

**Table A-4a. Age-adjusted percentages (with standard errors) of selected diseases and conditions among adults aged 18 and over, by selected characteristics: United States, 2016**

Selected characteristic	Diabetes <sup>1</sup>	Ulcers <sup>1</sup>	Kidney disease <sup>1</sup>	Liver disease <sup>1</sup>	Arthritis diagnosis <sup>1</sup>	Chronic joint symptoms <sup>1</sup>
Total	8.8 (0.20)	5.7 (0.17)	1.9 (0.09)	1.9 (0.10)	21.6 (0.27)	28.3 (0.36)
Sex						
Male	9.4 (0.28)	5.7 (0.24)	1.8 (0.13)	1.9 (0.15)	18.5 (0.38)	26.7 (0.52)
Female	8.4 (0.26)	5.8 (0.22)	2.0 (0.12)	1.9 (0.14)	24.4 (0.38)	29.6 (0.45)
Age (years)						
18–44	2.8 (0.20)	3.4 (0.20)	0.7 (0.09)	1.2 (0.14)	7.3 (0.32)	16.4 (0.48)
45–64	12.5 (0.45)	7.5 (0.34)	2.1 (0.17)	2.8 (0.22)	31.1 (0.58)	38.8 (0.61)
65–74	23.0 (0.81)	8.8 (0.55)	3.9 (0.36)	2.6 (0.29)	47.6 (0.92)	46.1 (0.94)
75 and over	19.4 (0.85)	10.7 (0.68)	6.5 (0.50)	2.0 (0.33)	51.9 (1.04)	47.5 (1.07)
Race						
One race <sup>2</sup>	8.8 (0.21)	5.7 (0.17)	1.8 (0.09)	1.9 (0.10)	21.5 (0.27)	28.1 (0.36)
White	8.2 (0.22)	6.0 (0.19)	1.8 (0.10)	2.0 (0.12)	22.0 (0.30)	29.0 (0.39)
Black or African American	13.1 (0.67)	4.4 (0.38)	2.5 (0.31)	1.6 (0.26)	22.7 (0.80)	27.4 (0.95)
American Indian or Alaska Native	15.7 (2.83)	8.7 (1.84)	2.4 (0.99)	2.5 (1.12)	25.7 (2.91)	35.1 (3.68)
Asian	8.0 (0.96)	3.6 (0.67)	0.7 (0.22)	2.0 (0.42)	12.5 (1.10)	16.9 (1.28)
Native Hawaiian or Other Pacific Islander	14.4 (3.89)	*	0.7 (0.47)	*	18.3 (3.80)	26.9 (4.97)
Two or more races <sup>3</sup>	8.5 (1.38)	8.3 (1.32)	3.2 (0.78)	2.1 (0.61)	26.8 (2.09)	36.4 (2.50)
Black or African American, white	-	*	*	*	18.6 (5.62)	33.7 (5.81)
American Indian or Alaska Native, white	13.8 (3.38)	11.9 (2.32)	*	2.7 (0.88)	31.9 (3.81)	38.6 (3.98)
Hispanic or Latino origin <sup>4</sup> and race						
Hispanic or Latino	12.2 (0.74)	5.2 (0.45)	2.1 (0.29)	2.7 (0.41)	16.3 (0.78)	23.1 (0.96)
Mexican or Mexican American	13.1 (1.06)	6.1 (0.70)	2.8 (0.46)	2.8 (0.62)	15.9 (1.02)	22.5 (1.34)
Not Hispanic or Latino	8.4 (0.20)	5.9 (0.18)	1.8 (0.09)	1.7 (0.10)	22.6 (0.30)	29.4 (0.38)
White, single race	7.6 (0.22)	6.3 (0.21)	1.8 (0.10)	1.8 (0.12)	23.1 (0.34)	30.6 (0.42)
Black or African American, single race	13.3 (0.69)	4.5 (0.39)	2.7 (0.32)	1.5 (0.24)	23.2 (0.83)	27.5 (0.97)
Education <sup>5</sup>						
Less than a high school diploma	15.3 (0.83)	8.2 (0.60)	3.4 (0.38)	3.3 (0.46)	26.0 (0.98)	32.5 (1.24)
High school diploma or GED <sup>6</sup>	10.9 (0.47)	6.9 (0.39)	2.1 (0.19)	2.2 (0.28)	26.4 (0.67)	32.5 (0.79)
Some college	10.6 (0.40)	7.5 (0.36)	2.3 (0.20)	2.3 (0.21)	27.4 (0.55)	34.9 (0.72)
Bachelor's degree or higher	6.6 (0.32)	4.0 (0.23)	1.3 (0.15)	1.3 (0.14)	20.4 (0.50)	26.1 (0.59)
Current employment status <sup>7</sup>						
Employed	6.6 (0.31)	4.7 (0.26)	0.8 (0.11)	1.3 (0.12)	17.8 (0.43)	25.2 (0.52)
Full-time	6.2 (0.38)	4.3 (0.30)	0.6 (0.08)	1.3 (0.13)	16.8 (0.62)	24.1 (0.70)
Part-time	7.3 (0.63)	4.8 (0.44)	1.2 (0.25)	1.5 (0.28)	19.3 (0.83)	27.5 (1.04)
Not employed but has worked previously	12.0 (0.45)	8.3 (0.39)	3.2 (0.23)	3.1 (0.26)	28.0 (0.59)	34.7 (0.70)
Not employed and has never worked	11.3 (1.09)	4.9 (0.75)	2.9 (0.53)	1.5 (0.38)	19.8 (1.32)	23.4 (1.39)

