

State of Alaska

Department of Health and Social Services



# ALASKA HEALTH FACILITIES DATA REPORTING PROGRAM 2016 AND 2017 ANNUAL REPORT

Alaska Division of Public Health

Health Analytics and Vital Records Section





# Alaska Health Facilities Data Reporting Program 2016 and 2017 Annual Report

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## PURPOSE OF THIS REPORT

The Alaska Health Facilities Data 2016 and 2017 Annual Report contains information about the program, and summary information about health conditions and billed charges from inpatient stays, emergency department visits, and outpatient surgeries and visits. This report provides the public descriptive statistics about health facility usage in the state of Alaska.

### Preparation

This report was prepared by the Health Analytics Unit of the Alaska Health Analytics and Vital Records Section.

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The Alaska Health Facilities Data Annual Reports and additional information are available online at:

[dhss.alaska.gov/dph/VitalStats/Pages/data/](http://dhss.alaska.gov/dph/VitalStats/Pages/data/)

### Acknowledgments

Data supplied by hospitals and other health care facilities across the state provide the basis for information presented in this report. Thank you for your participation.

The Hospital Industry Data Institute (HIDI), our data clearinghouse, works with facilities to collect data, and returns cleaned and encrypted datasets back to the State. We are grateful for their efforts.

The Alaska State Hospital and Nursing Home Association provides substantial input into the Health Facility Data Reporting Program, and we are deeply appreciative of their assistance.

The Health Analytics and Vital Records Section staff also extends our gratitude to each person who participates in our data gathering efforts. Accurate data are essential to quality public health decision support in Alaska.

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## EXECUTIVE SUMMARY

<b>Summary Table</b>		
<b>DISCHARGES</b>	<b>2016</b>	<b>2017</b>
Inpatient	66,157	64,937
Emergency Department	316,056	305,338
Outpatient Surgery	82,035	81,946
Outpatient Observation and Other Outpatient	973,640	1,048,104
<b>BILLED CHARGES</b>		
Inpatient	\$3,459,504,353	\$4,647,882,933
Emergency Department	\$884,962,590	\$939,722,357
Outpatient Surgery	\$1,108,038,604	\$1,183,533,442
Outpatient Observation and Other Outpatient	\$1,305,845,514	\$1,381,257,358
<b>PATIENTS RECEIVING CARE OUTSIDE OF THEIR REGION*</b>		
Inpatient in Alaska	12,080	11,906
<b>LEADING CAUSE OF STAYS OR VISITS**</b>		
<b>INPATIENT<sup>1</sup></b>		
Live born infant	9,103	8,459
Septicemia (except in labor)	2,812	3,393
<b>EMERGENCY DEPARTMENT<sup>1</sup></b>		
Other upper respiratory infections	17,900	17,657
<b>OUTPATIENT SURGICAL PROCEDURE<sup>2</sup></b>		
Colonoscopy, flexible; diagnostic, including collection of specimen	7,978	8,258
<b>OUTPATIENT OBSERVATION ONLY<sup>3</sup></b>		
Suicidal ideations	266	357
<b>OTHER OUTPATIENT</b>		
Encounter for screening mammogram for malignant neoplasm of breast	30,907	25,506

Data Sources: Alaska Health Analytics and Vital Records, Health Facilities Data Reporting Program, 2016v10 and 2017v6 datasets

<sup>†</sup> State of Washington Department of Health, CHARS Inpatient Data 2016 and 2017.

\*Region is Public Health Region, equivalent to Alaska Department of Labor and Workforce Development Economic Regions. See: <http://live.laborstats.alaska.gov/cen/maps/state/current/EconRegions.pdf>

\*\*Cause is defined using:

<sup>1</sup> *International Classification of Disease, Tenth Revision, Clinical Modification*, (ICD-10-CM) categorized by Agency for Healthcare Research and Quality, Clinical Classification Software™.

<sup>2</sup> Procedures using *Current Procedural Terminology*.

<sup>3</sup> Diagnosis codes using ICD-10-

## PROGRAM OVERVIEW

Health facilities in Alaska submit discharge data quarterly to the Department of Health and Social Services via a clearinghouse where they are edited for accuracy and quality, and are de-identified before being provided to the Division of Public Health, Health Analytics and Vital Records Section (HAVRS), Health Facilities Data Reporting (HFDR) Program.

Data for 2016 and 2017 are from the second and third years of reporting under regulation 7 AAC 27.660. Twenty-five non-military hospitals, twenty ambulatory surgery centers, and one independent diagnostic testing facility submitted data to the Department during this time. The datasets contain millions of records for each year.

The data are used for public health analyses and to answer specific questions about the frequency of hospitalizations for certain illnesses, overdoses, injuries, and other conditions, or for identifying disparities in the provision of health care. Data can also be used to examine patient migration to seek care in other geographic areas, analyses of billed charges, expected payer source, market share, and volume.

The datasets contain coded clinical information, financial information, and patient demographics about each patient stay or visit. Data are available for participating health care facilities current with data submission, as well as public health programs, and researchers. Special requests for reports and queries are also available from HAVRS staff, in addition to the development of regular standard reports.

## INTRODUCTION

### The Data

The HFDR program within HAVRS facilitates the ongoing, quarterly health facility data submissions required by regulation. This report provides information on the program's management and administration, and summary statistics for discharges occurring between January 1, 2016 and December 31, 2017.

The HFDR program collects inpatient and outpatient discharge data (including emergency department) from private, municipal, state, and federal hospitals, hospitals operated by Alaska Native organizations, psychiatric hospitals, residential psychiatric treatment centers, intermediate care facilities, and ambulatory surgical facilities. The combined data comprise the Alaska HFDR Inpatient and Outpatient Datasets.

Data reported are from billing records for each hospital discharge, with the following variables submitted: coded clinical information such as diagnosis and procedure codes and length of stay, financial information such as billed charges and expected sources of payment, and patient demographics, such as age, race, and gender. The data do not include patient names or social security numbers. In an effort to reduce the impact of reporting on facilities, the industry-standard Uniform Billing data format and electronic transmission are used for the submission process.

Analyses of the discharge data show utilization of health services across the state and provide evidence of the conditions for which people receive treatment. These analyses provide decision makers information for monitoring emerging issues in health status and health service delivery, as well as the need for expanded services. Population health status assessment, analysis of health care utilization trends, and health system planning are examples of uses of the data from the reporting program.

### Background

The HFDR program, for which reporting is *required by regulation*, is based on the Hospital Discharge Data System (HDDS), which was established in 2001 and composed of the *voluntary* submissions of hospital discharge data. HDDS was managed by the Alaska State Hospital and Nursing Home Association with grant funds from the Department of Health and Social Services under formal agreement on data security, confidentiality, and data use. Inpatient data were collected from 2001-2012 and outpatient data were collected from 2008-2012.

The strengths of the HDDS program and the processes, policies, and procedures developed over the years, led to a robust HFDR framework. The drawback to HDDS was that participation was limited, varying over the years from a low of 11 to a high of 17 out of 25 hospitals submitting data. This precluded whole-state analysis. Additionally, the 32 percent of hospitals that never reported were mostly rural and small Tribal hospitals.

### Regulatory Reporting Requirements

Increasing public and policy-maker interest in health status, healthcare costs, and healthcare quality provided impetus for a more robust data program. Regulations to require reporting, 7 AAC 27.660 Article 14. *Health Care Facility Discharge Data Reporting*, became effective in December 2014 for discharges occurring in 2015, and required the following types of facilities to report: private, municipal, state, or federal hospitals; hospitals operated by Alaska Native organizations; psychiatric hospitals; independent diagnostic testing facilities; residential psychiatric treatment centers; and intermediate care facilities.

Under 7 AAC 27.660, discharge data reporting is required for facilities that provide Medicaid services subject to 7 AAC 105 – 7 AAC 160, or are subject to licensure under AS 47.32 and 7 AAC 12. Facilities which are required to report but do not may be referred to the Alaska Division of Health Care Services to determine whether sanctions

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may be appropriate under Medicaid or Facilities Licensing and Certification Regulations.

## Data Collection and Flow

The Department of Health and Social Services has contracted with the Hospital Industry Data Institute (HIDI) to collect, validate, encrypt, and clean facility data. Facilities upload their data quarterly via secure portal, HIDI runs edit scripts to validate the data, and facilities are notified of any corrections that are necessary. HIDI's edit process identifies invalid or missing data as well as noting uncommon values and exceptions to logical tests. Facilities have 30 days following the initial submission due date to review the error validation reports and, if necessary, provide corrections to HIDI.

After HIDI processes the reported data and the facilities have made their corrections, datasets are returned to the Department. Program staff import the files into the SAS statistical analysis environment, calculate new fields to facilitate data analysis, and look for other possible errors or inconsistencies in the data. If issues are identified, staff will work directly with facilities to address the issue, which may include submitting a replacement dataset to HIDI. After this process is complete, datasets are available for distribution.

