

**CENTERS FOR DISEASE CONTROL
FACSIMILE TRANSMISSION**

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SUBJECT:

MESSAGE:



Fact Sheet: Fetal Alcohol Syndrome

April 25, 1997
Office of Communication
Media Relations Division
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- Consuming alcohol during pregnancy is the cause of Fetal Alcohol Syndrome (FAS), a leading preventable cause of birth defects and mental retardation.
- FAS is a serious, lifelong condition that is characterized by facial abnormalities, growth retardation, and central nervous system deficits including learning and developmental disorders. Not all children affected by prenatal alcohol use are born with the full syndrome, but may have selected abnormalities. Estimates of the prevalence of FAS vary from 0.2 to 1.0 per 1000 live births.
- A new study released by CDC finds that rates of frequent drinking (≥ 7 drinks per week or ≥ 5 drinks on any occasion in the past month) among pregnant women have increased substantially from 0.8% in 1991 to 3.5% in 1995. The rate of 3.5% in 1995 translates to at least 140,000 pregnant women drinking at these more harmful levels each year.
- Health advisories urging women—pregnant or planning a pregnancy—not to drink alcohol were first issued by the U.S. Surgeon General in 1981, and were reiterated by the Secretary of Health and Human Services in 1990 and 1995.
- Prenatal alcohol consumption is a leading, preventable cause of birth defects and mental retardation.

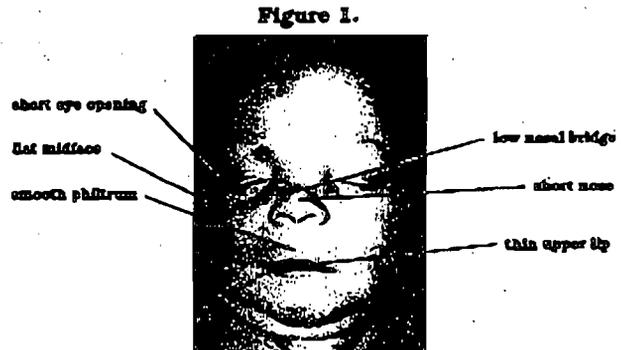
Health-care providers should advise pregnant women and those planning a pregnancy not to drink alcohol.
- "Alcohol and Other Birth Defects Awareness Week" is May 11-17, 1997.

National Center for Environmental Health

National Center for Environmental Health Alcohol Use During Pregnancy

Consuming alcohol during pregnancy is *the* cause of **Fetal Alcohol Syndrome (FAS)**, a leading preventable cause of birth defects and mental retardation.

FAS is a serious, lifelong condition that is characterized by the facial features shown in Figure 1., growth retardation, and central nervous system deficits including learning and developmental disorders. Not all children affected by prenatal alcohol use are born with the full syndrome, but may have selected abnormalities. Estimates of the *prevalence* of FAS vary from 0.2 to 1.0 per 1000 live births.

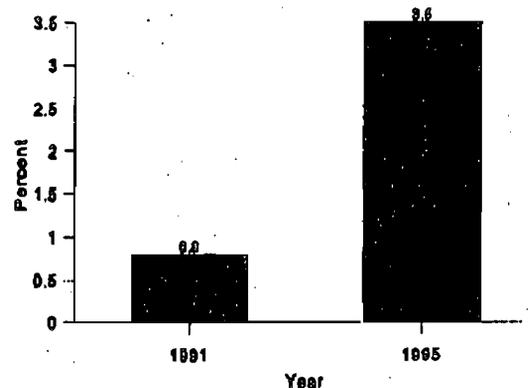


→ A new study released by CDC finds that rates of frequent drinking (≥ 7 drinks per week or ≥ 5 drinks on any occasion in the past month) among pregnant women have increased substantially from 1991 to 1995 (Figure 2). The rate of 3.5% in 1995 translates to at least 140,000 pregnant women drinking at these more harmful levels each year.

→ Health advisories urging women who are pregnant or planning a pregnancy not to drink alcohol were first issued by the U.S. Surgeon General in 1981, and were reiterated by the Secretary of Health and Human Services in 1990 and 1995.

→ Findings from the above study are a signal of the need for health care providers and others who work on behalf of healthy mothers and babies to reinforce the message of abstinence from alcohol use during pregnancy.

Figure 2.
Frequent Alcohol Use by Pregnant Women



**May 11-17 is Alcohol and Other Birth Defects Awareness Week. Take part in spreading the word,
"Alcohol and pregnancy do not mix!"**

Photo courtesy of Streissguth, A.P. & Little, R.E. (1994). Alcohol, Pregnancy, and FAS: 2nd Ed., Project Cork Institute Medical School Curriculum, Dartmouth Medical School.



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MMWR™

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Alcohol and Other Drug-Related Birth Defects Awareness Week — May 11-17, 1997

The National Council on Alcoholism and Drug Dependence (NCADD) has designated May 11-17, 1997, as Alcohol and Other Drug-Related Birth Defects Awareness Week. During this week, CDC, in collaboration with NCADD, will highlight the harmful effects of prenatal alcohol exposure on a fetus.

From 1991 to 1995, rates of alcohol use during pregnancy increased, especially for frequent drinking, underscoring the need for renewed attention to advising pregnant women to abstain from alcohol use. Associations between adverse pregnancy outcomes and moderate to heavy alcohol use during pregnancy continue to be reported. Health-care providers should educate women about the recommendations of the Surgeon General (1) and the Secretary of Health and Human Services (2) regarding the need for women who are pregnant or are planning a pregnancy to abstain from alcohol use.

State health departments can use state-based rates of reported frequent alcohol use by women of childbearing age to develop messages aimed at preventing alcohol use among pregnant women. In conjunction with a report in this issue of *MMWR* about alcohol use among childbearing-aged and pregnant women, the Council of State and Territorial Epidemiologists is providing state health departments and Behavioral Risk Factor Surveillance System coordinators with information focusing on fetal alcohol syndrome (FAS) and state-specific rates of self-reported alcohol use among women of childbearing age.

Additional information about Alcohol and Other Drug-Related Birth Defects Awareness Week is available from NCADD, telephone (212) 206-6770; World-Wide Web, <http://www.ncadd.org>; and from the National March of Dimes, telephone (888) 663-4637, <http://www.modimes.org>. Additional information about FAS and other alcohol-related birth defects and developmental disabilities is available from CDC, telephone (770) 488-7268, <http://www.cdc.gov/nceh/programs/programs.htm>; and from the National Institute on Alcohol Abuse and Alcoholism, telephone (301) 443-3860, <http://www.niaaa.nih.gov>.

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES / Public Health Service

Alcohol Consumption Among Pregnant and Childbearing-Aged Women — United States, 1991 and 1995

Moderate to heavy alcohol use by women during pregnancy has been associated with many severe adverse effects in their children, including fetal alcohol syndrome (FAS)—with facial dysmorphism, growth retardation, and central nervous system deficits—and other neurodevelopmental effects (1). Early-prenatal alcohol exposure can occur unintentionally (i.e., before a woman knows she is pregnant); in addition, women who drink at high levels before pregnancy are at increased risk for drinking during pregnancy (2). Ongoing surveillance for alcohol consumption among pregnant and childbearing-aged women is important for monitoring the impact of efforts to prevent this risk behavior. This report analyzes and compares data from the 1995 Behavioral Risk Factor Surveillance System (BRFSS) and previously reported 1991 BRFSS data for women aged 18–44 years (3), and presents the prevalence of alcohol consumption among pregnant women and overall and state-specific prevalence rates among women of childbearing age. The findings indicate a substantial increase in alcohol use among pregnant women from 1991 to 1995.

BRFSS is an ongoing, state-based, random-digit-dialed telephone survey of the U.S. civilian, noninstitutionalized population aged ≥ 18 years. In 1995, all 50 states* participated in the BRFSS.† A total of 33,585 women aged 18–44 years were interviewed about their amount and frequency of alcohol consumption during the month preceding the survey. Based on their responses, drinking patterns were categorized as “any drinking” (consumption of at least one drink of alcohol during the preceding month)[‡] and as “frequent drinking” (consumption of an average of seven or more drinks per week or five or more drinks on at least one occasion). Data were weighted to reflect the probability of selection and state-specific postcensus population estimates by age, sex, and race, and standard errors were calculated by using SUDAAN. The small numbers of pregnant women sampled in each state preclude accurate state-specific prevalence rates for alcohol consumption among pregnant women.

In 1995, 4.7% of women aged 18–44 years reported being pregnant at the time of the interview. Of these, 16.3% reported any drinking during the preceding month, compared with 12.4% in 1991 ($p = 0.07$) (Table 1). The rate of frequent drinking among pregnant women was approximately four times higher in 1995 than in 1991 (3.5% in 1995 and 0.8% in 1991, $p < 0.01$). This difference persisted after controlling for selected sociodemographic characteristics (i.e., age, household income, marital status, employment status, education level, smoking status, and race). Among all childbearing-aged women in 1995, 50.6% reported any drinking, and 12.6% reported frequent

*For consistency over time, national analyses were restricted to the 47 states that participated in the BRFSS in both 1991 and 1995. State-specific analyses for 1995 included all 50 states.

†In analyzing the BRFSS, CDC used two methods of calculating response rates. The “upper bound” response rate is the ratio of completed interviews to the sum of all completed, refused, and terminated interviews. The Council of American Survey Research Organizations (CASRO) rate is more conservative, and follows a method developed by CASRO. This method factors in unanswered attempts and thus provides a measure of both telephone sampling efficiency and willingness to participate. For 1995, the median participant “upper bound” response rate was 80%, and the median CASRO response rate was 68%.

‡In 1991, women were asked, “Have you had any beer, wine, wine coolers, cocktails, or liquor in the past month?” In 1995, women were asked, “During the past month, have you had at least one drink of any alcoholic beverages such as beer, wine, wine coolers, or liquor?” Other alcohol consumption questions did not change from 1991 to 1995.

TABLE 1. Prevalence of reported alcohol consumption among pregnant and childbearing-aged women (18-44 years) — United States, Behavioral Risk Factor Surveillance System, 1991 and 1995*

Reported consumption level	Pregnant women					All women				
	1991 (n=1,053)	(95% CI) [†]	1995 (n=1,313)	(95% CI)	p value	1991 (n=26,105)	(95% CI)	1995 (n=30,415)	(95% CI)	p value
Any drinking[‡]	12.4	(9.5-15.2)	16.3	(13.1-19.4)	0.07	49.4	(48.4-50.3)	50.6	(49.7-51.6)	0.02
<7 Drinks per week	12.2	(9.4-15.0)	14.6	(11.5-17.6)	0.27	43.9	(43.0-44.9)	45.7	(44.8-46.5)	0.01
7-14 Drinks per week	— [§]		0.9	(0.0- 1.8)	—	3.4	(3.1- 3.8)	3.0	(2.6- 3.3)	0.04
>14 Drinks per week	0.1	(0.0- 0.3)	0.3	(0.0- 0.7)	0.28	1.4	(1.2- 1.6)	1.1	(0.9- 1.3)	0.04
≥5 Drinks on occasion**	0.7	(0.2- 1.2)	2.9	(1.5- 4.3)	0.003	10.5	(10.0-11.1)	10.5	(9.9-11.1)	0.96
Frequent drinking^{††}	0.8	(0.3- 1.4)	3.5	(1.9- 5.1)	0.002	12.4	(11.8-13.1)	12.6	(12.0-13.3)	0.67

*Because weighted data are used in this analysis, results for 1991 may be slightly different from those reported previously. For consistency, national analyses were restricted to the 47 states that participated in the BRFSS in both 1991 and 1995.

[†]Confidence interval.

[‡]Levels of any drinking may not add to the total prevalence of any drinking because some women did not respond to questions about consumption frequency and amount. One additional state was eliminated from the breakdown of any drinking because questions regarding consumption frequency and amount were not asked in that state in 1995.

[§]Too few observations to calculate a reliable estimate.

**Five or more drinks on at least one occasion during the preceding month.

^{††}Consumption of an average of seven or more drinks per week or five or more drinks on at least one occasion during the preceding month.

Alcohol Consumption — Continued

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Editorial Note: Official advisories warning against the use of alcohol by both pregnant women and women considering pregnancy were first released in 1981 (4) and again in 1990 (5) and 1995 (6). Although no safe level of alcohol consumption among pregnant women has been established, frequent consumption is associated with a greater risk for FAS and other neurodevelopmental effects (7,8). Despite the established health risk, substantial numbers of women continue to drink during pregnancy, and some at frequent levels. The BRFSS findings indicate that from 1991 to 1995, the prevalences of both any and frequent alcohol consumption by pregnant women increased substantially, even though the prevalences of these behaviors remained stable among all women aged 18–44 years. Alcohol consumption patterns in childbearing-aged women varied by geographic location; reasons for this variation may include age and sociocultural differences.

The findings in this report are subject to at least four limitations. First, the percentage of women responding to BRFSS who reported they were pregnant was lower than other estimates (9) because BRFSS rates are point prevalence estimates, reflecting the status at the time of the interview rather than over an entire year. Second, BRFSS data were self-reported and may be subject to both recall and reporting biases. For example, because of the social stigmatization associated with heavy alcohol consumption, some women may underreport alcohol use. Third, because the question used to measure drinking status was modified from 1991 to 1995, the number of women with alcohol consumption categorized as any drinking possibly decreased in 1995 (women consuming less than one drink would have answered "yes" to the question in 1991 [any alcohol] but not in 1995 [at least one drink]). Finally, because the number of pregnant women in this sample who were drinkers was relatively small, the estimated prevalence rates are subject to both systematic biases and random variability. Despite these limitations, BRFSS is the largest ongoing population-based data source in the United States to include a representative sample of adult women and information on both alcohol consumption and pregnancy status.

CDC will continue to use BRFSS to track alcohol-use patterns in pregnant women to assess public health efforts to reduce this risk behavior. Additional analyses of BRFSS data will include examining data from multiple years to further characterize trends and geographic differences in the drinking patterns of pregnant women and to identify risk factors associated with frequent alcohol use. Health-care professionals who provide care to women of childbearing age should inform their patients about the advisory on alcohol consumption, which recommends abstinence for women who are pregnant or planning to become pregnant. Because approximately half of the pregnancies in the United States are unintended (10), information about the effects of alcohol on the fetus should be provided to all childbearing-aged women who report frequent drinking.

