

Advance Data



From Vital and Health Statistics of the CENTERS FOR DISEASE CONTROL AND PREVENTION/National Center for Health Statistics

Ambulatory Surgery in the United States, 1996

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Abstract

Objectives—This report presents estimates of surgical and nonsurgical procedures performed on an ambulatory basis in hospitals and freestanding ambulatory surgery centers in the United States during 1996. Data are presented by types of facilities, age and sex of the patient, and geographic region. Major categories of procedures and diagnoses are shown by age, sex, and region.

Methods—The estimates are based on data collected by the 1996 National Survey of Ambulatory Surgery conducted by the National Center for Health Statistics. The 1996 data were abstracted from 125,000 medical records in 488 hospitals and freestanding ambulatory surgery centers.

Keywords: National Survey of Ambulatory Surgery • procedures • diagnoses • outpatients

Highlights

Ambulatory Surgery Visits

- In 1996, an estimated 31.5 million surgical and nonsurgical procedures were performed during 20.8 million ambulatory surgery visits (table 1).
- The 20.8 million ambulatory surgery visits accounted for about half of the combined total of ambulatory surgery

visits and inpatient discharges with surgical and nonsurgical procedures (40.1 million) (table 1, figure 1).

- An estimated 17.5 million (84 percent) of the ambulatory surgery visits occurred in hospitals and 3.3 million (16 percent) occurred in freestanding centers (table 2, figure 2).
- Females had significantly more ambulatory surgery visits (11.7

million) than males (9.1 million), and a significantly higher rate of visits (86.7 per 1,000 population) compared with males (70.8 per 1,000 population) (table 3).

- The rate of ambulatory surgery visits per 1,000 population was higher for males (35.1) than for females (25.5) under 15 years of age and higher for females than for males for the 15–44 age group (65.8 versus 40.8), but there was no significant difference in the rates for males and females for the age groups 45–64 years old (100.6 versus 113.4) and 65 years of age and over (219.6 versus 197.7) (table 3, figure 3).

Ambulatory Procedures

- Females had significantly more ambulatory surgery procedures (17.6 million) than males (13.9 million) and a significantly higher rate of procedures (1,302.5 per 10,000 population) compared with males (1,078.8 per 10,000 population) (tables 4–6).

Acknowledgments

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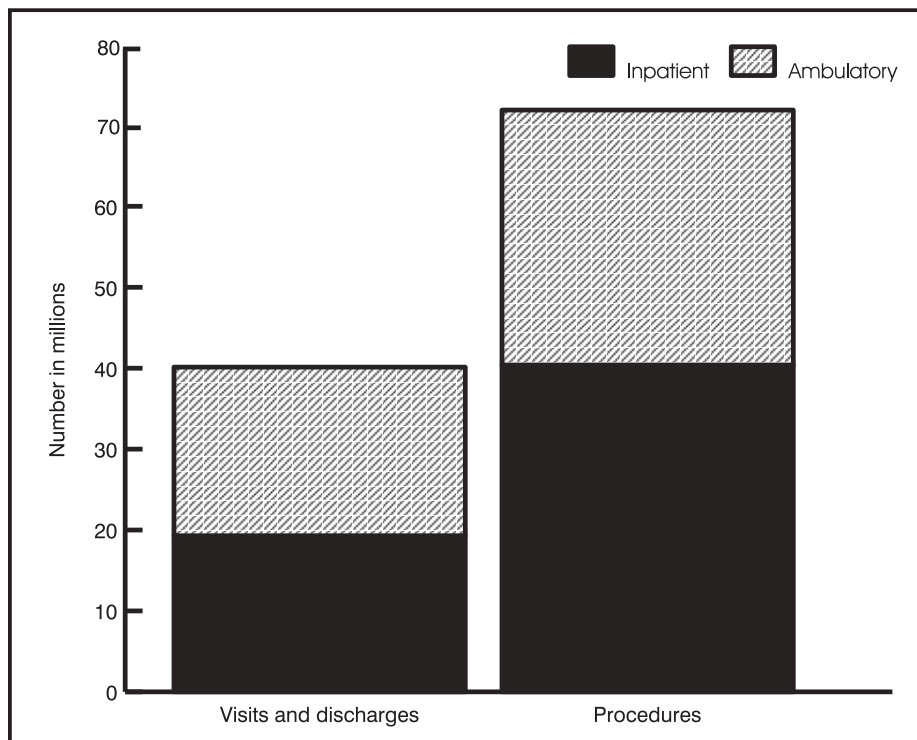
Table 1. Number and rate of visits or discharges and procedures by type of patient: United States, 1996

Utilization measure	Total		Ambulatory ¹		Inpatient ²	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
Number of visits or discharges in thousands ³	40,132	1,114	20,838	861	19,294	707
Rate of visits or discharges per 1,000 population ³	152.0	4.2	78.9	3.3	73.1	2.7
Number of procedures in thousands	71,904	2,106	31,507	1,323	40,397	1,638
Rate of procedures per 1,000 population	272.4	8.0	119.3	5.0	153.0	6.2

¹Data from the 1996 National Survey of Ambulatory Surgery.

²Data from the 1996 National Hospital Discharge Survey.

³Ambulatory surgery visits or discharges of hospital inpatients with procedures.

**Figure 1. Utilization measures for ambulatory surgery visits and discharges of hospital inpatients with procedures: United States, 1996**

- Frequently performed procedures on ambulatory patients include extraction of lens (2,367,000), endoscopy of large intestine (1,913,000), insertion of prosthetic lens (1,816,000), and endoscopy of small intestine (1,563,000) (table 4, figure 4).
- Females had higher rates per 10,000 population than males for ambulatory procedures such as release of carpal tunnel (17.6 versus 9.3), operations on eyelids (12.5 versus 9.3), extraction (109.8 versus 68.4) and insertion (82.8 versus 54.1) of lens,
- Males had higher rates per 10,000 population than females for some ambulatory procedures including myringotomy with insertion of tube (24.4 versus 15.6), adenoidectomy without tonsillectomy (6.5 versus 3.6), cardiac catheterization (23.1 versus 12.9), endoscopic polypectomy of large intestine (24.6 versus 17.6), repair of inguinal hernia (37.1 versus 4.0), cystoscopy (32.8 versus 20.8), reduction of fracture (11.3 versus 6.8), arthroscopy of knee (27.7 versus 20.1), excision of semilunar cartilage of knee (21.4 versus 13.3), replacement or other repair of knee (11.9 versus 8.3), and arteriography and angiocardiology using contrast material (37.0 versus 23.3).
- Ambulatory procedures often performed on children under 15 years included myringotomy (490,000), tonsillectomy (263,000), adenoidectomy without tonsillectomy (126,000), and operations on teeth, gums, and alveoli (169,000).

Table 2. Number and rate of ambulatory surgery visits and procedures, by type of facility: United States, 1996

Utilization measure	All facilities		Hospitals		Freestanding centers	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
Number of visits in thousands	20,838	861	17,524	799	3,313	282
Rate of visits per 1,000 population	78.9	3.3	66.4	3.0	12.6	1.1
Number of procedures in thousands	31,507	1,323	26,373	1,221	5,134	438
Rate of procedures per 1,000 population	119.3	5.0	99.9	4.6	19.4	1.7

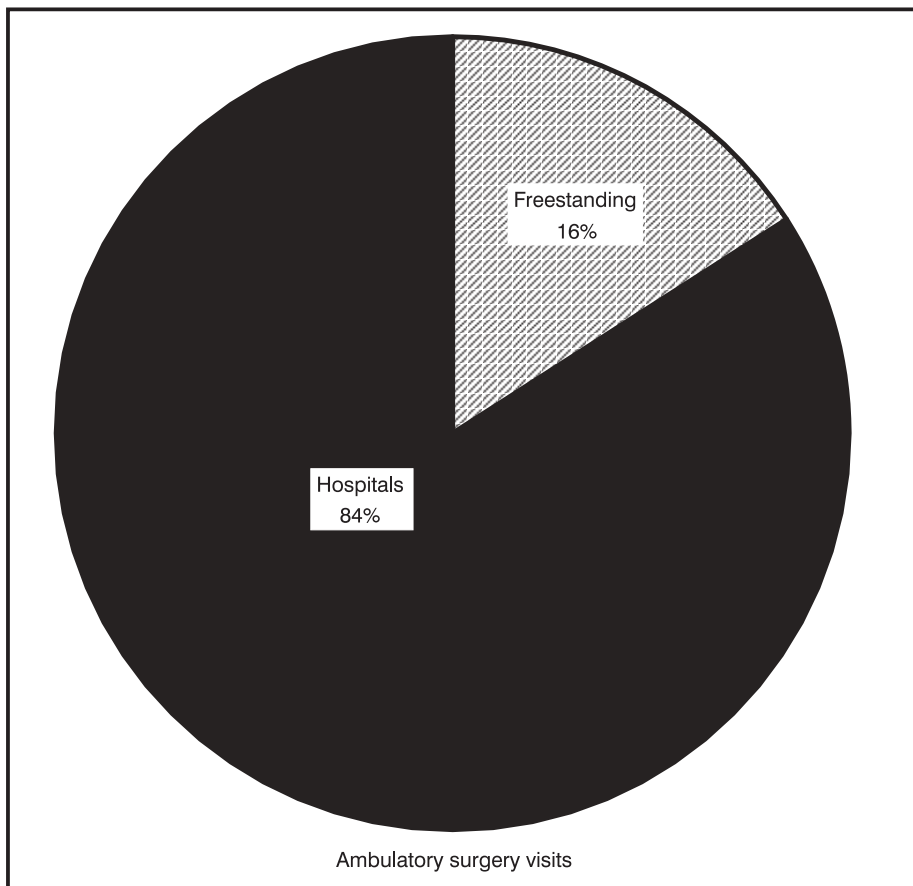


Figure 2. Percent distribution of ambulatory surgery visits by type of facility: United States, 1996