## Data Purposes

HFDR data are used for public health planning, injury and disease surveillance, health services research, quality assessment and performance improvement activities, community health status assessments, and informing policy deliberations. As a longitudinal dataset, trends can be monitored over time; standardization enables comparison to national benchmarks.

Facilities and the Alaska State Hospital and Nursing Home Association use discharge reporting data for monitoring quantity and quality assessment, market share, re-admissions, and other quality improvement and planning activities. Participating facilities may request a copy of the dataset to work with directly, and may also request customized analyses from [HealthAnalytics@alaska.gov](mailto:HealthAnalytics@alaska.gov).

Because the datasets contain individual discharge records with billed charges, there is an interest in what these data say about healthcare costs in Alaska; however, billed charges are not what is actually paid by insurers after negotiated discounts. Currently, 18 states collect claims and payment data from public payers and private insurers, though Alaska is not one of those states.

## Data Release

Limited datasets may be released for certain approved purposes under the Health Insurance Portability and Accountability Act of 1996 (HIPAA), provided that a data use agreement is in place between the user and the Department. Minimum necessary data may be used only for public health practice, research, and healthcare operations purposes. Alaska facilities may request the statewide dataset for healthcare operations purposes provided that they are in compliance with required data reporting. The healthcare operations datasets include diagnosis, procedure, patient demographic information, and facility identification number, but do not include billed or revenue charges.

All limited dataset requests must include a signed data use agreement, an explanation of the research or other purpose of the request, and a justification for each variable requested. Data are transmitted via a secure data transfer method. The 2016 inpatient datasets contains about 66,000 discharge records and 835,000 revenue records, and the outpatient datasets contains about 1.37 million discharge records and 5.43 million revenue records. The 2017 inpatient datasets contains about 65,000 discharge records and 834,000 revenue records, and the outpatient datasets contains about 1.45 million discharge records and 5.67 million revenue records.

## Dataset and Data Analysis Requests

Six health care facilities and the Alaska State Hospital and Nursing Home Association requested and received 2016 and/or 2017 health care operations datasets. The Agency for Healthcare Research and Quality (AHRQ), Healthcare Cost and Utilization Project (HCUP) requested and

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received 2016 and 2017 inpatient datasets to include in the National Inpatient Sample, a 48-state dataset used for national health services research and policy analysis, located at <https://www.hcup-us.ahrq.gov/nisoverview.jsp>.

The Division has used 2016 and 2017 HFDR data in analyses covering a broad range of public health topics in response to inquiries, such as legislative requests, media requests, grant reporting requirements, and data analysis requests, as well as publishing bulletins and briefs on topics of interest. As of the publication of this report, the following topics have been examined using HFDR data:

- Alcohol-related emergency department (ED) visits
- Billed charges by diagnosis group, by frequency, median charges, and total charges
- Community health assessments
- Dental-related ED visits
- Diabetes-related hospitalizations
- Endocarditis hospitalizations
- Marijuana-related hospitalizations
- Mental health ED visit durations
- Neonatal withdrawal symptoms from maternal use of drugs of addiction
- Opioid-related hospitalizations and ED visits
- Pneumonia-related hospitalizations
- Potentially preventable hospitalizations
- Intentional self-harm visits and stays
- Tobacco-related cancer hospitalizations

### Quality Improvement

All non-military hospitals and ambulatory surgical centers submitted data for 2016-2017, providing data representative of all areas of Alaska. These facilities are listed in Appendix A.

During 2016, the second year of the program, as the data submission process became more routine for most facilities, more-timely receipt of data followed. In 2017, the third year of the program, most facilities reported quarterly data by the due date, facilitating quarterly datasets to

be extracted within a week of the next quarter's end.

An important program goal is to balance stakeholder need for timely access to data for decision-making purposes with data quality. Facilities are largely submitting data by the due dates so the focus over the next year will shift to improving data quality. Utilizing the Hospital Industry Data Institute's edit reports more fully will assist facilities towards the goal of less than 5% of records with missing or invalid required fields.

### Funding/Program Sustainability

The HFDR Program is managed by the Health Analytics and Vital Records Section and charges fees for special request data analysis and data access to ensure the sustainability of the resources required to operate the program. The fees help offset the program costs, which include staff time, computer resources, and the cost of contracted data management.

## DATA NOTES

- The unit of analysis for inpatient and emergency department records is the stay or visit. A patient could have multiple inpatient discharges or emergency department visits in a single year, and each of these would count as a separate visit or stay.
- Billed charges are used in analyses in this report and may differ significantly from what is ultimately paid and settled by insurance companies and other payers. Wherever billed charges are presented, at least three facilities' data are included in the total in order to mask individual facilities' charge amounts.
- Primary payer is the expected payer at the time of the hospitalization stay or ED visit.
- Admission types are based on Priority (Type) of Admission or Visit as defined by the National Uniform Billing Committee, Universal Billing UB-04 Manual<sup>1</sup>, and are largely defined by level of urgency.
- 2016-2017 diagnoses are from *International Classification of Disease, Tenth Revision, Clinical Modification*, (ICD-10-CM)<sup>2</sup>.
- Regional reports are summarized by patient's region of residence.
- Outpatient discharges are grouped by principal diagnoses into groups by AHRQ HCUP Clinical Classification Software.
- Outpatient visits include emergency department, outpatient surgery, outpatient observation, and imaging, labs, and other services.
- Inpatient and outpatient data records contain one principal diagnosis and up to 29 secondary diagnoses. The tables in this report refer to principal diagnoses only.
- Inpatient data records contain one principal procedure and up to 29 additional procedures, and are coded using ICD-10 Procedure Coding System (ICD-10-PCS) codes.
- Outpatient procedures are reported in a separate file in which the unit of analysis is the procedure. A single patient stay or visit could have one or more procedures.
- The data in this report are generated from the 2016 version 10 dataset and the 2017 version 6 dataset.

## SOURCES

Alaska Department of Health and Social Services, Division of Public Health, Health Analytics and Vital Records Section, Health Facilities Data Reporting Program, 2016v10 and 2017v6 datasets.

Washington State Department of Health, Center for Health Statistics. Washington Comprehensive Hospital Abstract Reporting System, 2016 and 2017.

Populations used for crude rate calculations are from The Alaska Department of Labor and Workforce Development, <http://live.laborstats.alaska.gov/pop/estimates/data/TotalPopulationBCA.xls>

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<sup>1</sup><http://www.nubc.org/subscriber/index.dhtml>

<sup>2</sup><https://www.who.int/classifications/icd/icdonlineversions/en/>



### 2016-2017 Inpatient Stays Quick Facts

Number of stays in Alaska hospitals:

- 66,157 in 2016
- 64,937 in 2017
- Billed charges:
  - \$3.46 billion in 2016
  - \$4.65 billion in 2017
- Most frequent reason for a hospital stay: *Infant live born*
  - 9,103 in 2016
  - 8,459 in 2017
- Second most frequent reason for a hospital stay: *Septicemia, other than in labor*
  - 2,812 in 2016
  - 3,393 in 2017

### Understanding the Diagnosis Aggregation

The medical reasons, or diagnoses, for each hospital stay are key criteria for the analysis of health facilities' data.

Diagnoses are coded by health care facilities as part of their billing process using the *International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10)*, the industry standard reference. While ICD-10 contains thousands of diagnosis codes, the codes can be combined into similar categories by software programs to facilitate analysis.

In this report, two diagnosis software grouping programs were used on the inpatient data: the first is called Diagnosis-Related Groups (DRG), 3M software version 33, which aggregates diagnoses into about 750 categories; the second is AHRQ Clinical Classification Software (CCS) categories, which aggregates diagnoses into 300+ categories.

The Clinical Classification Software summarizes the diagnosis data at a higher level than the DRG categories groups, combining diagnosis codes into only about 40 percent of the number of DRG categories.