**Table A-4a. Age-adjusted percentages (with standard errors) of selected diseases and conditions among adults aged 18 and over, by selected characteristics: United States, 2016**

Selected characteristic	Diabetes <sup>1</sup>	Ulcers <sup>1</sup>	Kidney disease <sup>1</sup>	Liver disease <sup>1</sup>	Arthritis diagnosis <sup>1</sup>	Chronic joint symptoms <sup>1</sup>
Family income <sup>8</sup>						
Less than \$35,000	12.4 (0.40)	7.5 (0.32)	2.9 (0.20)	2.7 (0.21)	25.2 (0.52)	32.7 (0.65)
\$35,000 or more	7.6 (0.23)	5.1 (0.21)	1.6 (0.12)	1.6 (0.13)	20.7 (0.35)	27.5 (0.44)
\$35,000–\$49,999	9.7 (0.60)	6.4 (0.50)	2.0 (0.32)	2.3 (0.36)	23.1 (0.81)	30.5 (0.97)
\$50,000–\$74,999	8.8 (0.49)	6.3 (0.45)	1.9 (0.25)	1.7 (0.22)	21.8 (0.72)	29.4 (0.81)
\$75,000–\$99,999	7.4 (0.56)	4.4 (0.41)	1.9 (0.32)	2.2 (0.36)	21.8 (0.85)	28.2 (1.00)
\$100,000 or more	5.8 (0.38)	4.1 (0.33)	1.0 (0.16)	1.1 (0.21)	18.7 (0.60)	25.0 (0.70)
Poverty status <sup>9</sup>						
Poor	14.4 (0.67)	8.4 (0.51)	3.3 (0.36)	3.0 (0.32)	25.7 (0.80)	32.7 (0.98)
Near poor	11.9 (0.53)	7.1 (0.43)	2.8 (0.27)	2.3 (0.28)	24.6 (0.71)	32.7 (0.87)
Not poor	7.4 (0.22)	5.1 (0.20)	1.5 (0.11)	1.7 (0.12)	20.6 (0.33)	27.0 (0.41)
Health insurance coverage <sup>10</sup>						
Under 65:						
Private	5.0 (0.21)	4.1 (0.20)	0.8 (0.08)	1.3 (0.12)	14.3 (0.33)	22.8 (0.45)
Medicaid	11.5 (0.77)	8.0 (0.60)	3.2 (0.39)	3.8 (0.48)	22.5 (0.88)	30.0 (1.05)
Other coverage	11.9 (1.51)	7.8 (1.08)	2.1 (0.47)	3.2 (0.66)	29.1 (2.08)	34.2 (2.17)
Uninsured	6.3 (0.64)	5.0 (0.53)	1.0 (0.22)	1.4 (0.31)	12.3 (0.86)	24.4 (1.08)
65 and over:						
Private	20.5 (0.86)	10.4 (0.71)	4.3 (0.43)	2.0 (0.29)	50.3 (1.04)	47.0 (1.10)
Medicare and Medicaid	31.9 (2.38)	11.5 (1.33)	9.1 (1.38)	2.7 (0.73)	57.5 (2.58)	52.4 (2.59)
Medicare Advantage	18.7 (1.20)	7.7 (0.80)	5.5 (0.71)	2.8 (0.50)	49.1 (1.35)	46.3 (1.44)
Medicare only	22.2 (1.44)	9.1 (1.00)	4.8 (0.70)	2.6 (0.56)	47.3 (1.67)	44.9 (1.69)
Other coverage	23.2 (1.96)	12.1 (1.57)	5.6 (1.01)	1.9 (0.63)	48.5 (2.57)	46.7 (2.42)
Uninsured	*	*	*	*	*	*
Marital status						
Married	8.3 (0.28)	5.6 (0.24)	1.7 (0.13)	1.7 (0.14)	21.3 (0.38)	27.9 (0.50)
Widowed	12.0 (1.51)	9.6 (2.63)	2.3 (0.45)	*	28.7 (2.80)	41.3 (4.97)
Divorced or separated	10.5 (0.54)	7.5 (0.49)	2.4 (0.27)	2.4 (0.31)	25.4 (0.79)	32.5 (0.99)
Never married	10.4 (0.61)	5.4 (0.50)	2.2 (0.40)	2.1 (0.29)	19.3 (0.77)	26.2 (0.82)
Living with a partner	8.3 (0.92)	6.3 (0.74)	3.0 (0.62)	2.3 (0.44)	22.8 (1.29)	31.7 (1.37)
Place of residence <sup>11</sup>						
Large MSA	8.9 (0.30)	4.8 (0.21)	1.7 (0.13)	1.8 (0.14)	19.8 (0.37)	25.5 (0.48)
Small MSA	8.3 (0.32)	6.5 (0.32)	1.9 (0.15)	1.9 (0.18)	23.2 (0.50)	31.2 (0.66)
Not in MSA	10.0 (0.54)	7.8 (0.55)	2.5 (0.25)	2.2 (0.26)	25.6 (0.85)	33.0 (1.02)
Region						
Northeast	8.5 (0.46)	4.2 (0.34)	1.6 (0.18)	1.9 (0.22)	21.0 (0.65)	26.0 (0.80)
Midwest	9.3 (0.41)	6.7 (0.38)	2.0 (0.18)	1.8 (0.24)	24.2 (0.63)	31.5 (0.76)
South	9.3 (0.36)	5.9 (0.30)	1.8 (0.14)	1.7 (0.14)	21.7 (0.46)	28.1 (0.65)
West	7.9 (0.42)	5.6 (0.35)	2.1 (0.22)	2.3 (0.26)	19.7 (0.49)	27.4 (0.68)