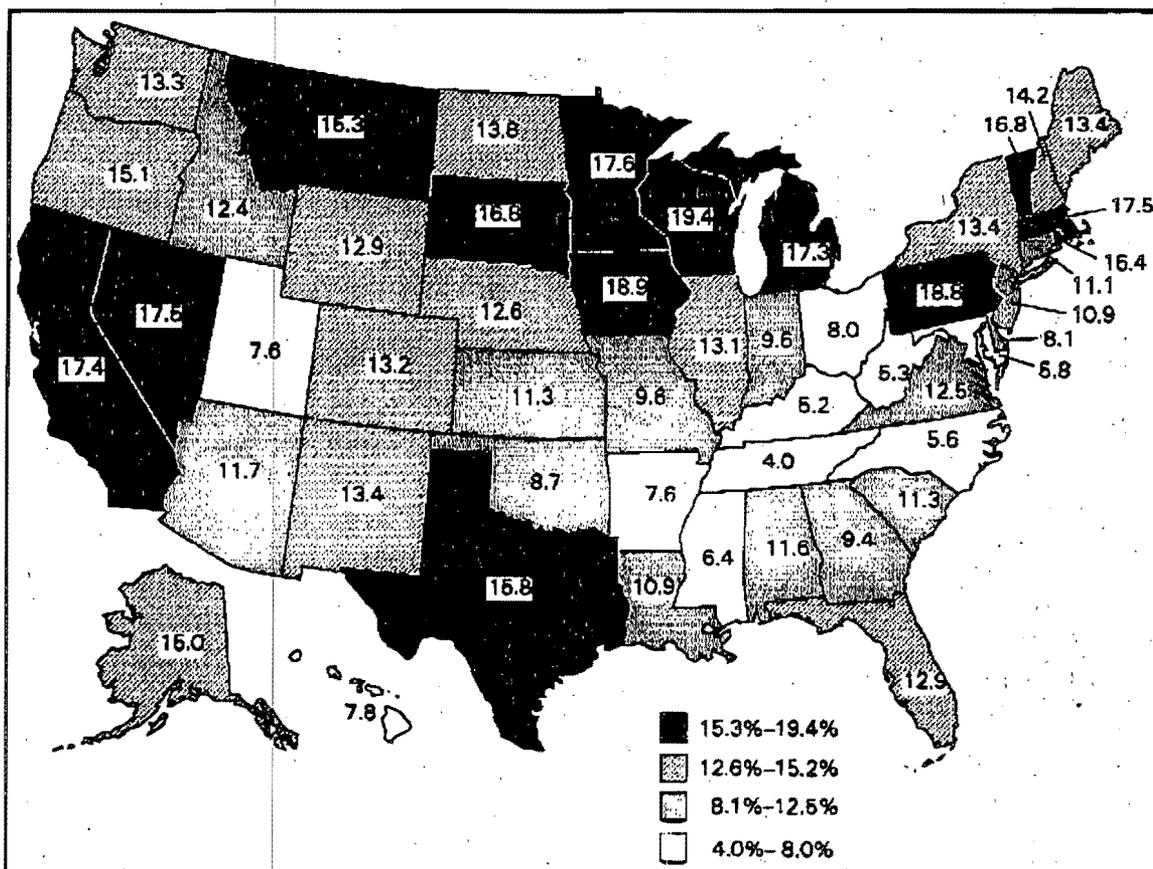
Alcohol Consumption — Continued

drinking—prevalences similar to those in 1991 (49.4% reported any drinking, and 12.4% reported frequent drinking).

The estimated state-specific prevalence of alcohol consumption among women aged 18–44 years varied substantially by state for both any drinking (from 26.1% in Utah to 68.2% in Wisconsin) and for frequent drinking (from 4.0% in Tennessee to 19.4% in Wisconsin) (Figure 1). For any drinking, rates were highest in Wisconsin, Massachusetts, Vermont, Rhode Island, and Connecticut. For frequent drinking, rates were highest in Wisconsin, Iowa, Pennsylvania, Minnesota, and Nevada. In general, in 1991 and 1995, prevalence rates of any and frequent drinking were highest in the northern regions.

Reported by the following BRFSS coordinators: J Durham, MPA, Alabama; P Owen, Alaska; B Bender, Arizona; J Senner, PhD, Arkansas; B Davis, PhD, California; M Leff, MSPH, Colorado; M Adams, MPH, Connecticut; F Breukelman, Delaware; C Mitchell, District of Columbia; D McTague, MS, Florida; E Pledger, MPA, Georgia; J Cooper, MA, Hawaii; C Johnson, MPH, Idaho; B Steiner, MS, Illinois; N Costello, MPA, Indiana; P Busick, Iowa; M Perry, Kansas; K Asher, Kentucky; R Meriwether, MD, Louisiana; D Maines, Maine; A Weinstein, MA, Maryland; D Brooks, MPH, Massachusetts; H McGee, MPH, Michigan; N Salem, PhD, Minnesota; P Arbutnot, Mississippi; T Murayi, PhD, Missouri; P Smith, Montana; S Huffman, Nebraska; E DeJan, MPH, Nevada; K Zaso, MPH, New Hampshire; G Boeselager, MS, New Jersey; W Honey, MPH, New Mexico; T Melnik, DrPH, New York; K Passaro, PhD, North Carolina; J Kaske, MPH, North

FIGURE 1. Prevalence of reported frequent alcohol consumption* among childbearing-aged women (18–44 years) — United States, Behavioral Risk Factor Surveillance System, 1995



*Consumption of an average of seven or more drinks per week or five or more drinks on at least one occasion during the preceding month.

*Alcohol Consumption — Continued**References*

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Rubella and Congenital Rubella Syndrome — United States, 1994-1997

Indigenous rubella and congenital rubella syndrome (CRS) have been targeted for elimination in the United States by the year 2000 (1). Progress toward reaching this goal is monitored through the National Notifiable Diseases Surveillance System and the National Congenital Rubella Syndrome Registry. From 1969 through 1989, the numbers of annual reported cases decreased 99.6% for rubella and 97.4% for CRS (Figure 1). Following a slight resurgence during 1990-1991, the number of reported rubella cases reached record lows during 1992-1996 (annual average: 183 reported cases). This report summarizes the characteristics of rubella and CRS cases and outbreaks reported in the United States from 1994 through 1996* and provisional data as of April 18, 1997. The findings indicate sustained low incidence of rubella and CRS since 1992 and possible interruption of transmission of rubella virus in late 1996.

Rubella

During 1994-1996, a total of 32 states, the District of Columbia, and New York City reported 567 rubella cases; 22 sites reported one to five cases, seven reported six to 19 cases, and five reported ≥ 20 cases; these five sites accounted for 75% of all rubella cases (Figure 2). Symptom onset for reported confirmed cases peaked during February 1994, June 1995, and April 1996, reflecting large outbreaks in Massachusetts, Connecticut, and North Carolina (range: 36-128 cases). Based on provisional data as of

*Reports for 1996 are provisional.

Prevention of Fetal Alcohol Syndrome: Program Development and Evaluation

Developmental Disabilities Branch, Fetal Alcohol Syndrome Prevention Section, DBDDD, NCEH

Goal To design, implement, and evaluate prevention strategies for specific high-risk groups to prevent the occurrence of FAS and other alcohol-related birth defects.

Collaborators 16 state health departments; 3 CDC funded university projects; Indian Health Service; NIAAA funded research projects; Birth Defects and Genetics Diseases Branch, DBDDD, NCEH; Disabilities Prevention Program, NCEH.

Background Although the prevention of FAS, in theory, is simple - prevent alcohol use in pregnant women or promote contraception among alcoholic women - there are many complicated issues in designing and implementing interventions in different population subgroups. Most prevention and intervention activities have focused on mass public education, screening for alcohol use in prenatal clinics, professional training for health care providers, and identifying high risk women and providing them with a variety of intervention services. These widespread strategies, though laudable, are resource intensive and may not make an impact on the population which is at highest risk for giving birth to children with FAS. The FAS Prevention Section is working with collaborators to develop data-driven and innovative approaches to FAS prevention. Accurate and complete case ascertainment is a critical aspect of this work because it will improve our understanding of mothers who give birth to children with FAS, enable us to better identify high risk women and to better define the spectrum of outcomes and needs of children exposed to alcohol in-utero.

Major Accomplishments

- Funded the University of Cincinnati and State of Oklahoma to implement interventions in different settings for women who drink during pregnancy
- Developed screening instruments and manuals for enhancing casefinding
- Developed inventory of public and professional training materials on FAS
- Collaborated in the development of a national FAS prevention program directory
- Funded the development of a teachers manual for educating students with FAS
- Coordinated national FAS prevention conferences in 1991 and 1993

Future Plans/Issues

- Develop data base on FAS prevention activities
- Develop intervention models based on the results of descriptive epidemiology of characteristics of mothers with children with FAS, using Native American data
- Assist states and universities in identifying their target populations for intervention by helping them identify screening instruments and providing epidemiological data
- Continue to fund and provide scientific consultation to state and university programs to develop methods for locating, interviewing, and tracking high risk mothers to evaluate their utilization of health care and substance use treatment services
- Collaborate with states to develop interagency FAS coalitions/task forces
- Assist with development of FAS prevention research and dissemination of results
- Foster the development of better case definitions and data on exposure and outcome

Surveillance of Fetal Alcohol Syndrome (FAS)

Developmental Disabilities Branch, Fetal Alcohol Syndrome Prevention Section, DBDDD, NCEH

Goals

1) To investigate methodologies for improving FAS case detection and for using existing data collection systems for estimating the incidence of FAS and performing descriptive epidemiology; 2) To improve surveillance by promoting uniform case definition and data acquisition among researchers and health care professionals as a precondition for establishing more representative national data sets.

Collaborators

Indian Health Service; CDC funded state and university FAS Projects; NIAAA funded FAS research projects; FAS Study Group of the Research Society on Alcoholism; DPP, NCEH; Birth Defects and Genetics Diseases Branch, DBDDD, NCEH;

Background

Established surveillance systems provide data to help: 1) evaluate the extent of a particular disease in human populations; 2) set priorities for public health agencies; 3) develop policies and implement programs designed to reduce the burden of that disease; 4) monitor and evaluate prevention strategies. However, surveillance for FAS is in its infancy. There is currently no state or national surveillance system that is appropriately tailored to the unique problems presented by FAS. FAS is a difficult and subjective diagnosis; many professionals do not feel adequately prepared to make the diagnosis. Moreover, there is controversy about how a related condition, Fetal Alcohol Effects, fits into FAS surveillance. CDC conducts FAS surveillance through BDMP and MACDR, which ascertain cases in the first year of life. However, it appears difficult to diagnose FAS accurately in the newborn period. In short, there is no currently available comprehensive model of FAS surveillance. The FAS Prevention Section is taking steps to help establish FAS surveillance models by assisting states to develop innovative surveillance strategies at the state level and by facilitating discussion, research and consensus building among experts at the national level.

Major Accomplishments

- Prepared a descriptive analysis of the characteristics of Native American children diagnosed with FAS; presented at the annual meeting of the Research Society on Alcoholism
- Cross-linked data from multiple programs serving children with FAS in Alaska and estimated prevalence and published results for Alaska in an MMWR article (4/30/93)
- Funded a statewide community based program to find FAS cases in NM
- Developed and implemented a three-tiered method for screening all first graders for FAS in two counties in Washington State
- Published an MMWR article (5/7/93) on FAS surveillance using data from BDMP
- Enlisted the cooperation of FAS Study Group of the Research Society on Alcoholism and NIAAA in collaborative efforts to refine the FAS case definition

Future Plans

- Organizing a collaborative meeting between CDC/RSA/NIAAA for January 18 or 19.
- Developing recommendations for uniform data collection in FAS surveillance and research
- Designing an alcohol exposure study using the 1988 NMIHS and the 1991 Follow-Up Study
- Preparing articles which address a variety of issues in FAS surveillance, KABB in selected populations, identifying and assisting high risk drinkers, and clinical features of FAS.

**Centers for Disease Control and Prevention
FAS Cooperative Agreements
4/18/96**

Colorado

Colorado is building upon the currently existing Colorado Registry for Children with Special Needs to provide improved FAS surveillance among children from birth to age seven. Another major program effort involves increasing ascertainment of problem drinking and providing counseling services to women of childbearing age, in both educational settings (high schools) and public health programs (prenatal, WIC, family planning). Other activities include FAS educational campaigns directed at both service providers and the public, following and interviewing mothers of children diagnosed with FAS, and working with high risk teen in the Department of Children and Youth Services.

Georgia

A major program goal in Georgia is to increase collaboration and networking among institutions, agencies and community-based programs which address alcohol use and abuse by women of childbearing age. This activity will help identify available resources as well as involve many institutions in the design of an approach to FAS prevention. Other priority activities are conducting a training program for health care professionals, developing a statewide resource guide for professionals, and exploring the use of existing data collection systems to conduct surveillance of FAS. Responsibility for the program is shared between the Women's Health Unit and the Office of Perinatal Epidemiology of the Division of Public Health.

Oklahoma

Oklahoma is implementing a comprehensive FAS Prevention Program. It includes: 1) identifying pregnant women who are problem drinkers and referring them for care; 2) coordinating the efforts of various agencies to ensure for their care; 3) targeting women of childbearing age with problem drinking for treatment and reproductive health services; and 4) improving FAS surveillance. The interagency efforts incorporate a variety of strategies: incorporating pregnancy testing and prenatal referral into alcohol treatment center protocols; implementing a preconceptional project in a university setting; investigating a passive surveillance system for monitoring FAS in newborns; and developing a resource directory for prenatal care providers of services to women with alcohol abuse problems.

Missouri

Missouri has established an interagency FAS coalition which coordinates FAS activities in the state. Over time, this project has evolved into one that is educational in nature, and focuses on training WIC providers to increase their ability to ascertain women who are heavy alcohol users, (or if pregnant using alcohol at all), and institute proper follow-up.

Washington

Washington is developing FAS prevention projects in King County and among two Native American tribes. In addition, it is involved in a descriptive study of the mothers of children diagnosed with FAS at the University of Washington School of Medicine's FAS Clinic. In King County, an assessment of resources needed for the treatment of children with FAS is being conducted. Using information from both projects, a model program for early identification, referral, tracking and prevention will be developed and piloted. The state project also plans to conduct a needs assessment of activities in the rest of the state and to encourage the development of local FAS Prevention Task Forces. Prevention approaches which work in the pilot projects will be disseminated to the rest of the state.