### Leading Cause of Inpatient Visits

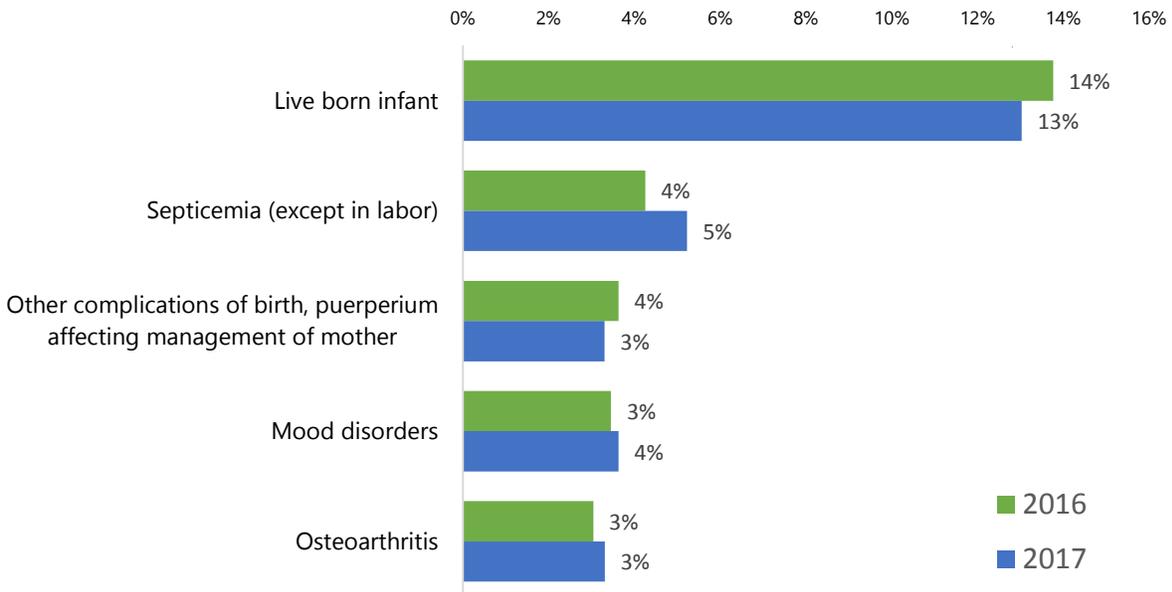
In the following table, the five leading DRGs and CCS categories for 2016 and 2017 are presented. Note that in 2016 there were over 5,100 hospital stays in the first-ranked DRG category, Normal newborn, while there were over 9,000 live born infants in the first-ranked CCS category. While other newborn DRGs could be added to the Normal newborn category to approximate the actual number of births in Alaska, the CCS categories number is much closer at first aggregation. For this reason, CCS Categories are included in this report for the first time. Data tables using DRGs are available in Appendix B.

**Table 1: Diagnosis-Related Group/CCS Categories Comparison**

Rank	Diagnosis-Related Group	Number	CCS Categories	Number
		<b>2016</b>	<b>2016</b>	
1	Normal newborn	5,150	Live born infant	9,103
2	Vaginal delivery without complicating diagnoses	5,009	Septicemia (except in labor)	2,812
3	Psychoses	2,929	Other complications of birth, puerperium affecting management of mother	2,399
4	Neonate with other significant problems	2,724	Mood disorders	2,285
5	Major joint replacement or reattachment of lower extremity without major complication or comorbidity	1,862	Osteoarthritis	2,011
		<b>2017</b>	<b>2017</b>	
1	Vaginal delivery without complicating diagnoses	4,818	Live born	8,459
2	Normal newborn	4,665	Septicemia (except in labor)	3,393
3	Psychoses	3,117	Mood disorders	2,355
4	Neonate with other significant problems	2,501	Osteoarthritis	2,148
5	Major joint replacement or reattachment of lower extremity without major complication or comorbidity	2,014	Other complications of birth, puerperium affecting management of mother	2,146

Figure 1 demonstrates the relative differences between the top five CCS Categories over the last two years of the program. The frequency of live born infants is more than two and a half times (2.5) that of the next category, septicemia except in labor

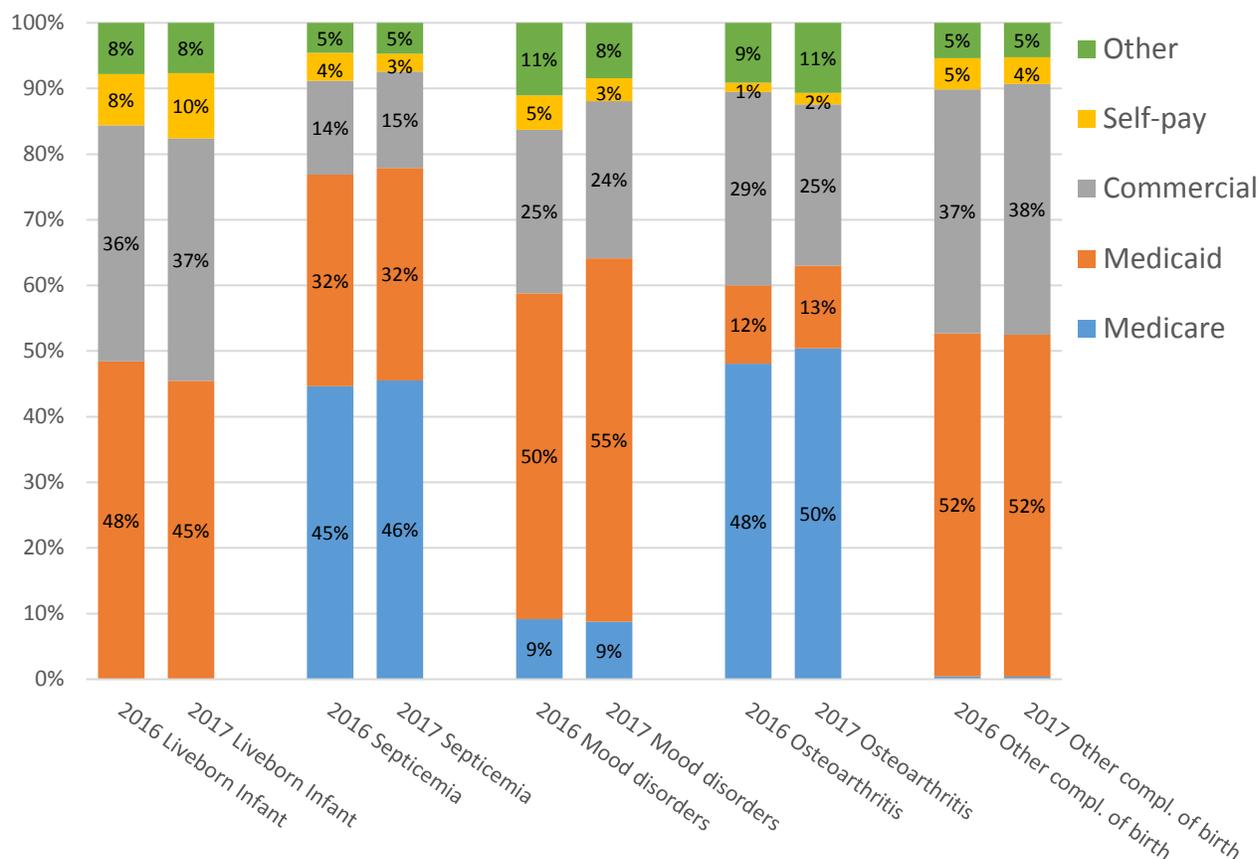
Figure 1: Leading Causes of Hospital Stays as a Percentage of Total Inpatient Discharges, 2016-2017 by Clinical Classification Software™ Categories



### Expected Primary Payer

Figure 2 shows the expected primary payer mix for the five leading causes of 2016 and 2017 hospital stays in Clinical Classification Software categories. *Medicaid* and *commercial insurance* are the two main expected payers for live born infant hospital stays in both years. *Medicare* is the main expected payer for *septicemia* and *osteoarthritis*. Table 4.2 provides more detail about the 15 leading causes and primary payers for 2016 and 2017 stays

Figure 2: Leading Causes of Hospital Stays, 2016 & 2017, by Expected Primary Payer



### Inpatient Tables

The inpatient tables 2.1 – 5.2 contain aggregated data about the number of stays, age groups of the patients, average length of stay in days, billed charges, median billed charges, and expected primary payer for 2016-2017.

### Data Highlights

- Live born infant stays were the leading cause of hospital stays for the State of Alaska (Table 2.1) and all regions (Table 3.1-2) in both 2016 and 2017. However discharge rates per 10,000 slightly decreased for all but the Northern Public Health Region (Table 4.1) during the same time period.
- Among the 5 leading causes of hospital stays (Table 2.2), the largest increase in median charges was for Osteoarthritis (\$83,714 to \$91,130 from 2016 to 2017); however the largest percent increase in median charges was among livebirths (16% increase from 2016 to 2017).
- The leading cause of inpatient stays for infants under 1 year of age was acute bronchitis in both 2016 and 2017 (Table 5).

