National Institute on Alcohol Abuse and Alcoholism

National Institute on Alcohol Abuse and Alcoholism
Division of Epidemiology and Prevention Research
Alcohol Epidemiologic Data System

SURVEILLANCE REPORT #99

TRENDS IN ALCOHOL-RELATED MORBIDITY AMONG COMMUNITY HOSPITAL DISCHARGES, UNITED STATES, 2000–2012

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HIGHLIGHTS

This surveillance report, prepared biennially by the Alcohol Epidemiologic Data System (AEDS), National Institute on Alcohol Abuse and Alcoholism (NIAAA), presents trend data on alcohol-related morbidity in the United States based on estimates from alcohol-related inpatient discharges among community hospitals. Previously this surveillance report drew on the National Hospital Discharge Survey (NHDS), which was discontinued in 2011. The current report is the first one based on a new data source, the National Inpatient Sample (NIS). It provides information not available in previous issues, including cost estimates for alcohol-related hospital stays. It also has added data on alcohol poisoning and has expanded the coverage of the patient population, from ages 15 and older to ages 12 and older. Using NIS, the current report focuses on recent trends from 2000 onward. Historical data based on NHDS are available online in the 2012 issue of this report.

Highlights of general trends and notable findings are listed below. It is important to note that NIS was redesigned in 2012 to improve national estimates, and this may have artificially affected the trends for comparison between 2012 and prior years. Moreover, since 2009, the number of diagnoses collected by NIS has increased from 15 to 25. This change may potentially increase the numbers and rates of all-listed alcohol-related hospital discharges observed in 2009 and the years after.

Alcohol-Related Hospital Discharges in 2012

- Approximately 376,000 hospital discharge episodes for persons ages 12 and older had a principal (first-listed) alcohol-related diagnosis, and approximately 2.3 million discharge episodes had an any (all-listed) alcohol-related diagnosis. These figures represent 14.2 principal (first-listed) and 87.8 any (all-listed) alcohol-related discharges per 10,000 population.
- Alcoholic psychoses were the largest group (41.9 percent) of principal (first-listed) diagnoses, followed by cirrhosis of the liver (26.8 percent), alcohol dependence syndrome (24.8 percent), nondependent abuse of alcohol (4.7 percent), and alcohol poisoning (1.8 percent).
- A substantial difference exists between rates based on principal (first-listed) and any (all-listed) diagnoses. About five-sixths (83.9 percent) of alcohol-related discharge episodes did not have an alcohol-related condition listed as their principal (first-listed) diagnosis.
- Alcohol-related diagnoses in decreasing order of severity, as measured by average length of hospital stay, were cirrhosis (5.8 days, with 5.9 days for alcoholic cirrhosis), alcohol dependence syndrome (5.0 days), alcoholic psychoses (4.4 days), alcohol poisoning (2.8 days), and nondependent abuse of alcohol (2.1 days).
- The aggregate costs for all hospital stays with principal (first-listed) and any (all-listed) mention of an alcohol-related diagnosis were $3.1 billion and $27 billion, respectively. The corresponding median cost was higher for stays with an any (all-listed) alcohol-related diagnosis ($6,615) than with a principal (first-listed) alcohol-related diagnosis ($4,774).

General Trends

- Hospital discharge rates showed a clear upward trend for both principal (first-listed) and any (all-listed) alcoholic psychoses as well as for any (all-listed) alcohol dependence syndrome, chronic liver disease and cirrhosis, and nondependent abuse of alcohol from 2000 to 2012. By contrast, there was a downward trend for principal (first-listed) alcohol dependence syndrome and alcoholic liver cirrhosis during this time period.
- For all alcohol-related diagnoses, except cirrhosis without mention of alcohol, hospital discharge rates continued to be higher for males than for females. Persons ages 45 to 64 generally had the highest principal (first-listed) as well as any (all-listed) alcohol-related discharge rates, and persons ages 12 to 20 had the lowest alcohol-related discharge rates.
- Alcohol dependence syndrome was the largest group of principal (first-listed) alcohol-related diagnoses before 2003. However, its percentage share declined substantially from 40.6 percent in 2001 to 24.8 percent in 2012. By contrast, the percentage shares of alcoholic psychoses increased from 26.0 percent in 2000 to 41.9 percent in 2012, outnumbering any cirrhosis and surpassing alcohol dependence syndrome as the largest principal (first-listed) alcohol-related diagnoses since 2006.
- The ratio for principal (first-listed) to any (all-listed) alcohol-related discharges declined from 25.2 percent in 2000 to 16.1 percent in 2012.
- Reductions in average length of hospital stay were observed between 2000 and 2012 for principal (first-listed) any cirrhosis (including alcoholic cirrhosis) from 6.6 days to 5.8 days.

INTRODUCTION

This is the nineteenth surveillance report on trends in alcohol-related morbidity among patients discharged from community hospitals in the United States. Prepared by the Alcohol Epidemiologic Data System (AEDS), and Division of Epidemiology and Prevention research, National Institute on Alcohol Abuse and Alcoholism (NIAAA), this report updates the trends published in earlier surveillance reports. However, unlike the previous 18 surveillance reports, which were based on the National Hospital Discharge Survey (NHDS), the current report uses a new data source—the National Inpatient Sample (NIS), as NHDS was discontinued in 2011. Although information contained in both data sources is generally comparable, NIS offers several advantages over NHDS. First, NIS is more than 10 times larger than NHDS. Second, NIS allows a much higher number of diagnoses per discharge record than that by NHDS. Third, NIS contains information on total charges of each discharge, which was not available in NHDS. Therefore, for the first time, this report has been able to present estimates for alcohol-related hospitalization costs. Using NIS, the current report focuses on recent trends for 2000 and later years. Historical data based on NHDS for 1979–2010 are available online in the 2012 report (http://pubs.niaaa.nih.gov/publications/Surveillance94/HDS10.htm).

This report includes discharge data for patients ages 12 years and older, compared with patients 15 years and older in the earlier reports. Data are presented by age and sex, including numbers and population-based rates for hospital discharges with principal (first-listed) mention or any (all-listed) mention of specific diagnoses of alcohol-related chronic diseases and alcohol poisoning. Also included are data on the average length of hospital stay for alcohol-related discharge episodes, as well as cost estimates in the most recent year. Race-specific data are not reported because a large proportion of discharges do not have race information.

To indicate uncertainty in estimates, AEDS uses variance estimation procedures recommended by the Healthcare Cost and Utilization Project (HCUP) to develop 95-percent confidence intervals for each estimate shown in figures 5–9. The values of all estimates are presented in the tables, except those deemed as unreliable according to the HCUP data suppression guidelines.

DATA

Sources

The National (formerly termed "Nationwide") Inpatient Sample is part of the HCUP, sponsored by the Agency for Healthcare Research and Quality (AHRQ). It is the largest publicly available all-payer inpatient care database in the United States, including more than 7 million hospital stays each year in recent years. Built from hospital administrative data (i.e., hospital billing records), NIS has been conducted annually since 1988. This report only includes trend data from 2000 and the years after because fewer States participated in NIS in the earlier years. The number of States participating in NIS increased from 8 in 1988 to 17 in 1993, 22 in 1998, 28 in 2000, and 44 in 2012. During this period, diagnoses in NIS were coded using the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), which was a diagnostic coding scheme published by the Commission on Professional and Hospital Activities (1978) and was based on the World Health Organization's ninth revision of the ICD (1977).

Prior to 2012, NIS was constructed from a stratified sample of hospitals from the State Inpatient Databases (SID). SID includes all inpatient hospital discharges from community hospitals, identified by the American Hospital

Association (AHA) Annual Survey of Hospitals as "all non-Federal, short-term, general, and other specialty hospitals, excluding hospital units of institutions" in participating States. Long-term acute care hospitals are classified as community hospitals by AHA if they have an average length-of-stay of less than 30 days. The original NIS used a sampling design referred to as the stratified, single-stage cluster sampling, by which a stratified random sample of hospitals approximating a 20 percent sample of U.S. community hospitals was drawn from the sampling frame (i.e., SID), and then all discharges from each selected hospital were included. The strata used in creating NIS were census region (Northeast, Midwest, West, or South), location (urban or rural), teaching status (teaching or nonteaching), ownership (government non-Federal or public, private not-for-profit or voluntary, or private investor-owned or proprietary), and bed size (small, medium, or large) based on the number of hospital beds.

To reduce the margin of error for estimates, NIS started to implement a new sampling design in 2012 referred to as the systematic sampling design. This design better represents the entire universe of hospitals and increases the information in the total sample of discharges by drawing a sample of discharge records from all HCUP-participating hospitals. The old design included all discharge records from a sample of hospitals. The new sampling is self-weighted (i.e., each discharge with the same probability of being selected) and accounts for patient characteristics such as diagnoses, age, and admission date, as well as hospital characteristics. With this redesign, the definition of the discharge universe was switched from AHA discharge estimates to SID discharge counts. In addition, long-term acute care hospitals were removed from the hospital universe.

The 2012 NIS redesign has affected trend data. Differences between NIS statistics based on the earlier samples (2000–2011) and statistics based on the 2012 sample may be attributed to the modification of the universe of hospitals and discharges rather than the changes in patterns of hospital utilization. Based on the changes implemented in the redesign, AHRQ expects a one-time disruption to the overall trends, with discharge counts declining by about 4.3 percent, average length of stay declining by about 1.5 percent, total charges declining by about 0.5 percent, and hospital mortality declining by about 2.0 percent. To facilitate analysis of trends using multiple years of NIS, AHRQ developed new discharge trend weights for the 1993–2011 NIS (Houchens et al., 2014). These new weights, calculated in the same way as the weights for the redesigned 2012 NIS, are used in this report to make estimates for 2000–2011 comparable to those for 2012 and later years.

NIS contains clinical and resource-use information in a typical discharge abstract for each hospital stay, including: primary and secondary diagnoses and procedures, patient demographic characteristics (e.g., sex, age, race, median household income for ZIP Code), hospital characteristics (e.g., ownership), expected payment source, total charges, discharge status, length of stay, and severity and comorbidity measures. For each discharge record, NIS allows up to 25 diagnoses (15 before 2009), although the number of diagnoses actually varied across hospitals.

Detailed descriptions of the NIS sample designs, data collection procedures, and data collection instruments used during 1998–2012 can be found in the reports (AHRQ, 2002; Houchens and Elixhauser, 2006; Houchens et al., 2014) published on the HCUP Website (http://hcup-us.ahrq.gov/db/nation/nis/nisrelatedreports.jsp).

Mid-year resident population estimates used in calculating hospital discharge rates were prepared by the U.S. Census Bureau. For years 2000 through 2009, population data came from *Intercensal Estimates of the Resident Population by Single Year of Age, Sex, Race, and Hispanic Origin for the United States: April 1, 2000 to July 1, 2010* (U.S. Census Bureau, 2011). For years 2010 through 2012, population data came from *Monthly Population Estimates by Age, Sex, Race, and Hispanic Origin for the United States: April 1, 2010 to July 1, 2013 (with short-term projections to dates in 2014)* (U.S. Census Bureau, 2014).

METHOD

Definitions

This report's major methodological issue is the specification of the categories of alcohol-related diagnoses. The level of diagnostic detail defined in the ICD-9-CM and available in the NIS is so great that the most detailed classification of morbidity ends up with diagnostic categories that have few observations. To minimize the problem of small cell sizes, detailed NIS diagnostic classifications are reported under five major alcohol-related categories, with three subcategories for chronic liver disease and cirrhosis. These categories (and the associated specific alcohol-related diagnoses) are listed in the table of definitions on the following page. The fifth category, alcohol poisoning, is a new addition to this report.