- A variety of ambulatory procedures commonly performed on persons 15–44 years of age included endoscopy of small intestine (419,000), endoscopy of large intestine (380,000), laparoscopy (334,000), excision or destruction of lesion or tissue of skin and subcutaneous tissue (330,000), arthroscopy of knee (325,000), dilation and curettage of uterus (318,000), and bilateral destruction or occlusion of fallopian tubes (314,000).
- For persons 45–64 years of age, endoscopy of large intestine (696,000) and endoscopy of small intestine (502,000) were frequent ambulatory procedures.
- Common ambulatory procedures for persons 65 years of age and over were extraction of lens (1,977,000), insertion of prosthetic lens (1,501,000), endoscopy of large intestine (822,000), and endoscopy of small intestine (614,000).

Diagnoses for Ambulatory Surgery Visits

- Diagnoses for 500,000 or more ambulatory surgery visits included cataract (2,328,000); benign neoplasms (993,000), especially benign neoplasm of colon (586,000); malignant neoplasms (785,000); rheumatism (616,000); and inguinal hernia (515,000) (table 7).
- Rates of ambulatory surgery visits per 10,000 population were higher for females than for males for first-listed diagnoses of carpal tunnel syndrome (17.2 versus 8.8), glaucoma (5.0 versus 3.0), cataract (108.2 versus 67.1), ulcer of stomach and small intestine (5.0 versus 3.4), gastritis and duodenitis (16.5 versus 10.9), cholelithiasis (16.2 versus 4.5), rheumatism, excluding back (26.8 versus 19.6), acquired deformities of toe (10.2 versus 2.3), abdominal pain (11.6 versus 5.0), and visit for sterilization (22.1 versus 5.2) (tables 8–9).

- Rates of ambulatory surgery visits per 10,000 population were higher for males than for females for first-listed diagnoses of otitis media and Eustachian tube disorders (23.1 versus 14.9), heart disease (19.5 versus 11.4), deviated nasal septum (6.5 versus 4.8), inguinal hernia (35.9 versus 3.9), calculus of kidney and ureter (9.3 versus 5.1), fractures (13.8 versus 8.6), and current tear of medial cartilage or meniscus of knee (12.4 versus 7.0).

Introduction

This report presents data from the 1996 National Survey of Ambulatory Surgery (NSAS), which was initiated by the National Center for Health Statistics in 1994 to gather and disseminate data about ambulatory surgery. For NSAS, ambulatory surgery refers to surgical and nonsurgical procedures performed on an ambulatory (outpatient) basis in a hospital or freestanding center's general operating rooms, dedicated ambulatory surgery rooms, and other specialized rooms such as endoscopy units and cardiac catheterization labs.

Ambulatory surgery has been increasing in the United States since the early 1980's. Two major reasons for the increase are advances in medical technology and cost containment initiatives. The medical advances include improvements in anesthesia, which enable patients to regain consciousness more quickly with fewer after effects, and better analgesics for relief of pain. In addition, minimally invasive and noninvasive procedures are being developed and performed with increasing frequency. Examples include laser surgery, laparoscopy, and endoscopy. These medical advances have made surgery less complex and risky (1).

At the same time, concern about rising health care costs led to changes in the Medicare program that encouraged the development of ambulatory surgery. In the early 1980's, the Medicare program was expanded to cover care in ambulatory surgery centers, and a prospective payment system based on diagnosis-related groups (DRG's) was adopted for hospital inpatient care that

Table 3. Number, percent distribution, and rate of ambulatory surgery visits, by sex, age, and region: United States, 1996

[Excludes ambulatory surgery patients admitted to hospitals as inpatients]

Age and region	Both sexes		Male		Female	
	Estimate	Standard error	Estimate	Standard error	Estimate	Standard error
Number in thousands						
Total	20,838	861	9,113	400	11,725	470
Age						
Under 15 years	1,754	98	1,036	59	718	43
15–44 years	6,329	294	2,417	122	3,913	178
45–64 years	5,756	259	2,612	126	3,144	139
65 years and over	6,998	328	3,048	149	3,949	188
Region						
Northeast	4,536	402	2,037	196	2,499	211
Midwest	5,295	405	2,321	194	2,974	214
South	6,865	560	2,887	241	3,978	324
West	4,142	319	1,868	160	2,274	163
Percent distribution						
Total	100.0	...	100.0	...	100.0	...
Age						
Under 15 years	8.4	0.5	11.4	0.6	6.1	0.4
15–44 years	30.4	1.4	26.5	1.3	33.4	1.5
45–64 years	27.6	1.2	28.7	1.4	26.8	1.2
65 years and over	33.6	1.6	33.5	1.6	33.7	1.6
Region						
Northeast	21.8	1.9	22.4	2.2	21.3	1.8
Midwest	25.4	1.9	25.5	2.1	25.4	1.8
South	32.9	2.7	31.7	2.6	33.9	2.8
West	19.9	1.5	20.5	1.8	19.4	1.4
Rate per 1,000 population						
Total	78.9	3.3	70.8	3.1	86.7	3.5
Age						
Under 15 years	30.4	1.7	35.1	2.0	25.5	1.5
15–44 years	53.3	2.5	40.8	2.1	65.8	3.0
45–64 years	107.2	4.8	100.6	4.8	113.4	5.0
65 years and over	206.7	9.7	219.6	10.7	197.7	9.4
Region						
Northeast	88.0	7.8	81.9	7.9	93.8	7.9
Midwest	85.4	6.5	76.8	6.4	93.6	6.7
South	74.3	6.1	64.6	5.4	83.5	6.8
West	71.3	5.5	64.6	5.5	77.8	5.6

... Category not applicable.

created strong financial incentives for hospitals to shift less complex surgery to outpatient settings. Many State Medicaid plans and private insurers followed the lead of the Medicare program and adopted similar policies (2).

As these changes went into effect, many types of surgeries done in hospitals increasingly were performed during ambulatory visits. In addition, the number of freestanding ambulatory surgery centers grew from 239 in 1983

(3) to more than 1,800 a decade later (4).

The National Hospital Discharge Survey (NHDS), which has been conducted by the National Center for Health Statistics every year since 1965, includes information on surgical and nonsurgical procedures performed in inpatient settings (5–7). Although NHDS remains a good source of data for procedures that can only be done on an inpatient basis, such as open-heart surgery or cesarean section, NHDS

estimates have become incomplete for procedures that can be performed on an ambulatory basis. The NSAS was undertaken to obtain information about ambulatory procedures. For many types of procedures, data from both the NHDS and the NSAS are now required to obtain national estimates. Reports that present both ambulatory and inpatient procedure data for 1994 and for 1995 have been published (8,9).

NSAS and NHDS are two of the NCHS establishment surveys, collectively called the National Health Care Survey (NHCS). NHCS was designed to provide nationally representative data on the use of health care resources for major sectors of the health care delivery system. Information on ambulatory procedures is also collected in two other NHCS surveys. The National Ambulatory Medical Care Survey obtains information on procedures ordered or performed during visits to physicians' offices (10), and the National Hospital Ambulatory Medical Care Survey collects data on procedures ordered or performed during visits to hospital outpatient and emergency departments (11,12).

This report provides summary data from the 1996 NSAS. For perspective, the NSAS data on ambulatory procedures in 1996 are compared with estimates of inpatient procedures from the 1996 NHDS (7) in [table 1](#). Estimates from the NSAS are presented for hospitals and freestanding facilities ([table 2](#)) and by patient age and sex and by geographic region ([table 3](#)). The types of procedures performed during these visits ([tables 4–6](#)), and diagnoses ([tables 7–9](#)) are also shown.