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**Table 2.1: Leading Causes of Hospital Stays, by Clinical Classification Categories, Number, Age Group, and Average Length of Stay in Days (Avg LOS)**

Rank	Clinical Classification Categories	Number of Stays	Age <1	Age 1-17	Age 18-64	Age 65+	Avg LOS in days
<b>2016</b>							
1	Live born infant	9,103	9,103	0	0	0	4.1
2	Septicemia (except in labor)	2,812	31	39	1,578	1,164	8.2
3	Other complications of birth, puerperium affecting management of mother	2,399	0	38	2,361	0	2.2
4	Mood disorders	2,285	0	706	1,518	61	11.7
5	Osteoarthritis	2,011	0	0	962	1,049	5.9
6	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	1,490	114	243	509	624	4.7
7	Spondylosis, intervertebral disc disorders, other back problems	1,326	0	2	915	409	5.5
8	Skin and subcutaneous tissue infections	1,194	26	115	830	223	5.2
9	Alcohol-related disorders	1,180	0	5	1,097	78	14.3
10	Schizophrenia and other psychotic disorders	1,039	0	37	955	47	15.3
11	OB-related trauma to perineum and vulva	1,036	0	19	1,017	0	1.9
12	Acute myocardial infarction	1,030	0	0	533	497	4.8
13	Acute cerebrovascular disease	978	0	2	413	563	12.2
14	Chronic obstructive pulmonary disease and bronchiectasis	967	2	0	339	626	20.7
15	Other complications of pregnancy	953	0	25	928	0	2.8
<b>2017</b>							
1	Live born infant	8,459	8,459	0	0	0	4.4
2	Septicemia (except in labor)	3,393	42	53	1,895	1,403	9.1
3	Mood disorders	2,355	0	765	1,515	75	10.1
4	Osteoarthritis	2,148	0	0	971	1,177	2.9
5	Other complications of birth, puerperium affecting management of mother	2,146	0	36	2,110	0	2.2
6	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	1,160	122	195	327	516	4.3
7	Schizophrenia and other psychotic disorders	1,145	0	44	1,052	49	16.9
8	Alcohol-related disorders	1,123	1	6	1,008	108	7.1
9	Acute cerebrovascular disease	1,086	1	1	416	668	8.8
10	Acute myocardial infarction	1,082	0	0	525	557	6.3
11	Skin and subcutaneous tissue infections	1,057	20	82	738	217	4.5
12	Spondylosis, intervertebral disc disorders, other back problems	1,054	0	0	691	363	3.4
13	Hypertension with complications and secondary hypertension	1,020	0	1	379	640	6.5
14	Hypertension complicating pregnancy, childbirth and the puerperium	975	0	15	960	0	3.3
15	Respiratory failure, insufficiency, arrest (adult)	911	38	42	411	420	15.2

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**Table 2.2: Leading Causes of Hospital Stays, by Clinical Classification Software Categories, Billed Charges, and Expected Primary Payer**

Rank	CCS Categories	Median Charges	Billed Charges	Medicare	Medicaid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS	CHAMPVA	Other
<b>2016</b>												
1	Live born infant	\$27,443	\$249,810,907	0	4,407	3,273	0	713	58	205	447	
2	Septicemia (except in labor)	\$99,656	\$280,231,954	1,255	907	402	10	120	13	49	56	
3	Other complications of birth, puerperium affecting management of mother	\$18,339	\$43,995,693	10	1,254	892	0	114	4	53	72	
4	Mood disorders	\$39,805	\$90,954,402	209	1,134	570	1	119	4	116	132	
5	Osteoarthritis	\$83,714	\$168,349,640	967	240	592	10	29	0	86	87	
6	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	\$34,780	\$51,821,650	619	506	220	0	61	11	23	50	
7	Spondylosis, intervertebral disc disorders, other back problems	\$102,064	\$135,337,398	417	227	412	47	27	1	96	99	
8	Skin and subcutaneous tissue infections	\$32,388	\$38,671,591	289	519	181	17	95	11	15	67	
9	Alcohol-related disorders	\$42,756	\$50,452,400	122	614	151	0	122	18	82	71	
10	Schizophrenia and other psychotic disorders	\$32,620	\$33,891,969	323	468	77	0	81	2	26	62	
11	OB-related trauma to perineum and vulva	\$13,770	\$14,265,280	1	458	481	0	21	8	20	47	
12	Acute myocardial infarction	\$127,631	\$131,460,337	469	145	266	4	43	4	37	62	
13	Acute cerebrovascular disease	\$75,738	\$74,071,297	513	170	189	1	48	4	25	28	
14	Chronic obstructive pulmonary disease and bronchiectasis	\$36,521	\$35,315,516	589	255	69	0	19	3	20	12	
15	Other complications of pregnancy	\$23,362	\$22,263,577	7	454	380	0	40	5	19	48	
<b>2017</b>												
1	Live born infant	\$31,862	\$269,518,564	0	3,845	3,125	0	842	48	163	436	
2	Septicemia (except in labor)	\$96,837	\$328,567,254	1,544	1,099	498	12	92	11	56	81	
3	Mood disorders	\$39,906	\$93,979,145	207	1,303	564	1	82	2	89	107	
4	Osteoarthritis	\$91,130	\$195,747,407	1,083	270	528	16	38	0	99	114	
5	Other complications of birth, puerperium affecting management of mother	\$18,596	\$39,907,933	8	1,119	819	0	88	6	47	59	
6	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	\$36,531	\$42,375,975	515	383	150	4	52	2	21	33	
7	Schizophrenia and other psychotic disorders	\$36,223	\$41,475,850	369	556	70	0	63	1	27	59	
8	Alcohol-related disorders	\$44,263	\$49,707,119	145	631	121	0	89	23	75	39	
9	Acute cerebrovascular disease	\$77,267	\$83,912,197	633	176	180	2	38	3	22	32	
10	Acute myocardial infarction	\$123,709	\$133,852,736	530	139	256	5	43	2	40	67	
11	Skin and subcutaneous tissue infections	\$33,485	\$35,393,508	243	498	170	18	58	8	12	50	
12	Spondylosis, intervertebral disc disorders, other back problems	\$118,577	\$124,980,298	354	198	303	35	15	0	52	97	
13	Hypertension with complications and secondary hypertension	\$70,589	\$72,001,244	661	176	95	1	16	1	27	43	
14	Hypertension complicating pregnancy, childbirth and the puerperium	\$30,259	\$29,502,556	5	491	388	0	42	2	22	25	
15	Respiratory failure, insufficiency, arrest (adult)	\$111,440	\$101,522,093	474	246	125	1	15	1	20	29	

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Table 3.1: Leading Causes of 2016 Hospital Stays by Patient Region of Residence, Clinical Classification Software Categories, Number, Age Group, and Average Length of Stay (Avg LOS)

Rank	CCS Categories	Number of Stays	Age 0-17	Age 18-64	Age 65+	Avg LOS in days
<b>2016</b>						
<b>Anchorage</b>						
1	Live born infant	3,694	3,694	0	0	4.9
2	Septicemia (except in labor)	1,472	28	856	588	8.5
3	Other complications of birth, puerperium affecting management of mother	904	13	891	0	2.2
4	Mood disorders	790	313	451	26	12.8
5	Osteoarthritis	765	0	336	429	2.8
<b>Matanuska-Susitna</b>						
1	Live born infant	1,157	1,157	0	0	3.3
2	Osteoarthritis	381	0	202	179	2.4
3	Septicemia (except in labor)	359	5	208	146	8.3
4	Mood disorders	337	114	216	7	11.1
5	Other complications of birth, puerperium affecting management of mother	316	2	314	0	2.1
<b>Gulf Coast</b>						
1	Live born infant	989	989	0	0	2.6
2	Osteoarthritis	372	0	182	190	13.8
3	Septicemia (except in labor)	309	2	151	156	8.0
4	Spondylosis, intervertebral disc disorders, other back problems	301	0	198	103	3.6
5	Other complications of birth, puerperium affecting management of mother	213	2	211	0	2.0
<b>Interior</b>						
1	Live born infant	1,178	1,178	0	0	4.2
2	Mood disorders	412	69	334	9	8.7
3	Other complications of birth, puerperium affecting management of mother	299	3	296	0	2.3
4	Osteoarthritis	239	0	114	125	3.2
5	Septicemia (except in labor)	155	7	94	54	6.7
<b>Northern</b>						
1	Live born infant	491	491	0	0	3.2
2	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	259	80	69	110	5.2
3	Chronic obstructive pulmonary disease and bronchiectasis	236	2	89	145	9.5
4	Other complications of birth, puerperium affecting management of mother	191	6	185	0	2.1
5	Alcohol-related disorders	145	1	139	5	4.7
<b>Southeast</b>						
1	Live born infant	685	685	0	0	3.9
2	Alcohol-related disorders	257	1	245	11	36.5
3	Mood disorders	224	35	184	5	7.1
4	Septicemia (except in labor)	189	3	97	89	6.8
5	Osteoarthritis	180	0	92	88	15.0

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**Table 3.1: Leading Causes of 2016 Hospital Stays by Patient Region of Residence, Clinical Classification Software Categories, Number, Age Group, and Average Length of Stay (Avg LOS)**

Rank	CCS Categories	Number of Stays	Age 0-17	Age 18-64	Age 65+	Avg LOS in days
<b>Southwest</b>						
1	Live born infant	857	857	0	0	3.8
2	Other complications of birth, puerperium affecting management of mother	295	9	286	0	2.2
3	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	246	118	52	76	3.7
4	Skin and subcutaneous tissue infections	197	44	128	25	4.0
5	OB-related trauma to perineum and vulva	178	8	170	0	2.1

**Table 3.2: Leading Causes of 2017 Hospital Stays by Patient Region of Residence, Clinical Classification Software Categories, Number, Age Group, and Average Length of Stay (Avg LOS)**

