

The Burden of Digestive Diseases in the United States Population

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ABSTRACT

Background and rationale. Digestive diseases are common and lead to significant morbidity, mortality, and health care utilization. We used national survey and claims databases to expand on earlier findings and investigate current trends in the digestive disease burden in the United States. **Methods.** The National Ambulatory Medical Care Survey, Nationwide Emergency Department Sample, National Inpatient Sample, Vital Statistics of the U.S., Surveillance, Epidemiology, and End Results Program, Optum Clinformatics® Data Mart, and Centers for Medicare and Medicaid Services Medicare 5% Sample databases were used to estimate medical care, mortality, cancer incidence, and claims-based prevalence with a digestive disease diagnosis. Rates were age-adjusted (for national databases) and shown per 100,000 population. **Results.** For all digestive diseases, prevalence (claims-based, all-listed diagnoses) was 30.5% among commercial insurance enrollees (2020) and 53.1% among Medicare beneficiaries (2019).

In the U.S. population, digestive diseases contributed to approximately 126 million ambulatory care visits (2015), 41 million emergency department visits (2018), 16 million hospital discharges (2018), and 472,000 deaths (2019) annually. Prevalence, medical care, and mortality rates with a digestive disease diagnosis were higher among children and younger adults (except for emergency department visits) and then increased with age. Women had higher prevalence and medical care rates with a digestive disease diagnosis, but mortality rates were higher among men. Prevalence and medical care rates with a digestive disease diagnosis were higher among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Mortality rates were higher among Blacks compared with Whites and lower among Hispanics compared with non-Hispanics. Between 2004 and the most recent year, ambulatory care visit rates with a digestive disease diagnosis increased by 4%, hospital discharge rates decreased by 3%, and mortality rates decreased by 7%. Among commercial insurance enrollees, rates were higher compared with national data for ambulatory care visits and hospital discharges, but lower for emergency department visits. The medical care use and mortality burdens varied among individual digestive diseases. **Conclusion.** The digestive disease burden in the United States is substantial, particularly among Blacks and older adults.

INTRODUCTION

Digestive diseases affect multiple organs and systems including the alimentary tract, liver and biliary system, and pancreas. These disorders have diverse causes such as congenital and genetic anomalies, acute and chronic infections, environmental risk factors, and adverse effects of drugs and toxins. The burden of digestive diseases ranges from the inconvenience of a diarrheal disease to chronic debilitating illnesses requiring continuous medical care to fatal conditions such as pancreatic cancer. There have been significant changes in the prevalence and overall burden of digestive diseases in the 21st century building on earlier public health gains from improved sanitation, food safety, and development of new drugs, vaccines, diagnostic tests, and minimally invasive procedures. The well-being of the population of the United States requires a continued investment in digestive disease research and public health initiatives supported by a health care system capable of providing these advances to all equitably.

As outlined in the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK) Strategic Plan for Research,(1) a better understanding of social determinants of health, such as access to healthy food and safe places to exercise, may help to reduce health disparities and achieve health equity which may in turn decrease the burden of digestive diseases among racial and ethnic minority and other underserved populations. In this descriptive epidemiology paper, we present essential health data to reduce the burden of digestive diseases and to inform health care providers, researchers, administrators, public officials, professional and patient-based organizations, and the public to act. Our work follows the tradition of National Institutes

of Health (NIH) sponsored publications *Digestive diseases in the United States: epidemiology and impact* in 1994,(2) and *Opportunities and challenges in digestive diseases research: recommendations of the National Commission on Digestive Diseases* in 2009,(3) and its companion report on the burden of digestive diseases.(4) Close examination of these reports reveals interesting trends in various digestive diseases despite numerous limitations on the types of data that can be obtained in the diverse and decentralized U.S. health care system. Despite many limitations of available data sources, there are several certainties that may be gleaned, such as a century of progress in health care delivery, scientific advances, and a still staggering burden of digestive diseases in the United States.

METHODS

Digestive disease morbidity was identified by an International Classification of Diseases (ICD), Tenth Revision, Clinical Modification (ICD-10-CM) codes and digestive disease mortality by ICD, Tenth Revision (ICD-10) codes (**Appendix 1**). The first-listed diagnosis was considered the primary diagnosis and all remaining diagnoses were considered secondary and included under ‘all-listed’. For national event-level data sources, diagnoses were counted only once under the all-listed category, irrespective of the number of actual diagnoses listed on a medical record or death certificate.

The National Ambulatory Medical Care Survey (NAMCS), Healthcare Cost and Utilization Project (HCUP) Nationwide Emergency Department Sample (NEDS), HCUP National Inpatient Sample (NIS), Vital Statistics of the U.S., Surveillance, Epidemiology, and End Results (SEER) Program, Optum Clinformatics® Data Mart (CDM), and Centers for Medicare and Medicaid Services (CMS)

Medicare 5% Sample databases were used to estimate medical care, mortality, years of potential life lost, cancer incidence, and claims-based prevalence with primary or other digestive disease diagnoses. These data sources are described in more detail in **Appendix 2**. Estimates for the total population and demographic groups were calculated for the most recent year of data available. Rates were age-adjusted (for national databases) and shown per 100,000 population. For national data sources, ambulatory care, emergency department, and hospital numbers and rates represent events, not persons with an event. Statistical methodology is described in more detail in **Appendix 3**.

Burden of Digestive Diseases in the United States

Table 1: All Digestive Diseases: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	8,190	16,838	13,617	27,996
	12 to 24	6,828	12,164	10,282	18,315
	25 to 44	13,571	16,063	21,969	26,003
	45 to 54	11,154	25,885	21,019	48,779
	55 to 64	10,279	25,190	22,758	55,772
	65 to 74	9,228	33,522	19,760	71,784
	75 plus	7,142	35,343	16,774	83,009
Race	White	52,719	20,005	99,203	36,526
	Black	10,033	22,585	18,614	42,558
	Other	3,640	15,718	8,362	36,790
Ethnicity	Hispanic	12,548	25,066	20,816	43,967
	Not Hispanic	53,844	19,278	105,363	36,594
Sex	Female	39,367	23,164	75,610	43,286
	Male	27,025	16,734	50,570	30,939
Total		66,392	19,962	126,180	37,173

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016).
Rates for age groups are unadjusted and all other rates are age-adjusted.

There were an estimated 66 million ambulatory care visits to office-based physicians with a first-listed diagnosis of a digestive disease and 126 million visits with a digestive disease diagnosis listed in any position (2015) (Table 1). The ambulatory care visit rate (per 100,000 U.S. population) was 19,962 with a first-listed diagnosis and 37,173 with an all-listed diagnosis. In other words, for every 100 U.S. residents, there were 37 ambulatory care visits at which a digestive disease diagnosis was noted and 20 visits for which a digestive disease diagnosis was primary. All-listed diagnosis rates were higher among children compared with adolescents and younger adults and then increased with age. Age-adjusted rates of all-listed diagnoses were higher among women compared with men, Blacks compared with Whites, and Hispanics compared with non-Hispanics. Between 2004 and 2015, the number of ambulatory care visits with a primary diagnosis of a digestive disease decreased from an estimated 72 million to 66 million and the number with an all-listed diagnosis increased from 105 million to 126 million. Age-adjusted ambulatory care visit rates (per 100,000) with a primary digestive disease diagnosis decreased by 19% overall from 24,543 to 19,962 and decreased among sex and race groups.(4,5) All-listed diagnosis rates increased by 4% overall from 35,684 to 37,173 and increased among women, Whites, and Blacks, but decreased among men.

Burden of Digestive Diseases in the United States

Table 2: All Digestive Diseases: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	2,540	5,248	3,966	8,195
	12 to 24	2,927	5,277	4,803	8,660
	25 to 44	5,253	6,040	9,985	11,480
	45 to 54	2,297	5,518	5,205	12,503
	55 to 64	2,191	5,183	5,761	13,627
	65 to 74	1,695	5,558	5,058	16,587
	75 plus	1,834	8,361	6,354	28,961
Sex	Female	10,976	6,592	24,423	14,027
	Male	7,760	4,809	16,706	10,109
Total		18,736	5,697	41,131	12,064

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

There were an estimated 19 million emergency department visits with a first-listed diagnosis of a digestive disease and 41 million visits with a digestive disease diagnosis listed in any position in 2018 (Table 2). The emergency department visit rate (per 100,000) was 5,697 with a first-listed diagnosis and 12,064 with an all-listed diagnosis. This equates to 6 emergency department visits with a first-listed digestive disease diagnosis per 100 U.S. residents and 12 visits where a digestive disease was listed in any position. All-listed diagnosis rates increased with age, especially among persons 75 years and over. Age-adjusted rates were higher among women compared with men. National emergency department visit rates were not included in The Burden of Digestive Diseases in the United States compendium so rate trends cannot be examined.(4)

Burden of Digestive Diseases in the United States

Table 3: All Digestive Diseases: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	154	318	1,185	2,449
	12 to 24	187	338	549	990
	25 to 44	674	775	2,193	2,521
	45 to 54	559	1,343	1,874	4,500
	55 to 64	774	1,830	2,995	7,085
	65 to 74	760	2,493	3,328	10,914
	75 plus	885	4,033	4,327	19,724
Race	White	3,233	1,102	13,188	4,407
	Black	531	1,205	2,331	5,280
	Other	267	1,044	1,029	4,121
Ethnicity	Hispanic	541	1,099	1,831	3,810
	Not Hispanic	3,490	1,111	14,716	4,628
Sex	Female	2,135	1,116	8,920	4,603
	Male	1,857	1,082	7,529	4,369
Total		3,993	1,098	16,450	4,478

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

There were an estimated 4.0 million hospital discharges with a first-listed diagnosis of a digestive disease and 16 million discharges with a digestive disease diagnosis listed in any position in 2018 (Table 3). The hospital discharge rate (per 100,000) was 1,098 with a first-listed diagnosis and 4,478 with an all-listed diagnosis. This equates to 1 overnight hospital stay per 100 U.S. residents with a first-listed digestive disease diagnosis and 4 visits that included a digestive disease as a discharge diagnosis in any position. All-listed diagnosis rates were much higher among children compared with adolescents and the youngest adults and then increased with age. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, the number of hospital discharges with a primary diagnosis of a digestive disease decreased from an estimated 4.6 million to 4.0 million and the number with an all-listed diagnosis increased from 14 million to 16 million. Age-adjusted hospital discharge rates (per 100,000) with a primary digestive disease diagnosis decreased by 30% overall from 1,563 to 1,098 and decreased among sex and race groups.(4,5) All-listed diagnosis rates decreased by only 3% overall from 4,608 to 4,478 and decreased among women, but increased among men, Whites, and Blacks.

Burden of Digestive Diseases in the United States

Table 4: All Digestive Diseases: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	1,100	2.3	84.4	2,008	4.2	154.0
	12 to 24	434	0.8	25.4	1,091	2.0	64.0
	25 to 44	11,304	12.9	476.8	17,344	19.8	737.3
	45 to 54	24,968	61.1	769.7	35,111	85.9	1,084.0
	55 to 64	62,071	146.2	1,413.4	88,896	209.4	2,027.1
	65 to 74	77,372	245.8	1,221.8	116,459	369.9	1,835.6
	75 plus	117,207	519.2	871.6	211,447	936.6	1,506.9
Race	White	247,051	73.1	4,022.4	398,253	117.7	6,121.7
	Black	34,052	77.6	596.5	53,689	124.1	929.4
	Other	13,353	53.0	244.3	20,414	81.9	357.8
Ethnicity	Hispanic	24,799	58.9	530.5	36,812	89.0	768.8
	Not Hispanic	269,657	74.1	4,332.7	435,544	119.6	6,640.1
Sex	Female	130,904	58.3	2,125.7	218,140	96.3	3,366.3
	Male	163,552	88.7	2,737.5	254,216	140.0	4,042.5
Total		294,456	72.4	4,863.2	472,356	116.3	7,408.8

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

A digestive disease was the underlying cause of 294,000 deaths and an underlying or contributing cause of 472,000 deaths in 2019 (Table 4). Mortality rates (per 100,000) were 72.4 as underlying cause and 116.3 as underlying or other cause. Mortality rates (underlying or other cause) were higher among children compared with adolescents and the youngest adults and then increased with age. In contrast to health care rates, age-adjusted mortality rates were higher among men compared with women. They were higher among Blacks compared with Whites and among non-Hispanics compared with Hispanics. Between 2004 and 2019, the number of deaths with a digestive disease as underlying cause increased from 236,000 to 294,000 and the number with a digestive disease as underlying or other cause increased from 366,000 to 472,000. Age-adjusted mortality rates (per 100,000) with a digestive disease as underlying cause decreased by 10% overall from 80.4 to 72.4 and decreased among sex and race groups.(4,5) Rates with a digestive disease as underlying or other cause decreased by 7% overall from 124.8 to 116.3 and decreased among sex and race groups.

Burden of Digestive Diseases in the United States

Table 5: All Digestive Diseases: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	93,661	8.5%	172,707	15.7%
	12 to 24	1,451,892	111,327	7.7%	176,361	12.1%
	25 to 44	2,656,672	284,972	10.7%	492,626	18.5%
	45 to 54	1,452,320	248,092	17.1%	464,662	32.0%
	55 to 64	1,640,216	341,348	20.8%	654,682	39.9%
	65 to 74	2,840,615	631,047	22.2%	1,188,635	41.8%
	75 plus	2,576,241	504,913	19.6%	1,030,999	40.0%
Race-ethnicity	White	8,657,702	1,449,645	16.7%	2,737,997	31.6%
	Black	1,242,477	228,501	18.4%	433,613	34.9%
	Hispanic	1,493,457	239,333	16.0%	446,788	29.9%
	Asian	607,284	74,540	12.3%	140,459	23.1%
	Unknown	1,719,014	223,341	13.0%	421,815	24.5%
Sex	Female	7,199,363	1,262,266	17.5%	2,396,094	33.3%
	Male	6,520,571	953,094	14.6%	1,784,578	27.4%
Region	Northeast	1,526,275	277,389	18.2%	500,914	32.8%
	Midwest	3,322,846	494,252	14.9%	942,800	28.4%
	South	5,619,435	985,884	17.5%	1,868,071	33.2%
	West	3,251,378	457,835	14.1%	868,887	26.7%
Total		13,719,934	2,215,360	16.1%	4,180,672	30.5%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

In contrast to national data that represent events, Optum data are at the person level which enables calculation of claims-based prevalence. Among 13.7 million private insurance enrollees (2020), 2.2 million had a first-listed digestive disease diagnosis (claims-based prevalence of 16.1%) and 4.2 million had an all-listed diagnosis (claims-based prevalence of 30.5%) (Table 5). Prevalence (all-listed diagnoses) was higher among children compared with adolescents and the youngest adults and then increased with age until the oldest age group. Prevalence was higher among women compared with men. It was highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Prevalence was higher in the Northeast and South compared with the Midwest and West.

Burden of Digestive Diseases in the United States

Table 6: All Digestive Diseases: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	138,742	12,590	283,215	25,701
	12 to 24	194,991	13,430	322,026	22,180
	25 to 44	558,515	21,023	1,032,553	38,866
	45 to 54	513,234	35,339	1,073,396	73,909
	55 to 64	737,616	44,971	1,644,058	100,234
	65 to 74	1,380,964	48,615	3,081,539	108,481
	75 plus	1,124,690	43,656	2,911,397	113,009
Race-ethnicity	White	3,045,440	35,176	6,749,160	77,956
	Black	491,995	39,598	1,162,933	93,598
	Hispanic	521,380	34,911	1,139,865	76,324
	Asian	150,771	24,827	322,664	53,132
	Unknown	439,166	25,548	973,562	56,635
Sex	Female	2,657,694	36,916	6,082,612	84,488
	Male	1,991,058	30,535	4,265,572	65,417
Region	Northeast	598,611	39,220	1,289,784	84,505
	Midwest	969,127	29,166	2,153,490	64,809
	South	2,128,406	37,876	4,802,169	85,456
	West	952,608	29,299	2,102,741	64,672
Total		4,648,752	33,883	10,348,184	75,424

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with both first-listed and all-listed digestive disease diagnoses were much higher compared with national data; however, availability of more recent data for commercial insurance enrollees (2020 vs. 2015) may limit comparability (Table 6). Like national data, ambulatory care visit rates (all-listed diagnoses) were higher among children compared with adolescents and the youngest adults and then increased with age and were higher among women compared with men. Optum data include information on ambulatory care visits among Asians that are not available in national data used in this paper. Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. Ambulatory care visit rates were higher in the South and Northeast compared with the Midwest and West.

Burden of Digestive Diseases in the United States

Table 7: All Digestive Diseases: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	965	88	1,415	128
	12 to 24	3,398	234	5,561	383
	25 to 44	18,980	714	32,916	1,239
	45 to 54	21,424	1,475	32,401	2,231
	55 to 64	42,370	2,583	67,205	4,097
	65 to 74	105,255	3,705	172,755	6,082
	75 plus	127,163	4,936	214,422	8,323
Race-ethnicity	White	202,814	2,343	335,012	3,870
	Black	47,209	3,800	78,914	6,351
	Hispanic	36,174	2,422	57,680	3,862
	Asian	6,270	1,032	10,296	1,695
	Unknown	27,088	1,576	44,773	2,605
Sex	Female	191,534	2,660	320,081	4,446
	Male	128,021	1,963	206,594	3,168
Region	Northeast	39,112	2,563	64,396	4,219
	Midwest	66,201	1,992	109,225	3,287
	South	149,266	2,656	246,329	4,384
	West	64,976	1,998	106,725	3,282
Total		319,555	2,329	526,675	3,839

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with both first-listed and all-listed digestive disease diagnoses were much lower compared with national data; however, availability of more recent data for commercial insurance enrollees (2020 vs. 2018) may limit comparability (Table 7). Like national data, emergency department visit rates (all-listed diagnoses) increased with age and were higher among women compared with men. Optum data include information on emergency department visits by race-ethnicity that are not available in national data used in this paper. Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. Emergency department visit rates were higher in the South and Northeast compared with the Midwest and West.

Burden of Digestive Diseases in the United States

Table 8: All Digestive Diseases: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	1,770	161	22,408	2,033
	12 to 24	2,258	156	9,403	648
	25 to 44	10,289	387	39,131	1,473
	45 to 54	11,494	791	44,452	3,061
	55 to 64	22,199	1,353	103,973	6,339
	65 to 74	47,950	1,688	233,696	8,227
	75 plus	62,345	2,420	335,855	13,037
Race-ethnicity	White	105,032	1,213	514,339	5,941
	Black	19,757	1,590	106,043	8,535
	Hispanic	16,777	1,123	74,156	4,965
	Asian	3,466	571	15,349	2,527
	Unknown	13,273	772	79,031	4,597
Sex	Female	87,500	1,215	434,432	6,034
	Male	70,805	1,086	354,486	5,436
Region	Northeast	20,735	1,359	101,404	6,644
	Midwest	35,011	1,054	176,590	5,314
	South	71,551	1,273	366,456	6,521
	West	31,008	954	144,468	4,443
Total		158,305	1,154	788,918	5,750

Source: De-identified Optum Clinformatics® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with both first-listed and all-listed digestive disease diagnoses were higher compared with national data; however, availability of more recent data for commercial insurance enrollees (2020 vs. 2018) may limit comparability (Table 8). Like national data, hospital discharge rates (all-listed diagnoses) were higher among children compared with adolescents and the youngest adults and then increased with age and were higher among women compared with men. Optum data include information on hospital discharges among Asians that are not available in national data used in this paper. Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Hospital discharge rates were highest in the Northeast and South, intermediate in the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 9: All Digestive Diseases: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	2,262,980	28.1%	4,016,480	49.8%
	70 to 74	6,936,940	2,068,880	29.8%	3,674,040	53.0%
	75 to 79	4,894,060	1,494,340	30.5%	2,686,880	54.9%
	80 to 84	3,335,340	985,700	29.6%	1,847,460	55.4%
	85+	3,578,120	992,580	27.7%	2,003,400	56.0%
Race	White	22,023,800	6,446,940	29.3%	11,797,960	53.6%
	Black	1,861,660	527,600	28.3%	964,080	51.8%
	Other	2,925,320	829,940	28.4%	1,466,220	50.1%
Sex	Female	14,975,560	4,537,040	30.3%	8,328,400	55.6%
	Male	11,835,220	3,267,440	27.6%	5,899,860	49.9%
Region	Northeast	4,748,700	1,443,740	30.4%	2,549,620	53.7%
	Midwest	6,069,800	1,658,760	27.3%	3,158,060	52.0%
	South	10,595,900	3,210,640	30.3%	5,865,440	55.4%
	West	5,396,380	1,491,340	27.6%	2,655,140	49.2%
Total		26,810,780	7,804,480	29.1%	14,228,260	53.1%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Like Optum data, Medicare data are at the person level and enables calculation of claims-based prevalence. Among 27 million age-eligible Medicare beneficiaries (2019), 7.8 million had a first-listed digestive disease diagnosis (claims-based prevalence of 29.1%) and 14 million had an all-listed diagnosis (claims-based prevalence of 53.1%) (Table 9). Prevalence (all-listed diagnoses) increased with age and was higher among women compared with men and Whites compared with Blacks. Prevalence was highest in the South, followed by the Northeast, then the Midwest, and lowest in the West. Medicare claims data were not utilized in The Burden of Digestive Diseases in the United States compendium so rate trends cannot be examined.(4)

Burden of Digestive Diseases in the United States

Table 10: All Digestive Diseases: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	5,348,520	66,307	11,581,900	143,583
	70 to 74	4,978,480	71,768	11,005,700	158,654
	75 to 79	3,683,640	75,268	8,447,660	172,610
	80 to 84	2,386,820	71,562	5,910,200	177,199
	85+	2,133,980	59,640	6,275,240	175,378
Race	White	15,277,320	69,367	35,437,700	160,906
	Black	1,208,800	64,931	3,083,400	165,626
	Other	2,045,320	69,918	4,699,600	160,653
Sex	Female	10,749,960	71,783	25,908,960	173,008
	Male	7,781,480	65,749	17,311,740	146,273
Region	Northeast	3,573,040	75,242	8,092,200	170,409
	Midwest	3,681,060	60,645	8,847,180	145,757
	South	7,763,360	73,268	18,370,940	173,378
	West	3,513,980	65,117	7,910,380	146,587
Total		18,531,440	69,119	43,220,700	161,206

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among age-eligible Medicare beneficiaries, there were an estimated 19 million ambulatory care visits with a first-listed diagnosis of a digestive disease and 43 million visits with a digestive disease diagnosis listed in any position (2019) (Table 10). The ambulatory care visit rate (per 100,000 population) was 69,119 with a first-listed diagnosis and 161,206 with an all-listed diagnosis. All-listed diagnosis rates increased with age until 85 years and were higher among women compared with men and Blacks compared with Whites. Rates were higher in the South and Northeast compared with the West and Midwest.

Burden of Digestive Diseases in the United States

Table 11: All Digestive Diseases: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	562,200	6,970	1,476,080	18,299
	70 to 74	541,660	7,808	1,502,700	21,662
	75 to 79	471,960	9,644	1,374,280	28,081
	80 to 84	387,840	11,628	1,184,360	35,509
	85+	485,400	13,566	1,596,120	44,608
Race	White	1,937,860	8,799	5,768,000	26,190
	Black	244,400	13,128	687,380	36,923
	Other	266,800	9,120	678,160	23,182
Sex	Female	1,444,540	9,646	4,211,620	28,123
	Male	1,004,520	8,488	2,921,920	24,688
Region	Northeast	420,500	8,855	1,280,580	26,967
	Midwest	542,140	8,932	1,623,980	26,755
	South	1,015,940	9,588	3,012,260	28,429
	West	470,480	8,718	1,216,720	22,547
Total		2,449,060	9,135	7,133,540	26,607

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among age-eligible Medicare beneficiaries, there were an estimated 2.4 million emergency department visits with a first-listed diagnosis of a digestive disease and 7.1 million visits with a digestive disease diagnosis listed in any position (2019) (Table 11). The emergency department visit rate (per 100,000 population) was 9,135 with a first-listed diagnosis and 26,607 with an all-listed diagnosis. All-listed diagnosis rates increased with age and were higher among women compared with men and Blacks compared with Whites. Rates were highest in the South, followed by the Northeast and Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 12: All Digestive Diseases: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	202,620	2,512	934,600	11,586
	70 to 74	203,160	2,929	993,820	14,326
	75 to 79	179,100	3,660	919,520	18,788
	80 to 84	147,660	4,427	781,660	23,436
	85+	182,500	5,100	1,037,280	28,990
Race	White	740,160	3,361	3,839,000	17,431
	Black	82,120	4,411	407,000	21,862
	Other	92,760	3,171	420,880	14,387
Sex	Female	518,640	3,463	2,634,420	17,591
	Male	396,400	3,349	2,032,460	17,173
Region	Northeast	169,840	3,577	857,580	18,059
	Midwest	212,360	3,499	1,097,960	18,089
	South	373,640	3,526	1,952,780	18,430
	West	159,200	2,950	758,560	14,057
Total		915,040	3,413	4,666,880	17,407

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among age-eligible Medicare beneficiaries, there were an estimated 915,000 hospital discharges with a first-listed diagnosis of a digestive disease and 17,000 discharges with a digestive disease diagnosis listed in any position (2019) (Table 12). The hospital discharge rate (per 100,000 population) was 3,413 with a first-listed diagnosis and 17,407 with an all-listed diagnosis. All-listed diagnosis rates increased with age and were higher among Blacks compared with Whites but differed little by sex. Rates were lower in the West compared with the South, Midwest, and Northeast.

Burden of Digestive Diseases in the United States

Table 13: Gastroesophageal Reflux Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	362	745	1,195	2,457
	12 to 24	541	964	1,146	2,042
	25 to 44	1,065	1,260	3,463	4,098
	45 to 54	952	2,210	4,592	10,657
	55 to 64	985	2,414	5,635	13,810
	65 to 74	974	3,539	5,945	21,597
	75 plus	562	2,780	4,735	23,432
Race	White	4,387	1,638	21,392	7,488
	Black	797	1,835	3,561	8,328
	Other	257	1,087	1,759	7,906
Ethnicity	Hispanic	912	2,232	4,242	10,206
	Not Hispanic	4,529	1,568	22,469	7,340
Sex	Female	3,572	2,009	16,082	8,673
	Male	1,869	1,175	10,629	6,421
Total		5,441	1,609	26,711	7,578

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Gastroesophageal reflux disease contributed to 26.7 million ambulatory visits (2015) (Table 13). Ambulatory care visit rates (all-listed diagnoses) were higher among children compared with adolescents and the youngest adults and then increased with age. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 14: Gastroesophageal Reflux Disease: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	44	91	226	466
	12 to 24	60	109	326	589
	25 to 44	123	141	1,447	1,663
	45 to 54	61	147	1,335	3,208
	55 to 64	58	138	1,791	4,236
	65 to 74	45	147	1,841	6,037
	75 plus	46	211	2,518	11,478
Sex	Female	245	144	5,657	2,913
	Male	192	118	3,826	2,228
Total		438	131	9,484	2,582

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Gastroesophageal reflux disease contributed to 9.5 million emergency department visits in 2018 (Table 14). Emergency department visit rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men.

Burden of Digestive Diseases in the United States

Table 15: Gastroesophageal Reflux Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	6	12	78	162
	12 to 24	2	4	104	188
	25 to 44	10	12	628	722
	45 to 54	11	27	704	1,691
	55 to 64	17	40	1,233	2,917
	65 to 74	16	52	1,510	4,953
	75 plus	20	90	1,967	8,967
Race	White	65	22	5,207	1,653
	Black	13	30	800	1,841
	Other	5	20	274	1,112
Ethnicity	Hispanic	10	21	476	1,103
	Not Hispanic	73	23	5,806	1,726
Sex	Female	41	21	3,599	1,759
	Male	41	24	2,626	1,489
Total		82	22	6,225	1,628

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Gastroesophageal reflux disease contributed to 6.2 million hospital discharges in 2018 (Table 15). Hospital discharge rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by 50% from 1,086 to 1,628.(4,5)

Burden of Digestive Diseases in the United States

Table 16: Gastroesophageal Reflux Disease: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	10	0.0	0.8	43	0.1	3.2
	12 to 24	2	0.0	0.1	27	0.0	1.6
	25 to 44	33	0.0	1.4	194	0.2	8.2
	45 to 54	45	0.1	1.4	449	1.1	13.8
	55 to 64	117	0.3	2.7	1,269	3.0	28.8
	65 to 74	194	0.6	3.0	2,216	7.0	34.4
	75 plus	824	3.7	4.8	7,515	33.3	47.8
Race	White	1,107	0.3	12.3	10,412	3.0	118.8
	Black	81	0.2	1.3	1,008	2.5	14.9
	Other	37	0.2	0.6	293	1.2	4.1
Ethnicity	Hispanic	64	0.2	1.2	524	1.4	8.5
	Not Hispanic	1,161	0.3	13.0	11,189	3.0	129.3
Sex	Female	603	0.3	6.7	6,312	2.7	70.0
	Male	622	0.4	7.5	5,401	3.1	67.9
Total		1,225	0.3	14.2	11,713	2.9	137.9

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Gastroesophageal reflux disease contributed to 12,000 deaths in 2019 (Table 16). Mortality rates (underlying or other cause) were higher among children compared with adolescents and the youngest adults and then increased with age. Age-adjusted mortality rates were higher among men, Whites, and non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with gastroesophageal reflux disease as underlying or other cause increased by 7% from 2.7 to 2.9.(4)

Burden of Digestive Diseases in the United States

Table 17: Gastroesophageal Reflux Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	9,567	0.9%	20,842	1.9%
	12 to 24	1,451,892	10,511	0.7%	25,914	1.8%
	25 to 44	2,656,672	43,031	1.6%	132,690	5.0%
	45 to 54	1,452,320	36,937	2.5%	145,474	10.0%
	55 to 64	1,640,216	52,413	3.2%	241,952	14.8%
	65 to 74	2,840,615	103,549	3.6%	492,699	17.3%
	75 plus	2,576,241	80,437	3.1%	470,137	18.2%
Race-ethnicity	White	8,657,702	219,262	2.5%	1,039,266	12.0%
	Black	1,242,477	37,054	3.0%	177,232	14.3%
	Hispanic	1,493,457	37,219	2.5%	150,528	10.1%
	Asian	607,284	10,905	1.8%	40,131	6.6%
	Unknown	1,719,014	32,005	1.9%	122,551	7.1%
Sex	Female	7,199,363	204,551	2.8%	912,394	12.7%
	Male	6,520,571	131,894	2.0%	617,314	9.5%
Region	Northeast	1,526,275	44,716	2.9%	181,214	11.9%
	Midwest	3,322,846	65,408	2.0%	339,807	10.2%
	South	5,619,435	165,939	3.0%	738,811	13.1%
	West	3,251,378	60,382	1.9%	269,876	8.3%
Total		13,719,934	336,445	2.5%	1,529,708	11.1%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of gastroesophageal reflux disease (based on all-listed diagnoses) was 11.1% (Table 17). Prevalence was similar among children compared with adolescents and the youngest adults and then increased with age. It was higher among women. It was highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. It was highest in the South, followed by the Northeast, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 18: Gastroesophageal Reflux Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	14,041	1,274	39,452	3,580
	12 to 24	14,641	1,008	40,683	2,802
	25 to 44	60,273	2,269	228,478	8,600
	45 to 54	50,487	3,476	268,369	18,479
	55 to 64	71,490	4,359	460,324	28,065
	65 to 74	141,710	4,989	928,025	32,670
	75 plus	110,129	4,275	932,876	36,211
Race-ethnicity	White	299,725	3,462	1,928,520	22,275
	Black	51,036	4,108	365,372	29,407
	Hispanic	51,726	3,464	293,130	19,628
	Asian	15,100	2,486	73,076	12,033
	Unknown	45,184	2,628	238,109	13,851
Sex	Female	282,690	3,927	1,783,786	24,777
	Male	180,081	2,762	1,114,421	17,091
Region	Northeast	63,293	4,147	345,225	22,619
	Midwest	86,607	2,606	598,397	18,009
	South	230,753	4,106	1,467,869	26,121
	West	82,118	2,526	486,716	14,970
Total		462,771	3,373	2,898,207	21,124

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with gastroesophageal reflux disease (all-listed diagnoses) were higher among children compared with adolescents and the youngest adults and then increased with age and were higher among women compared with men (Table 18). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 19: Gastroesophageal Reflux Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	32	3	73	7
	12 to 24	139	10	371	26
	25 to 44	688	26	2,394	90
	45 to 54	536	37	2,071	143
	55 to 64	907	55	3,921	239
	65 to 74	1,776	63	7,832	276
	75 plus	1,882	73	8,846	343
Race-ethnicity	White	3,595	42	16,654	192
	Black	1,051	85	4,064	327
	Hispanic	662	44	2,141	143
	Asian	105	17	467	77
	Unknown	547	32	2,182	127
Sex	Female	3,576	50	15,940	221
	Male	2,384	37	9,568	147
Region	Northeast	743	49	3,910	256
	Midwest	1,249	38	6,771	204
	South	3,055	54	11,272	201
	West	913	28	3,555	109
Total		5,960	43	25,508	186

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with gastroesophageal reflux disease (all-listed diagnoses) increased with age and were higher among women compared with men (Table 19). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the Midwest and South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 20: Gastroesophageal Reflux Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	55	5	933	85
	12 to 24	25	2	1,570	108
	25 to 44	108	4	11,259	424
	45 to 54	143	10	17,165	1,182
	55 to 64	405	25	44,429	2,709
	65 to 74	750	26	99,583	3,506
	75 plus	1,130	44	143,001	5,551
Race-ethnicity	White	1,709	20	221,785	2,562
	Black	385	31	43,846	3,529
	Hispanic	247	17	24,559	1,644
	Asian	42	7	4,729	779
	Unknown	233	14	23,021	1,339
Sex	Female	1,390	19	185,026	2,570
	Male	1,226	19	132,914	2,038
Region	Northeast	312	20	39,742	2,604
	Midwest	554	17	75,875	2,283
	South	1,185	21	152,116	2,707
	West	565	17	50,207	1,544
Total		2,616	19	317,940	2,317

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with gastroesophageal reflux disease (all-listed diagnoses) increased with age and were higher among women compared with men (Table 20). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 21: Gastroesophageal Reflux Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	392,040	4.9%	1,659,120	20.6%
	70 to 74	6,936,940	368,140	5.3%	1,629,540	23.5%
	75 to 79	4,894,060	268,220	5.5%	1,273,780	26.0%
	80 to 84	3,335,340	174,080	5.2%	893,240	26.8%
	85+	3,578,120	155,280	4.3%	940,280	26.3%
Race	White	22,023,800	1,127,640	5.1%	5,374,440	24.4%
	Black	1,861,660	86,000	4.6%	424,540	22.8%
	Other	2,925,320	144,120	4.9%	596,980	20.4%
Sex	Female	14,975,560	862,780	5.8%	3,926,880	26.2%
	Male	11,835,220	494,980	4.2%	2,469,080	20.9%
Region	Northeast	4,748,700	253,520	5.3%	1,099,980	23.2%
	Midwest	6,069,800	256,180	4.2%	1,429,680	23.6%
	South	10,595,900	614,400	5.8%	2,851,060	26.9%
	West	5,396,380	233,660	4.3%	1,015,240	18.8%
Total		26,810,780	1,357,760	5.1%	6,395,960	23.9%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of gastroesophageal reflux disease (based on all-listed diagnoses) was 23.9% (Table 21). Prevalence increased with age until the oldest age group and was higher among women and Whites. It was highest in the South, followed by the Midwest and Northeast, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 22: Gastroesophageal Reflux Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	557,060	6,906	3,213,040	39,833
	70 to 74	532,500	7,676	3,213,460	46,324
	75 to 79	378,820	7,740	2,518,320	51,457
	80 to 84	247,340	7,416	1,801,280	54,006
	85+	234,320	6,549	1,979,600	55,325
Race	White	1,606,080	7,292	10,517,200	47,754
	Black	130,000	6,983	930,960	50,007
	Other	213,960	7,314	1,277,540	43,672
Sex	Female	1,259,740	8,412	8,152,640	54,440
	Male	690,300	5,833	4,573,060	38,639
Region	Northeast	371,400	7,821	2,241,740	47,207
	Midwest	348,820	5,747	2,533,080	41,733
	South	894,920	8,446	6,014,200	56,760
	West	334,900	6,206	1,936,680	35,889
Total		1,950,040	7,273	12,725,700	47,465

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with gastroesophageal reflux disease (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 22). Rates were highest in the South, followed by the Northeast, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 23: Gastroesophageal Reflux Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	13,720	170	515,880	6,395
	70 to 74	12,660	183	562,800	8,113
	75 to 79	11,500	235	537,080	10,974
	80 to 84	9,880	296	462,380	13,863
	85+	11,580	324	623,620	17,429
Race	White	45,860	208	2,251,100	10,221
	Black	7,660	411	247,140	13,275
	Other	5,820	199	203,520	6,957
Sex	Female	35,000	234	1,657,340	11,067
	Male	24,340	206	1,044,420	8,825
Region	Northeast	9,040	190	475,160	10,006
	Midwest	14,360	237	653,820	10,772
	South	26,040	246	1,200,480	11,330
	West	9,900	183	372,300	6,899
Total		59,340	221	2,701,760	10,077

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with gastroesophageal reflux disease (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 23). Rates were lower in the West compared with the South, Midwest, and Northeast.