University of Cincinnati

The University of Cincinnati has been funded to design and test an antenatal intervention program aimed at identifying women who are using alcohol prenatally and providing a broad array of informational and support services. Elements of the intervention include educational sessions, in-depth case management, parenting classes, support during labor and the immediate postpartum period, and gift incentives for participation. The ultimate goal of the study is to bring about abstinence during the pregnancy. The study design is a randomized controlled trial testing the intervention against usual care. Participants will be drawn from a variety of clinical facilities in the greater Cincinnati area. Another major objective of the study is to train health care providers in the participating clinics to better ascertain alcohol use among clients and understand the impact of prenatal alcohol use on fetal development and infant outcomes.

University of New Mexico

The University of New Mexico proposes to make the state of New Mexico a model state in applied research, awareness, surveillance and prevention of Fetal Alcohol Syndrome through close coordination of the research project activities with other on-going programs, including the Disabilities Prevention Program. Research activities focus on three areas: 1) evaluation of techniques for population-based epidemiology and ascertainment of affected individuals; 2) definition of key indicators in high-risk women, stratified by ethnic group; and

3) determination of the efficacy of population-wide prevention efforts.

University of Washington

The University of Washington, Department of Pediatrics conducts an FAS Clinic which serves as a statewide resource for the diagnosis of children suspected of having alcohol-related birth defects. Using this clinic as the point of contact, this project will locate and interview the mothers of children diagnosed with FAS in order to identify factors that have enhanced or hindered sobriety and contraceptive use. The project will provide the mothers with referrals to alcohol treatment and family planning services. Ultimately the project will be able to assess, from the mothers' point of view, the availability of alcohol treatment and health care/family planning resources as well as barriers to access. Information from this investigation will be used to design a primary prevention program for FAS.

CDC/IHS Memorandum of Agreement (MOA) Projects

South Dakota

The current CDC/IHS Agreement specifies research projects in South Dakota only.

SAQ Validation Study

A validation study of a self-administered questionnaire (SAQ) aimed at ascertaining substance abuse among prenatal clients was funded by IHS and IRB approval granted to the PI, Loretta Badheart Bull during the time of the last MOA. CDC was asked to assist in designing the validation study. Epidemiologic assistance only was provided. CDC did pay for contractors to assist in data collection, data entry, and creation of the data base.

Under the current agreement, CDC is to continue to provide contract support for data gathering, data entry, and some analyses. A CDC epidemiologist is to provide oversight in assuring data quality, methodologic soundness, and completion of analyses necessary to the study.

Case-control Study of Children with FAS

A case-control study of children determined to have FAS through ICD-9 Codes and verification of case definition by medical records is being conducted in the Aberdeen IHS Area. IRB approval from IHS is attached. CDC's role in this is similar that for the SAQ Validation Study.

Alaska

The current CDC/IHS MOA includes no projects in Alaska. The Division has plans to fund a cooperative agreement for continued surveillance and prevention activities. One remaining activity from last year is the review of charts of children identified in a case series compiled by Dr. Grace Egeland.

C O V E R**FAX****S H E E T**

To: Sara Herwitz, Intern
Domestic Policy Council
The White House

Fax 202-456-5557

Subject: Back to Sleep campaign

Date: August 21, 1997

Pages: 19, including this cover sheet

Here is some material on the Back to Sleep campaign. I hope it is helpful. There are active Back to Sleep or SIDS risk reduction campaigns in approximately 20 states.

I will be out of the office on Friday. If you have any questions please call my co-worker Daisy Whittemore at 301-435-3459.

From the desk of...

Ruth Dubois
Coordinator, Back to Sleep Campaign
National Institute of Child Health and Human
Development
31 Center Drive, Room 2A32
Bethesda, MD 20892-2425

301-435-3457
Fax: 301-496-7101

HHS NEWS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

EMBARGOED FOR RELEASE AT 11:00 a.m.
Thursday, March 20, 1997

Contact: NICHHD Press Office
(301) 496-5133 or
(301) 435-3457

CLINTON ADMINISTRATION ANNOUNCES EXPANDED BACK TO SLEEP CAMPAIGN TIPPER GORE TO LEAD NEW EFFORT

The Clinton Administration announced today that Tipper Gore will lead an expanded public education effort designed to help prevent Sudden Infant Death Syndrome (SIDS). The national Back to Sleep campaign, which has already reached many parents and health professionals with the message that placing babies on their backs to sleep can reduce the risk of SIDS, will now be expanded to target grandparents, babysitters, and day care workers as well.

HHS Secretary Donna E. Shalala also announced that the Gerber Products Company will help to spread the word that babies should be placed on their backs to sleep by placing the Back to Sleep message on its cereal boxes, in mailings to new parents, and on its toll-free information number.

Largely as a result of a 1992 American Academy of Pediatrics (AAP) recommendation and the increase in awareness produced by the Back to Sleep campaign, SIDS deaths in the United States declined by about 30 percent between 1992 and 1995. However, many caregivers still place babies on their stomachs to sleep. In announcing her new role, Mrs. Gore emphasized the need to reach Americans who may not have heard about this new recommendation in order to ensure that the message reaching parents and other caregivers on infant sleep position is clear and consistent.

"Placing babies on their backs to sleep is one of the most important steps that caregivers can take to reduce the risk of Sudden Infant Death Syndrome, but too many people still don't know this important, simple message," said Mrs. Gore. "Together, we need to continue to spread the word that placing infants on their backs to sleep can save infant lives."

"Gerber's help will allow the Back to Sleep campaign to reach more families who haven't yet heard that babies should be placed on their backs to sleep," said Secretary Shalala. "We must be vigilant in continuing to spread this important message, and Gerber's involvement will allow us to do just that."

Mrs. Gore also called on public and private groups to redouble their efforts to reach populations with the highest incidence of SIDS. Mrs. Gore noted that African-American babies are 2.4 times more likely than Caucasian babies to die of SIDS, and Native American babies are 2.8 times more susceptible.

- 2 -

Beginning in June 1997, the *Back to Sleep* message will appear on the backs of 3 million Gerber cereal boxes. The Gerber Products Company will also include the message in mailings to 2.7 million mothers of newborns. In addition, a message recorded by Mrs. Gore will play on the Gerber toll-free information number, urging parents to place their babies on their backs to sleep and to talk to their doctors for more information on infant sleep position. The message, which will play on the Gerber toll-free information number 7 days a week, 24 hours a day, is expected to be heard by about 650,000 callers.

"All told, Gerber's efforts will send the *Back to Sleep* message into the homes of about 80 percent of all parents with infants in the United States," said Dr. Daniel Vasella, President and Head of the Executive Committee for the Novartis Corporation, Gerber Products Company's parent corporation. "We are pleased to be able to help spread this critical message."

SIDS is the sudden and unexplained death of an infant under one year of age. SIDS, sometimes known as crib death, strikes nearly 4,000 babies in the United States every year. The causes of SIDS are still unclear, and it is currently impossible to predict which infants might fall victim to SIDS. Recent studies have identified almost undetectable defects in SIDS infants in a region of the brain that may control sensing of carbon dioxide, breathing, and arousal during sleep.

"Gradually, scientists are identifying the underlying problems that can signal a risk of SIDS," said Secretary Shalala. "But until SIDS is better understood and can be treated, research shows that the simple strategy of placing babies on their backs to sleep can help to reduce the risk of SIDS."

In 1992, after reviewing the available evidence, the American Academy of Pediatrics (AAP) recommended that, to reduce the chance of dying from SIDS, healthy babies should be placed on their backs or sides to sleep. In 1996, the AAP revised its recommendation clarifying that placing babies to sleep on their backs has the lowest risk and is preferred.

The National Institute of Child Health and Human Development (NICHD), part of the National Institutes of Health, launched the *Back to Sleep* campaign in 1994 to amplify the message that back sleeping can reduce the risk of SIDS and save lives. Major partners in the campaign, besides the NICHD, include HHS's Health Resources and Services Administration and the Centers for Disease Control and Prevention, the AAP, the SIDS Alliance, and the Association of SIDS and Infant Mortality Programs.

The recent decline in SIDS deaths reflects a 12 percent drop in the rate between 1993 and 1994, and an 18.5 percent drop between 1994 and 1995, the largest annual declines and the largest

- More -

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consecutive declines ever observed in the U.S. Further, SIDS dropped in 1994 from the 2nd to the 3rd leading cause of infant mortality, behind congenital anomalies and low birth weight/prematurity.

"The *Back to Sleep* campaign has made a real inroads into reducing infant deaths from SIDS and in reducing the infant mortality rate overall, but we must continue to spread the message," said Dr. Duane Alexander, Director of the NICHD.

Since its inception, the *Back to Sleep* campaign has worked to heighten awareness among parents and health care providers by producing and distributing brochures, posters, print public service announcements, and informational videos urging that babies be placed on their backs to sleep. The campaign has also spurred the development of state SIDS campaigns, developed a *Back to Sleep* internet web site (<http://www.nih.gov/nichd>), and established a toll-free phone number -- 1-800-505-CRIB -- that people can call to order *Back to Sleep* campaign materials.

Besides spreading the word that placing infants to sleep on their backs can save lives, the *Back to Sleep* campaign emphasizes several other steps that parents can take to help reduce the risk of SIDS. These include: making sure expectant mothers receive early and regular prenatal care; that they not smoke, drink alcohol, or use drugs (unless prescribed by a doctor) during pregnancy; making sure babies sleep on firm surfaces free of fluffy bedding and soft toys or pillows; keeping babies' surroundings smoke-free; ensuring that babies don't get too warm when sleeping; contacting a baby's doctor or clinic right away when a baby seems sick; ensuring that babies receive their shots on schedule; and breastfeeding.

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***NOTE: Radio public service announcements and actualities from Mrs. Gore on SIDS and the *Back to Sleep* campaign will be available on the HHS Radio News Hotline from March 20 through April 4, 1997. Radio feeds can be reached by calling (202) 690-8317 or (800) 621-2984.

Note: HHS press releases are available on the World Wide Web at: <http://www.dhhs.gov>.



March 1997

NICHD**The Back to Sleep Campaign**

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The "Back to Sleep" campaign is aptly named as its main recommendation is to place healthy infants on their backs. Following this recommendation has been shown to reduce the risk of Sudden Infant Death Syndrome (SIDS). Although it is difficult to change a national pattern of tummy sleeping, this campaign has been successful in reaching many parents of new babies and back sleeping is being increasingly adopted. The success of this recommendation is borne out in the recent reduction in infant mortality rates. This trend has continued with a 6 percent drop in infant mortality this year. This reduction is largely due to the 30% reduction in SIDS deaths rate between 1992 and 1995 (U.S. Vital Statistics). The saving of approximately 1,600 infants a year is largely attributed to the Back to Sleep campaign.

Sudden Infant Death Syndrome

Prior to the campaign there were nearly 5,000 unexplained SIDS deaths a year in the United States. A SIDS death is heartbreaking as an apparently healthy baby dies suddenly and without warning. Studies in other countries showed that placing babies on their backs helped to reduce such deaths. Recent NICHD-supported research has identified almost undetectable defects in SIDS infants in a region of the brain that controls sensing of carbon dioxide, breathing, and arousal during sleep. Gradually, scientists are identifying the underlying problems that signal a risk of SIDS. But until this physiology is well understood and can be treated, this simple strategy of back sleeping saves many lives.

Surveys show that Back to Sleep is successful, but that much more needs to be done. The goal is to have all healthy babies sleeping on their backs. All caretakers need to be reached, including fathers, grandparents and babysitters. Minority groups need to hear the message in culturally sensitive ways. The message needs to be repeated and reinforced in newborn nurseries. This effective message is a low-tech, low-cost way to save lives and prevent tragedies.

History of the Back to Sleep Campaign

The Back to Sleep campaign is a public/private initiative. NICHD leads the campaign, along with the Maternal and Child Health Bureau, and other Federal agencies such as the Centers for Disease Control and the Census Bureau. The American Academy of Pediatrics (AAP) is the major private partner, along with the SIDS Alliance, a group of parents, and the Association of SIDS and Infant Mortality Programs. After weighing the evidence for the safety, the AAP made its recommendation in 1992. In 1994, NICHD began the campaign with an effort to reach every newborn nursery in the country. A toll-free telephone number was established for ordering Back to Sleep pamphlets, posters, and videos. Over 8 million pamphlets have been distributed.



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"BACK TO SLEEP" CHRONOLOGY

- 1988: Medical societies in the Netherlands adopt non-prone sleeping to protect against "cot death."
- 1991: Publication of population-based, case-control studies conducted in Tasmania, New Zealand, and Avon, England demonstrating a large association between being placed to sleep prone and SIDS.
- Despite the U.S. having a much higher prevalence of prone sleeping than these countries, the U.S. SIDS rate is much lower and contributes less to infant mortality rates.
- 1991: Public education campaigns begin in Australia, New Zealand, and the United Kingdoms advocating that infants be placed on their sides or back to reduce the risk for SIDS.
- Dec. 1991: The American Academy of Pediatrics (AAP) Task Force on Infant Sleep Position and SIDS is formed and begins to evaluate the studies on the role of prone sleep position as a risk factor.
- Feb. 1992: NICHD staff meet with scientists and health professionals from Australia, Britain, the Netherlands, and New Zealand for advice on research and public education issues.
- Mar. 1992: Meeting at NICHD of AAP Task Force and national and international experts to plan a research agenda to provide the basis for, and evaluation of a campaign. Experts divided on whether a recommendation should be made at this time.
- Apr. 1992: The AAP Task Force announces the recommendation that "healthy newborns be placed to sleep on their side or back to reduce the risk of SIDS."
- Apr./May 1992: U.S. national household survey of infant sleep position and related sleep practices initiated under NICHD sponsorship. These surveys are repeated annually.
- June 1992: The AAP Task Force position statement is published in "Pediatrics." This was followed by the publication of editorials expressing concerns regarding the recommendation.

