	0.1	19,779	100.0
Texas	49,539	53.9	20,830	22.7	10,067	10.9	6,084	6.6	3,993	4.3	1,423	1.5	11	0.0	91,947	100.0
Utah	2,864	68.0	721	17.1	295	7.0	165	3.9	136	3.2	3	0.1	29	0.7	4,213	100.0
Vermont	1,681	55.8	895	29.7	317	10.5	106	3.5	13	0.4	2	0.1	1	0.0	3,015	100.0
Virginia	17,888	56.0	9,333	29.2	3,397	10.6	686	2.1	457	1.4	117	0.4	65	0.2	31,943	100.0
Washington**	17,169	56.8	7,660	25.3	2,564	8.5	1,357	4.5	1,143	3.8	332	1.1	18	0.1	30,243	100.0
West Virginia	564	35.3	631	39.5	289	18.1	68	4.3	13	0.8	1	0.1	32	2.0	1,598	100.0
Wisconsin	7,356	47.8	4,362	28.3	1,915	12.4	1,074	7.0	589	3.8	90	0.6	3	0.0	15,389 [†]	100.0
Wyoming	176	47.7	157	42.5	33	8.9	1	0.3	1	0.3	0	0.0	1	0.3	369	100.0
Total	393,051	51.6	188,824	24.8	86,378	11.3	45,752	6.0	29,156	3.8	8,342	1.1	10,465	1.4	761,968	100.0

*All 37 states for which data were available, the District of Columbia, and New York City; excludes two states where unknown gestational age is >15%.

[†] Includes 16–19 weeks only.

[‡] Includes gestation of ≥20 weeks.

[¶] Includes residents only.

**Weeks of gestation are based on physician's estimate.

^{††} Based on known distribution for 1990 data.

TABLE 7. Reported legal abortions, by type of procedure and state in which the procedure was performed — selected states,* United States, 1991

State	Procedure																	
	Suction curettage		Sharp curettage		All curettage		Intrauterine saline instillation		Prostaglandin instillation		Hysterotomy/Hysterectomy		Other [†]		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Alabama	13,969 [§]	99.1	14	0.1	13,983	99.2	3	0.0	1	0.0	2	0.0	2	0.0	106	0.8	14,097	100.0
Arizona	15,121	97.6	2	0.0	15,123	97.6	0	0.0	0	0.0	0	0.0	0	0.0	368	2.4	15,491	100.0
Arkansas	5,925 [§]	95.4	229	3.7	6,154	99.1	3	0.0	8	0.1	0	0.0	24	0.4	22	0.4	6,211	100.0
Colorado	11,079 [§]	97.2	19	0.2	11,098	97.3	11	0.1	54	0.5	0	0.0	0	0.0	239	2.1	11,402	100.0
Dist. of Columbia	9,145	99.6	3	0.0	9,148	99.6	32	0.3	0	0.0	0	0.0	1	0.0	0	0.0	9,181 [¶]	100.0
Georgia	33,823 [§]	88.1	3,835	10.0	37,658	98.0	6	0.0	713	1.9	2	0.0	0	0.0	28	0.1	38,407	100.0
Hawaii	5,593	97.9	7	0.1	5,600	98.0	0	0.0	6	0.1	0	0.0	84	1.5	24	0.4	5,714	100.0
Idaho	1,640 [§]	99.6	7	0.4	1,647	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,647	100.0
Indiana	13,279 [§]	98.4	2	0.0	13,281	98.4	0	0.0	1	0.0	13	0.1	79	0.6	119	0.9	13,493	100.0
Kansas	7,201 [§]	98.4	1	0.0	7,202	98.4	0	0.0	0	0.0	0	0.0	4	0.1	112	1.5	7,318	100.0
Kentucky	9,027 [§]	94.1	477	5.0	9,504	99.1	1	0.0	8	0.1	0	0.0	7	0.1	70	0.7	9,590	100.0
Louisiana	10,633 [§]	87.2	3	0.0	10,636	87.3	0	0.0	2	0.0	0	0.0	0	0.0	1,552	12.7	12,190	100.0
Maine	3,699 [§]	96.7	48	1.3	3,747	97.9	1	0.0	1	0.0	1	0.0	15	0.4	62	1.6	3,827	100.0
Maryland	18,550	97.7	100	0.5	18,650	98.2	99	0.5	107	0.6	0	0.0	138	0.7	0	0.0	18,994	100.0
Massachusetts	35,534	95.9	342	0.9	35,876	96.8	13	0.0	769	2.1	0	0.0	413	1.1	0	0.0	37,071	100.0
Michigan	34,500 [§]	99.8	0	0.0	34,500	99.8	3	0.0	51	0.1	2	0.0	0	0.0	0	0.0	34,556	100.0
Minnesota	15,926 [§]	98.4	7	0.0	15,933	98.5	0	0.0	3	0.0	0	0.0	7	0.0	234	1.4	16,177	100.0
Mississippi	7,982 [§]	97.5	164	2.0	8,146	99.5	3	0.0	29	0.4	1	0.0	3	0.0	2	0.0	8,184	100.0
Missouri	15,363 [§]	99.3	8	0.1	15,371	99.3	0	0.0	26	0.2	1	0.0	21	0.1	54	0.3	15,473	100.0
Montana	3,224 [§]	99.9	1	0.0	3,225	100.0	0	0.0	1	0.0	0	0.0	0	0.0	0	0.0	3,226	100.0
Nebraska	6,147	99.2	2	0.0	6,149	99.3	0	0.0	0	0.0	0	0.0	37	0.6	9	0.1	6,195	100.0
Nevada	7,440	99.4	7	0.1	7,447	99.5	0	0.0	2	0.0	0	0.0	0	0.0	35	0.5	7,484	100.0
New Jersey**	31,393	83.6	5,720	15.2	37,113	98.9	338	0.9	42	0.1	23	0.1	25	0.1	0	0.0	37,541	100.0
New Mexico	5,323	92.7	7	0.1	5,330	92.8	405	7.0	0	0.0	0	0.0	0	0.0	10	0.2	5,745	100.0
New York	149,464	94.1	900	0.6	150,364	94.7	1,471	0.9	270	0.2	0	0.0	188	0.1	6,468	4.1	158,761	100.0
City	102,327 [§]	97.3	716	0.7	103,043	98.0	1,260	1.2	34	0.0	0	0.0	19	0.0	839	0.8	105,195	100.0
State	47,137 [§]	88.0	184	0.3	47,321	88.3	211	0.4	236	0.4	0	0.0	169	0.3	5,629	10.5	53,566	100.0
North Carolina	35,485	97.4	96	0.3	35,581	97.7	165	0.5	281	0.8	5	0.0	100	0.3	288	0.8	36,420	100.0
North Dakota	1,602	100.0	0	0.0	1,602	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	1,602	100.0
Oregon	14,134 [§]	98.8	5	0.0	14,139	98.8	1	0.0	21	0.1	4	0.0	3	0.0	142	1.0	14,310	100.0
Pennsylvania	50,680 [§]	99.4	14	0.0	50,694	99.4	23	0.0	27	0.1	1	0.0	243	0.5	0	0.0	50,988	100.0
Rhode Island	7,384 [§]	99.6	6	0.1	7,390	99.7	2	0.0	11	0.1	0	0.0	1	0.0	8	0.1	7,412	100.0

