

CHAPTER 17

Appendicitis

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Being an acute surgical condition, appendicitis was not especially common at ambulatory care visits, but did account for an estimated 600,000 first-listed ambulatory care visits (Table 1), which was as frequent as those for ulcerative colitis or pancreatitis. Visit rates were nearly equal across age groups up to age 65. Rates were higher among blacks and males. Hospital discharges more accurately reflected disease occurrence. In 2004, there were an estimated 325,000 hospitalizations with a diagnosis of appendicitis, of which 91.7 percent were first-listed diagnosis. This proportion of first-listed diagnoses was higher than that of any other digestive disease and changed little over 20 years.¹ Discharge rates did not differ markedly by age. The rate among whites was twice that of blacks, while the rate for males was 20 percent greater than that for females.

Rates of ambulatory care visits increased from 1992–1993 to 2003–2005, but the more significant trends were for hospital discharges (Figure 1). Hospitalizations with a diagnosis of appendicitis declined from 1979 through 1995, continuing a decline that began at least in 1965, if not earlier.² Between 1995 and 2004, the trend reversed, such that there was a 34 percent increase in the rate of hospital discharges with a diagnosis of appendicitis.

Deaths from appendicitis were uncommon in 2004, with the large majority occurring at age 65 years and older, indicating a high case-fatality rate among older persons (Table 2). Mortality rates from appendicitis continued a many-year decline until 1991 (Figure 2). From 1991 onward, rates remained stable.

Because appendicitis is a surgical condition requiring hospitalization, prescriptions filled at retail pharmacies captured through the Verispan database (Appendix 2) were not frequent nor necessarily representative of the medications used in this condition. In 2004, there were an estimated 315,000 such medications prescribed, at a retail cost of \$5.6 million. More than 98 percent of these medications were for pain relievers, with the rest for antimicrobial agents.

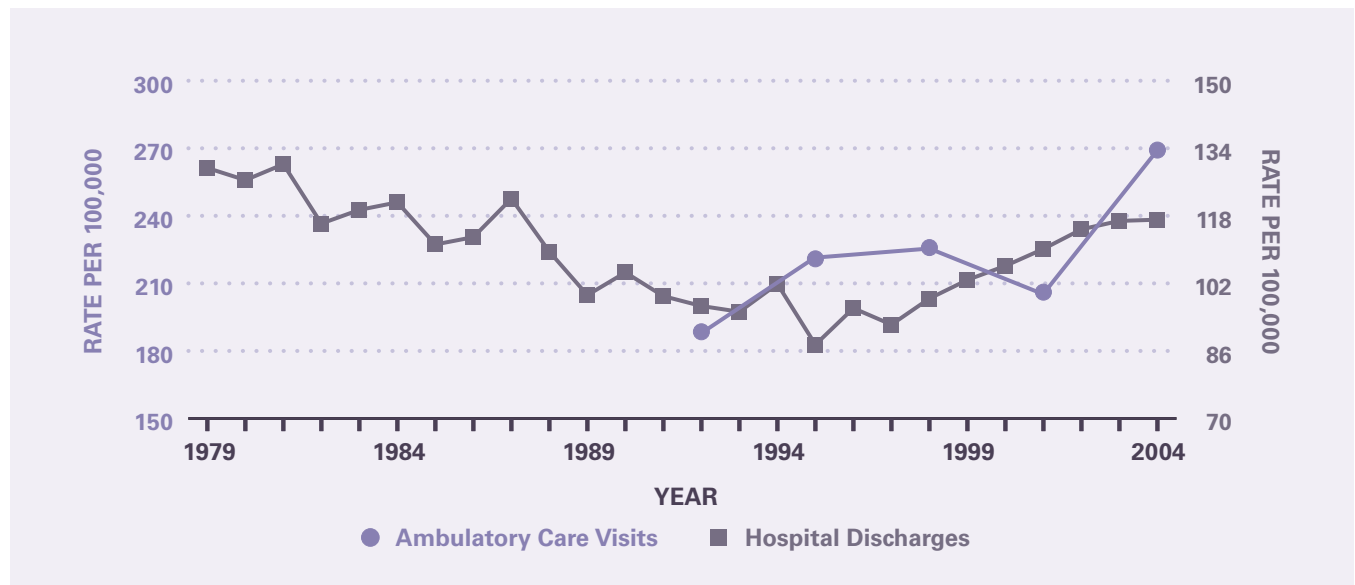
¹ Mendeloff AI, Everhart JE. Appendicitis. In: Everhart JE, editor. *Digestive diseases in the United States: epidemiology and impact*. US Department of Health and Human Services, Public Health Service, National Institutes of Health, National Institute of Diabetes and Digestive and Kidney Diseases. Washington, DC: US Government Printing Office, 1994; NIH Publication No. 94-1447 pp. 457–467.