Burden of Digestive Diseases in the United States

Table 24: Gastroesophageal Reflux Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	3,560	44	431,460	5,349
	70 to 74	3,940	57	484,000	6,977
	75 to 79	3,580	73	444,260	9,078
	80 to 84	3,120	94	362,980	10,883
	85+	4,240	118	468,520	13,094
Race	White	14,700	67	1,859,960	8,445
	Black	2,020	109	167,660	9,006
	Other	1,720	59	163,600	5,593
Sex	Female	10,220	68	1,293,460	8,637
	Male	8,220	69	897,760	7,585
Region	Northeast	3,440	72	391,460	8,244
	Midwest	4,400	72	539,980	8,896
	South	7,200	68	951,340	8,978
	West	3,400	63	308,440	5,716
Total		18,440	69	2,191,220	8,173

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with gastroesophageal reflux disease (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 24). Rates were lower in the West compared with the South, Midwest, and Northeast.

Burden of Digestive Diseases in the United States

Table 25: Peptic Ulcer Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	5	8	32	56
	25 to 44	85	101	128	152
	45 to 54	43	100	230	533
	55 to 64	105	257	236	577
	65 to 74	155	563	499	1,812
	75 plus	38	189	241	1,191
Race	White	235	92	965	329
	Black	154	319	263	588
	Other	42	188	137	548
Ethnicity	Hispanic	60	157	333	871
	Not Hispanic	371	113	1,032	331
Sex	Female	288	148	779	404
	Male	144	83	586	339
Total		431	117	1,365	372

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Peptic ulcer disease contributed to 1.4 million ambulatory visits (2015) (Table 25). Ambulatory care visits were uncommon during childhood and then rates (all-listed diagnoses) increased with age until the oldest age group. Age-adjusted ambulatory care visit rates were higher among women compared with men, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 26: Peptic Ulcer Disease: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	1	1	2
	12 to 24	6	10	12	22
	25 to 44	26	30	65	75
	45 to 54	22	53	63	152
	55 to 64	33	77	94	222
	65 to 74	34	113	100	328
	75 plus	47	213	135	615
Sex	Female	83	42	240	121
	Male	84	48	231	132
Total		168	45	471	126

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Peptic ulcer disease contributed to 471,000 emergency department visits in 2018 (Table 26). Emergency department visit rates increased with age. Age-adjusted emergency department visit rates were higher among men compared with women.

Burden of Digestive Diseases in the United States

Table 27: Peptic Ulcer Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	1	2
	12 to 24	2	4	6	10
	25 to 44	15	17	43	49
	45 to 54	18	44	52	124
	55 to 64	31	74	90	214
	65 to 74	36	117	105	346
	75 plus	49	225	142	645
Race	White	122	39	349	110
	Black	20	46	63	145
	Other	11	46	31	127
Ethnicity	Hispanic	13	31	44	105
	Not Hispanic	140	41	399	118
Sex	Female	74	36	217	105
	Male	78	44	222	126
Total		152	40	439	114

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Peptic ulcer disease contributed to 439,000 hospital discharges in 2018 (Table 27). Hospital discharge rates increased with age. Hospital discharge rates were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis decreased by 31% from 166 to 114.(4)

Burden of Digestive Diseases in the United States

Table 28: Peptic Ulcer Disease: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	1	0.0	0.1	2	0.0	0.1
	12 to 24	5	0.0	0.3	12	0.0	0.7
	25 to 44	122	0.1	5.1	202	0.2	8.5
	45 to 54	237	0.6	7.2	437	1.1	13.4
	55 to 64	584	1.4	13.4	1,136	2.7	26.0
	65 to 74	758	2.4	12.0	1,607	5.1	25.3
	75 plus	1,848	8.2	12.9	3,662	16.2	25.7
Race	White	3,022	0.9	42.4	6,009	1.8	83.1
	Black	353	0.8	5.9	677	1.6	11.1
	Other	180	0.8	2.7	372	1.5	5.6
Ethnicity	Hispanic	227	0.6	3.8	482	1.3	8.2
	Not Hispanic	3,328	0.9	47.2	6,576	1.8	91.6
Sex	Female	1,751	0.8	23.8	3,336	1.5	45.5
	Male	1,804	1.0	27.2	3,722	2.1	54.3
Total		3,555	0.9	51.0	7,058	1.7	99.8

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Peptic ulcer disease contributed to 7,000 deaths in 2019 (Table 28). Mortality was uncommon among the youngest age groups and then rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among men, Whites, and non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with peptic ulcer disease as underlying or other cause decreased by 39% from 2.8 to 1.7.(4)

Burden of Digestive Diseases in the United States

Table 29: Peptic Ulcer Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	39	0.0%	105	0.0%
	12 to 24	1,451,892	355	0.0%	895	0.1%
	25 to 44	2,656,672	1,652	0.1%	4,242	0.2%
	45 to 54	1,452,320	1,735	0.1%	5,241	0.4%
	55 to 64	1,640,216	3,369	0.2%	10,402	0.6%
	65 to 74	2,840,615	7,852	0.3%	23,619	0.8%
	75 plus	2,576,241	9,206	0.4%	27,042	1.0%
Race-ethnicity	White	8,657,702	16,044	0.2%	47,287	0.5%
	Black	1,242,477	2,988	0.2%	8,857	0.7%
	Hispanic	1,493,457	2,460	0.2%	7,378	0.5%
	Asian	607,284	894	0.1%	2,554	0.4%
	Unknown	1,719,014	1,822	0.1%	5,470	0.3%
Sex	Female	7,199,363	13,993	0.2%	40,459	0.6%
	Male	6,520,571	10,215	0.2%	31,087	0.5%
Region	Northeast	1,526,275	3,075	0.2%	9,058	0.6%
	Midwest	3,322,846	5,054	0.2%	15,022	0.5%
	South	5,619,435	11,073	0.2%	33,199	0.6%
	West	3,251,378	5,006	0.2%	14,267	0.4%
Total		13,719,934	24,208	0.2%	71,546	0.5%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of peptic ulcer disease (based on all-listed diagnoses) was 0.5% (Table 29). Prevalence increased with age and was higher among women. It was highest among Blacks, similar among Whites and Hispanics, and lowest among Asians. It was highest in the Northeast and South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 30: Peptic Ulcer Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	46	4	130	12
	12 to 24	444	31	1,210	83
	25 to 44	1,962	74	5,714	215
	45 to 54	2,090	144	7,129	491
	55 to 64	3,817	233	13,880	846
	65 to 74	8,754	308	31,724	1,117
	75 plus	9,500	369	37,610	1,460
Race-ethnicity	White	17,436	201	64,734	748
	Black	3,433	276	11,898	958
	Hispanic	2,804	188	10,039	672
	Asian	1,038	171	3,648	601
	Unknown	1,902	111	7,078	412
Sex	Female	16,007	222	57,474	798
	Male	10,606	163	39,923	612
Region	Northeast	3,337	219	12,003	786
	Midwest	5,311	160	19,397	584
	South	12,513	223	45,431	808
	West	5,452	168	20,566	633
Total		26,613	194	97,397	710

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with peptic ulcer disease (all-listed diagnoses) increased with age and were higher among women compared with men (Table 30). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 31: Peptic Ulcer Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	1	0	3	0
	12 to 24	4	0	22	2
	25 to 44	50	2	130	5
	45 to 54	51	4	157	11
	55 to 64	153	9	366	22
	65 to 74	381	13	787	28
	75 plus	439	17	939	36
Race-ethnicity	White	768	9	1,629	19
	Black	132	11	314	25
	Hispanic	79	5	208	14
	Asian	21	3	57	9
	Unknown	79	5	196	11
Sex	Female	601	8	1,326	18
	Male	478	7	1,078	17
Region	Northeast	158	10	334	22
	Midwest	283	9	539	16
	South	433	8	1,039	18
	West	205	6	492	15
Total		1,079	8	2,404	18

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with peptic ulcer disease (all-listed diagnoses) increased with age and differed little by sex (Table 31). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, and lowest in the Midwest and West.

Burden of Digestive Diseases in the United States

Table 32: Peptic Ulcer Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	3	0	18	2
	12 to 24	24	2	100	7
	25 to 44	192	7	694	26
	45 to 54	337	23	1,230	85
	55 to 64	919	56	3,360	205
	65 to 74	2,523	89	8,812	310
	75 plus	4,211	163	13,342	518
Race-ethnicity	White	5,725	66	18,415	213
	Black	941	76	3,651	294
	Hispanic	710	48	2,621	175
	Asian	240	40	722	119
	Unknown	593	34	2,147	125
Sex	Female	4,213	59	14,152	197
	Male	3,996	61	13,404	206
Region	Northeast	978	64	3,431	225
	Midwest	1,866	56	5,958	179
	South	3,516	63	12,581	224
	West	1,849	57	5,586	172
Total		8,209	60	27,556	201

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with peptic ulcer disease (all-listed diagnoses) increased with age and were higher among men compared with women (Table 32). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were higher in the Northeast and South compared with the Midwest and West.

Burden of Digestive Diseases in the United States

Table 33: Peptic Ulcer Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	26,060	0.3%	77,660	1.0%
	70 to 74	6,936,940	27,640	0.4%	79,920	1.2%
	75 to 79	4,894,060	23,420	0.5%	68,360	1.4%
	80 to 84	3,335,340	18,240	0.5%	50,660	1.5%
	85+	3,578,120	18,260	0.5%	53,480	1.5%
Race	White	22,023,800	90,720	0.4%	264,140	1.2%
	Black	1,861,660	8,340	0.4%	25,460	1.4%
	Other	2,925,320	14,560	0.5%	40,480	1.4%
Sex	Female	14,975,560	65,180	0.4%	188,600	1.3%
	Male	11,835,220	48,440	0.4%	141,480	1.2%
Region	Northeast	4,748,700	19,620	0.4%	56,500	1.2%
	Midwest	6,069,800	24,540	0.4%	72,540	1.2%
	South	10,595,900	45,840	0.4%	135,980	1.3%
	West	5,396,380	23,620	0.4%	65,060	1.2%
Total		26,810,780	113,620	0.4%	330,080	1.2%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of peptic ulcer disease (based on all-listed diagnoses) was 1.2% (Table 33). Prevalence increased with age until the oldest age group and was higher among women and Blacks. It differed little by region.

Burden of Digestive Diseases in the United States

Table 34: Peptic Ulcer Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	28,320	351	108,400	1,344
	70 to 74	30,300	437	116,640	1,681
	75 to 79	24,660	504	96,200	1,966
	80 to 84	18,900	567	75,600	2,267
	85+	17,480	489	74,560	2,084
Race	White	94,780	430	374,340	1,700
	Black	8,280	445	33,320	1,790
	Other	16,600	567	63,740	2,179
Sex	Female	72,060	481	281,780	1,882
	Male	47,600	402	189,620	1,602
Region	Northeast	21,620	455	81,420	1,715
	Midwest	24,320	401	96,520	1,590
	South	48,400	457	194,020	1,831
	West	25,320	469	99,440	1,843
Total		119,660	446	471,400	1,758

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with peptic ulcer disease (all-listed diagnoses) increased with age until 85 years and were higher among women compared with men but differed little by race (Table 34). Rates were highest in the West and South, followed by the Northeast, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 35: Peptic Ulcer Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	9,420	117	25,540	317
	70 to 74	10,260	148	27,980	403
	75 to 79	9,420	192	27,380	559
	80 to 84	8,500	255	22,740	682
	85+	10,520	294	29,060	812
Race	White	38,440	175	104,440	474
	Black	4,320	232	12,980	697
	Other	5,360	183	15,280	522
Sex	Female	25,880	173	71,940	480
	Male	22,240	188	60,760	513
Region	Northeast	8,160	172	22,860	481
	Midwest	10,560	174	29,140	480
	South	19,260	182	55,060	520
	West	10,140	188	25,640	475
Total		48,120	179	132,700	495

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with peptic ulcer disease (all-listed diagnoses) increased with age and were higher among men compared with women and Blacks compared with Whites (Table 35). Rates were higher in the South compared with the Northeast and Midwest and lowest in the West.

Burden of Digestive Diseases in the United States

Table 36: Peptic Ulcer Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	9,360	116	26,920	334
	70 to 74	10,200	147	29,580	426
	75 to 79	9,440	193	29,580	604
	80 to 84	8,700	261	24,140	724
	85+	10,760	301	30,000	838
Race	White	39,420	179	111,460	506
	Black	3,900	209	12,700	682
	Other	5,140	176	16,060	549
Sex	Female	25,600	171	74,320	496
	Male	22,860	193	65,900	557
Region	Northeast	8,020	169	23,420	493
	Midwest	10,980	181	31,920	526
	South	19,380	183	57,940	547
	West	10,080	187	26,940	499
Total		48,460	181	140,220	523

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with peptic ulcer disease (all-listed diagnoses) increased with age and were higher among men compared with women and Blacks compared with Whites (Table 36). Rates were highest in the South, followed by the Midwest, then the West, and lowest in the Northeast.

Burden of Digestive Diseases in the United States

Table 37: Functional Disorders: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	871	1,790	1,815	3,732
	12 to 24	444	791	991	1,765
	25 to 44	577	683	2,304	2,727
	45 to 54	444	1,030	1,921	4,459
	55 to 64	299	732	1,770	4,336
	65 to 74	612	2,224	1,571	5,707
	75 plus	664	3,287	1,862	9,215
Race	White	2,837	1,128	9,633	3,626
	Black	772	1,882	1,833	4,388
	Other	301	1,488	768	3,504
Ethnicity	Hispanic	874	1,923	2,434	5,097
	Not Hispanic	3,036	1,125	9,800	3,498
Sex	Female	2,298	1,407	8,394	4,921
	Male	1,613	1,069	3,841	2,479
Total		3,910	1,230	12,234	3,707

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Functional disorders contributed to 12.2 million ambulatory visits (2015) (Table 37). Ambulatory care visit rates (all-listed diagnoses) were higher among children compared with adolescents and younger adults and then generally increased with age. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 38: Functional Disorders: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	356	736	588	1,214
	12 to 24	174	313	416	750
	25 to 44	205	236	791	909
	45 to 54	108	258	494	1,186
	55 to 64	124	292	612	1,448
	65 to 74	126	414	614	2,014
	75 plus	190	864	952	4,341
Sex	Female	727	440	2,713	1,522
	Male	554	348	1,753	1,062
Total		1,282	393	4,467	1,294

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Functional disorders contributed to 4.5 million emergency department visits in 2018 (Table 38). Emergency department visit rates (all-listed diagnoses) were higher among children compared with adolescents and younger adults and then generally increased with age. Age-adjusted rates were higher among women compared with men.

Burden of Digestive Diseases in the United States

Table 39: Functional Disorders: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	10	22	82	170
	12 to 24	9	16	114	205
	25 to 44	21	24	356	409
	45 to 54	17	40	298	716
	55 to 64	23	54	466	1,103
	65 to 74	24	77	520	1,704
	75 plus	27	125	736	3,354
Race	White	103	36	2,023	668
	Black	20	46	419	957
	Other	8	31	150	604
Ethnicity	Hispanic	15	31	263	571
	Not Hispanic	116	38	2,329	725
Sex	Female	76	41	1,509	771
	Male	54	32	1,062	614
Total		130	37	2,571	695

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Functional disorders contributed to 2.6 million hospital discharges in 2018 (Table 39). Hospital discharge rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by 64% from 423 to 695.(4)

Burden of Digestive Diseases in the United States

Table 40: Functional Disorders: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	13	0.0	1.0	39	0.1	2.9
	12 to 24	11	0.0	0.6	41	0.1	2.5
	25 to 44	43	0.0	1.9	179	0.2	8.0
	45 to 54	59	0.1	1.8	252	0.6	7.9
	55 to 64	127	0.3	2.9	598	1.4	13.8
	65 to 74	207	0.7	3.3	924	2.9	14.6
	75 plus	493	2.2	3.3	2,259	10.0	15.3
Race	White	835	0.2	12.5	3,717	1.1	54.3
	Black	99	0.2	2.1	436	1.0	8.3
	Other	19	0.1	0.3	139	0.6	2.3
Ethnicity	Hispanic	48	0.1	1.2	254	0.6	6.0
	Not Hispanic	905	0.3	13.7	4,038	1.1	59.0
Sex	Female	589	0.3	8.6	2,536	1.1	36.8
	Male	364	0.2	6.3	1,756	1.0	28.2
Total		953	0.2	14.9	4,292	1.1	64.9

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Functional disorders contributed to 4,000 deaths in 2019 (Table 40). Mortality rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among women, Whites, and non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with functional disorders as underlying or other cause increased by 57% from 0.7 to 1.1.(4)

Burden of Digestive Diseases in the United States

Table 41: Functional Disorders: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	17,221	1.6%	41,010	3.7%
	12 to 24	1,451,892	12,495	0.9%	31,145	2.1%
	25 to 44	2,656,672	24,790	0.9%	71,710	2.7%
	45 to 54	1,452,320	18,234	1.3%	59,554	4.1%
	55 to 64	1,640,216	26,001	1.6%	89,930	5.5%
	65 to 74	2,840,615	53,853	1.9%	179,930	6.3%
	75 plus	2,576,241	65,723	2.6%	227,352	8.8%
Race-ethnicity	White	8,657,702	135,735	1.6%	444,685	5.1%
	Black	1,242,477	25,978	2.1%	84,337	6.8%
	Hispanic	1,493,457	23,554	1.6%	74,925	5.0%
	Asian	607,284	6,968	1.1%	21,398	3.5%
	Unknown	1,719,014	26,082	1.5%	75,286	4.4%
Sex	Female	7,199,363	142,418	2.0%	458,945	6.4%
	Male	6,520,571	75,899	1.2%	241,686	3.7%
Region	Northeast	1,526,275	30,308	2.0%	90,664	5.9%
	Midwest	3,322,846	43,513	1.3%	146,587	4.4%
	South	5,619,435	102,125	1.8%	325,473	5.8%
	West	3,251,378	42,371	1.3%	137,907	4.2%
Total		13,719,934	218,317	1.6%	700,631	5.1%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of functional disorders (based on all-listed diagnoses) was 5.1% (Table 41). Prevalence was higher among children compared with adolescents and younger adults and then increased with age. It was higher among women. It was highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. It was higher in the Northeast and South compared with the Midwest and West.

Burden of Digestive Diseases in the United States

Table 42: Functional Disorders: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	22,308	2,024	57,585	5,226
	12 to 24	16,865	1,162	45,951	3,165
	25 to 44	33,288	1,253	112,940	4,251
	45 to 54	24,548	1,690	98,347	6,772
	55 to 64	34,877	2,126	148,806	9,072
	65 to 74	71,228	2,507	288,154	10,144
	75 plus	89,635	3,479	393,339	15,268
Race-ethnicity	White	182,846	2,112	726,991	8,397
	Black	35,038	2,820	141,648	11,400
	Hispanic	31,103	2,083	122,070	8,174
	Asian	8,907	1,467	33,771	5,561
	Unknown	34,855	2,028	120,642	7,018
Sex	Female	193,110	2,682	775,604	10,773
	Male	99,639	1,528	369,518	5,667
Region	Northeast	42,798	2,804	155,976	10,219
	Midwest	56,744	1,708	225,756	6,794
	South	136,425	2,428	537,446	9,564
	West	56,782	1,746	225,944	6,949
Total		292,749	2,134	1,145,122	8,346

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with functional disorders (all-listed diagnoses) were higher among children compared with adolescents and younger adults and then increased with age and were higher among women compared with men (Table 42). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, and lowest in the West and Midwest.

Burden of Digestive Diseases in the United States

Table 43: Functional Disorders: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	114	10	206	19
	12 to 24	131	9	393	27
	25 to 44	815	31	2,277	86
	45 to 54	1,028	71	2,428	167
	55 to 64	2,300	140	4,773	291
	65 to 74	6,666	235	13,039	459
	75 plus	10,824	420	21,223	824
Race-ethnicity	White	13,484	156	27,644	319
	Black	4,044	325	7,784	626
	Hispanic	2,057	138	4,333	290
	Asian	425	70	831	137
	Unknown	1,868	109	3,747	218
Sex	Female	12,091	168	25,602	356
	Male	9,787	150	18,737	287
Region	Northeast	3,077	202	5,609	367
	Midwest	4,506	136	8,761	264
	South	10,174	181	21,045	375
	West	4,121	127	8,924	274
Total		21,878	159	44,339	323

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with functional disorders (all-listed diagnoses) increased with age and were higher among women compared with men (Table 43). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 44: Functional Disorders: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	81	7	1,222	111
	12 to 24	120	8	2,601	179
	25 to 44	318	12	6,990	263
	45 to 54	387	27	8,714	600
	55 to 64	684	42	19,259	1,174
	65 to 74	1,219	43	40,825	1,437
	75 plus	1,517	59	60,455	2,347
Race-ethnicity	White	2,894	33	92,269	1,066
	Black	553	45	20,808	1,675
	Hispanic	405	27	12,692	850
	Asian	93	15	2,846	469
	Unknown	381	22	11,451	666
Sex	Female	2,521	35	81,522	1,132
	Male	1,805	28	58,544	898
Region	Northeast	611	40	18,619	1,220
	Midwest	919	28	30,462	917
	South	1,985	35	66,446	1,182
	West	811	25	24,539	755
Total		4,326	32	140,066	1,021

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with functional disorders (all-listed diagnoses) increased with age and were higher among women compared with men (Table 44). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 45: Functional Disorders: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	200,600	2.5%	651,060	8.1%
	70 to 74	6,936,940	211,120	3.0%	672,680	9.7%
	75 to 79	4,894,060	185,700	3.8%	584,700	11.9%
	80 to 84	3,335,340	149,220	4.5%	487,200	14.6%
	85+	3,578,120	192,180	5.4%	644,840	18.0%
Race	White	22,023,800	760,060	3.5%	2,477,760	11.3%
	Black	1,861,660	78,480	4.2%	242,680	13.0%
	Other	2,925,320	100,280	3.4%	320,040	10.9%
Sex	Female	14,975,560	609,300	4.1%	1,981,680	13.2%
	Male	11,835,220	329,520	2.8%	1,058,800	8.9%
Region	Northeast	4,748,700	183,080	3.9%	565,260	11.9%
	Midwest	6,069,800	185,320	3.1%	648,220	10.7%
	South	10,595,900	399,780	3.8%	1,286,480	12.1%
	West	5,396,380	170,640	3.2%	540,520	10.0%
Total		26,810,780	938,820	3.5%	3,040,480	11.3%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of functional disorders (based on all-listed diagnoses) was 11.3% (Table 45). Prevalence increased with age and was higher among women and Blacks. It was highest in the South, followed by the Northeast, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 46: Functional Disorders: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	246,240	3,053	1,048,200	12,995
	70 to 74	263,460	3,798	1,102,520	15,893
	75 to 79	233,340	4,768	979,480	20,014
	80 to 84	190,220	5,703	834,440	25,018
	85+	250,060	6,989	1,238,160	34,604
Race	White	962,360	4,370	4,196,640	19,055
	Black	94,800	5,092	431,000	23,151
	Other	126,160	4,313	575,160	19,661
Sex	Female	801,320	5,351	3,560,620	23,776
	Male	382,000	3,228	1,642,180	13,875
Region	Northeast	245,840	5,177	1,012,540	21,322
	Midwest	221,640	3,652	1,048,280	17,270
	South	506,440	4,780	2,235,620	21,099
	West	209,400	3,880	906,360	16,796
Total		1,183,320	4,414	5,202,800	19,406

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with functional disorders (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 46). Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 47: Functional Disorders: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	43,220	536	181,220	2,247
	70 to 74	44,820	646	191,960	2,767
	75 to 79	44,900	917	184,600	3,772
	80 to 84	38,840	1,164	169,820	5,092
	85+	54,680	1,528	261,520	7,309
Race	White	173,280	787	789,220	3,583
	Black	28,860	1,550	106,400	5,715
	Other	24,320	831	93,500	3,196
Sex	Female	123,240	823	599,640	4,004
	Male	103,220	872	389,480	3,291
Region	Northeast	38,840	818	185,980	3,916
	Midwest	49,440	815	219,240	3,612
	South	94,520	892	414,480	3,912
	West	43,660	809	169,420	3,140
Total		226,460	845	989,120	3,689

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with functional disorders (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 47). Rates were highest in the Northeast and South, followed by the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 48: Functional Disorders: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	7,560	94	159,320	1,975
	70 to 74	6,840	99	168,820	2,434
	75 to 79	6,080	124	153,340	3,133
	80 to 84	4,220	127	137,960	4,136
	85+	5,900	165	201,980	5,645
Race	White	23,540	107	669,340	3,039
	Black	3,660	197	77,220	4,148
	Other	3,400	116	74,860	2,559
Sex	Female	16,700	112	489,400	3,268
	Male	13,900	117	332,020	2,805
Region	Northeast	5,960	126	154,940	3,263
	Midwest	6,540	108	187,240	3,085
	South	12,400	117	348,160	3,286
	West	5,700	106	131,080	2,429
Total		30,600	114	821,420	3,064

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with functional disorders (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 48). Rates were lower in the West compared with the South, Northeast, and Midwest.

Burden of Digestive Diseases in the United States

Table 49: Appendicitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	35	72	40	82
	12 to 24	135	240	155	277
	25 to 44	125	148	166	197
	45 to 54	65	151	74	172
	55 to 64	204	501	223	546
	65 to 74	75	274	77	281
	75 plus	3	17	3	17
Race	White	539	194	601	220
	Black	39	83	70	152
	Other	65	258	67	269
Ethnicity	Hispanic	230	464	245	490
	Not Hispanic	412	151	494	181
Sex	Female	296	170	325	189
	Male	346	195	414	236
Total		643	182	739	212

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Appendicitis contributed to 739,000 ambulatory visits (2015) (Table 49). Ambulatory care visit rates (all-listed diagnoses) were highest among persons 55-64 years and lowest among those 75 years and over. Age-adjusted ambulatory care visit rates were higher among men compared with women, Whites compared with Blacks, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 50: Appendicitis: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	52	108	55	113
	12 to 24	108	196	115	208
	25 to 44	112	129	123	141
	45 to 54	43	104	48	115
	55 to 64	35	83	41	96
	65 to 74	21	68	25	83
	75 plus	10	47	14	66
Sex	Female	177	111	198	123
	Male	205	131	223	142
Total		382	121	421	133

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Appendicitis contributed to 421,000 emergency department visits in 2018 (Table 50). Emergency department visit rates (all-listed diagnoses) peaked among persons 12-24 years and then decreased with age. Age-adjusted rates were higher among men compared with women.

Burden of Digestive Diseases in the United States

Table 51: Appendicitis: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	22	46	24	50
	12 to 24	36	64	40	72
	25 to 44	41	47	49	56
	45 to 54	20	48	25	60
	55 to 64	19	45	25	58
	65 to 74	14	45	18	60
	75 plus	8	38	12	56
Race	White	131	53	159	63
	Black	12	27	16	36
	Other	16	63	19	74
Ethnicity	Hispanic	41	66	48	79
	Not Hispanic	119	45	147	54
Sex	Female	73	44	91	54
	Male	86	54	103	64
Total		159	49	193	59

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Appendicitis contributed to 193,000 hospital discharges in 2018 (Table 51). Hospital discharge rates (all-listed diagnoses) peaked at 12-24 years and were similar for other age groups. Age-adjusted rates were higher among men compared with women, Whites compared with Blacks, and Hispanics compared with non-Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis decreased by 47% from 111 to 59. (4,6)

Burden of Digestive Diseases in the United States

Table 52: Appendicitis: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	6	0.0	0.4	10	0.0	0.7
	12 to 24	7	0.0	0.4	14	0.0	0.9
	25 to 44	24	0.0	1.0	38	0.0	1.6
	45 to 54	22	0.1	0.7	54	0.1	1.7
	55 to 64	54	0.1	1.3	126	0.3	2.9
	65 to 74	77	0.2	1.2	153	0.5	2.4
	75 plus	201	0.9	1.4	336	1.5	2.4
Race	White	328	0.1	5.1	619	0.2	10.2
	Black	42	0.1	1.0	73	0.2	1.7
	Other	21	0.1	0.3	39	0.2	0.7
Ethnicity	Hispanic	33	0.1	0.9	70	0.2	1.9
	Not Hispanic	358	0.1	5.6	661	0.2	10.7
Sex	Female	177	0.1	2.7	336	0.2	5.8
	Male	214	0.1	3.7	395	0.2	6.8
Total		391	0.1	6.4	731	0.2	12.6

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Appendicitis contributed to 1,000 deaths in 2019 (Table 52). Mortality was uncommon through young adulthood after which rates (underlying or other cause) increased with age. Age-adjusted mortality rates did not differ by sex, race, or ethnicity. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with appendicitis as underlying or other cause decreased by a third from 0.3 to 0.2.(4)

Burden of Digestive Diseases in the United States

Table 53: Appendicitis: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	847	0.1%	892	0.1%
	12 to 24	1,451,892	2,688	0.2%	2,879	0.2%
	25 to 44	2,656,672	4,184	0.2%	4,672	0.2%
	45 to 54	1,452,320	1,873	0.1%	2,144	0.1%
	55 to 64	1,640,216	1,842	0.1%	2,236	0.1%
	65 to 74	2,840,615	2,387	0.1%	3,119	0.1%
	75 plus	2,576,241	1,510	0.1%	2,173	0.1%
Race-ethnicity	White	8,657,702	10,198	0.1%	12,007	0.1%
	Black	1,242,477	1,000	0.1%	1,298	0.1%
	Hispanic	1,493,457	1,941	0.1%	2,280	0.2%
	Asian	607,284	541	0.1%	623	0.1%
	Unknown	1,719,014	1,651	0.1%	1,907	0.1%
Sex	Female	7,199,363	7,551	0.1%	9,171	0.1%
	Male	6,520,571	7,780	0.1%	8,944	0.1%
Region	Northeast	1,526,275	1,556	0.1%	1,908	0.1%
	Midwest	3,322,846	4,273	0.1%	4,873	0.1%
	South	5,619,435	6,246	0.1%	7,488	0.1%
	West	3,251,378	3,256	0.1%	3,846	0.1%
Total		13,719,934	15,331	0.1%	18,115	0.1%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of appendicitis (based on all-listed diagnoses) was 0.1% (Table 53). Prevalence was highest among adolescents and younger adults and did not differ by sex. It was highest among Hispanics and similar among Whites, Blacks, and Asians. It did not differ by region.

Burden of Digestive Diseases in the United States

Table 54: Appendicitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	1,105	100	1,191	108
	12 to 24	3,575	246	3,879	267
	25 to 44	5,492	207	6,210	234
	45 to 54	2,503	172	2,938	202
	55 to 64	2,313	141	2,821	172
	65 to 74	2,725	96	3,445	121
	75 plus	1,750	68	2,517	98
Race-ethnicity	White	12,963	150	15,250	176
	Black	1,274	103	1,576	127
	Hispanic	2,447	164	2,924	196
	Asian	689	113	809	133
	Unknown	2,090	122	2,442	142
Sex	Female	9,717	135	11,752	163
	Male	9,746	149	11,249	173
Region	Northeast	2,113	138	2,566	168
	Midwest	5,385	162	6,135	185
	South	7,960	142	9,527	170
	West	4,005	123	4,773	147
Total		19,463	142	23,001	168

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with appendicitis (all-listed diagnoses) peaked among adolescents and the youngest adults and then decreased with age and were higher among men compared with women (Table 54). Among persons with known race-ethnicity, rates were highest among Hispanics, followed by Whites, then Asians, and lowest among Blacks. Rates were highest in the Midwest, followed by the South and Northeast, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 55: Appendicitis: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	36	3	39	4
	12 to 24	151	10	173	12
	25 to 44	257	10	306	12
	45 to 54	174	12	214	15
	55 to 64	302	18	388	24
	65 to 74	1,382	49	1,805	64
	75 plus	896	35	1,209	47
Race-ethnicity	White	2,196	25	2,822	33
	Black	222	18	335	27
	Hispanic	381	26	496	33
	Asian	121	20	137	23
	Unknown	278	16	344	20
Sex	Female	1,737	24	2,267	31
	Male	1,461	22	1,867	29
Region	Northeast	375	25	440	29
	Midwest	917	28	1,087	33
	South	1,109	20	1,549	28
	West	797	25	1,058	33
Total		3,198	23	4,134	30

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with appendicitis (all-listed diagnoses) increased with age until 75 years and were higher among women compared with men (Table 55). Among persons with known race-ethnicity, rates were highest among Whites and Hispanics, followed by Blacks, and lowest among Asians. Rates were higher in the Midwest and West compared with the Northeast and South.