TABLE 7. Reported legal abortions, by type of procedure and state in which the procedure was performed — selected states,* United States, 1991 — Continued

State	Procedure																	
	Suction curettage		Sharp curettage		All curettage		Intrauterine saline instillation		Prostaglandin instillation		Hysterotomy/ Hysterectomy		Other†		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
South Carolina	12,471 [§]	99.5	0	0.0	12,471	99.5	12	0.1	37	0.3	0	0.0	14	0.1	4	0.0	12,538	100.0
South Dakota	984	100.0	0	0.0	984	100.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	984	100.0
Tennessee	19,727	99.7	3	0.0	19,730	99.8	3	0.0	43	0.2	0	0.0	0	0.0	3	0.0	19,779	100.0
Texas	89,897 ^{§††}	97.8	0	0.0	89,897	97.8	0	0.0	278 ^{§§}	0.3	7	0.0	1,431	1.6	334	0.4	91,947	100.0
Utah	3,885 [§]	92.2	311	7.4	4,196	99.6	1	0.0	3	0.1	0	0.0	3	0.1	10	0.2	4,213	100.0
Vermont	3,001 [§]	99.5	1	0.0	3,002	99.6	0	0.0	2	0.1	0	0.0	11	0.4	0	0.0	3,015	100.0
Virginia	31,486 [§]	98.6	31	0.1	31,517	98.7	22	0.1	62	0.2	12	0.0	53	0.2	277	0.9	31,943	100.0
Washington	30,041 [§]	99.3	6	0.0	30,047	99.4	8	0.0	90	0.3	33	0.1	5	0.0	60	0.2	30,243	100.0
West Virginia	1,594 [§]	99.7	0	0.0	1,594	99.7	0	0.0	2	0.1	0	0.0	2	0.1	0	0.0	1,598	100.0
Wyoming	367	99.5	0	0.0	367	99.5	0	0.0	1	0.3	0	0.0	0	0.0	1	0.3	369	100.0
Total	773,718	96.1	12,378	1.5	786,096	97.6	2,626	0.3	2,952	0.4	107	0.0	2,914	0.4	10,641	1.3	805,336	100.0

* All 39 states for which data were available, the District of Columbia, and New York City.

† Includes instillation procedures not reported as a specific category and procedures reported as "other."

§ Includes dilatation and evacuation procedures.

¶ Includes residents only.

** Based on known distribution for 1990 data.

†† Includes all vacuum aspirations.

§§ Includes all chemical inductions.

TABLE 8. Reported legal abortions, by race of women who obtained an abortion and state in which the procedure was performed — selected states,* United States, 1991

State	Race									
	White [†]		Black		Other		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
Alabama	7,760	55.0	5,799	41.1	171	1.2	367	2.6	14,097	100.0
Arizona	12,773	82.5	736	4.8	784	5.1	1,198	7.7	15,491	100.0
Arkansas	4,332	69.7	1,775	28.6	61	1.0	43	0.7	6,211	100.0
Dist. of Columbia	1,716	18.7	7,205	78.5	220	2.4	40	0.4	9,181 [§]	100.0
Georgia	19,150	49.9	17,563	45.7	1,694	4.4	0	0.0	38,407	100.0
Hawaii	1,793	31.4	200	3.5	3,080	53.9	641	11.2	5,714	100.0
Idaho	1,581	96.0	12	0.7	52	3.2	2	0.1	1,647	100.0
Indiana	10,299	76.3	2,831	21.0	190	1.4	173	1.3	13,493	100.0
Kansas	5,948	81.3	1,091	14.9	157	2.1	122	1.7	7,318	100.0
Kentucky	7,614	79.4	1,713	17.9	182	1.9	81	0.8	9,590	100.0
Louisiana	6,809	55.9	5,275 [¶]	43.3	—	—	106	0.9	12,190	100.0
Maine	3,639	95.1	38	1.0	150	3.9	0	0.0	3,827	100.0
Maryland	8,516	44.8	9,200	48.4	1,032	5.4	246	1.3	18,994	100.0
Minnesota	13,692	84.6	1,153	7.1	1,053	6.5	279	1.7	16,177	100.0
Mississippi	3,910	47.8	4,194	51.2	50	0.6	30	0.4	8,184	100.0
Missouri	9,752	63.0	5,306	34.3	361	2.3	54	0.3	15,473	100.0
Montana	2,660	82.5	19	0.6	195	6.0	352	10.9	3,226	100.0
Nevada	6,647	88.8	596	8.0	195	2.6	46	0.6	7,484	100.0
New Jersey**	20,743	55.3	15,159	40.4	1,449	3.9	190	0.5	37,541	100.0
New Mexico	4,940	86.0	140	2.4	665	11.6	0	0.0	5,745	100.0
New York	79,164	49.9	65,056	41.0	4,254	2.7	10,287	6.5	158,761	100.0
City	41,364	39.3	53,591	50.9	3,628	3.4	6,612	6.3	105,195	100.0
State	37,800	70.6	11,465	21.4	626	1.2	3,675	6.9	53,566	100.0
North Carolina	20,740	56.9	13,786	37.9	1,123	3.1	771	2.1	36,420	100.0
North Dakota	1,447	90.3	20	1.2	134	8.4	1	0.1	1,602	100.0
Oregon	12,666	88.5	689	4.8	662	4.6	293	2.0	14,310	100.0
Pennsylvania	32,865	64.5	16,467	32.3	1,548	3.0	108	0.2	50,988	100.0
Rhode Island	6,113	82.5	945	12.7	308	4.2	46	0.6	7,412	100.0
South Carolina	6,901	55.0	5,408	43.1	226	1.8	3	0.0	12,538	100.0
South Dakota	909	92.4	7	0.7	68	6.9	0	0.0	984	100.0
Tennessee	12,846	64.9	6,628	33.5	251	1.3	54	0.3	19,779	100.0
Texas	68,981	75.0	18,451	20.1	3,173	3.5	1,342	1.5	91,947	100.0
Utah	3,645	86.5	81	1.9	377	8.9	110	2.6	4,213	100.0
Vermont	2,939	97.5	25	0.8	47	1.6	4	0.1	3,015	100.0
Virginia	19,659	61.5	11,140	34.9	1,021	3.2	123	0.4	31,943	100.0
West Virginia	1,400	87.6	190	11.9	5	0.3	3	0.2	1,598	100.0
Wisconsin	11,606	75.4	3,117	20.3	490	3.2	176	1.1	15,389 [§]	100.0
Total	436,155	62.2	222,015	31.7	25,428	3.6	17,291	2.5	700,889	100.0
Abortion ratio ^{††}	246		502		300 ^{§§}				297	
Abortion rate ^{¶¶}	16		41		21				20	

*All 34 states for which data were available, the District of Columbia, and New York City; excludes four states reporting race unknown for >15% of women who obtained abortions.