**Table A-4a. Age-adjusted percentages (with standard errors) of selected diseases and conditions among adults aged 18 and over, by selected characteristics: United States, 2016**

Selected characteristic	Diabetes <sup>1</sup>	Ulcers <sup>1</sup>	Kidney disease <sup>1</sup>	Liver disease <sup>1</sup>	Arthritis diagnosis <sup>1</sup>	Chronic joint symptoms <sup>1</sup>
Hispanic or Latino origin <sup>4</sup> , race, and sex						
Hispanic or Latino, male	13.0 (1.09)	6.0 (0.77)	1.8 (0.40)	3.2 (0.64)	12.5 (1.04)	20.5 (1.28)
Hispanic or Latina, female	11.5 (0.92)	4.5 (0.53)	2.3 (0.45)	2.3 (0.47)	19.8 (1.08)	25.6 (1.25)
Not Hispanic or Latino:						
White, single race, male	8.6 (0.32)	6.2 (0.31)	1.7 (0.14)	1.7 (0.17)	20.4 (0.48)	29.9 (0.64)
White, single race, female	6.9 (0.27)	6.4 (0.28)	1.8 (0.14)	2.0 (0.17)	25.7 (0.49)	31.3 (0.54)
Black or African American, single race, male	12.3 (0.97)	4.2 (0.61)	3.1 (0.61)	2.1 (0.51)	18.3 (1.17)	23.5 (1.52)
Black or African American, single race, female	14.2 (0.91)	4.7 (0.54)	2.4 (0.35)	1.0 (0.22)	26.9 (1.10)	30.5 (1.23)

\* Estimate is considered unreliable, as specified in National Center for Health Statistics Data Presentation Standards for Proportions (available from: [https://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_175.pdf](https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf)), and is not shown.

\*\* Complement of the estimate is considered unreliable, as specified in National Center for Health Statistics Data Presentation Standards for Proportions (available from: [https://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_175.pdf](https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf)).

- Quantity zero.

<sup>1</sup>In separate questions, respondents were asked if they had ever been told by a doctor or other health professional that they had an ulcer (including a stomach, duodenal, or peptic ulcer) or diabetes (or sugar diabetes; female respondents were instructed to exclude pregnancy-related diabetes). Responses from persons who said they had "borderline" diabetes were treated as unknown with respect to diabetes.

Respondents were also asked in separate questions if they had been told in the last 12 months by a doctor or other health professional that they had: weak or failing kidneys (excluding kidney stones, bladder infections, or incontinence) or any kind of liver condition.

Lastly, respondents were asked if they had ever been told by a doctor or other health professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. Those who answered yes were classified as having an arthritis diagnosis. Respondents were also asked: "During the past 30 days, have you had pain, aching or stiffness in or around a joint?" (excluding back and neck) and, if yes, "Did your joint symptoms first begin more than 3 months ago?" Respondents with symptoms that began more than 3 months ago were classified in this table as having chronic joint symptoms.

A person may be represented in more than one column.

<sup>2</sup>Refers to persons who indicated only a single race group, including those of Hispanic or Latino origin.

<sup>3</sup>Refers to persons who indicated more than one race group, including those of Hispanic or Latino origin. Only two combinations of multiple race groups are shown due to small sample sizes for other combinations.

<sup>4</sup>Refers to persons who are of Hispanic or Latino origin and may be of any race or combination of races. "Not Hispanic or Latino" refers to persons who are not of Hispanic or Latino origin, regardless of race.

<sup>5</sup>Shown only for adults aged 25 and over. Estimates are age adjusted to the projected 2000 U.S. population as the standard population using four age groups: 25-44, 45-64, 65-74, and 75 and over.

<sup>6</sup>GED is General Educational Development high school equivalency diploma.

<sup>7</sup>"Full-time" employment is 35 or more hours per week. "Part-time" employment is 34 or fewer hours per week.

<sup>8</sup>Includes persons who reported a dollar amount or who would not provide a dollar amount but provided an income interval.

<sup>9</sup>"Poor" persons are defined as having income below the poverty threshold. "Near poor" persons have incomes of 100% to less than 200% of the poverty threshold. "Not poor" persons have incomes that are 200% of the poverty threshold or greater.

<sup>10</sup>Based on a hierarchy of mutually exclusive categories. Adults with more than one type of health insurance were assigned to the first appropriate category in the hierarchy. "Uninsured" includes adults who had no coverage as well as those who had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

<sup>11</sup>MSA is metropolitan statistical area. Large MSAs have a population size of 1 million or more; small MSAs have a population size of less than 1 million. "Not in MSA" consists of persons not living in a metropolitan statistical area.

NOTES: Estimates are based on household interviews of a sample of the civilian noninstitutionalized population. This table is based on data from the Sample Adult file and was weighted using the Sample Adult weight. Unknowns for the columns were not included in the denominators when calculating percentages. Percentages may not add to totals due to rounding. "Total" includes other races not shown separately and persons with unknown education, family income, poverty status, and health insurance characteristics. Unless otherwise specified, estimates are age-adjusted using the projected 2000 U.S. population as the standard population and using four age groups: 18-44, 45-64, 65-74, and 75 and over. Estimates for age groups are not age-adjusted. For more information on the data source, methods, and definitions used for this table, refer to Technical Notes for Summary Health Statistics Tables: National Health Interview Survey (available from <http://www.cdc.gov/nchs/nhis/SHS/tables.htm>). Suggested citation: Blackwell DL, Villarroel MA. Tables of Summary Health Statistics for U.S. Adults: 2016 National Health Interview Survey. National Center for Health Statistics. 2018. Available from: <http://www.cdc.gov/nchs/nhis/SHS/tables.htm>.