For chronic liver disease and cirrhosis, the ICD-9-CM allows for a distinction between diagnoses with and without mention of alcohol. AEDS has chosen not to emphasize this distinction and has reported all liver cirrhosis in analyses of alcohol-related morbidity and mortality.[1] This report includes an overall category of chronic liver disease and cirrhosis that does not distinguish between cirrhosis with and without mention of alcohol. This report includes three subcategories of cirrhosis: (1) alcoholic cirrhosis of the liver, (2) other specified cirrhosis of the liver without mention of alcohol, and (3) unspecified cirrhosis of the liver without mention of alcohol.[2]

For each alcohol-related category, this report presents numbers and rates for principal (first-listed) as well as any (all-listed) mentions of diagnoses. The numbers and rates based on principal (first-listed) diagnoses alone overlook other morbidity that may be diagnosed during the patient's hospitalization. Principal (first-listed) diagnoses constitute a subset of any (all-listed) diagnoses. Although diagnostic categories based on principal (first-listed) diagnoses are mutually exclusive, a given discharge may appear in more than one category based on any (all-listed) diagnoses. Hospital discharge with multiple diagnoses in the same category is not counted more than once. For example, one diagnostic category is alcoholic psychoses (ICD-9-CM code 291). Under this category are eight subclassifications. A discharge with diagnoses of both alcohol withdrawal delirium (code 291.0) and alcohol withdrawal hallucinosis (code 291.3) would be counted only once under the overall alcoholic psychoses classification, even though more than one type of alcoholic psychosis appears on the record.

[1] This practice was adopted at the recommendation of health professionals and epidemiologists who attended a conference sponsored by AEDS in 1979.

[2] This is consistent with causes of death reported in other AEDS publications on cirrhosis mortality (e.g., Yoon et al., 2014).

Definition of Alcohol-Related Diagnoses

Category Used in Report	Classification in ICD-9-CM	
Alcoholic psychoses	291.0	Alcohol withdrawal delirium
	291.1	Alcohol amnestic syndrome
	291.2	Other alcoholic dementia
	291.3	Alcohol withdrawal hallucinosis
	291.4	Idiosyncratic alcohol intoxication
	291.5	Alcoholic jealousy
	291.8	Other specified alcoholic psychosis
	291.9	Unspecified alcoholic psychosis
Alcohol dependence syndrome	303.0	Acute alcoholic intoxication
	303.9	Other and unspecified alcohol dependence
	357.5	Alcoholic polyneuropathy
	425.5	Alcoholic cardiomyopathy
	535.3	Alcoholic gastritis
Nondependent abuse of alcohol	305.0	Nondependent alcohol abuse
Chronic liver disease and cirrhosis:		
Alcoholic cirrhosis of the liver	571.0	Alcoholic fatty liver
	571.1	Acute alcoholic hepatitis
	571.2	Alcoholic cirrhosis of liver
	571.3	Alcoholic liver damage, unspecified
Other specified cirrhosis of the liver without mention of alcohol	571.4	Chronic hepatitis
	571.6	Biliary cirrhosis
	571.8	Other chronic nonalcoholic liver disease
	572.3	Portal hypertension
Unspecified cirrhosis of the liver without mention of alcohol	571.5	Cirrhosis of liver without mention of alcohol
	571.9	Unspecified chronic liver disease without mention of alcohol
Alcohol poisoning	790.3	Excessive blood level of alcohol
	980	Toxic effect of alcohol
	E860	Accidental poisoning by alcohol, not else classified

The NIS methodology allows for coding up to 15 different diagnoses prior to 2009 and up to 25 diagnoses thereafter for each hospital discharge record. The first of these code positions contains a code for the principal (first-listed) diagnosis. The remaining positions can be used to code additional diagnoses identified during the patient's hospital stay. The principal (first-listed) diagnosis is the condition established after study to be chiefly responsible for occasioning the admission of the patient to hospital care. It need not be the most serious diagnosis recorded on a discharge record, nor is it necessarily the diagnosis that accounts for the overall length of a patient's hospital stay. In this report, an any (all-listed) diagnosis is a diagnosis that appears in any one of the maximum possible code positions for each record, and counts of an any (all-listed) diagnosis are described as

counts for any mention of the particular diagnosis.

This report presents patient data for the U.S. population ages 12 and older in the following age categories: 12 to 20, 21 to 24, 25 to 44, 45 to 64, and 65 and older. Age 12–20 is below the minimum legal drinking age in all 50 States and the District of Columbia, but survey results show that a large number of adolescents drink alcoholic beverages. For example, data from the 2012 National Survey on Drug Use and Health indicate that 9.9 percent of 12–13 year olds, 31.7 percent of 14–15 year olds, and 54.4 percent of 16–17 year olds ever drank alcohol in their lifetime (Substance Abuse and Mental Health Services Administration, 2013).

Exclusions

In assessing alcohol-related diagnoses, discharges of females with deliveries should be excluded, because childbirth is not an illness. In a typical year, approximately 12 to13 percent of all hospital discharges among patients ages 12 and older are for delivery. Accordingly, to examine the share of all discharges associated with a principal (first-listed) or an any (all-listed) alcohol-related diagnosis in figure 4, the percentages were calculated after excluding from both the numerator and denominator all records coded in the principal (first-listed) diagnosis as V27, a supplementary ICD-9-CM classification for females delivering babies.

Assessment of Statistical Significance

Because data on hospital discharges are based on a sample of all discharges, there is some sampling error in the estimates presented in this report. To assess the statistical significance of apparent differences in the estimates, AEDS has used the Taylor-series linearization method recommended by AHRQ for variance estimation to develop 95% confidence intervals for each estimate. Nonoverlapping confidence intervals between estimates can be used to assess whether the difference is statistically significant.

According to the HCUPnet guidelines, statistics based on estimates with a relative standard error (i.e., standard error divided by weighted estimate) greater than 0.30 or with a standard error equal to 0 in the nationwide statistics are not reliable. Therefore, in this report, these statistics are suppressed and are designated with an "–" in the table cells.

Limitations

Estimates of alcohol-related morbidity based on NIS may underestimate the overall prevalence of such morbidity in the general U.S. population. For example, NIS does not include Veterans Administration and other Federal hospitals or hospitals where the average length of stay is 30 days or longer. Morbidity among people who are not hospitalized (i.e., those who seek outpatient treatment or no treatment) also is not reflected in the data. Furthermore, the stigma associated with alcohol abuse may lead to some reluctance by health professionals to report an alcohol-related diagnosis.

NIS provides a record for each sampled hospital discharge episode, not for each individual patient; therefore, an unknown portion of discharge episodes may reflect multiple hospital episodes for a single patient in a given year. Because no patient identifiers appear in the NIS public-use data files, it is not possible to identify records for different hospital episodes involving the same patients. Consequently, the numbers and rates reported here reflect the incidence of alcohol-related hospital discharge episodes rather than the prevalence of patients diagnosed with alcohol-related conditions.

Caution is needed when interpreting recent trends in the following areas: (1) The change of NIS sample design in 2012 implies a discontinuity in time-series data, although new discharge trend weights were applied for data from 2011 and earlier years

in an effort to make estimates conform to the new design. (2) The increase in the number of diagnosis codes collected by NIS from 15 to 25 beginning in 2009 may potentially increase the numbers and rates of all-listed alcohol-related hospital discharges observed in 2009 and thereafter. (3) Estimates from NHDS and NIS data sources are not close enough to be presented in continuous trend lines.

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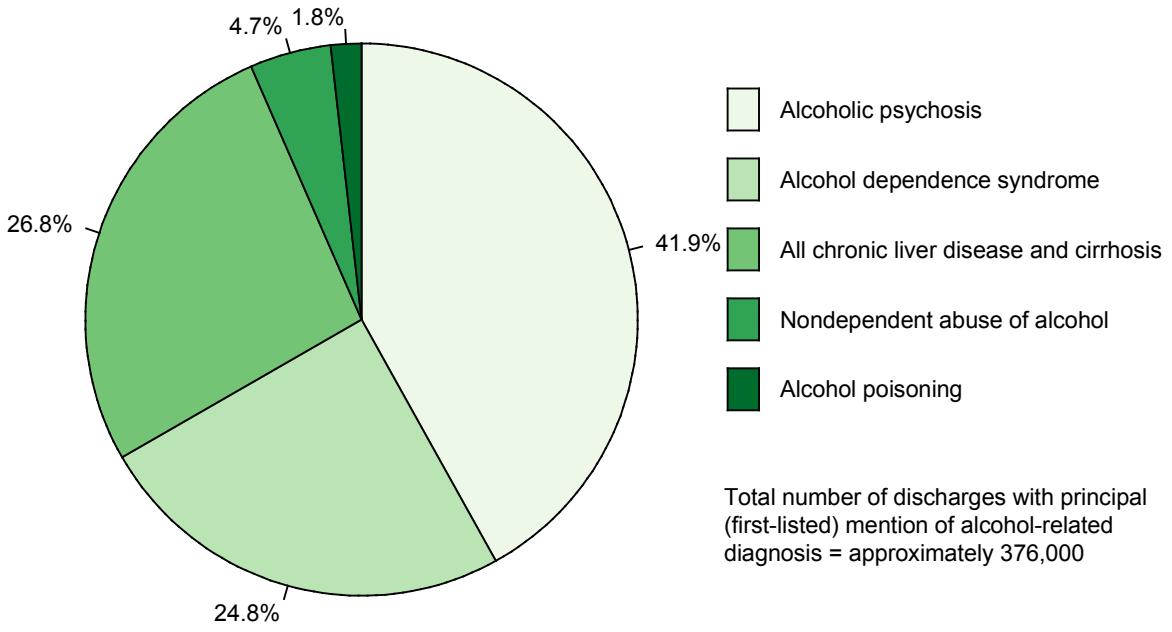


Figure 2. Trends in percent distribution of principal (first-listed) diagnoses among discharges with principal (first-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, 2000–2012.