[†]White race includes women of Hispanic ethnicity.

[§]Includes residents only.

[¶]Reported as black and other races.

**Based on known distribution for 1990 data.

^{††}Calculated as the number of legal abortions obtained by women of a given race per 1,000 live births to women of the same race for these states. For each state, data for women of unknown race were distributed according to the known distribution for that state. Excludes states reporting race unknown for >15% of women who obtained abortions.

^{§§}Ratio for other race excludes Louisiana because abortions for blacks and others were grouped together.

^{¶¶}Calculated as the number of legal abortions obtained by women of a given race per 1,000 women 15–44 years of age of the same race for these states.

—Not reported.

TABLE 9. Reported legal abortions, by Hispanic ethnicity of women who obtained an abortion and state in which the procedure was performed — selected states,* United States, 1991

State	Ethnicity						Total	
	Hispanic		Non-Hispanic		Unknown		No.	%
	No.	%	No.	%	No.	%		
Arizona	3,152	20.3	11,141	71.9	1,198	7.7	15,491	100.0
Arkansas	24	0.4	5,651	91.0	536	8.6	6,211	100.0
Dist. of Columbia	771	8.4	8,370	91.2	40	0.4	9,181 [†]	100.0
Georgia	438	1.1	37,969	98.9	0	0.0	38,407	100.0
Idaho	101	6.1	1,540	93.5	6	0.4	1,647	100.0
Kansas	213	2.9	7,051	96.4	54	0.7	7,318	100.0
Mississippi	18	0.2	7,981	97.5	185	2.3	8,184	100.0
Nevada	342	4.6	7,096	94.8	46	0.6	7,484	100.0
New Jersey [§]	5,247	14.0	32,104	85.5	190	0.5	37,541	100.0
New Mexico	2,199	38.3	3,546	61.7	0	0.0	5,745	100.0
New York	26,751	16.8	119,141	75.0	12,869	8.1	158,761	100.0
City	24,485	23.3	67,841	64.5	12,869	12.2	105,195	100.0
State	2,266	4.2	51,300	95.8	0	0.0	53,566	100.0
North Dakota	16	1.0	1,500	93.6	86	5.4	1,602	100.0
Oregon	446	3.1	13,410	93.7	454	3.2	14,310	100.0
Pennsylvania	1,431	2.8	48,962	96.0	595	1.2	50,988	100.0
Rhode Island	115	1.6	6,342	85.6	955	12.9	7,412	100.0
South Carolina	112	0.9	12,422	99.1	4	0.0	12,538	100.0
Tennessee	76	0.4	19,617	99.2	86	0.4	19,779	100.0
Texas	24,959	27.1	65,646	71.4	1,342	1.5	91,947	100.0
Utah	282	6.7	3,931	93.3	0	0.0	4,213	100.0
Vermont	20	0.7	2,984	99.0	11	0.4	3,015	100.0
Wisconsin	512	3.3	14,877	96.7	0	0.0	15,389 [†]	100.0
Total	67,225	13.0	431,281	83.4	18,657	3.6	517,163	100.0
Abortion ratio [¶]	300		332				327	
Abortion rate ^{**}	28		22				23	

*All 20 states for which data were available, the District of Columbia, and New York City; excludes eight states where unknown ethnicity was >15%.

[†]Includes residents only.

[§]Based on known distribution for 1990 data.

[¶]Calculated as the number of legal abortions obtained by women of Hispanic origin per 1,000 live births to women of Hispanic origin for these states.

**Calculated as the number of legal abortions obtained by women of Hispanic origin per 1,000 women 15–44 years of age to women of Hispanic origin for these states.

TABLE 10. Reported legal abortions, by marital status of women who obtained an abortion and state in which the procedure was performed — selected states,* United States, 1991

State	Marital status							
	Married [†]		Unmarried [§]		Unknown		Total	
	No.	%	No.	%	No.	%	No.	%
Alabama	2,519	17.9	11,326	80.3	252	1.8	14,097	100.0
Arkansas	1,332	21.4	4,711	75.8	168	2.7	6,211	100.0
Colorado	2,396	21.0	8,900	78.1	106	0.9	11,402	100.0
Dist. of Columbia	1,417	15.4	7,358	80.1	406	4.4	9,181 [¶]	100.0
Georgia	7,668	20.0	30,467	79.3	272	0.7	38,407	100.0
Hawaii	1,506	26.4	4,086	71.5	122	2.1	5,714	100.0
Idaho	399	24.2	1,248	75.8	0	0.0	1,647	100.0
Indiana	2,525	18.7	10,648	78.9	320	2.4	13,493	100.0
Kansas	1,283	17.5	6,033	82.4	2	0.0	7,318	100.0
Kentucky	1,723	18.0	7,664	79.9	203	2.1	9,590	100.0
Maine	824	21.5	2,801	73.2	202	5.3	3,827	100.0
Maryland	4,180	22.0	14,038	73.9	776	4.1	18,994	100.0
Massachusetts	7,497	20.2	26,209	70.7	3,365	9.1	37,071	100.0
Michigan	5,935	17.2	28,313	81.9	308	0.9	34,556	100.0
Minnesota	3,065	18.9	12,583	77.8	529	3.3	16,177	100.0
Mississippi	1,339	16.4	6,697	81.8	148	1.8	8,184	100.0
Missouri	3,429	22.2	11,840	76.5	204	1.3	15,473	100.0
Montana	605	18.8	2,323	72.0	298	9.2	3,226	100.0
Nevada	1,841	24.6	5,485	73.3	158	2.1	7,484	100.0
New Jersey**	7,880	21.0	29,533	78.7	128	0.3	37,541	100.0
New Mexico	1,095	19.1	4,567	79.5	83	1.4	5,745	100.0
New York City	21,540	20.5	77,863	74.0	5,792	5.5	105,195	100.0
North Carolina	8,468	23.3	27,062	74.3	890	2.4	36,420	100.0
North Dakota	332	20.7	1,270	79.3	0	0.0	1,602	100.0
Ohio	6,871	16.5	29,927	71.8	4,907	11.8	41,705	100.0
Oregon	3,392	23.7	10,569	73.9	349	2.4	14,310	100.0
Pennsylvania	9,351	18.3	41,555	81.5	82	0.2	50,988	100.0
Rhode Island	1,702	23.0	5,612	75.7	98	1.3	7,412	100.0
South Carolina	2,658	21.2	9,870	78.7	10	0.1	12,538	100.0
South Dakota	187	19.0	797	81.0	0	0.0	984	100.0
Tennessee	4,242	21.4	15,404	77.9	133	0.7	19,779	100.0
Texas	22,702	24.7	63,203	68.7	6,042	6.6	91,947	100.0
Utah	1,714	40.7	2,499	59.3	0	0.0	4,213	100.0
Vermont	657	21.8	2,215	73.5	143	4.7	3,015	100.0
Virginia	6,459	20.2	24,852	77.8	632	2.0	31,943	100.0
West Virginia	292	18.3	1,304	81.6	2	0.1	1,598	100.0
Wisconsin	2,715	17.6	12,492	81.2	182	1.2	15,389 [¶]	100.0
Wyoming	78	21.1	290	78.6	1	0.3	369	100.0
Total	153,818	20.7	563,614	75.7	27,313	3.7	744,745	100.0
Abortion ratio ^{††}	89		815				295	