SOURCE: NCHS, National Health Interview Survey, 2016.

**Table A-4b. Frequencies (in thousands) of selected diseases and conditions among adults aged 18 and over, by selected characteristics: United States, 2016**

Selected characteristic	All adults aged 18 and over	Diabetes <sup>1</sup>	Ulcers <sup>1</sup>	Kidney disease <sup>1</sup>	Liver disease <sup>1</sup>	Arthritis diagnosis <sup>1</sup>	Chronic joint symptoms <sup>1</sup>
Total	245,142	23,104	14,736	4,917	4,893	57,933	73,404
Sex							
Male	118,223	11,499	6,947	2,222	2,351	23,336	32,821
Female	126,920	11,605	7,789	2,696	2,542	34,598	40,583
Age (years)							
18–44	113,401	3,142	3,886	814	1,398	8,275	18,557
45–64	83,703	10,082	6,277	1,729	2,348	25,973	32,468
65–74	28,532	6,272	2,494	1,107	750	13,568	13,119
75 and over	19,507	3,608	2,080	1,267	396	10,117	9,260
Race							
One race <sup>2</sup>	240,410	22,767	14,408	4,793	4,803	56,905	71,788
White	192,455	17,495	12,356	3,915	3,981	47,646	60,168
Black or African American	30,105	3,752	1,306	724	461	6,828	8,254
American Indian or Alaska Native	2,460	342	207	49	*	584	811
Asian	14,853	1,114	519	103	293	1,765	2,434
Native Hawaiian or Other Pacific Islander	538	*	*	3	4	82	122
Two or more races <sup>3</sup>	4,732	336	328	124	90	1,028	1,616
Black or African American, white	816	-	*	*	*	155	280
American Indian or Alaska Native, white	1,763	240	219	*	48	579	699
Hispanic or Latino origin <sup>4</sup> and race							
Hispanic or Latino	38,782	3,746	1,790	713	991	5,218	7,982
Mexican or Mexican American	23,240	2,286	1,166	542	601	2,860	4,414
Not Hispanic or Latino	206,360	19,357	12,946	4,204	3,902	52,716	65,422
White, single race	157,505	14,036	10,715	3,231	3,131	42,908	53,135
Black or African American, single race	28,757	3,659	1,271	722	400	6,674	7,914
Education <sup>5</sup>							
Less than a high school diploma	26,459	4,629	2,464	1,118	893	8,220	9,649
High school diploma or GED <sup>6</sup>	51,932	6,393	3,864	1,276	1,180	15,806	18,472
Some college	61,937	6,747	4,737	1,493	1,497	17,813	22,372
Bachelor's degree or higher	74,100	4,840	2,916	906	1,000	15,147	19,525
Current employment status <sup>7</sup>							
Employed	150,236	8,447	6,438	1,047	2,090	23,706	36,030
Full-time	120,071	6,354	5,176	728	1,607	18,235	28,209
Part-time	27,966	1,899	1,201	301	420	5,031	7,319
Not employed but has worked previously	81,641	13,429	7,727	3,498	2,616	31,902	34,555
Not employed and has never worked	13,099	1,222	568	372	184	2,288	2,767

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Selected characteristic	All adults aged 18 and over	Diabetes <sup>1</sup>	Ulcers <sup>1</sup>	Kidney disease <sup>1</sup>	Liver disease <sup>1</sup>	Arthritis diagnosis <sup>1</sup>	Chronic joint symptoms <sup>1</sup>
<b>Family income<sup>8</sup></b>							
Less than \$35,000	66,236	8,587	5,198	2,140	1,768	18,253	22,631
\$35,000 or more	153,049	11,900	7,961	2,301	2,579	33,270	43,684
\$35,000–\$49,999	24,929	2,568	1,669	533	577	6,249	7,941
\$50,000–\$74,999	38,167	3,456	2,456	741	669	8,809	11,630
\$75,000–\$99,999	27,484	2,117	1,226	497	635	6,251	7,968
\$100,000 or more	62,469	3,759	2,611	530	698	11,962	16,145
<b>Poverty status<sup>9</sup></b>							
Poor	28,852	3,376	2,166	789	816	6,370	8,610
Near poor	40,911	4,977	2,994	1,257	933	10,642	13,701
Not poor	162,870	13,218	8,847	2,682	2,874	37,696	47,511
<b>Health insurance coverage<sup>10</sup></b>							
<b>Under 65:</b>							
Private	136,020	7,417	5,956	1,183	1,934	21,850	33,237
Medicaid	28,037	3,059	2,246	894	1,063	6,293	8,385
Other coverage	8,873	1,391	797	255	428	3,403	3,808
Uninsured	22,734	1,303	1,081	209	318	2,601	5,251
<b>65 and over:</b>							
Private	20,020	3,926	1,998	802	403	9,962	9,306
Medicare and Medicaid	3,360	1,027	384	303	91	1,930	1,759
Medicare Advantage	12,135	2,179	932	648	337	5,917	5,608
Medicare only	8,167	1,786	749	389	224	3,845	3,667
Other coverage	3,891	897	475	204	80	1,855	1,814
Uninsured	336	*	*	*	*	*	*
<b>Marital status</b>							
Married	130,447	12,549	7,871	2,337	2,421	32,703	40,514
Widowed	14,066	2,787	1,538	762	444	7,327	6,934
Divorced or separated	27,343	3,768	2,359	829	870	9,181	10,950
Never married	54,432	2,956	1,874	603	818	5,486	9,756
Living with a partner	18,527	993	1,057	374	338	3,143	5,155
<b>Place of residence<sup>11</sup></b>							
Large MSA	137,266	12,369	6,785	2,375	2,595	28,468	36,276
Small MSA	73,222	6,648	5,006	1,546	1,503	18,995	24,421
Not in MSA	34,654	4,086	2,946	996	794	10,470	12,707
<b>Region</b>							
Northeast	44,851	4,287	2,041	795	922	10,636	12,664
Midwest	54,359	5,386	3,852	1,156	1,036	14,445	18,116
South	87,402	8,731	5,467	1,724	1,564	20,771	26,125
West	58,531	4,699	3,377	1,243	1,371	12,081	16,499