Methods

Source of Data

Following a feasibility study in 1989–91 and a pretest in 1993, the NSAS was conducted for the first time in 1994. Results for 1994 and 1995 have been published (13,14). This survey covers surgical and nonsurgical procedures performed on an ambulatory basis in hospitals and freestanding ambulatory surgery centers. The hospital universe includes noninstitutional

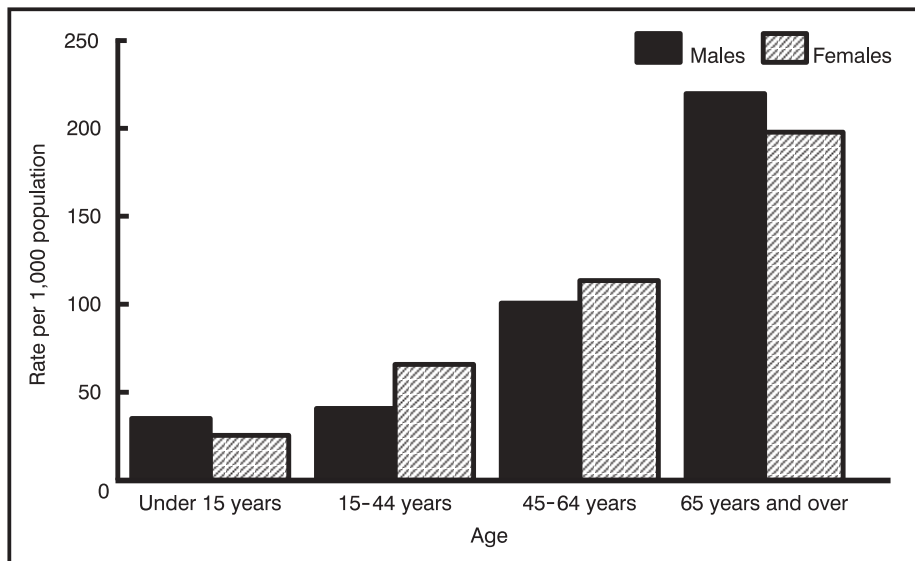


Figure 3. Rate of ambulatory surgery visits by age and sex: United States, 1996

hospitals exclusive of Federal, military, and Department of Veterans Affairs hospitals, located in the 50 States and the District of Columbia. Only short-stay hospitals (hospitals with an average length of stay for all patients of fewer than 30 days) or those whose specialty is general (medical or surgical) or children's general are included in the survey. These hospitals must also have six beds or more staffed for patient use. The universe definition is the same as that used for the National Hospital Discharge Survey (7). The sampling frame for the hospital universe consists of eligible hospitals listed in the 1993 SMG Hospital Market Database (15).

The universe of freestanding facilities includes the freestanding ambulatory surgery centers listed in the 1993 SMG Freestanding Outpatient Surgery Center Database (16) and/or Medicare-certified facilities included in the Health Care Financing Administration Provider-of-Services file (17). Facilities specializing in dentistry, podiatry, abortion, family planning, or birthing are excluded. A detailed description of the development and operation of NSAS has been published (18).

Sample Design

NSAS uses a multistage probability design with independent samples of hospitals and freestanding ambulatory surgery centers selected at the first or

second stages and visits to these facilities selected at the final stage. The NSAS sample includes all facilities with a high annual volume of ambulatory procedures. The remaining sample of facilities is selected using a three-stage stratified cluster design.

The first stage consists of a selection of a subsample of the primary sampling units (PSU's) used in the 1985-94 National Health Interview Survey (19). PSU's are counties, a group of counties, county equivalents (such as parishes or independent cities), or towns and townships (for some PSU's in New England). The second stage consists of a selection of facilities from the sample PSU's.

At the third stage, a systematic random sample of ambulatory surgery visits is selected. Sampled visits are drawn from all locations within a facility where ambulatory surgery is performed, including main or general operating rooms, all dedicated ambulatory surgery rooms, cystoscopy and endoscopy units, cardiac catheterization labs, and laser procedure rooms (in-scope locations). However, locations within hospitals dedicated exclusively to abortion, dentistry, podiatry, pain block, or small procedures (sometimes referred to as "lump and bump" rooms) are not included. The exclusion of these specialty locations, as well as the exclusion of specialty facilities, were recommended based on the feasibility study for NSAS. Because

NSAS data are collected from a sample of visits, persons with multiple visits during the year may be sampled more than once. NSAS estimates are of the number of visits to or procedures performed in ambulatory surgery facilities, not the number of persons served by these facilities.

There were 751 hospitals and freestanding ambulatory surgery centers in the 1996 NSAS sample. Of these, 150 were found to be out of scope (ineligible) because they went out of business, performed less than 50 ambulatory procedures in the previous year, or otherwise failed to meet the criteria for NSAS. Of the 601 in-scope (eligible) facilities, 488 responded to the survey, for an overall response rate of 81 percent. The response rate was 91 percent for hospitals and 70 percent for freestanding facilities.

Data Collection

Sample selection and abstraction of information from medical records were performed at the facilities. Facility staff did the sampling in about 44 percent of facilities that participated in the 1996 survey, and facility staff abstracted the data in approximately two-thirds of the participating facilities. In the remaining facilities, the work was performed by personnel of the U.S. Bureau of the Census acting on behalf of NCHS. Completed abstract forms were sent to NCHS for coding, editing, and weighting.

The abstract form (figure 5) contains items relating to the personal characteristics of the patients such as age, sex, race, and ethnicity. There are administrative items such as date of procedure, disposition, and expected sources of payment. The medical information includes up to seven diagnoses and six procedures, which are coded according to the *International Classification of Diseases, 9th Revision, Clinical Modification* (ICD-9-CM) (20).

Estimation and Reliability of Estimates

Statistics from NSAS are derived by a multistage estimation procedure that produces essentially unbiased estimates. The estimation procedure has three basic

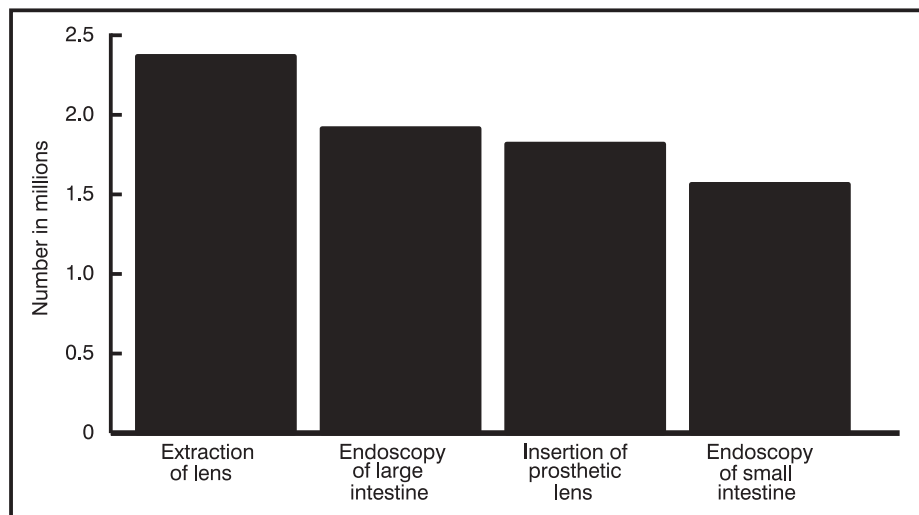


Figure 4. Number of selected procedures performed on ambulatory patients: United States, 1996

components: (a) inflation by reciprocals of the probabilities of sample selection, (b) adjustment for nonresponse, and (c) population weighting ratio adjustments.

The statistics presented in this report are based on a sample, and therefore may differ from the figures that would be obtained if a complete census had been taken. The standard error is primarily a measure of sampling variability that occurs by chance because only a sample rather than the entire universe is surveyed. Standard errors for the estimates in this report were calculated with SUDAAN software, which takes into account the complex sample design. A description of the software and approach it uses has been published (21).

The chances are about 32 in 100 that an estimate from the sample would differ from a complete census by more than the standard error. The chances are 5 in 100 that the difference would be more than twice the standard error, and about 1 in 100 that the difference would be more than 2.5 times as large as the standard error. The relative standard error is expressed as a percent of an estimate and can be multiplied by the estimate to obtain the standard error.

Because of low reliability, estimates that have a relative standard error of more than 30 percent or are based on a sample of fewer than 30 records are not presented. For these estimates, only an asterisk (*) appears in the tables. Estimates preceded by an asterisk (*)

are based on fewer than 60 records and are also considered to have low reliability.

Definitions and Limitations

The estimates of procedures shown in this report include surgical procedures (such as tonsillectomy), diagnostic procedures (such as cystoscopy), and other therapeutic procedures (such as injection or infusion of cancer chemotherapeutic substance) reported on the medical record. Data are shown for all-listed procedures, which are all occurrences of the procedures coded regardless of their order on the medical record. In contrast, diagnostic data for ambulatory surgery visits are for the diagnosis listed first on the medical record.

Because certain freestanding facilities and certain specialized locations within hospitals and freestanding facilities are excluded from the NSAS design, ambulatory procedures done in some specialties are not completely measured by the survey. Excluded specialties include dentistry, podiatry, abortion, family planning, birthing, pain block, and small procedures (such as removal of skin lesion). However, procedures in these specialties performed in general operating rooms or other in-scope locations are included in the survey.

In addition, NSAS does not completely measure ambulatory procedures that are performed in

locations such as physicians' offices, for example, endoscopies of large and small intestine, injections of therapeutic substances, skin biopsies, and plastic surgery. The National Ambulatory Medical Care Survey has data about procedures in physicians' offices (10) and the National Hospital Ambulatory Medical Care Survey provides information about procedures in hospital outpatient and emergency departments (11,12). As medical technology continues to advance, increasing numbers and types of procedures may move to physicians' offices and other locations that are not within the scope of NSAS.

The determination of whether an ambulatory surgery facility is a hospital or a freestanding center is based on the SMG universe from which the facility is selected. In most cases it is apparent whether a facility is a hospital or a freestanding ambulatory surgery center, but some facilities are not easily classified. For example, a "freestanding" facility may be owned by a hospital but located some distance away. If such a facility is separately listed in the 1993 SMG Freestanding Outpatient Surgery Center Database (16) and is selected into the NSAS sample from this universe, it is considered a freestanding facility. Additional definitions of terms used in NSAS have been published (18).

