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Progress in Increasing Breastfeeding and Reducing Racial/Ethnic Differences — United States, 2000–2008 Births

The American Academy of Pediatrics recognizes breastfeeding and human milk as the "normative standards for infant feeding." Given the documented health benefits, the Academy recommends exclusive breastfeeding for 6 months, followed by continued breastfeeding for at least 12 months as complementary foods are introduced (*1*). To better understand trends during 2000–2008 and differences in breastfeeding initiation and duration overall and among black, white, and Hispanic infants born in 2000 and 2008, CDC analyzed National Immunization Survey (NIS) data. Among infants born in 2000, 70.3% had ever breastfed (had breastfeeding initiated), 34.5% breastfed for 6 months, and 16.0% breastfed for 12 months. Among infants born in 2008, the comparable percentages had increased to 74.6%, 44.4%, and 23.4%, respectively. By race/ethnicity, prevalence of breastfeeding initiation in 2000 was 47.4% among blacks, 71.8% among whites, and 77.6% among Hispanics. By 2008, the percentage of infants who ever breastfed had increased among blacks to 58.9% and among whites to 75.2%; an 80.0% prevalence among Hispanics did not amount to a statistically significant increase. From 2000 to 2008, breastfeeding at 6 and 12 months increased significantly among all three racial/ethnic populations. Although the gap between black and white breastfeeding initiation narrowed, black infants still had the lowest prevalences of breastfeeding initiation and duration, highlighting the need for targeted interventions in this population to promote and support breastfeeding. Despite increases in the prevalence of breastfeeding, fewer than half of the infants in the survey were still breastfeeding at 6 months, indicating that women who choose to breastfeed their infants need support to continue breastfeeding.

NIS is an ongoing, random-digit–dialed telephone survey conducted quarterly in 50 states and the District of Columbia among households with children aged 19–35 months (*2*). The survey primarily is intended to estimate vaccination coverage nationally and by state and selected urban areas. However, questions on breastfeeding were added starting in the third quarter of survey year 2001, when a limited number of respondents were asked about breastfeeding. Beginning in January 2003, all respondents were asked breastfeeding questions. Interviews were conducted with the person in the house most knowledgeable about the eligible child's vaccination history (*2*).

Because children are aged 19–35 months at the time of the NIS interview, each cross-sectional survey includes children born in earlier calendar years. For this report, a trend analysis for birth years 2000–2008 was conducted using data collected during 2002–2011. The data presented for infants born in 2000 were collected in 2002 and 2003; the data presented for infants born in 2008 were collected in 2009, 2010, and 2011. Breastfeeding initiation was assessed by asking, "Was [the child] ever breastfed or fed breast milk?" Breastfeeding duration was assessed by asking, "How long was [the child] breastfed or fed breast milk?" The wording of the breastfeeding duration question changed slightly in 2006 to "How old was [the child] when [the child] completely stopped breastfeeding or being fed breast milk?" These changes had minimal effect on estimates of breastfeeding duration (*3*).

The child's race and ethnicity were reported by the respondent and categorized into one of three mutually exclusive racial/

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ethnic groups: white, black, and Hispanic. Persons identified as Hispanic might be of any race. Persons identified as white or black are non-Hispanic. The overall prevalences calculated included data from all racial/ethnic groups, not just the three included in this analysis.

Breastfeeding prevalences and 95% confidence intervals for each year were estimated as weighted percentages, taking into account the complex sampling design of NIS. Whether trends in breastfeeding percentages were statistically significant ($p<0.05$) during the 2000–2008 birth years was determined using polynomial linear contrasts. Additionally, for each year, the percentage of breastfeeding among black infants was compared with the percentages among white and Hispanic infants to ascertain significant differences by chi-square tests.

From 2000 to 2008, breastfeeding initiation increased overall from 70.3% to 74.6% (Table). Initiation increased from 71.8% to 75.2% among whites ($p<0.01$) and from 47.4% to 58.9% among blacks ($p<0.01$), but remained unchanged among Hispanics (77.6% to 80.0%, $p=0.2$). Breastfeeding duration at 6 months increased overall from 34.5% to 44.4%. Duration at 6 months increased from 38.2% to 46.6% among whites, 16.9% to 30.1% among blacks, and 34.6% to 45.2% among Hispanics (all $p<0.01$). Breastfeeding duration at 12 months increased overall from 16.0% to 23.4%. Duration at 12 months increased from 17.1% to 24.3% among whites ($p<0.01$), 6.3% to 12.5% among blacks ($p<0.01$), and 18.2% to 26.3% among Hispanics ($p<0.01$) (Table).

For each of the 2000–2008 birth years, breastfeeding initiation and duration prevalences were significantly lower among black infants compared with white and Hispanic infants. However, the gap between black and white breastfeeding initiation narrowed from 24.4 percentage points in 2000 to 16.3 percentage points in 2008 (Table).

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Editorial Note

The findings in this report indicate that from 2000 to 2008, significant increases occurred in the percentages of black and white infants who had ever breastfed, and in the percentages breastfeeding at 6 and 12 months among black, white, and Hispanic infants. However, although 74.6% of infants overall began breastfeeding in 2008, only 23.4% had the recommended duration of 12 months of breastfeeding (*1*). In addition, although differences might be decreasing between black infants and white and Hispanic infants, consistently

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TABLE. Percentage of infants breastfed, by breastfeeding duration and race/ethnicity* — National Immunization Survey, United States, 2000 and 2008 births†

Duration and Race/Ethnicity	2000			2008			Percentage point increase from 2000 to 2008
	No. in sample	%	(95% CI)	No. in sample	%	(95% CI)	
Ever breastfed							
Overall§	**12,017**	**70.3**	**(68.4–72.3)**	**24,622**	**74.6**	**(73.6–75.5)**	**4.2**
White	6,631	71.8	(69.4–74.3)	15,119	75.2	(74.0–76.4)	3.4
Black	1,808	47.4	(41.4–53.4)	2,599	58.9	(56.1–61.8)	11.6
Hispanic	2,482	77.6	(73.6–81.7)	4,236	80.0	(78.0–81.9)	2.4¶
Breastfed at 6 mos							
Overall§	**12,017**	**34.5**	**(32.4–36.5)**	**24,622**	**44.4**	**(43.3–45.4)**	**9.9**
White	6,631	38.2	(35.5–40.9)	15,119	46.6	(45.3–47.9)	8.4
Black	1,808	16.9	(13.2–20.7)	2,599	30.1	(27.4–32.8)	13.2
Hispanic	2,482	34.6	(29.8–39.3)	4,236	45.2	(42.6–47.8)	10.7
Breastfed at 12 mos							
Overall§	**12,017**	**16.0**	**(14.4–17.6)**	**24,622**	**23.4**	**(22.5–24.4)**	**7.4**
White	6,631	17.1	(14.9–19.3)	15,119	24.3	(23.1–25.4)	7.2
Black	1,808	6.3	(4.0–8.7)	2,599	12.5	(10.5–14.4)	6.2
Hispanic	2,482	18.2	(14.2–22.1)	4,236	26.3	(23.7–28.8)	8.1

Abbreviation: CI = confidence interval.