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Hispanic or Latino origin <sup>4</sup> , race, and sex							
Hispanic or Latino, male	19,292	1,908	986	304	539	1,887	3,441
Hispanic or Latina, female	19,489	1,839	805	410	452	3,330	4,541
Not Hispanic or Latino:							
White, single race, male	76,525	7,528	5,042	1,489	1,430	17,988	24,605
White, single race, female	80,980	6,508	5,673	1,742	1,701	24,920	28,530
Black or African American, single race, male	12,928	1,431	504	355	241	2,327	2,977
Black or African American, single race, female	15,829	2,228	767	368	159	4,347	4,936

\* Corresponding crude percentage for the frequency is considered unreliable, as specified in National Center for Health Statistics Data Presentation Standards for Proportions (available from: [https://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_175.pdf](https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf)), and is not shown.

\*\* Complement of the corresponding crude percentage for the frequency is considered unreliable, as specified in National Center for Health Statistics Data Presentation Standards for Proportions (available from: [https://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_175.pdf](https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf)).

- Quantity zero.

<sup>1</sup>In separate questions, respondents were asked if they had ever been told by a doctor or other health professional that they had an ulcer (including a stomach, duodenal, or peptic ulcer) or diabetes (or sugar diabetes; female respondents were instructed to exclude pregnancy-related diabetes). Responses from persons who said they had "borderline" diabetes were treated as unknown with respect to diabetes.

Respondents were also asked in separate questions if they had been told in the last 12 months by a doctor or other health professional that they had: weak or failing kidneys (excluding kidney stones, bladder infections, or incontinence) or any kind of liver condition.

Lastly, respondents were asked if they had ever been told by a doctor or other health professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. Those who answered yes were classified as having an arthritis diagnosis. Respondents were also asked: "During the past 30 days, have you had pain, aching or stiffness in or around a joint?" (excluding back and neck) and, if yes, "Did your joint symptoms first begin more than 3 months ago?" Respondents with symptoms that began more than 3 months ago were classified in this table as having chronic joint symptoms.

A person may be represented in more than one column.

<sup>2</sup>Refers to persons who indicated only a single race group, including those of Hispanic or Latino origin.

<sup>3</sup>Refers to persons who indicated more than one race group, including those of Hispanic or Latino origin. Only two combinations of multiple race groups are shown due to small sample sizes for other combinations.

<sup>4</sup>Refers to persons who are of Hispanic or Latino origin and may be of any race or combination of races. "Not Hispanic or Latino" refers to persons who are not of Hispanic or Latino origin, regardless of race.

<sup>5</sup>Shown only for adults aged 25 and over.

<sup>6</sup>GED is General Educational Development high school equivalency diploma.

<sup>7</sup>"Full-time" employment is 35 or more hours per week. "Part-time" employment is 34 or fewer hours per week.

<sup>8</sup>Includes persons in families that reported either a dollar amount or would not provide a dollar amount but provided an income interval.

<sup>9</sup>"Poor" persons live in families defined as below the poverty threshold. "Near poor" persons live in families with incomes of 100% to less than 200% of the poverty threshold. "Not poor" persons live in families with incomes that are 200% of the poverty threshold or greater.

<sup>10</sup>Based on a hierarchy of mutually exclusive categories. Adults with more than one type of health insurance were assigned to the first appropriate category in the hierarchy.

"Uninsured" includes adults who had no coverage as well as those who had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

<sup>11</sup>MSA is metropolitan statistical area. Large MSAs have a population size of 1 million or more; small MSAs have a population size of less than 1 million. "Not in MSA" consists of persons not living in a metropolitan statistical area.

NOTES: Estimates are based on household interviews of a sample of the civilian noninstitutionalized population. This table is based on data from the Sample Adult file and was weighted using the Sample Adult weight. Unknowns for the columns were not included in the frequencies, but they are included in the "All adults aged 18 and over" column.

"Total" includes other races not shown separately and persons with unknown education, family income, poverty status, and health insurance characteristics. For more information on the data source, methods, and definitions used for this table, refer to Technical Notes for Summary Health Statistics Tables: National Health Interview Survey (available from <http://www.cdc.gov/nchs/nhis/SHS/tables.htm>). Suggested citation: Blackwell DL, Villarreal MA. Tables of Summary Health Statistics for U.S. Adults: 2016 National Health Interview Survey. National Center for Health Statistics. 2018. Available from: <http://www.cdc.gov/nchs/nhis/SHS/tables.htm>.

SOURCE: NCHS, National Health Interview Survey, 2016.