*All 36 states for which data were available, the District of Columbia, and New York City; excludes three states where unknown marital status was >15%.

[†]Married includes married and separated.

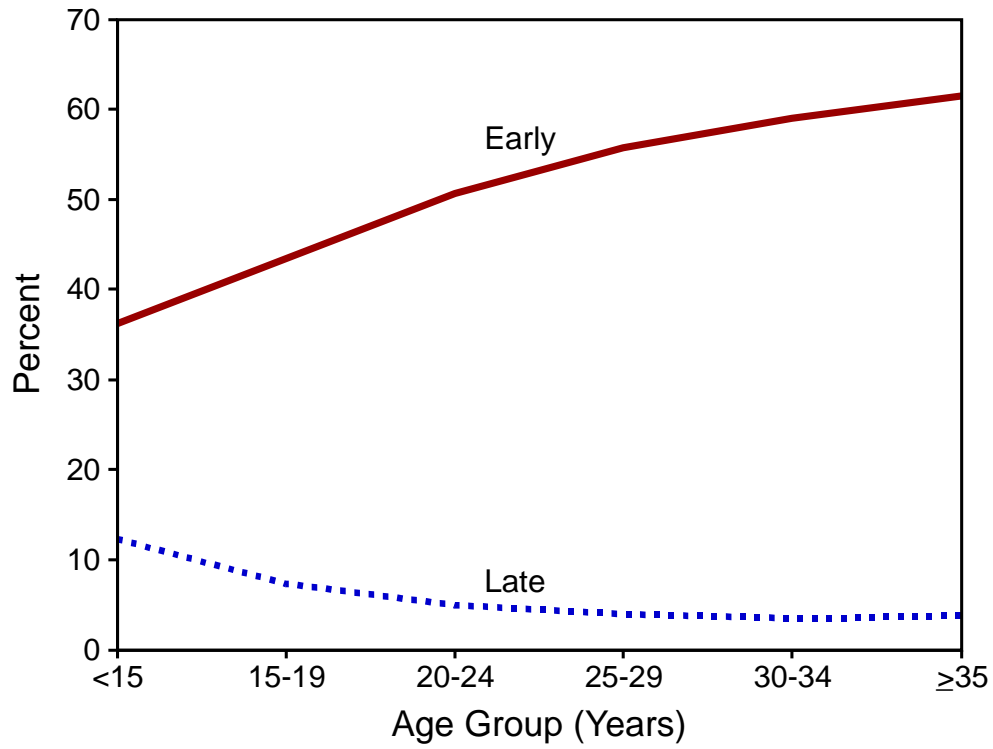
[§]Unmarried includes never married, divorced, and widowed women.

[¶]Includes residents only.

**Based on known distribution for 1990 data.

^{††}Calculated as the number of legal abortions obtained by women of a given marital status per 1,000 live births to women of the same marital status for these states. For each state, data regarding women of unknown marital status were distributed according to known marital status distribution for that state.

FIGURE 4. Percentage of women who obtained early* or late† abortions, by age group of women — United States, 1991



*≤8 weeks of gestation.
†≥16 weeks of gestation.

TABLE 11. Reported legal abortions, by number of previous live births and state in which the procedure was performed — selected states,* United States, 1991