- June/July 1992: Surveys of the membership of AAP, AAFP, and NACHC initiated under NICHD sponsorship to track practice of health professionals. Surveys of newborn nursery nurses added in 1993. These surveys have been repeated in 1994 and 1995.
- Apr. 1993: NICHD funds the prospective Tasmanian SIDS cohort study to obtain health outcome data on the safety of side sleeping position for newborns, a concern of U.S. practitioners. This study also provides the data to show a direct link between the success of the Australian campaign to increase side sleep position, and a 50% decline in the SIDS rate.
- Oct. 1993: NICHD funds analyses of the Avon Longitudinal Study of Pregnancy and Childhood, a prospective study of 14,000 that spans pre- and post-campaign periods in Avon, England, to obtain health outcome data on the safety of side or back sleeping for newborns.
- Jan. 1994: CPSC issues a safety alert warning parents not to place soft bedding under the baby and re-enforcing the AAP recommendation.
- Jan. 1994: NICHD with co-sponsorship from NIDCD and NCHS convenes international meeting of medical and scientific experts to review research data and outcomes from public health campaigns. The overwhelming opinion was that the evidence justified an increased effort to reach a larger audience with the AAP recommendation.
- Mar. 1994: The ad-hoc DHHS Interagency Panel on SIDS recommended to the Assistant Secretary of Health that DHHS adopt and promote the AAP recommendation.
- Mar. 1994: A "Back to Sleep" coalition was formed between the U.S. PHS, the AAP, the Association of SIDS Program Professionals, and the SIDS Alliance for the planning, development, and implementation of the "Back to Sleep" national public education campaign.
- May 1994: Publication in "Pediatrics" of the proceedings of the Jan. meeting and of the joint commentary from the AAP and selected federal agencies endorsing the AAP recommendation and the CPSC alert.
- May 1994: A meeting of maternal and child health organizations is convened by the U.S. PHS to enlist their active participation in the "Back to Sleep" coalition.

- June 1994: The Surgeon General issues a policy statement that "healthy infants be placed in their back or side to sleep to reduce the risk of SIDS."
- June 1994: The national public health education campaign is launched.
- Oct. 1996: AAP makes change in its recommendation regarding sleep position, to the back position being the best or preferred position and the side position as an alternative.
- Mar. 1997: Gerber Baby Products joins NICHD as a partner and includes Back to Sleep message on rice cereal boxes and 1-800 information line.
- Tipper Gore becomes spokesperson for the "Back to Sleep" campaign.



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IMPACT OF "BACK TO SLEEP"

Timeline:

- June 1992: Publication of AAP sleep position recommendation
- May 1994: Publication of Joint Commentary endorsing recommendation
- June 1994: "Back to Sleep" Campaign launched
- Oct. 1996: AAP makes change in recommendation for sleep position.

VITAL STATISTICS:

Between 1992 and 1995, the SIDS rate declined 30%, from 1.2/1000 live births to 0.84. Most of this decline took place between 1993 and 1995; a decline of 12% between 1993 and 1994, and 18.5% between 1994 and 1995.

These are the largest annual declines observed since reliable data collection began in 1985, and the only large declines observed in two consecutive years. For the first time, SIDS ranks as the third leading cause of infant mortality instead of second.

The declines in the number of SIDS deaths accounts for one-third of the declines in infant deaths in 1994 and 1995.

95% of SIDS are post-neonatal (after one month of age). About 60% of the decline in post-neonatal deaths in 1994, and 85% in 1995 are accounted for by the decline in the number of SIDS deaths.

Between 1993 and 1994, both the white and black SIDS rates declined 12%. However between 1994 and 1995, the white rate declined 30% and the black rate declined only 14%. Although the black/white ratio for infant mortality has remained constant at 2.4, it has increased for SIDS since 1991 from 2.1 to 2.4 in 1995.

The evidence regarding the contribution of changes in sleep position to declines in SIDS rates is circumstantial but quite powerful. Prone prevalence declined from 70 to 29% during the time period that the rates declined 30%. The declines parallel those seen in other countries in the early phases of their campaigns but fall short of the 50-70% reductions in SIDS mortality when they achieved greater than 90% side or back sleeping.

The other major risk factors for SIDS are smoking during pregnancy, late or no prenatal care, low birthweight, preterm birth, teen pregnancy, and use of soft bedding. Based on Annual Natality reports from NCHS, and the Household Survey (see below), most of these characteristics changed minimally or not at all over this time period. The

rate of smoking among pregnant women declined about 15% which could not account for the declines in SIDS.

Cautionary Notes: The 1995 vital statistics are preliminary; Although a concomitant decline in post-neonatal mortality confirms the decline in SIDS deaths, the magnitude of the decline should be viewed with some caution until a closer look at deaths to related causes determines the contribution of diagnostic shift.

EVALUATION:

Annual National Household Surveys: Telephone interviews of nighttime caretakers (> 80% mothers) of infants less than 8 months of age were initiated by NICHD prior to the publication of the AAP recommendation and repeated annually.

The prevalence of infants placed to sleep prone declined at a steady rate between 1992 and 1995 from 70% to 29%. The rate of decline slowed in 1996 with 24% placed prone.

Annual Surveys of Pediatric Health Practitioners: AAP, AAFP, NACHC, hospital nurseries were initiated by NICHD in 1992, and repeated annually through 1995.

Prior to the AAP recommendation in 1992, between 80 and 90% of AAP, AAFP and NACHC membership surveyed recommended prone, about 40% side and less than 10% back.

In 1995, 10% of the AAP membership, and about 20% of the AAFP and NACHC membership surveyed recommended prone; 70-85 % of the membership recommended side and 66-81% recommended back.

In 1994, 28% of head nurses in the newborn nurseries recommended prone, 99% side, and 32% back. In 1995, 4% recommended prone, 99% side, and 62% back.

In 1992, less than half of the surveyed membership of AAP, AAFP, and NACHC usually made a recommendation about sleep position. In 1995 about 70% usually made a recommendation about sleep position.

In 1995, 50-60% of practitioners had heard about "Back to Sleep." About half of these replied that it resulted in a change in practice.

OTHER STUDIES IN PROGRESS

- Longitudinal study infant care practices (co-sponsored NICHD, NIDCD): prospective study of sleep position, other SIDS risk factors from birth through one year in Boston, MA and Toledo, OH. Analyses to date confirm data obtained from the national cross-sectional surveys described above.

- Avon Longitudinal Study of Pregnancy and Childhood (co-sponsored NICHD, NIDCD). This population-based study of 14,000 pregnancies in Avon, England, spanned the pre-and post-campaign periods in Britain. Analyses of health outcomes in this data set show that there is no increased probability of visits to the doctor or adverse respiratory events in infants placed on their side or back compared to stomach. There is an increased probability of cough and fever in the prone position.

Hospitalizations and deaths are still being monitored.

Another study of a prospective cohort in Tasmania confirms no increased risk of doctors visits or respiratory events in side sleeping infants.

- Chicago Infant Mortality Study (co-sponsored NICHD, CDC, NIDCD). This case-control study of sudden infant deaths in Chicago is in the final analysis phase.
- Aberdeen Area IHS Infant Mortality Study (co-sponsored NICHD, IHS, CDC, Aberdeen Area Tribal Chairmen). This case-control study of sudden infant deaths among Native Americans in the Aberdeen Area of the IHS is in final phases of enrollment.
- Case-control study of SIDS in California (co-sponsored NICHD, NIDCD). This study is in the process of OMB clearance and will examine a variety of risk factors and exposure to the sleep position recommendation in a large diversity of populations during this critical campaign period.
- Collaborative Home Infant Monitoring Evaluation (CHIME) Study (NICHD). This study investigates life-threatening events and the maturation of cardiorespiratory control in high risk infants on home apnea monitors. The state of the art event recording monitor developed by CHIME in collaboration with industry, records infant sleep position and critical physiologic variables. It will provide data on the role of sleep position in cardiorespiratory function in infancy.



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BACK TO SLEEP CAMPAIGN ACTIVITIES

The campaign goal is to have all U.S. babies sleeping on their backs.

Back to Sleep Outreach Activities

GOAL: To reach all parents (mothers and fathers) and caretakers of infants (including grandparents) with a special effort to reach minority populations.

- 1-800 toll-free line for ordering publications (over 30,000 calls have been logged with over 8 million parent brochures in English and Spanish distributed)
- Back to Sleep campaigns are in progress in the following 20 states: Georgia, New Jersey, California, Massachusetts, New Hampshire, North Carolina, Louisiana, Oklahoma, Utah, New Mexico, Oregon, South Carolina, Alabama, Indiana, Michigan, Iowa, Minnesota, Montana, Washington, and Alaska.
- Back to Sleep home page on the World Wide Web
- Public Service Announcements and Print Ads
- Mailing of Back to Sleep publications to 4,000 newborn nurseries in the U.S.
- Mailing of Professional and Parent brochure to members of the American Academy of Pediatrics and the American College of Obstetricians and Gynecologists
- Mailing to Nursing Organizations
- Radio and TV public service campaigns
- Back to Sleep table top exhibit

MINORITY OUTREACH

- Poster with white baby and baby that is part American Indian and part Columbian
- Spanish parent training video
- Poster with African American babies
- Print ads based on new African American baby poster
- Table top exhibit with African American babies

PUBLIC AND PRIVATE AGENCIES

The Back to Sleep campaign is co-sponsored by:

- National Institute of Child Health and Human Development, NIH
- Maternal and Child Health Bureau, HRSA
- American Academy of Pediatrics
- SIDS Alliance
- Association of SIDS and Infant Mortality Programs

- National Heart, Lung, and Blood Institute, NIH

Other Agencies Supporting the Campaign:

- Centers for Disease Control and Prevention
- Consumer Product Safety Commission
- National Institute of Nursing Research, NIH
- National Institute of Deafness and Communications Disorders, NIH
- WIC Regional Offices
- Healthy Mothers Healthy Babies Coalition
- The Office of Minority Health Resource Center, DHHS
- SIDS International
- National Center for Health Statistics

NEW INITIATIVES

- Mailing Back to Sleep material to the 4,000 newborn nurseries (including military hospitals) contacted at the beginning of the campaign in 1994.
- New collaboration with Healthy Mothers Healthy Babies Coalition to reach minorities and special populations.
- Emphasis on fathers and grandparents as caregivers.
- National alert for high-risk cold winter months.
- Emphasis on other risk factors such as smoking and soft bedding.

WORLD WIDE WEB

- Visit the Back to Sleep Campaign on the National Institute of Child Health and Human Development Home Page -- <http://www.nih.gov/nichd/>

HHS NEWS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

FOR IMMEDIATE RELEASE
April 16, 1997

Contact: NICHD Press Office
(301) 496-6133

AFRICAN AMERICAN BABIES AT HIGHER RISK FOR SUDDEN INFANT DEATH SYNDROME (SIDS), BUT SIMPLE STEPS CAN SAVE LIVES, HEALTH EXPERTS SAY

African American babies are nearly two and a-half times more likely than Caucasian babies to die from Sudden Infant Death Syndrome (SIDS), but there are some simple steps all parents and other caregivers can take to reduce the risk of SIDS.

SIDS is the sudden and unexplained death of an infant under one year of age. It strikes nearly 4,000 babies in the United States every year. The causes of SIDS are still unclear, and it is currently impossible to predict which infants might fall victim to SIDS.

The American Academy of Pediatrics says the most important way to reduce the incidence of SIDS, sometimes known as "crib death," is to place babies on their backs to sleep. While health experts are uncertain about the link between the stomach sleeping position and SIDS, there is some evidence that air can become trapped underneath a sleeping infant, causing the child to rebreathe exhaled air. The Academy has stated that sleeping on the back is preferred; however, the side position is considered an acceptable alternative.

Other steps that parents and caregivers can take to reduce the risk of SIDS include:

- Babies should sleep on firm surfaces free of fluffy bedding and soft toys or pillows.
- Expectant mothers receive early and regular prenatal care. Mothers should not smoke, drink alcohol, or use drugs (unless prescribed by a doctor) during pregnancy.

More -

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- Create a smoke-free environment around your baby.
- Keep the temperature in the baby's room so that it feels comfortable to adults. Babies should not get too warm when sleeping.
- Caregivers should ensure that babies receive immunizations on schedule; and if the baby seems sick, contact the baby's doctor or clinic right away.
- If possible, consider breast feeding your baby.

"We are very proud of the Back To Sleep campaign," said Dr. Yvonne Maddox, Deputy Director of the National Institute of Child Health and Human Development (NICHD), a part of the National Institutes of Health. "This campaign has important messages for all babies, especially for those at higher risk. Everyone who takes care of infants needs to know how to reduce the risk of SIDS for African American babies."

Dr. Maddox added that public and private groups must enhance their efforts to reach these populations. "It is essential that the simple message of putting your baby on his or her back to sleep reaches everyone."

The "Back To Sleep" campaign, with the U.S. Department of Health and Human Services and the Clinton Administration, is expanding to reach not only parents and health professionals but grandparents, baby sitters, and day care workers as well.

A convenient new source of SIDS information for parents and others is the Gerber Products Company, which plans to print helpful tips on the backs of three million Gerber rice cereal boxes beginning in June 1997. The Gerber Products Company will also include the message in mailings to 2.7 million parents of newborns. In addition, a recorded message about SIDS is currently playing on the Gerber toll-free information number (1-800-4-Gerber), urging parents to place their babies on their backs to sleep and to talk to their doctors for more information on infant sleep position. The message is playing on the Gerber toll free information number 7 days a week, 24 hours a day.

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The NICHD and its partners in the campaign launched
"Back to Sleep" in 1994.

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***NOTE: HHS press releases are available on the World Wide
Web at: <http://www.dhhs.gov>. A "Back To Sleep" internet web
site is located at <http://www.nih.gov/nichd>. and campaign
materials can be obtained by calling a toll free phone
number -- 1-800-505-CRIB.

HHS NEWS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

FOR IMMEDIATE RELEASE
April 16, 1997

Contact: NICHD Press Office
(301) 496-5133

AMERICAN INDIAN BABIES AT GREATEST RISK FOR SUDDEN INFANT DEATH SYNDROME (SIDS), BUT SIMPLE STEPS CAN SAVE LIVES, HEALTH EXPERTS SAY

American Indian babies are at greatest risk to die from Sudden Infant Death Syndrome (SIDS) -- almost three times more likely than Caucasian babies -- but there are some simple steps all parents and other caregivers can take to reduce the risk of SIDS.

SIDS is the sudden and unexplained death of an infant under one year of age. It strikes nearly 4,000 babies in the United States every year. The causes of SIDS are still unclear, and it is currently impossible to predict which infants might fall victim to SIDS.

The American Academy of Pediatrics says: the most important way to reduce the incidence of SIDS, sometimes known as "crib death," is to place babies on their backs to sleep. While health experts are uncertain about the link between the stomach sleeping position and SIDS, there is some evidence that air can become trapped underneath a sleeping infant, causing the child to rebreathe exhaled air. The Academy has stated that sleeping on the back is preferred; however, the side position is considered an acceptable alternative.