Rank	CCS Categories	Number of Stays	Age 0-17	Age 18-64	Age 65+	Avg LOS in days
<b>2017</b>						
<b>Anchorage</b>						
1	Live born infant	3,338	3,338	0	0	4.8
2	Septicemia (except in labor)	1,665	36	976	653	9.1
3	Mood disorders	802	305	461	36	11.9
4	Osteoarthritis	767	0	322	445	2.8
5	Other complications of birth, puerperium affecting management of mother	745	13	732	0	2.3
<b>Matanuska-Susitna</b>						
1	Live born infant	1,094	1,094	0	0	4.4
2	Septicemia (except in labor)	459	10	287	162	8.8
3	Osteoarthritis	404	0	191	213	2.3
4	Mood disorders	310	118	181	11	10.3
5	Other complications of birth, puerperium affecting management of mother	270	0	270	0	2.1
<b>Gulf Coast</b>						
1	Live born infant	901	901	0	0	3.8
2	Septicemia (except in labor)	410	8	173	229	11.6
3	Osteoarthritis	388	0	171	217	3.3
4	Spondylosis, intervertebral disc disorders, other back problems	244	0	146	98	4.1
5	Other complications of birth, puerperium affecting management of mother	202	0	202	0	2.1
<b>Interior</b>						
1	Live born infant	1,146	1,146	0	0	4.7
2	Mood disorders	436	87	339	10	8.1
3	Other complications of birth, puerperium affecting management of mother	329	7	322	0	2.2
4	Osteoarthritis	255	0	118	137	3.0
5	Septicemia (except in labor)	204	4	114	86	12.6
<b>Northern</b>						
1	Live born infant	512	512	0	0	3.6
2	Other complications of birth, puerperium affecting management of mother	178	10	168	0	2.0

**Table 3.2: Leading Causes of 2017 Hospital Stays by Patient Region of Residence, Clinical Classification Software Categories, Number, Age Group, and Average Length of Stay (Avg LOS)**

Rank	CCS Categories	Number of Stays	Age 0-17	Age 18-64	Age 65+	Avg LOS in days
3	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	164	76	35	53	3.2
4	Mood disorders	136	72	64	0	10.1
5	Septicemia (except in labor)	130	8	73	49	4.7
<b>Southeast</b>						
1	Live born infant	659	659	0	0	3.7
2	Mood disorders	244	38	201	5	6.1
3	Osteoarthritis	236	0	123	113	2.5
4	Septicemia (except in labor)	216	5	125	86	7.4
5	Alcohol-related disorders	207	0	187	20	4.9
<b>Southwest</b>						
1	Live born infant	780	780	0	0	4.3
2	Other complications of birth, puerperium affecting management of mother	278	5	273	0	2.2
3	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	230	122	25	83	3.5
4	Mood disorders	196	79	117	0	10.7
5	Septicemia (except in labor)	181	22	95	64	6.9

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Table 4.1: 2016 Leading Causes of Hospital Stays by Clinical Classification Software Categories, By Patient Region of Residence, Discharge Rates per 10,000 Population

Rank	CCS Categories	Patient Region of Residence													
		Anchorage		Gulf Coast		Interior		Matanuska-Susitna		Northern		Southeast		Southwest	
		Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000
<b>2016</b>															
1	Live born infant	3,694	123.6	989	121.9	1,178	104.1	1,157	112.8	491	176.6	685	92.8	857	202.7
2	Septicemia (except in labor)	1,472	49.2	309	38.1	155	13.7	359	35.0	103	37.0	189	25.6	123	29.1
3	Other complications of birth, puerperium affecting management of mother	904	30.2	213	26.3	299	26.4	316	30.8	191	68.7	161	21.8	295	69.8
4	Mood disorders	790	26.4	198	24.4	412	36.4	337	32.9	97	34.9	224	30.3	168	39.7
5	Osteoarthritis	765	25.6	372	45.9	239	21.1	381	37.2	32	11.5	180	24.4	34	8.0
6	Spondylosis, intervertebral disc disorders, other back problems	500	16.7	301	37.1	117	10.3	297	29.0	33	11.9	46	6.2	22	5.2
7	Other complications of pregnancy	426	14.3	102	12.6	95	8.4	131	12.8	61	21.9	60	8.1	67	15.8
8	Schizophrenia and other psychotic disorders	419	14.0	67	8.3	119	10.5	69	6.7	81	29.1	149	20.2	115	27.2
9	Respiratory failure, insufficiency, arrest (adult)	413	13.8	105	12.9	41	3.6	165	16.1	27	9.7	45	6.1	40	9.5
10	Acute cerebrovascular disease	409	13.7	152	18.7	92	8.1	123	12.0	40	14.4	77	10.4	37	8.8
11	Complication of device, implant or graft	392	13.1	131	16.2	75	6.6	152	14.8	17	6.1*	43	5.8	22	5.2
12	Skin and subcutaneous tissue infections	380	12.7	139	17.1	83	7.3	153	14.9	84	30.2	132	17.9	197	46.6
13	OB-related trauma to perineum and vulva	373	12.5	151	18.6	98	8.7	69	6.7	23	8.3	136	18.4	178	42.1
14	Previous C-section	361	12.1	107	13.2	110	9.7	137	13.4	17	6.1*	67	9.1	19	4.5*
15	Diabetes mellitus with complications	357	11.9	75	9.2	83	7.3	108	10.5	14	5.0*	79	10.7	7	1.7*

\* Rates based on less than 20 stays are unreliable and should be used with caution.

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Table 4.2: 2017 Leading Causes of Hospital Stays by Clinical Classification Software Categories, By Patient Region of Residence, Discharge Rates per 10,000 Population

Rank	CCS Categories	Patient Region of Residence													
		Anchorage		Gulf Coast		Interior		Matanuska-Susitna		Northern		Southeast		Southwest	
		Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000	Number of Stays	Rate Per 10,000
<b>2017</b>															
1	Live born infant	3,338	112.2	901	111.7	1,146	102.4	1,094	105.0	512	184.8	659	90.4	780	184.8
2	Septicemia (except in labor)	1,665	56.0	410	50.8	204	18.2	459	44.1	130	46.9	216	29.6	181	42.9
3	Mood disorders	802	27.0	191	23.7	436	39.0	310	29.8	136	49.1	244	33.5	196	46.4
4	Osteoarthritis	767	25.8	388	48.1	255	22.8	404	38.8	45	16.2	236	32.4	45	10.7
5	Other complications of birth, puerperium affecting management of mother	745	25.0	202	25.0	329	29.4	270	25.9	178	64.2	129	17.7	278	65.9
6	Hypertension with complications and secondary hypertension	493	16.6	143	17.7	100	8.9	109	10.5	22	7.9	63	8.6	50	11.8
7	Schizophrenia and other psychotic disorders	443	14.9	91	11.3	154	13.8	122	11.7	61	22.0	167	22.9	88	20.9
8	Acute cerebrovascular disease	440	14.8	155	19.2	108	9.7	129	12.4	34	12.3	93	12.8	53	12.6
9	Respiratory failure, insufficiency, arrest (adult)	435	14.6	88	10.9	47	4.2	187	18.0	24	8.7	43	5.9	47	11.1
10	Spondylosis, intervertebral disc disorders, other back problems	418	14.1	244	30.2	115	10.3	207	19.9	17	6.1*	23	3.2	17	4.0*
11	Skin and subcutaneous tissue infections	408	13.7	105	13.0	47	4.2	140	13.4	77	27.8	101	13.9	142	33.6
12	Acute myocardial infarction	406	13.6	139	17.2	124	11.1	163	15.6	30	10.8	85	11.7	48	11.4
13	Complication of device, implant or graft	406	13.6	113	14.0	88	7.9	131	12.6	13	4.7*	52	7.1	26	6.2
14	Other complications of pregnancy	385	12.9	103	12.8	91	8.1	156	15.0	52	18.8	49	6.7	52	12.3
15	Alcohol-related disorders	367	12.3	125	15.5	100	8.9	100	9.6	111	40.1	207	28.4	94	22.3

\* Rates based on less than 20 stays are unreliable and should be used with caution

Table 5: Leading Causes of Infant (&lt;1 Year Old) Hospital Stays Except Live Birth, By Number and Average Length of Stay (Avg LOS)

Rank	Clinical Classification Categories	Number of Stays	Avg LOS in days
<b>2016</b>			
1	Acute bronchitis	273	3.5
2	Other perinatal conditions	272	6.5
3	Hemolytic jaundice and perinatal jaundice	189	1.8
4	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	114	4.0
5	Other upper respiratory infections	43	2.1
6	Epilepsy, convulsions	38	1.7
7	Digestive congenital anomalies	32	7.0
8	Septicemia (except in labor)	31	8.5
9	Urinary tract infections	29	3.0
10	Other lower respiratory disease	27	4.0
<b>2017</b>			
1	Acute bronchitis	294	3.4
2	Other perinatal conditions	268	6.1
3	Hemolytic jaundice and perinatal jaundice	172	1.9
4	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	122	3.0
5	Other upper respiratory infections	51	2.1
6	Short gestation, low birth weight, and fetal growth retardation	42	14.7
7	Septicemia (except in labor)	42	8.8
8	Respiratory failure, insufficiency, arrest (adult)	38	11.4
9	Urinary tract infections	29	2.3
10	Epilepsy, convulsions	28	3.6