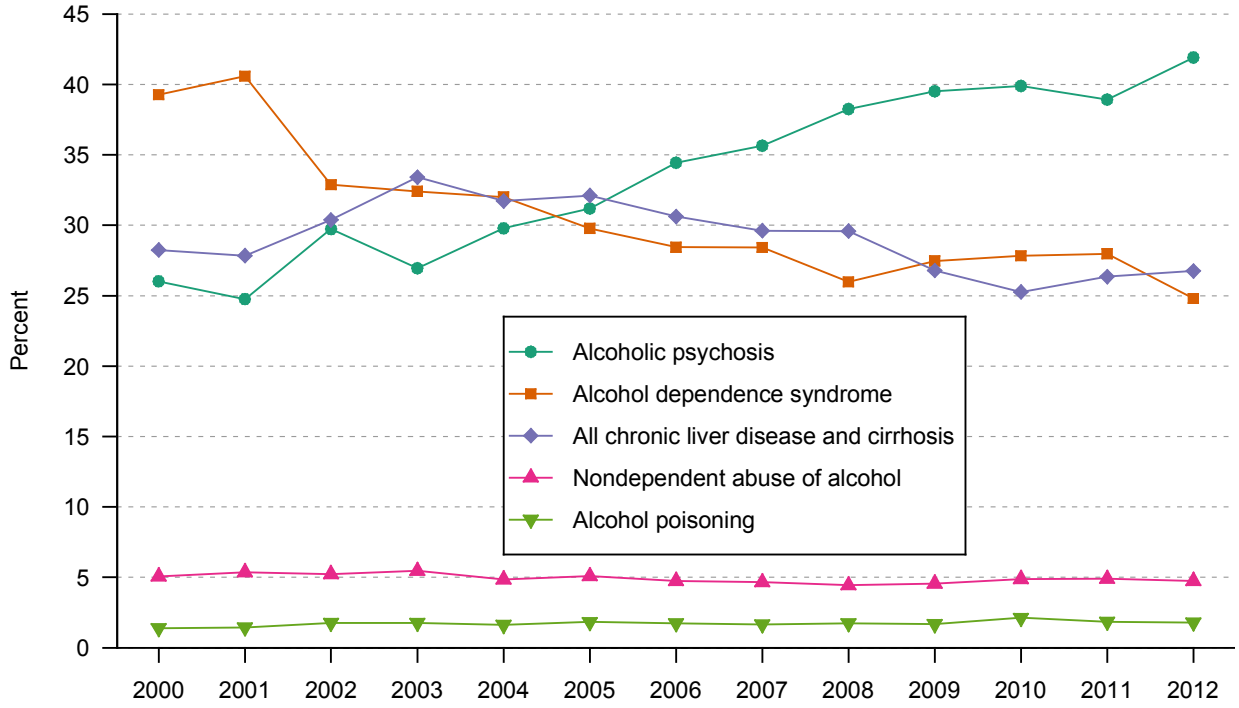
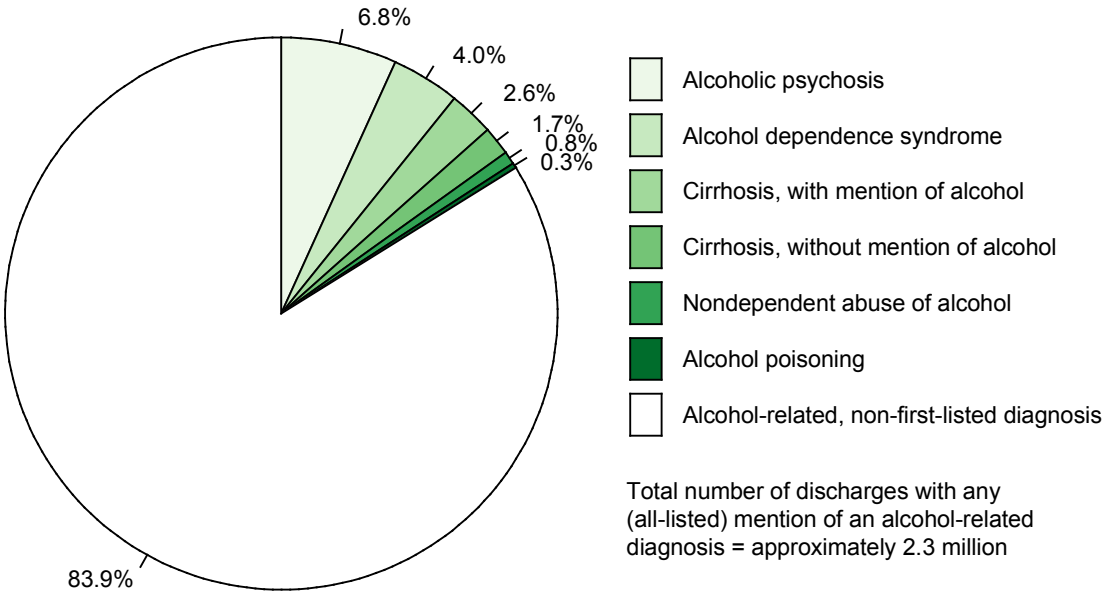


Figure 3. Percent distribution of principal (first-listed) diagnoses among discharges with any (all-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, 2012.



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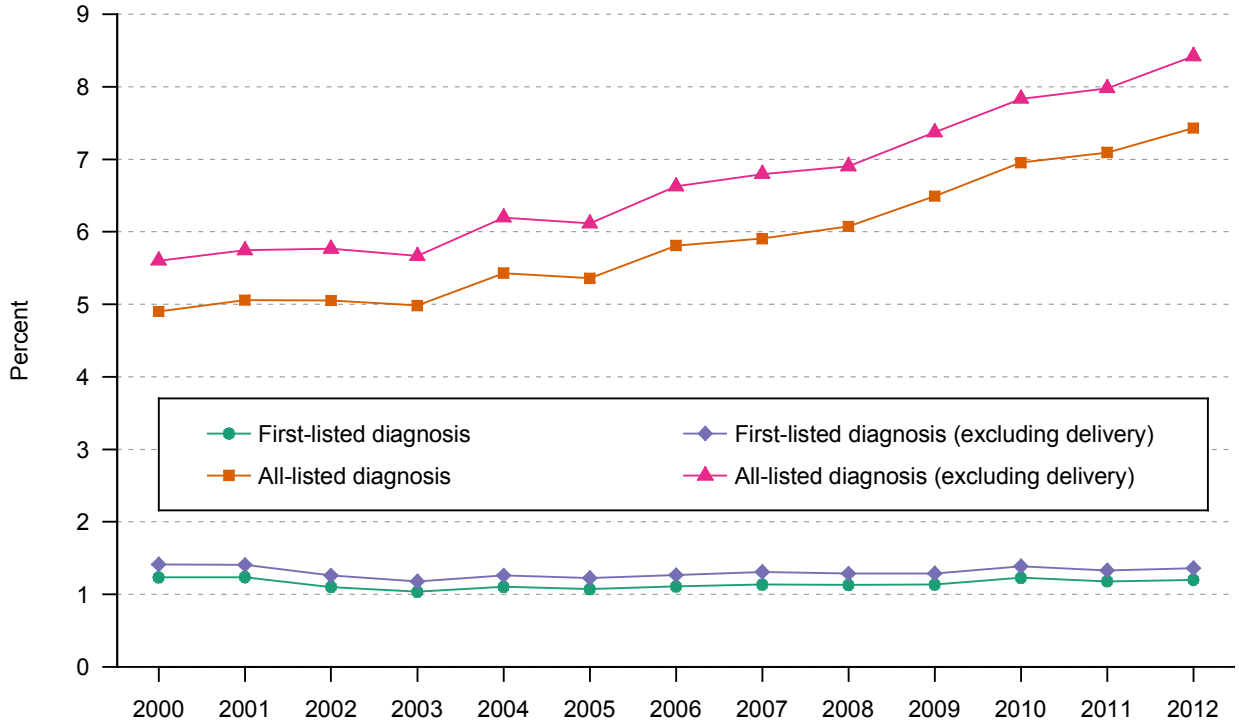


Figure 5. Rates and 95-percent confidence intervals for discharges with principal (first-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, 2000–2012.

[Vertical axes reflect rates per 10,000 population]

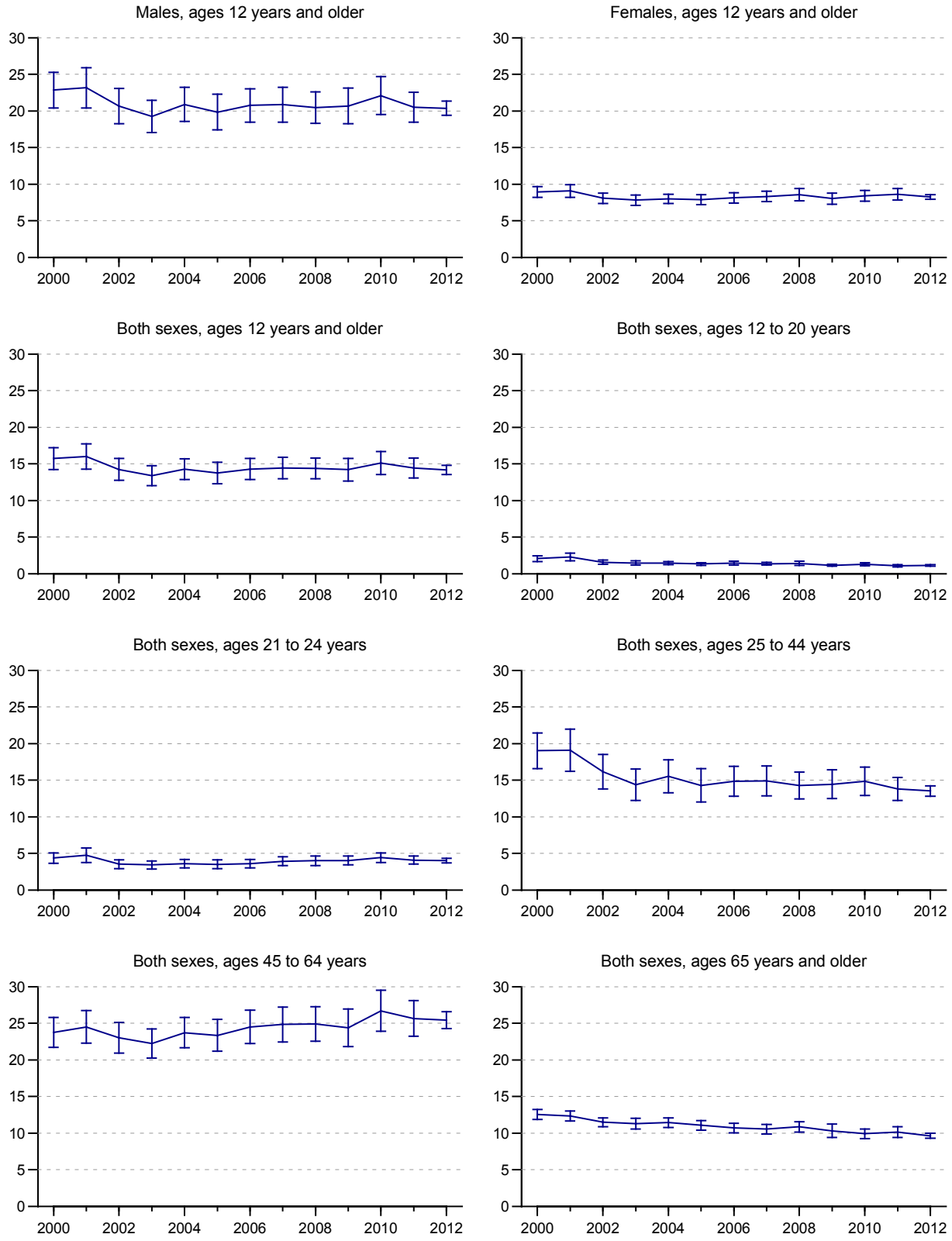
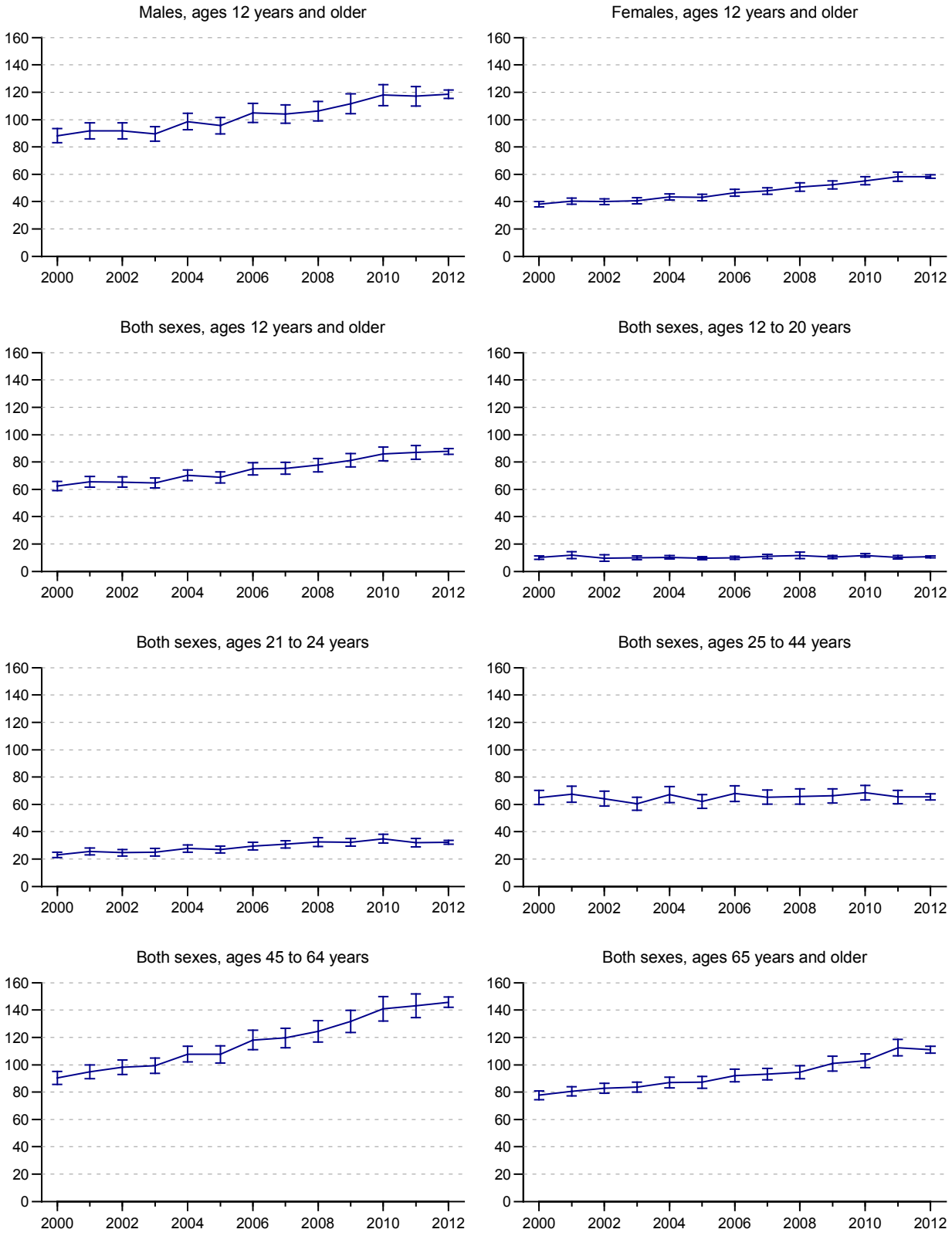