According to the 1996 NSAS, an estimated 399,000 ambulatory surgery visits with procedures were discharged to inpatient status. Of these, 393,000 (98 percent) were visits to hospitals and 7,000 (2 percent) were visits to freestanding centers. In most instances, the ambulatory procedures for these patients become part of their inpatient record. To avoid counting these procedures in both NSAS and NHDS, these patients were excluded from the data shown in this report, as they were from the 1995 version of this report (14). However, procedures for these patients were included in the summaries of outpatient procedures as described in the first version of this report for 1994 (13).

Table 4. Number of ambulatory surgery procedures, by procedure category, sex, and age: United States, 1996

[Excludes ambulatory surgery patients admitted to hospitals as inpatients. Procedure categories and code numbers are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Procedure category and ICD-9-CM code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
Number in thousands							
All procedures	31,507	13,883	17,624	2,381	9,561	8,825	10,740
Operations on the nervous system 01-05	1,240	496	744	11	465	462	302
Injection of agent into spinal canal. 03.91-03.92	534	224	310	*	166	199	169
Release of carpal tunnel. 04.43	358	120	238	*	132	142	84
Operations on the eye. 08-16	5,306	2,076	3,230	137	264	877	4,027
Operations on eyelids 08	289	120	169	17	42	97	132
Extraction of lens 13.1-13.6	2,367	881	1,486	*	46	331	1,977
Insertion of prosthetic lens (pseudophakos) 13.7	1,816	696	1,120	*	36	270	1,501
Operations on the ear. 18-20	841	484	357	636	102	60	42
Myringotomy with insertion of tube. 20.01	524	313	211	490	16	*11	*8
Operations on the nose, mouth, and pharynx 21-29	2,091	1,103	988	679	837	411	165
Turbinectomy. 21.6	161	90	71	14	101	38	*8
Repair and plastic operations on the nose. 21.8	276	147	128	*9	170	75	22
Operations on nasal sinuses 22	463	229	234	33	223	163	43
Operations on teeth, gums, and alveoli. 23-24	249	131	118	169	50	*19	*10
Tonsillectomy with or without adenoidectomy 28.2-28.3	383	164	219	263	109	*7	*
Adenoidectomy without tonsillectomy 28.6	132	83	49	126	*6	*	*
Operations on the respiratory system 30-34	429	219	211	41	77	154	157
Bronchoscopy with or without biopsy 33.21-33.24,33.27	192	105	86	13	25	64	90
Operations on the cardiovascular system 35-39	898	525	372	*	139	362	384
Cardiac catheterization. 37.21-37.23	472	298	175	*	47	206	213
Operations on the digestive system 42-54	6,888	3,141	3,747	186	2,079	2,211	2,413
Esophagoscopy and gastroscopy 42.21-42.24,44.11-44.14	128	62	67	5	*	45	48
Dilation of esophagus 42.92	241	107	134	*	38	75	123
Endoscopy of small intestine with or without biopsy 45.11-45.14,45.16	1,563	668	895	28	419	502	614
Endoscopy of large intestine with or without biopsy 45.21-45.25	1,913	855	1,058	15	380	696	822
Endoscopic polypectomy of large intestine. 45.42	555	317	238	*	59	201	291
Laparoscopic cholecystectomy 51.23	321	67	254	*	151	120	48
Repair of inguinal hernia. 53.0-53.1	531	477	54	75	165	146	146
Laparoscopy 54.21	422	55	367	*7	334	63	18
Operations on the urinary system. 55-59	1,432	875	557	73	311	427	621
Cystoscopy with or without biopsy. 57.31-57.33	703	422	281	26	137	205	336
Operations on the male genital organs 60-64	537	537	...	141	166	100	129
Operations on the female genital organs 65-71	1,962	...	1,962	12	1,444	381	124
Bilateral destruction or occlusion of fallopian tubes. 66.2-66.3	320	...	320	-	314	*7	*
Hysteroscopy. 68.12	229	...	229	*	126	80	22
Dilation and curettage of uterus 69.0	530	...	530	*	318	160	51
Operations on the musculoskeletal system 76-84	4,226	2,179	2,047	162	1,965	1,468	631
Partial excision of bone 76.2-76.3,77.6-77.8	274	133	141	9	124	102	39
Reduction of fracture 76.7,79.0-79.3	236	145	91	55	117	42	22
Removal of implanted devices from bone 76.97,78.6	173	89	84	18	90	38	27
Excision and repair of bunion and other toe deformities. 77.5	281	44	238	*	99	117	64
Arthroscopy of knee. 80.26	629	357	272	9	325	212	83
Excision of semilunar cartilage of knee 80.6	455	275	180	*	198	178	76
Replacement or other repair of knee 81.42-81.47,81.54-81.55	265	153	112	*	148	88	27
Operations on muscle, tendon, fascia, and bursa. 82-83	664	320	345	28	260	254	123
Operations on the integumentary system 85-86	2,389	678	1,711	120	893	829	547
Biopsy of breast 85.11-85.12	307	*11	295	*	104	128	74
Local excision of lesion of breast (lumpectomy). 85.21	341	12	329	*	127	130	81
Excision or destruction of lesion or tissue of skin and subcutaneous tissue. 86.2-86.4	877	412	465	71	330	258	217
Miscellaneous diagnostic and therapeutic procedures 87-99	3,058	1,496	1,562	154	741	1,013	1,150
Arteriography and angiocardiology using contrast material 88.4-88.5	791	476	316	*2	66	319	404
Injection or infusion of therapeutic or prophylactic substance 99.1-99.2	464	203	260	*	135	165	155
Operations on the endocrine system, operations on the hemic and lymphatic system, and obstetrical procedures 06-07,40-41,72-75	210	72	137	15	77	71	47

* Figure does not meet standard of reliability or precision.

... Category not applicable.

- Quantity zero.

NOTE: The standard error of a number can be obtained by multiplying the estimate by the corresponding relative standard error, shown as a percent, in table 6.