State	No. of previous live births												Total	
	0		1		2		3		≥4		Unknown			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Alabama	6,743	47.8	3,479	24.7	2,329	16.5	771	5.5	321	2.3	454	3.2	14,097	100.0
Arizona	7,314	47.2	3,656	23.6	2,726	17.6	1,205	7.8	567	3.7	23	0.1	15,491	100.0
Arkansas	2,773	44.6	1,772	28.5	1,108	17.8	366	5.9	145	2.3	47	0.8	6,211	100.0
Colorado	6,471	56.8	2,325	20.4	1,717	15.1	609	5.3	232	2.0	48	0.4	11,402	100.0
Georgia	18,883	49.2	10,121	26.4	6,260	16.3	2,099	5.5	887	2.3	157	0.4	38,407	100.0
Hawaii	2,778	48.6	1,296	22.7	964	16.9	413	7.2	194	3.4	69	1.2	5,714	100.0
Idaho	808	49.1	351	21.3	303	18.4	108	6.6	76	4.6	1	0.1	1,647	100.0
Indiana	6,552	48.6	3,409	25.3	2,348	17.4	813	6.0	283	2.1	88	0.7	13,493	100.0
Kansas	4,031	55.1	1,647	22.5	1,106	15.1	375	5.1	150	2.0	9	0.1	7,318	100.0
Kentucky	5,030	52.5	2,333	24.3	1,372	14.3	477	5.0	182	1.9	196	2.0	9,590	100.0
Maine	2,038	53.3	758	19.8	542	14.2	178	4.7	84	2.2	227	5.9	3,827	100.0
Maryland	8,878	46.7	5,172	27.2	3,346	17.6	1,082	5.7	496	2.6	20	0.1	18,994	100.0
Massachusetts	16,546	44.6	8,057	21.7	5,601	15.1	2,200	5.9	904	2.4	3,763	10.2	37,071	100.0
Michigan	15,916	46.1	8,909	25.8	6,177	17.9	2,333	6.8	1,010	2.9	211	0.6	34,556	100.0
Minnesota	9,039	55.9	3,248	20.1	2,492	15.4	889	5.5	508	3.1	1	0.0	16,177	100.0
Mississippi	3,670	44.8	2,194	26.8	1,470	18.0	540	6.6	286	3.5	24	0.3	8,184	100.0
Missouri	6,899	44.6	4,078	26.4	2,862	18.5	1,115	7.2	337	2.2	182	1.2	15,473	100.0
Montana	1,805	56.0	617	19.1	500	15.5	205	6.4	80	2.5	19	0.6	3,226	100.0
Nebraska	3,365	54.3	1,200	19.4	1,047	16.9	393	6.3	189	3.1	0	0.0	6,194	100.0
Nevada	3,292	44.0	1,962	26.2	1,433	19.1	566	7.6	212	2.8	19	0.3	7,484	100.0
New Jersey [†]	16,474	43.9	9,939	26.5	7,315	19.5	2,592	6.9	1,221	3.3	0	0.0	37,541	100.0
New Mexico	2,719	47.3	1,484	25.8	968	16.8	408	7.1	154	2.7	12	0.2	5,745	100.0
New York	65,643	41.3	41,180	25.9	30,749	19.4	12,516	7.9	6,744	4.2	1,929	1.2	158,761	100.0
City	35,746	34.0	30,099	28.6	22,669	21.5	9,430	9.0	5,322	5.1	1,929	1.8	105,195	100.0
State	29,897	55.8	11,081	20.7	8,080	15.1	3,086	5.8	1,422	2.7	0	0.0	53,566	100.0
North Carolina	17,588	48.3	9,624	26.4	5,566	15.3	1,610	4.4	560	1.5	1,472	4.0	36,420	100.0
North Dakota	915	57.1	299	18.7	247	15.4	86	5.4	55	3.4	0	0.0	1,602	100.0
Ohio	22,524	54.0	9,532	22.9	6,415	15.4	2,246	5.4	979	2.3	9	0.0	41,705	100.0
Oregon	6,802	47.5	3,326	23.2	2,510	17.5	895	6.3	400	2.8	377	2.6	14,310	100.0
Pennsylvania	25,522	50.1	12,630	24.8	8,408	16.5	3,091	6.1	1,294	2.5	43	0.1	50,988	100.0
Rhode Island	3,961	53.4	1,666	22.5	1,180	15.9	399	5.4	200	2.7	6	0.1	7,412	100.0

MMWR

May 5, 1995

TABLE 11. Reported legal abortions, by number of previous live births and state in which the procedure was performed — selected states,* United States, 1991 — Continued

State	No. of previous live births												Total	
	0		1		2		3		≥4		Unknown			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
South Carolina	6,281	50.1	3,384	27.0	2,038	16.3	651	5.2	184	1.5	0	0.0	12,538	100.0
South Dakota	540	54.9	170	17.3	174	17.7	65	6.6	35	3.6	0	0.0	984	100.0
Tennessee	9,579	48.4	5,395	27.3	3,281	16.6	1,044	5.3	470	2.4	10	0.1	19,779	100.0
Texas	42,845	46.6	23,281	25.3	16,060	17.5	5,981	6.5	2,937	3.2	843	0.9	91,947	100.0
Utah	1,956	46.4	949	22.5	815	19.3	319	7.6	164	3.9	10	0.2	4,213	100.0
Vermont	1,818	60.3	552	18.3	440	14.6	137	4.5	65	2.2	3	0.1	3,015	100.0
Virginia	16,365	51.2	8,023	25.1	5,034	15.8	1,619	5.1	632	2.0	270	0.8	31,943	100.0
Washington	13,765	45.5	7,431	24.6	5,353	17.7	2,008	6.6	895	3.0	791	2.6	30,243	100.0
West Virginia	816	51.1	415	26.0	241	15.1	84	5.3	38	2.4	4	0.3	1,598	100.0
Wyoming	164	44.4	102	27.6	60	16.3	33	8.9	9	2.4	1	0.3	369	100.0
Total	389,108	47.1	205,966	24.9	142,557	17.3	52,521	6.4	24,179	2.9	11,338	1.4	825,669	100.0
Abortion ratio [§]	348		232		319		310		226				298	

*All 39 states for which data were available and New York City.

[†]Based on known distribution for 1990 data.

[§]Calculated as the number of legal abortions obtained by women with a given number of previous live births per 1,000 live births to women with the same number of previous live births for these states. For each state, women whose number of previous live births was unknown were distributed according to known number of previous live births for that state.

TABLE 12. Reported legal abortions, by number of previous induced legal abortions and state in which the procedure was performed — selected states,* United States, 1991

State	No. of previous induced abortions										Total	
	0		1		2		≥3		Unknown			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Alabama	8,570	60.8	3,044	21.6	861	6.1	348	2.5	1,274	9.0	14,097	100.0
Arizona	9,636	62.2	4,030	26.0	1,266	8.2	380	2.5	179	1.2	15,491	100.0
Arkansas	4,287	69.0	1,422	22.9	328	5.3	131	2.1	43	0.7	6,211	100.0
Colorado	7,115	62.4	2,921	25.6	874	7.7	413	3.6	79	0.7	11,402	100.0
Dist. of Columbia	3,154	34.4	3,028	33.0	1,503	16.4	856	9.3	640	7.0	9,181 [†]	100.0
Georgia	22,604	58.9	10,310	26.8	3,528	9.2	1,631	4.2	334	0.9	38,407	100.0
Hawaii	3,087	54.0	1,402	24.5	670	11.7	488	8.5	67	1.2	5,714	100.0
Idaho	1,193	72.4	320	19.4	89	5.4	40	2.4	5	0.3	1,647	100.0
Indiana	8,834	65.5	3,193	23.7	934	6.9	408	3.0	124	0.9	13,493	100.0
Kansas	4,734	64.7	1,775	24.3	553	7.6	212	2.9	44	0.6	7,318	100.0
Kentucky	6,130	63.9	2,184	22.8	594	6.2	216	2.3	466	4.9	9,590	100.0
Maine	2,441	63.8	831	21.7	287	7.5	122	3.2	146	3.8	3,827	100.0
Maryland	8,126	42.8	6,318	33.3	2,929	15.4	1,604	8.4	17	0.1	18,994	100.0
Massachusetts	17,715	47.8	9,659	26.1	4,213	11.4	2,548	6.9	2,936	7.9	37,071	100.0
Michigan	18,641	53.9	9,477	27.4	3,821	11.1	2,186	6.3	431	1.2	34,556	100.0
Minnesota	10,087	62.4	4,022	24.9	1,300	8.0	768	4.7	0	0.0	16,177	100.0
Mississippi	5,248	64.1	2,022	24.7	612	7.5	276	3.4	26	0.3	8,184	100.0
Missouri	9,294	60.1	4,218	27.3	1,301	8.4	621	4.0	39	0.3	15,473	100.0
Montana	2,275	70.5	670	20.8	193	6.0	52	1.6	36	1.1	3,226	100.0
Nebraska	4,184	67.5	1,308	21.1	419	6.8	241	3.9	42	0.7	6,194	100.0
Nevada	3,731	49.9	1,959	26.2	996	13.3	760	10.2	38	0.5	7,484	100.0
New Jersey [§]	17,879	47.6	11,217	29.9	5,118	13.6	3,327	8.9	0	0.0	37,541	100.0
New Mexico	3,686	64.2	1,350	23.5	435	7.6	253	4.4	21	0.4	5,745	100.0
New York	69,838	44.0	43,373	27.3	22,605	14.2	16,399	10.3	6,546	4.1	158,761	100.0
City	40,180	38.2	30,690	29.2	17,736	16.9	13,849	13.2	2,740	2.6	105,195	100.0
State	29,658	55.4	12,683	23.7	4,869	9.1	2,550	4.8	3,806	7.1	53,566	100.0
North Carolina	21,750	59.7	9,062	24.9	2,543	7.0	1,001	2.7	2,064	5.7	36,420	100.0
North Dakota	1,187	74.1	308	19.2	74	4.6	33	2.1	0	0.0	1,602	100.0
Oregon	7,722	54.0	3,980	27.8	1,516	10.6	868	6.1	224	1.6	14,310	100.0
Pennsylvania	30,445	59.7	13,600	26.7	4,583	9.0	2,305	4.5	55	0.1	50,988	100.0
Rhode Island	4,376	59.0	1,957	26.4	700	9.4	362	4.9	17	0.2	7,412	100.0