Burden of Digestive Diseases in the United States

Table 56: Appendicitis: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	256	23	287	26
	12 to 24	409	28	504	35
	25 to 44	586	22	873	33
	45 to 54	394	27	609	42
	55 to 64	524	32	873	53
	65 to 74	899	32	1,572	55
	75 plus	751	29	1,368	53
Race-ethnicity	White	2,486	29	3,980	46
	Black	289	23	552	44
	Hispanic	506	34	766	51
	Asian	155	26	207	34
	Unknown	383	22	581	34
Sex	Female	1,847	26	3,029	42
	Male	1,972	30	3,057	47
Region	Northeast	493	32	769	50
	Midwest	918	28	1,450	44
	South	1,538	27	2,501	45
	West	870	27	1,366	42
Total		3,819	28	6,086	44

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with appendicitis (all-listed diagnoses) generally increased with age and were higher among men compared with women (Table 56). Among persons with known race-ethnicity, rates were highest among Hispanics, followed by Whites and Blacks, and lowest among Asians. Rates were highest in the Northeast, followed by the South and Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 57: Appendicitis: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	8,880	0.1%	10,440	0.1%
	70 to 74	6,936,940	6,960	0.1%	8,720	0.1%
	75 to 79	4,894,060	4,160	0.1%	5,560	0.1%
	80 to 84	3,335,340	2,220	0.1%	2,900	0.1%
	85+	3,578,120	2,100	0.1%	2,940	0.1%
Race	White	22,023,800	20,360	0.1%	25,260	0.1%
	Black	1,861,660	1,060	0.1%	1,500	0.1%
	Other	2,925,320	2,900	0.1%	3,800	0.1%
Sex	Female	14,975,560	13,420	0.1%	16,720	0.1%
	Male	11,835,220	10,900	0.1%	13,840	0.1%
Region	Northeast	4,748,700	4,060	0.1%	5,040	0.1%
	Midwest	6,069,800	5,280	0.1%	6,560	0.1%
	South	10,595,900	9,680	0.1%	12,300	0.1%
	West	5,396,380	5,300	0.1%	6,660	0.1%
Total		26,810,780	24,320	0.1%	30,560	0.1%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of appendicitis (based on all-listed diagnoses) was 0.1% (Table 57). Prevalence did not differ by age, sex, or race. It did not differ by region.

Burden of Digestive Diseases in the United States

Table 58: Appendicitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	8,880	110	11,680	145
	70 to 74	7,320	106	10,020	144
	75 to 79	4,140	85	6,100	125
	80 to 84	1,980	59	3,500	105
	85+	2,380	67	3,660	102
Race	White	21,080	96	29,600	134
	Black	1,140	61	1,700	91
	Other	2,480	85	3,660	125
Sex	Female	13,720	92	19,500	130
	Male	10,980	93	15,460	131
Region	Northeast	4,380	92	6,000	126
	Midwest	5,240	86	7,780	128
	South	10,100	95	13,780	130
	West	4,980	92	7,400	137
Total		24,700	92	34,960	130

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with appendicitis (all-listed diagnoses) decreased with age, differed little by sex, and were higher among Whites compared with Blacks (Table 58). Rates were highest in the West, followed by the South, then the Midwest, and lowest in the Northeast.

Burden of Digestive Diseases in the United States

Table 59: Appendicitis: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	8,040	100	9,080	113
	70 to 74	6,020	87	7,500	108
	75 to 79	3,640	74	4,600	94
	80 to 84	1,760	53	2,220	67
	85+	1,940	54	2,600	73
Race	White	17,780	81	21,300	97
	Black	1,000	54	1,360	73
	Other	2,620	90	3,340	114
Sex	Female	11,680	78	13,980	93
	Male	9,720	82	12,020	102
Region	Northeast	3,760	79	4,640	98
	Midwest	4,280	71	5,220	86
	South	8,640	82	10,500	99
	West	4,720	87	5,640	105
Total		21,400	80	26,000	97

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with appendicitis (all-listed diagnoses) decreased with age until 85 years and were higher among men compared with women and Whites compared with Blacks (Table 59). Rates were highest in the West, followed by the South and Northeast, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 60: Appendicitis: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	4,240	53	5,360	66
	70 to 74	3,460	50	4,940	71
	75 to 79	2,020	41	3,280	67
	80 to 84	1,360	41	1,820	55
	85+	1,040	29	1,920	54
Race	White	9,820	45	13,920	63
	Black	760	41	1,100	59
	Other	1,540	53	2,300	79
Sex	Female	6,600	44	9,180	61
	Male	5,520	47	8,140	69
Region	Northeast	2,160	45	3,000	63
	Midwest	2,540	42	3,560	59
	South	4,840	46	6,960	66
	West	2,580	48	3,800	70
Total		12,120	45	17,320	65

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with appendicitis (all-listed diagnoses) peaked among persons 70 to 74 years and were higher among men compared with women and Whites compared with Blacks (Table 60). Rates were highest in the West, followed by the South, then the Northeast, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 61: Abdominal Wall Hernia: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	72	148	361	743
	12 to 24	128	228	146	261
	25 to 44	531	629	903	1,069
	45 to 54	711	1,651	1,022	2,372
	55 to 64	730	1,789	1,023	2,506
	65 to 74	618	2,243	895	3,251
	75 plus	421	2,085	781	3,864
Race	White	2,771	981	4,230	1,521
	Black	361	789	722	1,701
	Other	79	347	179	755
Ethnicity	Hispanic	572	1,254	820	1,751
	Not Hispanic	2,640	872	4,311	1,450
Sex	Female	930	525	1,790	1,034
	Male	2,282	1,339	3,341	2,004
Total		3,212	910	5,131	1,484

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Abdominal wall hernia contributed to 5.1 million ambulatory visits (2015) (Table 61). Ambulatory care visit rates (all-listed diagnoses) were higher among children compared with adolescents and the youngest adults and then increased with age. Age-adjusted rates were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 62: Abdominal Wall Hernia: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	15	31	35	72
	12 to 24	12	22	21	38
	25 to 44	82	94	159	183
	45 to 54	59	141	130	313
	55 to 64	60	141	148	351
	65 to 74	43	141	121	397
	75 plus	48	218	146	665
Sex	Female	115	64	304	165
	Male	203	121	457	269
Total		318	92	761	214

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Abdominal wall hernia contributed to 761,000 emergency department visits in 2018 (Table 62). Emergency department visit rates (all-listed diagnoses) were higher among children compared with adolescents and the youngest adults and then increased with age. Age-adjusted rates were higher among men compared with women.

Burden of Digestive Diseases in the United States

Table 63: Abdominal Wall Hernia: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	2	5	27	56
	12 to 24	1	2	4	8
	25 to 44	16	18	51	58
	45 to 54	22	53	65	155
	55 to 64	33	77	100	237
	65 to 74	31	100	97	319
	75 plus	31	143	108	491
Race	White	113	37	364	119
	Black	17	39	68	153
	Other	6	25	23	92
Ethnicity	Hispanic	17	37	57	122
	Not Hispanic	120	36	399	123
Sex	Female	71	36	210	108
	Male	64	36	242	138
Total		135	36	452	121

Source: Healthcare Cost and Utilization Project National Inpatient Sample.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Abdominal wall hernia contributed to 452,000 hospital discharges in 2018 (Table 63). Hospital discharge rates (all-listed diagnoses) were higher among children compared with adolescents and the youngest adults and then increased with age. Age-adjusted rates were higher among men compared with women and Blacks compared with Whites but did not differ by ethnicity. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis decreased by 5% from 127 to 121.(4,6)

Burden of Digestive Diseases in the United States

Table 64: Abdominal Wall Hernia: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	12	0.0	0.9	22	0.0	1.6
	12 to 24	4	0.0	0.2	9	0.0	0.5
	25 to 44	34	0.0	1.4	51	0.1	2.1
	45 to 54	87	0.2	2.7	154	0.4	4.8
	55 to 64	209	0.5	4.7	343	0.8	7.8
	65 to 74	328	1.0	5.1	548	1.7	8.6
	75 plus	884	3.9	6.0	1,345	6.0	9.2
Race	White	1,352	0.4	17.8	2,124	0.6	28.9
	Black	166	0.4	2.7	272	0.7	4.5
	Other	40	0.2	0.7	76	0.3	1.2
Ethnicity	Hispanic	110	0.3	1.9	183	0.5	3.3
	Not Hispanic	1,448	0.4	19.2	2,289	0.6	31.2
Sex	Female	766	0.3	9.9	1,133	0.5	15.3
	Male	792	0.5	11.2	1,339	0.8	19.3
Total		1,558	0.4	21.1	2,472	0.6	34.6

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Abdominal wall hernia contributed to 2,000 deaths in 2019 (Table 64). Mortality was uncommon among the youngest age groups after which rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among men, Blacks, and non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with abdominal hernia as underlying or other cause decreased by 14% from 0.7 to 0.6.(4)

Burden of Digestive Diseases in the United States

Table 65: Abdominal Wall Hernia: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	2,295	0.2%	7,404	0.7%
	12 to 24	1,451,892	1,172	0.1%	1,650	0.1%
	25 to 44	2,656,672	9,438	0.4%	14,243	0.5%
	45 to 54	1,452,320	9,486	0.7%	15,840	1.1%
	55 to 64	1,640,216	14,120	0.9%	24,223	1.5%
	65 to 74	2,840,615	25,399	0.9%	43,577	1.5%
	75 plus	2,576,241	21,367	0.8%	40,099	1.6%
Race-ethnicity	White	8,657,702	58,240	0.7%	98,395	1.1%
	Black	1,242,477	7,471	0.6%	13,666	1.1%
	Hispanic	1,493,457	8,382	0.6%	15,699	1.1%
	Asian	607,284	1,488	0.2%	2,675	0.4%
	Unknown	1,719,014	7,696	0.4%	16,601	1.0%
Sex	Female	7,199,363	25,247	0.4%	48,911	0.7%
	Male	6,520,571	58,030	0.9%	98,125	1.5%
Region	Northeast	1,526,275	10,040	0.7%	17,758	1.2%
	Midwest	3,322,846	19,518	0.6%	33,129	1.0%
	South	5,619,435	34,651	0.6%	62,930	1.1%
	West	3,251,378	19,068	0.6%	33,219	1.0%
Total		13,719,934	83,277	0.6%	147,036	1.1%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of abdominal wall hernia (based on all-listed diagnoses) was 1.1% (Table 65). Prevalence was higher among children compared with adolescents and younger adults and then increased with age. It was higher among men. It was similar among Whites, Blacks, and Hispanics, and lowest among Asians. It differed little by region.

Burden of Digestive Diseases in the United States

Table 66: Abdominal Wall Hernia: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	3,646	331	11,690	1,061
	12 to 24	2,088	144	2,869	198
	25 to 44	17,177	647	26,042	980
	45 to 54	17,590	1,211	29,299	2,017
	55 to 64	25,941	1,582	44,819	2,733
	65 to 74	45,825	1,613	79,931	2,814
	75 plus	37,007	1,436	69,688	2,705
Race-ethnicity	White	105,416	1,218	178,404	2,061
	Black	12,994	1,046	24,102	1,940
	Hispanic	14,757	988	28,056	1,879
	Asian	2,750	453	4,822	794
	Unknown	13,357	777	28,954	1,684
Sex	Female	41,413	575	82,451	1,145
	Male	107,861	1,654	181,887	2,789
Region	Northeast	17,803	1,166	31,852	2,087
	Midwest	34,524	1,039	60,305	1,815
	South	62,477	1,112	111,778	1,989
	West	34,470	1,060	60,403	1,858
Total		149,274	1,088	264,338	1,927

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with abdominal wall hernia (all-listed diagnoses) were higher among children compared with adolescents and younger adults and then increased with age until 75 years (Table 66). They were higher among men compared with women. Among persons with known race-ethnicity, rates were highest among Whites, followed by Blacks, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 67: Abdominal Wall Hernia: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	14	1	22	2
	12 to 24	8	1	10	1
	25 to 44	161	6	315	12
	45 to 54	225	15	433	30
	55 to 64	615	37	1,156	70
	65 to 74	1,832	64	3,394	119
	75 plus	2,586	100	4,676	182
Race-ethnicity	White	3,588	41	6,501	75
	Black	708	57	1,335	107
	Hispanic	591	40	1,176	79
	Asian	69	11	121	20
	Unknown	485	28	873	51
Sex	Female	2,042	28	4,208	58
	Male	3,399	52	5,798	89
Region	Northeast	820	54	1,294	85
	Midwest	1,155	35	2,020	61
	South	2,181	39	4,319	77
	West	1,285	40	2,373	73
Total		5,441	40	10,006	73

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with abdominal wall hernia (all-listed diagnoses) increased with age and were higher among men compared with women (Table 67). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Hispanics and Whites, and much lower among Asians. Rates were highest in the Northeast, followed by the South, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 68: Abdominal Wall Hernia: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	16	1	415	38
	12 to 24	10	1	53	4
	25 to 44	223	8	871	33
	45 to 54	482	33	1,635	113
	55 to 64	970	59	3,389	207
	65 to 74	1,933	68	7,179	253
	75 plus	2,341	91	9,115	354
Race-ethnicity	White	4,088	47	14,889	172
	Black	683	55	2,738	220
	Hispanic	671	45	2,621	175
	Asian	60	10	277	46
	Unknown	473	28	2,132	124
Sex	Female	3,355	47	10,764	150
	Male	2,620	40	11,893	182
Region	Northeast	798	52	2,969	195
	Midwest	1,292	39	4,713	142
	South	2,656	47	10,418	185
	West	1,229	38	4,557	140
Total		5,975	44	22,657	165

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with abdominal wall hernia (all-listed diagnoses) were higher among children compared with adolescents and younger adults and then increased with age and were higher among men compared with women (Table 68). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Hispanics and Whites, and much lower among Asians. Rates were highest in the Northeast, followed by the South, and lowest in the Midwest and West.

Burden of Digestive Diseases in the United States

Table 69: Abdominal Wall Hernia: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	97,040	1.2%	172,600	2.1%
	70 to 74	6,936,940	88,460	1.3%	160,700	2.3%
	75 to 79	4,894,060	64,960	1.3%	124,660	2.5%
	80 to 84	3,335,340	42,360	1.3%	83,440	2.5%
	85+	3,578,120	37,000	1.0%	83,860	2.3%
Race	White	22,023,800	279,360	1.3%	527,980	2.4%
	Black	1,861,660	17,580	0.9%	36,220	1.9%
	Other	2,925,320	32,880	1.1%	61,060	2.1%
Sex	Female	14,975,560	104,140	0.7%	218,560	1.5%
	Male	11,835,220	225,680	1.9%	406,700	3.4%
Region	Northeast	4,748,700	61,540	1.3%	121,220	2.6%
	Midwest	6,069,800	71,240	1.2%	134,160	2.2%
	South	10,595,900	127,460	1.2%	244,080	2.3%
	West	5,396,380	69,580	1.3%	125,800	2.3%
Total		26,810,780	329,820	1.2%	625,260	2.3%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of abdominal wall hernia (based on all-listed diagnoses) was 2.3% (Table 69). Prevalence was highest among persons 75-84 years and was higher among men and Whites. It was higher in the Northeast compared to other regions.

Burden of Digestive Diseases in the United States

Table 70: Abdominal Wall Hernia: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	176,900	2,193	313,600	3,888
	70 to 74	161,920	2,334	291,860	4,207
	75 to 79	116,000	2,370	218,780	4,470
	80 to 84	73,800	2,213	144,340	4,328
	85+	54,140	1,513	119,120	3,329
Race	White	496,400	2,254	919,520	4,175
	Black	27,700	1,488	57,620	3,095
	Other	58,660	2,005	110,560	3,779
Sex	Female	164,580	1,099	342,560	2,287
	Male	418,180	3,533	745,140	6,296
Region	Northeast	109,020	2,296	211,560	4,455
	Midwest	123,680	2,038	231,100	3,807
	South	227,320	2,145	416,720	3,933
	West	122,740	2,274	228,320	4,231
Total		582,760	2,174	1,087,700	4,057

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with abdominal wall hernia (all-listed diagnoses) peaked among persons 75 to 79 years and were over twice as high among men compared with women and Whites compared with Blacks (Table 70). Rates were highest in the Northeast, followed by the West, then the South, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 71: Abdominal Wall Hernia: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	13,280	165	37,340	463
	70 to 74	13,900	200	38,220	551
	75 to 79	11,300	231	33,340	681
	80 to 84	8,900	267	27,800	833
	85+	12,180	340	37,160	1,039
Race	White	48,080	218	141,060	640
	Black	5,520	297	15,820	850
	Other	5,960	204	16,980	580
Sex	Female	25,280	169	76,720	512
	Male	34,280	290	97,140	821
Region	Northeast	12,420	262	34,600	729
	Midwest	13,420	221	37,060	611
	South	22,140	209	69,420	655
	West	11,580	215	32,780	607
Total		59,560	222	173,860	648

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with abdominal wall hernia (all-listed diagnoses) increased with age and were higher among men compared with women and Blacks compared with Whites (Table 71). Rates were highest in the Northeast, followed by the South, and lowest in the Midwest and West.

Burden of Digestive Diseases in the United States

Table 72: Abdominal Wall Hernia: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	7,840	97	26,380	327
	70 to 74	7,780	112	26,140	377
	75 to 79	6,560	134	23,440	479
	80 to 84	5,140	154	18,140	544
	85+	5,640	158	21,720	607
Race	White	27,220	124	95,320	433
	Black	2,540	136	9,500	510
	Other	3,200	109	11,000	376
Sex	Female	18,060	121	55,960	374
	Male	14,900	126	59,860	506
Region	Northeast	6,500	137	21,880	461
	Midwest	7,380	122	25,740	424
	South	13,520	128	47,640	450
	West	5,560	103	20,560	381
Total		32,960	123	115,820	432

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with abdominal wall hernia (all-listed diagnoses) increased with age and were higher among men compared with women and Blacks compared with Whites (Table 72). Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 73: Crohns Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	1	2
	12 to 24	26	46	63	112
	25 to 44	148	176	244	288
	45 to 54	110	255	257	596
	55 to 64	110	269	211	516
	65 to 74	144	524	213	774
	75 plus	8	41	54	270
Race	White	445	159	827	294
	Black	31	58	105	240
	Other	71	289	111	518
Ethnicity	Hispanic	41	63	92	227
	Not Hispanic	506	169	951	318
Sex	Female	319	169	604	323
	Male	228	141	438	276
Total		547	156	1,043	300

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Crohn's disease contributed to 1.0 million ambulatory visits (2015) (Table 73). Ambulatory care visit rates (all-listed diagnoses) were highest among persons 65-74 years. Age-adjusted rates were higher among women compared with men, Whites compared with Blacks, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 74: Crohns Disease: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	1	2	3	6
	12 to 24	15	28	38	68
	25 to 44	45	52	143	164
	45 to 54	14	34	63	150
	55 to 64	10	22	53	124
	65 to 74	6	19	41	135
	75 plus	3	16	35	160
Sex	Female	51	31	220	129
	Male	44	28	155	95
Total		95	30	375	113

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Crohn's disease contributed to 375,000 emergency department visits in 2018 (Table 74). Emergency department visit rates (all-listed diagnoses) were highest among persons 25-44 years. Age-adjusted rates were higher among women compared with men.

Burden of Digestive Diseases in the United States

Table 75: Crohns Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	1	2	1	3
	12 to 24	10	18	18	32
	25 to 44	25	28	60	69
	45 to 54	10	23	32	76
	55 to 64	7	18	35	83
	65 to 74	5	17	34	110
	75 plus	3	14	27	124
Race	White	49	19	177	64
	Black	9	20	25	55
	Other	3	10	7	27
Ethnicity	Hispanic	4	8	12	23
	Not Hispanic	57	21	197	67
Sex	Female	33	20	119	66
	Male	28	18	88	52
Total		61	19	207	59

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Crohn's disease contributed to 207,000 hospital discharges in 2018 (Table 75). Hospital discharge rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men, Whites compared with Blacks, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by 23% from 48 to 59.(4)

Burden of Digestive Diseases in the United States

Table 76: Crohns Disease: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	4	0.0	0.2	8	0.0	0.5
	25 to 44	57	0.1	2.4	141	0.2	6.0
	45 to 54	71	0.2	2.2	201	0.5	6.2
	55 to 64	100	0.2	2.3	360	0.8	8.4
	65 to 74	183	0.6	2.9	576	1.8	9.1
	75 plus	264	1.2	2.1	899	4.0	6.9
Race	White	625	0.2	10.9	2,002	0.6	33.2
	Black	45	0.1	1.1	151	0.4	3.3
	Other	9	0.0	0.2	32	0.1	0.6
Ethnicity	Hispanic	15	0.0	0.3	45	0.1	0.9
	Not Hispanic	664	0.2	11.8	2,140	0.6	36.2
Sex	Female	394	0.2	6.8	1,202	0.5	20.6
	Male	285	0.2	5.3	983	0.6	16.5
Total		679	0.2	12.1	2,185	0.6	37.1

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Crohn's disease contributed to 2,000 deaths in 2019 (Table 76). Mortality was uncommon among the youngest age groups after which rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among men, Whites, and non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with Crohn's disease as underlying or other cause increased by 20% from 0.5 to 0.6.(4)

Burden of Digestive Diseases in the United States

Table 77: Crohns Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	140	0.0%	165	0.0%
	12 to 24	1,451,892	2,344	0.2%	2,679	0.2%
	25 to 44	2,656,672	6,136	0.2%	7,982	0.3%
	45 to 54	1,452,320	3,548	0.2%	5,195	0.4%
	55 to 64	1,640,216	3,893	0.2%	6,250	0.4%
	65 to 74	2,840,615	5,073	0.2%	9,015	0.3%
	75 plus	2,576,241	3,087	0.1%	6,764	0.3%
Race-ethnicity	White	8,657,702	18,684	0.2%	29,160	0.3%
	Black	1,242,477	2,009	0.2%	3,212	0.3%
	Hispanic	1,493,457	1,331	0.1%	2,259	0.2%
	Asian	607,284	436	0.1%	685	0.1%
	Unknown	1,719,014	1,761	0.1%	2,734	0.2%
Sex	Female	7,199,363	13,261	0.2%	21,422	0.3%
	Male	6,520,571	10,960	0.2%	16,628	0.3%
Region	Northeast	1,526,275	3,252	0.2%	5,026	0.3%
	Midwest	3,322,846	6,776	0.2%	10,225	0.3%
	South	5,619,435	9,911	0.2%	15,609	0.3%
	West	3,251,378	4,282	0.1%	7,190	0.2%
Total		13,719,934	24,221	0.2%	38,050	0.3%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of Crohn's disease (based on all-listed diagnoses) was 0.3% (Table 77). Prevalence was highest in middle age and did not differ by sex. It was highest among Whites and Blacks, followed by Hispanics, and lowest among Asians. It differed little by region.

Burden of Digestive Diseases in the United States

Table 78: Crohns Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	440	40	605	55
	12 to 24	6,537	450	9,135	629
	25 to 44	15,319	577	25,165	947
	45 to 54	8,479	584	16,955	1,167
	55 to 64	8,688	530	19,693	1,201
	65 to 74	10,558	372	25,974	914
	75 plus	6,231	242	18,133	704
Race-ethnicity	White	42,985	496	88,152	1,018
	Black	4,734	381	10,239	824
	Hispanic	3,188	213	6,921	463
	Asian	1,144	188	2,106	347
	Unknown	4,201	244	8,242	479
Sex	Female	31,386	436	67,854	943
	Male	24,866	381	47,806	733
Region	Northeast	7,753	508	15,475	1,014
	Midwest	14,393	433	28,482	857
	South	24,313	433	50,239	894
	West	9,793	301	21,464	660
Total		56,252	410	115,660	843

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with Crohn's disease (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among women compared with men (Table 78). Among persons with known race-ethnicity, rates were highest among Whites, followed by Blacks, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 79: Crohns Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	2	0	2	0
	12 to 24	40	3	67	5
	25 to 44	308	12	663	25
	45 to 54	231	16	421	29
	55 to 64	147	9	328	20
	65 to 74	170	6	473	17
	75 plus	106	4	382	15
Race-ethnicity	White	738	9	1,761	20
	Black	115	9	242	19
	Hispanic	59	4	129	9
	Asian	13	2	24	4
	Unknown	79	5	180	10
Sex	Female	568	8	1,446	20
	Male	436	7	890	14
Region	Northeast	126	8	368	24
	Midwest	231	7	551	17
	South	496	9	1,036	18
	West	151	5	381	12
Total		1,004	7	2,336	17

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with Crohn's disease (all-listed diagnoses) peaked among persons 45 to 54 years and were higher among women compared with men (Table 79). Among persons with known race-ethnicity, rates were highest among Whites and Blacks, followed by Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South and Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 80: Crohns Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	18	2	23	2
	12 to 24	208	14	378	26
	25 to 44	512	19	1,418	53
	45 to 54	268	18	1,031	71
	55 to 64	286	17	1,536	94
	65 to 74	319	11	2,414	85
	75 plus	231	9	2,412	94
Race-ethnicity	White	1,302	15	6,853	79
	Black	198	16	988	80
	Hispanic	113	8	531	36
	Asian	40	7	118	19
	Unknown	189	11	722	42
Sex	Female	1,043	14	5,429	75
	Male	799	12	3,783	58
Region	Northeast	256	17	1,208	79
	Midwest	458	14	2,272	68
	South	815	15	4,042	72
	West	313	10	1,690	52
Total		1,842	13	9,212	67

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with Crohn's disease (all-listed diagnoses) increased with age until 65 years and were higher among women compared with men (Table 80). Among persons with known race-ethnicity, rates were highest among Blacks and Whites, followed by Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 81: Crohns Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	21,000	0.3%	33,780	0.4%
	70 to 74	6,936,940	17,420	0.3%	28,860	0.4%
	75 to 79	4,894,060	11,540	0.2%	20,140	0.4%
	80 to 84	3,335,340	6,400	0.2%	12,200	0.4%
	85+	3,578,120	3,780	0.1%	8,360	0.2%
Race	White	22,023,800	53,380	0.2%	92,340	0.4%
	Black	1,861,660	2,520	0.1%	4,360	0.2%
	Other	2,925,320	4,240	0.1%	6,640	0.2%
Sex	Female	14,975,560	34,860	0.2%	60,900	0.4%
	Male	11,835,220	25,280	0.2%	42,440	0.4%
Region	Northeast	4,748,700	14,000	0.3%	22,860	0.5%
	Midwest	6,069,800	14,120	0.2%	24,700	0.4%
	South	10,595,900	22,580	0.2%	39,340	0.4%
	West	5,396,380	9,440	0.2%	16,440	0.3%
Total		26,810,780	60,140	0.2%	103,340	0.4%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of Crohn's disease (based on all-listed diagnoses) was 0.4% (Table 81). Prevalence differed little by age, did not differ by sex, and was higher among Whites. It was highest in the Northeast and lowest in the West.

Burden of Digestive Diseases in the United States

Table 82: Crohns Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	63,380	786	127,640	1,582
	70 to 74	53,740	775	109,200	1,574
	75 to 79	32,420	662	72,000	1,471
	80 to 84	18,900	567	41,500	1,244
	85+	9,180	257	26,100	729
Race	White	157,740	716	335,440	1,523
	Black	7,100	381	15,620	839
	Other	12,780	437	25,380	868
Sex	Female	100,300	670	223,340	1,491
	Male	77,320	653	153,100	1,294
Region	Northeast	39,740	837	85,980	1,811
	Midwest	39,720	654	84,440	1,391
	South	70,520	666	147,480	1,392
	West	27,640	512	58,540	1,085
Total		177,620	662	376,440	1,404

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with Crohn's disease (all-listed diagnoses) decreased with age and were higher among women compared with men and Whites compared with Blacks (Table 82). Rates were highest in the Northeast, followed by the South and Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 83: Crohns Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	2,000	25	13,420	166
	70 to 74	1,580	23	12,240	176
	75 to 79	1,300	27	10,540	215
	80 to 84	960	29	7,500	225
	85+	340	10	5,740	160
Race	White	5,280	24	43,680	198
	Black	420	23	2,800	150
	Other	480	16	2,960	101
Sex	Female	4,080	27	30,940	207
	Male	2,100	18	18,500	156
Region	Northeast	1,560	33	11,340	239
	Midwest	1,260	21	12,000	198
	South	2,520	24	18,820	178
	West	840	16	7,280	135
Total		6,180	23	49,440	184

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with Crohn's disease (all-listed diagnoses) increased with age until 85 years and were higher among women compared with men and Whites compared with Blacks (Table 83). Rates were highest in the Northeast, followed by the Midwest, then the South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 84: Crohns Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	1,500	19	9,540	118
	70 to 74	1,280	18	9,600	138
	75 to 79	860	18	8,720	178
	80 to 84	600	18	5,360	161
	85+	380	11	4,500	126
Race	White	4,000	18	33,520	152
	Black	280	15	2,060	111
	Other	340	12	2,140	73
Sex	Female	2,700	18	23,340	156
	Male	1,920	16	14,380	122
Region	Northeast	1,200	25	8,380	176
	Midwest	1,000	16	9,760	161
	South	1,860	18	14,200	134
	West	560	10	5,380	100
Total		4,620	17	37,720	141

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with Crohn's disease (all-listed diagnoses) peaked among persons 75 to 79 years and were higher among women compared with men and Whites compared with Blacks (Table 84). Rates were highest in the Northeast, followed by the Midwest, then the South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 85: Ulcerative Colitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	38	67	110	196
	25 to 44	64	76	128	152
	45 to 54	343	795	372	864
	55 to 64	240	587	358	878
	65 to 74	65	235	269	976
	75 plus	39	195	68	338
Race	White	565	203	1,011	351
	Black	188	385	248	510
	Other	36	218	47	288
Ethnicity	Hispanic	259	598	339	807
	Not Hispanic	530	167	968	304
Sex	Female	418	235	796	431
	Male	370	211	510	285
Total		789	221	1,306	357

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Ulcerative colitis contributed to 1.3 million ambulatory visits (2015) (Table 85). Ambulatory care visit rates (all-listed diagnoses) were highest among persons 65-74 years. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 86: Ulcerative Colitis: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	1	1	1	3
	12 to 24	8	15	16	28
	25 to 44	21	24	46	53
	45 to 54	7	18	22	54
	55 to 64	7	17	25	60
	65 to 74	5	17	25	81
	75 plus	5	24	29	132
Sex	Female	30	18	91	50
	Male	24	15	74	44
Total		55	16	164	47

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Ulcerative colitis contributed to 164,000 emergency department visits in 2018 (Table 86). Emergency department visit rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men.

Burden of Digestive Diseases in the United States

Table 87: Ulcerative Colitis: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	1	2	1	2
	12 to 24	6	11	11	19
	25 to 44	12	14	29	33
	45 to 54	5	12	16	38
	55 to 64	6	13	21	51
	65 to 74	5	15	23	77
	75 plus	4	20	27	122
Race	White	32	12	110	38
	Black	4	10	12	27
	Other	2	9	6	24
Ethnicity	Hispanic	5	9	11	22
	Not Hispanic	34	12	118	38
Sex	Female	21	12	68	36
	Male	18	11	59	35
Total		39	11	128	36

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Ulcerative colitis contributed to 128,000 hospital discharges in 2018 (Table 87). Hospital discharge rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men, Whites compared with Blacks, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by 29% from 28 to 36.(4)

Burden of Digestive Diseases in the United States

Table 88: Ulcerative Colitis: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	3	0.0	0.2	13	0.0	0.8
	25 to 44	15	0.0	0.6	55	0.1	2.4
	45 to 54	24	0.1	0.8	83	0.2	2.6
	55 to 64	54	0.1	1.3	186	0.4	4.3
	65 to 74	104	0.3	1.6	329	1.0	5.2
	75 plus	224	1.0	1.6	800	3.5	5.8
Race	White	377	0.1	5.2	1,346	0.4	18.7
	Black	36	0.1	0.7	92	0.2	1.8
	Other	11	0.0	0.2	28	0.1	0.6
Ethnicity	Hispanic	12	0.0	0.3	47	0.1	1.2
	Not Hispanic	412	0.1	5.8	1,419	0.4	19.8
Sex	Female	227	0.1	3.3	708	0.3	10.3
	Male	197	0.1	2.8	758	0.4	10.7
Total		424	0.1	6.1	1,466	0.4	21.0

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Ulcerative colitis contributed to 1,000 deaths in 2019 (Table 88). Mortality was uncommon among the youngest age groups after which rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among men, Whites, and non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with ulcerative colitis as underlying or other cause increased by a third from 0.3 to 0.4.(4)

Burden of Digestive Diseases in the United States

Table 89: Ulcerative Colitis: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	87	0.0%	116	0.0%
	12 to 24	1,451,892	1,472	0.1%	1,786	0.1%
	25 to 44	2,656,672	6,106	0.2%	8,123	0.3%
	45 to 54	1,452,320	3,496	0.2%	5,809	0.4%
	55 to 64	1,640,216	4,142	0.3%	7,532	0.5%
	65 to 74	2,840,615	6,725	0.2%	13,668	0.5%
	75 plus	2,576,241	4,823	0.2%	11,445	0.4%
Race-ethnicity	White	8,657,702	19,962	0.2%	36,053	0.4%
	Black	1,242,477	2,035	0.2%	3,814	0.3%
	Hispanic	1,493,457	2,143	0.1%	3,916	0.3%
	Asian	607,284	828	0.1%	1,369	0.2%
	Unknown	1,719,014	1,883	0.1%	3,327	0.2%
Sex	Female	7,199,363	14,240	0.2%	26,375	0.4%
	Male	6,520,571	12,611	0.2%	22,104	0.3%
Region	Northeast	1,526,275	3,787	0.2%	6,600	0.4%
	Midwest	3,322,846	6,812	0.2%	11,922	0.4%
	South	5,619,435	10,843	0.2%	19,811	0.4%
	West	3,251,378	5,409	0.2%	10,146	0.3%
Total		13,719,934	26,851	0.2%	48,479	0.4%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of ulcerative colitis (based on all-listed diagnoses) was 0.4% (Table 89). Prevalence increased with age until the oldest age group and was higher among women. It was highest among Whites, similar among Blacks and Hispanics, and lowest among Asians. It differed little by region.

Burden of Digestive Diseases in the United States

Table 90: Ulcerative Colitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	215	20	318	29
	12 to 24	3,718	256	5,202	358
	25 to 44	12,849	484	19,957	751
	45 to 54	6,578	453	12,739	877
	55 to 64	7,490	457	16,090	981
	65 to 74	11,765	414	27,889	982
	75 plus	8,109	315	23,147	898
Race-ethnicity	White	37,168	429	77,927	900
	Black	3,737	301	8,049	648
	Hispanic	4,373	293	8,916	597
	Asian	1,728	285	3,145	518
	Unknown	3,718	216	7,305	425
Sex	Female	26,327	366	56,748	788
	Male	24,397	374	48,594	745
Region	Northeast	7,219	473	14,747	966
	Midwest	11,940	359	24,443	736
	South	21,257	378	43,552	775
	West	10,308	317	22,600	695
Total		50,724	370	105,342	768

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with ulcerative colitis (all-listed diagnoses) peaked among persons 55 to 74 years and were higher among women compared with men (Table 90). Among persons with known race-ethnicity, rates were highest among Whites, followed by Blacks, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 91: Ulcerative Colitis: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	2	0	2	0
	12 to 24	34	2	63	4
	25 to 44	232	9	444	17
	45 to 54	89	6	157	11
	55 to 64	138	8	261	16
	65 to 74	249	9	511	18
	75 plus	278	11	628	24
Race-ethnicity	White	727	8	1,470	17
	Black	98	8	191	15
	Hispanic	86	6	181	12
	Asian	24	4	57	9
	Unknown	87	5	167	10
Sex	Female	660	9	1,343	19
	Male	362	6	723	11
Region	Northeast	177	12	310	20
	Midwest	228	7	436	13
	South	436	8	918	16
	West	181	6	402	12
Total		1,022	7	2,066	15

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with ulcerative colitis (all-listed diagnoses) were highest among persons 75 years and older and were higher among women compared with men (Table 91). Among persons with known race-ethnicity, rates were highest among Whites, followed by Blacks, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, and lowest in the Midwest and West.