* The child's race and ethnicity were reported by the respondent and categorized into one of three mutually exclusive racial/ethnic groups: white, black, and Hispanic. Persons identified as Hispanic might be of any race. Persons identified as white or black are non-Hispanic.

† Data for 2000 and 2008 births were collected from survey years 2002, 2003 and 2010, 2011, 2012, respectively.

§ The overall values include data from all racial/ethnic groups, not just the three included in this analysis.

¶ Increase was not significant; all other increases presented in table were significant ($p<0.05$), based on trend analysis using polynomial contrasts.

lower prevalence of breastfeeding among black infants warrants increased attention and action.

A number of factors and characteristics influence a woman's breastfeeding intentions. Characteristics associated with lower breastfeeding prevalence among women include younger age, lower income, less maternal education, and unmarried status (*4*). However, even when accounting for factors such as socioeconomic status and maternal education, racial/ethnic differences in breastfeeding persist (*5,6*). This persistent gap in breastfeeding rates between black women and women of other races and ethnicities might indicate that black women are more likely to encounter unsupportive cultural norms, perceptions that breastfeeding is inferior to formula feeding, lack of partner support, and an unsupportive work environment (*7*). All breastfeeding women need support, but specific interventions might be needed among populations with lower breastfeeding prevalence.

Although there is no single solution to increasing support for breastfeeding women, the 2011 *Surgeon General's Call to Action to Support Breastfeeding* outlines a number of actions aimed at increasing societal support for women who choose to breastfeed (*8*). The report suggests that as communities, employers, health-care providers, governments, and nonprofit organizations implement strategies to support breastfeeding, all women who choose to breastfeed will benefit. Strategies to increase breastfeeding support for minority women include 1) increasing support for nonprofit organizations that promote breastfeeding in minority communities and 2) increasing the number of International Board Certified Lactation Consultants from minority communities (*8*).

CDC's *Guide to Breastfeeding Interventions* also offers recommendations and program examples to assist states, territories, and communities in supporting mothers to begin and continue breastfeeding (*9*). Two projects currently funded by CDC aim to increase support for breastfeeding women by improving hospital practices related to breastfeeding and increasing community support available to breastfeeding women. The Best Fed Beginnings project provides support to 89 hospitals to improve maternity care practices to support breastfeeding women and to move the hospitals toward Baby-Friendly designation (*10*). Hospitals located in states known to have breastfeeding differences and serving low-income and minority populations were given preference. In addition, CDC awarded funds to six state health departments to develop community breastfeeding support systems in minority populations. Grantees will collaborate with community-based organizations to address the challenges that breastfeeding mothers encounter after hospital discharge to establish and maintain breastfeeding.

The findings in this report are subject to at least three limitations. First, the household response rates for NIS ranged from 61.6% to 74.2% during the survey years examined. Second, data collected before 2011 did not include cellular telephone users, introducing concern about how representative the data are for the population. However, sampling was adjusted for noncoverage of households without landline telephones. Although cellular telephone users were part of the 2011 survey,

What is already known on this topic?

The American Academy of Pediatrics recommends exclusive breastfeeding for 6 months, followed by continued breastfeeding for at least 12 months as complementary foods are introduced. Prevalences of breastfeeding initiation and duration have been increasing overall nationally. However, racial/ethnic differences in breastfeeding have been observed.

What is added by this report?

Trend analysis shows increases overall in U.S. breastfeeding from 2000 to 2008. The prevalence of infants ever breastfed increased from 70.3% to 74.6% during that period, breastfed at 6 months increased from 34.5% to 44.4%, and breastfed at 12 months increased from 16.0% to 23.4%. Breastfeeding prevalence among black infants was persistently lower than among whites and Hispanics. In 2008, prevalence of breastfeeding initiation was 58.9% among blacks, compared with 75.2% among whites and 80.0% among Hispanics.

What are the implications for public health practice?

Women who choose to breastfeed might need additional support to increase breastfeeding duration. A special need is for targeted strategies to increase breastfeeding support for black women.

this analysis only includes the landline sampling frame, in order to allow comparison with previous years. Finally, the 2000 cohort is small compared with the other years because it includes only 2 years of survey data and in 2002 only a sample of respondents were asked breastfeeding questions.

The percentage of infants breastfeeding increased from 2000 to 2008. However, despite increases in the prevalence of infants ever breastfed and breastfeeding for 6 and 12 months, only a small percentage of infants were breastfed for the recommended minimum breastfeeding duration of 12 months, indicating that mothers might need support to continue breastfeeding. The prevalence of breastfeeding among black infants remains below that for whites and Hispanics, suggesting that black mothers might face unique barriers to meeting breastfeeding goals and might need additional support to start and continue breastfeeding.

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Vital Signs: Current Cigarette Smoking Among Adults Aged ≥18 Years with Mental Illness — United States, 2009–2011

On February 5, 2013, this report was posted as an MMWR *Early Release on the* MMWR *website (http://www.cdc.gov/mmwr).*

Background: Cigarette smoking remains the leading cause of preventable morbidity and mortality in the United States. Despite overall declines in cigarette smoking, a high prevalence of smoking persists among certain subpopulations, including persons with mental illness.

Methods: Combined data from the 2009–2011 National Survey on Drug Use and Health (NSDUH) were used to calculate national and state estimates of cigarette smoking among adults aged ≥18 years who had any mental illness (AMI), defined as having a mental, behavioral, or emotional disorder, excluding developmental and substance use disorders, in the past 12 months.

Results: During 2009–2011, an annual average of 19.9% of adults aged ≥18 years had AMI; among these persons, 36.1% were current smokers, compared with 21.4 % among adults with no mental illness. Smoking prevalence among those with AMI was highest among men, adults aged <45 years, and those living below the poverty level; smoking prevalence was lowest among college graduates. During 2009–2011, adults with AMI smoked 30.9% of all cigarettes smoked by adults. By U.S. region, smoking prevalence among those with AMI was lowest in the West (31.5%) and Northeast (34.7%) and highest in the Midwest (39.1%) and South (37.8%), with state prevalence ranging from 18.2% (Utah) to 48.7% (West Virginia).

Conclusions: The prevalence of cigarette smoking is high among adults with AMI, especially for younger adults, those with low levels of education, and those living below the poverty level; the prevalence varies by U.S. region.

Implications for Public Health Practice: Increased awareness about the high prevalence of cigarette smoking among persons with mental illness is needed to enhance efforts to reduce smoking in this population. Proven population-based prevention strategies should be extended to persons with mental illness, including implementing tobacco-free campus policies in mental health facilities. Primary care and mental health-care providers should routinely screen patients for tobacco use and offer evidence-based cessation treatments. Given that persons with mental illness are at risk for multiple adverse behavioral and health outcomes, tobacco cessation will have substantial benefits, including a reduction in excess morbidity and mortality attributed to tobacco use.

