

## CHAPTER 22

## Gallstones

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Gallstones (cholelithiasis) are coded with or without complications (choledocholithiasis, cholangitis, cholecystitis). Cholecystitis (inflammation of the gallbladder) without the presence of gallstones was not included (Appendix 1).

In 2004, there were an estimated 1.8 million ambulatory care visits with a diagnosis of gallstones, most of which were for gallstones as a first-listed diagnosis (Table 1). Visit rates increased with age, although only modestly after age 65 years. Age-adjusted rates for any visits were 18 percent higher among whites than blacks and 162 percent higher for females than males, which is in keeping with the known risks for gallstones. Gallstones ranked fifth among digestive diseases in all-listed discharge diagnoses in 2004. However, this was an underestimate of the actual hospital burden, because most hospitalizations with gallstones were for cholecystectomy, of which a high proportion were performed laparoscopically without overnight stay and, therefore, not included in hospitalization statistics.<sup>1</sup> Based on hospitalization rates prior to this shift in hospital care, gallstones would have ranked first among digestive diseases in first-listed diagnoses and second in all-listed (the first being GERD). Hospitalization rates with mention of gallstones increased with age, were similar for blacks and whites, and were 58 percent higher for women than men. Over time, rates of ambulatory care visits were relatively stable (Figure 1), but increased from the 1980s by at least 20 percent.<sup>2</sup> Hospitalization rates dropped by 40 percent in 2004 from their peak in 1991, because of the aforementioned change in hospital care.

Case-fatality rates for gallstones were low in 2004, but there were still more than 1,000 deaths with gallstones listed as underlying cause (Table 2), because the condition is so common and complications can be severe. The large majority of deaths occurred among persons age 65 years and older. Thus, there were only about 4 YPLL prior to age 75 years per death with gallstones as the underlying cause. Age-adjusted death rates differed little by race and by sex. Mortality rates fell between 1979 and 2004 by 56 percent for gallstones as underlying cause and by 71 percent as underlying or other cause (Figure 2). This was the greatest rate of decline for any common digestive disease, continuing a pattern from at least 1950, when more than 5,000 persons had gallstones listed as underlying cause of death.<sup>3</sup>

According to the Verispan database of retail pharmacy prescriptions (Appendix 2), in 2004, the total number of prescriptions for gallstones was 1.65 million at a retail cost of \$18.6 million. Analgesics constituted more than 99 percent of these prescriptions.

<sup>1</sup> Everhart JE. Gallstones. In: Everhart JE, editor. *Digestive diseases in the United States: epidemiology and impact*. US Department of Health and Human Services, Public Health Service, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. Washington, DC: US Government Printing Office, 1994; NIH Publication No. 94-1447 pp. 647–690.

<sup>2</sup> Ibid.

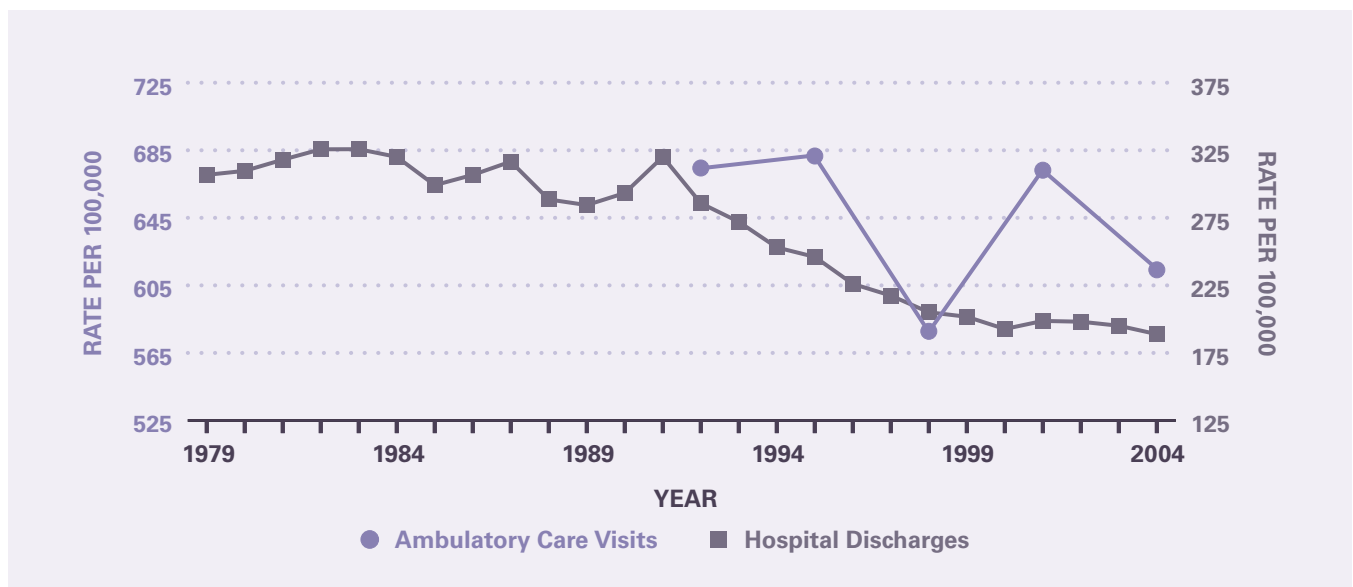
<sup>3</sup> Ibid.