Figure 6. Rates and 95-percent confidence intervals for discharges with any (all-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, 2000–2012.

[Vertical axes reflect rates per 10,000 population]



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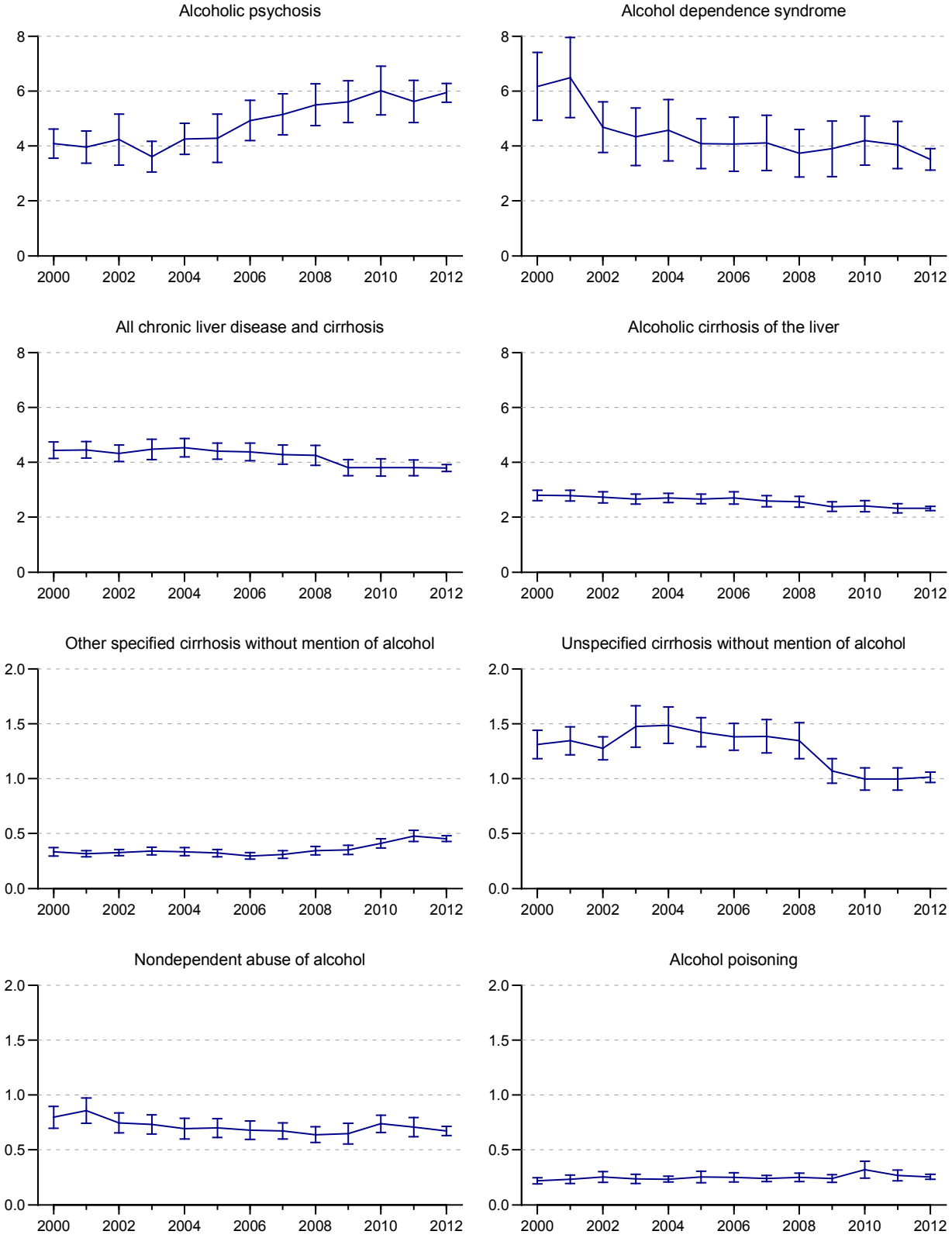
[Vertical axes reflect rates per 10,000 population: scale is not uniform for all graphs]



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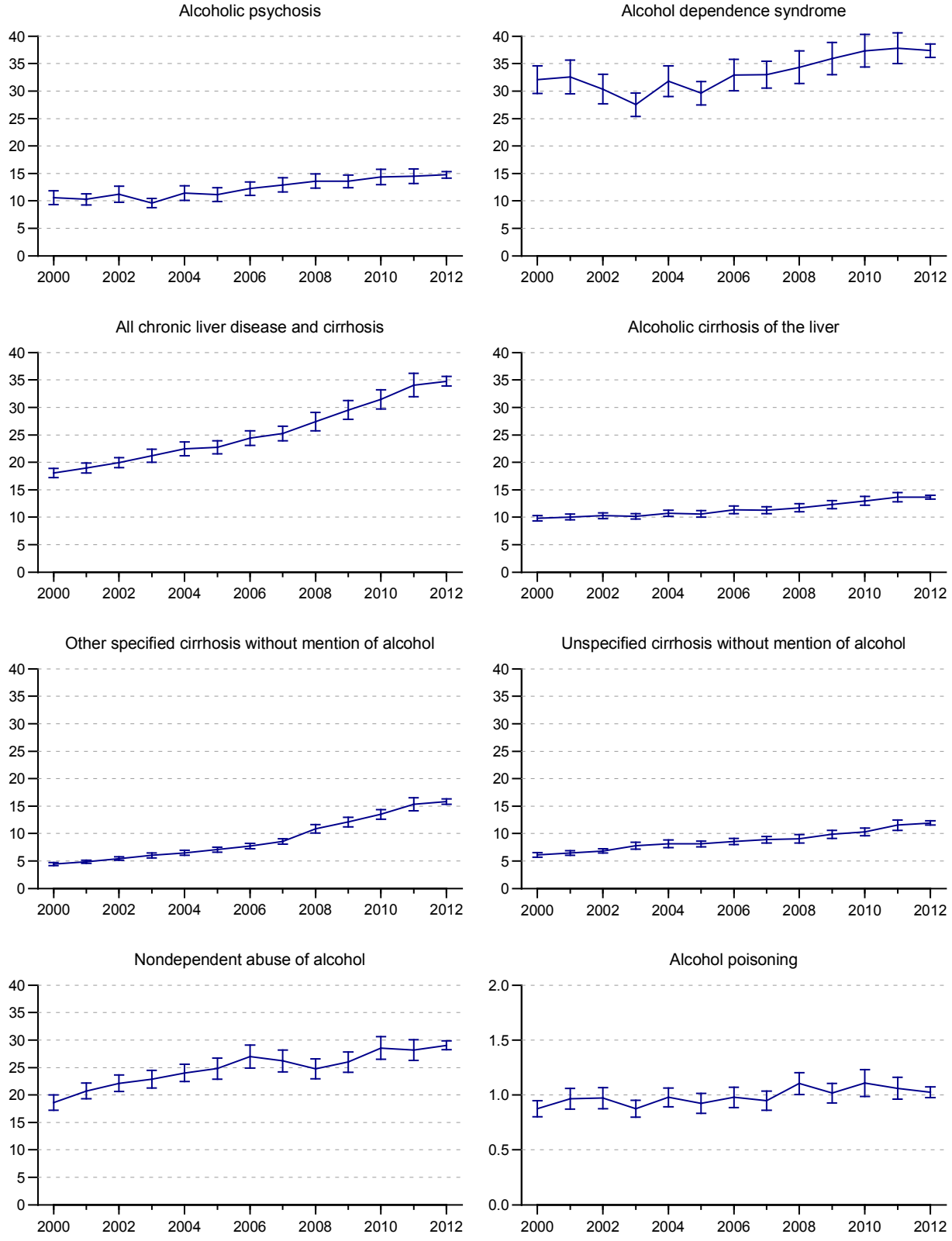
[Vertical axes reflect rates per 10,000 population: scale is not uniform for all graphs]



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[Vertical axes reflect average length of stay in days]