Introduction

Tobacco use remains the leading cause of preventable morbidity and mortality in the United States. The health consequences of tobacco use include cardiovascular disease, multiple types of cancer, pulmonary disease, adverse reproductive outcomes, and the exacerbation of chronic health conditions (*1*). Cigarette smoking causes approximately 443,000 premature deaths in the United States annually and has been estimated to cost the United States $96 billion in direct medical expenses and $97 billion in lost productivity each year.*

Despite overall declines in the prevalence of adult cigarette smoking, prevalence remains high among certain subpopulations, particularly persons with mental illness (*1*). Research suggests that smoking prevalence among U.S. adults with mental illness or serious psychological distress ranges from 34.3% (phobias or fears) to 88% (schizophrenia), compared with 18.3% among adults with no such illness (*2,3*). Persons with mental illness might smoke more frequently and heavily than the general population (*2*), and they might lack access to cessation services (*4,5*). Monitoring tobacco use across all subpopulations† is necessary to meet the *Healthy People 2020* target of reducing the prevalence of cigarette smoking among adults to ≤12% (objective TU-1).§ Using data from the 2009–2011 National Survey on Drug Use and Health (NSDUH), this report provides the most recent national and state estimates of cigarette smoking among adults aged ≥18 years with AMI.

* Additional information available at http://www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/index.htm.

† Additional information available at http://www.who.int/tobacco/mpower/mpower_report_full_2008.pdf.

§ Additional information available at http://healthypeople.gov/2020/topicsobjectives2020.

Methods

NSDUH collects information on substance use and mental health indicators from a nationally representative sample of civilian, noninstitutionalized persons aged ≥12 years in the United States. Data are collected annually through handheld computer–assisted face-to-face interviews at the respondent's residence, using a combination of interviewer-administered and respondent self-administered questions.¶ This study included 138,000 adult respondents interviewed during 2009, 2010, or 2011. Annual response rates ranged from 87% to 89% at the household level and from 74% to 76% at the individual level. To assess AMI in the preceding year, respondents aged ≥18 years answered a series of 14 questions that made up two scales measuring psychological distress (Kessler-6) and disability (World Health Organization Disability Assessment Schedule) (*6*). Kessler-6 assesses psychological distress and includes questions about feeling nervous, hopeless, restless or fidgety, sad or depressed, or worthless (*6*). The World Health Organization Disability Assessment Schedule assesses disturbances in social adjustment and behavior, including psychological difficulties that interfere with respondents remembering, concentrating, getting out on their own, participating in familiar and unfamiliar social activities, and taking care of daily responsibilities related to home, work, or school (*6*). Scores on these two scales were used to determine AMI status based on a statistical model developed from clinical interviews that assessed disorders based on criteria in the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)¶; these clinical interviews were administered to a nationally representative subsample of NSDUH respondents. AMI was defined as having a mental, behavioral, or emotional disorder, and did not include developmental and substance use disorders, in the past 12 months.

Current smoking was defined as smoking all or part of a cigarette within the 30 days preceding the interview. Among current smokers, daily smoking was defined as smoking every day in the past 30 days. Ever smoking was defined as adults who smoked at least 100 cigarettes in their lifetimes. The quit ratio was calculated as the percentage of adults who had ever smoked ≥100 cigarettes and who also reported no past month cigarette use. Current smoking was examined by age, race/ethnicity, education, poverty status, U.S. Census region, and year (https://www.census.gov/hhes/www/poverty/data/threshld/index.html), both overall and by sex. Persons identified as Hispanic might be of any race. Persons identified as white, black, Asian, American Indian/Alaska Native, or Other were all non-Hispanic. The six racial/ethnic categories were mutually exclusive. Other included Native Hawaiians or Other Pacific Islanders and persons of two or more races. Poverty status was defined using poverty thresholds published by the U.S. Census Bureau. Data were weighted during analysis to adjust for the differential probability of both selection and response. Statistical significance of observed differences was assessed using chi-square tests of independence between subgroups, and pairwise tests for specific comparisons of interest. A level of 0.05 was used to determine statistical significance.

¶ Additional information available at http://www.samhsa.gov/data/NSDUH/2k11MH_FindingsandDetTables/Index.aspx.

Results

During 2009–2011, an estimated annual average of 19.9% (45.7 million) U.S. adults aged ≥18 years had AMI (Table 1). The prevalence of current smoking was 36.1% among persons with AMI and 21.4% among those without AMI (Table 2). The prevalence of adult smokers aged ≥18 years with AMI was 29.5%. Among current smokers, the average number of cigarettes smoked in the preceding month was higher among adults with AMI (331 cigarettes) compared with adults who did not have AMI (310) ($p<.05$).** Among all cigarettes smoked by adults aged ≥18 years, 30.9% were smoked by adults with AMI.** Among adults with AMI, the quit ratio was 34.7%, compared with 53.4% among adults who did not have AMI ($p<0.05$).

Prevalence of current smoking among adults with AMI was higher among men (39.6%) than women (33.8%) (Table 2). By age, prevalence was higher for those aged 18–24 years (41.6%) and 25–44 years (40.5%) than for those aged 45–64 years (33.5%) and ≥65 years (13.0%). By race/ethnicity, prevalence was lowest among Asians (20.6%) and highest among whites (37.7%) and respondents categorized as of Other race (40.0%). However, the difference between smoking prevalence among Asians with AMI compared with Asians without AMI was greater than the difference between persons with and without AMI in any other group (almost twofold higher overall, and threefold higher in women).

Among adults age ≥25 years with AMI, the prevalence of current smoking was lowest among college graduates (18.7%) (Table 2). By poverty status, prevalence was higher among adults living below the federal poverty level (47.9%) than among those at or above this level (33.3%). By U.S. Census region, prevalence was lowest in the West (31.5%) and Northeast (34.7%) and highest in the Midwest (39.1%) and South (37.8%). By state, the prevalence ranged from 18.2% (Utah) to 48.7% (West Virginia) (Table 3).