Other steps that parents and caregivers can take to reduce the risk of SIDS include:

- Babies should sleep on firm surfaces free of fluffy bedding and soft toys or pillows.
- Expectant mothers receive early and regular prenatal care. Mothers should not smoke, drink alcohol, or use drugs (unless prescribed by a doctor) during pregnancy.

- More -

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- Create a smoke-free environment around your baby.
- Keep the temperature in the baby's room so that it feels comfortable to adults. Babies should not get too warm when sleeping.
- Caregivers should ensure that babies receive immunizations on schedule; and if the baby seems sick, contact the baby's doctor or clinic right away.
- If possible, consider breast feeding your baby.

"We want to make sure this advice is heard throughout the American Indian community," said Dr. Kermit Smith, Acting Chief Medical Officer of the Indian Health Service. "Everyone who takes care of infants needs to know how to reduce the risk for American Indian babies."

Dr. Smith added that public and private groups must redouble their efforts to reach populations with the highest incidence of SIDS - such as the American Indian community.

Dr. Smith's comments are part of the "Back To Sleep" campaign that the U.S. Department of Health and Human Services and the Clinton Administration are now expanding beyond parents to include grandparents, baby-sitters, and day care workers.

A convenient new source of SIDS information for parents and others is the Gerber Products Company, which plans to print helpful tips on the backs of three million Gerber rice cereal boxes beginning in June 1997. The Gerber Products Company will also include the message in mailings to 2.7 million parents of newborns. In addition, a recorded message about SIDS is currently playing on the Gerber toll-free information number (1-800-4-Gerber), urging parents to place their babies on their backs to sleep and to talk to their doctors for more information on infant sleep position. The message is playing on the Gerber toll-free information number 7 days a week, 24 hours a day.

The NICHD and its partners in the campaign launched "Back to Sleep" in 1994.

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***NOTE: HHS press releases are available on the World Wide Web at: <http://www.dhhs.gov>. A "Back To Sleep" internet web site is located at <http://www.nih.gov/nichd>, and campaign materials can be obtained by calling a toll-free phone number -- 1-800-505-CRIB.

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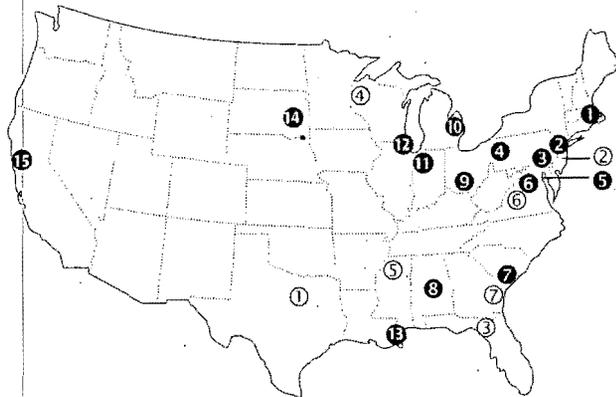
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The 22 Healthy Start Communities



Original Projects:

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|----------------------|---|
| ① Boston, MA | ⑩ Detroit, MI |
| ② New York, NY | ⑪ Northwest IN |
| ③ Philadelphia, PA | ⑫ Chicago, IL |
| ④ Pittsburgh, PA | ⑬ New Orleans, LA |
| ⑤ Baltimore, MD | ⑭ Northern Plains Indian reservation communities (SD, ND, IA, NE) |
| ⑥ Washington, DC | ⑮ Oakland, CA |
| ⑦ Pee Dee Region, SC | |
| ⑧ Birmingham, AL | |
| ⑨ Cleveland, OH | |

Special Projects:

- | | |
|---------------------|---------------------|
| ① Dallas, TX | ⑤ Mississippi Delta |
| ② Essex County, NJ | ⑥ Richmond, VA |
| ③ Florida Panhandle | ⑦ Savannah, GA |
| ④ Milwaukee, WI | |

▷ ▷ ▷ ▷ ▷

HEALTHY START

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Every Child Deserves a

HEALTHY
START



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HEALTHY START INITIATIVE

A Community-Driven Approach to Reducing Infant Mortality

PRENATAL CARE

Racial Discrepancies:

Women with no prenatal care are often metropolitan residents, unmarried women, foreign-born women, women with less than nine years of education, and women with less than one year between births. Risks for no prenatal care is also higher for women who are teenagers, unmarried, black, or of other racial/ethnic groups, have less than 12 years of education, were born outside of the US and have given birth to more than two children.

Among black women, the adjusted risk of no care more than doubled from 1980 to 1989. Figures from 1992 indicate that African American women are nearly 4 times more likely to receive no prenatal care (4.2% receive none) than white women (only 1.2% receive no prenatal care). About one-third of African-American, Hispanic and Native American women receive no prenatal care or don't obtain care until the final trimester of pregnancy while the national average of all women failing to get prenatal care in their first trimester is only 20%.

Annual percentages of no prenatal care were highest for women younger than 15 years (5.5-6.5%) and for black women (2.7-4.7%). In 1995, only 70.3% of black mothers and 70.4% of Hispanic women received prenatal care beginning in the first trimester compared with 83.5% of white mothers.

Compared with women who initiated care in the third trimester, those who received no care were more likely to be older, black and unmarried.

Among women who began prenatal care late (in the third trimester), had no care or whose care status is unknown, 12.2% are black, 5.7% are white and 11.5% are Hispanic.

In 1993, 80.3% of white mothers, 63.7% of black mothers, 61.9% of American Indian mothers, and 64.6% of Hispanic mothers began prenatal care for live births in their first trimester.

Babies born to women who receive no prenatal care are three times more likely to be born with low birthweight and five times more likely to die than those whose mothers receive care in their first trimester. Yet 20 percent of pregnant women don't seek health care in their first trimester.

However, even when babies to receive care in the first trimester, 5.6% of white babies are low birthweight compared to 12.3% of black babies born in 1993.

Infant mortality among Native Americans is nearly one-third higher than for all Americans.

In 1992, there were 16.8 deaths per 1,000 births for black women and 6.9 deaths per 1,000 births for white women.

The death rate for black infants is more than twice that of whites.

Administrative Action:

CDC administers the Pregnancy Risk Assessment Monitoring Systems (PRAMS) which provides technical assistance to state Maternal and Child Health Directors to evaluate barriers to prenatal care. PRAMS is a population-based surveillance system of maternal behaviors and experiences before and during a woman's pregnancy and during her child's early infancy. PRAMS surveys 35% of all US births for the purpose of reducing infant mortality and low birth weight. States often use PRAMS data to create and evaluate programs and policies designed to improve prenatal care. For example, PRAMS data from West Virginia which indicated that

Medicaid eligible women didn't obtain prenatal care because they lacked transportation was used to change West Virginia's Medicaid policy to supply transport vouchers for women attending prenatal care clinics.

CDC also supports three community based intervention research projects examining approaches to improving prenatal care outreach and the quality of services. In Chicago, community health centers worked with the Prevention Research Center of the University of Illinois to study the effect of a woman's relations with others upon her attainment of prenatal care. In Los Angeles, CDC has a partnership with Charles Drew University and a community coalition to compile a thorough ethnography of pregnancy and health among African American women. In Harlem, CDC is working with the New York Urban League and academicians from Columbia University and the City University of New York to study the anthropology of pregnancy in women living in central Harlem. A community advisory board comprised of representatives from several community based agencies will work with CDC and the academics to design health and social interventions to promote better care for pregnant women.

The results have been impressive: For 1994, 80% of mothers began care in the first trimester of pregnancy compared with 79% for 1993 and 78% for 1992. The proportion of mothers beginning prenatal care in the first trimester rose in 1995 to 81.2% compared with 80.2% in 1994. The proportion of white women receiving care jumped from 82.8% to 83.5% from 1994 to 1995; the proportions of black women receiving care jumped from 68.3% in 1994 to 70.3% in 1995; and the proportions of Hispanic women receiving care jumped from 68.9% in 1994 to 70.4% in 1995. From 1992 to 1993, proportions of black women receiving care jumped from 63.9% to 66.0%, Hispanic women jumped from 62.1% to 63.4%; and American Indian/Alaska Native women jumped from 62.1% to 63.4%. CDC's goal is increase these proportions to 90% across the board.

Through HHS, the Maternal and Child Health Bureau (MCBH) administers four major programs which, in FY 1997, had a total budget of \$825 million: the Maternal and Child Health Services Block Grant (FY 97 \$681 million), the Healthy Start Initiative (FY 97 \$96 million), the Emergency Medical Services for Children Program (FY 97 budget \$12.5 million), Grants for HIV Coordinated Services and Access to Research for Women, Infants, Children and Youth (FY 97 budget \$36 million).

The Healthy Start initiative relies on community-based collaborative efforts to provide thorough health and social support services in order to make services more accessible, develop thorough services, make available a variety of self-help programs, supply case management services for follow ups, employ outreach workers (often from the neighborhood) and provide many other services. Healthy Start communities include cities in MD, AL, MA, IL, OH, MI, IN, LA, NY, CA, PA, SC, Washington DC and Northern Plains Indian communities. Through Healthy Start, clinics, schools, churches, media, neighborhood organizations, and committed individuals work together to help protect the health of mothers and babies through such efforts as providing health and social services (housing), doing neighborhood outreach, and offering education and childbirth and infant care.

The Community and Migrant Health Centers provide numerous services to reduce negative birth outcomes. Strangely enough, from 1992 to 1995 while funding stayed at a steady 35 million dollars and number of programs stayed at 291, the number of clients served dropped from 187,757 in FY 1992 to 112,163 in FY 1995. Statistics on HHS' comprehensive perinatal care program indicate that a total of 1,127,654 female users take advantage of the programs

CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR CHRONIC DISEASE PREVENTION AND HEALTH PROMOTION
DIVISION OF REPRODUCTIVE HEALTH

FACSIMILE TRANSMISSION

Date: July 25, 1997

To: SARAH HURWITZ

Address:

Addressee Fax #: 202-456-7431

Addressee phone # (optional): 202-456-5594

Subject (Briefly): Requested information on prenatal care

Number of pages to transmit, including this form: 9

From: Marijo Maloof

Organization:

CDC:NCCDPHP:DRH:PIHB
KOGER CENTER RHODES BLDG

Mailstop K23
Phone 770-488-5187

Fax #(770)-488-5628

external

Please call MARIJO MALOOF (770-488-5668) upon receipt of this fax

*Prenatal Care
Greg Alexander
The Future of
Children's #1*

Is there any evidence about who pre-natal care not early enough?
Are these numbers enough? Let's see how much higher.

This request was responded to by:

→ in at 12:00 pm today

Dr. Laurie Elam-Evans, Epidemiologist

Dr. Diane Rowley

Deputy Chief

Pregnancy and Infant Health Branch

Division of Reproductive Health

National Center for Chronic Disease Prevention

and Health Promotion

Centers for Disease Control and Prevention

Both can be reached at 770-488-5187

(faxform)



Nat. H.S. for Health Stats.

1995 - 81.3% of 0 + gest early prenatal care (1st 3 months)

→ 14/15% second trimester → 4.2% → late or NO care

~~extensiveness~~

visits, when delivered

Milton Collochuck → adequacy

NC (919) 966-2010

faxing

7/25/97

Response to Ms Hurwitz

*Page
Sarah*

What type of outreach program does CDC have for prenatal care?

CDC provides technical assistance to state Maternal and Child Health Directors to evaluate barriers to prenatal care through the Pregnancy Risk Assessment Monitoring Systems (PRAMS). PRAMS is a population-based surveillance system of maternal behaviors and experiences before and during a woman's pregnancy and during the early infancy of her child. It was developed in 1987 as part of CDC's initiative to reduce infant mortality and low birth weight. Findings from PRAMS can be generalized to an entire state's population of women having live births. Information can also be compared among states. PRAMS surveillance currently covers about 35% of all US births.

Data from PRAMS are used by states to develop and assess programs and policies designed to improve prenatal care. Women are asked the following questions related to prenatal care use:

- weeks or months pregnant when first thought you might be pregnant
- weeks or months pregnant when you were sure you were pregnant
- attitudes toward pregnancy (wantedness)
- weeks or months pregnant when you had your first prenatal care visit
- care received as early as you wanted
- barriers to getting care as early as you wanted
- received as many visits as you wanted
- barriers to receiving as many visits as wanted
- satisfaction with the care based on issues including waiting time, amount of time spent with health care providers, type of advice, hours of operation, understanding and respect from the staff.
- discussions about positive health behaviors (smoking, alcohol use, nutrition)
- information about source of payment for care and WIC use

PRAMS data from West Virginia, for example, indicated that Medicaid eligible women did not obtain prenatal care because they did not have transportation to clinics. This information prompted changes in West Virginia's Medicaid policy to supply transport vouchers for women attending prenatal care clinics.

CDC is supporting three community based intervention research projects that are examining approaches to improving prenatal care outreach and the quality of services.

- In Chicago, community health centers worked with the Prevention Research Center of the University of Illinois to identify ways in which pregnant women's personal reference groups influence their desire for prenatal care and their prenatal care health behaviors. The project has conducted focus group research with low income African-American, Puerto Rican, Mexican-American and white women who had recently given birth to talk

about the attitudes and beliefs about pregnancy. The project now plans to refine prenatal care services to speak to the specific cultures of women and their families, friends and community members who support them throughout pregnancy.

- In Los Angeles, CDC is partnering with Charles Drew University and a community coalition to complete a detailed ethnography of pregnancy and health among African American women. A substantial commitment of the partners is to use the ethnography to design outreach programs.
- In Harlem, CDC has partnered with the New York Urban League and academicians from Columbia University and the City University of New York to study the anthropology of pregnancy in women in central Harlem. A community advisory board composed of representatives from a number of community based agencies will work with the partners to design health and social interventions that will promote improved care for pregnant women.

An underlying objective of all three projects is to develop the capacity of academic centers, public health programs, and community boards to engage in research partnerships that conduct public health action-oriented studies.

What types of women are and are not receiving prenatal care?

A recent CDC publication (Obstet Gynecol 1996;87:575-80) indicated trends in the percentage of women who received no prenatal care in the United States have changed over time--from 1.3% in 1980 to 2.2% in 1989. The percentages declined to 1.7% in 1992. The changes in these trends in the early 1980s were due to an increase in the risks of no prenatal care in all women. Thus, all women were at increasing risks of no prenatal care. However, during the 1990s, most of the changes in risks of no prenatal care were due to an increase in the percentage of births to women at high demographic risk of no prenatal care, including metropolitan residents, unmarried women, foreign-born women, women with less than nine years of education, and women with less than one year between births. This increase in the percentage of births to women at high demographic risk shows no sign of abating. The manuscript is attached for further description of the research.