MMWR

May 5, 1995

TABLE 12. Reported legal abortions, by number of previous induced legal abortions and state in which the procedure was performed — selected states,* United States, 1991 — Continued

State	No. of previous induced abortions										Total	
	0		1		2		≥3		Unknown		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%		
South Carolina	8,184	65.3	3,104	24.8	916	7.3	334	2.7	0	0.0	12,538	100.0
South Dakota	839	85.3	124	12.6	18	1.8	3	0.3	0	0.0	984	100.0
Tennessee	12,848	65.0	4,827	24.4	1,419	7.2	677	3.4	8	0.0	19,779	100.0
Texas	54,840	59.6	24,446	26.6	7,314	8.0	3,494	3.8	1,853	2.0	91,947	100.0
Utah	2,721	64.6	972	23.1	335	8.0	177	4.2	8	0.2	4,213	100.0
Vermont	1,870	62.0	740	24.5	247	8.2	157	5.2	1	0.0	3,015	100.0
Virginia	18,298	57.3	8,503	26.6	2,807	8.8	1,228	3.8	1,107	3.5	31,943	100.0
Washington	15,055	49.8	8,500	28.1	3,585	11.9	2,304	7.6	799	2.6	30,243	100.0
West Virginia	1,114	69.7	352	22.0	89	5.6	41	2.6	2	0.1	1,598	100.0
Wyoming	258	69.9	74	20.1	27	7.3	9	2.4	1	0.3	369	100.0
Total	433,996	54.7	210,602	26.6	81,602	10.3	47,273	6.0	19,672	2.5	793,145	100.0

*All 39 states for which data were available, the District of Columbia, and New York City.

†Includes residents only.

‡Based on known distribution for 1990 data.

TABLE 13. Number and percentage of reported legal abortions, by race, age group, and marital status of women who obtained abortions — United States, 1991

Age group (yrs)/ Marital status*	Race				Total	
	White [†]		Black/Other			
	No.	%	No.	%	No.	%
Age group						
<15	2,457	0.6	2,993	1.3	5,450	0.8
15-19	90,335	20.9	46,294	19.4	136,629	20.4
20-24	148,090	34.3	81,867	34.3	229,957	34.3
25-29	93,316	21.6	56,255	23.6	149,571	22.3
30-34	58,041	13.4	32,305	13.5	90,346	13.5
35-39	31,026	7.2	15,113	6.3	46,139	6.9
≥40	8,964	2.1	3,895	1.6	12,859	1.9
Total[§]	432,229	100.0	238,722	100.0	670,951	100.0
Marital status						
Married	87,408	23.7	40,379	18.7	127,787	21.8
Unmarried	281,769	76.3	175,824	81.3	457,593	78.2
Total[¶]	369,177	100.0	216,203	100.0	585,380	100.0

*Excludes unknowns.

[†]Includes Hispanics.[§]Reported by 34 states and New York City.[¶]Reported by 31 states and New York City.**TABLE 14. Number and percentage of reported legal abortions, by Hispanic ethnicity, age group, and marital status of women who obtained abortions — United States, 1991**

Age group (yrs)/ Marital status*	Hispanic ethnicity				Total	
	Hispanic		Non-Hispanic			
	No.	%	No.	%	No.	%
Age group						
<15	413	0.6	3,153	0.8	3,566	0.8
15-19	12,082	18.5	80,901	19.9	92,983	19.7
20-24	22,653	34.6	137,758	33.9	160,411	34.0
25-29	15,838	24.2	91,283	22.5	107,121	22.7
30-34	8,952	13.7	55,907	13.8	64,859	13.8
35-39	4,304	6.6	28,817	7.1	33,121	7.0
≥40	1,207	1.8	8,033	2.0	9,240	2.0
Total[†]	65,449	100.0	405,852	100.0	471,301	100.0
Marital status						
Married	15,654	26.3	75,041	21.3	90,695	22.0
Unmarried	43,867	73.7	278,171	78.8	322,038	78.0
Total[§]	59,521	100.0	353,212	100.0	412,733	100.0

*Excludes unknowns.

[†]Reported by 19 states and New York City.[§]Reported by 18 states and New York City.