Burden of Digestive Diseases in the United States

Table 92: Ulcerative Colitis: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	16	1	24	2
	12 to 24	125	9	246	17
	25 to 44	241	9	873	33
	45 to 54	126	9	529	36
	55 to 64	181	11	1,064	65
	65 to 74	332	12	2,174	77
	75 plus	327	13	2,738	106
Race-ethnicity	White	1,000	12	5,632	65
	Black	126	10	724	58
	Hispanic	100	7	588	39
	Asian	25	4	140	23
	Unknown	97	6	564	33
Sex	Female	789	11	4,382	61
	Male	559	9	3,266	50
Region	Northeast	198	13	1,130	74
	Midwest	323	10	1,834	55
	South	598	11	3,235	58
	West	229	7	1,449	45
Total		1,348	10	7,648	56

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with ulcerative colitis (all-listed diagnoses) increased with age and were higher among women compared with men (Table 92). Among persons with known race-ethnicity, rates were highest among Whites, followed by Blacks, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 93: Ulcerative Colitis: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	24,820	0.3%	45,580	0.6%
	70 to 74	6,936,940	22,580	0.3%	43,040	0.6%
	75 to 79	4,894,060	15,320	0.3%	30,560	0.6%
	80 to 84	3,335,340	8,620	0.3%	17,900	0.5%
	85+	3,578,120	6,700	0.2%	15,300	0.4%
Race	White	22,023,800	68,360	0.3%	133,360	0.6%
	Black	1,861,660	3,260	0.2%	6,920	0.4%
	Other	2,925,320	6,420	0.2%	12,100	0.4%
Sex	Female	14,975,560	43,160	0.3%	85,840	0.6%
	Male	11,835,220	34,880	0.3%	66,540	0.6%
Region	Northeast	4,748,700	17,900	0.4%	34,100	0.7%
	Midwest	6,069,800	16,480	0.3%	33,840	0.6%
	South	10,595,900	29,640	0.3%	58,060	0.5%
	West	5,396,380	14,020	0.3%	26,380	0.5%
Total		26,810,780	78,040	0.3%	152,380	0.6%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of ulcerative colitis (based on all-listed diagnoses) was 0.6% (Table 93). Prevalence was highest among persons 65-79 years, did not differ by sex, and was higher among Whites. It was highest in the Northeast and lowest in the South and West.

Burden of Digestive Diseases in the United States

Table 94: Ulcerative Colitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	52,380	649	110,540	1,370
	70 to 74	47,280	682	104,680	1,509
	75 to 79	31,500	644	71,660	1,464
	80 to 84	16,420	492	42,040	1,260
	85+	11,820	330	34,120	954
Race	White	140,240	637	320,340	1,455
	Black	5,940	319	14,800	795
	Other	13,220	452	27,900	954
Sex	Female	84,080	561	199,000	1,329
	Male	75,320	636	164,040	1,386
Region	Northeast	36,380	766	82,580	1,739
	Midwest	31,420	518	73,800	1,216
	South	64,120	605	144,140	1,360
	West	27,480	509	62,520	1,159
Total		159,400	595	363,040	1,354

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with ulcerative colitis (all-listed diagnoses) peaked among persons 70 to 74 years and were higher among men compared with women and Whites compared with Blacks (Table 94). Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 95: Ulcerative Colitis: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	1,900	24	7,820	97
	70 to 74	1,760	25	7,500	108
	75 to 79	1,440	29	6,980	143
	80 to 84	1,180	35	5,680	170
	85+	1,160	32	6,420	179
Race	White	6,400	29	30,080	137
	Black	360	19	1,820	98
	Other	680	23	2,500	85
Sex	Female	4,820	32	20,520	137
	Male	2,620	22	13,880	117
Region	Northeast	1,860	39	8,900	187
	Midwest	1,620	27	7,800	129
	South	2,740	26	12,020	113
	West	1,220	23	5,680	105
Total		7,440	28	34,400	128

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with ulcerative colitis (all-listed diagnoses) increased with age and were higher among women compared with men and Whites compared with Blacks (Table 95). Rates were highest in the Northeast, followed by the Midwest, then the South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 96: Ulcerative Colitis: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	1,240	15	7,300	90
	70 to 74	860	12	6,420	93
	75 to 79	920	19	6,900	141
	80 to 84	740	22	5,080	152
	85+	660	18	5,380	150
Race	White	3,800	17	27,340	124
	Black	300	16	1,560	84
	Other	320	11	2,180	75
Sex	Female	2,720	18	17,840	119
	Male	1,700	14	13,240	112
Region	Northeast	1,000	21	7,440	157
	Midwest	1,280	21	8,100	133
	South	1,560	15	10,640	100
	West	580	11	4,900	91
Total		4,420	16	31,080	116

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with ulcerative colitis (all-listed diagnoses) increased with age until 85 years and were higher among women compared with men and Whites compared with Blacks (Table 96). Rates were highest in the Northeast, followed by the Midwest, then the South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 97: Diverticular Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	3	6	6	11
	25 to 44	71	84	229	271
	45 to 54	218	507	482	1,119
	55 to 64	609	1,492	1,157	2,836
	65 to 74	458	1,666	985	3,579
	75 plus	289	1,430	721	3,567
Race	White	1,365	415	3,184	1,006
	Black	250	494	313	645
	Other	33	115	85	331
Ethnicity	Hispanic	266	633	529	1,485
	Not Hispanic	1,382	383	3,052	888
Sex	Female	1,077	498	2,232	1,074
	Male	572	311	1,349	765
Total		1,649	412	3,581	936

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Diverticular disease contributed to 3.6 million ambulatory visits (2015) (Table 97). Ambulatory care visits were uncommon among children and then rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men, Whites compared with Blacks, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 98: Diverticular Disease: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	0	0
	12 to 24	4	7	8	14
	25 to 44	99	113	165	189
	45 to 54	114	274	213	512
	55 to 64	130	308	290	686
	65 to 74	119	391	329	1,079
	75 plus	131	596	471	2,149
Sex	Female	344	173	844	409
	Male	253	151	632	369
Total		597	163	1,476	391

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Diverticular disease contributed to 1.5 million emergency department visits in 2018 (Table 98). Emergency department visits were uncommon among children and then rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men.

Burden of Digestive Diseases in the United States

Table 99: Diverticular Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	0	0
	12 to 24	1	2	2	3
	25 to 44	34	39	57	65
	45 to 54	44	106	90	217
	55 to 64	61	144	160	378
	65 to 74	64	211	218	716
	75 plus	89	407	353	1,608
Race	White	248	81	745	231
	Black	37	90	106	260
	Other	13	51	39	164
Ethnicity	Hispanic	31	71	91	225
	Not Hispanic	266	80	800	230
Sex	Female	165	79	492	228
	Male	129	76	387	223
Total		294	78	880	227

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Diverticular disease contributed to 880,000 hospital discharges in 2018 (Table 99). Hospitalizations were uncommon among children and then hospital discharge rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis decreased by 18% from 278 to 227.(4,6)

Burden of Digestive Diseases in the United States

Table 100: Diverticular Disease: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	1	0.0	0.1	1	0.0	0.1
	12 to 24	.	.	.	.	.	.
	25 to 44	24	0.0	1.0	42	0.0	1.7
	45 to 54	72	0.2	2.2	127	0.3	3.9
	55 to 64	276	0.7	6.3	445	1.0	10.2
	65 to 74	532	1.7	8.4	908	2.9	14.3
	75 plus	2,014	8.9	13.6	3,262	14.4	22.0
Race	White	2,616	0.8	27.7	4,283	1.2	45.9
	Black	234	0.6	3.2	385	1.0	4.9
	Other	69	0.3	0.8	117	0.5	1.3
Ethnicity	Hispanic	176	0.5	2.5	299	0.8	4.2
	Not Hispanic	2,743	0.7	29.1	4,486	1.2	48.0
Sex	Female	1,932	0.8	20.4	3,043	1.3	32.0
	Male	987	0.6	11.2	1,742	1.0	20.2
Total		2,919	0.7	31.6	4,785	1.2	52.1

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Diverticular disease contributed to 5,000 deaths in 2019 (Table 100). Mortality was uncommon among the youngest age groups after which rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among women, Whites, and non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with diverticular disease as underlying or other cause decreased by 40% from 2.0 to 1.2.(4)

Burden of Digestive Diseases in the United States

Table 101: Diverticular Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	3	0.0%	5	0.0%
	12 to 24	1,451,892	105	0.0%	237	0.0%
	25 to 44	2,656,672	4,503	0.2%	9,600	0.4%
	45 to 54	1,452,320	7,584	0.5%	32,872	2.3%
	55 to 64	1,640,216	13,447	0.8%	69,544	4.2%
	65 to 74	2,840,615	30,538	1.1%	163,451	5.8%
	75 plus	2,576,241	27,365	1.1%	122,218	4.7%
Race-ethnicity	White	8,657,702	57,637	0.7%	282,746	3.3%
	Black	1,242,477	9,319	0.8%	41,745	3.4%
	Hispanic	1,493,457	9,900	0.7%	40,954	2.7%
	Asian	607,284	1,439	0.2%	7,557	1.2%
	Unknown	1,719,014	5,250	0.3%	24,925	1.4%
Sex	Female	7,199,363	50,411	0.7%	219,713	3.1%
	Male	6,520,571	33,134	0.5%	178,214	2.7%
Region	Northeast	1,526,275	10,640	0.7%	52,947	3.5%
	Midwest	3,322,846	16,723	0.5%	88,908	2.7%
	South	5,619,435	39,790	0.7%	179,935	3.2%
	West	3,251,378	16,392	0.5%	76,137	2.3%
Total		13,719,934	83,545	0.6%	397,927	2.9%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of diverticular disease (based on all-listed diagnoses) was 2.9% (Table 101). Diverticular disease was uncommon in childhood and adolescence and then prevalence increased with age until the oldest age group.

Prevalence was higher among women. It was highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. It was highest in the Northeast, followed by the South and Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 102: Diverticular Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	5	0	6	1
	12 to 24	138	10	291	20
	25 to 44	7,493	282	15,481	583
	45 to 54	11,583	798	44,056	3,033
	55 to 64	19,257	1,174	90,523	5,519
	65 to 74	39,645	1,396	207,668	7,311
	75 plus	33,865	1,315	161,268	6,260
Race-ethnicity	White	78,162	903	365,328	4,220
	Black	11,392	917	54,212	4,363
	Hispanic	13,575	909	57,396	3,843
	Asian	1,834	302	9,553	1,573
	Unknown	7,023	409	32,804	1,908
Sex	Female	68,669	954	297,017	4,126
	Male	43,317	664	222,276	3,409
Region	Northeast	14,339	939	68,647	4,498
	Midwest	22,706	683	109,536	3,296
	South	52,688	938	241,917	4,305
	West	22,253	684	99,193	3,051
Total		111,986	816	519,293	3,785

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with diverticular disease (all-listed diagnoses) increased with age until 75 years and were higher among women compared with men (Table 102). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 103: Diverticular Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	2	0	5	0
	25 to 44	218	8	444	17
	45 to 54	485	33	1,169	80
	55 to 64	1,277	78	2,981	182
	65 to 74	5,894	207	9,379	330
	75 plus	6,125	238	10,503	408
Race-ethnicity	White	9,583	111	16,888	195
	Black	1,659	134	2,816	227
	Hispanic	1,639	110	2,792	187
	Asian	177	29	357	59
	Unknown	943	55	1,628	95
Sex	Female	9,545	133	15,880	221
	Male	4,456	68	8,601	132
Region	Northeast	2,011	132	3,182	208
	Midwest	3,025	91	5,073	153
	South	6,073	108	11,059	197
	West	2,892	89	5,167	159
Total		14,001	102	24,481	178

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with diverticular disease (all-listed diagnoses) increased with age and were higher among women compared with men (Table 103). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 104: Diverticular Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	1	0
	12 to 24	4	0	22	2
	25 to 44	686	26	1,180	44
	45 to 54	1,038	71	2,276	157
	55 to 64	1,805	110	5,443	332
	65 to 74	4,141	146	15,848	558
	75 plus	6,380	248	27,816	1,080
Race-ethnicity	White	9,550	110	35,948	415
	Black	2,045	165	6,972	561
	Hispanic	1,416	95	5,495	368
	Asian	216	36	738	122
	Unknown	827	48	3,433	200
Sex	Female	8,325	116	30,734	427
	Male	5,729	88	21,852	335
Region	Northeast	1,923	126	7,130	467
	Midwest	3,206	96	11,337	341
	South	6,374	113	24,165	430
	West	2,551	78	9,954	306
Total		14,054	102	52,586	383

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with diverticular disease (all-listed diagnoses) increased with age and were higher among women compared with men (Table 104). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 105: Diverticular Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	113,280	1.4%	538,180	6.7%
	70 to 74	6,936,940	122,180	1.8%	546,660	7.9%
	75 to 79	4,894,060	93,540	1.9%	398,100	8.1%
	80 to 84	3,335,340	61,800	1.9%	232,840	7.0%
	85+	3,578,120	55,400	1.5%	196,700	5.5%
Race	White	22,023,800	375,600	1.7%	1,624,300	7.4%
	Black	1,861,660	30,260	1.6%	121,680	6.5%
	Other	2,925,320	40,340	1.4%	166,500	5.7%
Sex	Female	14,975,560	281,640	1.9%	1,088,100	7.3%
	Male	11,835,220	164,560	1.4%	824,380	7.0%
Region	Northeast	4,748,700	86,540	1.8%	367,820	7.7%
	Midwest	6,069,800	83,660	1.4%	404,820	6.7%
	South	10,595,900	193,460	1.8%	822,700	7.8%
	West	5,396,380	82,540	1.5%	317,140	5.9%
Total		26,810,780	446,200	1.7%	1,912,480	7.1%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of diverticular disease (based on all-listed diagnoses) was 7.1% (Table 105). Prevalence peaked among persons 75-79 years and was higher among women and Whites. It was highest in the South and Northeast, followed by Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 106: Diverticular Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	134,900	1,672	675,960	8,380
	70 to 74	143,540	2,069	680,380	9,808
	75 to 79	101,580	2,076	487,080	9,952
	80 to 84	63,460	1,903	268,120	8,039
	85+	45,900	1,283	190,400	5,321
Race	White	417,160	1,894	1,951,200	8,860
	Black	28,760	1,545	141,860	7,620
	Other	43,460	1,486	208,880	7,140
Sex	Female	321,180	2,145	1,361,240	9,090
	Male	168,200	1,421	940,700	7,948
Region	Northeast	97,220	2,047	449,880	9,474
	Midwest	89,240	1,470	453,980	7,479
	South	210,800	1,989	1,018,120	9,609
	West	92,120	1,707	379,960	7,041
Total		489,380	1,825	2,301,940	8,586

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with diverticular disease (all-listed diagnoses) peaked among persons 75 to 79 years and were higher among women compared with men and Whites compared with Blacks (Table 106). Rates were higher in the South and Northeast compared with the Midwest and West.

Burden of Digestive Diseases in the United States

Table 107: Diverticular Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	40,420	501	96,900	1,201
	70 to 74	43,380	625	116,860	1,685
	75 to 79	38,260	782	111,600	2,280
	80 to 84	29,660	889	96,780	2,902
	85+	37,200	1,040	129,400	3,616
Race	White	155,900	708	457,240	2,076
	Black	16,760	900	47,780	2,567
	Other	16,260	556	46,520	1,590
Sex	Female	123,060	822	338,580	2,261
	Male	65,860	556	212,960	1,799
Region	Northeast	36,860	776	102,940	2,168
	Midwest	39,420	649	117,540	1,936
	South	81,100	765	237,100	2,238
	West	31,540	584	93,960	1,741
Total		188,920	705	551,540	2,057

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with diverticular disease (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 107). Rates were highest in the South, followed by the Northeast, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 108: Diverticular Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	16,020	199	50,320	624
	70 to 74	18,800	271	66,780	963
	75 to 79	18,060	369	68,000	1,389
	80 to 84	14,980	449	60,960	1,828
	85+	20,520	573	81,380	2,274
Race	White	71,840	326	271,200	1,231
	Black	9,940	534	29,520	1,586
	Other	6,600	226	26,720	913
Sex	Female	56,140	375	197,740	1,320
	Male	32,240	272	129,700	1,096
Region	Northeast	17,560	370	61,480	1,295
	Midwest	20,160	332	75,940	1,251
	South	38,360	362	138,440	1,307
	West	12,300	228	51,580	956
Total		88,380	330	327,440	1,221

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with diverticular disease (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 108). Rates were lower in the West compared with the South, Northeast, and Midwest.

Burden of Digestive Diseases in the United States

Table 109: Hemorrhoids: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	4	8
	12 to 24	81	144	112	200
	25 to 44	421	498	888	1,051
	45 to 54	546	1,267	1,079	2,505
	55 to 64	418	1,025	789	1,933
	65 to 74	306	1,111	660	2,397
	75 plus	215	1,063	504	2,492
Race	White	1,426	522	2,948	1,054
	Black	200	452	619	1,392
	Other	360	1,503	469	1,966
Ethnicity	Hispanic	561	1,217	839	1,787
	Not Hispanic	1,425	483	3,197	1,064
Sex	Female	900	503	2,052	1,158
	Male	1,086	672	1,983	1,195
Total		1,986	584	4,036	1,176

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Hemorrhoids contributed to 4.0 million ambulatory visits (2015) (Table 109). Ambulatory care visit rates (all-listed diagnoses) were similar among middle-aged and older adults. Age-adjusted rates were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 110: Hemorrhoids: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	1	2	2	4
	12 to 24	23	41	36	65
	25 to 44	77	89	140	161
	45 to 54	30	72	81	194
	55 to 64	22	52	94	221
	65 to 74	17	55	100	329
	75 plus	23	106	149	681
Sex	Female	91	53	316	166
	Male	102	64	287	170
Total		193	58	603	169

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Hemorrhoids contributed to 603,000 emergency department visits in 2018 (Table 110). Emergency department visit rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among men compared with women.

Burden of Digestive Diseases in the United States

Table 111: Hemorrhoids: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	1	1
	12 to 24	0	0	4	8
	25 to 44	4	4	35	40
	45 to 54	3	8	40	95
	55 to 64	4	10	65	153
	65 to 74	5	15	82	268
	75 plus	9	40	121	552
Race	White	19	6	270	86
	Black	5	11	58	137
	Other	2	9	24	97
Ethnicity	Hispanic	3	8	40	96
	Not Hispanic	22	7	311	92
Sex	Female	13	6	184	89
	Male	12	7	163	93
Total		25	7	347	91

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Hemorrhoids contributed to 347,000 hospital discharges in 2018 (Table 111). Hospital discharge rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis decreased by 12% from 104 to 91.(4,6)

Burden of Digestive Diseases in the United States

Table 112: Hemorrhoids: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	.	.	.	.	.	.
	25 to 44	4	0.0	0.2	7	0.0	0.3
	45 to 54	1	0.0	0.0	5	0.0	0.1
	55 to 64	2	0.0	0.0	20	0.0	0.5
	65 to 74	6	0.0	0.1	18	0.1	0.3
	75 plus	11	0.0	0.1	41	0.2	0.2
Race	White	19	0.0	0.3	69	0.0	1.0
	Black	2	0.0	0.0	12	0.0	0.2
	Other	3	0.0	0.1	10	0.0	0.2
Ethnicity	Hispanic	4	0.0	0.1	11	0.0	0.2
	Not Hispanic	20	0.0	0.3	80	0.0	1.2
Sex	Female	11	0.0	0.2	47	0.0	0.7
	Male	13	0.0	0.2	44	0.0	0.7
Total		24	0.0	0.4	91	0.0	1.4

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Hemorrhoids contributed to <1,000 deaths in 2019 (Table 112). Mortality from hemorrhoids was rare, but occasionally occurred among older adults. Between 2004 and 2019, mortality with hemorrhoids as underlying or other cause remained uncommon.(4)

Burden of Digestive Diseases in the United States

Table 113: Hemorrhoids: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	188	0.0%	545	0.0%
	12 to 24	1,451,892	2,079	0.1%	4,756	0.3%
	25 to 44	2,656,672	14,761	0.6%	36,906	1.4%
	45 to 54	1,452,320	9,720	0.7%	50,138	3.5%
	55 to 64	1,640,216	10,428	0.6%	70,544	4.3%
	65 to 74	2,840,615	16,936	0.6%	130,407	4.6%
	75 plus	2,576,241	13,195	0.5%	76,797	3.0%
Race-ethnicity	White	8,657,702	43,330	0.5%	249,109	2.9%
	Black	1,242,477	6,838	0.6%	37,975	3.1%
	Hispanic	1,493,457	8,416	0.6%	42,185	2.8%
	Asian	607,284	3,201	0.5%	14,031	2.3%
	Unknown	1,719,014	5,522	0.3%	26,793	1.6%
Sex	Female	7,199,363	35,481	0.5%	199,197	2.8%
	Male	6,520,571	31,826	0.5%	170,896	2.6%
Region	Northeast	1,526,275	8,670	0.6%	49,981	3.3%
	Midwest	3,322,846	13,463	0.4%	81,198	2.4%
	South	5,619,435	29,700	0.5%	160,730	2.9%
	West	3,251,378	15,474	0.5%	78,184	2.4%
Total		13,719,934	67,307	0.5%	370,093	2.7%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of hemorrhoids (based on all-listed diagnoses) was 2.7% (Table 113). Prevalence increased with age until the oldest age group and was higher among women. It was highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. It was highest in the Northeast, followed by the South, and lowest in the Midwest and West.

Burden of Digestive Diseases in the United States

Table 114: Hemorrhoids: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	210	19	622	56
	12 to 24	2,522	174	6,006	414
	25 to 44	20,127	758	50,760	1,911
	45 to 54	13,584	935	62,938	4,334
	55 to 64	14,470	882	85,964	5,241
	65 to 74	23,232	818	153,968	5,420
	75 plus	17,528	680	91,249	3,542
Race-ethnicity	White	59,473	687	299,544	3,460
	Black	9,000	724	46,033	3,705
	Hispanic	11,336	759	54,596	3,656
	Asian	4,478	737	18,241	3,004
	Unknown	7,386	430	33,093	1,925
Sex	Female	47,481	660	242,347	3,366
	Male	44,192	678	209,160	3,208
Region	Northeast	11,352	744	59,390	3,891
	Midwest	17,992	541	93,257	2,807
	South	41,273	734	202,711	3,607
	West	21,056	648	96,149	2,957
Total		91,673	668	451,507	3,291

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with hemorrhoids (all-listed diagnoses) increased with age until 75 years and were higher among women compared with men (Table 114). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Hispanics, then Whites, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 115: Hemorrhoids: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	29	2	110	8
	25 to 44	345	13	1,135	43
	45 to 54	231	16	1,098	76
	55 to 64	346	21	1,600	98
	65 to 74	665	23	1,470	52
	75 plus	925	36	1,990	77
Race-ethnicity	White	1,551	18	4,879	56
	Black	399	32	946	76
	Hispanic	305	20	778	52
	Asian	66	11	232	38
	Unknown	220	13	568	33
Sex	Female	1,459	20	4,222	59
	Male	1,082	17	3,181	49
Region	Northeast	362	24	1,030	67
	Midwest	513	15	1,602	48
	South	1,216	22	3,483	62
	West	450	14	1,288	40
Total		2,541	19	7,403	54

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with hemorrhoids (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among women compared with men (Table 115). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 116: Hemorrhoids: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	18	2
	12 to 24	2	0	82	6
	25 to 44	45	2	648	24
	45 to 54	65	4	909	63
	55 to 64	91	6	2,225	136
	65 to 74	264	9	6,183	218
	75 plus	516	20	10,050	390
Race-ethnicity	White	600	7	13,006	150
	Black	154	12	2,988	240
	Hispanic	142	10	2,209	148
	Asian	28	5	454	75
	Unknown	59	3	1,458	85
Sex	Female	507	7	11,142	155
	Male	476	7	8,973	138
Region	Northeast	156	10	2,860	187
	Midwest	189	6	4,323	130
	South	427	8	9,160	163
	West	211	6	3,772	116
Total		983	7	20,115	147

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with hemorrhoids (all-listed diagnoses) increased with age and were higher among women compared with men (Table 116). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 117: Hemorrhoids: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	60,360	0.7%	371,360	4.6%
	70 to 74	6,936,940	54,280	0.8%	328,060	4.7%
	75 to 79	4,894,060	39,600	0.8%	214,980	4.4%
	80 to 84	3,335,340	27,400	0.8%	116,980	3.5%
	85+	3,578,120	27,880	0.8%	94,840	2.7%
Race	White	22,023,800	168,740	0.8%	912,080	4.1%
	Black	1,861,660	14,040	0.8%	80,880	4.3%
	Other	2,925,320	26,740	0.9%	133,260	4.6%
Sex	Female	14,975,560	123,040	0.8%	637,020	4.3%
	Male	11,835,220	86,480	0.7%	489,200	4.1%
Region	Northeast	4,748,700	40,860	0.9%	227,920	4.8%
	Midwest	6,069,800	38,780	0.6%	225,160	3.7%
	South	10,595,900	83,420	0.8%	460,680	4.3%
	West	5,396,380	46,460	0.9%	212,460	3.9%
Total		26,810,780	209,520	0.8%	1,126,220	4.2%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of hemorrhoids (based on all-listed diagnoses) was 4.2% (Table 117). Prevalence peaked among persons 70-74 years and was higher among women and Blacks. It was highest in the Northeast, followed by the South, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 118: Hemorrhoids: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	84,720	1,050	452,640	5,611
	70 to 74	75,080	1,082	397,100	5,724
	75 to 79	52,700	1,077	254,780	5,206
	80 to 84	36,140	1,084	140,780	4,221
	85+	31,780	888	110,980	3,102
Race	White	226,420	1,028	1,090,980	4,954
	Black	16,600	892	92,220	4,954
	Other	37,400	1,278	173,080	5,917
Sex	Female	160,360	1,071	772,560	5,159
	Male	120,060	1,014	583,720	4,932
Region	Northeast	53,140	1,119	268,380	5,652
	Midwest	50,780	837	254,440	4,192
	South	114,000	1,076	566,500	5,346
	West	62,500	1,158	266,960	4,947
Total		280,420	1,046	1,356,280	5,059

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with hemorrhoids (all-listed diagnoses) peaked among persons 70 to 74 years, were higher among women compared with men, and did not differ by race (Table 118). Rates were highest in the Northeast, followed by the South, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 119: Hemorrhoids: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	4,260	53	22,740	282
	70 to 74	4,580	66	26,720	385
	75 to 79	4,560	93	28,560	584
	80 to 84	4,780	143	26,400	792
	85+	6,800	190	33,240	929
Race	White	19,360	88	107,760	489
	Black	2,980	160	15,480	832
	Other	2,640	90	14,420	493
Sex	Female	16,200	108	82,140	548
	Male	8,780	74	55,520	469
Region	Northeast	4,840	102	27,600	581
	Midwest	5,440	90	29,720	490
	South	10,240	97	56,040	529
	West	4,460	83	24,300	450
Total		24,980	93	137,660	513

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with hemorrhoids (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 119). Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 120: Hemorrhoids: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	1,200	15	18,860	234
	70 to 74	1,400	20	22,600	326
	75 to 79	1,500	31	25,040	512
	80 to 84	1,820	55	22,800	684
	85+	2,220	62	26,520	741
Race	White	6,400	29	91,580	416
	Black	1,040	56	12,680	681
	Other	700	24	11,560	395
Sex	Female	5,140	34	67,460	450
	Male	3,000	25	48,360	409
Region	Northeast	1,840	39	22,880	482
	Midwest	1,780	29	25,580	421
	South	3,420	32	48,020	453
	West	1,100	20	19,340	358
Total		8,140	30	115,820	432

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with hemorrhoids (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 120). Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 121: Liver Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	6	12
	12 to 24	19	34	88	157
	25 to 44	212	251	729	862
	45 to 54	356	826	1,111	2,578
	55 to 64	214	523	1,174	2,878
	65 to 74	145	527	501	1,819
	75 plus	195	963	558	2,759
Race	White	875	332	3,145	1,112
	Black	203	466	670	1,602
	Other	62	238	351	1,440
Ethnicity	Hispanic	78	172	530	1,149
	Not Hispanic	1,062	366	3,636	1,195
Sex	Female	627	370	2,441	1,362
	Male	513	312	1,725	1,023
Total		1,140	340	4,166	1,196

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Liver disease (acute and chronic) contributed to 4.2 million ambulatory visits (2015) (Table 121). Ambulatory care visit rates (all-listed diagnoses) were highest among persons 55-64 years. Age-adjusted ambulatory care visit rates were higher among women compared with men, Blacks compared with Whites, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 122: Liver Disease: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	1	2	7	14
	12 to 24	6	11	53	96
	25 to 44	58	66	428	492
	45 to 54	76	182	453	1,089
	55 to 64	99	234	593	1,404
	65 to 74	55	181	398	1,305
	75 plus	26	117	265	1,208
Sex	Female	133	70	1,011	536
	Male	187	105	1,187	672
Total		320	87	2,198	601

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Liver disease (acute and chronic) contributed to 2.2 million emergency department visits in 2018 (Table 122). Emergency department visit rates (all-listed diagnoses) were highest among persons 55-64 years. Age-adjusted emergency department visit rates were higher among men compared with women.

Burden of Digestive Diseases in the United States

Table 123: Liver Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	1	2	10	20
	12 to 24	2	4	29	53
	25 to 44	37	42	262	301
	45 to 54	56	134	309	741
	55 to 64	81	193	460	1,089
	65 to 74	52	170	357	1,171
	75 plus	24	107	242	1,105
Race	White	214	71	1,370	455
	Black	23	48	202	439
	Other	18	68	115	442
Ethnicity	Hispanic	45	94	252	528
	Not Hispanic	210	65	1,435	442
Sex	Female	105	53	742	381
	Male	148	82	928	517
Total		253	67	1,670	446

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Liver disease (acute and chronic) contributed to 1.7 million hospital discharges in 2018 (Table 123). Hospital discharge rates (all-listed diagnoses) increased with age until the oldest age group. Age-adjusted hospital discharge rates were higher among men compared with women, Whites compared with Blacks, and Hispanics compared with non-Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by 72% from 259 to 446.⁽⁷⁾

Burden of Digestive Diseases in the United States

Table 124: Liver Disease: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	58	0.1	4.4	284	0.6	21.8
	12 to 24	80	0.1	4.7	274	0.5	16.2
	25 to 44	5,395	6.2	229.1	8,317	9.5	353.7
	45 to 54	9,669	23.7	300.3	15,314	37.5	474.3
	55 to 64	17,669	41.6	409.6	31,960	75.3	735.4
	65 to 74	14,466	45.9	233.1	29,011	92.1	464.9
	75 plus	10,620	47.0	90.7	22,318	98.9	187.9
Race	White	50,610	15.8	1,102.0	91,676	28.1	1,911.8
	Black	4,771	10.1	102.7	10,688	22.6	222.3
	Other	2,576	9.6	67.1	5,114	19.3	120.1
Ethnicity	Hispanic	7,093	15.3	178.7	12,662	27.7	310.3
	Not Hispanic	50,864	14.8	1,093.1	94,816	27.0	1,943.9
Sex	Female	23,008	11.1	521.6	41,890	19.8	914.5
	Male	34,949	18.7	750.3	65,588	34.7	1,339.7
Total		57,957	14.7	1,271.8	107,478	26.8	2,254.1

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Liver disease (acute and chronic) contributed to 107,000 deaths in 2019 (Table 124). Mortality rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among men, Whites, and Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with liver disease as underlying or other cause increased by 7% from 24.9 to 26.8.(7)

Burden of Digestive Diseases in the United States

Table 125: Liver Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	123	0.0%	386	0.0%
	12 to 24	1,451,892	852	0.1%	2,888	0.2%
	25 to 44	2,656,672	6,458	0.2%	26,241	1.0%
	45 to 54	1,452,320	7,930	0.5%	32,265	2.2%
	55 to 64	1,640,216	15,046	0.9%	52,772	3.2%
	65 to 74	2,840,615	27,402	1.0%	90,425	3.2%
	75 plus	2,576,241	14,230	0.6%	55,117	2.1%
Race-ethnicity	White	8,657,702	44,576	0.5%	160,260	1.9%
	Black	1,242,477	6,693	0.5%	25,368	2.0%
	Hispanic	1,493,457	12,177	0.8%	42,511	2.8%
	Asian	607,284	2,683	0.4%	10,887	1.8%
	Unknown	1,719,014	5,912	0.3%	21,068	1.2%
Sex	Female	7,199,363	39,176	0.5%	137,573	1.9%
	Male	6,520,571	32,865	0.5%	122,521	1.9%
Region	Northeast	1,526,275	8,884	0.6%	30,224	2.0%
	Midwest	3,322,846	13,224	0.4%	47,748	1.4%
	South	5,619,435	34,360	0.6%	125,392	2.2%
	West	3,251,378	15,573	0.5%	56,730	1.7%
Total		13,719,934	72,041	0.5%	260,094	1.9%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of liver disease (acute and chronic) (based on all-listed diagnoses) was 1.9% (Table 125). Prevalence increased with age until the oldest age groups and did not differ by sex. It was highest among Hispanics, followed by Blacks, Whites, and Asians. It was highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 126: Liver Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	187	17	566	51
	12 to 24	1,236	85	4,298	296
	25 to 44	10,065	379	42,212	1,589
	45 to 54	14,285	984	59,571	4,102
	55 to 64	30,013	1,830	109,754	6,691
	65 to 74	52,917	1,863	187,580	6,603
	75 plus	26,787	1,040	100,440	3,899
Race-ethnicity	White	85,369	986	309,883	3,579
	Black	11,445	921	44,891	3,613
	Hispanic	22,988	1,539	88,304	5,913
	Asian	4,117	678	19,051	3,137
	Unknown	11,571	673	42,292	2,460
Sex	Female	71,955	999	269,807	3,748
	Male	63,535	974	234,614	3,598
Region	Northeast	16,417	1,076	57,007	3,735
	Midwest	25,280	761	88,765	2,671
	South	64,350	1,145	247,770	4,409
	West	29,443	906	110,879	3,410
Total		135,490	988	504,421	3,677

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with liver disease (acute and chronic) (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among women compared with men (Table 126). Among persons with known race-ethnicity, rates were much higher among Hispanics, followed by Blacks and Whites, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 127: Liver Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	2	0
	12 to 24	4	0	41	3
	25 to 44	129	5	492	19
	45 to 54	387	27	1,100	76
	55 to 64	1,222	75	3,291	201
	65 to 74	2,208	78	6,410	226
	75 plus	1,146	44	3,909	152
Race-ethnicity	White	3,031	35	9,169	106
	Black	516	42	1,592	128
	Hispanic	861	58	2,550	171
	Asian	93	15	258	42
	Unknown	595	35	1,676	97
Sex	Female	2,419	34	7,529	105
	Male	2,677	41	7,716	118
Region	Northeast	613	40	1,698	111
	Midwest	911	27	2,749	83
	South	2,502	45	7,429	132
	West	1,070	33	3,369	104
Total		5,096	37	15,245	111

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with liver disease (acute and chronic) (all-listed diagnoses) increased with age until 75 years and were higher among men compared with women (Table 127). Among persons with known race-ethnicity, rates were highest among Hispanics, followed by Blacks, then Whites, and much lower among Asians. Rates were highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 128: Liver Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	17	2	175	16
	12 to 24	42	3	550	38
	25 to 44	500	19	4,633	174
	45 to 54	983	68	7,118	490
	55 to 64	2,425	148	16,633	1,014
	65 to 74	3,682	130	30,344	1,068
	75 plus	1,969	76	24,973	969
Race-ethnicity	White	6,073	70	53,614	619
	Black	897	72	10,366	834
	Hispanic	1,543	103	11,083	742
	Asian	156	26	1,774	292
	Unknown	949	55	7,589	441
Sex	Female	4,453	62	40,315	560
	Male	5,165	79	44,111	676
Region	Northeast	1,153	76	9,973	653
	Midwest	1,936	58	17,470	526
	South	4,774	85	40,528	721
	West	1,755	54	16,455	506
Total		9,618	70	84,426	615

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with liver disease (acute and chronic) (all-listed diagnoses) increased with age until 75 years were higher among men compared with women (Table 128). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Hispanics, then Whites, and much lower among Asians. Rates were highest in the South, followed by the Northeast, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 129: Liver Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	114,920	1.4%	336,660	4.2%
	70 to 74	6,936,940	89,120	1.3%	272,700	3.9%
	75 to 79	4,894,060	52,720	1.1%	173,560	3.5%
	80 to 84	3,335,340	28,440	0.9%	101,500	3.0%
	85+	3,578,120	18,160	0.5%	78,280	2.2%
Race	White	22,023,800	237,340	1.1%	761,080	3.5%
	Black	1,861,660	19,540	1.0%	65,800	3.5%
	Other	2,925,320	46,480	1.6%	135,820	4.6%
Sex	Female	14,975,560	172,140	1.1%	534,800	3.6%
	Male	11,835,220	131,220	1.1%	427,900	3.6%
Region	Northeast	4,748,700	58,360	1.2%	179,960	3.8%
	Midwest	6,069,800	56,460	0.9%	183,960	3.0%
	South	10,595,900	125,600	1.2%	402,560	3.8%
	West	5,396,380	62,940	1.2%	196,220	3.6%
Total		26,810,780	303,360	1.1%	962,700	3.6%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of liver disease (acute and chronic) (based on all-listed diagnoses) was 3.6% (Table 129). Prevalence decreased with age and did not differ by sex or race. It was highest in the Northeast and South, followed by the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 130: Liver Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	221,020	2,740	710,440	8,807
	70 to 74	165,860	2,391	567,200	8,177
	75 to 79	93,380	1,908	324,020	6,621
	80 to 84	52,540	1,575	177,080	5,309
	85+	28,500	797	105,940	2,961
Race	White	439,940	1,998	1,470,640	6,678
	Black	30,620	1,645	108,720	5,840
	Other	90,740	3,102	305,320	10,437
Sex	Female	314,120	2,098	1,050,940	7,018
	Male	247,180	2,089	833,740	7,045
Region	Northeast	105,260	2,217	354,740	7,470
	Midwest	109,520	1,804	354,700	5,844
	South	229,600	2,167	786,040	7,418
	West	116,920	2,167	389,200	7,212
Total		561,300	2,094	1,884,680	7,030

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with liver disease (acute and chronic) (all-listed diagnoses) decreased with age, differed little by sex, and were higher among Whites compared with Blacks (Table 130). Rates were lower in the Midwest compared with the Northeast, South, and West.