Trends in the Percentage of Women Who Received No Prenatal Care in the United States, 1980-1992: Contributions of the Demographic and Risk Effects

LAURIE D. ELAM-EVANS, PhD, MELISSA M. ADAMS, PhD, PAUL M. GARGIULLO, PhD,
JOHN L. KIELY, PhD, AND JAMES S. MARKS, MD

Objective: To determine if the increase in the percentage of women who received no prenatal care in the United States relative to 1980 (from 1.3% in 1980 to 2.2% in 1989 and 1.7% in 1992) was due to increasing risks of no care in subgroups of women or increasing percentages of births to women at high demographic risk of no care.

Methods: We analyzed U.S. birth certificates for the period 1980-1992. The annual adjusted odds of no prenatal care relative to 1980 were computed by logistic regression models that included year, maternal characteristics, and interactions of these characteristics with year. We also examined changes in the annual distributions of births by maternal characteristics.

Results: The risk of no prenatal care in most subgroups increased during the early 1980s, peaked in the late 1980s, and declined thereafter. For example, among black women, the adjusted risk of no care more than doubled from 1980 to 1989. Throughout the 1980s and into the 1990s, the percentage of births to women at high demographic risk of no care increased. This increase in the percentage of births to women at high demographic risk shows no sign of abating.

Conclusions: During the 1980s, increasing risks in subgroups of women drove the increase in the crude rate of no prenatal care. Despite decreases in the risks of no care in the early 1990s, increasing percentages of births to women with high demographic risk for no care prevented a decrease in the crude rate to the 1980 level. (*Obstet Gynecol* 1996;87:575-80)

Lack of prenatal care can be viewed as a failure of our health care system to provide an essential service. In the

United States, among women for whom prenatal care use was known, the crude percentage of women who received no prenatal care increased from 1.3% in 1980¹ to 2.2% in 1989,² then declined to 1.7% in 1992.³ Despite this recent improvement and small overall percentages, 68,657 of the 3,976,509 women who delivered in 1992 received no prenatal care.³

The cause of the increase in the percentage of women who received no prenatal care during the 1980s is unknown. Investigators have demonstrated that the risk for no prenatal care is higher for women who are teenagers, unmarried, black, or of other racial/ethnic groups; have less than 12 years of education; were born outside of the U.S.; and have given birth to more than two children.³⁻⁶ The purpose of this study was to determine if the national increase in the percentage of women who received no prenatal care relative to 1980 was due to increasing risks for no prenatal care in subgroups of women (a risk effect) or to increasing percentages of births to women at high demographic risk of no prenatal care (a demographic effect). We also considered whether an increase in the rate of very preterm delivery could have contributed to the national increase in no prenatal care. We wanted to determine whether women who might have obtained care in the third trimester missed the opportunity to do so because of preterm delivery. This information is useful in addressing the need for health services and directing future efforts to provide these services.

Materials and Methods

Data were derived from birth certificates for the period 1980-1992 for live births to U.S. residents. Women who received no prenatal care were identified from the item

From the Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion, and the Division of Health and Utilization Analysis, Office of Analysis, Epidemiology and Health Promotion, National Center for Health Statistics, Centers for Disease Control and Prevention, Atlanta, Georgia.

on the birth certificate indicating the month of pregnancy in which prenatal care was initiated. Women were classified as having no prenatal care if "no prenatal care" was indicated on the certificate. Women with missing data on prenatal care initiation were classified in a separate category as "missing." Prenatal care data were available from the 50 states and the District of Columbia. A total of 49,899,230 live births occurred in the U.S. during 1980-1992. We excluded 58,020 births (0.1%) to foreign residents (which includes, for this analysis, women in the U.S. territories and other possessions, such as Puerto Rico and the U.S. Virgin Islands) and 1,121,257 births (2.2%) because of missing data on prenatal care initiation. We examined trends for subgroups of women defined by maternal characteristics of age, race, residence (metropolitan or other), marital status, country of birth, education, interbirth interval, and parity. Except for education, data on variables used in our analysis were available from all 51 reporting areas for the entire study period. The collection of data on education increased from 47 states and the District of Columbia in 1980 to all 50 states and the District of Columbia in 1992. In women age 20 years and older, we considered five categories of education: less than 9 years, 9-11 years, 12 years, 13-15 years, and 16 years or more. We also examined no prenatal care for women whose education was not stated (missing) and states in which education was not reported. Because teenagers have not had the opportunity to acquire advanced education, all teenagers (under age 20 years) were analyzed as a separate category.

To determine whether there were increasing risks of no prenatal care in subgroups of women (a risk effect), we initially computed annual risks of no prenatal care. To control for confounding, we computed a series of logistic regression models. Each model computed the adjusted odds for no prenatal care in a given year relative to 1980. Each model included a variable for year, age, race, residence (metropolitan or other), marital status, country of birth, education, interbirth interval, parity, and interactions of these variables with year. All variables were categorical. To determine whether there were increasing percentages of births to women at high demographic risk of no prenatal care (a demographic effect), we computed the annual distributions of live births by maternal characteristics. To determine whether the rate of very preterm delivery increased, we examined the distribution of women delivering infants with birth weights less than 1500 g. Birth weight was used as a proxy for very preterm delivery because of the large percentage of missing values for gestational age and our concerns about the inaccuracy of this measure.

The adjustment method of Das Gupta^{7,8} was used to compute the relative contributions of the risk effect (increasing risks of no prenatal care in subgroups of

Table 1. Percentages of Women Who Received No Prenatal Care, by Maternal Characteristics, United States, 1980-1992

	Year of infant's birth				
	1980	1985	1990	1991	1992
Crude percentage of women who received no prenatal care	1.3	1.7	2.0	1.9	1.7
Characteristics					
Age (y)					
<15	5.5	6.3	6.5	6.2	5.6
15-17	3.2	3.9	4.0	3.7	3.3
18-19	2.3	3.1	3.4	3.1	2.8
20-24	1.4	2.0	2.5	2.4	2.1
25-29	0.8	1.1	1.5	1.5	1.4
30-34	0.8	1.0	1.2	1.2	1.1
35-39	1.4	1.4	1.4	1.4	1.3
40-44	2.4	2.4	1.9	1.9	1.7
≥45	4.0	4.6	2.8	2.2	2.7
Race					
White	1.0	1.3	1.4	1.4	1.2
Black	2.7	3.4	4.7	4.6	4.2
Other*	1.8	1.8	1.6	1.6	1.3
Residence					
Metropolitan	1.4	1.8	2.1	2.1	1.9
Other*	1.1	1.4	1.3	1.3	1.2
Marital status					
Married	0.7	0.9	0.9	0.9	0.8
Other*	4.0	4.3	4.7	4.4	3.9
Country of birth					
United States	1.2	1.4	1.7	1.7	1.5
Other*	2.8	3.5	3.4	3.1	2.7
Education (y)*					
<9	3.7	4.3	5.3	5.0	4.3
9-11	2.6	3.5	4.5	4.4	3.9
12	0.8	1.2	1.7	1.6	1.5
13-15	0.5	0.6	0.8	0.8	0.7
≥16	0.2	0.2	0.3	0.3	0.3
Age <20	2.6	3.0	3.7	3.5	3.0
Not stated	3.0	4.6	6.6	5.0	6.3
Not reported†	1.6	2.3	1.0	0.9	0.0
Interbirth interval (mo)					
<12	3.6	4.3	5.6	5.5	4.7
12-23	2.1	2.6	3.7	3.6	3.2
24-35	1.0	1.3	1.7	1.6	1.5
36-47	0.8	0.9	1.3	1.2	1.1
48-71	0.7	1.0	1.2	1.2	1.1
≥72	0.8	1.0	1.3	1.3	1.2
Not stated	3.0	4.6	5.9	5.7	5.3
First pregnancy					
1	1.1	1.3	1.4	1.3	1.2
2	1.1	1.4	1.5	1.5	1.3
3	1.5	1.9	2.3	2.2	2.0
4	2.3	3.1	3.7	3.7	3.3
5	3.1	4.5	5.6	5.7	5.2
≥6	4.6	6.4	8.2	8.2	8.2
Not stated	1.7	1.8	5.7	5.3	5.6
Birth weight (g)					
<1500	7.4	8.6	10.6	10.5	9.1
1500-2499	3.2	4.0	5.0	5.0	4.5
≥2500	1.1	1.5	1.7	1.6	1.5
Not stated	5.8	8.1	10.8	11.5	9.5

* Other includes not stated.

† Maternal education tabulated for women aged 20 years or older.

‡ The following states did not request information on maternal education on birth certificates: California (1980-1988), New York (1988-1991), Texas (1980-March 1989), and Washington (1980-1991).

African American
 are 4 times
 more likely
 to receive
 prenatal
 care

Table 2. Percentage Distribution of Characteristics of Women Who Delivered Live-Born Infants, United States, 1980-1992

	Year of infant's birth				
	1980	1985	1990	1991	1992
N	3,512,680	3,675,429	4,068,409	4,022,985	3,976,509
Characteristics					
Age (y)					
<15	0.3	0.3	0.3	0.3	0.3
15-17	5.4	4.4	4.4	4.6	4.6
18-19	9.7	7.9	8.1	8.0	7.8
20-24	33.9	30.3	26.3	26.5	26.3
25-29	30.8	32.0	30.8	29.7	29.1
30-34	15.3	18.6	21.4	21.6	22.1
35-39	3.9	5.7	7.6	8.1	8.5
40-44	0.6	0.8	1.2	1.3	1.4
≥45	0.0	0.0	0.0	0.0	0.1
Race					
White	80.5	79.8	79.4	79.1	79.1
Black	16.2	16.0	16.3	16.4	16.3
Other*	3.4	4.2	4.4	4.5	4.6
Residence					
Metropolitan	74.5	76.6	80.0	80.0	80.1
Other*	25.5	23.4	20.0	20.0	19.9
Marital status					
Married	81.7	78.2	72.3	70.7	70.2
Other*	18.3	21.8	27.7	29.3	29.8
Country of birth					
United States	89.8	88.2	84.5	83.7	83.0
Other*	10.2	11.8	15.5	16.3	17.0
Education (y) [†]					
<9	2.3	1.8	4.5	4.6	4.8
9-11	8.6	7.8	9.7	9.9	10.1
12	30.7	29.2	31.9	31.2	32.4
13-15	13.8	15.1	18.6	18.7	20.2
≥16	11.1	12.9	16.4	16.7	18.7
Age <20	12.3	9.8	12.2	12.4	12.7
Not stated	0.7	0.8	1.0	0.8	1.1
Not reported [‡]	20.7	22.6	5.8	5.8	0.0
Interbirth interval (mo)					
<12	1.5	1.6	2.0	2.0	2.1
12-23	12.2	12.4	14.2	14.6	14.3
24-35	11.4	12.2	13.0	13.0	13.5
36-47	7.6	8.2	8.5	8.5	8.6
48-71	7.9	8.6	9.1	9.0	8.9
≥72	7.7	7.8	9.2	9.2	9.0
Not stated	8.8	7.8	3.3	3.1	3.4
First pregnancy	43.0	41.5	40.7	40.6	40.2
Parity					
1	43.0	41.5	40.7	40.6	40.2
2	31.8	33.1	32.2	32.1	32.4
3	14.9	15.6	16.4	16.4	16.4
4	5.6	5.7	6.3	6.4	6.4
5	2.2	2.1	2.3	2.4	2.4
≥6	2.0	1.7	1.8	1.9	1.9
Not stated	0.5	0.4	0.4	0.3	0.3
Birth weight (g)					
<1500	1.1	1.2	1.2	1.2	1.2
1500-2499	5.6	5.5	5.6	5.7	5.7
≥2500	93.1	93.3	93.1	92.9	93.0
Not stated	0.2	0.1	0.1	0.1	0.1

* Other includes not stated.

[†] Maternal education tabulated for women aged 20 years or older.

[‡] The following states did not request information on maternal education on birth certificates: California (1980-1988), New York (1988-1991), Texas (1980-March 1989), and Washington (1980-1991).

women) and the demographic effect (increasing percentages of births to women at high demographic risk of no prenatal care) in the overall increase in crude rates of no prenatal care. First, we computed the difference in the crude rate of no prenatal care between our reference year (1980) and each subsequent year. We then partitioned this difference into a component due to the risk effect and a component due to the demographic effect. The risk and demographic effects were computed by producing two sets of adjusted rates. For the risk effect, we created a standard population and applied the observed annual risk for each subgroup of women to the standard population. The risk effect was adjusted to reduce biases from demographic changes between subgroups from year to year. The standard population was a demographic distribution across all maternal characteristics, averaged among all possible pairs of years. Similarly, for the demographic effect, we created standard risks for subgroups of women and applied them to the observed annual distributions of live births. The demographic effect was adjusted to reduce biases from changes in risk within subgroups from year to year. This standard set of risks for no prenatal care is a distribution across all maternal characteristics, averaged among all possible pairs of years. Use of this standard population and standard set of risks allowed the "risk effect" and "demographic effect" to sum to the change in crude rate of no prenatal care between a given year and 1980. This internal consistency allowed us to assess the relative importance of changing risks versus changing demographics without fear that one of these effects had confounded the other's estimates.

Results

We included 48,719,953 live births in this analysis. Overall, 857,732 (1.8%) of these births were to women who received no prenatal care. To simplify the presentation, results in Tables 1, 2, and 3 were restricted to selected years (1980, 1985, 1990, 1991, and 1992).

Annual percentages of no prenatal care were highest for women younger than 15 years (5.5-6.5%), black women (2.7-4.7%), metropolitan residents (1.4-2.1%), unmarried women (3.9-4.7%), foreign-born women (ie, women born outside of the 50 states and the District of Columbia) (2.7-3.5%), women with less than 9 years of education (3.7-5.3%), women with less than 1 year between births (3.6-5.6%), and women who had given birth to six or more children (4.6-8.2%) (Table 1). Of note is the nearly ubiquitous increase in the risks of no prenatal care in subgroups of women during the 1980s, followed by the declines in the early 1990s. Exceptions to these trends include women who were older than 34 years, of races other than black or white, college grad-

Table 3. Increase in Crude Rate of No Prenatal Care Relative to 1980, United States, 1980-1992

	1980	1985	1990	1991	1992
No. of women with no prenatal care	46,211	61,467	80,406	76,864	68,657
Crude rate of no prenatal care* (%)	1.38	1.72	2.03	1.97	1.73
Absolute increase in no prenatal care, relative to 1980		0.35 (100%)	0.66 (100%)	0.60 (100%)	0.35 (100%)
Increase due to increasing risks of no prenatal care in subgroups: risk effect (% of absolute increase)		0.29 (82.6%)	0.38 (58.3%)	0.26 (44.3%)	0.03 (8.2%)
Increase due to increasing percentages of births to women at high demographic risk of no prenatal care: demographic effect (% of absolute increase)		0.06 (17.4%)	0.27 (41.7%)	0.33 (55.7%)	0.32 (91.8%)

*Crude rates may differ by $\leq 0.06\%$ from rates computed using raw counts from birth certificates (Table 1) because the Das Gupta^{2,8} methodology excluded birth certificates with missing maternal characteristics data needed for adjustment.