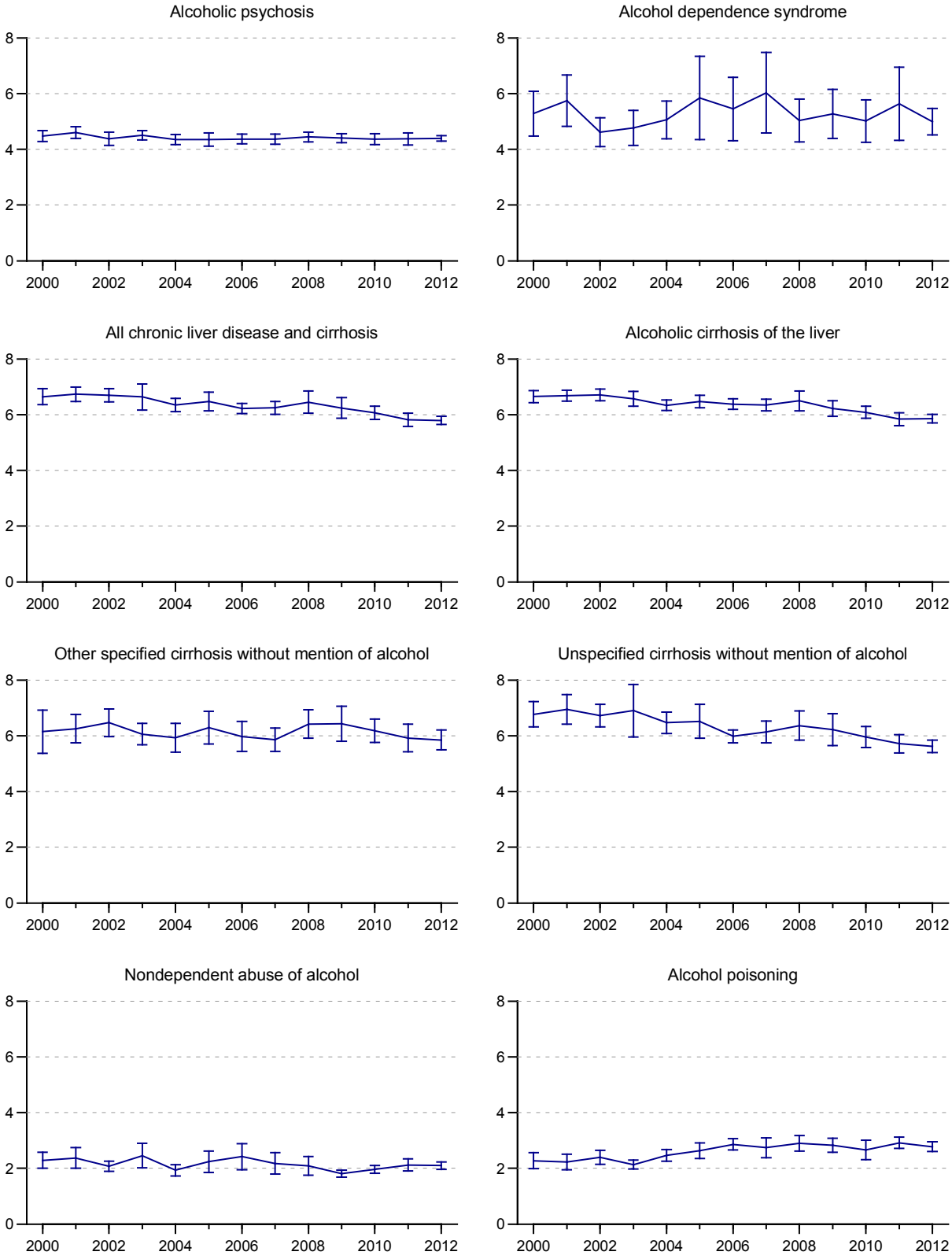

Table 1. Number and rate of discharges with principal (first-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2000–2012.

Diagnostic category and year	Number of discharges (in 1,000s)								Rate per 10,000 population							
	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years
Any alcohol-related diagnosis																
2012	376	264	112	4	7	112	211	42	14.2	20.4	8.2	1.1	4.0	13.5	25.4	9.6
2011	379	263	116	4	7	114	213	42	14.4	20.5	8.6	1.1	4.1	13.8	25.7	10.1
2010	393	281	112	5	8	122	218	40	15.1	22.1	8.4	1.3	4.4	14.9	26.7	9.9
2009	367	261	106	4	7	119	196	41	14.2	20.7	8.0	1.2	4.0	14.4	24.4	10.3
2008	368	255	112	5	7	118	196	42	14.4	20.5	8.6	1.4	4.0	14.3	24.9	10.9
2007	366	258	108	5	7	123	191	40	14.5	20.9	8.3	1.4	3.9	14.9	24.8	10.5
2006	358	254	104	6	6	123	184	40	14.3	20.8	8.1	1.4	3.6	14.9	24.5	10.7
2005	341	240	100	5	6	118	171	41	13.7	19.8	7.9	1.3	3.5	14.3	23.4	11.1
2004	350	250	100	5	6	129	168	41	14.3	20.9	8.0	1.4	3.6	15.5	23.7	11.4
2003	325	227	97	6	6	120	153	41	13.4	19.2	7.8	1.5	3.4	14.4	22.2	11.3
2002	342	241	99	6	6	136	154	41	14.2	20.7	8.1	1.6	3.5	16.1	23.0	11.5
2001	379	267	110	8	7	161	158	44	16.0	23.2	9.1	2.3	4.8	19.1	24.5	12.3
2000	368	260	108	7	7	162	148	44	15.7	22.9	8.9	2.0	4.4	19.0	23.8	12.5
Alcoholic psychoses																
2012	158	118	40	1	3	53	89	12	5.9	9.1	2.9	0.2	1.5	6.5	10.8	2.7
2011	148	110	38	<1	2	50	83	11	5.6	8.6	2.8	0.1	1.4	6.1	10.1	2.7
2010	157	120	37	1	3	55	88	11	6.0	9.4	2.8	0.1	1.5	6.7	10.8	2.6
2009	145	111	34	1	2	53	78	11	5.6	8.8	2.6	0.2	1.4	6.4	9.7	2.8
2008	141	104	36	1	2	53	75	10	5.5	8.4	2.8	0.2	1.4	6.4	9.5	2.6
2007	131	98	32	1	2	51	68	9	5.2	8.0	2.5	0.1	1.3	6.2	8.8	2.5
2006	123	93	30	1	2	49	63	9	4.9	7.6	2.4	0.1	1.0	5.9	8.4	2.5
2005	106	83	24	<1	2	43	53	8	4.3	6.8	1.9	0.1	0.9	5.3	7.3	2.1
2004	104	79	25	<1	2	44	50	9	4.3	6.6	2.0	0.1	0.9	5.3	7.1	2.4
2003	88	66	21	<1	1	38	41	7	3.6	5.6	1.7	0.1	0.7	4.5	6.0	2.0
2002	102	79	22	<1	1	48	45	8	4.2	6.8	1.8	0.1	0.8	5.7	6.7	2.1
2001	94	71	22	<1	1	44	40	8	4.0	6.2	1.8	0.1	0.6	5.3	6.2	2.2
2000	96	73	23	<1	1	47	39	8	4.1	6.4	1.9	0.1	0.8	5.5	6.3	2.3
Alcohol dependence syndrome																
2012	93	67	26	1	3	33	50	7	3.5	5.2	1.9	0.2	1.4	4.0	6.0	1.6
2011	106	75	31	1	3	38	57	8	4.0	5.8	2.3	0.2	1.6	4.6	6.9	1.9
2010	109	80	29	1	3	40	58	7	4.2	6.3	2.2	0.2	1.7	4.9	7.1	1.8
2009	101	74	27	1	2	40	49	8	3.9	5.8	2.0	0.3	1.5	4.9	6.1	1.9
2008	96	68	28	1	3	38	47	6	3.7	5.4	2.1	0.4	1.5	4.6	6.0	1.7
2007	104	75	29	1	3	44	50	6	4.1	6.1	2.2	0.3	1.6	5.3	6.4	1.7
2006	102	75	27	1	3	45	47	6	4.1	6.1	2.1	0.3	1.6	5.4	6.3	1.6
2005	101	73	28	1	3	45	46	7	4.1	6.0	2.2	0.3	1.5	5.4	6.3	1.9
2004	112	84	28	1	3	54	47	7	4.6	7.1	2.2	0.4	1.6	6.5	6.6	1.9
2003	105	77	28	1	3	51	43	7	4.3	6.5	2.3	0.3	1.6	6.1	6.3	2.0
2002	112	81	31	2	3	55	45	7	4.7	6.9	2.5	0.4	1.6	6.6	6.8	2.1
2001	154	112	41	3	5	83	55	8	6.5	9.8	3.3	0.9	3.0	9.8	8.5	2.4
2000	144	105	39	3	4	79	50	8	6.2	9.3	3.2	0.8	2.4	9.3	8.1	2.4

Table 1. Number and rate of discharges with principal (first-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2000–2012. (Continued)

Diagnostic category and year	Number of discharges (in 1,000s)								Rate per 10,000 population							
	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years
All chronic liver disease and cirrhosis																
2012	101	63	38	<1	<1	17	62	21	3.8	4.8	2.8	0.1	0.2	2.1	7.5	4.8
2011	100	62	38	<1	<1	17	62	21	3.8	4.8	2.9	0.1	0.2	2.0	7.5	5.0
2010	99	62	37	1	1	17	61	20	3.8	4.9	2.8	0.1	0.3	2.1	7.5	4.9
2009	98	61	37	<1	<1	17	60	20	3.8	4.9	2.8	0.1	0.2	2.0	7.5	5.1
2008	109	69	40	1	<1	19	66	23	4.3	5.5	3.1	0.1	0.3	2.3	8.4	6.0
2007	108	69	39	<1	<1	19	66	22	4.3	5.6	3.0	0.1	0.2	2.3	8.6	5.8
2006	110	70	39	<1	<1	20	66	22	4.4	5.8	3.1	0.1	0.2	2.4	8.8	6.0
2005	109	69	40	1	<1	20	64	24	4.4	5.7	3.2	0.2	0.3	2.4	8.7	6.6
2004	111	71	40	<1	<1	22	64	24	4.5	5.9	3.2	0.1	0.2	2.6	9.0	6.7
2003	109	69	40	<1	<1	22	62	24	4.5	5.8	3.2	0.1	0.3	2.6	8.9	6.8
2002	104	66	38	<1	<1	23	56	24	4.3	5.6	3.1	0.1	0.2	2.7	8.5	6.7
2001	106	67	39	<1	<1	23	56	26	4.5	5.8	3.2	0.1	0.2	2.7	8.7	7.2
2000	104	66	38	<1	<1	25	52	26	4.4	5.8	3.2	0.1	0.2	2.9	8.4	7.4
Alcoholic cirrhosis																
2012	62	43	18	—	<1	13	41	7	2.3	3.4	1.3	—	0.1	1.6	5.0	1.5
2011	61	43	18	—	<1	13	41	7	2.3	3.3	1.4	—	0.1	1.6	5.0	1.6
2010	63	44	18	—	<1	13	42	7	2.4	3.5	1.4	—	0.1	1.6	5.1	1.7
2009	62	44	18	—	<1	13	41	7	2.4	3.5	1.3	—	0.1	1.6	5.1	1.8
2008	66	47	19	—	<1	14	43	8	2.6	3.8	1.4	—	0.1	1.7	5.5	2.1
2007	65	48	18	—	<1	15	43	8	2.6	3.9	1.4	—	0.1	1.8	5.6	2.1
2006	68	49	19	—	<1	16	44	8	2.7	4.0	1.4	—	0.1	1.9	5.9	2.1
2005	66	48	18	—	<1	15	42	8	2.7	4.0	1.4	—	0.1	1.9	5.8	2.3
2004	66	48	18	—	<1	17	41	8	2.7	4.0	1.5	—	0.1	2.0	5.8	2.3
2003	65	47	17	—	<1	16	39	9	2.7	4.0	1.4	—	0.1	2.0	5.7	2.4
2002	65	47	18	—	<1	18	38	9	2.7	4.0	1.5	—	0.1	2.1	5.8	2.5
2001	66	48	19	—	<1	18	38	10	2.8	4.1	1.5	—	0.1	2.1	6.0	2.7
2000	65	47	18	—	<1	20	36	10	2.8	4.2	1.5	—	<0.1	2.3	5.7	2.8
Other specified cirrhosis																
2012	12	5	7	<1	<1	2	6	4	0.5	0.4	0.5	0.1	0.1	0.2	0.7	0.8
2011	13	5	7	—	<1	2	7	4	0.5	0.4	0.5	—	0.1	0.2	0.8	0.9
2010	11	5	6	—	<1	2	5	3	0.4	0.4	0.5	—	0.1	0.2	0.7	0.7
2009	9	3	6	<1	<1	2	5	3	0.4	0.3	0.4	0.1	0.1	0.2	0.6	0.7
2008	9	3	5	<1	<1	1	4	2	0.3	0.3	0.4	0.1	0.1	0.2	0.5	0.6
2007	8	3	5	<1	<1	1	4	2	0.3	0.2	0.4	0.1	0.1	0.2	0.5	0.6
2006	7	3	4	<1	<1	1	4	2	0.3	0.3	0.3	0.1	0.1	0.2	0.5	0.5
2005	8	3	5	<1	<1	1	4	2	0.3	0.3	0.4	0.1	0.1	0.2	0.5	0.6
2004	8	3	5	<1	<1	1	4	2	0.3	0.3	0.4	0.1	0.1	0.2	0.6	0.7
2003	8	3	5	<1	<1	2	4	2	0.3	0.3	0.4	0.1	0.1	0.2	0.6	0.6
2002	8	3	5	<1	<1	2	4	2	0.3	0.3	0.4	0.1	0.1	0.2	0.5	0.6
2001	7	3	4	<1	<1	1	3	2	0.3	0.3	0.3	0.1	0.1	0.2	0.5	0.6
2000	8	3	4	<1	—	2	3	2	0.3	0.3	0.4	0.1	—	0.2	0.5	0.7