Conclusions and Comments

During 2009–2011, adults with AMI had a high prevalence of cigarette smoking. Sociodemographic variations in the prevalence of current smoking among persons with AMI resembled patterns in the overall population (*7,8*). Whereas estimates for smoking were reported to be high among persons with AMI, it is likely that

** Additional information available at: http://www.samhsa.gov/data/2k13/NSDUH093/sr093-smoking-mental-illness.pdf.

TABLE 1. Percentage of adults with any mental illness, by sex and selected characteristics — National Survey on Drug Use and Health, United States, 2009–2011

	% with any mental illness*					
	Men (n=53,700)		Women (n=60,300)		Total (n=114,100)	
Characteristic	%	(95% CI)	%	(95% CI)	%	(95% CI)
Age group (yrs)						
18–24	24.9	(24.2–25.5)	36.0	(35.3–36.8)	**30.4**	**(29.8–30.9)**
25–44	18.2	(17.4–18.9)	27.2	(26.5–28.0)	**22.8**	**(22.2–23.3)**
45–64	14.0	(13.1–14.9)	20.7	(19.8–21.7)	**17.4**	**(16.8–18.1)**
≥65	8.6	(7.5–9.8)	12.6	(11.5–13.8)	**10.8**	**(10.0–11.7)**
Race/Ethnicity†						
White	16.5	(16.0–17.1)	24.5	(24.0–25.1)	**20.7**	**(20.2–21.1)**
Black	15.7	(14.4–17.1)	21.4	(20.1–22.9)	**18.9**	**(17.9–19.9)**
Hispanic	14.1	(13.0–15.3)	20.6	(19.4–21.9)	**17.3**	**(16.5–18.2)**
American Indian/Alaska Native	20.1	(14.4–27.2)	26.3	(21.3–31.9)	**23.4**	**(19.4–28.1)**
Asian	14.9	(12.6–17.6)	16.6	(14.7–18.8)	**15.8**	**(14.3–17.5)**
Other	24.4	(20.3–29.0)	31.1	(27.0–35.5)	**27.8**	**(24.9–30.9)**
Education§						
Less than high school graduate	18.3	(16.9–19.9)	22.8	(21.2–24.4)	**20.6**	**(19.5–21.7)**
High school graduate	14.1	(13.2–14.9)	21.1	(20.1–22.2)	**17.7**	**(17.0–18.4)**
Some college	16.3	(15.2–17.5)	23.3	(22.2–24.4)	**20.1**	**(19.3–21.0)**
College graduate	12.6	(11.8–13.4)	20.0	(19.1–20.9)	**16.3**	**(15.7–17.0)**
Poverty status¶						
At or above poverty level	14.8	(14.4–15.3)	21.7	(21.2–22.3)	**18.3**	**(18.0–18.7)**
Below poverty level	26.1	(24.7–27.7)	32.2	(31.0–33.5)	**29.7**	**(28.7–30.8)**
Unknown	25.8	(22.6–29.2)	37.6	(33.6–41.8)	**31.9**	**(29.0–35.0)**
U.S Census region**						
Northeast	15.8	(14.8–16.9)	22.9	(21.8–24.0)	**19.5**	**(18.7–20.3)**
Midwest	16.2	(15.4–17.0)	24.3	(23.3–25.2)	**20.4**	**(19.7–21.0)**
South	15.6	(14.9–16.4)	23.2	(22.4–24.0)	**19.6**	**(19.0–20.1)**
West	17.2	(16.1–18.3)	23.2	(22.2–24.4)	**20.3**	**(19.5–21.1)**
Year						
2009	15.7	(14.9–16.5)	24.0	(23.1–24.8)	**20.0**	**(19.4–20.6)**
2010	16.8	(16.1–17.7)	23.1	(22.3–24.0)	**20.1**	**(19.5–20.7)**
2011	15.9	(15.1–16.7)	23.0	(22.2–23.9)	**19.6**	**(19.0–20.2)**
Total	**16.1**	**(15.7–16.6)**	**23.4**	**(22.9–23.9)**	**19.9**	**(19.5–20.2)**

Abbreviation: CI = confidence interval.

* Any mental illness is defined as a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, that met the criteria found in the 4th edition of the "Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)." For details on the methodology, see Section B.4.3 in Appendix B of the Results from the 2011 National Survey on Drug Use and Health: Mental Health Findings.

† Persons identified as Hispanic might be of any race. Persons identified as white, black, Asian, American Indian/Alaska Native, or Other are all non-Hispanic. The five racial/ethnic categories are mutually exclusive. Other includes Native Hawaiians or Other Pacific Islanders and persons of two or more races.

§ Among adults aged ≥25 years.

¶ Based on reported family income and poverty thresholds published by the U.S. Census Bureau.

** Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

these rates would be even higher if the AMI definition included substance use disorders since persons with substance use disorders but no other mental disorder were excluded (*9*). Increasing awareness of the high smoking prevalence in this population is needed (*9*). In addition to investing in comprehensive tobacco prevention and control programs at CDC-recommended levels (*10*), better coordination between tobacco control and mental health programs at the national, state, and community levels is needed. In clinical settings, screening for tobacco use and offering effective cessation treatments, such as medications and counseling, to persons with mental illness†† would likely further reduce tobacco-use prevalence and result in a substantial reduction in tobacco-related morbidity and mortality (*10*).

The lowest prevalences were observed in the West and the Northeast; by state, the lowest prevalence was observed in Utah. Prevalence was also low in Massachusetts and California, which have achieved successes in reducing smoking in the overall population through implementation of comprehensive tobacco control programs and population-based policy interventions (*11*). Moreover, Massachusetts substantially reduced smoking prevalence among Medicaid enrollees by establishing and heavily promoting comprehensive Medicaid coverage of evidence-based cessation treatments that minimized cost barriers to their access (*12*).

In addition to the high prevalence of smoking among persons with AMI, data also indicate that these persons smoke more cigarettes per month and are less likely to have stopped smoking, compared with persons without AMI. There are several possible explanations for these findings. First, because nicotine is a central nervous system stimulant with mood-altering effects, it can temporarily mask negative affect and symptoms associated with mental illness (*3*). Second, research indicates that other constituents of tobacco smoke can accelerate the metabolism of some mental health medications, thus possibly reducing their effective blood levels (*13*) and potentially resulting in increased compensatory nicotine intake (*13*). Third, given that >80% of adult smokers begin smoking during adolescence,§§ those with AMI who smoke also likely started during youth. Factors that might predict the onset of dependence among

†† Additional information available at http://www.ahrq.gov/clinic/tobacco/treating_tobacco_use08.pdf.

§§ Additional information available at http://www.surgeongeneral.gov/library/reports/preventing-youth-tobacco-use/full-report.pdf.