### 2016-2017 Emergency Department Quick Facts

- Emergency department visits:
  - 316,056 in 2016
  - 305,338 in 2017
- Billed charges:
  - \$885 million in 2016
  - \$940 million in 2017
- Leading cause of emergency department visits: *Other upper respiratory infections (includes the "common cold")*
  - 17,900 in 2016
  - 17,657 in 2017

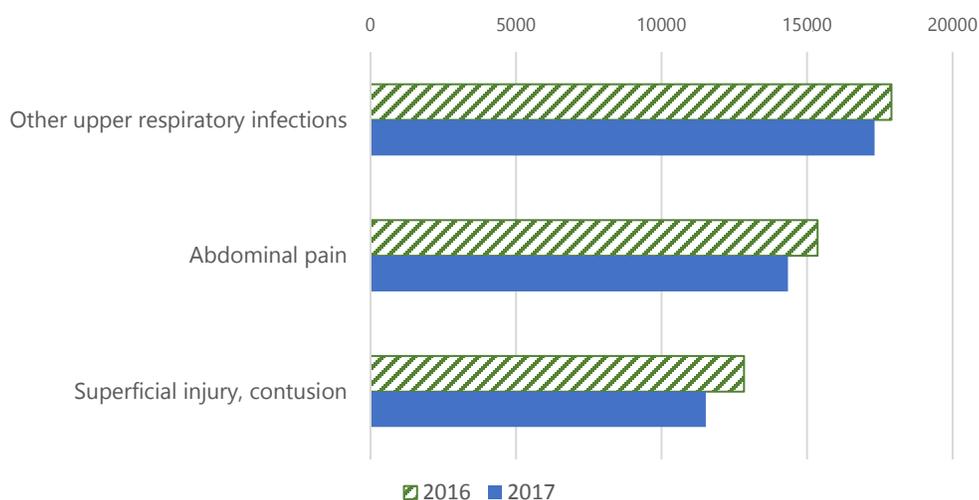
### Understanding the Diagnoses Aggregation

Emergency Department (ED) discharges are grouped by principal diagnoses using the Agency for Healthcare Research and Quality Clinical Classification Software™ (CCS) categories which aggregates diagnoses into 300+ categories (see page 14).

### Leading Causes of ED Visits

Figure 3 demonstrates the relative differences between the top CCS categories over the last two years of the program. Ranks four and five differed in 2016 and 2017: for 2016, they were *skin and subcutaneous tissue infections* at 12,081 and *sprains and strains* at 11,730; for 2017, they were *nonspecific chest pain* at 10,916 and *skin and subcutaneous tissue infections* at 10,670.

Figure 3: Leading Causes of ED Visits, 2016-2017 by Clinical Classification Software™ Categories



### Emergency Department Tables

The ED tables 6.1-7.2 contain data about the number of visits, age groups of the patients, billed charges, median billed charges, and expected primary payer for 2016-2017, aggregated by CCS categories.

### Data Highlights

- The top 3 causes of ED visits were the same in both 2016 and 2017, *other respiratory infections*, *abdominal pain* and *superficial injury (contusion)* (Table 6.1).
- The highest median charges of the 10 leading causes for ED visits were due to *Nonspecific chest pain* (\$4,769, 2016 and \$5,149, 2017) (Table 6.2).
- Alcohol-related disorders were also a top cause of ED visits in both 2016 and 2017; they were the leading cause in the Southeast and Northern Public Health Regions in 2017 (Tables 7.1-2).

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## Table 6.1: Leading Causes of Emergency Department Visits: Number, and Age Group

Rank	CCS Categories	Number of Visits	Age 0	Age 1-17	Age 18-64	Age 65+
<b>2016</b>						
1	Other upper respiratory infections	17,900	1,450	6,784	8,974	692
2	Abdominal pain	15,360	12	1,909	12,114	1,325
3	Superficial injury, contusion	12,838	170	3,158	8,215	1,295
4	Skin and subcutaneous tissue infections	12,081	150	1,644	9,175	1,112
5	Sprains and strains	11,730	6	1,980	8,999	745
6	Nonspecific chest pain	10,781	1	350	8,259	2,171
7	Alcohol-related disorders	10,415	1	126	9,981	307
8	Spondylosis, intervertebral disc disorders, other back problems	9,570	2	301	8,003	1,264
9	Open wounds of extremities	8,390	22	1,636	6,132	600
10	Urinary tract infections	7,399	92	763	5,099	1,445
11	Other injuries and conditions due to external causes	7,087	232	2,101	4,068	686
12	Headache, including migraine	6,488	1	598	5,443	446
13	Other lower respiratory disease	6,207	487	1,228	3,340	1,152
14	Other non-traumatic joint disorders	5,994	5	611	4,527	851
15	Other connective tissue disease	5,840	13	532	4,536	759
<b>2017</b>						
1	Other upper respiratory infections	17,657	1,366	6,749	8,769	773
2	Abdominal pain	14,679	9	1,942	11,422	1,306
3	Superficial injury, contusion	11,919	143	2,869	7,570	1,337
4	Nonspecific chest pain	11,197	0	355	8,458	2,384
5	Skin and subcutaneous tissue infections	10,994	102	1,469	8,339	1,084
6	Alcohol-related disorders	10,677	0	142	10,216	319
7	Sprains and strains	10,520	2	1,705	8,049	764
8	Spondylosis, intervertebral disc disorders, other back problems	8,919	0	339	7,373	1,207
9	Open wounds of extremities	7,904	20	1,514	5,738	632
10	Other injuries and conditions due to external causes	7,473	260	2,130	4,430	653
11	Urinary tract infections	6,209	69	625	4,187	1,328
12	Other lower respiratory disease	6,029	468	1,126	3,224	1,211
13	Headache, including migraine	6,026	3	529	4,973	521
14	Other connective tissue disease	5,714	15	529	4,305	865
15	Other non-traumatic joint disorders	5,542	7	573	4,152	810

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Table 6.2: Leading Causes of Emergency Department Visits: Number, Billed Charges, and Expected Primary Payer

Rank	CCS Categories	Median Charges	Billed Charges	Medicare	Medicaid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS CHAMPVA	Other
<b>2016</b>											
1	Other upper respiratory infections	\$1,217	\$24,922,591	823	8,103	4,638	7	2,733	187	364	1,045
2	Abdominal pain	\$3,802	\$71,198,520	1,787	5,935	4,424	45	1,917	259	399	594
3	Superficial injury, contusion	\$1,455	\$29,320,388	1,482	4,789	3,220	520	1,593	196	365	673
4	Skin and subcutaneous tissue infections	\$1,281	\$21,930,631	1,413	4,814	2,625	132	1,914	183	234	766
5	Sprains and strains	\$1,581	\$23,730,719	955	3,826	3,627	748	1,468	157	326	623
6	Nonspecific chest pain	\$4,769	\$54,587,720	2,424	3,026	3,188	55	1,138	136	351	463
7	Alcohol-related disorders	\$1,424	\$24,429,488	570	5,279	847	3	1,786	1,015	163	752
8	Spondylosis, intervertebral disc disorders, other back problems	\$1,472	\$23,974,758	1,653	3,352	2,381	273	1,165	65	273	408
9	Open wounds of extremities	\$1,287	\$13,903,449	667	2,332	2,533	816	1,218	143	226	455
10	Urinary tract infections	\$2,028	\$22,921,124	1,562	2,493	1,839	6	927	63	160	349
11	Other injuries and conditions due to external causes	\$1,478	\$19,284,775	738	2,567	1,888	334	894	88	158	420
12	Headache, including migraine	\$2,596	\$23,195,510	819	2,390	2,009	40	724	63	202	241
13	Other lower respiratory disease	\$1,952	\$18,758,545	1,264	2,375	1,248	23	821	54	151	271
14	Other non-traumatic joint disorders	\$1,646	\$12,211,982	1,109	2,191	1,227	161	863	63	144	236
15	Other connective tissue disease	\$1,577	\$12,774,192	992	2,106	4,638	7	2,733	187	364	1,045
<b>2017</b>											
1	Other upper respiratory infections	\$1,287	\$27,053,504	926	8,869	4,067	6	2,357	144	350	938
2	Abdominal pain	\$4,145	\$73,397,958	1,777	6,204	4,008	33	1,635	194	325	503
3	Superficial injury, contusion	\$1,553	\$29,416,310	1,500	4,867	2,683	574	1,236	170	294	595
4	Nonspecific chest pain	\$5,149	\$61,532,899	2,675	3,442	3,162	53	971	112	329	453
5	Skin and subcutaneous tissue infections	\$1,359	\$22,047,351	1,335	5,085	2,049	89	1,504	163	196	573
6	Alcohol-related disorders	\$1,579	\$28,184,998	646	6,347	862	2	1,303	708	136	673
7	Sprains and strains	\$1,698	\$23,125,886	916	3,730	3,146	719	1,107	107	279	516
8	Spondylosis, intervertebral disc disorders, other back problems	\$1,554	\$24,260,472	1,531	3,454	2,112	261	915	67	224	355
9	Open wounds of extremities	\$1,360	\$13,954,753	674	2,466	2,296	765	1,008	122	185	388
10	Other injuries and conditions due to external causes	\$1,560	\$21,541,302	804	3,023	1,906	302	801	113	141	383
11	Urinary tract infections	\$2,368	\$22,238,589	1,379	2,285	1,525	5	559	82	130	244
12	Other lower respiratory disease	\$2,227	\$20,765,314	1,322	2,430	1,160	16	619	53	136	293
13	Headache, including migraine	\$2,894	\$23,762,018	779	2,385	1,803	36	602	47	172	202
14	Other connective tissue disease	\$1,733	\$13,951,364	1,068	2,184	1,276	118	662	41	147	218
15	Other non-traumatic joint disorders	\$1,759	\$12,097,762	979	2,327	1,106	158	607	26	135	204