Burden of Digestive Diseases in the United States

Table 131: Liver Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	25,540	317	135,220	1,676
	70 to 74	16,360	236	109,040	1,572
	75 to 79	11,300	231	78,760	1,609
	80 to 84	6,900	207	54,220	1,626
	85+	5,340	149	50,800	1,420
Race	White	48,600	221	328,820	1,493
	Black	4,380	235	37,980	2,040
	Other	12,460	426	61,240	2,093
Sex	Female	32,980	220	221,960	1,482
	Male	32,460	274	206,080	1,741
Region	Northeast	11,160	235	73,620	1,550
	Midwest	11,960	197	83,540	1,376
	South	27,540	260	183,360	1,730
	West	14,780	274	87,520	1,622
Total		65,440	244	428,040	1,597

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with liver disease (acute and chronic) (all-listed diagnoses) were lowest among persons 85 years and over and were higher among men compared with women and Blacks compared with Whites (Table 131). Rates were highest in the South, followed by the West, then the Northeast, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 132: Liver Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	17,200	213	111,100	1,377
	70 to 74	10,600	153	88,960	1,282
	75 to 79	7,040	144	64,720	1,322
	80 to 84	4,100	123	44,620	1,338
	85+	2,840	79	39,600	1,107
Race	White	31,240	142	269,620	1,224
	Black	2,300	124	30,060	1,615
	Other	8,240	282	49,320	1,686
Sex	Female	20,220	135	172,760	1,154
	Male	21,560	182	176,240	1,489
Region	Northeast	6,300	133	58,420	1,230
	Midwest	9,280	153	75,620	1,246
	South	17,400	164	145,820	1,376
	West	8,800	163	69,140	1,281
Total		41,780	156	349,000	1,302

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with liver disease (acute and chronic) (all-listed diagnoses) were lowest among persons 85 years and over and were higher among men compared with women and Blacks compared with Whites (Table 132). Rates were higher in the South compared with the Northeast, Midwest, and West.

Burden of Digestive Diseases in the United States

Table 133: Hepatitis A: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.
	12 to 24	.	.
	25 to 44	.	.
	45 to 54	.	.
	55 to 64	10	25
	65 to 74	.	.
	75 plus	2	8
Race	White	11	3
	Black	0	1
	Other	.	.
Ethnicity	Hispanic	5	10
	Not Hispanic	7	2
Sex	Female	10	4
	Male	2	1
Total		12	3

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Hepatitis A contributed to 12,000 ambulatory visits (2015) (Table 133). Ambulatory care visits were uncommon, and rates (all-listed diagnoses) were highest among persons 55-64 years. Age-adjusted ambulatory care visit rates were higher among women compared with men, Whites compared with Blacks, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 134: Hepatitis A: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	0	0
	12 to 24	1	1	1	2
	25 to 44	4	5	8	9
	45 to 54	1	2	3	7
	55 to 64	1	1	3	7
	65 to 74	0	1	2	6
	75 plus	0	1	2	7
Sex	Female	3	2	8	5
	Male	4	3	10	6
Total		7	2	19	6

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Hepatitis A contributed to 19,000 emergency department visits in 2018 (Table 134). Emergency department visit rates (all-listed diagnoses) were uncommon among children and highest among persons 25-44 years. Age-adjusted emergency department visit rates were higher among men compared with women.

Burden of Digestive Diseases in the United States

Table 135: Hepatitis A: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	0	0
	12 to 24	0	1	1	2
	25 to 44	3	4	6	7
	45 to 54	1	3	3	6
	55 to 64	0	1	2	6
	65 to 74	0	1	2	6
	75 plus	0	0	1	6
Race	White	5	2	13	5
	Black	0	1	1	3
	Other	0	1	1	3
Ethnicity	Hispanic	0	0	1	2
	Not Hispanic	5	2	14	5
Sex	Female	2	1	6	4
	Male	4	2	9	5
Total		6	2	15	4

Source: Healthcare Cost and Utilization Project National Inpatient Sample.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Hepatitis A contributed to 15,000 hospital discharges in 2018 (Table 135). Hospital discharges were uncommon among children and rates (all-listed diagnoses) were highest among persons 25-44 years. Age-adjusted hospital discharge rates were higher among men compared with women, Whites compared with Blacks, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by a third from 3 to 4.⁽⁴⁾

Burden of Digestive Diseases in the United States

Table 136: Hepatitis A: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	.	.	.	.	.	.
	25 to 44	14	0.0	0.6	25	0.0	1.0
	45 to 54	30	0.1	0.9	56	0.1	1.7
	55 to 64	40	0.1	0.9	62	0.1	1.4
	65 to 74	26	0.1	0.4	46	0.1	0.7
	75 plus	29	0.1	0.2	37	0.2	0.3
Race	White	131	0.0	2.8	206	0.1	4.7
	Black	5	0.0	0.2	13	0.0	0.3
	Other	3	0.0	0.1	7	0.0	0.2
Ethnicity	Hispanic	4	0.0	0.1	11	0.0	0.3
	Not Hispanic	135	0.0	3.0	215	0.1	4.9
Sex	Female	38	0.0	0.9	66	0.0	1.6
	Male	101	0.1	2.2	160	0.1	3.6
Total		139	0.0	3.1	226	0.1	5.2

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Hepatitis A contributed to <1,000 deaths in 2019 (Table 136). Mortality was uncommon among children and young adults and rates (underlying or other cause) were highest among persons 75 years and over. Age-adjusted mortality rates were higher among men, Whites, and non-Hispanics. Between 2004 and 2019, mortality with hepatitis A as underlying or other cause remained uncommon.(4)

Burden of Digestive Diseases in the United States

Table 137: Hepatitis A: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	3	0.0%	6	0.0%
	12 to 24	1,451,892	18	0.0%	36	0.0%
	25 to 44	2,656,672	57	0.0%	126	0.0%
	45 to 54	1,452,320	33	0.0%	122	0.0%
	55 to 64	1,640,216	73	0.0%	240	0.0%
	65 to 74	2,840,615	80	0.0%	492	0.0%
	75 plus	2,576,241	54	0.0%	391	0.0%
Race-ethnicity	White	8,657,702	190	0.0%	863	0.0%
	Black	1,242,477	37	0.0%	156	0.0%
	Hispanic	1,493,457	41	0.0%	199	0.0%
	Asian	607,284	24	0.0%	72	0.0%
	Unknown	1,719,014	26	0.0%	123	0.0%
Sex	Female	7,199,363	161	0.0%	717	0.0%
	Male	6,520,571	157	0.0%	696	0.0%
Region	Northeast	1,526,275	48	0.0%	209	0.0%
	Midwest	3,322,846	41	0.0%	203	0.0%
	South	5,619,435	177	0.0%	734	0.0%
	West	3,251,378	52	0.0%	267	0.0%
Total		13,719,934	318	0.0%	1,413	0.0%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, the claims-based prevalence of hepatitis A (based on all-listed diagnoses) was <0.1% (Table 137).

Burden of Digestive Diseases in the United States

Table 138: Hepatitis A: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	3	0	5	0
	12 to 24	20	1	37	3
	25 to 44	70	3	158	6
	45 to 54	47	3	155	11
	55 to 64	89	5	294	18
	65 to 74	103	4	607	21
	75 plus	66	3	507	20
Race-ethnicity	White	256	3	1,111	13
	Black	38	3	169	14
	Hispanic	44	3	263	18
	Asian	31	5	91	15
	Unknown	29	2	129	8
Sex	Female	198	3	926	13
	Male	200	3	837	13
Region	Northeast	67	4	310	20
	Midwest	61	2	231	7
	South	207	4	879	16
	West	63	2	343	11
Total		398	3	1,763	13

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with hepatitis A (all-listed diagnoses) increased with age until 75 years and did not differ by sex (Table 138). Among persons with known race-ethnicity, rates were highest among Hispanics, followed by Asians, Blacks, and Whites. Rates were highest in the Northeast, followed by the South, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 139: Hepatitis A: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	.	.	.	.
	25 to 44	2	0	6	0
	45 to 54	.	.	3	0
	55 to 64	5	0	10	1
	65 to 74	5	0	14	0
	75 plus	1	0	9	0
Race-ethnicity	White	8	0	29	0
	Black	.	.	2	0
	Hispanic	1	0	3	0
	Asian	.	.	1	0
	Unknown	4	0	7	0
Sex	Female	5	0	16	0
	Male	8	0	26	0
Region	Northeast	1	0	7	0
	Midwest	1	0	8	0
	South	9	0	20	0
	West	2	0	7	0
Total		13	0	42	0

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, the emergency department visit rate with hepatitis A (all-listed diagnoses) was less than 1 per 100,000 (Table 139).

Burden of Digestive Diseases in the United States

Table 140: Hepatitis A: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	1	0
	12 to 24	.	.	11	1
	25 to 44	15	1	32	1
	45 to 54	12	1	39	3
	55 to 64	26	2	90	5
	65 to 74	18	1	177	6
	75 plus	11	0	145	6
Race-ethnicity	White	55	1	321	4
	Black	13	1	59	5
	Hispanic	6	0	58	4
	Asian	2	0	17	3
	Unknown	6	0	40	2
Sex	Female	37	1	235	3
	Male	45	1	260	4
Region	Northeast	9	1	56	4
	Midwest	11	0	82	2
	South	48	1	260	5
	West	14	0	97	3
Total		82	1	495	4

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with hepatitis A (all-listed diagnoses) increased with age and differed little by sex (Table 140). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 141: Hepatitis A: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	300	0.0%	1,660	0.0%
	70 to 74	6,936,940	.	.	1,120	0.0%
	75 to 79	4,894,060	.	.	880	0.0%
	80 to 84	3,335,340	.	.	580	0.0%
	85+	3,578,120	.	.	400	0.0%
Race	White	22,023,800	640	0.0%	3,720	0.0%
	Black	1,861,660	.	.	220	0.0%
	Other	2,925,320	.	.	700	0.0%
Sex	Female	14,975,560	500	0.0%	2,540	0.0%
	Male	11,835,220	240	0.0%	2,100	0.0%
Region	Northeast	4,748,700	.	.	620	0.0%
	Midwest	6,069,800	.	.	780	0.0%
	South	10,595,900	360	0.0%	2,280	0.0%
	West	5,396,380	.	.	960	0.0%
Total		26,810,780	740	0.0%	4,640	0.0%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of hepatitis A (based on all-listed diagnoses) was <0.1% (Table 141).

Burden of Digestive Diseases in the United States

Table 142: Hepatitis A: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	400	5	2,060	26
	70 to 74	.	.	1,000	14
	75 to 79	.	.	1,700	35
	80 to 84	.	.	.	.
	85+	.	.	.	.
Race	White	840	4	4,700	21
	Black	.	.	.	.
	Other	.	.	.	.
Sex	Female	.	.	2,740	18
	Male	.	.	2,880	24
Region	Northeast	.	.	720	15
	Midwest	.	.	480	8
	South	520	5	3,780	36
	West	.	.	640	12
Total		960	4	5,620	21

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visits with hepatitis A were uncommon among persons over 80 years and Blacks (Table 142). Rates (all-listed diagnoses) were higher among men compared with women. Rates were much higher in the South, intermediate in the Northeast and West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 143: Hepatitis A: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	.	.	600	7
	70 to 74	.	.	480	7
	75 to 79	.	.	400	8
	80 to 84	.	.	320	10
	85+	.	.	260	7
Race	White	280	1	1,780	8
	Black	.	.	.	.
	Other	.	.	.	.
Sex	Female	.	.	1,020	7
	Male	.	.	1,040	9
Region	Northeast	.	.	260	5
	Midwest	.	.	420	7
	South	.	.	1,040	10
	West	.	.	340	6
Total		280	1	2,060	8

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visits with hepatitis A were uncommon among Blacks (Table 143). Rates (all-listed diagnoses) were highest among persons 80 to 84 years and higher among men compared with women. Rates were higher in the South compared with Northeast, West, and Midwest.

Burden of Digestive Diseases in the United States

Table 144: Hepatitis A: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	.	.	680	8
	70 to 74	.	.	520	7
	75 to 79	.	.	420	9
	80 to 84	.	.	.	.
	85+	.	.	.	.
Race	White	.	.	1,700	8
	Black	.	.	.	.
	Other	.	.	.	.
Sex	Female	.	.	900	6
	Male	.	.	1,140	10
Region	Northeast	.	.	.	.
	Midwest	.	.	.	.
	South	.	.	1,060	10
	West	.	.	380	7
Total		.	.	2,040	8

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharges with hepatitis A were uncommon among persons over 80 years and Blacks (Table 144). Rates (all-listed diagnoses) were higher among men compared with women. Rates were higher in the South and West compared with the Northeast and Midwest.

Burden of Digestive Diseases in the United States

Table 145: Hepatitis B: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	31	56	31	56
	25 to 44	2	2	79	94
	45 to 54	100	231	191	444
	55 to 64	5	13	111	273
	65 to 74	2	9	62	224
	75 plus	0	1	289	1,431
Race	White	6	2	148	45
	Black	46	98	64	131
	Other	88	350	553	2,863
Ethnicity	Hispanic	.	.	17	34
	Not Hispanic	141	49	747	255
Sex	Female	4	2	196	123
	Male	136	81	568	362
Total		141	41	764	228

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Hepatitis B contributed to 764,000 ambulatory visits (2015) (Table 145). Ambulatory care visits were uncommon among children and rates (all-listed diagnoses) were much higher among persons 75 years and over compared to younger age groups. Age-adjusted ambulatory care visit rates were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 146: Hepatitis B: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	0	0
	12 to 24	0	0	1	3
	25 to 44	1	2	20	23
	45 to 54	1	2	20	48
	55 to 64	0	1	25	59
	65 to 74	0	1	14	47
	75 plus	0	0	8	35
Sex	Female	1	1	34	19
	Male	2	1	55	31
Total		3	1	89	25

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Hepatitis B contributed to 89,000 emergency department visits in 2018 (Table 146). Emergency department visits were uncommon among children and rates (all-listed diagnoses) peaked at 55-64 years. Age-adjusted rates were higher among men compared with women.

Burden of Digestive Diseases in the United States

Table 147: Hepatitis B: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	0	0
	12 to 24	0	0	1	3
	25 to 44	1	1	22	25
	45 to 54	1	2	16	38
	55 to 64	0	1	21	50
	65 to 74	0	1	14	47
	75 plus	0	0	7	34
Race	White	2	1	43	15
	Black	0	1	20	42
	Other	0	1	20	75
Ethnicity	Hispanic	0	0	7	15
	Not Hispanic	3	1	75	25
Sex	Female	1	1	34	19
	Male	2	1	48	27
Total		3	1	82	23

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Hepatitis B contributed to 82,000 hospital discharges in 2018 (Table 147). Hospital discharges were uncommon among children and rates (all-listed diagnoses) peaked at 55-64 years. Age-adjusted rates were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis remained stable at 23.(4)

Burden of Digestive Diseases in the United States

Table 148: Hepatitis B: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	1	0.0	0.0	4	0.0	0.2
	25 to 44	42	0.0	1.7	153	0.2	6.3
	45 to 54	86	0.2	2.6	256	0.6	7.7
	55 to 64	118	0.3	2.7	506	1.2	11.3
	65 to 74	113	0.4	1.8	486	1.5	7.7
	75 plus	77	0.3	0.7	267	1.2	2.2
Race	White	249	0.1	5.7	879	0.3	19.0
	Black	59	0.1	1.3	299	0.6	6.6
	Other	129	0.5	2.6	494	1.8	9.8
Ethnicity	Hispanic	33	0.1	0.8	84	0.2	1.9
	Not Hispanic	404	0.1	8.8	1,588	0.5	33.5
Sex	Female	128	0.1	2.8	416	0.2	9.4
	Male	309	0.2	6.7	1,256	0.7	26.0
Total		437	0.1	9.6	1,672	0.4	35.4

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Hepatitis B contributed to 2,000 deaths in 2019 (Table 148). Mortality was uncommon among the youngest age groups after which rates (underlying or other cause) increased with age until the oldest age group. Like health care use rates, age-adjusted mortality rates were higher among men, Blacks, and non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with hepatitis B as underlying or other cause decreased by a third from 0.6 to 0.4.(4)

Burden of Digestive Diseases in the United States

Table 149: Hepatitis B: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	8	0.0%	27	0.0%
	12 to 24	1,451,892	83	0.0%	114	0.0%
	25 to 44	2,656,672	1,178	0.0%	1,911	0.1%
	45 to 54	1,452,320	1,146	0.1%	2,105	0.1%
	55 to 64	1,640,216	1,035	0.1%	2,563	0.2%
	65 to 74	2,840,615	1,996	0.1%	5,001	0.2%
	75 plus	2,576,241	732	0.0%	2,180	0.1%
Race-ethnicity	White	8,657,702	1,325	0.0%	3,977	0.0%
	Black	1,242,477	614	0.0%	1,617	0.1%
	Hispanic	1,493,457	344	0.0%	991	0.1%
	Asian	607,284	3,215	0.5%	5,828	1.0%
	Unknown	1,719,014	680	0.0%	1,488	0.1%
Sex	Female	7,199,363	2,806	0.0%	6,211	0.1%
	Male	6,520,571	3,372	0.1%	7,690	0.1%
Region	Northeast	1,526,275	1,253	0.1%	2,465	0.2%
	Midwest	3,322,846	736	0.0%	1,621	0.0%
	South	5,619,435	2,166	0.0%	5,480	0.1%
	West	3,251,378	2,023	0.1%	4,335	0.1%
Total		13,719,934	6,178	0.0%	13,901	0.1%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of hepatitis B (based on all-listed diagnoses) was 0.1% (Table 149). Hepatitis B was uncommon among children and adolescents and the youngest adults and prevalence was highest among persons 55-74 years. Prevalence did not differ by sex and was highest among Asians, similar among Blacks and Hispanics, and lowest among Whites. It was highest in the Northeast and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 150: Hepatitis B: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	9	1	34	3
	12 to 24	107	7	172	12
	25 to 44	1,740	65	3,365	127
	45 to 54	1,733	119	4,102	282
	55 to 64	1,586	97	4,978	303
	65 to 74	3,166	111	10,367	365
	75 plus	1,175	46	4,360	169
Race-ethnicity	White	1,992	23	6,877	79
	Black	931	75	2,886	232
	Hispanic	536	36	1,940	130
	Asian	5,005	824	12,783	2,105
	Unknown	1,052	61	2,892	168
Sex	Female	4,282	59	12,101	168
	Male	5,234	80	15,277	234
Region	Northeast	2,049	134	5,761	377
	Midwest	999	30	2,647	80
	South	3,400	61	10,329	184
	West	3,068	94	8,641	266
Total		9,516	69	27,378	200

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with hepatitis B (all-listed diagnoses) increased with age until 75 years and were higher among men compared with women (Table 150). Among persons with known race-ethnicity, rates were much higher among Asians, followed by Blacks, then Hispanics, and lowest among Whites. Rates were highest in the Northeast, followed by the West, then the South, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 151: Hepatitis B: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	3	0	3	0
	25 to 44	37	1	121	5
	45 to 54	2	0	16	1
	55 to 64	1	0	27	2
	65 to 74	1	0	25	1
	75 plus	.	.	23	1
Race-ethnicity	White	10	0	63	1
	Black	5	0	26	2
	Hispanic	.	.	8	1
	Asian	14	2	52	9
	Unknown	15	1	66	4
Sex	Female	43	1	162	2
	Male	1	0	53	1
Region	Northeast	7	0	28	2
	Midwest	5	0	49	1
	South	21	0	96	2
	West	11	0	42	1
Total		44	0	215	2

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with hepatitis B (all-listed diagnoses) were highest among persons 25 to 44 years and differed little by sex (Table 151). Among persons with known race-ethnicity, rates were much higher among Asians compared with other race-ethnicities. Rates were higher in the Northeast and South compared with the Midwest and West.

Burden of Digestive Diseases in the United States

Table 152: Hepatitis B: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	4	0
	12 to 24	.	.	14	1
	25 to 44	8	0	211	8
	45 to 54	6	0	225	15
	55 to 64	6	0	457	28
	65 to 74	7	0	870	31
	75 plus	4	0	504	20
Race-ethnicity	White	17	0	1,030	12
	Black	4	0	434	35
	Hispanic	7	0	189	13
	Asian	2	0	414	68
	Unknown	1	0	218	13
Sex	Female	12	0	900	13
	Male	19	0	1,385	21
Region	Northeast	3	0	354	23
	Midwest	3	0	327	10
	South	23	0	1,110	20
	West	2	0	494	15
Total		31	0	2,285	17

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with hepatitis B (all-listed diagnoses) increased with age until 75 years and were higher among men compared with women (Table 152). Among persons with known race-ethnicity, rates were highest among Asians, followed by Blacks, and lowest among Whites and Hispanics. Rates were highest in the Northeast, followed by the South, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 153: Hepatitis B: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	6,500	0.1%	15,680	0.2%
	70 to 74	6,936,940	4,720	0.1%	11,560	0.2%
	75 to 79	4,894,060	2,140	0.0%	5,540	0.1%
	80 to 84	3,335,340	1,580	0.0%	3,900	0.1%
	85+	3,578,120	740	0.0%	2,280	0.1%
Race	White	22,023,800	4,120	0.0%	14,740	0.1%
	Black	1,861,660	1,480	0.1%	4,560	0.2%
	Other	2,925,320	10,080	0.3%	19,660	0.7%
Sex	Female	14,975,560	8,060	0.1%	18,960	0.1%
	Male	11,835,220	7,620	0.1%	20,000	0.2%
Region	Northeast	4,748,700	2,980	0.1%	7,740	0.2%
	Midwest	6,069,800	1,780	0.0%	5,080	0.1%
	South	10,595,900	4,700	0.0%	12,300	0.1%
	West	5,396,380	6,220	0.1%	13,840	0.3%
Total		26,810,780	15,680	0.1%	38,960	0.1%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of hepatitis B (based on all-listed diagnoses) was 0.1% (Table 153). Prevalence was highest among persons 65-74 years and was higher among men and Blacks. It was highest in the West, and lowest in the Midwest and South.

Burden of Digestive Diseases in the United States

Table 154: Hepatitis B: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	12,000	149	36,920	458
	70 to 74	8,980	129	30,120	434
	75 to 79	3,700	76	14,260	291
	80 to 84	3,060	92	11,340	340
	85+	1,180	33	5,700	159
Race	White	6,900	31	25,840	117
	Black	2,660	143	9,540	512
	Other	19,360	662	62,960	2,152
Sex	Female	14,860	99	48,540	324
	Male	14,060	119	49,800	421
Region	Northeast	5,540	117	22,660	477
	Midwest	2,960	49	9,700	160
	South	8,500	80	26,100	246
	West	11,920	221	39,880	739
Total		28,920	108	98,340	367

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with hepatitis B (all-listed diagnoses) generally decreased with age and were higher among men compared with women and over four times higher among Blacks compared with Whites (Table 154). Rates were highest in the West, followed by the Northeast, then the South, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 155: Hepatitis B: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	.	.	3,920	49
	70 to 74	.	.	2,860	41
	75 to 79	.	.	1,240	25
	80 to 84	.	.	1,460	44
	85+	.	.	1,020	29
Race	White	.	.	4,640	21
	Black	.	.	2,540	136
	Other	.	.	3,320	113
Sex	Female	.	.	4,400	29
	Male	.	.	6,100	52
Region	Northeast	.	.	1,820	38
	Midwest	.	.	2,160	36
	South	.	.	3,700	35
	West	.	.	2,820	52
Total		.	.	10,500	39

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with hepatitis B (all-listed diagnoses) were highest among persons 65 to 69 years and were higher among men compared with women and over six times higher among Blacks compared with Whites (Table 155). Rates were higher in the West compared with the South, Midwest, and Northeast.

Burden of Digestive Diseases in the United States

Table 156: Hepatitis B: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	.	.	3,940	49
	70 to 74	.	.	3,040	44
	75 to 79	.	.	1,440	29
	80 to 84	.	.	1,440	43
	85+	.	.	880	25
Race	White	.	.	5,240	24
	Black	.	.	2,320	125
	Other	.	.	3,180	109
Sex	Female	.	.	4,500	30
	Male	.	.	6,240	53
Region	Northeast	.	.	2,080	44
	Midwest	.	.	1,960	32
	South	.	.	3,920	37
	West	.	.	2,780	52
Total		.	.	10,740	40

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with hepatitis B (all-listed diagnoses) were highest among persons 65 to 69 years and were higher among men compared with women and five times higher among Blacks compared with Whites (Table 156). Rates were highest in the West, followed by the Northeast, then the South, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 157: Hepatitis C: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	1	2
	12 to 24	31	56	48	85
	25 to 44	95	112	314	372
	45 to 54	151	349	371	861
	55 to 64	242	592	831	2,037
	65 to 74	61	223	392	1,425
	75 plus	.	.	114	565
Race	White	478	165	1,719	561
	Black	97	203	271	567
	Other	5	21	82	309
Ethnicity	Hispanic	15	29	352	818
	Not Hispanic	565	176	1,719	525
Sex	Female	280	138	888	434
	Male	300	174	1,184	665
Total		580	156	2,072	542

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Hepatitis C contributed to 2.1 million ambulatory visits (2015) (Table 157). Ambulatory care visit rates (all-listed diagnoses) peaked among persons 55-64 years. Age-adjusted rates were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 158: Hepatitis C: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	0	1
	12 to 24	1	1	15	27
	25 to 44	4	4	217	249
	45 to 54	1	3	182	436
	55 to 64	1	4	300	710
	65 to 74	1	2	124	407
	75 plus	0	1	26	120
Sex	Female	3	2	333	181
	Male	5	3	531	290
Total		8	2	865	234

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Hepatitis C contributed to 865,000 emergency department visits in 2018 (Table 158). Emergency department visit rates (all-listed diagnoses) peaked among persons 55-64 years. Age-adjusted rates were higher among men compared with women.

Burden of Digestive Diseases in the United States

Table 159: Hepatitis C: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	0	0
	12 to 24	0	0	13	23
	25 to 44	1	2	146	168
	45 to 54	1	1	112	270
	55 to 64	1	2	209	495
	65 to 74	0	1	98	321
	75 plus	0	0	21	97
Race	White	3	1	453	158
	Black	0	1	126	250
	Other	0	1	29	106
Ethnicity	Hispanic	0	1	71	140
	Not Hispanic	3	1	537	169
Sex	Female	1	1	233	125
	Male	2	1	367	197
Total		3	1	600	160

Source: Healthcare Cost and Utilization Project National Inpatient Sample.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Hepatitis C contributed to 600,000 hospital discharges in 2018 (Table 159). Hospital discharge rates (all-listed diagnoses) peaked among persons 55-64 years. Age-adjusted rates were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by 12% from 143 to 160.(7)

Burden of Digestive Diseases in the United States

Table 160: Hepatitis C: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	2	0.0	0.1	7	0.0	0.4
	25 to 44	144	0.2	6.0	643	0.7	27.2
	45 to 54	478	1.2	14.6	1,685	4.1	50.9
	55 to 64	1,525	3.6	34.8	6,343	14.9	141.7
	65 to 74	1,045	3.3	17.1	4,515	14.3	72.6
	75 plus	327	1.4	2.8	1,120	5.0	9.6
Race	White	2,826	0.8	62.4	10,999	3.2	241.5
	Black	550	1.1	10.1	2,693	5.2	48.1
	Other	145	0.5	2.9	621	2.3	12.9
Ethnicity	Hispanic	451	0.9	10.7	1,457	3.0	34.1
	Not Hispanic	3,070	0.8	64.7	12,856	3.4	268.4
Sex	Female	1,258	0.6	28.6	4,030	1.8	93.6
	Male	2,263	1.1	46.8	10,283	4.9	208.9
Total		3,521	0.8	75.4	14,313	3.3	302.5

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Hepatitis C contributed to 14,000 deaths in 2019 (Table 160). Mortality rates (underlying or other cause) peaked among persons 55-64 years. Age-adjusted mortality rates were higher among men, Blacks, and non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with hepatitis C as underlying or other cause decreased by 13% from 3.8 to 3.3. (4)

Burden of Digestive Diseases in the United States

Table 161: Hepatitis C: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	9	0.0%	23	0.0%
	12 to 24	1,451,892	78	0.0%	143	0.0%
	25 to 44	2,656,672	855	0.0%	1,904	0.1%
	45 to 54	1,452,320	788	0.1%	2,502	0.2%
	55 to 64	1,640,216	2,851	0.2%	10,497	0.6%
	65 to 74	2,840,615	4,838	0.2%	18,032	0.6%
	75 plus	2,576,241	923	0.0%	4,272	0.2%
Race-ethnicity	White	8,657,702	5,560	0.1%	20,564	0.2%
	Black	1,242,477	2,102	0.2%	7,171	0.6%
	Hispanic	1,493,457	1,197	0.1%	4,562	0.3%
	Asian	607,284	276	0.0%	1,047	0.2%
	Unknown	1,719,014	1,207	0.1%	4,029	0.2%
Sex	Female	7,199,363	4,044	0.1%	14,997	0.2%
	Male	6,520,571	6,298	0.1%	22,376	0.3%
Region	Northeast	1,526,275	1,188	0.1%	4,269	0.3%
	Midwest	3,322,846	1,356	0.0%	4,930	0.1%
	South	5,619,435	5,668	0.1%	20,093	0.4%
	West	3,251,378	2,130	0.1%	8,081	0.2%
Total		13,719,934	10,342	0.1%	37,373	0.3%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of hepatitis C (based on all-listed diagnoses) was 0.3% (Table 161). Prevalence peaked among persons 55-74 years and was higher among men. It was highest among Blacks, followed by Hispanics, and lowest among Whites and Asians. It was highest in the South and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 162: Hepatitis C: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	16	1	45	4
	12 to 24	126	9	271	19
	25 to 44	1,457	55	3,692	139
	45 to 54	1,606	111	5,314	366
	55 to 64	4,825	294	21,782	1,328
	65 to 74	7,997	282	36,232	1,275
	75 plus	1,459	57	8,009	311
Race-ethnicity	White	9,257	107	40,491	468
	Black	3,514	283	14,905	1,200
	Hispanic	1,946	130	9,346	626
	Asian	408	67	1,923	317
	Unknown	2,361	137	8,680	505
Sex	Female	6,530	91	29,672	412
	Male	10,956	168	45,673	700
Region	Northeast	1,902	125	8,348	547
	Midwest	2,427	73	9,366	282
	South	9,675	172	41,631	741
	West	3,482	107	16,000	492
Total		17,486	127	75,345	549

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with hepatitis C (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among men compared with women (Table 162). Among persons with known race-ethnicity, rates were much higher among Blacks, followed by Hispanics, then Whites, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 163: Hepatitis C: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	.	.	4	0
	25 to 44	5	0	65	2
	45 to 54	3	0	55	4
	55 to 64	19	1	213	13
	65 to 74	10	0	234	8
	75 plus	3	0	56	2
Race-ethnicity	White	24	0	347	4
	Black	12	1	114	9
	Hispanic	2	0	60	4
	Asian	.	.	11	2
	Unknown	2	0	95	6
Sex	Female	17	0	228	3
	Male	23	0	399	6
Region	Northeast	1	0	95	6
	Midwest	7	0	93	3
	South	27	0	315	6
	West	5	0	124	4
Total		40	0	627	5

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with hepatitis C (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among men compared with women (Table 163). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. Rates were higher in the Northeast and South compared with the West and Midwest.