TABLE 15. Number and percentage of reported legal abortions, by weeks of gestation, age group, race, and Hispanic ethnicity of women who obtained abortions — United States, 1991

Age group (yrs)/ Race/Hispanic ethnicity*	Weeks of gestation												Total	
	≤8		9–10		11–12		13–15		16–20		≥21			
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Age group														
<15	2,140	36.3	1,521	25.8	879	14.9	635	10.8	522	8.8	206	3.5	5,903	100.0
15–19	65,303	43.4	40,112	26.7	21,301	14.2	12,640	8.4	8,426	5.6	2,622	1.7	150,404	100.0
20–24	128,093	50.7	65,541	25.9	30,537	12.1	16,150	6.4	9,839	3.9	2,650	1.0	252,810	100.0
25–29	91,729	55.8	40,481	24.6	17,198	10.5	8,427	5.1	5,117	3.1	1,456	0.9	164,408	100.0
30–34	59,021	59.0	23,645	23.6	9,312	9.3	4,381	4.4	2,822	2.8	804	0.8	99,985	100.0
35–39	31,369	61.3	11,581	22.6	4,274	8.3	2,027	4.0	1,539	3.0	408	0.8	51,198	100.0
≥40	8,931	62.6	3,085	21.6	1,174	8.2	548	3.8	427	3.0	109	0.8	14,274	100.0
Total†	386,586	52.3	185,966	25.2	84,675	11.5	44,808	6.1	28,692	3.9	8,255	1.1	738,982	100.0
Race														
White	229,858	55.2	101,916	24.5	43,880	10.5	22,467	5.4	14,049	3.4	4,302	1.0	416,472	100.0
Black/Other	110,980	47.2	60,870	25.9	30,969	13.2	17,279	7.3	11,753	5.0	3,285	1.4	235,136	100.0
Total§	340,838	52.3	162,786	25.0	74,849	11.5	39,746	6.1	25,802	4.0	7,587	1.2	651,608	100.0
Hispanic ethnicity														
Hispanic	33,539	53.6	14,666	23.4	6,708	10.7	4,184	6.7	2,741	4.4	775	1.2	62,613	100.0
Non-Hispanic	210,517	51.9	99,735	24.6	46,958	11.6	26,206	6.5	16,918	4.2	5,391	1.3	405,725	100.0
Total¶	244,056	52.1	114,401	24.4	53,666	11.5	30,390	6.5	19,659	4.2	6,166	1.3	468,338	100.0

*Excludes unknowns.

†Reported by 37 states and New York City.

§Reported by 33 states and New York City.

¶Reported by 19 states and New York City.

TABLE 16. Number and percentage of reported legal abortions, by weeks of gestation and type of procedure — United States, 1991

Type of procedure*	Weeks of gestation												Total	
	≤8		9–10		11–12		13–15		16–20		≥21		No.	%
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%		
Curettage (suction or sharp) [†]	376,126	99.9	179,989	99.9	81,666	99.5	42,497	98.5	23,998	86.6	6,293	79.5	710,569	99.0
Intrauterine saline instillation	40	0.0§	42	0.0§	47	0.1	207	0.5	1,497	5.4	593	7.5	2,426	0.3
Intrauterine prostaglandin instillation	46	0.0§	27	0.0§	47	0.1	138	0.3	1,142	4.1	543	6.9	1,943	0.3
Hysterotomy/Hysterectomy	55	0.0§	13	0.0§	8	0.0§	6	0.0§	20	0.1	4	0.1	106	0.0§
Other [¶]	207	0.1	79	0.0§	290	0.4	309	0.7	1,056	3.8	483	6.1	2,424	0.3
Total**	376,474	100.0	180,150	100.0	82,058	100.0	43,157	100.0	27,713	100.0	7,916	100.0	717,468	100.0

*Excludes unknowns.

[†]Includes dilatation and evacuation.[§]≤0.05%.[¶]Includes instillation procedures not reported as a specific category.

**Reported by 36 states and New York City.

References

1. Koonin LM, Smith JC, Ramick M. Abortion surveillance—United States, 1990. In: CDC surveillance summaries, December 1993. MMWR 1993;42(No. SS-6):29–57.
2. Koonin LM, Smith JC, Ramick M, Lawson HW. Abortion surveillance—United States, 1989. In: CDC surveillance summaries, September 1992. MMWR 1992;41(No. SS-5):1–33.
3. National Center for Health Statistics. Advance report of final natality statistics, 1991. Hyattsville, MD: US Department of Health and Human Services, Public Health Service, CDC, 1993; DHHS publication no. (PHS)93-1120. (Monthly vital statistics report; vol 42[suppl]).
4. Council on Scientific Affairs. Induced termination of pregnancy before and after Roe v. Wade. JAMA 1992;268:3231–9.
5. Henshaw SK. The accessibility of abortion services in the United States. Fam Plann Perspect 1991;23:246–52.
6. Henshaw SK, VanVort J. Abortion services in the United States, 1991 and 1992. Fam Plann Perspect 1994;26:100–12.
7. Henshaw SK. Induced abortions: a world review, 1990. Fam Plann Perspect 1990;22:76–89.
8. Lawson HW, Atrash HK, Saftlas AF, Koonin LM, Ramick M, Smith JC. Abortion surveillance: United States, 1984–1985. In: CDC surveillance summaries, September 1989. MMWR 1989;38(No. SS-2):11–45.
9. Benschhoff J. Beyond Roe, after Casey: the present and future of a “fundamental” right. Women’s Health Issues 1993;3:162–70.
10. Donovan P. Our daughters’ decisions. New York: The Alan Guttmacher Institute, 1992.
11. Henshaw SK, Silverman J. The characteristics and prior contraceptive use of U.S. abortion patients. Fam Plann Perspect 1988;20:158–68.
12. Fielding WL, Sachtleben MR, Friedman LM, Friedman EA. Comparison of women seeking early and late abortion. Am J Obstet Gynecol 1978;131:304–10.
13. Tietze C, Henshaw SK. Induced abortion: a world review. 6th ed. New York: The Alan Guttmacher Institute, 1986.
14. CDC. Abortion surveillance 1974. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, 1976:1–49.
15. Tietze C, Jain A. The mathematics of repeat abortion: explaining the increase. Stud Fam Plann 1978;9:294–9.
16. Tietze C, Bougaarts J. Repeat abortion in the United States: new insights. Stud Fam Plann 1982;13:373–9.
17. Cates W Jr, Schulz KF, Grimes DA, et al. Dilatation and evacuation procedures and second-trimester abortion: the role of physician skill and hospital setting. JAMA 1982;248:559–63.
18. Grimes DA. Second-trimester abortions in the United States. Fam Plann Perspect 1984;16:260–6.
19. Atrash HK, Lawson HW, Smith JC. Legal abortion in the US: trends and mortality. Contemp Ob Gyn 1990;35:58–69.
20. Spitz A, Ventura S, Koonin LM, et al. Surveillance for pregnancy and birth rates among teenagers, by state—United States, 1980 and 1990. In: CDC surveillance summaries, December 1993. MMWR 1993;42(No. SS-6):1–27.
21. Jones EF, Forrest JD. Contraceptive failure rates based on the 1988 NSFG. Fam Plann Perspect 1992;24:12–9.
22. Torres A, Forrest JD. Why do women have abortions? Fam Plann Perspect 1988;20:169–76.
23. National Center for Health Statistics, Williams L, Pratt WF. Wanted and unwanted childbearing in the United States 1973–88. Hyattsville, MD: US Department of Health and Human Services, Public Health Service, CDC, 1990;(189):1–7. (Advance data).
24. Westoff CF. Contraceptive paths towards the reduction of unintended pregnancy and abortion. Fam Plann Perspect 1988;20:4–13.