TABLE 2. Percentage of adults who smoke cigarettes,* by mental illness status,† sex, and selected characteristics — National Survey on Drug Use and Health, United States, 2009–2011

	% of persons with any mental illness who smoke cigarettes						% of persons with no mental illness who smoke cigarettes					
	Men (n=11,100)		Women (n=18,300)		Total (n=29,400)		Men (n=42,700)		Women (n=42,000)		Total (n=84,700)	
Characteristic	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)	%	(95% CI)
Age group (yrs)												
18–24	45.2	(43.6–46.9)	39.1	(37.9–40.3)	**41.6**	**(40.6–42.6)**	36.7	(35.7–37.6)	24.9	(24.1–25.7)	**31.3**	**(30.6–32.0)**
25–44	44.7	(42.5–46.9)	37.8	(36.2–39.5)	**40.5**	**(39.3–41.8)**	29.8	(28.8–30.8)	21.7	(20.9–22.6)	**25.9**	**(25.2–26.6)**
45–64	34.7	(31.6–37.9)	32.8	(30.5–35.1)	**33.5**	**(31.7–35.4)**	22.1	(21.0–23.3)	19.2	(18.2–20.3)	**20.7**	**(19.9–21.5)**
≥65	18.3	(13.0–25.3)	10.1	(7.5–13.5)	**13.0**	**(10.3–16.1)**	9.1	(7.8–10.5)	8.6	(7.6–9.7)	**8.8**	**(8.0–9.7)**
Race/Ethnicity§												
White	40.4	(38.7–42.1)	36.0	(34.8–37.2)	**37.7**	**(36.7–38.7)**	24.4	(23.7–25.1)	20.1	(19.4–20.7)	**22.3**	**(21.7–22.8)**
Black	41.5	(37.1–46.1)	29.5	(26.5–32.6)	**34.0**	**(31.5–36.5)**	25.9	(24.1–27.9)	19.2	(17.5–20.9)	**22.3**	**(21.0–23.7)**
Hispanic	38.2	(34.0–42.6)	26.8	(24.1–29.8)	**31.6**	**(29.1–34.2)**	25.5	(23.9–27.2)	13.4	(12.1–14.7)	**19.8**	**(18.7–20.9)**
American Indian/Alaska Native	—¶	—¶	56.0	(44.9–66.5)	**54.7**	**(45.3–63.7)**	35.0	(27.9–42.9)	26.3	(20.7–32.9)	**30.5**	**(25.7–35.7)**
Asian	26.6	(20.3–34.1)	16.0	(12.4–20.4)	**20.6**	**(17.2–24.6)**	15.9	(13.6–18.5)	5.5	(4.2–7.3)	**10.4**	**(9.0–11.9)**
Other	35.8	(27.3–45.3)	43.1	(36.4–50.0)	**40.0**	**(34.5–45.7)**	26.3	(22.4–30.7)	26.3	(21.8–31.4)	**26.3**	**(23.2–29.6)**
Education**												
Less than high school graduate	53.0	(48.5–57.4)	41.5	(37.8–45.3)	**46.6**	**(43.6–49.6)**	34.8	(32.8–36.9)	22.7	(20.9–24.7)	**28.9**	**(27.6–30.3)**
High school graduate	42.8	(39.5–46.3)	38.6	(36.1–41.2)	**40.2**	**(38.2–42.3)**	28.4	(27.2–29.7)	21.9	(20.8–23.0)	**25.2**	**(24.3–26.0)**
Some college	39.3	(35.9–42.9)	37.5	(35.2–39.8)	**38.1**	**(36.2–40.2)**	23.5	(22.2–24.9)	19.9	(18.7–21.1)	**21.6**	**(20.7–22.5)**
College graduate	22.0	(19.4–24.9)	16.7	(14.9–18.6)	**18.7**	**(17.2–20.3)**	11.7	(10.8–12.6)	9.5	(8.7–10.4)	**10.6**	**(10.0–11.3)**
Poverty status††												
At or above poverty level	36.8	(35.2–38.5)	30.9	(29.8–32.0)	**33.3**	**(32.3–34.2)**	22.9	(22.3–23.5)	16.8	(16.3–17.4)	**20.0**	**(19.5–20.4)**
Below poverty level	52.8	(49.4–56.2)	45.1	(42.8–47.4)	**47.9**	**(45.9–49.8)**	38.3	(36.3–40.4)	28.6	(26.9–30.3)	**32.8**	**(31.5–34.1)**
Unknown	24.9	(19.2–31.6)	23.8	(18.8–29.6)	**24.2**	**(20.6–28.2)**	21.4	(16.3–27.5)	17.4	(14.0–21.4)	**19.5**	**(16.2–23.3)**
U.S Census region§§												
Northeast	37.6	(34.4–40.8)	32.9	(30.6–35.4)	**34.7**	**(32.8–36.7)**	22.9	(21.6–24.3)	18.8	(17.7–20.1)	**20.9**	**(20.0–21.8)**
Midwest	42.9	(40.4–45.4)	36.7	(34.7–38.7)	**39.1**	**(37.5–40.7)**	25.8	(24.7–26.9)	20.8	(19.8–21.9)	**23.4**	**(22.6–24.2)**
South	41.9	(39.3–44.5)	35.3	(33.5–37.1)	**37.8**	**(36.3–39.3)**	26.1	(25.0–27.2)	19.2	(18.2–20.2)	**22.7**	**(21.9–23.5)**
West	35.1	(32.1–38.2)	29.0	(27.0–31.0)	**31.5**	**(29.7–33.3)**	21.6	(20.3–23.0)	14.4	(13.3–15.5)	**18.1**	**(17.2–19.0)**
Year												
2009	41.3	(38.9–43.8)	34.1	(32.3–35.9)	**36.8**	**(35.3–38.4)**	24.5	(23.4–25.5)	19.2	(18.3–20.2)	**21.9**	**(21.2–22.6)**
2010	40.2	(37.8–42.6)	34.2	(32.4–36.1)	**36.6**	**(35.2–38.1)**	24.7	(23.7–25.7)	18.3	(17.3–19.3)	**21.5**	**(20.8–22.3)**
2011	37.4	(35.0–39.9)	33.0	(31.2–34.8)	**34.7**	**(33.3–36.2)**	24.1	(23.1–25.1)	17.7	(16.8–18.6)	**20.9**	**(20.2–21.6)**
Total	**39.6**	**(38.2–41.1)**	**33.8**	**(32.7–34.8)**	**36.1**	**(35.2–36.9)**	**24.4**	**(23.8–25.0)**	**18.4**	**(17.8–18.9)**	**21.4**	**(21.0–21.9)**

Abbreviation: CI = confidence interval.

* Persons who reported ever smoking all or part of a cigarette in the 30 days preceding the interview.

† Any mental illness is defined as a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder, that met the criteria found in the 4th edition of the "Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)." For details on the methodology, see Section B.4.3 in Appendix B of the Results from the 2011 National Survey on Drug Use and Health: Mental Health Findings.

§ Persons identified as Hispanic might be of any race. Persons identified as white, black, Asian, American Indian/Alaska Native, or Other are all non-Hispanic. The five racial/ethnic categories are mutually exclusive. Other includes Native Hawaiians or Other Pacific Islanders and persons of two or more races.

¶ No estimate reported because of low precision.

** Among adults aged ≥25 years.

†† Based on reported family income and poverty thresholds published by the U.S. Census Bureau.