Burden of Digestive Diseases in the United States

Table 164: Hepatitis C: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	1	0
	12 to 24	.	.	41	3
	25 to 44	1	0	436	16
	45 to 54	2	0	924	64
	55 to 64	6	0	3,968	242
	65 to 74	18	1	5,690	200
	75 plus	3	0	1,480	57
Race-ethnicity	White	16	0	6,740	78
	Black	5	0	2,771	223
	Hispanic	2	0	1,281	86
	Asian	.	.	196	32
	Unknown	7	0	1,552	90
Sex	Female	14	0	4,904	68
	Male	16	0	7,636	117
Region	Northeast	1	0	1,405	92
	Midwest	5	0	1,764	53
	South	18	0	7,127	127
	West	6	0	2,244	69
Total		30	0	12,540	91

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with hepatitis C (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among men compared with women (Table 164). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Hispanics, then Whites, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 165: Hepatitis C: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	23,280	0.3%	69,660	0.9%
	70 to 74	6,936,940	8,880	0.1%	28,340	0.4%
	75 to 79	4,894,060	3,620	0.1%	11,460	0.2%
	80 to 84	3,335,340	1,880	0.1%	6,420	0.2%
	85+	3,578,120	920	0.0%	4,920	0.1%
Race	White	22,023,800	23,820	0.1%	74,000	0.3%
	Black	1,861,660	9,280	0.5%	29,360	1.6%
	Other	2,925,320	5,480	0.2%	17,440	0.6%
Sex	Female	14,975,560	15,740	0.1%	46,860	0.3%
	Male	11,835,220	22,840	0.2%	73,940	0.6%
Region	Northeast	4,748,700	6,700	0.1%	24,040	0.5%
	Midwest	6,069,800	5,660	0.1%	18,840	0.3%
	South	10,595,900	14,940	0.1%	46,500	0.4%
	West	5,396,380	11,280	0.2%	31,420	0.6%
Total		26,810,780	38,580	0.1%	120,800	0.5%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of hepatitis C (based on all-listed diagnoses) was 0.5% (Table 165). Prevalence decreased with age and was higher among men and Blacks. It was highest in the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 166: Hepatitis C: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	42,580	528	154,180	1,911
	70 to 74	16,240	234	63,940	922
	75 to 79	6,720	137	25,720	526
	80 to 84	4,420	133	14,380	431
	85+	1,840	51	9,300	260
Race	White	41,560	189	154,420	701
	Black	18,460	992	70,440	3,784
	Other	11,780	403	42,660	1,458
Sex	Female	29,940	200	102,340	683
	Male	41,860	354	165,180	1,396
Region	Northeast	12,240	258	51,280	1,080
	Midwest	9,460	156	38,660	637
	South	28,120	265	107,020	1,010
	West	21,980	407	70,560	1,308
Total		71,800	268	267,520	998

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with hepatitis C (all-listed diagnoses) decreased with age and were twice as high among men compared with women and over five times higher among Blacks compared with Whites (Table 166). Rates were highest in the West, followed by the Northeast and South, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 167: Hepatitis C: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	240	3	36,740	455
	70 to 74	.	.	14,120	204
	75 to 79	.	.	6,280	128
	80 to 84	.	.	2,920	88
	85+	.	.	2,940	82
Race	White	.	.	34,500	157
	Black	.	.	20,620	1,108
	Other	.	.	7,880	269
Sex	Female	.	.	23,300	156
	Male	.	.	39,700	335
Region	Northeast	.	.	12,780	269
	Midwest	.	.	10,660	176
	South	.	.	23,600	223
	West	.	.	15,960	296
Total		400	1	63,000	235

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with hepatitis C (all-listed diagnoses) decreased with age and were over twice as high among men compared with women and seven times higher among Blacks compared with Whites (Table 167). Rates were highest in the West, followed by the Northeast, then the South, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 168: Hepatitis C: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	.	.	30,660	380
	70 to 74	.	.	11,920	172
	75 to 79	.	.	5,460	112
	80 to 84	.	.	2,500	75
	85+	.	.	2,520	70
Race	White	.	.	30,080	137
	Black	.	.	16,160	868
	Other	.	.	6,820	233
Sex	Female	.	.	19,280	129
	Male	.	.	33,780	285
Region	Northeast	.	.	11,400	240
	Midwest	.	.	8,940	147
	South	.	.	20,100	190
	West	.	.	12,620	234
Total		.	.	53,060	198

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with hepatitis C (all-listed diagnoses) decreased with age and were over twice as high among men compared with women and over six times higher among Blacks compared with Whites (Table 168). Rates were highest in the Northeast, followed by the West, then the South, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 169: Gallstones: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	2	4	2	4
	12 to 24	123	219	148	263
	25 to 44	383	453	565	669
	45 to 54	233	542	467	1,084
	55 to 64	328	804	414	1,015
	65 to 74	172	624	389	1,415
	75 plus	113	558	218	1,080
Race	White	1,139	426	1,901	691
	Black	147	313	172	380
	Other	67	235	131	519
Ethnicity	Hispanic	491	1,029	600	1,254
	Not Hispanic	863	305	1,604	554
Sex	Female	899	546	1,466	870
	Male	454	255	738	418
Total		1,354	397	2,204	642

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Gallstones contributed to an estimated 2.2 million ambulatory visits (2015) (Table 169). Ambulatory care visits rates (all-listed diagnoses) were highest among persons 65-74 years. Age-adjusted rates were higher among women compared with men, Whites compared with Blacks, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 170: Gallstones: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	1	2	2	5
	12 to 24	71	128	97	175
	25 to 44	238	273	335	385
	45 to 54	97	234	163	390
	55 to 64	88	208	179	423
	65 to 74	71	234	169	553
	75 plus	67	305	205	935
Sex	Female	437	260	734	417
	Male	196	117	416	243
Total		633	188	1,149	328

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Gallstones contributed to an estimated 1.1 million emergency department visits in 2018 (Table 170). Emergency department visit rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men.

Burden of Digestive Diseases in the United States

Table 171: Gallstones: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	1	1	2	4
	12 to 24	18	32	29	52
	25 to 44	67	78	114	131
	45 to 54	38	91	77	186
	55 to 64	45	107	108	256
	65 to 74	46	149	121	397
	75 plus	53	243	164	746
Race	White	222	78	502	169
	Black	27	61	72	165
	Other	21	82	48	188
Ethnicity	Hispanic	58	112	112	233
	Not Hispanic	213	69	510	158
Sex	Female	166	92	353	186
	Male	102	59	263	151
Total		268	75	615	167

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Gallstones contributed to an estimated 615,000 hospital discharges in 2018 (Table 171). Hospital discharge rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men, Whites compared with Blacks, and Hispanics compared with non-Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis decreased by 21% from 212 to 167.⁽⁷⁾ Hospital discharge rates underestimate the actual burden because most hospitalizations with gallstones were for cholecystectomy and a high proportion of cholecystectomies were performed laparoscopically without an overnight stay, and therefore, were not included in hospitalization statistics.

Burden of Digestive Diseases in the United States

Table 172: Gallstones: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	1	0.0	0.1	3	0.0	0.2
	25 to 44	21	0.0	0.9	61	0.1	2.6
	45 to 54	38	0.1	1.2	66	0.2	2.1
	55 to 64	99	0.2	2.3	190	0.4	4.4
	65 to 74	181	0.6	2.8	307	1.0	4.8
	75 plus	710	3.1	4.4	1,169	5.2	7.4
Race	White	892	0.3	9.8	1,517	0.4	17.6
	Black	77	0.2	1.0	154	0.4	2.4
	Other	81	0.4	0.9	125	0.5	1.5
Ethnicity	Hispanic	99	0.3	1.4	157	0.4	2.5
	Not Hispanic	951	0.3	10.3	1,639	0.4	19.0
Sex	Female	564	0.2	5.9	959	0.4	10.9
	Male	486	0.3	5.7	837	0.5	10.5
Total		1,050	0.3	11.7	1,796	0.4	21.5

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Gallstones contributed to an estimated 2,000 deaths in 2019 (Table 172). Mortality was uncommon among the youngest age groups after which rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among men and did not differ by race or ethnicity. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with gallstone disease as underlying or other cause decreased by 43% from 0.7 to 0.4.(4)

Burden of Digestive Diseases in the United States

Table 173: Gallstones: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	36	0.0%	82	0.0%
	12 to 24	1,451,892	1,211	0.1%	1,547	0.1%
	25 to 44	2,656,672	8,239	0.3%	10,843	0.4%
	45 to 54	1,452,320	5,509	0.4%	8,212	0.6%
	55 to 64	1,640,216	6,963	0.4%	12,254	0.7%
	65 to 74	2,840,615	13,714	0.5%	26,749	0.9%
	75 plus	2,576,241	12,840	0.5%	30,192	1.2%
Race-ethnicity	White	8,657,702	31,245	0.4%	57,469	0.7%
	Black	1,242,477	4,746	0.4%	9,305	0.7%
	Hispanic	1,493,457	7,159	0.5%	12,949	0.9%
	Asian	607,284	1,460	0.2%	3,019	0.5%
	Unknown	1,719,014	3,902	0.2%	7,137	0.4%
Sex	Female	7,199,363	30,418	0.4%	52,778	0.7%
	Male	6,520,571	18,094	0.3%	37,101	0.6%
Region	Northeast	1,526,275	5,166	0.3%	10,209	0.7%
	Midwest	3,322,846	10,772	0.3%	18,438	0.6%
	South	5,619,435	22,296	0.4%	41,418	0.7%
	West	3,251,378	10,278	0.3%	19,814	0.6%
Total		13,719,934	48,512	0.4%	89,879	0.7%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of gallstones (based on all-listed diagnoses) was 0.7% (Table 173). Prevalence increased with age and was higher among women. It was highest among Hispanics, similar among Whites and Blacks, and lowest among Asians. It differed little by region.

Burden of Digestive Diseases in the United States

Table 174: Gallstones: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	51	5	115	10
	12 to 24	2,211	152	2,883	199
	25 to 44	14,812	558	20,158	759
	45 to 54	9,409	648	14,121	972
	55 to 64	10,982	670	19,041	1,161
	65 to 74	19,796	697	37,835	1,332
	75 plus	16,815	653	38,397	1,490
Race-ethnicity	White	47,672	551	84,416	975
	Black	7,180	578	13,137	1,057
	Hispanic	11,029	738	19,525	1,307
	Asian	2,152	354	4,656	767
	Unknown	6,043	352	10,816	629
Sex	Female	48,371	672	82,723	1,149
	Male	25,705	394	49,827	764
Region	Northeast	7,416	486	14,458	947
	Midwest	16,514	497	27,831	838
	South	34,550	615	61,224	1,090
	West	15,596	480	29,037	893
Total		74,076	540	132,550	966

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with gallstones (all-listed diagnoses) increased with age and were higher among women compared with men (Table 174). Among persons with known race-ethnicity, rates were highest among Hispanics, followed by Blacks, then Whites, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 175: Gallstones: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	33	2	52	4
	25 to 44	328	12	542	20
	45 to 54	301	21	503	35
	55 to 64	693	42	1,215	74
	65 to 74	2,783	98	5,048	178
	75 plus	2,979	116	6,000	233
Race-ethnicity	White	4,534	52	8,558	99
	Black	789	64	1,515	122
	Hispanic	1,016	68	1,814	121
	Asian	172	28	340	56
	Unknown	606	35	1,133	66
Sex	Female	4,215	59	7,754	108
	Male	2,902	45	5,606	86
Region	Northeast	921	60	1,545	101
	Midwest	1,499	45	2,706	81
	South	2,981	53	5,800	103
	West	1,716	53	3,309	102
Total		7,117	52	13,360	97

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with gallstones (all-listed diagnoses) increased with age and were higher among women compared with men (Table 175). Among persons with known race-ethnicity, rates were highest among Blacks and Hispanics, followed by Whites, and lowest among Asians. Rates were lower in the Midwest compared with the South, West, and Northeast.

Burden of Digestive Diseases in the United States

Table 176: Gallstones: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	3	0	29	3
	12 to 24	132	9	259	18
	25 to 44	830	31	1,766	66
	45 to 54	670	46	1,716	118
	55 to 64	1,109	68	3,526	215
	65 to 74	2,847	100	9,549	336
	75 plus	4,128	160	15,044	584
Race-ethnicity	White	6,342	73	20,616	238
	Black	926	75	3,565	287
	Hispanic	1,441	96	4,412	295
	Asian	264	43	837	138
	Unknown	746	43	2,459	143
Sex	Female	5,441	76	16,727	232
	Male	4,278	66	15,162	233
Region	Northeast	1,320	86	4,145	272
	Midwest	2,059	62	6,564	198
	South	4,204	75	14,278	254
	West	2,136	66	6,902	212
Total		9,719	71	31,889	232

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with gallstones (all-listed diagnoses) increased with age and differed little by sex (Table 176). Among persons with known race-ethnicity, rates were highest among Hispanics, followed by Blacks, then Whites, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 177: Gallstones: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	56,600	0.7%	105,120	1.3%
	70 to 74	6,936,940	53,220	0.8%	105,220	1.5%
	75 to 79	4,894,060	41,060	0.8%	84,680	1.7%
	80 to 84	3,335,340	32,620	1.0%	70,320	2.1%
	85+	3,578,120	34,720	1.0%	77,220	2.2%
Race	White	22,023,800	178,220	0.8%	359,020	1.6%
	Black	1,861,660	13,680	0.7%	29,380	1.6%
	Other	2,925,320	26,320	0.9%	54,160	1.9%
Sex	Female	14,975,560	121,980	0.8%	237,800	1.6%
	Male	11,835,220	96,240	0.8%	204,760	1.7%
Region	Northeast	4,748,700	37,900	0.8%	80,840	1.7%
	Midwest	6,069,800	46,320	0.8%	91,140	1.5%
	South	10,595,900	90,360	0.9%	181,020	1.7%
	West	5,396,380	43,640	0.8%	89,560	1.7%
Total		26,810,780	218,220	0.8%	442,560	1.7%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of gallstones (based on all-listed diagnoses) was 1.7% (Table 177). Prevalence increased with age, was higher among men, and did not differ by race. It was lower in the Midwest compared with other regions.

Burden of Digestive Diseases in the United States

Table 178: Gallstones: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	67,100	832	132,220	1,639
	70 to 74	60,220	868	127,760	1,842
	75 to 79	44,580	911	98,400	2,011
	80 to 84	32,480	974	75,720	2,270
	85+	29,720	831	73,600	2,057
Race	White	192,640	875	410,820	1,865
	Black	12,440	668	29,220	1,570
	Other	29,020	992	67,660	2,313
Sex	Female	135,260	903	286,460	1,913
	Male	98,840	835	221,240	1,869
Region	Northeast	41,460	873	99,840	2,102
	Midwest	49,200	811	101,620	1,674
	South	98,260	927	203,340	1,919
	West	45,180	837	102,900	1,907
Total		234,100	873	507,700	1,894

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with gallstones (all-listed diagnoses) increased with age until 85 years and were higher among women compared with men and Whites compared with Blacks (Table 178). Rates were highest in the Northeast, intermediate in the South and West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 179: Gallstones: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	25,800	320	53,680	665
	70 to 74	25,340	365	55,220	796
	75 to 79	20,860	426	47,900	979
	80 to 84	17,760	532	43,640	1,308
	85+	23,180	648	58,780	1,643
Race	White	90,480	411	206,440	937
	Black	8,400	451	21,460	1,153
	Other	14,060	481	31,320	1,071
Sex	Female	60,720	405	134,780	900
	Male	52,220	441	124,440	1,051
Region	Northeast	19,600	413	44,740	942
	Midwest	23,120	381	54,360	896
	South	46,140	435	107,020	1,010
	West	24,080	446	53,100	984
Total		112,940	421	259,220	967

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with gallstones (all-listed diagnoses) increased with age and were higher among men compared with women and Blacks compared with Whites (Table 179). Rates were highest in the South, followed by the West, then the Northeast, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 180: Gallstones: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	10,680	132	30,300	376
	70 to 74	11,620	168	33,480	483
	75 to 79	10,120	207	29,180	596
	80 to 84	8,980	269	28,700	860
	85+	12,040	336	37,040	1,035
Race	White	43,540	198	126,060	572
	Black	3,220	173	12,360	664
	Other	6,680	228	20,280	693
Sex	Female	27,600	184	82,140	548
	Male	25,840	218	76,560	647
Region	Northeast	9,700	204	27,380	577
	Midwest	12,480	206	35,660	587
	South	21,100	199	64,320	607
	West	10,160	188	31,340	581
Total		53,440	199	158,700	592

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with gallstones (all-listed diagnoses) increased with age and were higher among men compared with women and Blacks compared with Whites (Table 180). Rates were higher in the South compared with the Northeast, West, and Midwest.

Burden of Digestive Diseases in the United States

Table 181: Acute Pancreatitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	2	5	2	5
	12 to 24	25	45	32	57
	25 to 44	113	133	202	239
	45 to 54	165	383	234	543
	55 to 64	86	212	236	578
	65 to 74	32	117	125	453
	75 plus	21	103	66	325
Race	White	391	158	720	275
	Black	47	111	161	333
	Other	7	31	16	78
Ethnicity	Hispanic	73	140	125	265
	Not Hispanic	371	144	772	269
Sex	Female	239	155	484	282
	Male	206	125	413	250
Total		445	140	897	264

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Acute pancreatitis contributed to 897,000 ambulatory visits (2015) (Table 181). Ambulatory care visit rates (all-listed diagnoses) peaked among persons 55-64 years. Age-adjusted ambulatory care visit rates were higher among women compared with men, Blacks compared with Whites and among non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 182: Acute Pancreatitis: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	2	4	3	6
	12 to 24	20	36	31	55
	25 to 44	123	141	177	203
	45 to 54	82	197	122	294
	55 to 64	73	173	115	273
	65 to 74	44	144	74	243
	75 plus	33	152	62	284
Sex	Female	172	98	274	154
	Male	206	125	310	187
Total		377	111	585	170

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Acute pancreatitis contributed to 585,000 emergency department visits in 2018 (Table 182). Emergency department visit rates (all-listed diagnoses) were similar among middle-aged and older adults. Age-adjusted emergency department visit rates were higher among men.

Burden of Digestive Diseases in the United States

Table 183: Acute Pancreatitis: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	2	3	3	6
	12 to 24	14	25	22	40
	25 to 44	88	101	126	145
	45 to 54	60	144	88	212
	55 to 64	56	133	89	211
	65 to 74	35	116	63	207
	75 plus	29	131	56	256
Race	White	221	82	351	127
	Black	48	108	71	159
	Other	17	65	29	112
Ethnicity	Hispanic	40	76	66	130
	Not Hispanic	247	86	386	131
Sex	Female	131	74	213	118
	Male	153	92	235	140
Total		283	83	448	129

Source: Healthcare Cost and Utilization Project National Inpatient Sample.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Acute pancreatitis contributed to 448,000 hospital discharges in 2018 (Table 183). Hospital discharge rates (all-listed diagnoses) were highest among persons 75 years and over. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites and among non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 184: Acute Pancreatitis: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	2	0.0	0.1	4	0.0	0.3
	12 to 24	39	0.1	2.3	67	0.1	3.9
	25 to 44	398	0.5	17.2	721	0.8	31.1
	45 to 54	335	0.8	10.3	698	1.7	21.5
	55 to 64	586	1.4	13.4	1,186	2.8	27.1
	65 to 74	599	1.9	9.4	1,216	3.9	19.2
	75 plus	861	3.8	6.4	1,802	8.0	13.2
Race	White	2,368	0.8	48.2	4,724	1.5	94.0
	Black	342	0.8	8.0	720	1.6	16.4
	Other	110	0.4	2.8	250	1.0	5.8
Ethnicity	Hispanic	178	0.4	4.7	409	0.9	10.4
	Not Hispanic	2,642	0.8	54.3	5,285	1.6	105.9
Sex	Female	1,120	0.5	21.3	2,314	1.1	44.0
	Male	1,700	1.0	37.7	3,380	1.9	72.3
Total		2,820	0.7	59.0	5,694	1.5	116.3

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Acute pancreatitis contributed to 6,000 deaths in 2019 (Table 184). Mortality was uncommon among the youngest age groups after which rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among men, Blacks, and non-Hispanics.

Burden of Digestive Diseases in the United States

Table 185: Acute Pancreatitis: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	38	0.0%	60	0.0%
	12 to 24	1,451,892	319	0.0%	452	0.0%
	25 to 44	2,656,672	2,242	0.1%	3,163	0.1%
	45 to 54	1,452,320	2,140	0.1%	3,168	0.2%
	55 to 64	1,640,216	3,022	0.2%	4,874	0.3%
	65 to 74	2,840,615	4,546	0.2%	7,676	0.3%
	75 plus	2,576,241	3,895	0.2%	7,019	0.3%
Race-ethnicity	White	8,657,702	10,530	0.1%	17,037	0.2%
	Black	1,242,477	2,157	0.2%	3,495	0.3%
	Hispanic	1,493,457	1,891	0.1%	3,202	0.2%
	Asian	607,284	384	0.1%	613	0.1%
	Unknown	1,719,014	1,240	0.1%	2,065	0.1%
Sex	Female	7,199,363	8,071	0.1%	13,427	0.2%
	Male	6,520,571	8,131	0.1%	12,985	0.2%
Region	Northeast	1,526,275	1,682	0.1%	2,835	0.2%
	Midwest	3,322,846	3,583	0.1%	5,519	0.2%
	South	5,619,435	7,728	0.1%	12,685	0.2%
	West	3,251,378	3,209	0.1%	5,373	0.2%
Total		13,719,934	16,202	0.1%	26,412	0.2%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of acute pancreatitis (based on all-listed diagnoses) was 0.2% (Table 185). Prevalence was uncommon among children and adolescents and the youngest adults and was highest among persons 55 years and over. It did not differ by sex and was highest among Blacks, similar among Whites and Hispanics, and lowest among Asians. It did not differ by region.

Burden of Digestive Diseases in the United States

Table 186: Acute Pancreatitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	57	5	103	9
	12 to 24	500	34	747	51
	25 to 44	3,239	122	5,445	205
	45 to 54	2,949	203	5,122	353
	55 to 64	3,706	226	7,100	433
	65 to 74	4,545	160	9,265	326
	75 plus	3,875	150	8,178	317
Race-ethnicity	White	12,681	146	24,018	277
	Black	2,193	177	4,229	340
	Hispanic	2,106	141	4,104	275
	Asian	458	75	847	139
	Unknown	1,433	83	2,762	161
Sex	Female	9,178	127	17,955	249
	Male	9,693	149	18,005	276
Region	Northeast	1,800	118	3,619	237
	Midwest	4,655	140	8,089	243
	South	8,586	153	16,873	300
	West	3,830	118	7,379	227
Total		18,871	138	35,960	262

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with acute pancreatitis (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among men compared with women (Table 186). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. Rates were higher in the South compared with the West, Northeast, and Midwest.

Burden of Digestive Diseases in the United States

Table 187: Acute Pancreatitis: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	3	0	3	0
	12 to 24	13	1	16	1
	25 to 44	290	11	410	15
	45 to 54	537	37	848	58
	55 to 64	1,177	72	1,799	110
	65 to 74	2,678	94	4,235	149
	75 plus	2,302	89	3,788	147
Race-ethnicity	White	4,478	52	7,023	81
	Black	1,051	85	1,684	136
	Hispanic	764	51	1,257	84
	Asian	135	22	199	33
	Unknown	572	33	936	54
Sex	Female	3,632	50	5,779	80
	Male	3,368	52	5,320	82
Region	Northeast	869	57	1,222	80
	Midwest	1,420	43	2,083	63
	South	3,372	60	5,478	97
	West	1,339	41	2,316	71
Total		7,000	51	11,099	81

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with acute pancreatitis (all-listed diagnoses) increased with age until 75 years and differed little by sex (Table 187). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Hispanics and Whites, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 188: Acute Pancreatitis: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	24	2	47	4
	12 to 24	160	11	275	19
	25 to 44	1,408	53	2,214	83
	45 to 54	1,351	93	2,183	150
	55 to 64	1,774	108	3,260	199
	65 to 74	2,562	90	5,308	187
	75 plus	2,139	83	5,008	194
Race-ethnicity	White	6,064	70	11,760	136
	Black	1,338	108	2,444	197
	Hispanic	1,061	71	2,222	149
	Asian	207	34	407	67
	Unknown	748	44	1,462	85
Sex	Female	4,548	63	9,065	126
	Male	4,870	75	9,230	142
Region	Northeast	948	62	2,008	132
	Midwest	2,218	67	4,034	121
	South	4,494	80	8,618	153
	West	1,758	54	3,635	112
Total		9,418	69	18,295	133

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with acute pancreatitis (all-listed diagnoses) increased with age until 65 years and were higher among men compared with women (Table 188). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Hispanics, then Whites, and lowest among Asians. Rates were highest in the South, followed by the Northeast, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 189: Acute Pancreatitis: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	16,500	0.2%	26,020	0.3%
	70 to 74	6,936,940	15,740	0.2%	25,420	0.4%
	75 to 79	4,894,060	9,940	0.2%	16,660	0.3%
	80 to 84	3,335,340	7,680	0.2%	13,300	0.4%
	85+	3,578,120	8,300	0.2%	13,740	0.4%
Race	White	22,023,800	47,040	0.2%	75,520	0.3%
	Black	1,861,660	4,440	0.2%	7,920	0.4%
	Other	2,925,320	6,680	0.2%	11,700	0.4%
Sex	Female	14,975,560	30,500	0.2%	50,440	0.3%
	Male	11,835,220	27,660	0.2%	44,700	0.4%
Region	Northeast	4,748,700	8,820	0.2%	14,740	0.3%
	Midwest	6,069,800	13,340	0.2%	21,160	0.3%
	South	10,595,900	24,840	0.2%	40,080	0.4%
	West	5,396,380	11,160	0.2%	19,160	0.4%
Total		26,810,780	58,160	0.2%	95,140	0.4%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of acute pancreatitis (based on all-listed diagnoses) was 0.4% (Table 189). Prevalence differed little with age and was higher among men and Blacks. It differed little by region.

Burden of Digestive Diseases in the United States

Table 190: Acute Pancreatitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	14,000	174	30,100	373
	70 to 74	14,300	206	29,240	422
	75 to 79	9,320	190	18,500	378
	80 to 84	6,620	198	14,180	425
	85+	7,920	221	14,780	413
Race	White	44,560	202	88,520	402
	Black	2,500	134	6,360	342
	Other	5,100	174	11,920	407
Sex	Female	25,920	173	53,540	358
	Male	26,240	222	53,260	450
Region	Northeast	9,060	191	18,140	382
	Midwest	12,320	203	25,220	415
	South	21,280	201	43,080	407
	West	9,500	176	20,360	377
Total		52,160	195	106,800	398

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with acute pancreatitis (all-listed diagnoses) were relatively stable with age and were higher among men compared with women and Whites compared with Blacks (Table 190). Rates were higher in the Midwest and South compared with the Northeast and West.

Burden of Digestive Diseases in the United States

Table 191: Acute Pancreatitis: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	15,480	192	23,280	289
	70 to 74	13,920	201	21,100	304
	75 to 79	8,920	182	14,560	298
	80 to 84	6,900	207	11,640	349
	85+	7,700	215	12,660	354
Race	White	42,480	193	65,660	298
	Black	4,480	241	7,440	400
	Other	5,960	204	10,140	347
Sex	Female	27,700	185	43,820	293
	Male	25,220	213	39,420	333
Region	Northeast	8,060	170	12,620	266
	Midwest	11,940	197	17,860	294
	South	22,640	214	36,080	341
	West	10,280	190	16,680	309
Total		52,920	197	83,240	310

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with acute pancreatitis (all-listed diagnoses) generally increased with age and were higher among men compared with women and Blacks compared with Whites (Table 191). Rates were highest in the South, followed by the West, then the Midwest, and lowest in the Northeast.

Burden of Digestive Diseases in the United States

Table 192: Acute Pancreatitis: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	9,840	122	17,340	215
	70 to 74	9,160	132	16,200	234
	75 to 79	5,600	114	10,920	223
	80 to 84	4,480	134	8,860	266
	85+	5,360	150	10,420	291
Race	White	28,480	129	51,340	233
	Black	2,460	132	4,900	263
	Other	3,500	120	7,500	256
Sex	Female	17,760	119	33,120	221
	Male	16,680	141	30,620	259
Region	Northeast	5,100	107	9,820	207
	Midwest	8,660	143	15,020	247
	South	14,700	139	26,540	250
	West	5,980	111	12,360	229
Total		34,440	128	63,740	238

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with acute pancreatitis (all-listed diagnoses) generally increased with age and were higher among men compared with women and Blacks compared with Whites (Table 192). Rates were highest in the South and Midwest, followed by the West, and lowest in the Northeast.

Burden of Digestive Diseases in the United States

Table 193: Chronic Pancreatitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	.	.	3	5
	25 to 44	16	19	54	64
	45 to 54	40	92	86	199
	55 to 64	9	22	49	119
	65 to 74	31	114	36	129
	75 plus	1	7	19	93
Race	White	86	30	228	81
	Black	11	27	16	37
	Other	.	.	2	7
Ethnicity	Hispanic	74	168	91	206
	Not Hispanic	23	9	154	52
Sex	Female	40	28	107	67
	Male	57	30	138	80
Total		97	28	245	71

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Chronic pancreatitis contributed to 245,000 ambulatory visits (2015) (Table 193). Ambulatory care visit rates (all-listed diagnoses) peaked in middle age. Age-adjusted rates were higher among men compared with women, Whites compared with Blacks, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 194: Chronic Pancreatitis: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	1	2
	12 to 24	1	2	6	10
	25 to 44	15	17	78	90
	45 to 54	10	25	69	165
	55 to 64	8	19	62	147
	65 to 74	2	8	29	94
	75 plus	1	4	19	85
Sex	Female	16	10	114	65
	Male	22	13	149	89
Total		38	12	263	77

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Chronic pancreatitis contributed to 263,000 emergency department visits in 2018 (Table 194). Emergency department visit rates (all-listed diagnoses) peaked in middle age. Age-adjusted rates were higher among men compared with women.

Burden of Digestive Diseases in the United States

Table 195: Chronic Pancreatitis: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	1	2
	12 to 24	1	1	5	8
	25 to 44	3	4	51	58
	45 to 54	3	7	47	112
	55 to 64	2	5	47	112
	65 to 74	1	4	25	83
	75 plus	1	3	17	76
Race	White	8	3	143	52
	Black	2	5	42	93
	Other	1	2	9	34
Ethnicity	Hispanic	1	2	18	35
	Not Hispanic	10	4	176	60
Sex	Female	5	3	84	47
	Male	6	3	109	64
Total		11	3	192	55

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Chronic pancreatitis contributed to 192,000 hospital discharges in 2018 (Table 195). Hospital discharge rates (all-listed diagnoses) peaked in middle age. Age-adjusted rates were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 196: Chronic Pancreatitis: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	4	0.0	0.3
	12 to 24	4	0.0	0.2	10	0.0	0.6
	25 to 44	44	0.1	1.9	193	0.2	8.2
	45 to 54	66	0.2	2.0	274	0.7	8.4
	55 to 64	118	0.3	2.7	458	1.1	10.5
	65 to 74	75	0.2	1.2	317	1.0	5.0
	75 plus	112	0.5	0.8	337	1.5	2.5
Race	White	324	0.1	6.7	1,259	0.4	28.0
	Black	86	0.2	1.8	291	0.6	6.3
	Other	9	0.0	0.2	43	0.2	1.2
Ethnicity	Hispanic	23	0.0	0.6	64	0.1	1.7
	Not Hispanic	396	0.1	8.2	1,529	0.5	33.9
Sex	Female	156	0.1	3.3	640	0.3	14.8
	Male	263	0.1	5.5	953	0.5	20.7
Total		419	0.1	8.8	1,593	0.4	35.5

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Chronic pancreatitis contributed to 2,000 deaths in 2019 (Table 196). Mortality was uncommon among the youngest age groups after which rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among men, Blacks, and non-Hispanics.

Burden of Digestive Diseases in the United States

Table 197: Chronic Pancreatitis: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	9	0.0%	15	0.0%
	12 to 24	1,451,892	54	0.0%	110	0.0%
	25 to 44	2,656,672	484	0.0%	1,168	0.0%
	45 to 54	1,452,320	669	0.0%	1,704	0.1%
	55 to 64	1,640,216	1,157	0.1%	3,288	0.2%
	65 to 74	2,840,615	1,530	0.1%	4,823	0.2%
	75 plus	2,576,241	963	0.0%	4,092	0.2%
Race-ethnicity	White	8,657,702	3,269	0.0%	9,973	0.1%
	Black	1,242,477	705	0.1%	2,201	0.2%
	Hispanic	1,493,457	404	0.0%	1,520	0.1%
	Asian	607,284	131	0.0%	368	0.1%
	Unknown	1,719,014	357	0.0%	1,138	0.1%
Sex	Female	7,199,363	2,364	0.0%	7,456	0.1%
	Male	6,520,571	2,502	0.0%	7,744	0.1%
Region	Northeast	1,526,275	532	0.0%	1,579	0.1%
	Midwest	3,322,846	1,101	0.0%	3,151	0.1%
	South	5,619,435	2,312	0.0%	7,271	0.1%
	West	3,251,378	921	0.0%	3,199	0.1%
Total		13,719,934	4,866	0.0%	15,200	0.1%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of chronic pancreatitis (based on all-listed diagnoses) was 0.1% (Table 197). Chronic pancreatitis was uncommon among children and adolescents and the youngest adults and prevalence was highest among persons 55 years and over. Prevalence did not differ by sex and was highest among Blacks and similar among Whites, Hispanics, and Asians. It did not differ by region.

Burden of Digestive Diseases in the United States

Table 198: Chronic Pancreatitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	9	1	25	2
	12 to 24	84	6	211	15
	25 to 44	1,006	38	2,884	109
	45 to 54	1,429	98	4,514	311
	55 to 64	2,269	138	7,853	479
	65 to 74	2,453	86	9,100	320
	75 plus	1,468	57	6,576	255
Race-ethnicity	White	5,832	67	20,509	237
	Black	1,253	101	4,667	376
	Hispanic	711	48	2,906	195
	Asian	242	40	703	116
	Unknown	680	40	2,378	138
Sex	Female	4,342	60	15,938	221
	Male	4,376	67	15,225	233
Region	Northeast	866	57	2,994	196
	Midwest	2,044	62	6,668	201
	South	4,187	75	14,983	267
	West	1,621	50	6,518	200
Total		8,718	64	31,163	227

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with chronic pancreatitis (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among men compared with women (Table 198). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were higher in the South compared with the Northeast, West, and Midwest.

Burden of Digestive Diseases in the United States

Table 199: Chronic Pancreatitis: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	1	0	1	0
	12 to 24	.	.	1	0
	25 to 44	58	2	119	4
	45 to 54	114	8	264	18
	55 to 64	202	12	455	28
	65 to 74	155	5	395	14
	75 plus	50	2	177	7
Race-ethnicity	White	330	4	862	10
	Black	146	12	294	24
	Hispanic	41	3	116	8
	Asian	5	1	14	2
	Unknown	58	3	126	7
Sex	Female	249	3	631	9
	Male	331	5	781	12
Region	Northeast	52	3	157	10
	Midwest	121	4	270	8
	South	335	6	760	14
	West	72	2	225	7
Total		580	4	1,412	10

Source: De-identified Optum Clinformatics® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with chronic pancreatitis (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among men compared with women (Table 199). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the South, followed by the Northeast, and lowest in the Midwest and West.