Table 1. Number and rate of discharges with principal (first-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2000–2012. (Continued)

Diagnostic category and year	Number of discharges (in 1,000s)								Rate per 10,000 population							
	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years
Unspecified cirrhosis																
2012	27	14	13	<1	<1	2	14	10	1.0	1.1	0.9	<0.1	<0.1	0.2	1.7	2.4
2011	26	13	13	—	—	2	14	10	1.0	1.0	1.0	—	—	0.2	1.7	2.5
2010	26	14	12	<1	<1	2	14	10	1.0	1.1	0.9	<0.1	0.1	0.3	1.7	2.4
2009	28	14	14	<1	<1	2	14	11	1.1	1.1	1.0	<0.1	0.1	0.3	1.8	2.7
2008	34	18	16	—	—	3	18	13	1.3	1.5	1.2	—	—	0.4	2.3	3.3
2007	35	19	16	—	<1	3	20	12	1.4	1.5	1.3	—	0.1	0.4	2.6	3.2
2006	35	18	16	<1	<1	3	19	13	1.4	1.5	1.3	<0.1	<0.1	0.4	2.5	3.4
2005	35	18	17	<1	<1	3	18	13	1.4	1.5	1.4	<0.1	0.1	0.4	2.5	3.7
2004	36	19	17	—	<1	4	19	13	1.5	1.6	1.4	—	0.1	0.5	2.7	3.7
2003	36	18	17	<1	<1	4	18	13	1.5	1.6	1.4	0.1	0.1	0.5	2.7	3.7
2002	31	16	15	<1	<1	3	14	13	1.3	1.3	1.2	<0.1	0.1	0.4	2.2	3.6
2001	32	16	16	<1	<1	4	14	14	1.3	1.4	1.3	<0.1	0.1	0.4	2.2	3.9
2000	31	15	16	<1	—	4	13	14	1.3	1.3	1.3	<0.1	—	0.4	2.1	3.9
Nondependent abuse of alcohol																
2012	18	12	6	2	1	6	7	2	0.7	0.9	0.4	0.5	0.7	0.7	0.9	0.4
2011	19	13	6	2	1	7	7	2	0.7	1.0	0.4	0.4	0.7	0.8	0.9	0.4
2010	19	13	6	2	1	7	8	2	0.7	1.0	0.5	0.5	0.7	0.8	0.9	0.4
2009	17	11	6	2	1	7	6	1	0.6	0.9	0.4	0.4	0.7	0.8	0.7	0.4
2008	16	11	6	2	1	6	6	2	0.6	0.9	0.4	0.5	0.5	0.7	0.8	0.4
2007	17	11	6	2	1	6	6	2	0.7	0.9	0.5	0.6	0.6	0.8	0.8	0.4
2006	17	11	6	2	1	6	6	2	0.7	0.9	0.4	0.6	0.6	0.8	0.8	0.5
2005	17	12	6	2	1	7	6	2	0.7	1.0	0.4	0.5	0.7	0.8	0.8	0.5
2004	17	12	5	2	1	7	5	1	0.7	1.0	0.4	0.6	0.6	0.8	0.8	0.4
2003	18	12	6	3	1	7	5	2	0.7	1.0	0.5	0.7	0.6	0.9	0.8	0.5
2002	18	12	6	3	1	7	5	2	0.7	1.0	0.5	0.7	0.7	0.9	0.8	0.5
2001	20	14	7	3	1	9	5	2	0.9	1.2	0.6	0.9	0.8	1.0	0.8	0.5
2000	19	13	6	3	1	8	5	1	0.8	1.1	0.5	0.8	0.8	1.0	0.8	0.4
Alcohol poisoning																
2012	7	4	3	1	<1	3	3	<1	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.1
2011	7	4	3	1	<1	3	3	<1	0.3	0.3	0.2	0.2	0.2	0.3	0.4	0.1
2010	8	5	3	1	<1	3	4	<1	0.3	0.4	0.2	0.2	0.2	0.3	0.5	0.1
2009	6	4	2	1	<1	2	2	<1	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.1
2008	6	4	2	1	<1	2	3	<1	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.1
2007	6	4	2	1	<1	2	2	<1	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.1
2006	6	4	2	1	<1	2	2	<1	0.2	0.3	0.2	0.3	0.2	0.3	0.3	0.1
2005	6	4	2	1	<1	3	2	<1	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.1
2004	6	3	2	1	<1	2	2	<1	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.1
2003	6	3	2	1	<1	2	2	<1	0.2	0.3	0.2	0.2	0.2	0.3	0.3	0.1
2002	6	4	2	1	<1	3	2	<1	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.1
2001	5	3	2	1	<1	2	2	<1	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.1
2000	5	3	2	1	<1	2	1	<1	0.2	0.3	0.2	0.2	0.2	0.3	0.2	0.1

— Estimates are unreliable due to relative standard errors ≥ 30%.

Table 2. Number and rate of discharges with any (all-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2000–2012.

Diagnostic category and year	Number of discharges (in 1,000s)								Rate per 10,000 population							
	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years
Any alcohol-related diagnosis																
2012	2,329	1,537	792	41	58	543	1,208	479	87.8	118.6	58.4	10.6	32.2	65.5	145.8	111.1
2011	2,286	1,503	782	40	56	539	1,185	465	87.0	117.1	58.2	10.3	32.0	65.4	143.1	112.5
2010	2,237	1,500	736	46	60	563	1,152	417	85.9	118.0	55.2	11.7	34.9	68.5	140.9	102.9
2009	2,098	1,407	691	41	55	545	1,058	400	81.3	111.7	52.3	10.5	32.2	66.3	131.8	100.9
2008	1,989	1,325	663	46	55	542	979	367	77.8	106.2	50.6	11.7	32.5	65.8	124.5	94.6
2007	1,908	1,287	620	43	52	539	923	353	75.4	104.2	47.8	11.0	30.7	65.3	119.7	93.2
2006	1,881	1,282	597	39	49	562	888	343	75.0	104.9	46.5	10.0	29.4	67.9	118.1	92.2
2005	1,704	1,155	548	37	45	515	787	320	68.8	95.6	43.1	9.7	27.0	62.2	107.7	87.2
2004	1,724	1,178	546	39	46	559	765	315	70.3	98.6	43.4	10.3	27.7	67.2	107.8	87.0
2003	1,566	1,058	506	38	41	504	684	300	64.6	89.7	40.7	10.0	24.9	60.4	99.3	83.6
2002	1,566	1,072	493	37	40	539	656	294	65.3	91.8	40.0	9.8	24.6	64.2	98.3	82.8
2001	1,551	1,058	490	44	40	570	612	284	65.5	91.8	40.3	12.0	25.6	67.4	94.9	80.6
2000	1,462	1,004	458	37	35	553	565	273	62.5	88.2	38.1	10.1	23.1	65.1	90.4	77.7
Alcoholic psychoses																
2012	391	293	98	2	6	111	222	52	14.8	22.6	7.3	0.4	3.3	13.4	26.8	12.0
2011	381	284	97	1	6	108	215	51	14.5	22.1	7.2	0.4	3.2	13.1	26.0	12.3
2010	375	285	90	1	5	108	211	49	14.4	22.4	6.7	0.4	3.1	13.2	25.8	12.1
2009	350	266	84	2	5	105	190	49	13.6	21.1	6.4	0.4	3.0	12.8	23.6	12.3
2008	348	259	88	2	5	109	186	46	13.6	20.8	6.7	0.4	3.2	13.2	23.6	11.9
2007	327	247	80	1	5	108	170	43	12.9	20.0	6.2	0.3	2.8	13.1	22.1	11.3
2006	307	233	73	1	4	103	156	42	12.2	19.1	5.7	0.4	2.3	12.5	20.8	11.2
2005	276	211	65	1	3	95	139	38	11.1	17.5	5.1	0.3	2.0	11.4	19.0	10.3
2004	281	214	66	1	4	102	134	40	11.4	17.9	5.3	0.3	2.3	12.2	18.9	11.1
2003	233	177	55	1	3	83	111	35	9.6	15.0	4.4	0.2	1.6	9.9	16.1	9.9
2002	269	206	63	1	3	108	120	37	11.2	17.6	5.1	0.3	2.1	12.9	18.0	10.3
2001	244	184	59	1	2	98	106	36	10.3	16.0	4.8	0.3	1.6	11.6	16.4	10.2
2000	247	189	58	1	3	106	102	36	10.6	16.6	4.9	0.3	1.9	12.5	16.3	10.1
Alcohol dependence syndrome																
2012	991	716	275	7	18	257	561	148	37.4	55.3	20.3	1.8	9.9	31.1	67.8	34.2
2011	994	713	281	7	18	263	559	147	37.8	55.6	20.9	1.7	10.3	31.9	67.6	35.5
2010	973	711	263	7	18	271	544	133	37.4	55.9	19.7	1.8	10.7	33.0	66.5	32.9
2009	928	677	250	8	18	270	499	132	35.9	53.7	18.9	2.0	10.4	32.8	62.2	33.4
2008	879	631	247	9	18	274	458	119	34.4	50.6	18.9	2.4	10.8	33.3	58.3	30.6
2007	836	607	228	7	16	268	430	115	33.0	49.1	17.6	1.9	9.6	32.4	55.8	30.3
2006	825	603	222	7	16	279	414	111	32.9	49.4	17.3	1.8	9.2	33.7	55.0	29.8
2005	735	537	198	7	13	250	363	102	29.6	44.4	15.6	1.7	8.0	30.2	49.6	27.9
2004	780	574	206	8	16	295	359	103	31.8	48.0	16.4	2.1	9.5	35.5	50.6	28.5
2003	667	484	182	7	13	247	306	95	27.5	41.0	14.7	1.7	7.9	29.6	44.5	26.5
2002	728	532	195	8	14	290	318	98	30.4	45.6	15.9	2.2	8.5	34.5	47.7	27.6
2001	772	561	210	11	15	329	317	100	32.6	48.7	17.2	3.0	9.9	38.9	49.1	28.4
2000	752	546	205	11	14	327	297	102	32.1	48.0	17.1	3.1	9.4	38.5	47.6	29.0

Table 2. Number and rate of discharges with any (all-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2000–2012. (Continued)