² Ibid.

Table 1. Appendicitis: 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	
AGE (Years)	Under 15	106	174	163	267	61	101	63	103
	15–44	358	284	458	364	156	124	169	134
	45–64	133	188	150	212	58	83	65	93
	65+	—	—	—	—	21	59	26	72
RACE	White	469	200	607	260	232	99	253	107
	Black	—	—	139	355	18	45	21	53
SEX	Female	260	179	372	258	126	86	144	98
	Male	341	232	410	279	164	112	172	118
TOTAL		601	205	782	266	298	101	325	111

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

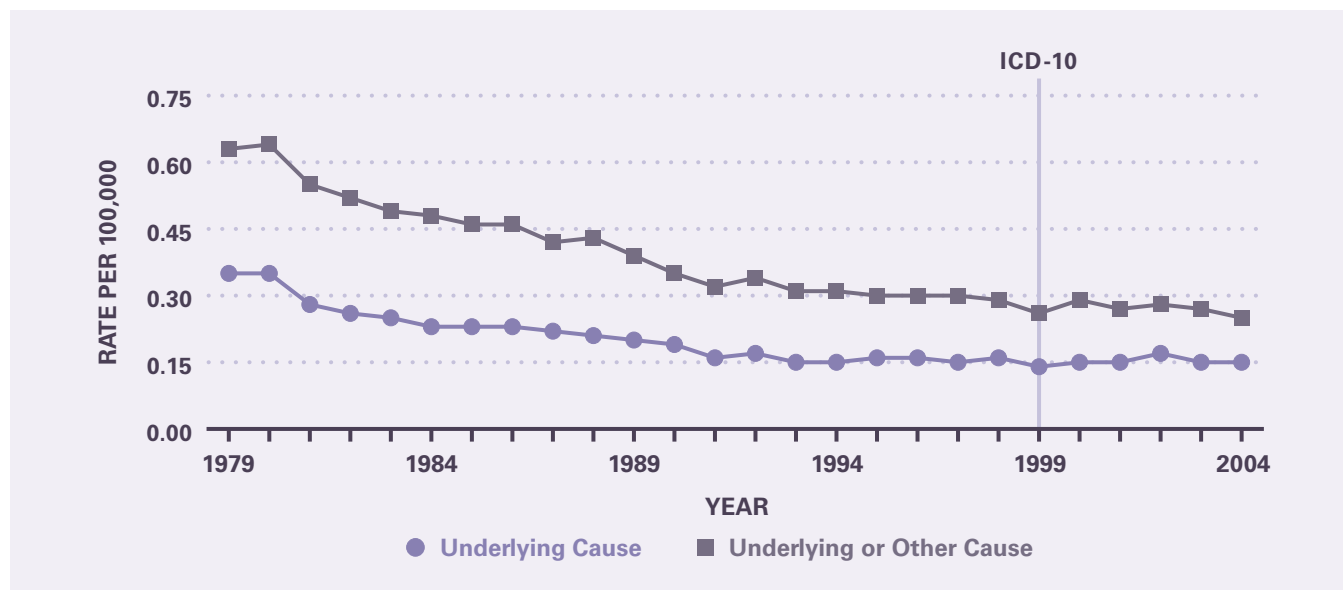
SOURCE: National Ambulatory Medical Care Survey (NAMCS) and National Hospital Ambulatory Medical Care Survey (NHAMCS) (averages 1992–1993, 1994–1996, 1997–1999, 2000–2002, 2003–2005), and National Hospital Discharge Survey (NHDS)

Table 2. Appendicitis: 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	
AGE (Years)	Under 15	21	0.0	1.4	33	0.1
	15–44	31	0.0	1.4	45	0.0
	45–64	97	0.1	1.9	168	0.2
	65+	304	0.8	0.3	516	1.4
RACE	White	378	0.1	3.7	646	0.2
	Black	59	0.2	1.0	90	0.3
SEX	Female	200	0.1	1.4	341	0.2
	Male	253	0.2	3.6	421	0.3
TOTAL		453	0.2	5.0	762	0.3

SOURCE: Vital Statistics of the United States

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



SOURCE: Vital Statistics of the United States