Burden of Digestive Diseases in the United States

Table 200: Chronic Pancreatitis: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	1	0	9	1
	12 to 24	4	0	58	4
	25 to 44	34	1	746	28
	45 to 54	51	4	1,046	72
	55 to 64	78	5	1,893	115
	65 to 74	75	3	2,211	78
	75 plus	22	1	1,611	63
Race-ethnicity	White	169	2	4,784	55
	Black	54	4	1,369	110
	Hispanic	23	2	700	47
	Asian	3	0	117	19
	Unknown	16	1	604	35
Sex	Female	140	2	3,521	49
	Male	125	2	4,053	62
Region	Northeast	28	2	819	54
	Midwest	62	2	1,726	52
	South	125	2	3,708	66
	West	50	2	1,321	41
Total		265	2	7,574	55

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with chronic pancreatitis (all-listed diagnoses) peaked among persons 55 to 64 years and were higher among men compared with women (Table 200). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the South, followed by the Northeast and Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 201: Chronic Pancreatitis: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	5,540	0.1%	16,180	0.2%
	70 to 74	6,936,940	4,700	0.1%	13,000	0.2%
	75 to 79	4,894,060	2,940	0.1%	9,740	0.2%
	80 to 84	3,335,340	1,780	0.1%	6,740	0.2%
	85+	3,578,120	1,640	0.0%	6,260	0.2%
Race	White	22,023,800	13,880	0.1%	41,980	0.2%
	Black	1,861,660	1,380	0.1%	5,160	0.3%
	Other	2,925,320	1,340	0.0%	4,780	0.2%
Sex	Female	14,975,560	7,920	0.1%	26,220	0.2%
	Male	11,835,220	8,680	0.1%	25,700	0.2%
Region	Northeast	4,748,700	2,600	0.1%	9,020	0.2%
	Midwest	6,069,800	3,240	0.1%	11,400	0.2%
	South	10,595,900	7,660	0.1%	22,200	0.2%
	West	5,396,380	3,100	0.1%	9,300	0.2%
Total		26,810,780	16,600	0.1%	51,920	0.2%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of chronic pancreatitis (based on all-listed diagnoses) was 0.2% (Table 201). Prevalence did not differ by age or sex and was higher among Blacks. It did not differ by region.

Burden of Digestive Diseases in the United States

Table 202: Chronic Pancreatitis: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	9,360	116	30,540	379
	70 to 74	7,120	103	23,280	336
	75 to 79	5,100	104	18,880	386
	80 to 84	2,380	71	11,140	334
	85+	1,840	51	7,660	214
Race	White	21,900	99	74,580	339
	Black	1,760	95	8,920	479
	Other	2,140	73	8,000	273
Sex	Female	12,360	83	47,000	314
	Male	13,440	114	44,500	376
Region	Northeast	3,600	76	14,200	299
	Midwest	6,040	100	21,100	348
	South	11,420	108	40,020	378
	West	4,740	88	16,180	300
Total		25,800	96	91,500	341

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with chronic pancreatitis (all-listed diagnoses) were generally stable before declining after 85 years and were higher among men compared with women and Blacks compared with Whites (Table 202). Rates were highest in the South, followed by the Midwest, and lowest in the West and Northeast.

Burden of Digestive Diseases in the United States

Table 203: Chronic Pancreatitis: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	1,380	17	10,100	125
	70 to 74	680	10	6,300	91
	75 to 79	.	.	4,820	98
	80 to 84	.	.	3,100	93
	85+	260	7	3,760	105
Race	White	1,840	8	21,300	97
	Black	.	.	4,560	245
	Other	.	.	2,220	76
Sex	Female	1,380	9	13,960	93
	Male	1,400	12	14,120	119
Region	Northeast	240	5	4,460	94
	Midwest	580	10	7,040	116
	South	1,340	13	11,360	107
	West	620	11	5,220	97
Total		2,780	10	28,080	105

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with chronic pancreatitis (all-listed diagnoses) were highest among persons 65 to 69 years and were higher among men compared with women and over twice as high among Blacks compared with Whites (Table 203). Rates were highest in the Midwest, followed by the South, then the West, and lowest in the Northeast.

Burden of Digestive Diseases in the United States

Table 204: Chronic Pancreatitis: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	360	4	8,280	103
	70 to 74	280	4	5,940	86
	75 to 79	.	.	4,800	98
	80 to 84	.	.	2,480	74
	85+	.	.	3,000	84
Race	White	640	3	19,100	87
	Black	.	.	3,520	189
	Other	.	.	1,880	64
Sex	Female	540	4	12,340	82
	Male	340	3	12,160	103
Region	Northeast	.	.	3,880	82
	Midwest	.	.	6,480	107
	South	440	4	10,040	95
	West	.	.	4,100	76
Total		880	3	24,500	91

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with chronic pancreatitis (all-listed diagnoses) were highest among persons 65 to 69 years and were higher among men compared with women and over twice as high among Blacks compared with Whites (Table 204). Rates were highest in the Midwest, followed by the South, then the Northeast, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 205: Celiac Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	5	9	122	251
	12 to 24	11	19	37	65
	25 to 44	2	2	138	164
	45 to 54	18	42	80	186
	55 to 64	13	31	192	470
	65 to 74	8	30	19	70
	75 plus	7	35	22	109
Race	White	63	23	507	199
	Black	.	.	44	80
	Other	.	.	59	257
Ethnicity	Hispanic	3	6	118	195
	Not Hispanic	60	21	493	180
Sex	Female	47	27	390	247
	Male	16	10	220	126
Total		63	18	611	187

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Celiac disease contributed to 611,000 ambulatory visits (2015) (Table 205). Ambulatory care visit rates (all-listed diagnoses) were highest among persons 55-64 years and second highest among children. Age-adjusted rates were higher among women compared with men, Whites compared with Blacks, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 206: Celiac Disease: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	3	5
	12 to 24	0	1	10	18
	25 to 44	0	0	18	21
	45 to 54	0	0	9	21
	55 to 64	0	0	9	22
	65 to 74	0	0	8	26
	75 plus	0	1	11	51
Sex	Female	1	1	50	29
	Male	0	0	18	11
Total		1	0	68	20

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Celiac disease contributed to 68,000 emergency department visits in 2018 (Table 206). Emergency department visit rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men.

Burden of Digestive Diseases in the United States

Table 207: Celiac Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	1	2
	12 to 24	0	0	4	8
	25 to 44	0	0	10	11
	45 to 54	0	0	5	12
	55 to 64	0	0	6	15
	65 to 74	0	0	7	23
	75 plus	0	0	9	41
Race	White	1	0	40	14
	Black	0	0	2	3
	Other	0	0	1	4
Ethnicity	Hispanic	0	0	2	4
	Not Hispanic	1	0	40	13
Sex	Female	0	0	30	16
	Male	0	0	13	7
Total		1	0	42	12

Source: Healthcare Cost and Utilization Project National Inpatient Sample.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Celiac disease contributed to 42,000 hospital discharges in 2018 (Table 207). Hospital discharge rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men, Whites compared with Blacks, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 208: Celiac Disease: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	1	0.0	0.1
	12 to 24	.	.	.	.	.	.
	25 to 44	2	0.0	0.1	4	0.0	0.2
	45 to 54	1	0.0	0.0	5	0.0	0.2
	55 to 64	3	0.0	0.1	26	0.1	0.6
	65 to 74	10	0.0	0.2	44	0.1	0.7
	75 plus	28	0.1	0.2	128	0.6	0.8
Race	White	42	0.0	0.5	202	0.1	2.4
	Black	1	0.0	0.0	2	0.0	0.0
	Other	1	0.0	0.0	4	0.0	0.1
Ethnicity	Hispanic	2	0.0	0.1	6	0.0	0.1
	Not Hispanic	42	0.0	0.5	202	0.1	2.4
Sex	Female	25	0.0	0.3	130	0.1	1.5
	Male	19	0.0	0.3	78	0.0	1.1
Total		44	0.0	0.6	208	0.1	2.6

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Celiac disease contributed to <1,000 deaths in 2019 (Table 208). Mortality was uncommon with the highest rate (underlying or other cause) among persons 75 years and over. Age-adjusted mortality rates were higher among women, Whites, and non-Hispanics.

Burden of Digestive Diseases in the United States

Table 209: Celiac Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	492	0.0%	904	0.1%
	12 to 24	1,451,892	1,012	0.1%	2,476	0.2%
	25 to 44	2,656,672	1,072	0.0%	3,555	0.1%
	45 to 54	1,452,320	554	0.0%	2,163	0.1%
	55 to 64	1,640,216	564	0.0%	2,299	0.1%
	65 to 74	2,840,615	954	0.0%	3,555	0.1%
	75 plus	2,576,241	587	0.0%	2,909	0.1%
Race-ethnicity	White	8,657,702	4,083	0.0%	14,136	0.2%
	Black	1,242,477	203	0.0%	710	0.1%
	Hispanic	1,493,457	351	0.0%	1,178	0.1%
	Asian	607,284	89	0.0%	298	0.0%
	Unknown	1,719,014	509	0.0%	1,539	0.1%
Sex	Female	7,199,363	3,588	0.0%	12,546	0.2%
	Male	6,520,571	1,647	0.0%	5,315	0.1%
Region	Northeast	1,526,275	976	0.1%	2,948	0.2%
	Midwest	3,322,846	1,353	0.0%	4,605	0.1%
	South	5,619,435	1,710	0.0%	5,957	0.1%
	West	3,251,378	1,196	0.0%	4,351	0.1%
Total		13,719,934	5,235	0.0%	17,861	0.1%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of celiac disease (based on all-listed diagnoses) was 0.1% (Table 209). Prevalence was highest among adolescents and the youngest adults and among women. It was highest among Whites, similar among Blacks and Hispanics, and lowest among Asians. It differed little by region.

Burden of Digestive Diseases in the United States

Table 210: Celiac Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	710	64	1,666	151
	12 to 24	1,405	97	4,473	308
	25 to 44	1,448	55	5,917	223
	45 to 54	713	49	3,727	257
	55 to 64	743	45	3,947	241
	65 to 74	1,296	46	6,340	223
	75 plus	786	31	5,350	208
Race-ethnicity	White	5,516	64	24,758	286
	Black	280	23	1,268	102
	Hispanic	488	33	2,251	151
	Asian	128	21	460	76
	Unknown	689	40	2,683	156
Sex	Female	4,857	67	22,158	308
	Male	2,244	34	9,262	142
Region	Northeast	1,328	87	5,253	344
	Midwest	1,798	54	7,704	232
	South	2,338	42	10,788	192
	West	1,637	50	7,675	236
Total		7,101	52	31,420	229

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with celiac disease (all-listed diagnoses) were higher among adolescents and the youngest adults compared with other age groups and were over twice as high among women compared with men (Table 210). Among persons with known race-ethnicity, rates were highest among Whites, followed by Hispanics, then Blacks, and lowest among Asians. Rates were highest in the Northeast, followed by the West and Midwest, and lowest in the South.

Burden of Digestive Diseases in the United States

Table 211: Celiac Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	2	0	3	0
	12 to 24	5	0	25	2
	25 to 44	12	0	81	3
	45 to 54	2	0	9	1
	55 to 64	5	0	15	1
	65 to 74	5	0	43	2
	75 plus	4	0	27	1
Race-ethnicity	White	29	0	171	2
	Black	3	0	6	0
	Hispanic	2	0	6	0
	Asian	.	.	3	0
	Unknown	1	0	17	1
Sex	Female	28	0	163	2
	Male	7	0	40	1
Region	Northeast	8	1	42	3
	Midwest	8	0	50	2
	South	9	0	55	1
	West	10	0	56	2
Total		35	0	203	1

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with celiac disease (all-listed diagnoses) were highest among persons 25 to 44 years and differed little by sex (Table 211). Among persons with known race-ethnicity, rates were higher among Whites compared with other race-ethnicities. Rates were highest in the Northeast, followed by the Midwest and West, and lowest in the South.

Burden of Digestive Diseases in the United States

Table 212: Celiac Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	2	0	12	1
	12 to 24	3	0	157	11
	25 to 44	.	.	302	11
	45 to 54	2	0	139	10
	55 to 64	4	0	276	17
	65 to 74	7	0	459	16
	75 plus	3	0	769	30
Race-ethnicity	White	14	0	1,691	20
	Black	.	.	122	10
	Hispanic	2	0	113	8
	Asian	.	.	29	5
	Unknown	5	0	159	9
Sex	Female	11	0	1,480	21
	Male	10	0	634	10
Region	Northeast	3	0	310	20
	Midwest	7	0	609	18
	South	6	0	674	12
	West	5	0	521	16
Total		21	0	2,114	15

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with celiac disease (all-listed diagnoses) were highest among persons 75 years and over and were twice as high among women compared with men (Table 212). Among persons with known race-ethnicity, rates were highest among Whites, followed by Blacks, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the Midwest, then the West, and lowest in the South.

Burden of Digestive Diseases in the United States

Table 213: Celiac Disease: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	3,400	0.0%	13,660	0.2%
	70 to 74	6,936,940	3,200	0.0%	12,720	0.2%
	75 to 79	4,894,060	2,720	0.1%	9,500	0.2%
	80 to 84	3,335,340	1,840	0.1%	7,220	0.2%
	85+	3,578,120	940	0.0%	4,880	0.1%
Race	White	22,023,800	11,320	0.1%	44,340	0.2%
	Black	1,861,660	.	.	680	0.0%
	Other	2,925,320	.	.	2,960	0.1%
Sex	Female	14,975,560	8,560	0.1%	32,980	0.2%
	Male	11,835,220	3,540	0.0%	15,000	0.1%
Region	Northeast	4,748,700	3,380	0.1%	12,320	0.3%
	Midwest	6,069,800	2,540	0.0%	11,100	0.2%
	South	10,595,900	4,100	0.0%	15,760	0.1%
	West	5,396,380	2,080	0.0%	8,800	0.2%
Total		26,810,780	12,100	0.0%	47,980	0.2%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of celiac disease (based on all-listed diagnoses) was 0.2% (Table 213). Prevalence was lowest in the oldest age group and higher among women and Whites. It was highest in the Northeast, and lowest in the South.

Burden of Digestive Diseases in the United States

Table 214: Celiac Disease: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	4,720	59	25,400	315
	70 to 74	4,900	71	23,900	345
	75 to 79	3,620	74	17,200	351
	80 to 84	2,680	80	12,480	374
	85+	1,300	36	10,320	288
Race	White	16,060	73	82,580	375
	Black	.	.	1,420	76
	Other	.	.	5,300	181
Sex	Female	12,440	83	62,380	417
	Male	4,780	40	26,920	227
Region	Northeast	4,800	101	23,200	489
	Midwest	3,380	56	18,980	313
	South	5,960	56	31,380	296
	West	3,080	57	15,740	292
Total		17,220	64	89,300	333

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with celiac disease (all-listed diagnoses) increased with age until 85 years and were higher among women compared with men and almost five times higher among Whites compared with Blacks (Table 214). Rates were highest in the Northeast, followed by the Midwest, and lowest in the South and West.

Burden of Digestive Diseases in the United States

Table 215: Celiac Disease: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	.	.	2,580	32
	70 to 74	.	.	3,140	45
	75 to 79	.	.	3,300	67
	80 to 84	.	.	2,780	83
	85+	.	.	2,400	67
Race	White	.	.	13,260	60
	Black	.	.	.	.
	Other	.	.	.	.
Sex	Female	.	.	10,240	68
	Male	.	.	3,960	33
Region	Northeast	.	.	3,540	75
	Midwest	.	.	2,940	48
	South	.	.	5,100	48
	West	.	.	2,620	49
Total		.	.	14,200	53

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visits with celiac disease were uncommon among Blacks (Table 215). Rates (all-listed diagnoses) increased with age until 85 years and were twice as high among women compared with men. Rates were higher in the Northeast compared with the Midwest, South, and West.

Burden of Digestive Diseases in the United States

Table 216: Celiac Disease: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	.	.	2,160	27
	70 to 74	.	.	2,560	37
	75 to 79	.	.	2,560	52
	80 to 84	.	.	1,940	58
	85+	.	.	2,140	60
Race	White	.	.	10,580	48
	Black	.	.	.	.
	Other	.	.	.	.
Sex	Female	.	.	7,880	53
	Male	.	.	3,480	29
Region	Northeast	.	.	2,960	62
	Midwest	.	.	2,420	40
	South	.	.	3,820	36
	West	.	.	2,160	40
Total		.	.	11,360	42

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharges with celiac disease were uncommon among Blacks (Table 216). Rates (all-listed diagnoses) increased with age and were higher among women compared with men. Rates were higher in the Northeast compared with the South, Midwest, and West.

Burden of Digestive Diseases in the United States

Table 217: Gastrointestinal Infections (exc. C. difficile): Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	339	696	468	962
	12 to 24	323	576	377	671
	25 to 44	270	320	318	377
	45 to 54	84	196	123	286
	55 to 64	119	291	167	410
	65 to 74	37	135	108	393
	75 plus	77	382	81	400
Race	White	940	394	1,257	519
	Black	286	627	354	786
	Other	24	104	31	136
Ethnicity	Hispanic	217	394	316	551
	Not Hispanic	1,033	422	1,327	528
Sex	Female	692	455	952	608
	Male	557	368	690	454
Total		1,250	408	1,642	527

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Gastrointestinal infections (excluding C. difficile) contributed to 1.6 million ambulatory visits (2015) (Table 217). Ambulatory care visit rates (all-listed diagnoses) were highest among children and adolescents. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 218: Gastrointestinal Infections (exc. C. difficile): Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	174	360	208	429
	12 to 24	83	149	101	182
	25 to 44	108	124	143	164
	45 to 54	40	97	60	144
	55 to 64	38	90	63	149
	65 to 74	32	106	57	185
	75 plus	35	161	67	304
Sex	Female	287	179	394	239
	Male	224	144	304	193
Total		510	162	698	217

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Gastrointestinal infections (excluding C. difficile) contributed to 698,000 emergency department visits in 2018 (Table 218). Emergency department visit rates (all-listed diagnoses) were highest among children and second highest among persons 75 years and over. Age-adjusted rates were higher among women compared with men.

Burden of Digestive Diseases in the United States

Table 219: Gastrointestinal Infections (exc. C. difficile): Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	16	32	31	64
	12 to 24	7	12	14	25
	25 to 44	16	18	36	42
	45 to 54	13	30	28	68
	55 to 64	16	39	39	92
	65 to 74	17	55	40	133
	75 plus	21	97	51	231
Race	White	85	30	190	67
	Black	14	32	35	78
	Other	7	29	17	66
Ethnicity	Hispanic	16	30	34	65
	Not Hispanic	91	31	208	69
Sex	Female	63	34	137	74
	Male	43	26	102	61
Total		106	30	240	68

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Gastrointestinal infections (excluding C. difficile) contributed to 240,000 hospital discharges in 2018 (Table 219). Hospital discharge rates (all-listed diagnoses) were higher among children compared with adolescents and younger adults and then increased with age. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 220: Gastrointestinal Infections (exc. C. difficile): Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	215	0.4	16.5	279	0.6	21.4
	12 to 24	9	0.0	0.6	19	0.0	1.2
	25 to 44	70	0.1	3.1	146	0.2	6.4
	45 to 54	112	0.3	3.5	235	0.6	7.3
	55 to 64	313	0.7	7.2	632	1.5	14.6
	65 to 74	537	1.7	8.5	1,060	3.4	16.8
	75 plus	1,580	7.0	10.3	2,905	12.9	19.4
Race	White	2,398	0.7	36.9	4,519	1.3	66.9
	Black	332	0.8	10.5	566	1.3	16.1
	Other	106	0.4	2.2	191	0.8	4.0
Ethnicity	Hispanic	237	0.6	6.3	402	1.0	9.7
	Not Hispanic	2,599	0.7	43.3	4,874	1.4	77.2
Sex	Female	1,701	0.8	27.5	3,103	1.4	48.1
	Male	1,135	0.7	22.1	2,173	1.3	38.9
Total		2,836	0.7	49.6	5,276	1.3	87.0

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Gastrointestinal infections (excluding C. difficile) contributed to 5,000 deaths in 2019 (Table 220). Mortality rates (underlying or other cause) were higher among children compared with adolescents and younger adults and then increased with age. Age-adjusted mortality rates were higher among women and non-Hispanics and did not differ by race.

Burden of Digestive Diseases in the United States

Table 221: Gastrointestinal Infections (exc. C. difficile): Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	6,863	0.6%	9,069	0.8%
	12 to 24	1,451,892	4,595	0.3%	6,335	0.4%
	25 to 44	2,656,672	7,506	0.3%	11,473	0.4%
	45 to 54	1,452,320	3,713	0.3%	6,703	0.5%
	55 to 64	1,640,216	4,038	0.2%	7,891	0.5%
	65 to 74	2,840,615	6,251	0.2%	13,250	0.5%
	75 plus	2,576,241	5,661	0.2%	12,428	0.5%
Race-ethnicity	White	8,657,702	21,074	0.2%	37,052	0.4%
	Black	1,242,477	3,801	0.3%	7,231	0.6%
	Hispanic	1,493,457	5,039	0.3%	9,396	0.6%
	Asian	607,284	1,370	0.2%	2,421	0.4%
	Unknown	1,719,014	7,343	0.4%	11,049	0.6%
Sex	Female	7,199,363	21,975	0.3%	38,875	0.5%
	Male	6,520,571	16,652	0.3%	28,274	0.4%
Region	Northeast	1,526,275	4,349	0.3%	7,660	0.5%
	Midwest	3,322,846	8,389	0.3%	13,719	0.4%
	South	5,619,435	19,018	0.3%	33,725	0.6%
	West	3,251,378	6,871	0.2%	12,045	0.4%
Total		13,719,934	38,627	0.3%	67,149	0.5%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of gastrointestinal infections (excluding C. difficile) (based on all-listed diagnoses) was 0.5% (Table 221). Prevalence was highest among children and higher among women. It was higher among Blacks and Hispanics compared with Whites and Asians. It was highest in the South, and lowest in the Midwest and West.

Burden of Digestive Diseases in the United States

Table 222: Gastrointestinal Infections (exc. C. difficile): Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	7,126	647	9,592	870
	12 to 24	4,791	330	6,796	468
	25 to 44	8,008	301	12,919	486
	45 to 54	3,852	265	7,267	500
	55 to 64	4,017	245	8,065	492
	65 to 74	6,298	222	13,223	465
	75 plus	5,716	222	11,860	460
Race-ethnicity	White	21,410	247	37,151	429
	Black	3,880	312	7,281	586
	Hispanic	5,365	359	10,559	707
	Asian	1,466	241	2,765	455
	Unknown	7,687	447	11,966	696
Sex	Female	22,588	314	40,674	565
	Male	17,220	264	29,048	445
Region	Northeast	4,512	296	8,008	525
	Midwest	8,538	257	13,571	408
	South	19,559	348	34,967	622
	West	7,199	221	13,176	405
Total		39,808	290	69,722	508

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with gastrointestinal infections (excluding C. difficile) (all-listed diagnoses) were highest among children and were higher among women compared with men (Table 222). Among persons with known race-ethnicity, rates were highest among Hispanics, followed by Blacks, then Asians, and lowest among Whites. Rates were highest in the South, followed by the Northeast, and lowest in the Midwest and West.

Burden of Digestive Diseases in the United States

Table 223: Gastrointestinal Infections (exc. C. difficile): Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	23	2	33	3
	12 to 24	16	1	35	2
	25 to 44	117	4	205	8
	45 to 54	135	9	225	15
	55 to 64	265	16	458	28
	65 to 74	553	19	1,042	37
	75 plus	550	21	1,085	42
Race-ethnicity	White	1,027	12	1,888	22
	Black	243	20	445	36
	Hispanic	200	13	412	28
	Asian	31	5	55	9
	Unknown	158	9	283	16
Sex	Female	1,104	15	2,067	29
	Male	555	9	1,016	16
Region	Northeast	190	12	306	20
	Midwest	444	13	720	22
	South	804	14	1,593	28
	West	221	7	464	14
Total		1,659	12	3,083	22

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with gastrointestinal infections (excluding C. difficile) (all-listed diagnoses) increased with age and were higher among women compared with men (Table 223). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Hispanics, then Whites, and lowest among Asians. Rates were highest in the South, followed by the Midwest, then the Northeast, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 224: Gastrointestinal Infections (exc. C. difficile): Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	105	10	222	20
	12 to 24	69	5	194	13
	25 to 44	151	6	550	21
	45 to 54	213	15	741	51
	55 to 64	366	22	1,511	92
	65 to 74	744	26	3,331	117
	75 plus	1,132	44	4,530	176
Race-ethnicity	White	1,839	21	7,104	82
	Black	347	28	1,535	124
	Hispanic	263	18	1,216	81
	Asian	51	8	231	38
	Unknown	280	16	993	58
Sex	Female	1,818	25	6,754	94
	Male	962	15	4,325	66
Region	Northeast	366	24	1,571	103
	Midwest	603	18	2,423	73
	South	1,352	24	5,246	93
	West	459	14	1,839	57
Total		2,780	20	11,079	81

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with gastrointestinal infections (excluding C. difficile) (all-listed diagnoses) were higher among children compared with adolescents and the youngest adults and then increased with age and were higher among women compared with men (Table 224). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites and Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 225: Gastrointestinal Infections (exc. C. difficile): Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	30,860	0.4%	56,600	0.7%
	70 to 74	6,936,940	30,000	0.4%	54,300	0.8%
	75 to 79	4,894,060	22,540	0.5%	41,700	0.9%
	80 to 84	3,335,340	17,660	0.5%	30,960	0.9%
	85+	3,578,120	18,360	0.5%	33,000	0.9%
Race	White	22,023,800	96,880	0.4%	174,260	0.8%
	Black	1,861,660	7,740	0.4%	14,300	0.8%
	Other	2,925,320	14,800	0.5%	28,000	1.0%
Sex	Female	14,975,560	77,640	0.5%	139,240	0.9%
	Male	11,835,220	41,780	0.4%	77,320	0.7%
Region	Northeast	4,748,700	22,820	0.5%	41,000	0.9%
	Midwest	6,069,800	24,620	0.4%	43,700	0.7%
	South	10,595,900	50,380	0.5%	90,780	0.9%
	West	5,396,380	21,600	0.4%	41,080	0.8%
Total		26,810,780	119,420	0.4%	216,560	0.8%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of gastrointestinal infections (excluding C. difficile) (based on all-listed diagnoses) was 0.8% (Table 225). Prevalence was highest among persons 75 years and over, higher among women, and did not differ by race. It was highest in the Northeast and South, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 226: Gastrointestinal Infections (exc. C. difficile): Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	24,660	306	52,760	654
	70 to 74	23,740	342	49,320	711
	75 to 79	18,760	383	38,600	789
	80 to 84	13,260	398	26,480	794
	85+	14,620	409	28,760	804
Race	White	76,520	347	154,820	703
	Black	5,620	302	12,840	690
	Other	12,900	441	28,260	966
Sex	Female	61,700	412	126,620	846
	Male	33,340	282	69,300	586
Region	Northeast	18,980	400	37,820	796
	Midwest	17,460	288	34,960	576
	South	40,720	384	84,140	794
	West	17,880	331	39,000	723
Total		95,040	354	195,920	731

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with gastrointestinal infections (excluding C. difficile) (all-listed diagnoses) increased with age and were higher among women compared with men and Whites compared with Blacks (Table 226). Rates were highest in the Northeast and South, followed by the West, and lowest in the Midwest.

Burden of Digestive Diseases in the United States

Table 227: Gastrointestinal Infections (exc. C. difficile): Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	9,920	123	17,340	215
	70 to 74	10,220	147	17,520	253
	75 to 79	7,380	151	13,760	281
	80 to 84	7,100	213	12,960	389
	85+	8,380	234	16,180	452
Race	White	35,460	161	63,880	290
	Black	3,060	164	5,680	305
	Other	4,480	153	8,200	280
Sex	Female	28,900	193	49,900	333
	Male	14,100	119	27,860	235
Region	Northeast	8,280	174	15,520	327
	Midwest	10,420	172	18,340	302
	South	17,240	163	30,540	288
	West	7,060	131	13,360	248
Total		43,000	160	77,760	290

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with gastrointestinal infections (excluding C. difficile) (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 227). Rates were highest in the Northeast, followed by the Midwest, then the South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 228: Gastrointestinal Infections (exc. C. difficile): Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	4,660	58	11,600	144
	70 to 74	5,380	78	12,060	174
	75 to 79	3,920	80	10,040	205
	80 to 84	4,080	122	9,520	285
	85+	4,880	136	12,040	336
Race	White	18,920	86	45,520	207
	Black	1,680	90	3,940	212
	Other	2,320	79	5,800	198
Sex	Female	15,200	101	34,760	232
	Male	7,720	65	20,500	173
Region	Northeast	5,020	106	12,000	253
	Midwest	5,500	91	13,160	217
	South	8,720	82	20,580	194
	West	3,680	68	9,520	176
Total		22,920	85	55,260	206

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files.
Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year.
Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with gastrointestinal infections (excluding C. difficile) (all-listed diagnoses) increased with age and were higher among women compared with men but differed little by race (Table 228). Rates were highest in the Northeast, followed by the Midwest, then the South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 229: Clostridium difficile: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2015

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	16	34	18	38
	12 to 24	3	5	3	5
	25 to 44	15	17	20	24
	45 to 54	21	48	27	62
	55 to 64	49	119	56	136
	65 to 74	28	100	67	245
	75 plus	39	195	59	291
Race	White	140	47	211	71
	Black	7	18	14	42
	Other	23	80	24	83
Ethnicity	Hispanic	23	49	26	56
	Not Hispanic	147	48	223	70
Sex	Female	104	50	166	80
	Male	66	39	83	50
Total		170	45	249	67

Source: National Ambulatory Medical Care Survey (3-year average, 2014-2016). Rates for age groups are unadjusted and all other rates are age-adjusted.

Clostridium difficile contributed to 249,000 ambulatory visits (2015) (Table 229). Ambulatory care visit rates (all-listed diagnoses) were higher among children compared with adolescents and younger adults and then increased with age. Age-adjusted rates were higher among women compared with men, Whites compared with Blacks, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 230: Clostridium difficile: Emergency department visits with first-listed and all-listed diagnoses by age and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	3	6	5	11
	12 to 24	4	8	9	16
	25 to 44	14	16	32	37
	45 to 54	12	29	31	75
	55 to 64	18	43	52	123
	65 to 74	21	68	63	208
	75 plus	36	162	100	454
Sex	Female	70	35	173	85
	Male	39	23	120	69
Total		108	29	293	78

Source: Healthcare Cost and Utilization Project Nationwide Emergency Department Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Clostridium difficile contributed to 293,000 emergency department visits in 2018 (Table 230). Emergency department visit rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men.

Burden of Digestive Diseases in the United States

Table 231: Clostridium difficile: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	2	4	5	10
	12 to 24	3	5	8	15
	25 to 44	9	10	29	33
	45 to 54	9	21	30	73
	55 to 64	15	35	57	135
	65 to 74	19	63	71	233
	75 plus	33	149	106	485
Race	White	77	25	254	81
	Black	10	23	40	93
	Other	3	15	15	63
Ethnicity	Hispanic	7	18	27	63
	Not Hispanic	82	25	282	84
Sex	Female	57	28	175	85
	Male	32	19	132	75
Total		89	23	307	80

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Clostridium difficile contributed to 307,000 hospital discharges in 2018 (Table 231). Hospital discharge rates (all-listed diagnoses) increased with age. Age-adjusted rates were higher among women compared with men, Blacks compared with Whites, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 232: Clostridium difficile: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	5	0.0	0.4	9	0.0	0.7
	12 to 24	2	0.0	0.1	13	0.0	0.7
	25 to 44	66	0.1	2.8	144	0.2	6.1
	45 to 54	135	0.3	4.2	287	0.7	8.9
	55 to 64	444	1.0	10.2	916	2.2	21.0
	65 to 74	949	3.0	15.0	1,814	5.8	28.4
	75 plus	2,940	13.0	20.0	4,956	22.0	34.6
Race	White	3,956	1.2	44.2	7,095	2.1	84.6
	Black	441	1.1	6.7	803	1.9	12.6
	Other	144	0.6	1.8	241	1.0	3.3
Ethnicity	Hispanic	308	0.9	4.5	509	1.4	8.0
	Not Hispanic	4,233	1.1	48.1	7,630	2.1	92.4
Sex	Female	2,644	1.1	30.8	4,571	2.0	56.7
	Male	1,897	1.1	21.8	3,568	2.1	43.8
Total		4,541	1.1	52.6	8,139	2.0	100.5

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Clostridium difficile contributed to 8,000 deaths in 2019 (Table 232). Mortality was uncommon among the youngest age groups after which rates (underlying or other cause) increased with age. Age-adjusted mortality rates were higher among men, Whites, and non-Hispanics.

Burden of Digestive Diseases in the United States

Table 233: Clostridium difficile: Claims-based prevalence with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	0 to 11	1,101,978	56	0.0%	121	0.0%
	12 to 24	1,451,892	161	0.0%	308	0.0%
	25 to 44	2,656,672	507	0.0%	965	0.0%
	45 to 54	1,452,320	526	0.0%	1,083	0.1%
	55 to 64	1,640,216	1,128	0.1%	2,503	0.2%
	65 to 74	2,840,615	2,483	0.1%	5,627	0.2%
	75 plus	2,576,241	4,530	0.2%	9,292	0.4%
Race-ethnicity	White	8,657,702	6,991	0.1%	14,293	0.2%
	Black	1,242,477	866	0.1%	2,182	0.2%
	Hispanic	1,493,457	728	0.0%	1,656	0.1%
	Asian	607,284	147	0.0%	353	0.1%
	Unknown	1,719,014	659	0.0%	1,415	0.1%
Sex	Female	7,199,363	6,141	0.1%	12,325	0.2%
	Male	6,520,571	3,250	0.0%	7,574	0.1%
Region	Northeast	1,526,275	1,251	0.1%	2,631	0.2%
	Midwest	3,322,846	2,262	0.1%	4,806	0.1%
	South	5,619,435	3,892	0.1%	8,361	0.1%
	West	3,251,378	1,986	0.1%	4,101	0.1%
Total		13,719,934	9,391	0.1%	19,899	0.1%

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among privately insured enrollees, the claims-based prevalence of Clostridium difficile (based on all-listed diagnoses) was 0.1% (Table 233). C. difficile was uncommon among children and adolescents and the youngest adults and then prevalence increased with age. Prevalence was higher among women and higher among Whites and Blacks compared with Hispanics and Asians. It differed little by region.

Burden of Digestive Diseases in the United States

Table 234: Clostridium difficile: Ambulatory care visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	63	6	147	13
	12 to 24	222	15	454	31
	25 to 44	744	28	1,533	58
	45 to 54	765	53	1,670	115
	55 to 64	1,771	108	4,123	251
	65 to 74	4,218	148	10,143	357
	75 plus	9,474	368	21,614	839
Race-ethnicity	White	13,316	154	29,790	344
	Black	1,376	111	3,631	292
	Hispanic	1,206	81	3,107	208
	Asian	221	36	573	94
	Unknown	1,138	66	2,583	150
Sex	Female	11,239	156	25,525	355
	Male	6,018	92	14,159	217
Region	Northeast	2,588	170	5,918	388
	Midwest	3,967	119	9,593	289
	South	6,684	119	14,887	265
	West	4,018	124	9,286	286
Total		17,257	126	39,684	289

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, ambulatory care visit rates with Clostridium difficile (all-listed diagnoses) increased with age and were higher among women compared with men (Table 234). Among persons with known race-ethnicity, rates were highest among Whites, followed by Blacks, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the Midwest and West, and lowest in the South.