**Table 1.** Gallstones: Number and Age-Adjusted Rates of Ambulatory Care Visits and Hospital Discharges With First-Listed and All-Listed Diagnoses by Age, Race, and Sex in the United States, 2004

DEMOGRAPHIC CHARACTERISTICS	AMBULATORY CARE VISITS				HOSPITAL DISCHARGES				
	First-Listed Diagnosis		All-Listed Diagnoses		First-Listed Diagnosis		All-Listed Diagnoses		
	Number in Thousands	Rate per 100,000	Number in Thousands	Rate per 100,000	Number in Thousands	Rate per 100,000	Number in Thousands	Rate per 100,000	
<b>AGE (Years)</b>	Under 15	—	—	—	—	2	4	4	6
	15–44	443	352	651	518	119	95	179	142
	45–64	522	739	734	1,039	106	150	180	255
	65+	321	883	411	1,132	124	341	259	713
<b>RACE</b>	White	1,041	421	1,516	615	278	112	490	195
	Black	127	369	179	521	34	102	63	198
<b>SEX</b>	Female	932	604	1,358	882	235	151	406	256
	Male	367	260	478	336	114	85	214	162
<b>TOTAL</b>		1,299	442	1,836	625	352	120	622	212

SOURCE: National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS) (3-year average, 2003–2005), and Healthcare Cost and Utilization Project Nationwide Inpatient Sample (HCUP NIS)

**Figure 1.** Gallstones: Age-Adjusted Rates of Ambulatory Care Visits and Hospital Discharges With All-Listed Diagnoses in the United States, 1979–2004



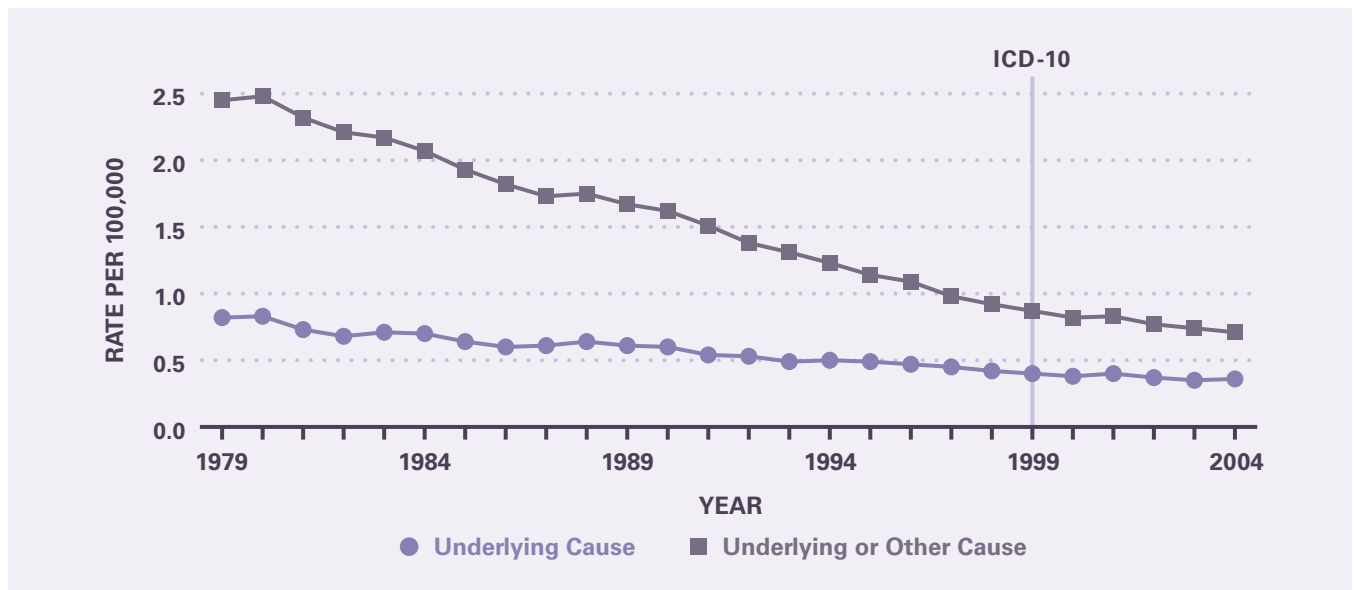
SOURCE: National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS) (averages 1992–1993, 1994–1996, 1997–1999, 2000–2002, 2003–2005), and National Hospital Discharge Survey (NHDS)

**Table 2.** Gallstones: Number and Age-Adjusted Rates of Deaths and Years of Potential Life Lost (to Age 75) by Age, Race, and Sex in the United States, 2004

DEMOGRAPHIC CHARACTERISTICS	UNDERLYING CAUSE			UNDERLYING OR OTHER CAUSE	
	Number of Deaths	Rate per 100,000	Years of Potential Life Lost in Thousands	Number of Deaths	Rate per 100,000
<b>AGE (Years)</b>	Under 15	—	—	1	0.0
	15–44	31	0.0	75	0.1
	45–64	137	0.2	276	0.4
	65+	924	2.5	1,803	5.0
<b>RACE</b>	White	960	0.4	1,883	0.7
	Black	90	0.3	199	0.8
<b>SEX</b>	Female	648	0.3	1,256	0.7
	Male	444	0.4	899	0.8
<b>TOTAL</b>	1,092	0.4	4.4	2,155	0.7

SOURCE: Vital Statistics of the United States

**Figure 2.** Gallstones: Age-Adjusted Rates of Death in the United States, 1979–2004



SOURCE: Vital Statistics of the United States