**Table A-4c. Crude percentages (with standard errors) of selected diseases and conditions among adults aged 18 and over, by selected characteristics: United States, 2016**

Selected characteristic	Diabetes <sup>1</sup>	Ulcers <sup>1</sup>	Kidney disease <sup>1</sup>	Liver disease <sup>1</sup>	Arthritis diagnosis <sup>1</sup>	Chronic joint symptoms <sup>1</sup>
Total	9.7 (0.23)	6.0 (0.18)	2.0 (0.09)	2.0 (0.11)	23.7 (0.32)	30.0 (0.38)
Sex						
Male	10.0 (0.31)	5.9 (0.25)	1.9 (0.14)	2.0 (0.15)	19.8 (0.44)	27.8 (0.54)
Female	9.4 (0.29)	6.1 (0.23)	2.1 (0.13)	2.0 (0.14)	27.3 (0.45)	32.0 (0.50)
Age (years)						
18–44	2.8 (0.20)	3.4 (0.20)	0.7 (0.09)	1.2 (0.14)	7.3 (0.32)	16.4 (0.48)
45–64	12.5 (0.45)	7.5 (0.34)	2.1 (0.17)	2.8 (0.22)	31.1 (0.58)	38.8 (0.61)
65–74	23.0 (0.81)	8.8 (0.55)	3.9 (0.36)	2.6 (0.29)	47.6 (0.92)	46.1 (0.94)
75 and over	19.4 (0.85)	10.7 (0.68)	6.5 (0.50)	2.0 (0.33)	51.9 (1.04)	47.5 (1.07)
Race						
One race <sup>2</sup>	9.7 (0.23)	6.0 (0.18)	2.0 (0.10)	2.0 (0.11)	23.7 (0.33)	29.9 (0.38)
White	9.3 (0.25)	6.4 (0.20)	2.0 (0.11)	2.1 (0.12)	24.8 (0.37)	31.3 (0.42)
Black or African American	12.9 (0.73)	4.3 (0.38)	2.4 (0.30)	1.5 (0.24)	22.7 (0.94)	27.4 (1.01)
American Indian or Alaska Native	14.4 (2.58)	8.4 (1.91)	2.0 (0.76)	*	23.7 (2.96)	33.0 (3.73)
Asian	7.7 (1.05)	3.5 (0.69)	0.7 (0.23)	2.0 (0.42)	11.9 (1.16)	16.4 (1.30)
Native Hawaiian or Other Pacific Islander	*	*	0.6 (0.37)	0.7 (0.68)	15.2 (4.12)	22.7 (5.08)
Two or more races <sup>3</sup>	7.4 (1.40)	6.9 (1.11)	2.6 (0.65)	1.9 (0.56)	21.7 (2.16)	34.1 (2.59)
Black or African American, white	-	*	*	*	18.9 (5.28)	34.3 (6.80)
American Indian or Alaska Native, white	14.1 (3.26)	12.4 (2.51)	*	2.8 (0.92)	32.8 (3.92)	39.6 (4.04)
Hispanic or Latino origin <sup>4</sup> and race						
Hispanic or Latino	9.9 (0.66)	4.6 (0.42)	1.8 (0.27)	2.6 (0.39)	13.5 (0.76)	20.6 (0.96)
Mexican or Mexican American	10.1 (0.91)	5.0 (0.60)	2.3 (0.41)	2.6 (0.58)	12.3 (0.96)	19.0 (1.29)
Not Hispanic or Latino	9.6 (0.23)	6.3 (0.19)	2.0 (0.10)	1.9 (0.10)	25.6 (0.35)	31.7 (0.39)
White, single race	9.1 (0.25)	6.8 (0.22)	2.1 (0.11)	2.0 (0.12)	27.3 (0.39)	33.8 (0.43)
Black or African American, single race	13.2 (0.75)	4.4 (0.39)	2.5 (0.32)	1.4 (0.22)	23.2 (0.98)	27.5 (1.04)
Education <sup>5</sup>						
Less than a high school diploma	18.0 (0.86)	9.3 (0.63)	4.2 (0.42)	3.4 (0.42)	31.1 (1.06)	36.5 (1.25)
High school diploma or GED <sup>6</sup>	12.7 (0.52)	7.4 (0.38)	2.5 (0.22)	2.3 (0.25)	30.5 (0.73)	35.6 (0.80)
Some college	11.2 (0.43)	7.7 (0.37)	2.4 (0.21)	2.4 (0.22)	28.8 (0.63)	36.2 (0.76)
Bachelor's degree or higher	6.7 (0.32)	3.9 (0.24)	1.2 (0.14)	1.4 (0.14)	20.5 (0.54)	26.4 (0.61)
Current employment status <sup>7</sup>						
Employed	5.7 (0.22)	4.3 (0.20)	0.7 (0.08)	1.4 (0.12)	15.8 (0.34)	24.0 (0.44)
Full-time	5.4 (0.23)	4.3 (0.23)	0.6 (0.08)	1.3 (0.13)	15.2 (0.38)	23.5 (0.47)
Part-time	7.0 (0.60)	4.3 (0.39)	1.1 (0.23)	1.5 (0.29)	18.0 (0.82)	26.2 (1.04)
Not employed but has worked previously	17.0 (0.46)	9.5 (0.34)	4.3 (0.24)	3.2 (0.22)	39.1 (0.61)	42.4 (0.63)
Not employed and has never worked	9.6 (0.90)	4.4 (0.68)	2.8 (0.51)	1.4 (0.36)	17.5 (1.23)	21.2 (1.35)

**Table A-4c. Crude percentages (with standard errors) of selected diseases and conditions among adults aged 18 and over, by selected characteristics: United States, 2016**