State and Territorial Epidemiologists and Laboratory Directors

State and Territorial Epidemiologists and Laboratory Directors are acknowledged for their contributions to *CDC Surveillance Summaries*. The epidemiologists listed below were in the positions shown as of March 1995, and the laboratory directors listed below were in the positions shown as of March 1995.

State/Territory	Epidemiologist	Laboratory Director
Alabama	Charles H. Woernle, MD, MPH	William J. Callan, PhD
Alaska	John P. Middaugh, MD	Katherine A. Kelley, DrPH
Arizona	Lawrence Sands, DO, MPH	Barbara J. Erickson, PhD
Arkansas	Thomas C. McChesney, DVM	Michael G. Foreman
California	Duc J. Vugia, MD, MPH	Michael G. Volz, PhD
Colorado	Richard E. Hoffman, MD, MPH	Ronald L. Cada, DrPH
Connecticut	James L. Hadler, MD, MPH	Sanders F. Hawkins, PhD
Delaware	A. LeRoy Hathcock, Jr, PhD	Mahadeo P. Verma, PhD
District of Columbia	Martin E. Levy, MD, MPH	James B. Thomas, ScD
Florida	Richard S. Hopkins, MD, MSPH	E. Charles Hartwig, ScD
Georgia	Kathleen E. Toomey, MD, MPH	Elizabeth A. Franko, DrPH
Hawaii	Richard L. Vogt, MD	Vernon K. Miyamoto, PhD
Idaho	Jesse F. Greenblatt, MD, MPH	Richard H. Hudson, PhD
Illinois	Byron J. Francis, MD, MPH	David F. Carpenter, PhD
Indiana	Edmundo M. Muniz, MD, PhD, MSc	Barbara Wilder (Acting)
Iowa	M. Patricia Quinlisk, MD, MPH	W. J. Hausler, Jr, PhD
Kansas	Andrew R. Pelletier, MD	Roger H. Carlson, PhD
Kentucky	Reginald Finger, MD, MPH	Thomas E. Maxson, DrPH
Louisiana	Louise McFarland, DrPH	Henry B. Bradford, Jr, PhD
Maine	Kathleen F. Gensheimer, MD, MPH	Philip W. Haines, DrPH
Maryland	Diane M. Dwyer, MD	J. Mehsen Joseph, PhD
Massachusetts	Alfred DeMaria, Jr, MD	Ralph J. Timperi, MPH
Michigan	Kenneth R. Wilcox, Jr, MD, DrPH	Robert Martin, DrPH
Minnesota	Michael T. Osterholm, PhD, MPH	Pauline Bouchard, JD, MPH
Mississippi	Mary Currier, MD, MPH	Joe O. Graves, PhD
Missouri	H. Denny Donnell, Jr, MD, MPH	Eric C. Blank, DrPH
Montana	Todd D. Damrow, PhD, MPH	Douglas O. Abbott, PhD
Nebraska	Thomas J. Safrank, MD	John D. Blosser
Nevada	Randall L. Todd, DrPH	Arthur F. DiSalvo, MD
New Hampshire	M. Geoffrey Smith, MD, MPH	Veronica C. Malmberg, MSN
New Jersey	Kenneth C. Spitalny, MD	Shahiedy I. Shahied, PhD
New Mexico	C. Mack Sewell, DrPH, MS	Loris W. Hughes, PhD
New York City	Benjamin A. Mojica, MD, MPH	Stanley Reimer
New York State	Dale L. Morse, MD, MS	Lawrence S. Sturman, MD, PhD
North Carolina	J. Newton MacCormack, MD, MPH	Samuel N. Merritt, DrPH
North Dakota	Larry A. Shireley, MS, MPH	James D. Anders, MPH
Ohio	Thomas J. Halpin, MD, MPH	Kathleen L. Meckstroth, DrPH
Oklahoma	Joe P. Mallonee, MPH (Acting)	Garry L. McKee, PhD
Oregon	David Fleming, MD	Michael R. Skeels, PhD, MPH
Pennsylvania	James T. Rankin, Jr, DVM, PhD, MPH	Bruce Kieger, DrPH
Rhode Island	Barbara A. DeBuono, MD, MPH	Walter Combs, PhD
South Carolina	James J. Gibson, MD, MPH	Harold Dowda, PhD
South Dakota	Susan E Lance, DVM, MPH	Richard S. Steece, PhD
Tennessee	Kerry Gateley, MD	Michael W. Kimberly, DrPH
Texas	Diane M. Simpson, MD, PhD	David L. Maserang, PhD
Utah	Craig R. Nichols, MPA	Charles D. Brokopp, DrPH
Vermont	Robert O'Grady (Acting)	Burton W. Wilke, Jr, PhD
Virginia	Grayson B. Miller, Jr, MD	James L. Pearson, DrPH
Washington	Paul Stehr-Green, DrPH	Jon M. Counts, DrPH
West Virginia	Loretta E. Haddy, MA, MS	Frank W. Lambert, Jr, DrPH
Wisconsin	Jeffrey P. Davis, MD	Ronald H. Laessig, PhD
Wyoming	Gayle L. Miller, DVM, MPH	Carl H. Blank, DrPH
American Samoa	Julia L. Lyons, MD, MPH	—
Federated States of Micronesia	Vacant	—
Guam	Robert L. Haddock, DVM, MPH	Jeff Benjamin (Acting)
Marshall Islands	Tony de Brum	—
Northern Mariana Islands	A. Mark Durand, MD, MPH	—
Palau	Jill McCready, MS, MPH	—
Puerto Rico	Carmen C. Deseda, MD	Adolpho Firpo-Betancourt, MD
Virgin Islands	Donna M. Green, MD	Norbert Mantor, PhD

MMWR

The *Morbidity and Mortality Weekly Report (MMWR)* Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to lists@list.cdc.gov. The body content should read *subscribe mmwr-toc*. Electronic copy also is available from CDC's World-Wide Web server at <http://www.cdc.gov/> or from CDC's file transfer protocol server at <ftp.cdc.gov>. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 783-3238.

Data in the weekly *MMWR* are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the *MMWR* Series, including material to be considered for publication, to: Editor, *MMWR* Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (404) 332-4555.

All material in the *MMWR* Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

☆U.S. Government Printing Office: 1995-633-175/05068 Region IV