Diagnostic category and year	Number of discharges (in 1,000s)								Rate per 10,000 population							
	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years
All chronic liver disease and cirrhosis																
2012	922	533	390	6	7	143	519	248	34.8	41.1	28.7	1.5	3.8	17.2	62.7	57.4
2011	896	517	379	5	7	139	506	239	34.1	40.3	28.2	1.4	3.8	16.8	61.2	57.7
2010	820	479	341	6	7	135	465	208	31.5	37.7	25.6	1.6	3.9	16.4	56.8	51.3
2009	762	446	317	5	5	126	427	199	29.5	35.4	24.0	1.2	3.2	15.3	53.2	50.3
2008	702	411	291	5	5	121	389	181	27.4	32.9	22.2	1.2	2.9	14.7	49.5	46.7
2007	639	380	259	4	4	109	354	169	25.3	30.8	20.0	1.0	2.5	13.2	45.9	44.6
2006	612	364	248	4	4	109	334	161	24.4	29.8	19.3	1.0	2.2	13.2	44.4	43.3
2005	564	335	229	4	3	101	301	155	22.8	27.7	18.0	1.2	2.1	12.2	41.1	42.3
2004	551	329	221	3	3	104	291	149	22.5	27.6	17.6	0.8	2.0	12.6	41.0	41.3
2003	514	305	209	3	2	98	265	145	21.2	25.8	16.8	0.8	1.5	11.8	38.6	40.4
2002	477	286	191	3	2	97	239	136	19.9	24.5	15.5	0.7	1.3	11.5	35.9	38.4
2001	449	271	177	2	2	95	216	133	18.9	23.5	14.6	0.6	1.3	11.2	33.5	37.8
2000	423	256	166	2	2	94	198	128	18.1	22.5	13.8	0.5	1.0	11.0	31.7	36.4
Alcoholic cirrhosis																
2012	362	261	101	<1	1	67	236	58	13.7	20.1	7.5	0.1	0.7	8.1	28.5	13.4
2011	358	257	101	<1	2	66	235	56	13.6	20.0	7.5	0.1	0.9	8.0	28.3	13.7
2010	338	246	92	<1	1	64	220	52	13.0	19.4	6.9	<0.1	0.8	7.8	26.9	12.9
2009	318	231	87	<1	1	62	204	51	12.3	18.4	6.5	<0.1	0.7	7.5	25.4	13.0
2008	300	218	82	<1	1	62	189	47	11.7	17.5	6.2	0.1	0.7	7.5	24.1	12.2
2007	286	210	75	<1	1	59	179	46	11.3	17.0	5.8	<0.1	0.6	7.1	23.3	12.2
2006	284	208	76	<1	1	61	176	46	11.3	17.1	5.9	<0.1	0.6	7.4	23.4	12.4
2005	263	193	70	—	1	57	159	46	10.6	16.0	5.5	—	0.5	6.8	21.7	12.7
2004	263	193	70	<1	1	61	155	46	10.7	16.2	5.5	<0.1	0.5	7.4	21.8	12.7
2003	246	181	65	<1	1	58	142	45	10.2	15.3	5.3	<0.1	0.3	7.0	20.7	12.6
2002	246	179	67	<1	1	63	139	44	10.3	15.3	5.4	<0.1	0.4	7.5	20.8	12.4
2001	238	173	65	<1	<1	63	129	45	10.0	15.0	5.3	<0.1	0.3	7.5	20.0	12.7
2000	230	167	62	<1	<1	65	120	44	9.8	14.7	5.2	<0.1	0.3	7.6	19.3	12.6
Other specified cirrhosis																
2012	419	210	210	5	5	75	220	114	15.8	16.2	15.5	1.3	2.8	9.1	26.6	26.4
2011	403	201	201	5	5	72	213	109	15.3	15.7	15.0	1.3	2.6	8.7	25.7	26.3
2010	351	173	178	5	5	67	183	91	13.5	13.6	13.3	1.4	2.8	8.1	22.4	22.6
2009	312	154	159	4	4	60	161	83	12.1	12.2	12.0	1.1	2.3	7.3	20.1	20.9
2008	278	137	141	4	3	55	142	73	10.9	11.0	10.7	1.0	2.0	6.7	18.1	18.8
2007	216	106	110	3	3	43	110	57	8.5	8.6	8.5	0.8	1.7	5.3	14.2	15.1
2006	193	94	99	3	2	41	97	50	7.7	7.7	7.7	0.8	1.4	5.0	12.9	13.5
2005	175	84	91	4	2	36	86	46	7.1	7.0	7.2	1.0	1.4	4.4	11.8	12.6
2004	159	76	83	2	2	34	78	43	6.5	6.3	6.6	0.6	1.3	4.1	11.0	11.8
2003	146	69	77	2	2	32	71	40	6.0	5.9	6.2	0.6	0.9	3.8	10.3	11.2
2002	130	63	67	2	1	28	61	38	5.4	5.4	5.4	0.6	0.8	3.4	9.2	10.6
2001	115	57	58	2	1	25	52	35	4.8	4.9	4.8	0.5	0.8	2.9	8.0	9.9
2000	104	53	51	1	1	23	46	33	4.4	4.6	4.3	0.4	0.5	2.7	7.4	9.4

Table 2. Number and rate of discharges with any (all-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2000–2012. (Continued)

Diagnostic category and year	Number of discharges (in 1,000s)								Rate per 10,000 population							
	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years
Unspecified cirrhosis																
2012	317	169	147	1	1	21	173	121	11.9	13.1	10.8	0.3	0.6	2.5	20.8	28.0
2011	303	161	142	1	1	20	165	116	11.5	12.5	10.6	0.2	0.6	2.5	19.9	28.1
2010	268	144	124	1	1	20	147	99	10.3	11.3	9.3	0.3	0.6	2.5	18.0	24.3
2009	255	135	120	1	1	19	137	97	9.9	10.7	9.0	0.2	0.4	2.4	17.0	24.5
2008	231	122	109	1	1	19	122	89	9.0	9.8	8.3	0.2	0.4	2.3	15.5	22.9
2007	225	118	107	1	1	18	118	88	8.9	9.6	8.2	0.2	0.4	2.2	15.3	23.2
2006	214	112	103	1	1	19	109	84	8.6	9.1	8.0	0.3	0.4	2.3	14.5	22.7
2005	201	104	97	1	1	18	99	82	8.1	8.6	7.6	0.3	0.4	2.2	13.5	22.4
2004	200	104	95	1	1	21	98	80	8.2	8.7	7.6	0.2	0.4	2.5	13.8	22.0
2003	189	96	93	1	1	20	89	79	7.8	8.1	7.5	0.2	0.4	2.4	13.0	21.9
2002	164	82	81	1	<1	17	72	73	6.8	7.0	6.6	0.2	0.3	2.0	10.9	20.5
2001	153	77	77	1	<1	17	64	71	6.5	6.7	6.3	0.2	0.3	2.0	10.0	20.0
2000	143	70	73	1	<1	17	58	67	6.1	6.2	6.0	0.1	0.3	2.0	9.3	19.1
Nondependent abuse of alcohol																
2012	771	547	223	28	35	212	364	133	29.1	42.2	16.5	7.2	19.2	25.6	44.0	30.7
2011	741	524	217	27	33	205	350	126	28.2	40.8	16.1	7.0	18.6	24.8	42.3	30.5
2010	744	531	212	32	36	218	346	113	28.6	41.8	15.9	8.1	20.8	26.5	42.3	27.9
2009	671	478	192	28	32	204	306	102	26.0	38.0	14.5	7.0	18.6	24.8	38.1	25.7
2008	633	448	185	31	32	197	280	92	24.8	35.9	14.1	7.9	18.9	24.0	35.7	23.8
2007	663	472	191	31	31	214	290	97	26.2	38.2	14.7	7.9	18.7	25.9	37.6	25.8
2006	677	489	188	27	30	228	291	101	27.0	40.0	14.6	7.1	18.1	27.5	38.6	27.2
2005	615	440	174	26	28	214	256	91	24.8	36.4	13.7	6.6	16.7	25.8	35.0	24.9
2004	589	422	167	27	27	210	236	89	24.0	35.3	13.3	7.1	16.2	25.3	33.3	24.5
2003	555	397	157	27	25	204	216	82	22.9	33.7	12.6	7.2	15.3	24.4	31.4	23.0
2002	531	381	150	25	23	200	201	82	22.1	32.6	12.2	6.7	14.5	23.8	30.1	23.0
2001	491	347	144	30	22	195	172	71	20.7	30.1	11.9	8.1	14.2	23.1	26.7	20.3
2000	436	312	124	23	19	179	153	62	18.6	27.4	10.3	6.2	12.4	21.1	24.5	17.8
Alcohol poisoning																
2012	27	15	13	2	2	11	11	1	1.0	1.1	0.9	0.5	1.0	1.4	1.3	0.3
2011	28	15	13	2	2	11	11	1	1.1	1.2	0.9	0.5	1.2	1.4	1.3	0.3
2010	29	16	13	2	2	12	12	1	1.1	1.2	1.0	0.5	1.2	1.4	1.4	0.3
2009	26	14	12	2	2	11	10	1	1.0	1.1	0.9	0.5	1.1	1.4	1.2	0.3
2008	28	15	13	2	2	12	10	1	1.1	1.2	1.0	0.6	1.2	1.5	1.3	0.3
2007	24	13	11	2	2	11	8	1	0.9	1.0	0.9	0.5	1.1	1.3	1.0	0.3
2006	25	13	11	2	2	11	8	1	1.0	1.1	0.9	0.6	1.2	1.4	1.1	0.3
2005	23	12	10	2	2	11	7	1	0.9	1.0	0.8	0.5	1.0	1.3	1.0	0.3
2004	24	13	11	2	2	12	7	1	1.0	1.1	0.9	0.6	1.0	1.4	1.0	0.3
2003	21	11	10	2	2	11	6	1	0.9	0.9	0.8	0.5	1.0	1.3	0.9	0.2
2002	23	12	11	2	2	12	6	1	1.0	1.1	0.9	0.6	1.2	1.4	1.0	0.3
2001	23	12	11	2	2	12	6	1	1.0	1.0	0.9	0.6	1.0	1.5	0.9	0.3
2000	20	11	10	2	1	11	5	1	0.9	0.9	0.8	0.5	0.9	1.3	0.8	0.2

— Estimates are unreliable due to relative standard errors ≥ 30%.

Table 3. Average length of stay (in days) for discharges with principal (first-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2000–2012.