Selected characteristic	Diabetes <sup>1</sup>	Ulcers <sup>1</sup>	Kidney disease <sup>1</sup>	Liver disease <sup>1</sup>	Arthritis diagnosis <sup>1</sup>	Chronic joint symptoms <sup>1</sup>
Family income <sup>8</sup>						
Less than \$35,000	13.4 (0.44)	7.9 (0.33)	3.2 (0.22)	2.7 (0.21)	27.6 (0.62)	34.2 (0.69)
\$35,000 or more	8.0 (0.25)	5.2 (0.21)	1.5 (0.11)	1.7 (0.12)	21.8 (0.40)	28.6 (0.46)
\$35,000–\$49,999	10.6 (0.65)	6.7 (0.51)	2.1 (0.32)	2.3 (0.35)	25.1 (0.94)	31.9 (1.04)
\$50,000–\$74,999	9.3 (0.53)	6.4 (0.46)	1.9 (0.25)	1.8 (0.22)	23.1 (0.76)	30.5 (0.84)
\$75,000–\$99,999	7.9 (0.61)	4.5 (0.41)	1.8 (0.30)	2.3 (0.37)	22.8 (0.96)	29.0 (1.06)
\$100,000 or more	6.1 (0.37)	4.2 (0.32)	0.8 (0.13)	1.1 (0.19)	19.2 (0.61)	25.9 (0.70)
Poverty status <sup>9</sup>						
Poor	12.1 (0.66)	7.5 (0.47)	2.7 (0.30)	2.8 (0.30)	22.1 (0.88)	29.8 (1.03)
Near poor	12.5 (0.56)	7.3 (0.43)	3.1 (0.28)	2.3 (0.27)	26.0 (0.80)	33.5 (0.90)
Not poor	8.3 (0.25)	5.4 (0.21)	1.6 (0.11)	1.8 (0.12)	23.2 (0.39)	29.2 (0.44)
Health insurance coverage <sup>10</sup>						
Under 65:						
Private	5.6 (0.24)	4.4 (0.21)	0.9 (0.09)	1.4 (0.12)	16.1 (0.37)	24.5 (0.46)
Medicaid	11.3 (0.78)	8.0 (0.60)	3.2 (0.39)	3.8 (0.48)	22.5 (0.93)	29.9 (1.10)
Other coverage	16.2 (1.50)	9.0 (0.91)	2.9 (0.64)	4.8 (0.84)	38.4 (1.83)	42.9 (1.95)
Uninsured	5.8 (0.61)	4.8 (0.52)	0.9 (0.22)	1.4 (0.30)	11.4 (0.86)	23.1 (1.12)
65 and over:						
Private	20.6 (0.86)	10.0 (0.67)	4.0 (0.41)	2.0 (0.29)	49.8 (1.06)	46.6 (1.08)
Medicare and Medicaid	32.0 (2.42)	11.5 (1.34)	9.0 (1.38)	2.7 (0.72)	57.4 (2.59)	52.4 (2.59)
Medicare Advantage	18.8 (1.20)	7.7 (0.79)	5.3 (0.69)	2.8 (0.49)	48.8 (1.35)	46.3 (1.44)
Medicare only	22.4 (1.46)	9.2 (1.01)	4.8 (0.70)	2.7 (0.58)	47.1 (1.66)	45.0 (1.70)
Other coverage	24.2 (2.06)	12.2 (1.59)	5.3 (0.93)	2.1 (0.64)	47.8 (2.58)	46.7 (2.42)
Uninsured	*	*	*	*	*	*
Marital status						
Married	9.9 (0.32)	6.0 (0.25)	1.8 (0.14)	1.9 (0.15)	25.1 (0.44)	31.1 (0.52)
Widowed	20.6 (0.96)	10.9 (0.70)	5.4 (0.49)	3.2 (0.46)	52.2 (1.19)	49.3 (1.16)
Divorced or separated	14.3 (0.70)	8.6 (0.52)	3.0 (0.31)	3.2 (0.34)	33.6 (0.90)	40.1 (0.92)
Never married	5.5 (0.36)	3.4 (0.29)	1.1 (0.16)	1.5 (0.22)	10.1 (0.47)	17.9 (0.63)
Living with a partner	5.5 (0.58)	5.7 (0.64)	2.0 (0.38)	1.8 (0.33)	17.0 (1.04)	27.8 (1.28)
Place of residence <sup>11</sup>						
Large MSA	9.3 (0.33)	4.9 (0.22)	1.7 (0.13)	1.9 (0.15)	20.8 (0.43)	26.4 (0.51)
Small MSA	9.3 (0.35)	6.8 (0.33)	2.1 (0.16)	2.1 (0.18)	26.0 (0.62)	33.4 (0.70)
Not in MSA	12.1 (0.58)	8.5 (0.58)	2.9 (0.26)	2.3 (0.26)	30.2 (0.97)	36.7 (1.10)
Region						
Northeast	9.8 (0.55)	4.6 (0.36)	1.8 (0.20)	2.1 (0.24)	23.7 (0.75)	28.3 (0.82)
Midwest	10.1 (0.46)	7.1 (0.40)	2.1 (0.20)	1.9 (0.23)	26.6 (0.77)	33.4 (0.82)
South	10.3 (0.39)	6.3 (0.31)	2.0 (0.15)	1.8 (0.15)	23.8 (0.54)	29.9 (0.67)
West	8.3 (0.45)	5.8 (0.36)	2.1 (0.22)	2.3 (0.26)	20.7 (0.57)	28.2 (0.74)



**Table A-4c. Crude percentages (with standard errors) of selected diseases and conditions among adults aged 18 and over, by selected characteristics: United States, 2016**