§§ Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont. Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin. South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia. West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

youths include depressed mood and familiarity with tobacco advertisements (*14*); adolescents with depressive symptoms might experience increased receptivity to tobacco advertisements, making them more likely to smoke (*15*). Fourth, the tobacco industry has marketed cigarettes to populations with AMI (*16*), funded research to show that persons with AMI use nicotine to alleviate negative mood (i.e., self-medicate), provided free or cheap cigarettes to psychiatric facilities, and supported efforts to block smokefree psychiatric hospital policies (*3,16*). Finally, persons with AMI are uniquely vulnerable. They often lack financial resources, face unstable, stressful living conditions, and have difficulty coping with symptoms of withdrawal; they also might lack health insurance, information on the health effects of smoking, and access to cessation treatments (*4,17,18*).

TABLE 3. Percentage of adults who smoke cigarettes, by mental illness status and state — National Survey on Drug Use and Health, United States, 2009–2011

State	% with any mental illness*		% of persons with any mental illness who smoke cigarettes†		% of persons with no mental illness who smoke cigarettes†	
	%	(95% CI)	%	(95% CI)	%	(95% CI)
United States overall	**19.9**	**(19.5–20.2)**	**36.1**	**(35.2–36.9)**	**21.4**	**(21.0–21.9)**
State median	**20.4**		**36.7**		**22.1**	
Alabama	23.8	(21.0–26.9)	47.7	(41.3–54.1)	22.5	(19.5–25.8)
Alaska	20.5	(17.6–23.7)	40.1	(33.4–47.1)	28.8	(24.3–33.8)
Arizona	20.1	(17.3–23.3)	39.7	(33.1–46.7)	20.1	(16.9–23.6)
Arkansas	22.5	(20.1–25.2)	41.0	(34.7–47.6)	25.5	(22.4–28.8)
California	18.7	(17.5–20.0)	30.0	(27.2–32.9)	15.8	(14.6–17.2)
Colorado	19.9	(17.1–23.0)	31.4	(25.4–38.0)	20.3	(16.9–24.2)
Connecticut	17.8	(14.7–21.2)	35.7	(27.7–44.6)	20.4	(17.1–24.2)
Delaware	20.1	(17.3–23.1)	34.9	(28.6–41.9)	24.3	(21.1–27.9)
District of Columbia	21.3	(18.4–24.5)	34.6	(27.1–42.9)	20.8	(17.4–24.6)
Florida	17.8	(16.5–19.2)	36.6	(32.8–40.6)	21.2	(19.8–22.8)
Georgia	17.2	(15.2–19.3)	24.0	(18.8–30.1)	20.0	(17.2–23.2)
Hawaii	20.4	(17.7–23.2)	29.7	(24.4–35.6)	20.3	(17.1–23.9)
Idaho	27.2	(24.7–29.9)	35.5	(29.8–41.6)	21.3	(18.2–24.8)
Illinois	18.3	(17.1–19.5)	38.0	(34.5–41.6)	22.1	(20.5–23.8)
Indiana	22.3	(19.5–25.3)	38.8	(33.3–44.6)	24.4	(20.5–28.9)
Iowa	20.7	(18.0–23.6)	41.2	(33.6–49.4)	22.4	(19.3–25.9)
Kansas	18.3	(16.0–20.8)	37.5	(30.6–45.0)	23.6	(20.3–27.2)
Kentucky	21.2	(18.4–24.3)	41.8	(36.0–47.9)	31.8	(27.6–36.2)
Louisiana	20.7	(18.3–23.4)	44.9	(36.3–53.8)	25.5	(21.7–29.7)
Maine	18.4	(15.9–21.1)	35.5	(29.6–41.8)	25.2	(22.1–28.5)
Maryland	19.4	(16.7–22.4)	27.7	(23.1–32.8)	18.5	(15.1–22.6)
Massachusetts	19.3	(16.9–22.0)	29.7	(23.3–37.0)	16.8	(14.2–19.9)
Michigan	21.6	(20.3–23.0)	41.5	(38.1–45.0)	24.6	(23.0–26.2)
Minnesota	19.0	(16.6–21.7)	40.2	(33.6–47.1)	19.9	(17.6–22.5)
Mississippi	21.8	(19.4–24.4)	39.9	(33.6–46.5)	25.3	(22.6–28.2)
Missouri	20.3	(18.0–22.8)	39.4	(33.2–46.1)	26.1	(23.0–29.5)
Montana	22.4	(20.1–24.8)	30.9	(24.9–37.7)	24.4	(21.3–27.7)
Nebraska	19.1	(16.5–21.9)	38.5	(31.9–45.4)	22.2	(18.9–26.0)
Nevada	20.7	(17.5–24.2)	36.0	(28.4–44.4)	22.8	(19.1–26.9)
New Hampshire	20.9	(18.1–24.0)	37.5	(31.4–44.1)	20.3	(17.5–23.4)
New Jersey	17.4	(15.0–20.1)	35.6	(30.0–41.6)	21.6	(18.7–24.9)
New Mexico	19.9	(17.3–22.8)	34.8	(28.8–41.4)	19.9	(16.7–23.5)
New York	20.4	(19.1–21.7)	33.0	(29.8–36.4)	20.2	(18.8–21.7)
North Carolina	18.3	(16.4–20.4)	41.8	(35.0–48.9)	22.5	(19.7–25.7)
North Dakota	17.9	(15.6–20.6)	35.6	(30.2–41.4)	21.2	(19.1–23.6)
Ohio	22.2	(20.8–23.7)	39.0	(35.6–42.5)	25.1	(23.5–26.8)
Oklahoma	22.2	(19.5–25.1)	45.5	(38.7–52.5)	28.9	(24.9–33.3)
Oregon	21.1	(18.3–24.3)	35.3	(29.3–41.8)	21.2	(18.4–24.3)
Pennsylvania	19.5	(18.3–20.9)	38.8	(35.2–42.6)	23.2	(21.4–25.1)
Rhode Island	23.9	(20.1–28.2)	34.1	(27.5–41.4)	21.9	(18.0–26.5)
South Carolina	21.0	(18.3–23.9)	43.3	(35.9–50.9)	27.0	(23.5–30.9)
South Dakota	18.1	(15.1–21.5)	40.8	(33.1–48.9)	23.2	(19.8–26.8)
Tennessee	25.8	(22.9–28.8)	45.0	(37.7–52.5)	25.6	(21.7–29.9)
Texas	17.5	(16.3–18.7)	33.9	(30.7–37.3)	21.3	(19.7–23.0)
Utah	26.9	(24.2–29.8)	18.2	(14.3–22.9)	12.3	(9.7–15.5)
Vermont	22.2	(19.5–25.0)	38.0	(32.5–43.8)	19.9	(16.9–23.2)
Virginia	20.3	(18.2–22.5)	35.1	(29.5–41.1)	19.7	(16.0–23.9)
Washington	23.9	(21.3–26.8)	31.1	(25.6–37.2)	21.1	(17.8–24.8)
West Virginia	23.5	(20.8–26.3)	48.7	(40.7–56.8)	29.1	(24.9–33.8)
Wisconsin	20.0	(17.2–23.2)	35.6	(29.1–42.6)	20.9	(17.4–25.0)
Wyoming	21.8	(19.2–24.7)	36.7	(30.3–43.6)	22.8	(19.5–26.5)

Abbreviation: CI = confidence interval.