Table 5. Rate of ambulatory surgery procedures, by procedure category, sex, and age: United States, 1996[Excludes ambulatory surgery patients admitted to hospitals as inpatients. Procedure categories and code numbers are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Procedure category and ICD-9-CM code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
				Rate per 10,000 population			
All procedures	1,193.4	1,078.8	1,302.5	412.6	805.2	1,643.5	3,171.9
Operations on the nervous system 01-05	47.0	38.6	55.0	1.9	39.2	86.1	89.2
Injection of agent into spinal canal 03.91-03.92	20.2	17.4	22.9	*	14.0	37.1	49.9
Release of carpal tunnel 04.43	13.6	9.3	17.6	*	11.1	26.4	24.7
Operations on the eye 08-16	201.0	161.3	238.7	23.7	22.3	163.4	1,189.2
Operations on eyelids 08	10.9	9.3	12.5	3.0	3.5	18.1	39.1
Extraction of lens 13.1-13.6	89.6	68.4	109.8	*	3.9	61.7	584.0
Insertion of prosthetic lens (pseudophakos) 13.7	68.8	54.1	82.8	*	3.1	50.4	443.4
Operations on the ear 18-20	31.8	37.6	26.4	110.2	8.6	11.1	12.5
Myringotomy with insertion of tube 20.01	19.9	24.4	15.6	84.9	1.4	*2.0	*2.3
Operations on the nose, mouth, and pharynx 21-29	79.2	85.7	73.0	117.6	70.5	76.5	48.8
Turbinectomy 21.6	6.1	7.0	5.3	2.5	8.5	7.0	*2.3
Repair and plastic operations on the nose 21.8	10.4	11.4	9.5	*1.5	14.3	14.0	6.5
Operations on nasal sinuses 22	17.5	17.8	17.3	5.7	18.8	30.4	12.8
Operations on teeth, gums, and alveoli 23-24	9.4	10.2	8.7	29.4	4.2	*3.6	*3.0
Tonsillectomy with or without adenoidectomy 28.2-28.3	14.5	12.8	16.2	45.6	9.2	*1.3	*
Adenoidectomy without tonsillectomy 28.6	5.0	6.5	3.6	21.8	*0.5	*	*
Operations on the respiratory system 30-34	16.3	17.0	15.6	7.1	6.5	28.7	46.4
Bronchoscopy with or without biopsy 33.21-33.24,33.27	7.3	8.2	6.4	2.2	2.1	12.0	26.5
Operations on the cardiovascular system 35-39	34.0	40.8	27.5	*	11.7	67.4	113.3
Cardiac catheterization 37.21-37.23	17.9	23.1	12.9	*	4.0	38.4	62.9
Operations on the digestive system 42-54	260.9	244.1	276.9	32.2	175.1	411.7	712.6
Esophagoscopy and gastroscopy 42.21-42.24,44.11-44.14	4.9	4.8	4.9	0.9	*	8.3	14.1
Dilation of esophagus 42.92	9.1	8.3	9.9	*	3.2	14.0	36.3
Endoscopy of small intestine with or without biopsy 45.11-45.14,45.16	59.2	51.9	66.1	4.8	35.3	93.6	181.3
Endoscopy of large intestine with or without biopsy 45.21-45.25	72.5	66.5	78.2	2.7	32.0	129.7	242.7
Endoscopic polypectomy of large intestine 45.42	21.0	24.6	17.6	*	5.0	37.5	86.0
Laparoscopic cholecystectomy 51.23	12.2	5.2	18.8	*	12.8	22.4	14.2
Repair of inguinal hernia 53.0-53.1	20.1	37.1	4.0	13.0	13.9	27.2	43.0
Laparoscopy 54.21	16.0	4.3	27.1	*1.2	28.1	11.7	5.3
Operations on the urinary system 55-59	54.2	68.0	41.2	12.7	26.2	79.6	183.3
Cystoscopy with or without biopsy 57.31-57.33	26.6	32.8	20.8	4.5	11.5	38.2	99.1
Operations on the male genital organs 60-64	20.4	41.8	...	24.5	14.0	18.6	38.2
Operations on the female genital organs 65-71	74.3	...	145.0	2.1	121.6	71.0	36.7
Bilateral destruction or occlusion of fallopian tubes 66.2-66.3	12.1	...	23.7	-	26.4	*1.2	*
Hysteroscopy 68.12	8.7	...	16.9	*	10.6	14.9	6.6
Dilation and curettage of uterus 69.0	20.1	...	39.2	*	26.8	29.8	15.0
Operations on the musculoskeletal system 76-84	160.1	169.3	151.3	28.1	165.5	273.4	186.5
Partial excision of bone 76.2-76.3,77.6-77.8	10.4	10.3	10.4	1.5	10.4	18.9	11.6
Reduction of fracture 76.7,79.0-79.3	9.0	11.3	6.8	9.5	9.9	7.9	6.6
Removal of implanted devices from bone 76.97,78.6	6.5	6.9	6.2	3.1	7.6	7.0	7.9
Excision and repair of bunions and other toe deformities 77.5	10.7	3.4	17.6	*	8.3	21.8	18.8
Arthroscopy of knee 80.26	23.8	27.7	20.1	1.6	27.4	39.5	24.5
Excision of semilunar cartilage of knee 80.6	17.2	21.4	13.3	*	16.7	33.1	22.5
Replacement or other repair of knee 81.42-81.47,81.54-81.55	10.1	11.9	8.3	*	12.5	16.3	8.0
Operations on muscle, tendon, fascia, and bursa 82-83	25.2	24.8	25.5	4.8	21.9	47.2	36.3
Operations on the integumentary system 85-86	90.5	52.7	126.4	20.8	75.2	154.3	161.4
Biopsy of breast 85.11-85.12	11.6	*0.9	21.8	*	8.7	23.9	21.7
Local excision of lesion of breast (lumpectomy) 85.21	12.9	0.9	24.3	*	10.7	24.3	24.1
Excision or destruction of lesion or tissue of skin and subcutaneous tissue 86.2-86.4	33.2	32.0	34.4	12.4	27.8	48.1	64.1
Miscellaneous diagnostic and therapeutic procedures 87-99	115.8	116.2	115.5	26.7	62.4	188.6	339.7
Arteriography and angiocardiology using contrast material 88.4-88.5	30.0	37.0	23.3	*0.4	5.6	59.4	119.4
Injection or infusion of therapeutic or prophylactic substance 99.1-99.2	17.6	15.8	19.2	*	11.3	30.8	45.8
Operations on the endocrine system, operations on the hemic and lymphatic system, and obstetrical procedures 06-07,40-41,72-75	7.9	5.6	10.1	2.5	6.5	13.1	13.9

* Figure does not meet standard of reliability or precision.

... Category not applicable.

- Quantity zero.

NOTE: The standard error of a rate can be obtained by multiplying the estimate by the corresponding relative standard error, shown as a percent, in table 6.

Table 6. Relative standard errors for number and rate of ambulatory surgery procedures, by procedure category, sex, and age: United States, 1996

[Procedure categories and code numbers are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Procedure category and ICD-9-CM code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
Standard error as a percent of the number or rate of procedures							
All procedures	4.20	4.47	4.09	5.69	4.76	4.61	4.80
Operations on the nervous system 01-05	7.55	8.29	7.51	20.80	7.63	8.27	9.56
Injection of agent into spinal canal. 03.91-03.92	12.61	12.63	13.04	*	13.32	13.75	13.85
Release of carpal tunnel. 04.43	6.62	9.54	6.48	*	8.64	7.88	10.10
Operations on the eye. 08-16	7.03	7.63	6.81	12.83	10.43	7.06	7.57
Operations on eyelids 08	8.91	9.26	10.30	18.11	14.14	17.18	9.17
Extraction of lens 13.1-13.6	8.15	8.86	7.89	*	14.74	7.88	8.52
Insertion of prosthetic lens (pseudophakos) 13.7	6.80	7.72	6.53	*	16.00	7.49	7.04
Operations on the ear. 18-20	6.02	6.10	7.37	6.53	10.75	14.17	11.50
Myringotomy with insertion of tube. 20.01	6.56	6.87	7.65	6.74	16.88	*21.25	*26.93
Operations on the nose, mouth, and pharynx 21-29	6.09	6.73	6.33	6.87	6.63	10.16	10.88
Turbineotomy. 21.6	9.91	11.36	11.73	22.33	10.61	13.48	*22.01
Repair and plastic operations on the nose 21.8	7.08	8.22	8.23	*23.18	8.34	9.43	15.37
Operations on nasal sinuses 22	10.12	11.86	10.99	14.88	10.07	12.93	27.75
Operations on teeth, gums, and alveoli 23-24	13.42	13.57	14.84	16.10	22.83	*28.17	*27.55
Tonsillectomy with or without adenoidectomy 28.2-28.3	7.60	7.84	8.47	7.99	10.79	*27.56	*
Adenoidectomy without tonsillectomy 28.6	9.98	10.90	11.71	10.20	*24.78	*	*
Operations on the respiratory system 30-34	8.59	9.94	8.92	20.82	11.43	10.84	11.95
Bronchoscopy with or without biopsy 33.21-33.24,33.27	11.00	13.79	10.68	22.60	22.55	13.58	13.95
Operations on the cardiovascular system 35-39	12.33	14.08	10.94	*	11.39	11.83	15.09
Cardiac catheterization 37.21-37.23	14.65	15.83	13.94	*	16.05	13.76	16.67
Operations on the digestive system 42-54	5.75	5.82	5.95	8.46	6.24	6.29	6.78
Esophagoscopy and gastroscopy 42.21-42.24,44.11-44.14	19.58	18.41	22.80	24.81	*	20.33	24.38
Dilation of esophagus 42.92	13.31	12.35	15.75	*	16.58	14.01	15.63
Endoscopy of small intestine with or without biopsy 45.11-45.14,45.16	8.21	8.23	8.54	18.68	9.36	8.75	8.89
Endoscopy of large intestine with or without biopsy 45.21-45.25	7.20	7.49	7.42	25.55	9.82	7.46	7.82
Endoscopic polypectomy of large intestine. 45.42	9.50	10.82	8.88	*	21.61	9.51	9.87
Laparoscopic cholecystectomy 51.23	8.81	9.93	9.28	*	10.43	10.08	11.98
Repair of inguinal hernia. 53.0-53.1	5.09	5.24	8.94	9.47	7.93	7.19	6.96
Laparoscopy 54.21	7.82	15.21	8.09	*22.83	8.17	11.65	17.85
Operations on the urinary system. 55-59	7.60	7.15	9.39	13.95	8.97	8.44	8.81
Cystoscopy with or without biopsy 57.31-57.33	9.94	9.41	11.49	14.64	10.14	9.98	11.78
Operations on the male genital organs 60-64	7.20	7.21	...	8.56	12.35	9.52	8.87
Operations on the female genital organs 65-71	5.52	...	5.52	23.17	5.70	7.87	10.42
Bilateral destruction or occlusion of fallopian tubes. 66.2-66.3	8.14	...	8.14	-	8.16	*24.92	*
Hysteroscopy. 68.12	9.40	...	9.40	*	10.62	10.47	17.68
Dilation and curettage of uterus 69.0	5.39	...	5.39	*	5.52	8.09	10.60
Operations on the musculoskeletal system 76-84	6.03	6.35	6.22	8.73	6.40	6.75	6.13
Partial excision of bone 76.2-76.3,77.6-77.8	8.21	8.71	9.94	22.08	9.99	10.95	10.30
Reduction of fracture 76.7,79.0-79.3	7.27	7.78	9.86	12.44	8.55	12.44	16.32
Removal of implanted devices from bone 76.97,78.6	8.03	10.29	8.99	16.20	10.49	12.35	13.08
Excision and repair of bunion and other toe deformities. 77.5	9.62	12.66	10.17	*	11.29	13.56	11.09
Arthroscopy of knee. 80.26	7.59	9.09	7.26	21.35	8.40	8.83	9.90
Excision of semilunar cartilage of knee 80.6	7.88	8.82	7.63	*	9.42	8.64	10.34
Replacement or other repair of knee 81.42-81.47,81.54-81.55	8.24	9.03	9.81	*	9.32	10.92	13.72
Operations on muscle, tendon, fascia, and bursa. 82-83	6.22	6.36	7.44	13.25	7.17	7.20	7.21
Operations on the integumentary system 85-86	4.79	5.36	5.06	8.89	5.84	5.80	5.38
Biopsy of breast 85.11-85.12	7.29	*24.30	7.17	*	9.18	8.49	10.04
Local excision of lesion of breast (lumpectomy). 85.21	9.06	18.29	9.29	*	9.21	12.06	11.45
Excision or destruction of lesion or tissue of skin and subcutaneous tissue. 86.2-86.4	5.55	5.63	6.34	9.22	6.49	6.53	7.17
Miscellaneous diagnostic and therapeutic procedures 87-99	7.85	8.52	7.77	9.20	9.44	8.39	8.56
Arteriography and angiocardiology using contrast material 88.4-88.5	13.64	14.60	13.94	*26.42	16.25	13.56	14.90
Injection or infusion of therapeutic or prophylactic substance 99.1-99.2	12.49	13.26	12.98	*	13.36	14.03	14.27
Operations on the endocrine system, operations on the hemic and lymphatic system, and obstetrical procedures 06-07,40-41,72-75	9.11	11.91	10.10	20.41	14.00	13.71	11.32

* Figure does not meet standard of reliability or precision.