Sex or age and year	Alcoholic psychoses	Alcohol dependence syndrome	Chronic liver disease and cirrhosis				Nondependent abuse of alcohol	Alcoholic poisoning
			Any	Alcoholic	Other specified	Unspecified		
U.S. Total								
2012	4.4	5.0	5.8	5.9	5.9	5.6	2.1	2.8
2011	4.4	5.6	5.8	5.8	5.9	5.7	2.1	2.9
2010	4.4	5.0	6.1	6.1	6.2	6.0	2.0	2.7
2009	4.4	5.3	6.2	6.2	6.4	6.2	1.8	2.8
2008	4.4	5.0	6.5	6.5	6.4	6.4	2.1	2.9
2007	4.4	6.0	6.2	6.4	5.9	6.1	2.2	2.7
2006	4.4	5.5	6.2	6.4	6.0	6.0	2.4	2.9
2005	4.4	5.8	6.5	6.5	6.3	6.5	2.2	2.6
2004	4.4	5.1	6.4	6.3	5.9	6.5	1.9	2.5
2003	4.5	4.8	6.6	6.6	6.1	6.9	2.5	2.1
2002	4.4	4.6	6.7	6.7	6.5	6.7	2.1	2.4
2001	4.6	5.7	6.7	6.7	6.3	7.0	2.4	2.2
2000	4.5	5.3	6.6	6.7	6.2	6.8	2.3	2.3
Sex: male								
2012	4.5	4.9	5.6	5.7	5.4	5.4	2.1	2.8
2011	4.5	5.4	5.6	5.6	5.6	5.4	2.2	3.1
2010	4.5	5.0	5.9	5.9	5.8	5.9	2.0	2.8
2009	4.5	5.2	6.0	6.0	5.7	6.0	1.8	3.0
2008	4.6	5.0	6.3	6.4	5.7	6.0	2.1	3.0
2007	4.4	5.7	6.1	6.3	5.2	5.9	2.2	2.6
2006	4.5	5.4	6.1	6.2	5.7	5.9	2.5	3.0
2005	4.4	5.7	6.3	6.3	5.6	6.3	2.3	2.9
2004	4.4	5.0	6.1	6.2	5.5	6.1	2.0	2.7
2003	4.6	4.6	6.4	6.4	5.8	6.6	2.5	2.2
2002	4.5	4.6	6.5	6.6	5.8	6.4	2.2	2.6
2001	4.7	5.6	6.4	6.4	5.5	6.6	2.4	2.4
2000	4.5	5.2	6.5	6.5	5.7	6.5	2.2	2.3
Sex: female								
2012	4.1	5.3	6.1	6.2	6.2	5.9	2.1	2.7
2011	4.1	6.1	6.2	6.4	6.2	6.0	2.0	2.7
2010	4.1	5.1	6.3	6.4	6.4	6.0	1.8	2.4
2009	4.0	5.4	6.6	6.7	6.9	6.4	1.8	2.5
2008	4.2	5.2	6.7	6.7	6.9	6.7	2.1	2.6
2007	4.2	6.8	6.5	6.6	6.3	6.5	2.1	2.9
2006	4.0	5.7	6.4	6.8	6.2	6.1	2.4	2.6
2005	4.2	6.3	6.8	6.9	6.8	6.8	2.1	2.2
2004	4.1	5.2	6.8	6.8	6.2	6.9	1.9	2.1
2003	4.3	5.2	7.0	7.1	6.2	7.2	2.3	2.0
2002	4.1	4.8	7.0	7.0	6.9	7.0	1.9	2.1
2001	4.4	6.1	7.2	7.3	6.8	7.3	2.3	1.9
2000	4.4	5.6	7.0	7.0	6.5	7.0	2.5	2.3

Table 3. Average length of stay (in days) for discharges with principal (first-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2000–2012. (Continued)

Sex or age and year	Alcoholic psychoses	Alcohol dependence syndrome	Chronic liver disease and cirrhosis				Nondependent abuse of alcohol	Alcoholic poisoning
			Any	Alcoholic	Other specified	Unspecified		
Age: 12–20 years								
2012	3.4	5.8	6.2	2.8	6.5	—	1.1	1.2
2011	3.2	8.9	5.6	—	4.7	8.2	1.3	1.3
2010	2.9	5.4	6.3	—	6.6	5.0	1.2	1.2
2009	2.8	5.5	5.2	2.0	5.7	4.6	1.2	1.6
2008	4.0	5.9	7.1	4.6	6.4	9.0	1.4	1.5
2007	3.6	9.5	6.0	3.1	5.2	9.2	1.2	1.5
2006	3.3	4.5	5.3	1.5	5.1	6.3	1.0	1.1
2005	3.1	7.0	5.7	3.0	6.0	5.4	1.4	1.2
2004	3.1	8.8	5.4	—	4.2	8.4	1.4	1.1
2003	3.7	7.4	9.0	2.9	7.0	12.2	—	1.1
2002	3.2	7.5	6.9	—	—	8.1	1.8	1.2
2001	4.2	10.7	5.0	1.5	5.0	5.2	—	1.1
2000	3.8	9.2	5.3	3.4	4.6	7.2	—	1.1
Age: 21–24 years								
2012	3.1	5.6	7.2	—	6.5	4.3	1.3	1.4
2011	3.2	7.0	5.1	4.1	—	4.2	1.4	2.2
2010	2.9	6.5	5.1	3.8	6.1	5.5	1.5	1.5
2009	3.1	5.4	5.5	3.9	6.6	5.7	1.3	1.5
2008	3.3	5.1	5.7	4.0	—	5.4	2.1	2.4
2007	3.5	8.3	4.8	4.6	4.2	—	1.6	2.0
2006	3.2	6.0	3.9	3.3	5.0	4.2	1.8	2.0
2005	3.1	6.8	8.3	4.4	7.2	—	1.8	2.0
2004	3.2	6.6	6.0	4.7	5.4	8.8	1.4	2.2
2003	3.6	5.2	7.0	5.3	4.7	12.8	1.6	1.5
2002	3.4	5.3	5.4	4.4	5.7	6.6	1.7	1.7
2001	3.8	7.7	6.9	4.0	6.2	—	1.6	1.4
2000	3.5	6.1	5.3	4.3	3.4	7.8	1.6	1.8
Age: 25–44 years								
2012	3.6	4.8	5.7	5.8	5.3	5.5	1.9	2.8
2011	3.6	5.3	6.0	5.9	6.6	6.1	2.0	2.9
2010	3.6	4.9	6.0	6.1	5.3	5.7	1.8	2.6
2009	3.7	5.2	6.0	6.0	5.7	6.3	1.7	2.7
2008	3.8	5.1	6.1	6.3	5.6	5.6	2.0	2.6
2007	3.7	6.0	6.0	6.2	5.3	5.4	2.1	2.5
2006	3.7	5.5	5.9	6.0	5.8	5.5	2.5	3.0
2005	3.7	5.8	6.1	6.2	5.9	5.6	2.2	2.6
2004	3.7	5.0	6.0	6.1	5.6	5.7	1.8	2.5
2003	3.9	4.7	6.2	6.2	5.1	6.5	2.2	2.1
2002	3.7	4.4	6.3	6.4	5.0	6.4	1.8	2.3
2001	4.0	5.8	6.5	6.5	6.1	6.8	2.2	2.4
2000	3.9	5.2	6.1	6.3	5.9	5.7	2.2	2.6

Table 3. Average length of stay (in days) for discharges with principal (first-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2000–2012. (Continued)

Sex or age and year	Alcoholic psychoses	Alcohol dependence syndrome	Chronic liver disease and cirrhosis				Nondependent abuse of alcohol	Alcoholic poisoning
			Any	Alcoholic	Other specified	Unspecified		
Age: 45–64 years								
2012	4.7	5.1	5.8	5.9	5.9	5.7	2.5	3.2
2011	4.6	5.6	5.8	5.8	5.6	5.6	2.5	3.3
2010	4.6	5.0	6.0	6.1	6.1	5.9	2.1	3.0
2009	4.7	5.4	6.3	6.3	6.8	6.2	2.0	3.4
2008	4.7	4.9	6.5	6.6	6.5	6.4	2.2	3.4
2007	4.6	5.9	6.3	6.4	6.0	6.2	2.5	3.1
2006	4.7	5.4	6.3	6.5	6.1	5.9	2.8	3.6
2005	4.6	5.8	6.6	6.6	6.2	6.5	2.4	3.2
2004	4.6	4.9	6.4	6.4	6.1	6.4	2.2	3.0
2003	4.8	4.7	6.7	6.7	6.4	6.8	2.4	2.5
2002	4.8	4.7	6.9	6.8	7.2	6.8	2.3	2.9
2001	4.9	5.3	6.8	6.8	6.3	7.0	2.4	2.5
2000	4.8	5.1	6.8	6.8	6.6	6.8	2.5	2.4
Age: 65+ years								
2012	6.1	5.3	5.8	6.1	5.9	5.6	2.7	3.7
2011	6.3	6.6	5.8	5.8	6.1	5.8	2.7	4.1
2010	6.3	5.4	6.2	6.2	6.7	6.1	3.0	3.8
2009	5.9	5.0	6.3	6.4	6.3	6.3	2.5	4.7
2008	6.4	5.3	6.5	6.5	6.7	6.5	2.7	4.8
2007	6.5	5.9	6.3	6.3	6.1	6.3	3.0	—
2006	6.2	5.4	6.2	6.3	6.0	6.2	3.0	4.5
2005	6.4	5.9	6.6	6.4	6.8	6.7	2.9	4.3
2004	6.3	5.3	6.6	6.7	6.1	6.7	2.5	3.1
2003	6.5	5.4	6.7	6.5	6.0	7.0	3.1	3.3
2002	6.6	5.3	6.7	6.9	6.4	6.7	3.3	4.2
2001	6.9	5.5	6.8	6.8	6.4	6.9	3.0	3.5
2000	6.6	5.5	6.9	7.1	6.0	7.0	3.1	3.5

— Estimates are unreliable due to relative standard errors ≥ 30%.

Table 4. Total and median costs for hospital stays with principal (first-list) or any (all-listed) mention of an alcohol-related diagnosis for U.S. population ages 12 years and older, by sex and age group, 2012

Diagnostic category	Total cost for hospital stays (in millions)								Median cost for hospital stays							
	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years	Total	Male	Female	12–20 years	21–24 years	25–44 years	45–64 years	65+ years
Principal (first-listed)																
Any alcohol-related diagnosis	3,105	2,138	967	27	39	731	1,865	445	4,774	4,721	4,908	3,323	3,185	3,956	5,075	6,644
Alcoholic psychosis	1,059	824	234	2	10	297	640	110	4,375	4,470	4,103	2,808	2,942	3,805	4,654	6,329
Alcohol dependence syndrome	474	341	132	4	11	151	263	46	3,591	3,560	3,667	3,123	3,057	3,268	3,696	4,667
All chronic liver disease and cirrhosis	1,452	891	560	12	11	240	912	277	8,129	8,022	8,297	8,634	8,305	7,922	8,198	8,091
Alcoholic cirrhosis	848	589	258	—	4	178	573	93	8,096	8,028	8,271	—	6,055	7,880	8,163	8,242
Other specified cirrhosis	200	87	113	9	6	27	106	52	8,909	9,275	8,675	9,793	11,352	8,578	9,149	8,592
Unspecified cirrhosis	404	215	189	3	1	35	233	132	7,868	7,623	8,198	11,771	6,514	7,857	7,915	7,826
Nondependent abuse of alcohol	75	52	23	6	5	24	31	8	3,243	3,324	3,037	2,759	2,988	3,001	3,396	4,268
Alcohol poisoning	49	31	18	4	2	20	20	3	5,109	5,108	5,111	4,246	4,901	5,228	5,247	5,447
Any (all-listed)																
Any alcohol-related diagnosis	27,023	18,281	8,740	382	501	4,926	14,657	6,571	6,615	6,620	6,605	4,446	4,504	5,089	6,869	8,620
Alcoholic psychosis	4,717	3,703	1,013	10	35	950	2,783	942	6,110	6,311	5,573	3,498	3,419	4,565	6,445	10,620
Alcohol dependence syndrome	10,357	7,716	2,640	41	110	2,029	6,170	2,017	5,921	6,025	5,663	3,745	3,695	4,533	6,229	8,464
All chronic liver disease and cirrhosis	12,674	7,504	5,169	139	102	1,761	7,259	3,412	8,170	8,115	8,244	8,836	7,424	7,321	8,124	8,817
Alcoholic cirrhosis	4,883	3,547	1,336	2	14	794	3,244	829	7,906	7,918	7,869	6,422	5,974	6,765	7,994	9,020
Other specified cirrhosis	6,192	3,274	2,917	124	80	1,008	3,366	1,613	8,845	8,975	8,750	8,768	7,653	8,248	8,927	9,183
Unspecified cirrhosis	4,394	2,430	1,964	35	17	295	2,431	1,615	8,170	8,146	8,193	13,108	8,596	7,429	7,941	8,565
Nondependent abuse of alcohol	8,269	6,180	2,089	201	301	1,882	4,165	1,725	6,245	6,519	5,641	4,163	4,658	4,990	6,708	8,322
Alcohol poisoning	209	123	86	10	10	85	92	13	4,844	5,119	4,545	3,927	4,143	4,598	5,208	5,820

— Estimates are unreliable due to relative standard errors ≥ 30%.