* Any mental illness is defined as a diagnosable mental, behavioral, or emotional disorder, other than a developmental or substance use disorder that met the criteria found in the 4th edition of the "Diagnostic and Statistical Manual of Mental Disorders (DSM-IV)." For details on the methodology, see Section B.4.3 in Appendix B of the Results from the 2011 National Survey on Drug Use and Health: Mental Health Findings.

† Persons who reported ever smoking part or all of a cigarette, and who, at the time of interview, reported smoking part or all of a cigarette within the preceding 30 days.

Key Points

- Cigarette smoking remains the leading preventable cause of disease, disability, and death in the United States. During 2009–2011, nearly 20% of adults reported they had some form of mental illness in the past year, and among those with mental illness, 36% smoked cigarettes.
- About 3 in 10 cigarettes smoked by adults are smoked by those with mental illness.
- Adult smokers with mental illness are less likely to quit than adult smokers without mental illness.
- In addition to sustained and adequately funded comprehensive tobacco control programs, enhanced prevention and cessation efforts among persons with mental illness can further reduce smoking-related death and disease.
- Additional information is available at http://www.cdc.gov/vitalsigns.

Mental health–care providers and facilities have traditionally been reluctant to address tobacco use in their patients (*4,17*) because of several factors. First, mental health–care providers have been concerned that smoking cessation could interfere with their patients' treatment (*4,17*). Some mental health facilities also have used smoking privileges as a reward (*4,17*). Finally, some mental health–care providers believe that their patients who smoke do not want to or cannot quit (*4,17*). However, evidence from recent research has suggested that these concerns largely are unfounded; persons with AMI who smoke are as interested in quitting as other smokers, are able to quit successfully, and benefit from evidence-based cessation treatments, although intensive and longer treatment sometimes is required (*4,17*).

The findings in this report are subject to at least six limitations. First, AMI is an overall measure for DSM-IV disorders and cannot be separated into specific categories, whereas prevalence of smoking can differ among persons with various mental illness diagnoses (*2*). However, the estimate for the prevalence of AMI reported here is comparable to estimates from other national surveys (*6*). Second, estimates of smoking were self-reported and not validated by biochemical tests. Although studies of self-reported smoking might yield lower prevalence estimates than studies of serum cotinine (a breakdown product of nicotine) (*19*), it is unlikely that underreporting would substantially change the estimates reported. The estimates for current smoking in the population overall reported from NSDUH are higher than estimates from other national surveys, such as the National Health Interview Survey (NHIS) (19.0 in 2011), because of variations in the data collection methods and measures used to define current smoking. Nonetheless, both surveys have reported similar trends for current smoking among adults (*7,8*). Third, this report does not include persons residing in mental health residential communities, for whom smoking practices might differ from persons identified with AMI in the NSDUH sample population. Also, persons in the military were not included, and therefore the findings might not be generalizable to those populations. The report also did not have information about experiences of traumatic stress, which has been shown to be associated with both depressed affect and smoking (*20*). Fourth, because of small sample sizes, some estimates for American Indians/Alaska Natives were suppressed. Fifth, the data could not be disaggregated for specific Asian subgroups, among whom smoking prevalence is known to vary widely (*21*). Finally, the estimate that 30.9% of all cigarettes smoked by adults are smoked by those with mental illness is lower than that previously reported (44%) (*9*), mainly because the estimate in the current study does not include persons who have substance use disorder and no other mental disorder.

The high smoking prevalence among persons with mental illness imposes a heavy burden in lost life expectancy (*22*) and constitutes a major public health disparity in a uniquely vulnerable population. To reduce this burden and disparity, efforts are needed to raise awareness and increase collaboration among mental health and tobacco control programs at the national, state, and local levels. Several national organizations and federal government agencies have recently called attention to the problem of tobacco use among persons with mental illness. For example, the Substance Abuse and Mental Health Services Administration and the Smoking Cessation Leadership Center have conducted Leadership Academies for Wellness and Smoking Cessation in Behavioral Health to support states in developing action plans to reduce smoking prevalence in this population.¶¶ Implementation of tobacco-free campus policies in mental health facilities and full integration of tobacco dependence treatment into mental health care can contribute to decreasing smoking among persons with AMI. Finally, continued surveillance is needed to track implementation of these policy and clinical interventions and to monitor progress in addressing this disparity.

¶¶ Additional information available at http://smokingcessationleadership.ucsf.edu/LeadershipAcademies.htm.

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Notes from the Field

Botulism From Drinking Prison-Made Illicit Alcohol — Arizona, 2012

During November 24–27, 2012, the Arizona Department of Health Services (ADHS) was notified that eight male inmates of prison A, a maximum security prison, had been hospitalized for treatment of an acute neurologic condition suspected to be botulism. Botulism is a serious paralytic illness caused by a nerve toxin produced by the bacterium *Clostridium botulinum*. All eight patients reported drinking pruno, an illicitly brewed alcoholic beverage that has been associated with botulism outbreaks in prisons (*1*,*2*). This was the second outbreak of botulism in prison A during 2012; in August, four inmates were hospitalized for botulism after drinking pruno. Pinal County Health Services (PCHS), ADHS, and CDC investigated to identify the outbreak source, learn about pruno production, and provide recommendations for preventing future outbreaks of botulism in prisons.

A case of botulism was defined as signs and symptoms of cranial nerve palsies (e.g., double vision or blurred vision) and weakness, dysphagia, or impaired gag reflex, with onset in November 2012, in a prison A inmate with *Clostridium botulinum* bacteria or toxin in a clinical specimen or with a history of drinking pruno from the same batch as an inmate with a positive clinical specimen. The illnesses of eight male inmates aged 20–35 years met the case definition. The inmates were housed in two adjoining pods. All eight reported consuming pruno from a single batch on November 23, and had symptom onset November 24–26. All were hospitalized and received heptavalent botulinum antitoxin. Serum samples from all eight patients tested positive for botulinum toxin type A using mass spectrometry and mouse bioassay. Because of respiratory muscle paralysis, seven patients were intubated and were fed through percutaneous endoscopic gastrostomies. The seven were intubated for a range of 11–14 days before receiving tracheostomies.

An investigation by PCHS, ADHS, and CDC identified a batch of pruno as the outbreak source. This batch tested positive for botulinum toxin type A. Pruno typically is made by fermenting fruit and sugar in water; other commonly used ingredients include potatoes, corn, bread, and rice. Both prison A outbreaks were associated with pruno made with potatoes, as were outbreaks at prisons in California and Utah that have been reported since 2004 (Table) (*1*,*2*).