Selected characteristic	Diabetes <sup>1</sup>	Ulcers <sup>1</sup>	Kidney disease <sup>1</sup>	Liver disease <sup>1</sup>	Arthritis diagnosis <sup>1</sup>	Chronic joint symptoms <sup>1</sup>
Hispanic or Latino origin <sup>4</sup> , race, and sex						
Hispanic or Latino, male	10.2 (0.97)	5.1 (0.67)	1.6 (0.39)	2.8 (0.54)	9.8 (0.90)	17.8 (1.22)
Hispanic or Latina, female	9.7 (0.84)	4.1 (0.49)	2.1 (0.42)	2.3 (0.50)	17.1 (1.14)	23.3 (1.36)
Not Hispanic or Latino:						
White, single race, male	10.1 (0.36)	6.6 (0.31)	1.9 (0.16)	1.9 (0.17)	23.5 (0.54)	32.2 (0.63)
White, single race, female	8.2 (0.32)	7.0 (0.29)	2.2 (0.16)	2.1 (0.17)	30.8 (0.56)	35.3 (0.57)
Black or African American, single race, male	11.5 (1.04)	3.9 (0.56)	2.7 (0.56)	1.9 (0.42)	18.0 (1.31)	23.0 (1.53)
Black or African American, single race, female	14.6 (1.01)	4.8 (0.55)	2.3 (0.36)	1.0 (0.22)	27.5 (1.29)	31.2 (1.35)

<sup>\*</sup> Estimate is considered unreliable, as specified in National Center for Health Statistics Data Presentation Standards for Proportions (available from: [https://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_175.pdf](https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf)), and is not shown.

<sup>\*\*</sup> Complement of the estimate is considered unreliable, as specified in National Center for Health Statistics Data Presentation Standards for Proportions (available from: [https://www.cdc.gov/nchs/data/series/sr\\_02/sr02\\_175.pdf](https://www.cdc.gov/nchs/data/series/sr_02/sr02_175.pdf)).

- Quantity zero.

<sup>1</sup>In separate questions, respondents were asked if they had ever been told by a doctor or other health professional that they had an ulcer (including a stomach, duodenal, or peptic ulcer) or diabetes (or sugar diabetes; female respondents were instructed to exclude pregnancy-related diabetes). Responses from persons who said they had "borderline" diabetes were treated as unknown with respect to diabetes.

Respondents were also asked in separate questions if they had been told in the last 12 months by a doctor or other health professional that they had: weak or failing kidneys (excluding kidney stones, bladder infections, or incontinence) or any kind of liver condition.

Lastly, respondents were asked if they had ever been told by a doctor or other health professional that they had some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia. Those who answered yes were classified as having an arthritis diagnosis. Respondents were also asked: "During the past 30 days, have you had pain, aching or stiffness in or around a joint?" (excluding back and neck) and, if yes, "Did your joint symptoms first begin more than 3 months ago?" Respondents with symptoms that began more than 3 months ago were classified in this table as having chronic joint symptoms.

A person may be represented in more than one column.

<sup>2</sup>Refers to persons who indicated only a single race group, including those of Hispanic or Latino origin.

<sup>3</sup>Refers to persons who indicated more than one race group, including those of Hispanic or Latino origin. Only two combinations of multiple race groups are shown due to small sample sizes for other combinations.

<sup>4</sup>Refers to persons who are of Hispanic or Latino origin and may be of any race or combination of races. "Not Hispanic or Latino" refers to persons who are not of Hispanic or Latino origin, regardless of race.

<sup>5</sup>Shown only for adults aged 25 and over.

<sup>6</sup>GED is General Educational Development high school equivalency diploma.

<sup>7</sup>"Full-time" employment is 35 or more hours per week. "Part-time" employment is 34 or fewer hours per week.

<sup>8</sup>Includes persons who reported a dollar amount or who would not provide a dollar amount but provided an income interval.

<sup>9</sup>"Poor" persons are defined as having income below the poverty threshold. "Near poor" persons have incomes of 100% to less than 200% of the poverty threshold. "Not poor" persons have incomes that are 200% of the poverty threshold or greater.

<sup>10</sup>Based on a hierarchy of mutually exclusive categories. Adults with more than one type of health insurance were assigned to the first appropriate category in the hierarchy. "Uninsured" includes adults who had no coverage as well as those who had only Indian Health Service coverage or had only a private plan that paid for one type of service such as accidents or dental care.

<sup>11</sup>MSA is metropolitan statistical area. Large MSAs have a population size of 1 million or more; small MSAs have a population size of less than 1 million. "Not in MSA" consists of persons not living in a metropolitan statistical area.

NOTES: Estimates are based on household interviews of a sample of the civilian noninstitutionalized population. This table is based on data from the Sample Adult file and was weighted using the Sample Adult weight. Unknowns for the columns were not included in the denominators when calculating percentages. Percentages may not add to totals due to rounding. "Total" includes other races not shown separately and persons with unknown education, family income, poverty status, and health insurance characteristics. For more information on the data source, methods, and definitions used for this table, refer to Technical Notes for Summary Health Statistics Tables: National Health Interview Survey (available from <http://www.cdc.gov/nchs/nhis/SHS/tables.htm>). Suggested citation: Blackwell DL, Villarreal MA. Tables of Summary Health Statistics for U.S. Adults: 2016 National Health Interview Survey. National Center for Health Statistics. 2018. Available from: <http://www.cdc.gov/nchs/nhis/SHS/tables.htm>.

SOURCE: NCHS, National Health Interview Survey, 2016.