[†]Risk and demographic effects may not sum to absolute increase because of rounding.

uates, and women who had given birth to six or more children.

In general, the annual adjusted odds (or risk) of no prenatal care increased from 1980 through the late 1980s in most subgroups of women. For example, among married women, when we adjusted for other maternal characteristics and interactions of these characteristics with year, the adjusted odds of no prenatal care were 1.5 times higher in 1987 than in 1980 (Figure 1) and among black women, the adjusted odds were 2.2 times higher in 1989 (Figure 2). For most subgroups of women, the annual adjusted odds of no prenatal care peaked in the late 1980s and declined thereafter. In 1992, most subgroups of women continued to have adjusted odds of no prenatal care that were above the 1980 reference value of 1.0 indicating an increase in risk. Subgroups with odds of no prenatal care that were below the 1.0 reference value in 1992 included unmarried women, women living in rural areas, and foreign-born women.

The percentage of live births increased in several demographic groups at high risk for no prenatal care: metropolitan residents (from 74.5% in 1980 to 80.1% in

1992), unmarried women (from 18.3% in 1980 to 29.8% in 1992), foreign-born women (from 10.2% in 1980 to 17.0% in 1992), women with less than 9 years of education (from 2.3% in 1980 to 4.8% in 1992), and women with less than 1 year between births (from 1.5% in 1980 to 2.1% in 1992) (Table 2). The percentages of births to women who were metropolitan residents or had short intervals between births increased during the 1980s and stabilized thereafter. The percentages of births to unmarried or foreign-born women increased steadily during the study period. The percentage of births to women with less than 9 years of education decreased from 1980 (2.3%) to 1985 (1.8%) and increased in the early 1990s (4.5-4.8%). The percentages of births to other groups at high demographic risk for no prenatal care (younger than 15 years, black women, and women who had given birth to six or more children) remained fairly stable during the study period.

The percentage of women with very preterm births (defined here as birth weight under 1500 g) increased from 1.1% in 1980 to 1.2% in 1985 and remained stable thereafter (Table 2).

In 1985, the absolute increase in the crude rate of no

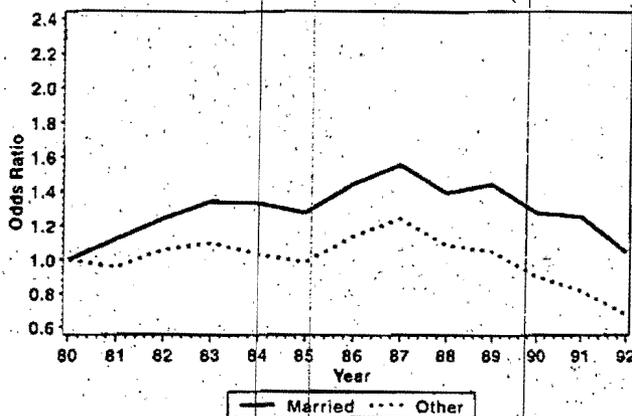


Figure 1. Trends in adjusted odds ratios of no prenatal care by marital status, United States, 1980-1992. (Referent for odds ratios, 1980.)

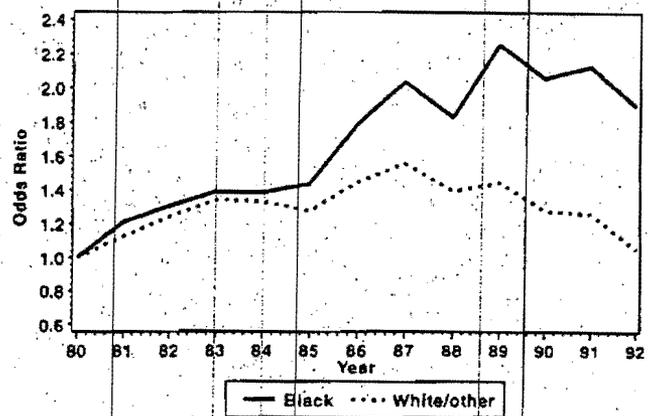


Figure 2. Trends in adjusted odds ratios of no prenatal care by race, United States, 1980-1992. (Referent for odds ratios, 1980.)

prenatal care relative to 1980 was 0.35% (Table 3). Approximately 83% of this increase was due to increasing risks of no prenatal care in subgroups of women (the risk effect) and 17% was due to increasing percentages of births to women at high demographic risk of no prenatal care (the demographic effect). In 1990 and subsequent years, smaller percentages of the increase relative to 1980 were due to increasing risks of no prenatal care in subgroups of women, and larger percentages were due to increasing percentages of births to women at high demographic risk of no prenatal care. In fact, by 1992, 92% of the absolute increase relative to 1980 was due to an increase in the percentage of women giving birth who were at high demographic risk for no prenatal care.

Discussion

In the early 1980s, increasing risks of no prenatal care in subgroups of women (the risk effect) drove the national increase in the crude rate of no prenatal care. By the early 1990s, however, increasing percentages of births to women at high demographic risk of no prenatal care (the demographic effect) were responsible for most of the increase in the crude rate of no prenatal care relative to 1980. This increase in the percentage of births to women at high demographic risk shows no sign of abating. In fact, in the early 1990s, the increase in the percentage of births to women at high demographic risk nearly offset the decreases in the risk of no prenatal care in subgroups of women. The birth weight distribution was stable, suggesting that the rate of very preterm delivery did not increase substantially. Thus, a diminished opportunity for women to obtain third-trimester prenatal care because of very preterm births is unlikely to have accounted for the increase in the crude rate of no prenatal care.

This study specifically analyzed women who received no prenatal care. Other researchers⁹⁻¹² have combined women who initiate care in the third trimester with those who receive no care at all. We looked specifically at women with no prenatal care because our previous analyses had shown that they differed from women who obtained care in the third trimester.¹³ For example, compared with women who initiated care in the third trimester, those who received no care were more likely to be older, black, and unmarried; have less than 2 years between births and have given birth to four or more children; have been born outside of the U.S.; live in urban areas; and have achieved less than a high school education. This differentiation is important in developing and conducting targeted interventions.

This analysis has several strengths. First, we analyzed data from all 50 states and the District of Columbia for

a 13-year period. Second, the large amount of data allowed us to adjust for the effects of numerous maternal characteristics. Third, we used a sophisticated technique to permit partitioning of the overall increase in crude rates of no prenatal care into the percentage due to increasing risks of no prenatal care in subgroups of women and the percentage due to increasing percentages of births to women at high demographic risk of no prenatal care. In addition, this methodology allowed us to adjust simultaneously for multiple factors (ie, maternal characteristics mentioned previously).

The analysis has at least three limitations. First, birth certificate data may not be accurate. In fact, no standard method exists for measuring prenatal care initiation. Data from birth certificates and questionnaires completed by the mother 6-30 months postpartum identify similar percentages of women who receive no prenatal care, although they do not necessarily identify the same women. For example, in a national sample of women who gave birth in 1988, among those who were identified by either the birth certificate or the maternal questionnaire as having received no prenatal care, only 33% were identified by both sources.¹⁴ Second, approximately 2% of the births were excluded because data on prenatal care initiation were missing. These missing data could have caused us to overestimate or underestimate the percentage of women who received no prenatal care. Finally, because we lacked a reliable way to assess changes in the rate of preterm delivery, we cannot rule out that a small part of the increase in the crude rate of no prenatal care could be related to an increase in preterm births. However, the stability of the birth weight distribution suggests that any change in the rate of preterm delivery was likely to be very small.

No prenatal care should be regarded as a sentinel health event. Such an event is defined as a negative health state that is deemed to be avoidable given current medical and public health knowledge and technology.^{15,16} The importance of prenatal care is widely accepted, and federal and state efforts are being made to provide such care to all women. Local investigations of a sample of these episodes of no prenatal care are essential in defining and implementing appropriate interventions.

The noteworthy decrease in the crude national rate of no prenatal care that occurred during the period 1991-1992^{3,17} followed the implementation of federal and state programs in the late 1980s to reduce barriers to prenatal care.^{18,19} However, it is too soon to tell whether this decrease signals a long-term trend of fewer women not receiving care. The current pattern of increasing percentages of births to women at high demographic risk for no prenatal care could reverse the decrease in the crude rate. Health agencies should use results of

local studies of women who received no prenatal care to target groups of women at high risk of no prenatal care. Interventions for high-risk women can include the provision of care that is acceptable, culturally sensitive, and financially assessable, as well as the social support needed to use that care. Simply stated, no prenatal care should serve as an audit of the quality of the public health system.

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in millions → dollars
FY 1996 spent in research

	Total	Minorities
CVD:	796,815,000	95,184,000

(heart disease) 875

(hypertension)
→ subset of CVD included in CVD number above
(132,329,000) (37,723,000)

make sure people understand the figures

U.S. Department of Health & Human Services
Public Health Service



Health Resources & Services Administration
Maternal & Child Health Bureau

Division of Healthy Start
Program Operations Branch

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Parklawn Bldg.
Rockville, MD 20857

Tel: 301-443-8283
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TO:

Sarah Hurwitz

CO:

White House Domestic Policy Council

FAX:

202-456-5557

FROM:

Maribeth Gardner

DATE:

PAGES TO FOLLOW:

COMMENTS:

- 1) The first page contains some talking points on the issue used in the past
- 2) The second article provides 1995 provisional & 1994 final data on 1st trimester entry into care
- 3) The third set of tables is from the Healthy People 2000 Midcourse Review conducted July 2, 1996.

Please call if you have questions



•A key factor in preventing low birthweight and related causes of infant mortality is early and continuous health care for all pregnant women. Babies born to women who receive no prenatal care are three times more likely to be born with low birthweight and five times more likely to die than those whose mothers receive care in their first trimester. (Yet 20 percent of pregnant women don't seek health care in their first trimester.)

- National Center for Health Statistics. June 24, 1996. Advance Report of Final Natality Statistics, U.S. 1994 final data. Hyattsville, MD: PHS, CDC. Monthly Vital Statistics Report, vol. 44(11), p. 14. "For 1994, 80 percent of mothers began care in the first trimester of pregnancy compared with 79 percent for 1993, and 78 percent for 1992."

- National Center for Health Statistics. [exact statement was "five times more likely to die than those whose mothers receive care in their first trimester."]

- U.S. Department of Health and Human Services, Public Health Service. July 1995. Healthy People 2000 Review 1994, Washington, D.C.: U.S. Government Printing Office, p. 81. "An expectant mother with no prenatal care is three times as likely to have a low-birthweight baby."

•Minority women receive less prenatal care than white women. About one-third of African-American, Hispanic and Native American women receive no prenatal care at all, or don't obtain prenatal care until their last trimester of pregnancy, compared to a national average of 20 percent of all women who fail to receive prenatal care in their first trimester. Asian Americans are the exception among the minority populations, with 20 percent not obtaining early prenatal care.

- National Center for Health Statistic.

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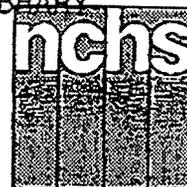
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Monthly Vital Statistics Report

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Preliminary Data From the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

Births and Deaths: United States, 1995

by Harry M. Rosenberg, Ph.D.; Stephanie J. Ventura, A.M.; Jeffrey D. Maurer, M.S.; Robert L. Heuser, M.A.; and Mary Anne Freedman, M.A., Division of Vital Statistics

Abstract

Objectives—This report presents preliminary 1995 data on births and deaths in the United States from a new statistical series from the National Center for Health Statistics. U.S. data on births are shown by age, race, and Hispanic origin of mother. National and State data on marital status, prenatal care, cesarean delivery, and low birthweight are also presented. Mortality data presented include life expectancy, leading causes of death, and infant mortality.

Methods—Data in this report are based on 80–90-percent samples of 1995 births and deaths. The records are weighted to independent control counts of births, infant deaths, and total deaths registered in State vital statistics offices during 1995. Final data for 1995 may differ from the preliminary estimates.

Results—Preliminary data show that births and birth and fertility rates generally declined in 1995, especially for teenagers (3 percent); the teen rate was 56.9 births per 1,000 women aged 15–19 years. The number, rate, and ratio of births to unmarried mothers all declined, the first time all measures have dropped simultaneously since 1940. For the sixth consecutive year, the cesarean delivery rate declined and the rate for prenatal care utilization improved. The overall low birthweight rate was unchanged at 7.3 percent.

The 1995 preliminary infant mortality rate reached a record low of 7.5 infant deaths per 1,000 live births, with record lows achieved for the white and black populations. Life expectancy matched the record high of 75.8 years attained in 1992. The largest declines in age-adjusted death rates among the leading causes of death were for homicide, chronic liver disease and cirrhosis, and accidents. Mortality also decreased for firearm injuries, drug-induced deaths, and alcohol-induced deaths. The age-adjusted death rate for diabetes increased. For the first time, the age-adjusted death rate for Human immunodeficiency virus infection did not increase.

Keywords: Births • Deaths • Vital statistics

Introduction

This issue introduces a new statistical series, based on a new approach to collect and process vital statistics data and a new publication plan for the National Vital Statistics System. The new approach for vital statistics expedites the flow of data from the States to the National Center for Health Statistics (NCHS) and makes it possible to publish more detailed findings on a faster schedule.