In 2004, four inmates of a California prison were hospitalized with pruno-related botulism; two patients required intubation. In 2005, one inmate of a California prison was hospitalized with botulism and intubated (*2*). An outbreak of botulism related to pruno occurred in a Utah maximum security prison in 2011 when eight inmates were hospitalized, and three of those patients were intubated (*1*). During a previous outbreak of botulism in prison A in August 2012, four different inmates were hospitalized, and one of those patients was intubated. Measures to prevent botulism in prison A were not instituted by prison authorities following the August outbreak. Since the recent outbreak of botulism, prison A has banned potatoes from the prison kitchen. Discussions are under way to ban sugar and other ingredients commonly used to make pruno that are available on the menu and in the prison store.

To prevent future outbreaks of botulism in prisons, ADHS and PCHS are assessing inmates' knowledge of pruno production and risks associated with drinking pruno. Findings from this investigation will be used to plan inmate and prison staff education programs.

TABLE. Characteristics of previously reported outbreaks of botulism associated with drinking prison-made illicit alcohol — United States, 2004–2012

Year	State	No. of cases	Age range (yrs)	No. hospitalized*	No. intubated
2004	California	4	19–35	4	2
2005	California	1	30	1	1
2011	Utah	8	24–35	8	3
2012	Arizona	4	27–33	4	1
2012	Arizona	8	20–35	8	7

* No deaths were reported.

Reported by

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1. CDC. Botulism from drinking prison-made illicit alcohol—Utah, 2011. MMWR 2012;61:782–4.
2. Vugia DJ, Mase SR, Cole B, et al. Botulism from drinking pruno. Emerg Infect Dis 2009;15:69–71.

Announcement

New Recommendations from the Community Preventive Services Task Force Available Online

The Community Preventive Services Task Force (Task Force) recently posted new information on its website regarding "Preventing Excessive Alcohol Consumption: Electronic Screening and Brief Intervention (e-SBI)." The information is available at http://www.thecommunityguide.org/alcohol/esbi.html.

Established in 1996 by the U.S. Department of Health and Human Services, the Task Force is an independent, nonfederal, unpaid panel of public health and prevention experts whose members are appointed by the Director of CDC. The Task Force provides information for a wide range of decision makers on programs, services, and policies aimed at improving population health. Although CDC provides administrative, research, and technical support for the Task Force, the recommendations developed are those of the Task Force and do not undergo review or approval by CDC.

Errata

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In the report, "Global Control and Regional Elimination of Measles, 2000–2011," errors occurred in the text and in Table 1. On page 27, the sixth sentence of the report should read as follows: "During 2000–2011, annual reported measles incidence decreased 65%, from 146 to 52 cases per million population, and estimated measles deaths decreased 71%, from **548,000** to **158,000**." On page 28, under Mortality Estimates, the last sentence should read as follows: "During 2000–2011, estimated measles deaths decreased 71%, from **548,000** to **158,000**; all regions and India had substantial reductions in estimated measles mortality, ranging from 36% to 90% (Table 1)."

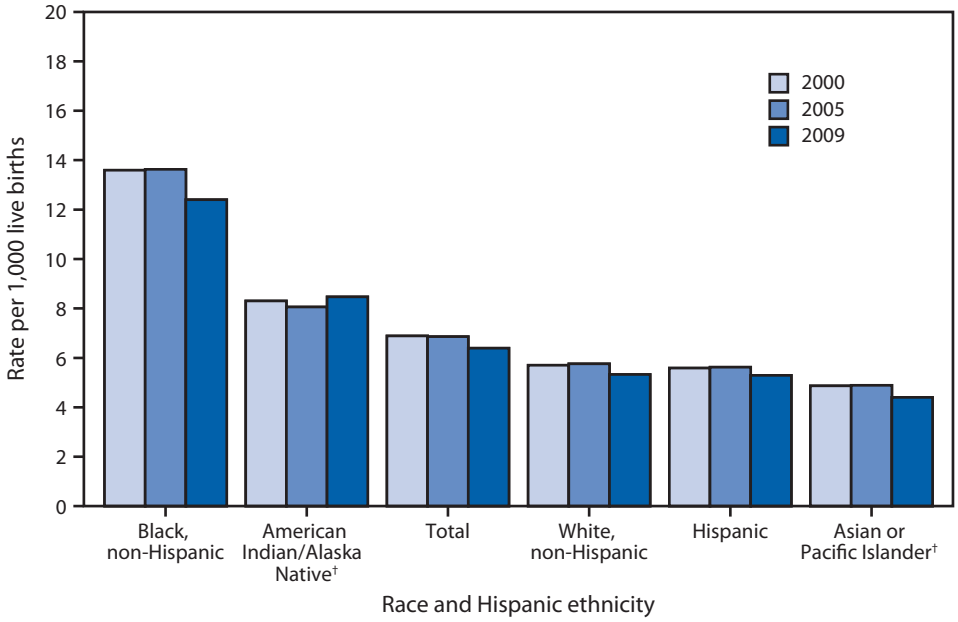
On page 28, the table title should read as follows: "TABLE 1. Estimates of coverage with the first dose of measles-containing vaccine (MCV1) administered through routine immunization services among children aged 1 year, reported measles cases and incidence**, and estimated measles mortality,** by World Health Organization region, 2000 and 2011."

In Table 1, in the Eastern Mediterranean row, the number of estimated measles deaths in 2000 should read, "**60,000 (32,000–100,000)**"; the percentage mortality reduction from 2000 to 2011 should read, "**49**." In the South-East Asia row, the percentage mortality reduction from 2000 to 2011 should read, "**48**." In the Western Pacific row, the number of estimated measles deaths in 2000 should read, "**13,000 (4,000–65,000)**," and the number of estimated measles deaths in 2011 should read, "**1,000 (180–44,000)**." In the Total row, the number of estimated measles deaths in 2000 should read, "**548,000 (347,000–1,109,000)**," and the number of estimated measles deaths in 2011 should read, "**158,000 (94,000–540,000)**."

QuickStats

FROM THE NATIONAL CENTER FOR HEALTH STATISTICS

Infant Mortality Rates,* by Race and Hispanic Ethnicity of Mother — United States, 2000, 2005, and 2009



* Per 1,000 live births.
† Includes persons of Hispanic and non-Hispanic ethnicity.

During 2000–2005, the U.S. infant mortality rate did not decline significantly for the total population or for any racial/ethnic population. However, from 2005 to 2009, the rate declined by 7% to 6.39 infant deaths per 1,000 live births and declined significantly for all racial/ethnic groups except for American Indian/Alaska Native women. Infant mortality rates in 2009 were higher than the U.S. average (6.39) for non-Hispanic black (12.40) and American Indian/Alaska Native women (8.47). Rates were lower than the U.S. average for non-Hispanic white (5.33), Hispanic (5.29) and Asian or Pacific Islander women (4.40).

Source: Mathews TJ, MacDorman MF. Infant mortality statistics from the 2009 period linked birth/infant death data set. Natl Vital Sat Rep 2012;61(8).

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