Table 7.1: Leading Causes of 2016 Emergency Department Visits by Patient Region of Residence, Clinical Classification Software Categories, Number, and Age Group

Rank	CCS Categories	Number of Stays	Age 0-17	Age 18-64	Age 65+
<b>2016</b>					
<b>Anchorage</b>					
1	Other upper respiratory infections	7,731	3,386	4,081	264
2	Abdominal pain	6,087	706	4,900	481
3	Superficial injury, contusion	5,100	1,279	3,371	450
4	Sprains and strains	4,874	781	3,833	260
5	Nonspecific chest pain	4,539	147	3,594	798
<b>Matanuska-Susitna</b>					
1	Abdominal pain	1,711	249	1,345	117
2	Superficial injury, contusion	1,463	455	853	155
3	Sprains and strains	1,404	306	984	114
4	Other upper respiratory infections	1,347	660	637	50
5	Nonspecific chest pain	1,234	43	949	242
<b>Gulf Coast</b>					
1	Abdominal pain	1,456	206	1,054	196
2	Superficial injury, contusion	1,193	329	676	188
3	Nonspecific chest pain	1,098	40	777	281
4	Open wounds of extremities	1,018	191	703	124
5	Skin and subcutaneous tissue infections	1,006	91	748	167
<b>Interior</b>					
1	Abdominal pain	2,208	252	1,788	168
2	Alcohol-related disorders	2,011	19	1,913	79
3	Sprains and strains	1,494	182	1,230	82
4	Superficial injury, contusion	1,402	316	950	136
5	Skin and subcutaneous tissue infections	1,334	116	1,073	145
<b>Northern</b>					
1	Other upper respiratory infections	2,531	1,358	1,103	70
2	Alcohol-related disorders	1,715	31	1,658	26
3	Superficial injury, contusion	972	342	562	68
4	Abdominal pain	942	143	708	91
5	Skin and subcutaneous tissue infections	843	222	585	36
<b>Southeast</b>					
1	Abdominal pain	1,449	153	1,153	143
2	Alcohol-related disorders	1,344	12	1,283	49
3	Sprains and strains	1,316	198	1,042	76
4	Superficial injury, contusion	1,176	265	784	127
5	Skin and subcutaneous tissue infections	1,112	103	881	128
<b>Southwest</b>					
1	Other upper respiratory infections	3,074	1,437	1,518	119
2	Skin and subcutaneous tissue infections	2,157	529	1,480	148
3	Alcohol-related disorders	1,446	32	1,371	43
4	Abdominal pain	1,112	194	831	87
5	Superficial injury, contusion	1,100	304	725	71

Table 7.2: Leading Causes of 2017 Emergency Department Visits by Patient Region of Residence, Clinical Classification Software Categories, Number, and Age Group

Rank	CCS Categories	Number of Stays	Age 0-17	Age 18-64	Age 65+
<b>2016</b>					
<b>Anchorage</b>					
1	Other upper respiratory infections	8,045	3,529	4,217	299
2	Abdominal pain	6,177	850	4,828	499
3	Superficial injury, contusion	4,920	1,185	3,239	496
4	Nonspecific chest pain	4,826	150	3,742	934
5	Sprains and strains	4,601	701	3,646	254
<b>Matanuska-Susitna</b>					
1	Abdominal pain	1,630	264	1,228	138
2	Superficial injury, contusion	1,438	435	820	183
3	Other upper respiratory infections	1,388	693	628	67
4	Nonspecific chest pain	1,319	51	999	269
5	Sprains and strains	1,129	241	813	75
<b>Gulf Coast</b>					
1	Abdominal pain	1,285	178	951	156
2	Nonspecific chest pain	1,121	36	788	297
3	Other upper respiratory infections	1,030	520	440	70
4	Superficial injury, contusion	976	259	559	158
5	Sprains and strains	961	198	672	91
<b>Interior</b>					
1	Abdominal pain	1,914	220	1,545	149
2	Alcohol-related disorders	1,772	21	1,682	69
3	Superficial injury, contusion	1,353	298	924	131
4	Sprains and strains	1,330	170	1,063	97
5	Nonspecific chest pain	1,273	27	980	266
<b>Northern</b>					
1	Alcohol-related disorders	1,968	27	1,893	48
2	Other upper respiratory infections	1,840	1,018	752	70
3	Superficial injury, contusion	820	278	468	74
4	Abdominal pain	756	109	556	91
5	Skin and subcutaneous tissue infections	695	159	490	46
<b>Southeast</b>					
1	Alcohol-related disorders	1,501	15	1,435	51
2	Abdominal pain	1,371	137	1,111	123
3	Sprains and strains	1,178	180	883	115
4	Nonspecific chest pain	1,105	30	817	258
5	Superficial injury, contusion	1,070	236	687	147
<b>Southwest</b>					
1	Other upper respiratory infections	2,980	1,400	1,479	101
2	Alcohol-related disorders	1,921	36	1,837	48
3	Skin and subcutaneous tissue infections	1,787	496	1,156	135
4	Abdominal pain	1,211	178	927	106
5	Superficial injury, contusion	948	293	603	52



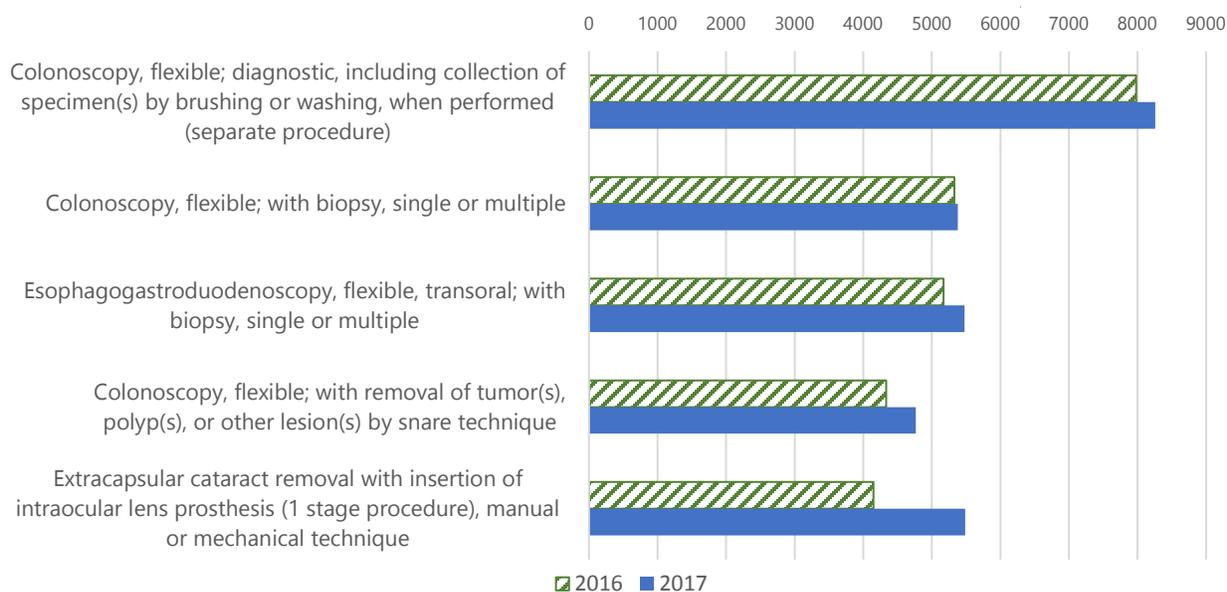
### 2016-2017 Outpatient Surgery Quick Facts

- Number of outpatient surgeries:
  - 82,035 in 2016
  - 81,946 in 2017
- Outpatient surgery billed charges:
  - \$1.1 billion in 2016
  - \$1.2 billion in 2017
- Most frequent surgical procedure: *Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)*
  - 7,978 in 2016
  - 8,258 in 2017

### Understanding Procedures

The surgical action performed, or procedure, is the unit for the first part of this section. Procedures performed in Ambulatory Surgery Centers and Hospital Outpatient Surgery departments are analyzed. *Current Procedural Terminology™* (CPT) is used by the HFDR program and is the industry standard for coding medical procedures. Figure 4 demonstrates the relative differences between the top five CPT-identified procedures over the last two years of the program. More procedures were performed in 2017 than in 2016, and of the top five procedures, three are types of colonoscopies. The 2016 fifth leading procedure, *extracapsular cataract removal with insertion of intraocular lens prosthesis...*, increased from 4,148 in 2016 to 5,487 in 2017, an increase of 32.3 percent.