With this publication, NCHS begins a new statistical series: Preliminary vital statistics data based on a substantial sample of records, including detailed tabulations from the natality as well as mortality files. Initially, NCHS will publish these preliminary data semiannually; however, its goal is to publish the data quarterly. This issue shows preliminary birth and death data for calendar year 1995 as well as previously published final data for 1994 (1,2). The next *Monthly Vital Statistics Report* (MVSR) supplement in this series will show preliminary data for July

Acknowledgments

This report was prepared in the Division of Vital Statistics. Joseph D. Farrell, former Chief of the Systems and Programming Branch (SPB), and David Johnson, Charles E. Royer, Gail Parr, Jordan S. Sacks, Manjit Sharma, and Linda Biggar of SPB provided computer programming support and statistical tables. Thomas D. Dunn of the Statistical Research Branch provided content review. Staff of the Technical Services Branch carried out quality evaluation and acceptance procedures for the State data files on which this report is based. Staff of the Registration Methods Branch consulted with State vital statistics offices regarding the collection of data. Van L. Arsenault and Lester R. Curtin of the Office of Research and Methodology provided information on the statistical methodology. Staff of the Division of Data Processing were responsible for receipt and processing of the basic data files. This report was edited by Patricia Keane Williams and typeset by Jacqueline Davis of the Publications Branch, Division of Data Services.



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Centers for Disease Control and Prevention
National Center for Health Statistics



births
& deaths
vital c

Proportion of all births occurring to women under 20 years of age increased slightly to 13.2 percent (table A). This is a reflection of the recent increases in the teenage population (3). The proportions of births to teenagers under 20 years of age by State are shown in table 4.

Birth rates declined 1 percent between 1994 and 1995 for women in their twenties. The rates for women aged 20-24 years (110.0 births per 1,000 women) and 25-29 years (112.4 births per 1,000 women) were each 6 percent lower than their recent high point in 1990.

Birth rates for women aged 30-34 years and 35-39 years rose 1 percent each from 1994 to 1995 to 82.5 and 34.1 per 1,000 women, respectively. The rate for women 35-39 years has risen steadily and substantially since 1978; the rate for women aged 30-34 years has increased too but at a slower pace in recent years.

The total fertility rate—an estimate of lifetime childbearing—dropped 1 percent from 1994 (2,036.0 births per 1,000 women) to 1995 (2,020.0). This hypothetical measure shows the potential impact of current fertility levels on completed family size. The rate for white women was essentially unchanged at 1,992.5 births per 1,000 women, while the rate for black women dropped 6 percent to 2,158.5. Rates for American Indian (2,061.5 births per 1,000 women), Asian or Pacific Islander (1,904.5), and Hispanic women (2,983.5) each dropped by 1 to 2 percent.

The first birth rate, a measure of family formation, was 27.3 births per 1,000 women aged 15-44 years in 1995, about 1 percent below the 1994 rate (27.5).

The preliminary number of nonmarital births declined 3 percent to 1,248,028. The proportion of all births to unmarried mothers declined 2 percent to 32.0 percent (from 32.6 percent in 1994) (table A). The proportions for white (25.3 percent) and black births (69.5 percent) were about 1 percent lower than those for 1994, while the proportion for Hispanic women, 40.8 percent, was 5 percent lower than for 1994. The birth rate for unmarried women dropped 4 percent from 46.9 to 44.9 per 1,000 unmarried women aged 15-44 years, the first decline in the rate in nearly two decades. About half of the decline is due to changes in reporting procedures in California; the marital status of Hispanic mothers was more precisely determined in 1995 than in 1994. (See "Technical notes.") Nonetheless, even if data for California are excluded, nonmarital childbearing declined in 1995. This is the first time that all measures have dropped since 1940, when national data were first compiled. During the 5-year period 1989-94, the rate of increase in measures of nonmarital childbearing had slowed considerably compared with trends in the early to mid-1980's. The percents of births to unmarried mothers by State are shown in table 5 for 1994 and 1995.

The incidence of low birthweight (birthweight of less than 2,500 grams or 5 pounds 8 ounces) was unchanged for 1995, at 7.3 percent. The percent low birthweight had risen from 6.8 percent in 1985 to 7.3 percent in 1994. Levels of low birthweight increased for white births (from 6.1 to 6.2 percent) and for Hispanic

births (6.2 to 6.3 percent), while the rate for black births fell from 13.2 to 13.0 percent (table A). Percents of low birthweight births by State for 1994 and 1995 are shown in table 6.

The rate of cesarean delivery declined in 1995, from 21.2 to 20.8 percent. Rates fell for white (20.8 percent) and Hispanic (20.1) women; the rate for black women was unchanged (21.8 percent) (table A). This is the sixth consecutive year of decline; the 1995 rate was 9 percent below the 1989 rate (22.8 percent). Cesarean delivery rates by State for 1994 and 1995 are shown in table 7.

The proportion of mothers beginning prenatal care in the first trimester continued to rise in 1995 to 81.2 percent compared with 80.2 percent in 1994. This measure has shown improvement for 6 consecutive years, rising from 75.5 percent in 1989. The proportions of white (83.5 percent), black (70.3 percent), and Hispanic (70.4) mothers receiving early care were 1 to 3 percent higher in 1995 than the comparable proportions in 1994 (table A). The percents of mothers receiving prenatal care in the first trimester by State for 1994 and 1995 are shown in table 8.

Mortality patterns

In 1995 an estimated 2,312,180 deaths occurred in the United States, 33,186 more than the previous high recorded in 1994. The crude death rate of 880.0 per 100,000 population was slightly higher than the rate of 875.4 for the previous year. The age-adjusted death

Table A. Total births and percent of births with selected demographic and health characteristics, by race and Hispanic origin of mother: United States, final 1994 and preliminary 1995

Characteristic	All races ¹		White		Black		Hispanic ²	
	1995	1994	1995	1994	1995	1994	1995	1994
	Number							
Births	3,900,069	3,952,767	3,105,315	3,121,004	598,558	636,391	671,849	665,026
	Percent							
Births to mothers under 20 years	13.2	13.1	11.5	11.3	23.2	23.2	18.0	17.8
Births to unmarried mothers	32.0	32.6	25.3	25.4	69.5	70.4	40.8	43.1
Births to low birthweight ³	7.3	7.3	6.2	6.1	13.0	13.2	6.3	6.2
Births delivered by cesarean	20.8	21.2	20.8	21.2	21.8	21.8	20.1	20.5
Prenatal care beginning in first trimester	81.2	80.2	83.5	82.8	70.3	68.3	70.4	68.9

¹Includes races other than white and black.
²Persons of Hispanic origin may be of any race.
³Birthweight of less than 2,500 grams (5 pounds 8 ounces).

Services and Protection Objective: Prenatal Care

PHS Agency Assignment: Health Resources and Services Administration

14.11 Increase to at least 90 percent the proportion of all pregnant women who receive prenatal care in the first trimester of pregnancy.

<u>Proportion of Pregnant Women Receiving Early Prenatal Care (percent of live births)</u>	<u>Baseline Year</u>	<u>Baseline</u>	<u>1988</u>	<u>1989</u>	<u>1990</u>	<u>1991</u>	<u>1992</u>	<u>1993</u>	<u>2000 Target</u>
Percent of live births	1987	76.0%	75.9%	75.5%	75.8%	76.2%	77.7%	78.9%	90%
Special Population Targets									
14.11a Black women	1987	60.8%	60.7%	60.0%	60.6%	61.9%	63.9%	66.0%	90%
14.11b American Indian/Alaska Native	1987	57.6%	58.1%	57.9%	57.9%	59.9%	62.1%	63.4%	90%
14.11c Hispanic women (Selected States)	1987	61.0%	61.3%	59.5%	60.2%	61.0%	64.2%	66.6%	90%

Data Source: National Vital Statistics System, CDC, NCHS.

First trimester prenatal care, 1993



Percentage of live births

- 80 to 88.9
- 76 to 79.9
- 70 to 75.9
- 50 to 69.9



SOURCE: CDC/NCHS, National Vital Statistics System

CK06P005



Late or No Prenatal Care for Live Births, by Race and Hispanic Origin

Percent began 3rd Trimester, none, or unknown

Race/Hispanic Origin	1987	1988	1989	1990	1991	1992	1993
All Mothers	8.1	8.3	8.4	8.1	7.8	7.2	7.0
White	6.8	6.9	6.9	6.7	6.4	5.9	5.7
Black	13.9	14.1	14.8	14.3	13.8	13.1	12.2
American Indian	15.7	15.7	15.9	15.1	14.4	13.4	12.3
Asian or Pacific Islander	9.6	9.5	9.4	9.6	9.1	8.2	8.0
Chinese	7.8	6.1	5.9	6.0	6.4	5.6	5.5
Japanese	5.0	6.5	5.4	5.6	5.7	5.5	6.5
Hawaiian	12.9	14.5	16.4	15.1	14.8	14.2	14.8
Filipino	6.7	7.3	6.8	6.5	7.3	6.6	6.6
Other Asian	11.5	11.3	11.3	11.6	10.4	9.5	9.0
Hispanic origin	15.3	15.1	15.4	14.5	13.5	12.0	11.5
Mexican American	15.3	16.2	16.2	14.9	13.8	12.2	11.6
Puerto Rican	21.0	17.7	18.0	17.8	15.6	14.5	14.0
Cuban	4.7	5.0	5.1	3.8	3.7	3.3	2.8
Central/South American	15.7	13.6	14.8	14.1	13.1	11.6	11.5
Other	12.6	11.4	11.9	11.3	10.9	10.3	10.1

Why is this # diff. than the one on page 4 of this fax.

pg. 4 = 1995 Stat. NOT Care in 1993 + Mortality in 3rd trimester, 1st Stat. about is (3rd trimester)

Source: National Vital Statistics Systems, Natality & Mortality Files

First Trimester Prenatal Care for Live Births, by Race and Hispanic Origin

Percent began 1st trimester

Race/Hispanic Origin	1987	1988	1989	1990	1991	1992	1993
All Mothers	74.4	74.2	73.9	74.2	74.6	76.1	77.1
White	77.8	77.7	77.5	77.7	78.1	79.4	80.3
Black	59.0	58.6	58.0	58.6	59.7	61.6	63.7
American Indian	55.8	56.5	56.2	56.4	58.4	60.4	61.9
Asian or Pacific Islander	72.4	72.7	72.1	72.1	72.5	74.0	74.9
Chinese	78.5	80.0	79.6	79.2	79.8	81.5	82.3
Japanese	84.7	83.5	83.8	84.6	84.8	85.3	83.9
Hawaiian	64.6	60.6	61.1	61.2	62.7	64.5	64.4
Filipino	76.6	76.4	75.9	75.6	75.2	76.8	77.2
Other Asian	68.3	68.8	68.2	68.3	69.1	70.1	71.5
Hispanic origin	59.2	59.2	57.9	58.5	59.4	62.4	64.7
Mexican American	58.4	56.8	55.6	56.7	57.6	60.9	63.4
Puerto Rican	54.8	58.0	57.9	58.3	60.4	63.0	64.8
Cuban	82.4	82.2	82.3	84.0	84.3	85.7	87.9
Central/South American	57.5	60.1	58.8	59.3	60.9	64.1	65.6
Other	63.1	65.5	64.1	64.3	63.7	66.0	67.7

Source: National Vital Statistics Systems, Natality & Mortality Files

Percentage of Live Births with First Trimester Prenatal Care by Educational Attainment

Year	Mother's Race	Years of Education Completed			
		0-11 yrs	12 yrs	13-15 yrs	16+ yrs
1985	White	59.4	79.8	86.4	91.7
	Black	48.1	60.2	70.3	81.6
1986	White	58.9	79.5	86.3	92.0
	Black	47.9	59.7	70.1	81.9
1987	White	58.7	79.3	86.3	92.1
	Black	47.2	58.9	69.6	81.9
1988	White	58.0	79.0	86.2	92.1
	Black	46.6	58.4	69.4	81.5
1989	White	56.0	78.1	86.1	92.6
	Black	46.2	58.3	69.4	82.1
1990	White	56.4	78.2	86.2	93.0
	Black	46.5	58.7	70.2	83.0
1991	White	57.4	78.5	86.2	93.0
	Black	48.0	59.9	71.0	83.5
1992	White	60.4	79.5	87.0	93.2
	Black	49.9	61.9	72.4	84.0
1993	White	62.3	80.2	87.2	93.3
	Black	52.2	63.8	73.9	84.7

Source: National Vital Statistics System, Natality & Mortality Files

Percentage of Live Births with Late Prenatal Care by Educational Attainment

Year	Mother's Race	Years of Education Completed			
		0-11 yrs	12 yrs	13-15 yrs	16+ yrs
1985	White	12.7	5.1	3.2	2.2
	Black	17.6	12.3	8.1	5.1
1986	White	13.0	5.2	3.3	2.2
	Black	18.3	12.6	8.7	5.3
1987	White	13.4	5.4	3.5	2.2
	Black	19.0	13.3	8.7	5.3
1988	White	13.7	5.7	3.6	2.3
	Black	19.2	13.4	8.8	5.5
1989	White	14.7	5.9	3.5	2.0
	Black	20.1	13.9	8.7	5.2
1990	White	14.2	5.7	3.4	1.9
	Black	19.8	13.4	8.5	5.1
1991	White	13.2	5.5	3.4	2.0
	Black	18.8	12.9	8.2	5.0
1992	White	11.8	5.2	3.2	2.0
	Black	17.9	12.2	7.9	5.0
1993	White	11.5	5.1	3.1	2.0
	Black	16.6	11.5	7.4	4.8

Source: National Vital Statistics System, Natality & Mortality Files

Low Birthweight Trends by Prenatal Care

Percent LBW	1985	1986	1987	1988	1989	1990	1991	1992	1993
White									
1st Trimester	5.2	5.2	5.2	5.2	5.3	5.3	5.4	5.5	5.6
2nd Trimester	6.3	6.3	6.4	6.3	6.2	6.2	6.3	6.2	6.5
3rd Trimester	6.3	6.0	6.3	6.1	6.1	5.8	5.7	5.8	5.8
None/Unknown	12.9	13.3	13.3	13.1	13.3	12.9	13.4	12.9	13.0
Black									
1st Trimester	11.8	11.9	11.8	11.9	12.1	12.0	12.3	12.3	12.3
2nd Trimester	12.2	12.4	12.6	12.9	13.0	12.7	13.1	12.6	12.9
3rd Trimester	11.4	11.2	11.3	11.6	11.4	11.2	11.4	11.2	11.3
None/Unknown	23.1	23.6	25.3	26.6	26.7	25.8	26.2	25.4	26.1

Source: National Vital Statistics Systems, Natality & Mortality Files

I don't understand 11.3 if only receive in 3rd trimester & higher 12.9 in 2nd am I misreading trimester may represent when the care started

use this.

(both bl. + wh.)

each stat adds up to almost 100% add in births from other races + you should get 100%