... Category not applicable.

- Quantity zero.

NOTE: The standard error of a number or rate in tables 4 or 5 can be obtained by multiplying the estimate by the corresponding relative standard error, shown as a percent, in this table.

Table 7. Number of ambulatory surgery visits by first-listed diagnosis, sex, and age: United States, 1996[Excludes ambulatory surgery patients admitted to hospitals as inpatients. Diagnostic categories and code numbers are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Category of first-listed diagnosis and ICD-9-CM code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
	Number in thousands						
All conditions	20,838	9,113	11,725	1,754	6,329	5,756	6,998
Infectious and parasitic diseases 001-139	100	47	53	9	59	20	12
Neoplasms. 140-239	1,885	863	1,022	54	354	659	818
Malignant neoplasms 140-208,230-234	785	351	434	*	106	279	389
Malignant neoplasm of skin. 172-173,176.0,198.2	167	90	77	*	18	56	93
Malignant neoplasm of breast 174-175,198.81	140	*	138	*	20	69	51
Benign neoplasms. 210-229	993	457	536	39	229	349	376
Benign neoplasm of colon 211.3	586	324	261	*	57	225	301
Lipoma 214	109	50	60	*	40	45	24
Endocrine, nutritional and metabolic diseases, and immunity disorders. 240-279	147	56	92	*	46	56	41
Diseases of the nervous system and sense organs. 320-389	4,041	1,645	2,396	597	399	693	2,351
Carpal tunnel syndrome 354.0	346	113	233	*	127	136	82
Glaucoma 365	107	39	68	*	*8	22	73
Cataract 366	2,328	864	1,464	*	43	324	1,952
Otitis media and Eustachian tube disorders 381-382	499	297	201	456	20	14	*8
Diseases of the circulatory system 390-459	927	513	415	*	175	362	381
Heart disease 391-392.0,393-398,402,404,410-416,420-429	405	251	155	*	30	162	208
Hemorrhoids 455	291	136	155	*	89	123	77
Diseases of the respiratory system 460-519	902	433	469	316	330	166	92
Deviated nasal septum 470	148	83	65	*	98	41	*8
Chronic sinusitis 473	126	59	67	11	59	47	*9
Chronic disease of tonsils and adenoids 474	365	163	203	268	94	*	*
Diseases of the digestive system 520-579	3,450	1,727	1,723	227	1,003	1,075	1,146
Diseases of teeth and supporting structures. 520-525	151	77	74	94	42	*10	*
Diseases of esophagus 530	478	232	246	13	119	162	184
Ulcer of stomach and small intestine 531-534	110	43	67	*	23	35	52
Gastritis and duodenitis 535	363	140	223	*	109	128	121
Inguinal hernia 550	515	462	52	69	161	141	144
Noninfectious enteritis and colitis 555-558	136	69	67	*	61	43	29
Diverticula of intestine 562	342	152	190	*	14	102	225
Cholelithiasis 574	277	58	219	*	126	104	45
Diseases of the genitourinary system 580-629	2,257	668	1,589	112	977	668	499
Calculus of kidney and ureter. 592	189	120	69	*	72	72	44
Hematuria 599.7	108	55	53	*	22	40	43
Benign mammary dysplasias 610	148	*	148	*	56	66	26
Lump or mass in breast 611.72	212	*13	199	*	84	76	51
Disorders of menstruation and other abnormal vaginal bleeding 626,627.0-627.1	252	...	252	*	119	100	33
Complications of pregnancy, childbirth, and the puerperium. 630-677	224	...	224	*	222	*	-
Abortion and ectopic and molar pregnancy 630-639	195	...	195	*	193	*	-
Diseases of the skin and subcutaneous tissue. 680-709	462	224	237	41	183	131	106
Sebaceous cyst 706.2	105	57	48	*6	45	33	21
Diseases of the musculoskeletal system and connective tissue 710-739	2,022	849	1,172	35	844	733	410
Arthropathies and related disorders 710-719	484	237	248	7	222	170	85
Internal derangement of knee 717	193	102	91	*	103	60	27
Intervertebral disc disorders. 722	183	89	94	-	83	72	27
Lumbago 724.2	136	58	78	*	41	56	38
Rheumatism, excluding back 725-729	616	252	363	18	269	227	101
Acquired deformities of toe 735	168	30	138	*	61	68	38
Congenital anomalies 740-759	186	103	83	102	53	21	10
Symptoms, signs, and ill-defined conditions 780-799	1,353	574	779	68	393	445	447
Abdominal pain 789.0	221	65	156	*	91	72	49
Injury and poisoning 800-999	1,294	763	531	127	589	363	215
Fractures 800-829	294	178	116	70	146	52	27
Current tear of medial cartilage or meniscus of knee 836.0	253	159	94	*	107	107	38
Supplementary classification. V01-V82	1,443	583	860	48	674	328	392
Visit for sterilization V25.2	365	67	298	-	357	8	*
Diseases of the blood and blood-forming organs, mental disorders, and certain conditions originating in the perinatal period 280-289,290-319,760-779	143	64	79	*3	28	35	77

* Figure does not meet standard of reliability or precision.

... Category not applicable.

- Quantity zero.

NOTE: The standard error of a number can be obtained by multiplying the estimate by the corresponding relative standard error, shown as a percent, in [table 9](#).

Table 8. Rate of ambulatory surgery visits by first-listed diagnosis, sex, and age: United States, 1996