Burden of Digestive Diseases in the United States

Table 235: Clostridium difficile: Emergency department visits with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	1	0	1	0
	12 to 24	4	0	6	0
	25 to 44	24	1	39	1
	45 to 54	28	2	70	5
	55 to 64	105	6	226	14
	65 to 74	290	10	612	22
	75 plus	527	20	1,117	43
Race-ethnicity	White	763	9	1,586	18
	Black	73	6	174	14
	Hispanic	69	5	149	10
	Asian	13	2	24	4
	Unknown	61	4	138	8
Sex	Female	640	9	1,324	18
	Male	339	5	747	11
Region	Northeast	151	10	290	19
	Midwest	298	9	594	18
	South	334	6	752	13
	West	196	6	435	13
Total		979	7	2,071	15

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, emergency department visit rates with Clostridium difficile (all-listed diagnoses) increased with age and were higher among women compared with men (Table 235). Among persons with known race-ethnicity, rates were highest among Whites, followed by Blacks, then Hispanics, and lowest among Asians. Rates were higher in the Northeast and Midwest compared with the South and West.

Burden of Digestive Diseases in the United States

Table 236: Clostridium difficile: Hospital discharges with first-listed and all-listed diagnoses by age, race-ethnicity, sex and region among privately insured enrollees, 2020

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	0 to 11	14	1	65	6
	12 to 24	33	2	133	9
	25 to 44	90	3	393	15
	45 to 54	156	11	662	46
	55 to 64	371	23	1,904	116
	65 to 74	841	30	4,305	152
	75 plus	1,595	62	6,788	263
Race-ethnicity	White	2,240	26	9,845	114
	Black	336	27	1,869	150
	Hispanic	269	18	1,297	87
	Asian	37	6	227	37
	Unknown	218	13	1,012	59
Sex	Female	2,053	29	8,320	116
	Male	1,047	16	5,930	91
Region	Northeast	403	26	1,895	124
	Midwest	683	21	3,449	104
	South	1,446	26	6,209	110
	West	568	17	2,697	83
Total		3,100	23	14,250	104

Source: De-identified Optum Clinformatic® Data Mart.

Enrollees with full enrollment in a commercial health plan or Medicare during the year.

Among commercial insurance enrollees, hospital discharge rates with Clostridium difficile (all-listed diagnoses) increased with age and were higher among women compared with men (Table 236). Among persons with known race-ethnicity, rates were highest among Blacks, followed by Whites, then Hispanics, and lowest among Asians. Rates were highest in the Northeast, followed by the South, then the Midwest, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 237: Clostridium difficile: Claims-based prevalence with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		Number of enrollees	First-Listed Diagnosis		All-Listed Diagnoses	
			Number of enrollees with disease	Percent of enrollees with disease	Number of enrollees with disease	Percent of enrollees with disease
Age (years)	65 to 69	8,066,320	10,820	0.1%	23,040	0.3%
	70 to 74	6,936,940	13,600	0.2%	26,500	0.4%
	75 to 79	4,894,060	14,440	0.3%	25,760	0.5%
	80 to 84	3,335,340	10,100	0.3%	20,060	0.6%
	85+	3,578,120	16,520	0.5%	29,880	0.8%
Race	White	22,023,800	57,120	0.3%	106,640	0.5%
	Black	1,861,660	4,020	0.2%	8,940	0.5%
	Other	2,925,320	4,340	0.1%	9,660	0.3%
Sex	Female	14,975,560	42,500	0.3%	78,120	0.5%
	Male	11,835,220	22,980	0.2%	47,120	0.4%
Region	Northeast	4,748,700	12,040	0.3%	23,480	0.5%
	Midwest	6,069,800	16,480	0.3%	30,080	0.5%
	South	10,595,900	26,420	0.2%	50,320	0.5%
	West	5,396,380	10,540	0.2%	21,360	0.4%
Total		26,810,780	65,480	0.2%	125,240	0.5%

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, the claims-based prevalence of Clostridium difficile (based on all-listed diagnoses) was 0.5% (Table 237). Prevalence increased with age, was higher among women, and did not differ by race. It differed little by region.

Burden of Digestive Diseases in the United States

Table 238: Clostridium difficile: Ambulatory care visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	16,700	207	41,420	513
	70 to 74	19,480	281	49,680	716
	75 to 79	23,980	490	52,540	1,074
	80 to 84	18,820	564	42,920	1,287
	85+	31,020	867	70,900	1,981
Race	White	96,780	439	225,020	1,022
	Black	6,340	341	15,880	853
	Other	6,880	235	16,560	566
Sex	Female	74,480	497	169,100	1,129
	Male	35,520	300	88,360	747
Region	Northeast	22,440	473	55,240	1,163
	Midwest	25,820	425	59,400	979
	South	43,440	410	98,420	929
	West	18,300	339	44,400	823
Total		110,000	410	257,460	960

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, ambulatory care visit rates with Clostridium difficile (all-listed diagnoses) increased with age and were higher among women compared with men and Whites compared with Blacks (Table 238). Rates were highest in the Northeast, followed by the Midwest, then the South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 239: Clostridium difficile: Emergency department visits with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	5,200	64	15,920	197
	70 to 74	6,680	96	18,140	261
	75 to 79	7,000	143	18,040	369
	80 to 84	5,140	154	14,560	437
	85+	8,800	246	22,140	619
Race	White	28,300	128	73,460	334
	Black	2,180	117	7,980	429
	Other	2,340	80	7,360	252
Sex	Female	21,560	144	54,480	364
	Male	11,260	95	34,320	290
Region	Northeast	6,260	132	17,020	358
	Midwest	8,080	133	21,580	356
	South	13,400	126	34,560	326
	West	5,080	94	15,640	290
Total		32,820	122	88,800	331

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, emergency department visit rates with Clostridium difficile (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 239). Rates were highest in the Northeast and Midwest, followed by the South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 240: Clostridium difficile: Hospital discharges with first-listed and all-listed diagnoses by age, race, sex and region among fee-for-service, age-eligible Medicare beneficiaries, 2019

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number of events	Event rate per 100,000	Number of events	Event rate per 100,000
Age (years)	65 to 69	4,420	55	18,420	228
	70 to 74	5,400	78	19,940	287
	75 to 79	5,900	121	19,660	402
	80 to 84	4,240	127	15,420	462
	85+	7,740	216	22,320	624
Race	White	24,140	110	78,640	357
	Black	1,860	100	8,900	478
	Other	1,700	58	8,220	281
Sex	Female	18,220	122	57,100	381
	Male	9,480	80	38,660	327
Region	Northeast	4,880	103	17,520	369
	Midwest	7,220	119	23,820	392
	South	11,840	112	38,560	364
	West	3,760	70	15,860	294
Total		27,700	103	95,760	357

Source: Centers for Medicare & Medicaid Services, 5% Denominator and Claims Files. Beneficiaries aged 65+ years with continuous and full Parts A and B enrollment and no Health Maintenance Organization enrollment during the year. Unweighted counts were multiplied by 20 to produce counts for this table.

Among Medicare beneficiaries, hospital discharge rates with Clostridium difficile (all-listed diagnoses) increased with age and were higher among women compared with men and Blacks compared with Whites (Table 240). Rates were highest in the Midwest, followed by the Northeast and South, and lowest in the West.

Burden of Digestive Diseases in the United States

Table 241: Esophageal Cancer: Incidence rates by age, race, ethnicity, and sex, 2016

Demographic Characteristics		Number of cases	Incidence per 100,000
Age (years)	0 to 11	.	.
	12 to 24	.	.
	25 to 44	324	0.4
	45 to 54	1,347	3.2
	55 to 64	4,323	10.2
	65 to 74	5,692	18.7
	75 plus	5,350	24.4
Race	White	14,984	4.6
	Black	1,395	3.3
	Other	686	2.5
Ethnicity	Hispanic	842	2.0
	Not Hispanic	15,065	4.3
Sex	Female	3,791	1.8
	Male	12,562	7.0
Total		16,376	4.2

Source: Surveillance, Epidemiology, and End Results (SEER) Program.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Esophageal cancer accounted for 16,000 incident cases in 2016 (Table 241). Esophageal cancer was rare among children and adolescents and incidence rates increased with age throughout adulthood. Age-adjusted incidence rates were much higher among men compared with women, and higher among Whites compared with Blacks, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 242: Esophageal Cancer: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	.	.	0	0
	25 to 44	0	0	1	1
	45 to 54	2	4	4	10
	55 to 64	4	10	11	27
	65 to 74	4	14	13	43
	75 plus	3	15	10	48
Race	White	12	4	34	10
	Black	1	3	4	8
	Other	1	3	2	8
Ethnicity	Hispanic	1	2	3	6
	Not Hispanic	13	4	38	10
Sex	Female	3	1	8	4
	Male	11	6	32	17
Total		14	3	40	10

Source: Healthcare Cost and Utilization Project National Inpatient Sample.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Esophageal cancer accounted contributed to 40,000 hospital discharges in 2018 (Table 242). Esophageal cancer hospitalization was rare among children and adolescents and hospital discharge rates increased with age throughout adulthood. Age-adjusted hospital discharge rates (all-listed diagnoses) were much higher among men compared with women, and higher among Whites compared with Blacks, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 243: Esophageal Cancer: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	6	0.0	0.3	6	0.0	0.3
	25 to 44	283	0.3	11.4	298	0.3	12.0
	45 to 54	1,122	2.7	33.1	1,197	2.9	35.3
	55 to 64	3,817	9.0	83.9	4,081	9.6	89.7
	65 to 74	5,200	16.5	79.4	5,702	18.1	87.0
	75 plus	5,557	24.6	43.8	6,221	27.6	49.0
Race	White	14,295	4.1	223.7	15,631	4.5	242.3
	Black	1,264	2.8	21.2	1,410	3.1	23.4
	Other	426	1.7	7.1	464	1.8	7.7
Ethnicity	Hispanic	681	1.7	12.9	753	1.8	14.2
	Not Hispanic	15,304	4.1	239.1	16,752	4.5	259.2
Sex	Female	3,145	1.4	50.8	3,466	1.5	55.5
	Male	12,840	6.8	201.2	14,039	7.4	217.9
Total		15,985	3.8	252.0	17,505	4.2	273.4

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Esophageal cancer contributed to 18,000 deaths in 2019 (Table 243). Esophageal cancer mortality was rare among children and adolescents and mortality rates increased with age throughout adulthood. Age-adjusted mortality rates (underlying or other cause) were much higher among men compared with women, and higher among Whites compared with Blacks, and non-Hispanics compared with Hispanics.

Burden of Digestive Diseases in the United States

Table 244: Gastric Cancer: Incidence rates by age, race, ethnicity, and sex, 2016

Demographic Characteristics		Number of cases	Incidence per 100,000
Age (years)	0 to 11	.	.
	12 to 24	.	0.2
	25 to 44	1,346	1.5
	45 to 54	2,262	5.4
	55 to 64	5,412	12.8
	65 to 74	7,184	23.6
	75 plus	8,093	36.9
Race	White	17,077	5.4
	Black	3,483	8.5
	Other	2,422	9.1
Ethnicity	Hispanic	3,486	8.6
	Not Hispanic	19,874	5.9
Sex	Female	9,182	4.5
	Male	14,343	8.2
Total		23,539	6.2

Source: Surveillance, Epidemiology, and End Results (SEER) Program.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Gastric cancer accounted for 24,000 incident cases in 2016 (Table 244). Gastric cancer was rare among children and adolescents and incidence rates increased with age throughout adulthood. Age-adjusted incidence rates were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 245: Gastric Cancer: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	0	0
	12 to 24	0	0	0	0
	25 to 44	1	2	3	4
	45 to 54	2	5	5	12
	55 to 64	5	11	10	24
	65 to 74	5	16	11	37
	75 plus	5	24	12	53
Race	White	13	4	29	9
	Black	3	7	7	16
	Other	3	11	5	22
Ethnicity	Hispanic	4	8	7	17
	Not Hispanic	15	4	34	10
Sex	Female	7	3	15	7
	Male	12	7	26	14
Total		19	5	41	11

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Gastric cancer contributed to 41,000 hospital discharges in 2018 (Table 245). Gastric cancer hospitalization was rare among children and adolescents and hospital discharge rates increased with age throughout adulthood. Age-adjusted hospital discharges rates (all-listed diagnoses) were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 246: Gastric Cancer: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	21	0.0	1.2	23	0.0	1.3
	25 to 44	559	0.6	24.0	583	0.7	25.1
	45 to 54	1,021	2.5	32.1	1,055	2.6	33.2
	55 to 64	2,074	4.9	47.2	2,208	5.2	50.2
	65 to 74	2,925	9.3	45.7	3,149	10.0	49.1
	75 plus	4,513	20.0	34.3	5,039	22.3	38.2
Race	White	8,137	2.5	136.3	8,829	2.7	145.4
	Black	1,941	4.6	30.5	2,114	5.0	32.9
	Other	1,035	4.1	17.9	1,114	4.5	18.8
Ethnicity	Hispanic	1,709	4.1	38.4	1,828	4.4	40.5
	Not Hispanic	9,404	2.6	146.3	10,229	2.8	156.7
Sex	Female	4,478	2.1	79.1	4,827	2.2	84.1
	Male	6,635	3.7	105.6	7,230	4.0	113.1
Total		11,113	2.8	184.7	12,057	3.0	197.2

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Gastric cancer contributed to 12,000 deaths in 2019 (Table 246). Gastric cancer mortality was rare among children and adolescents and mortality rates increased with age throughout adulthood. Age-adjusted mortality rates (underlying or other cause) were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 247: Cancer of Small Intestine: Incidence rates by age, race, ethnicity, and sex, 2016

Demographic Characteristics		Number of cases	Incidence per 100,000
Age (years)	0 to 11	.	.
	12 to 24	.	0.0
	25 to 44	577	0.7
	45 to 54	1,168	2.8
	55 to 64	2,081	4.9
	65 to 74	2,873	9.4
	75 plus	2,630	12.0
Race	White	7,256	2.3
	Black	1,607	3.8
	Other	455	1.7
Ethnicity	Hispanic	674	1.6
	Not Hispanic	8,157	2.5
Sex	Female	4,247	2.1
	Male	4,795	2.7
Total		9,044	2.4

Source: Surveillance, Epidemiology, and End Results (SEER) Program.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Cancer of the small intestine accounted for 9,000 incident cases in 2016 (Table 247). Small intestinal cancer was rare among children and adolescents and incidence rates increased with age throughout adulthood. Age-adjusted incidence rates were higher among men compared with women, Blacks compared with Whites, and among non-Hispanics compared with Hispanics. Between 2004 and 2016, age-adjusted incidence rates (per 100,000) increased by a third from 1.8 to 2.4.(4)

Burden of Digestive Diseases in the United States

Table 248: Cancer of Small Intestine: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	.	.
	12 to 24	0	0	0	0
	25 to 44	0	0	0	1
	45 to 54	0	1	1	3
	55 to 64	1	2	2	5
	65 to 74	1	4	3	9
	75 plus	1	6	3	13
Race	White	3	1	7	2
	Black	1	2	2	4
	Other	0	1	1	3
Ethnicity	Hispanic	0	1	1	2
	Not Hispanic	4	1	9	2
Sex	Female	2	1	4	2
	Male	2	1	5	3
Total		4	1	9	2

Source: Healthcare Cost and Utilization Project National Inpatient Sample.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Cancer of the small intestine contributed to 9,000 hospital discharges in 2018 (Table 248). Small intestinal cancer hospitalization was rare among children and adolescents and hospital discharge rates increased with age throughout adulthood. Age-adjusted hospital discharge rates (all-listed diagnoses) were higher among men compared with women and Blacks compared with Whites but did not differ by ethnicity. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis decreased by a third from 3 to 2.(4)

Burden of Digestive Diseases in the United States

Table 249: Cancer of Small Intestine: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	3	0.0	0.2	3	0.0	0.2
	25 to 44	51	0.1	2.1	54	0.1	2.3
	45 to 54	107	0.3	3.3	119	0.3	3.6
	55 to 64	286	0.7	6.5	315	0.7	7.1
	65 to 74	490	1.6	7.7	542	1.7	8.5
	75 plus	771	3.4	5.9	883	3.9	6.8
Race	White	1,362	0.4	20.1	1,528	0.4	22.3
	Black	277	0.6	4.6	308	0.7	5.2
	Other	69	0.3	1.0	80	0.3	1.1
Ethnicity	Hispanic	100	0.3	1.8	120	0.3	2.2
	Not Hispanic	1,608	0.4	23.9	1,796	0.5	26.3
Sex	Female	782	0.3	12.4	867	0.4	13.6
	Male	926	0.5	13.3	1,049	0.6	14.9
Total		1,708	0.4	25.7	1,916	0.5	28.5

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Cancer of the small intestine contributed to 2,000 deaths in 2019 (Table 249). Small intestinal cancer mortality was rare among children and adolescents and mortality rates increased with age throughout adulthood. Age-adjusted mortality rates (underlying or other cause) were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by a fourth from 0.4 to 0.5.(4)

Burden of Digestive Diseases in the United States

Table 250: Colorectal Cancer: Incidence rates by age, race, ethnicity, and sex, 2016

Demographic Characteristics		Number of cases	Incidence per 100,000
Age (years)	0 to 11	.	0.0
	12 to 24	877	1.6
	25 to 44	8,814	10.1
	45 to 54	19,593	47.1
	55 to 64	29,710	70.3
	65 to 74	33,730	110.6
	75 plus	43,342	197.6
Race	White	106,708	34.3
	Black	16,878	40.6
	Other	9,409	34.7
Ethnicity	Hispanic	13,543	33.0
	Not Hispanic	115,855	35.3
Sex	Female	63,289	31.2
	Male	68,385	39.4
Total		131,692	35.0

Source: Surveillance, Epidemiology, and End Results (SEER) Program.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Colorectal cancer accounted for 132,000 incident cases in 2016 (Table 250). Colorectal cancer was rare among children and incidence rates increased with age throughout adulthood. Age-adjusted incidence rates were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2016, age-adjusted incidence rates (per 100,000) decreased by 26% from 47.5 to 35.0 (4)

Burden of Digestive Diseases in the United States

Table 251: Colorectal Cancer: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	0	0
	12 to 24	0	0	0	1
	25 to 44	7	8	16	18
	45 to 54	18	44	36	87
	55 to 64	29	68	59	139
	65 to 74	33	108	66	215
	75 plus	38	175	73	333
Race	White	103	32	202	63
	Black	15	34	32	74
	Other	9	36	18	71
Ethnicity	Hispanic	12	29	25	59
	Not Hispanic	114	33	227	66
Sex	Female	59	28	117	56
	Male	66	37	133	74
Total		126	32	250	64

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Colorectal cancer contributed to 250,000 hospital discharges in 2018 (Table 251). Colorectal cancer hospitalization was rare among children and hospital discharge rates increased with age throughout adulthood. Age-adjusted hospital discharge rates (all-listed diagnoses) were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis decreased by 26% from 87 to 64.(4,6)

Burden of Digestive Diseases in the United States

Table 252: Colorectal Cancer: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	38	0.1	2.2	42	0.1	2.4
	25 to 44	1,708	1.9	71.0	1,772	2.0	73.7
	45 to 54	4,734	11.6	146.4	4,988	12.2	154.1
	55 to 64	10,048	23.7	229.2	10,845	25.5	247.1
	65 to 74	12,684	40.3	199.8	14,354	45.6	225.4
	75 plus	22,494	99.6	164.0	27,798	123.1	199.0
Race	White	42,411	12.6	654.6	49,354	14.6	728.6
	Black	7,024	16.3	117.8	7,907	18.5	129.6
	Other	2,271	9.0	40.1	2,538	10.1	43.4
Ethnicity	Hispanic	3,654	8.8	74.4	4,063	9.9	80.6
	Not Hispanic	48,052	13.3	738.1	55,736	15.3	821.1
Sex	Female	24,124	10.7	377.1	27,678	12.2	415.7
	Male	27,582	15.2	435.4	32,121	17.8	486.0
Total		51,706	12.8	812.5	59,799	14.7	901.6

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Colorectal cancer contributed to 60,000 deaths in 2019 (Table 252). Colorectal cancer mortality was rare among children and mortality rates increased with age throughout adulthood. Age-adjusted mortality rates (underlying or other cause) were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with colorectal cancer as underlying or other cause decreased by 31% from 21.4 to 14.7.(4)

Burden of Digestive Diseases in the United States

Table 253: Primary Liver Cancer: Incidence rates by age, race, ethnicity, and sex, 2016

Demographic Characteristics		Number of cases	Incidence per 100,000
Age (years)	0 to 11	179	0.4
	12 to 24	.	0.2
	25 to 44	385	0.4
	45 to 54	1,852	4.4
	55 to 64	8,495	20.1
	65 to 74	9,980	32.7
	75 plus	6,524	29.7
Race	White	18,768	5.5
	Black	4,365	9.5
	Other	2,726	9.9
Ethnicity	Hispanic	4,316	10.8
	Not Hispanic	22,065	6.1
Sex	Female	6,640	3.1
	Male	19,823	10.4
Total		26,497	6.5

Source: Surveillance, Epidemiology, and End Results (SEER) Program.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Primary liver cancer accounted for 26,000 incident cases in 2016 (Table 253). Primary liver cancer was uncommon in childhood through young adulthood and incidence rates peaked among persons 65-74 years. Age-adjusted incidence rates were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 254: Primary Liver Cancer: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	1	2	4
	12 to 24	0	0	0	1
	25 to 44	0	0	2	2
	45 to 54	1	3	6	14
	55 to 64	6	13	23	54
	65 to 74	5	16	21	67
	75 plus	3	14	13	58
Race	White	11	3	49	14
	Black	2	5	10	20
	Other	2	9	7	28
Ethnicity	Hispanic	3	6	11	26
	Not Hispanic	13	4	55	15
Sex	Female	4	2	18	8
	Male	11	6	47	24
Total		16	4	65	16

Source: Healthcare Cost and Utilization Project National Inpatient Sample.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Primary liver cancer contributed to 65,000 hospital discharges in 2018 (Table 254). Primary liver cancer hospitalization was uncommon in childhood through young adulthood and rates peaked among persons 65-74 years. Age-adjusted hospital discharge rates (all-listed diagnoses) were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 255: Primary Liver Cancer: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	28	0.1	2.1	32	0.1	2.4
	12 to 24	29	0.1	1.7	30	0.1	1.8
	25 to 44	233	0.3	9.6	260	0.3	10.7
	45 to 54	963	2.4	28.4	1,110	2.7	32.8
	55 to 64	5,547	13.1	121.0	6,235	14.7	136.2
	65 to 74	7,041	22.4	110.0	7,957	25.3	124.2
	75 plus	6,353	28.1	51.1	7,051	31.2	56.7
Race	White	15,745	4.4	250.6	17,711	4.9	283.0
	Black	2,971	6.2	49.2	3,314	6.9	54.9
	Other	1,478	5.8	24.2	1,650	6.5	26.9
Ethnicity	Hispanic	2,410	5.8	44.9	2,722	6.5	51.3
	Not Hispanic	17,784	4.6	279.1	19,953	5.1	313.6
Sex	Female	5,513	2.4	85.9	6,118	2.6	95.9
	Male	14,681	7.4	238.1	16,557	8.3	269.0
Total		20,194	4.7	324.0	22,675	5.3	364.9

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Primary liver cancer contributed to 23,000 deaths in 2019 (Table 255). Primary liver cancer mortality rates increased with age. Age-adjusted mortality rates (underlying or other cause) were higher among men compared with women, Blacks compared with Whites, and Hispanics compared with non-Hispanics.

Burden of Digestive Diseases in the United States

Table 256: Bile Duct Cancer: Incidence rates by age, race, ethnicity, and sex, 2016

Demographic Characteristics		Number of cases	Incidence per 100,000
Age (years)	0 to 11	.	0.0
	12 to 24	.	.
	25 to 44	425	0.5
	45 to 54	936	2.2
	55 to 64	2,889	6.8
	65 to 74	4,056	13.3
	75 plus	4,932	22.5
Race	White	10,361	3.2
	Black	1,217	3.0
	Other	1,090	4.0
Ethnicity	Hispanic	1,542	4.1
	Not Hispanic	11,007	3.2
Sex	Female	5,878	2.8
	Male	6,840	3.9
Total		12,720	3.3

Source: Surveillance, Epidemiology, and End Results (SEER) Program.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Bile duct cancer accounted for 13,000 incident cases in 2016 (Table 256). Bile duct cancer was rare among children and adolescents and incidence rates increased with age throughout adulthood. Age-adjusted mortality rates (underlying or other cause) were higher among men compared with women, Whites compared with Blacks, and Hispanics compared with non-Hispanics. Between 2004 and 2016, age-adjusted incidence rates (per 100,000) increased by 43% from 2.3 to 3.3.(4)

Burden of Digestive Diseases in the United States

Table 257: Bile Duct Cancer: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	0	0
	12 to 24	0	0	0	0
	25 to 44	0	0	2	2
	45 to 54	1	3	3	8
	55 to 64	3	7	8	19
	65 to 74	4	12	11	35
	75 plus	3	16	10	44
Race	White	9	3	27	8
	Black	1	3	3	8
	Other	1	5	4	14
Ethnicity	Hispanic	1	4	4	10
	Not Hispanic	10	3	30	8
Sex	Female	5	2	16	7
	Male	6	3	18	10
Total		11	3	34	8

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Bile duct cancer contributed to 34,000 hospital discharges in 2018 (Table 257). Bile duct cancer hospitalization was rare among children and adolescents and hospital discharge rates increased with age throughout adulthood. Age-adjusted hospital discharge rates (all-listed diagnoses) were higher among men compared with women and Hispanics compared with non-Hispanics but did not differ by race. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by a third from 6 to 8.(4)

Burden of Digestive Diseases in the United States

Table 258: Bile Duct Cancer: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	10	0.0	0.6	11	0.0	0.6
	25 to 44	247	0.3	10.5	267	0.3	11.4
	45 to 54	617	1.5	19.3	664	1.6	20.8
	55 to 64	1,963	4.6	45.1	2,142	5.0	49.1
	65 to 74	3,130	9.9	49.8	3,422	10.9	54.4
	75 plus	3,871	17.1	31.4	4,250	18.8	34.5
Race	White	8,175	2.4	129.5	8,942	2.6	141.2
	Black	946	2.2	15.8	1,045	2.4	17.5
	Other	717	2.9	11.4	769	3.1	12.0
Ethnicity	Hispanic	909	2.2	18.2	1,004	2.4	20.0
	Not Hispanic	8,929	2.4	138.5	9,752	2.6	150.9
Sex	Female	4,756	2.1	78.4	5,147	2.3	84.7
	Male	5,082	2.7	78.3	5,609	3.0	86.2
Total		9,838	2.4	156.7	10,756	2.6	170.8

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Bile duct cancer contributed to 11,000 deaths in 2019 (Table 258). Bile duct cancer mortality was rare among children and adolescents and mortality rates increased with age throughout adulthood. Age-adjusted mortality rates (underlying or other cause) were higher among men compared with women, Whites compared with Blacks, and non-Hispanics compared with Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with bile duct cancer as underlying or other cause increased by 44% from 1.8 to 2.6.(4)

Burden of Digestive Diseases in the United States

Table 259: Gallbladder Cancer: Incidence rates by age, race, ethnicity, and sex, 2016

Demographic Characteristics		Number of cases	Incidence per 100,000
Age (years)	0 to 11	.	.
	12 to 24	.	.
	25 to 44	.	0.1
	45 to 54	326	0.8
	55 to 64	604	1.4
	65 to 74	1,315	4.3
	75 plus	2,009	9.2
Race	White	2,886	0.9
	Black	748	1.9
	Other	433	1.6
Ethnicity	Hispanic	583	1.6
	Not Hispanic	3,551	1.1
Sex	Female	2,923	1.4
	Male	1,254	0.8
Total		4,173	1.1

Source: Surveillance, Epidemiology, and End Results (SEER) Program. Rates for age groups are unadjusted and all other rates are age-adjusted.

Gallbladder cancer accounted for an estimated 4,000 incident cases in 2016 (Table 259). Gallbladder cancer was rare among children, adolescents, and younger adults and incidence rates increased with age throughout middle and older age. In contrast to all other common digestive cancers, age-adjusted incidence rates were higher among women compared with men. Incidence rates were higher among Blacks compared with Whites and among Hispanics compared with non-Hispanics. Since 2004, age-adjusted rates (per 100,000) for incidence have remained stable at 1.1.(4)

Burden of Digestive Diseases in the United States

Table 260: Gallbladder Cancer: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	.	.	0	0
	12 to 24	.	.	.	.
	25 to 44	0	0	0	0
	45 to 54	0	1	1	2
	55 to 64	1	2	2	4
	65 to 74	1	3	2	8
	75 plus	1	4	3	11
Race	White	2	1	5	2
	Black	1	1	1	3
	Other	0	1	1	4
Ethnicity	Hispanic	0	1	1	3
	Not Hispanic	2	1	7	2
Sex	Female	2	1	5	2
	Male	1	0	2	1
Total		3	1	8	2

Source: Healthcare Cost and Utilization Project National Inpatient Sample.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Gallbladder cancer contributed to 8,000 hospital discharges in 2018 (Table 260). Gallbladder cancer hospitalization was rare among children, adolescents, and younger adults and hospital discharge rates increased with age throughout middle and older age. In contrast to all other common digestive cancers, age-adjusted hospital discharge rates (all-listed diagnoses) were higher among women compared with men. Hospital discharge rates were higher among Blacks compared with Whites and among Hispanics compared with non-Hispanics. Since 2004, age-adjusted hospital discharge rates have remained stable at 2.(4)

Burden of Digestive Diseases in the United States

Table 261: Gallbladder Cancer: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	.	.	.	.	.	.
	12 to 24	.	.	.	.	.	.
	25 to 44	18	0.0	0.8	21	0.0	0.9
	45 to 54	138	0.3	4.4	147	0.4	4.7
	55 to 64	404	1.0	9.5	429	1.0	10.1
	65 to 74	628	2.0	10.2	671	2.1	10.9
	75 plus	952	4.2	7.7	1,036	4.6	8.3
Race	White	1,614	0.5	24.4	1,732	0.5	26.1
	Black	374	0.9	5.9	404	0.9	6.3
	Other	152	0.6	2.3	168	0.7	2.6
Ethnicity	Hispanic	289	0.7	5.8	312	0.8	6.4
	Not Hispanic	1,851	0.5	26.8	1,992	0.5	28.6
Sex	Female	1,436	0.6	22.9	1,537	0.7	24.4
	Male	704	0.4	9.8	767	0.4	10.6
Total		2,140	0.5	32.6	2,304	0.6	34.9

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Gallbladder cancer contributed to 2,000 deaths in 2019 (Table 261). Gallbladder cancer mortality was rare among children, adolescents, and younger adults and mortality rates increased with age throughout middle and older age. In contrast to all other common digestive cancers, age-adjusted mortality rates (underlying or other cause) were higher among women compared with men. Mortality rates were higher among Blacks compared with Whites and among Hispanics compared with non-Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with gallbladder cancer as underlying or other cause decreased by 14% from 0.7 to 0.6.(4)

Burden of Digestive Diseases in the United States

Table 262: Pancreatic Cancer: Incidence rates by age, race, ethnicity, and sex, 2016

Demographic Characteristics		Number of cases	Incidence per 100,000
Age (years)	0 to 11	.	0.0
	12 to 24	.	0.1
	25 to 44	1,194	1.4
	45 to 54	3,851	9.3
	55 to 64	11,352	26.9
	65 to 74	17,152	56.3
	75 plus	20,125	91.7
Race	White	43,366	13.3
	Black	6,430	15.6
	Other	3,001	11.1
Ethnicity	Hispanic	4,925	12.8
	Not Hispanic	45,662	13.3
Sex	Female	24,496	11.5
	Male	27,063	15.4
Total		51,567	13.3

Source: Surveillance, Epidemiology, and End Results (SEER) Program.
Rates for age groups are unadjusted and all other rates are age-adjusted.

Pancreatic cancer accounted for 52,000 incident cases in 2016 (Table 262). Pancreatic cancer was rare among children and adolescents and incidence rates increased with age throughout adulthood. Age-adjusted incidence rates were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2016, age-adjusted incidence rates (per 100,000) increased by 18% from 11.3 to 13.3 (4)

Burden of Digestive Diseases in the United States

Table 263: Pancreatic Cancer: Hospital discharges with first-listed and all-listed diagnoses by age, race, ethnicity, and sex in the United States, 2018

Demographic Characteristics		First-Listed Diagnosis		All-Listed Diagnoses	
		Number in thousands	Rate per 100,000	Number in thousands	Rate per 100,000
Age (years)	0 to 11	0	0	0	0
	12 to 24	0	0	0	0
	25 to 44	1	1	3	3
	45 to 54	3	8	10	23
	55 to 64	9	22	27	65
	65 to 74	12	39	37	122
	75 plus	12	53	33	152
Race	White	30	9	89	26
	Black	5	12	16	35
	Other	3	12	7	30
Ethnicity	Hispanic	3	8	10	24
	Not Hispanic	34	9	102	28
Sex	Female	19	9	54	24
	Male	18	10	57	30
Total		37	9	110	27

Source: Healthcare Cost and Utilization Project National Inpatient Sample. Rates for age groups are unadjusted and all other rates are age-adjusted.

Pancreatic cancer contributed to 110,000 hospital discharges in 2018 (Table 263). Pancreatic cancer hospitalization was rare among children and adolescents and hospital discharge rates increased with age throughout adulthood. Age-adjusted hospital discharge rates (all-listed diagnoses) were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2018, age-adjusted hospital discharge rates (per 100,000) with an all-listed diagnosis increased by 17% from 23 to 27.(4)

Burden of Digestive Diseases in the United States

Table 264: Pancreatic Cancer: Deaths with underlying or underlying/other cause and lifetime years of life lost by age, race, ethnicity, and sex in the United States, 2019

Demographic Characteristics		Underlying Cause			Underlying/Other Cause		
		Number of Deaths	Rate per 100,000	Years of potential life lost in thousands	Number of Deaths	Rate per 100,000	Years of potential life lost in thousands
Age (years)	0 to 11	1	0.0	0.1	1	0.0	0.1
	12 to 24	7	0.0	0.4	8	0.0	0.5
	25 to 44	534	0.6	21.5	565	0.6	22.7
	45 to 54	2,454	6.0	74.7	2,551	6.2	77.7
	55 to 64	9,068	21.4	205.6	9,456	22.3	214.4
	65 to 74	14,448	45.9	227.7	15,173	48.2	238.9
	75 plus	19,444	86.1	155.9	20,570	91.1	164.7
Race	White	38,345	11.0	566.0	40,315	11.6	593.2
	Black	5,810	13.3	92.0	6,123	14.1	96.7
	Other	1,801	7.3	27.8	1,886	7.6	29.0
Ethnicity	Hispanic	2,941	7.4	53.4	3,087	7.8	56.0
	Not Hispanic	43,015	11.4	632.4	45,237	12.0	662.8
Sex	Female	22,176	9.6	333.4	23,224	10.1	348.3
	Male	23,780	12.7	352.4	25,100	13.4	370.5
Total		45,956	11.0	685.8	48,324	11.6	718.8

Source: Vital Statistics of the United States.

Rates for age groups are unadjusted and all other rates are age-adjusted.

Years of potential life lost is based on U.S. life table 2006-2018 estimates of life expectancy at age of death.

Pancreatic cancer contributed to 48,000 deaths in 2019 (Table 264). Pancreatic cancer mortality was rare among children and adolescents and mortality rates increased with age throughout adulthood. Age-adjusted mortality rates (underlying or other cause) were higher among men compared with women, Blacks compared with Whites, and non-Hispanics compared with Hispanics. Between 2004 and 2019, age-adjusted mortality rates (per 100,000) with pancreatic cancer as underlying or other cause increased by 3% from 11.3 to 11.6.(4)

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