[Excludes ambulatory surgery patients admitted to hospitals as inpatients. Diagnostic categories and code numbers are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Category of first-listed diagnosis and ICD-9-CM code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
				Rate per 10,000 population			
All conditions	789.3	708.1	866.5	304.0	533.1	1,072.0	2,066.6
Infectious and parasitic diseases 001-139	3.8	3.6	3.9	1.5	4.9	3.8	3.5
Neoplasms. 140-239	71.4	67.1	75.6	9.4	29.8	122.7	241.6
Malignant neoplasms 140-208,230-234	29.7	27.3	32.1	*	8.9	51.9	114.8
Malignant neoplasm of skin. 172-173,176.0,198.2	6.3	7.0	5.7	*	1.5	10.5	27.4
Malignant neoplasm of breast 174-175,198.81	5.3	*	10.2	*	1.7	12.9	15.0
Benign neoplasms. 210-229	37.6	35.5	39.6	6.8	19.3	65.0	111.0
Benign neoplasm of colon 211.3	22.2	25.2	19.3	*	4.8	42.0	88.8
Lipoma 214	4.1	3.9	4.4	*	3.4	8.3	6.9
Endocrine, nutritional and metabolic diseases, and immunity disorders. 240-279	5.6	4.3	6.8	*	3.9	10.4	12.2
Diseases of the nervous system and sense organs. 320-389	153.1	127.8	177.1	103.4	33.6	129.1	694.4
Carpal tunnel syndrome 354.0	13.1	8.8	17.2	*	10.7	25.4	24.1
Glaucoma 365	4.0	3.0	5.0	*	*0.7	4.1	21.5
Cataract 366	88.2	67.1	108.2	*	3.6	60.4	576.5
Otitis media and Eustachian tube disorders 381-382	18.9	23.1	14.9	79.0	1.7	2.7	*2.3
Diseases of the circulatory system 390-459	35.1	39.8	30.7	*	14.7	67.4	112.5
Heart disease 391-392.0,393-398,402,404,410-416,420-429	15.4	19.5	11.4	*	2.5	30.2	61.6
Hemorrhoids 455	11.0	10.6	11.4	*	7.5	23.0	22.6
Diseases of the respiratory system 460-519	34.2	33.7	34.7	54.7	27.8	30.8	27.0
Deviated nasal septum 470	5.6	6.5	4.8	*	8.2	7.7	*2.3
Chronic sinusitis 473	4.8	4.6	5.0	1.9	5.0	8.8	*2.7
Chronic disease of tonsils and adenoids 474	13.8	12.6	15.0	46.4	7.9	*	*
Diseases of the digestive system 520-579	130.7	134.2	127.4	39.4	84.5	200.2	338.3
Diseases of teeth and supporting structures. 520-525	5.7	6.0	5.5	16.3	3.5	*1.9	*
Diseases of esophagus 530	18.1	18.1	18.2	2.2	10.0	30.3	54.4
Ulcer of stomach and small intestine 531-534	4.2	3.4	5.0	*	2.0	6.4	15.4
Gastritis and duodenitis 535	13.7	10.9	16.5	*	9.2	23.7	35.8
Inguinal hernia 550	19.5	35.9	3.9	11.9	13.6	26.2	42.4
Noninfectious enteritis and colitis 555-558	5.2	5.4	5.0	*	5.1	8.0	8.7
Diverticula of intestine 562	12.9	11.8	14.0	*	1.2	19.0	66.5
Cholelithiasis 574	10.5	4.5	16.2	*	10.6	19.3	13.4
Diseases of the genitourinary system 580-629	85.5	51.9	117.4	19.4	82.3	124.5	147.5
Calculus of kidney and ureter. 592	7.2	9.3	5.1	*	6.1	13.3	13.0
Hematuria 599.7	4.1	4.3	3.9	*	1.8	7.5	12.8
Benign mammary dysplasias 610	5.6	*	10.9	*	4.7	12.4	7.7
Lump or mass in breast 611.72	8.0	*1.0	14.7	*	7.1	14.1	15.0
Disorders of menstruation and other abnormal vaginal bleeding. 626,627.0-627.1	9.6	...	18.6	*	10.0	18.6	9.9
Complications of pregnancy, childbirth, and the puerperium. 630-677	8.5	...	16.6	*	18.7	*	-
Abortion and ectopic and molar pregnancy 630-639	7.4	...	14.4	*	16.3	*	-
Diseases of the skin and subcutaneous tissue. 680-709	17.5	17.4	17.5	7.1	15.5	24.4	31.3
Sebaceous cyst 706.2	4.0	4.5	3.6	*1.1	3.8	6.2	6.2
Diseases of the musculoskeletal system and connective tissue 710-739	76.6	66.0	86.7	6.1	71.1	136.5	121.2
Arthropathies and related disorders 710-719	18.3	18.4	18.3	1.2	18.7	31.7	25.1
Internal derangement of knee 717	7.3	7.9	6.7	*	8.7	11.2	8.0
Intervertebral disc disorders. 722	6.9	6.9	6.9	-	7.0	13.5	8.0
Lumbago 724.2	5.2	4.5	5.8	*	3.5	10.5	11.3
Rheumatism, excluding back 725-729	23.3	19.6	26.8	3.1	22.7	42.3	29.9
Acquired deformities of toe 735	6.4	2.3	10.2	*	5.1	12.7	11.3
Congenital anomalies 740-759	7.1	8.0	6.1	17.8	4.5	3.8	3.0
Symptoms, signs, and ill-defined conditions 780-799	51.2	44.6	57.6	11.7	33.1	82.8	132.1
Abdominal pain 789.0	8.4	5.0	11.6	*	7.7	13.3	14.6
Injury and poisoning 800-999	49.0	59.3	39.2	22.0	49.6	67.7	63.6
Fractures 800-829	11.1	13.8	8.6	12.1	12.3	9.6	8.0
Current tear of medial cartilage or meniscus of knee 836.0	9.6	12.4	7.0	*	9.0	19.8	11.4
Supplementary classification. V01-V82	54.7	45.3	63.6	8.4	56.8	61.1	115.9
Visit for sterilization V25.2	13.8	5.2	22.1	-	30.0	1.5	*
Diseases of the blood and blood-forming organs, mental disorders, and certain conditions originating in the perinatal period. 280-289,290-319,760-779	5.4	5.0	5.8	*0.6	2.4	6.6	22.6

* Figure does not meet standard of reliability or precision.

... Category not applicable.

- Quantity zero.

NOTE: The standard error of a rate can be obtained by multiplying the estimate by the corresponding relative standard error, shown as a percent, in table 9.

Table 9. Relative standard errors for number and rate of ambulatory surgery visits, by first-listed diagnosis, sex, and age: United States, 1996[Diagnostic categories and code numbers are based on the *International Classification of Diseases, 9th Revision, Clinical Modification (ICD-9-CM)*]

Category of first-listed diagnosis and ICD-9-CM code	Total	Sex		Age			
		Male	Female	Under 15 years	15-44 years	45-64 years	65 years and over
Standard error as a percent of the number or rate of visits							
All conditions	4.13	4.39	4.01	5.60	4.64	4.50	4.69
Infectious and parasitic diseases 001-139	9.49	12.30	11.62	20.08	12.38	14.74	25.10
Neoplasms. 140-239	5.18	5.98	5.12	11.66	7.10	6.14	5.63
Malignant neoplasms 140-208,230-234	5.84	6.22	6.40	*	7.99	7.73	6.48
Malignant neoplasm of skin. 172-173,176.0,198.2	7.25	9.33	9.04	*	17.89	13.07	8.50
Malignant neoplasm of breast 174-175,198.81	9.11	*	9.02	*	13.94	11.99	12.52
Benign neoplasms. 210-229	6.99	8.80	6.23	10.13	9.06	7.84	8.56
Benign neoplasm of colon 211.3	9.41	10.56	8.80	*	22.66	10.32	9.74
Lipoma 214	9.17	12.54	9.78	*	11.77	11.06	16.03
Endocrine, nutritional and metabolic diseases, and immunity disorders. 240-279	11.37	13.30	13.68	*	19.87	12.74	13.63
Diseases of the nervous system and sense organs. 320-389	5.86	5.99	5.89	6.22	6.46	5.66	7.68
Carpal tunnel syndrome 354.0	6.71	9.67	6.52	*	8.73	8.03	10.20
Glaucoma 365	12.27	12.94	15.54	*	*29.10	16.41	13.50
Cataract 366	8.19	8.91	7.93	*	15.45	7.85	8.56
Otitis media and Eustachian tube disorders 381-382	6.50	6.79	7.61	6.66	14.83	23.34	*24.66
Diseases of the circulatory system 390-459	9.36	11.00	8.35	*	8.85	9.56	12.46
Heart disease 391-392.0,393-398,402,404,410-416,420-429	15.32	16.99	15.07	*	19.97	15.49	16.36
Hemorrhoids 455	8.45	9.13	10.02	*	11.99	9.16	12.69
Diseases of the respiratory system 460-519	6.31	6.82	6.37	7.94	7.07	7.85	12.07
Deviated nasal septum 470	8.24	9.80	9.96	*	9.31	12.33	*19.09
Chronic sinusitis 473	9.39	11.58	11.18	18.46	10.93	13.02	*28.73
Chronic disease of tonsils and adenoids 474	8.35	8.59	9.08	8.53	12.15	*	*
Diseases of the digestive system 520-579	5.70	5.36	6.33	8.97	6.10	6.30	7.06
Diseases of teeth and supporting structures. 520-525	12.90	13.10	13.82	15.29	22.14	*24.18	*
Diseases of esophagus 530	9.70	10.70	10.32	22.17	12.18	10.29	11.97
Ulcer of stomach and small intestine 531-534	11.27	14.20	11.63	*	15.73	13.86	14.88
Gastritis and duodenitis 535	10.31	12.11	10.55	*	11.40	11.41	12.58
Inguinal hernia 550	5.01	5.15	9.15	10.28	7.93	6.85	6.70
Noninfectious enteritis and colitis 555-558	12.30	16.76	12.01	*	14.40	13.77	20.82
Diverticula of intestine 562	9.37	10.37	10.17	*	19.97	10.60	9.80
Cholelithiasis 574	8.85	9.54	9.46	*	11.00	10.54	10.35
Diseases of the genitourinary system 580-629	5.07	6.39	5.30	8.99	5.69	5.54	6.66
Calculus of kidney and ureter. 592	9.10	10.09	10.70	*	10.64	10.13	12.89
Hematuria 599.7	11.35	12.31	13.40	*	19.07	14.28	13.44
Benign mammary dysplasias 610	12.88	*	12.97	*	13.19	17.02	16.68
Lump or mass in breast 611.72	8.93	*23.32	8.91	*	10.60	11.27	14.46
Disorders of menstruation and other abnormal vaginal bleeding. 626,627.0-627.1	6.88	...	6.88	*	8.19	9.36	12.43
Complications of pregnancy, childbirth, and the puerperium. 630-677	7.38	...	7.38	*	7.42	*	-
Abortion and ectopic and molar pregnancy 630-639	7.56	...	7.56	*	7.60	*	-
Diseases of the skin and subcutaneous tissue. 680-709	6.48	6.76	7.91	13.78	7.23	9.59	8.50
Sebaceous cyst. 706.2	10.39	12.95	11.60	*21.26	14.23	13.70	16.19
Diseases of the musculoskeletal system and connective tissue 710-739	6.44	6.74	6.59	15.01	6.54	7.07	7.10
Arthropathies and related disorders 710-719	7.52	7.92	8.08	20.48	8.22	8.81	10.09
Internal derangement of knee 717	9.51	10.56	10.60	*	10.10	13.15	17.08
Intervertebral disc disorders 722	13.38	12.87	15.77	-	13.39	17.37	18.00
Lumbago 724.2	16.10	17.49	16.78	*	17.72	16.12	21.37
Rheumatism, excluding back 725-729	6.09	7.08	6.22	16.55	6.67	7.46	7.21
Acquired deformities of toe 735	9.46	13.46	10.26	*	12.61	11.80	10.73
Congenital anomalies 740-759	7.78	8.00	10.60	9.08	13.97	17.00	17.79
Symptoms, signs, and ill-defined conditions 780-799	7.91	7.87	8.53	12.66	10.05	8.79	8.46
Abdominal pain 789.0	13.94	14.84	14.82	*	15.81	16.29	16.31
Injury and poisoning 800-999	5.93	6.51	5.77	7.38	6.65	7.61	7.05
Fractures 800-829	6.83	7.14	9.65	9.86	8.03	12.03	14.01
Current tear of medial cartilage or meniscus of knee 836.0	9.79	11.11	10.15	*	11.21	11.82	14.51
Supplementary classification. V01-V82	6.41	7.81	6.30	10.13	7.32	7.20	9.01
Admission for sterilization V25.2	8.91	24.45	8.21	-	8.95	21.31	*
Diseases of the blood and blood-forming organs, mental disorders, and certain conditions originating in the perinatal period. 280-289,290-319,760-779	14.85	16.67	15.82	*29.14	18.99	17.52	19.69

* Figure does not meet standard of reliability or precision.

... Category not applicable.

- Quantity zero.

NOTE: The standard error of a number or rate in table 7 or 8 can be obtained by multiplying the estimate by the corresponding relative standard error, shown as a percent, in this table.

NOTICE - All information which would permit identification of an individual or an establishment will be held confidential, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to other persons or used for any other purpose. Public reporting burden for this collection of information is estimated to average 12 minutes per response. Send comments regarding this burden estimate or any other aspect of this collection of information including suggestions for reducing this burden to PHS Reports Clearance Officer: Atten: PRA: Hubert H. Humphrey Building, Room 721-B; 200 Independence Avenue, SW; Washington, DC 20201, and to the Office of Management and Budget; Paper Reduction Project (0920-0334), Washington, DC 20503.

FORM **NSAS-5**
(12-14-93)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS
ACTING AS COLLECTING AGENT FOR
DEPARTMENT OF HEALTH AND HUMAN SERVICES
U.S. PUBLIC HEALTH SERVICE
CENTERS FOR DISEASE CONTROL AND PREVENTION
NATIONAL CENTER FOR HEALTH STATISTICS

**NATIONAL SURVEY OF AMBULATORY SURGERY
MEDICAL ABSTRACT**

A. PATIENT IDENTIFICATION

1. Facility number [][][][][]	2. NSAS number and list used [][][][][] []	3. Medical record number
4. Date of surgery Month [][] Day [][] Year [][][][]		5. Residence ZIP Code [][][][][] - [][][][]

B. PATIENT CHARACTERISTICS

6. Date of birth Month [][] Day [][] Year [][][][]		7. Age (Complete only if date of birth not given) Units [][][] { 1 <input type="checkbox"/> Years 2 <input type="checkbox"/> Months 3 <input type="checkbox"/> Days	
8. Sex (Mark (X) one) 1 <input type="checkbox"/> Male 2 <input type="checkbox"/> Female 3 <input type="checkbox"/> Not stated	9. Race 1 <input type="checkbox"/> White 2 <input type="checkbox"/> Black 3 <input type="checkbox"/> American Indian/ Eskimo/Aleut 4 <input type="checkbox"/> Asian/Pacific Islander 5 <input type="checkbox"/> Other - Specify _____ 6 <input type="checkbox"/> Not stated	10. Ethnicity (Mark (X) one) 1 <input type="checkbox"/> Hispanic origin 2 <input type="checkbox"/> Non-Hispanic 3 <input type="checkbox"/> Not stated	
11. Status/Disposition of patient (Mark (X) appropriate box) 1 <input type="checkbox"/> Routine discharge to customary residence 2 <input type="checkbox"/> Discharge to observation status 3 <input type="checkbox"/> Discharge to recovery care center 4 <input type="checkbox"/> Admitted to hospital as inpatient 5 <input type="checkbox"/> Surgery canceled or terminated 6 <input type="checkbox"/> Other - Specify <input checked="" type="checkbox"/> 7 <input type="checkbox"/> Status/Disposition not stated			

C. PAYMENT DATA

12. Expected source(s) of payment		Principal (Mark (X) one only)	Other additional sources (Mark (X) all that apply)
Government sources	a. Worker's compensation	<input type="checkbox"/>	<input type="checkbox"/>
	b. Medicare	<input type="checkbox"/>	<input type="checkbox"/>
	c. Medicaid	<input type="checkbox"/>	<input type="checkbox"/>
	d. CHAMPUS	<input type="checkbox"/>	<input type="checkbox"/>
	e. Other government payments	<input type="checkbox"/>	<input type="checkbox"/>
Private sources	f. Blue Cross/Blue Shield	<input type="checkbox"/>	<input type="checkbox"/>
	g. HMO/PPO	<input type="checkbox"/>	<input type="checkbox"/>
	h. Other private or commercial insurance	<input type="checkbox"/>	<input type="checkbox"/>
Other sources	i. Self-pay	<input type="checkbox"/>	<input type="checkbox"/>
	j. No charge	<input type="checkbox"/>	<input type="checkbox"/>
	k. Other - Specify _____	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> No source of payment indicated			

13a. Billing number (If necessary)	13b. Total charges: \$ _____ . 00 <input type="checkbox"/> Not available
---	--

(OVER)

Figure 5. Medical abstract for the National Survey of Ambulatory Surgery, 1996.

D. SURGICAL VISIT DATA					
14. Time			Not available	15. Type of anesthesia <i>(Mark (X) all that apply)</i>	
a. Time in to operating room	a.m. p.m.	<input type="checkbox"/>	<input type="checkbox"/>	a. Topical/local <input type="checkbox"/>	
b. Time surgery began	a.m. p.m.	<input type="checkbox"/>	<input type="checkbox"/>	b. IV sedation <input type="checkbox"/>	
c. Time surgery ended	a.m. p.m.	<input type="checkbox"/>	<input type="checkbox"/>	c. MAC (Monitored Anesthesia Care) <input type="checkbox"/>	
d. Time out of operating room	a.m. p.m.	<input type="checkbox"/>	<input type="checkbox"/>	d. Regional (1) Epidural <input type="checkbox"/>	
e. Time in to postoperative care	a.m. p.m.	<input type="checkbox"/>	<input type="checkbox"/>	(2) Spinal <input type="checkbox"/>	
f. Time out of postoperative care	a.m. p.m.	<input type="checkbox"/>	<input type="checkbox"/>	(3) Retrobulbar block <input type="checkbox"/>	
				(4) Peribulbar block <input type="checkbox"/>	
				(5) Block <input type="checkbox"/>	
				e. General <input type="checkbox"/>	
				f. Other – <i>Specify</i> \nearrow <input type="checkbox"/>	
				g. None specified <input type="checkbox"/>	
16. Anesthesia administered by – (Mark (X) all that apply)					
1 <input type="checkbox"/> Anesthesiologist		3 <input type="checkbox"/> Surgeon/Other physician			
2 <input type="checkbox"/> CRNA (Certified Registered Nurse Anesthetist)		4 <input type="checkbox"/> Not stated/Not specified			
E. MEDICAL DATA					
17. Final diagnoses (including E- code diagnoses) – Narrative description				Optional – ICD-9-CM Nos.	
Principal	1.			•	
Other/ Additional	2.			•	
	3.			•	
	4.			•	
	5.			•	
	6.			•	
	7.			•	
18. Surgical and diagnostic procedures – Narrative description				Optional – CPT-4 Nos.	Optional – ICD-9-CM Nos.
Principal	1.			•	•
Other/ Additional	2.			•	•
	3.			•	•
	4.			•	•
	5.			•	•
	6.			•	•
<input type="checkbox"/> None					
Completed by			Date	OFFICE USE ONLY	FR code

Figure 5. Medical abstract for the National Survey of Ambulatory Surgery, 1996—Con.

Because the NSAS sample was drawn from the 1993 SMG and Medicare Provider-of-Services lists, facilities that began operating after 1993 are not included in the sampling frame. For this reason, NSAS data probably understates the total number of visits to and procedures performed in hospital-based and freestanding ambulatory surgery facilities that were in operation during 1996.

Estimates in the tables have been rounded to the nearest thousand. Therefore, figures within tables do not always add to the totals. Rates and percents were calculated from unrounded figures and may not agree with rates or percents calculated from rounded data.

The population estimates used in computing rates are for the U.S. civilian population, including institutionalized persons, as of July 1, 1996. These estimates were provided by the U.S. Bureau of the Census and are consistent with population estimates published in *Current Population Reports*. Facilities are classified by location in one of the four geographic regions of the United States that correspond to those used by the U.S. Bureau of the Census.

Region	States Included
Northeast	Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Pennsylvania
Midwest	Michigan, Ohio, Illinois, Indiana, Wisconsin, Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, and Kansas
South	Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas
West	Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon,

California, Hawaii, and Alaska

Tests of Significance

In this report, statistical inference is based on the two-sided *t*-test with a critical value of 1.96 (0.05 level of significance). Terms such as “higher” and “less” indicate that differences are statistically significant. Terms such as “similar” or “no difference” mean that no statistically significant difference exists between the estimates being compared. A lack of comment on the difference between any two estimates does not mean that the difference was tested and found not to be significant.

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