**Figure 4: Leading Outpatient Surgery Procedures, 2016-2017 by Current Procedural Terminology™ Categories**



### Outpatient Surgical Procedure Tables

The Outpatient Surgical Procedure tables 8.1-9.2 contain data about the number of procedures, age groups of the patients, billed charges, median billed charges, and expected primary payer for 2016-2017, aggregated by Current Procedural Terminology™ Categories.

### Data Highlights

- *Tympanostomy (requiring insertion of ventilating tube), general anesthesia* was the most frequent procedure for infants under 1 year, while *extracapsular cataract removal with insertion of intraocular lens prosthesis* was the most frequent for adults age 65 and older in both 2016 and 2017 (Table 8.1).
- The highest median charges of the leading causes of outpatient surgery were for *Arthroscopy, knee, surgical; with meniscectomy* at Ambulatory Surgical Centers in 2016 and 2017 (Table 9.1 and 2).

**Table 8.1: Leading Outpatient Surgical Procedures, 2016, Ambulatory Surgery Center and Outpatient Hospital, Current Procedural Terminology™ Categories, Number, and Age Group**

Rank	Current Procedural Terminology™ Description	CPT™ Code	Number of Procedures	Age<1	Age 1-17	Age 18-64	Age 65+
<b>Ambulatory Surgery Center 2016</b>							
1	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	45378	3,592	0	6	3,034	552
2	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification)	66984	3,476	0	3	1,102	2,371
3	Esophagogastroduodenoscopy, flexible, transoral; with biopsy, single or multiple	43239	2,630	0	8	1,931	686
4	Colonoscopy, flexible; with biopsy, single or multiple	45380	2,607	0	2	1,996	609
5	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	45385	2,558	0	0	1,754	802
6	Injection, anesthetic agent; brachial plexus, single	64415	1,255	0	51	1,029	175
7	Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, single level	64483	1,149	1	0	803	345
8	Unlisted procedure, dentoalveolar structures	41899	987	0	912	74	<5
9	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed	29881	954	0	34	826	94
10	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level	64493	823	1	2	624	196
11	Tympanostomy (requiring insertion of ventilating tube), general anesthesia	69436	771	57	648	57	9
12	Submucous resection inferior turbinate, partial or complete, any method	30140	665	0	55	564	46
13	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, single facet joint	64635	655	0	0	492	163
14	Discission of secondary membranous cataract (opacified posterior lens capsule and/or anterior hyaloid); laser surgery (e.g., YAG laser) (1 or more stages)	66821	615	0	0	152	463
15	Injection, anesthetic agent; brachial plexus, continuous infusion by catheter (including catheter placement)	64416	559	0	8	494	57
<b>Hospital Outpatient Surgery 2016</b>							
1	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	45378	4,386	0	8	3,918	460
2	Colonoscopy, flexible; with biopsy, single or multiple	45380	2,721	4	101	2,059	557
3	Esophagogastroduodenoscopy, flexible, transoral; with biopsy, single or multiple	43239	2,541	8	286	1,736	511
4	Unlisted procedure, dentoalveolar structures	41899	1,867	0	1,329	529	9
5	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	45385	1,777	0	9	1,418	350

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**Table 8.1: Leading Outpatient Surgical Procedures, 2016, Ambulatory Surgery Center and Outpatient Hospital, Current Procedural Terminology™ Categories, Number, and Age Group**

Rank	Current Procedural Terminology™ Description	CPT™ Code	Number of Procedures	Age<1	Age 1-17	Age 18-64	Age 65+
6	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification)	66984	672	0	0	338	334
7	Tympanostomy (requiring insertion of ventilating tube), general anesthesia	69436	666	45	568	52	1
8	Esophagogastroduodenoscopy, flexible, transoral; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	43235	600	3	15	494	88
9	Insertion of tunneled centrally inserted central venous access device, with subcutaneous port; age 5 years or older	36561	472	0	4	332	136
10	Hysteroscopy, surgical; with sampling (biopsy) of endometrium and/or polypectomy, with or without D & C	58558	358	0	0	333	25
11	Laparoscopy, surgical; cholecystectomy	47562	349	0	9	301	39
12	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level	64493	339	0	1	294	44
13	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; second level (List separately in addition to code for primary procedure)	64494	303	0	1	272	30
14	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed	29881	302	0	14	263	25
15	Removal of implant; deep (e.g., buried wire, pin, screw, metal band, nail, rod or plate)	20680	296	0	71	211	14

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Table 8.2: Leading Outpatient Surgical Procedures, 2017, Ambulatory Surgery Center and Outpatient Hospital, Current Procedural Terminology™ Categories, Number, and Age Group

Rank	Current Procedural Terminology™ Description	CPT™ Code	Number of Procedures	Age<1	Age 1-17	Age 18-64	Age 65+
<b>Ambulatory Surgery Center 2017</b>							
1	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification)	66984	4,445	2	3	1,347	3,093
2	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	45378	3,758	0	2	3,224	532
3	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	45385	2,955	0	0	1,964	991
4	Esophagogastroduodenoscopy, flexible, transoral; with biopsy, single or multiple	43239	2,686	1	6	1,953	726
5	Colonoscopy, flexible; with biopsy, single or multiple	45380	2,565	0	<5	1,950	612
6	Injection(s), of diagnostic or therapeutic substance(s) (e.g., anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); with imaging guidance (i.e., fluoroscopy or CT)	62323	1,066	1	4	729	332
7	Injection, anesthetic agent; brachial plexus, single	64415	1,054	0	42	882	130
8	Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, single level	64483	960	0	2	679	279
9	Tympanostomy (requiring insertion of ventilating tube), general anesthesia	69436	829	52	697	72	8
10	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed	29881	723	0	38	613	72
11	Unlisted procedure, dentoalveolar structures	41899	635	0	607	27	1
12	Submucous resection inferior turbinate, partial or complete, any method	30140	604	0	45	515	44
13	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level	64493	576	0	1	440	135
14	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, single facet joint	64635	545	0	0	427	118
15	Discission of secondary membranous cataract (opacified posterior lens capsule and/or anterior hyaloid); laser surgery (e.g., YAG laser) (1 or more stages)	66821	539	0	0	147	392
<b>Hospital Outpatient Surgery 2017</b>							
1	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	45378	4,500	0	16	3,850	634
2	Colonoscopy, flexible; with biopsy, single or multiple	45380	2,813	1	110	2,115	587
3	Esophagogastroduodenoscopy, flexible, transoral; with biopsy, single or multiple	43239	2,792	6	292	1,920	574
4	Unlisted procedure, dentoalveolar structures	41899	1,984	0	1495	483	6

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Table 8.2: Leading Outpatient Surgical Procedures, 2017, Ambulatory Surgery Center and Outpatient Hospital, Current Procedural Terminology™ Categories, Number, and Age Group

Rank	Current Procedural Terminology™ Description	CPT™ Code	Number of Procedures	Age<1	Age 1-17	Age 18-64	Age 65+
5	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	45385	1,812	0	13	1,376	423
6	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification)	66984	1,042	0	5	457	580
7	Tympanostomy (requiring insertion of ventilating tube), general anesthesia	69436	823	64	706	47	6
8	Esophagogastroduodenoscopy, flexible, transoral; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	43235	654	0	10	525	119
9	Insertion of tunneled centrally inserted central venous access device, with subcutaneous port; age 5 years or older	36561	481	0	7	305	169
10	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level	64493	431	0	2	334	95
11	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed	29881	364	0	20	294	50
12	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; second level (List separately in addition to code for primary procedure)	64494	363	0	0	292	71
13	Hysteroscopy, surgical; with sampling (biopsy) of endometrium and/or polypectomy, with or without D & C	58558	352	0	1	325	26
14	Tonsillectomy and adenoidectomy; younger than age 12	42820	342	0	342	0	0
15	Laparoscopy, surgical; cholecystectomy	47562	337	0	4	287	46

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Table 9.1: Leading Outpatient Surgical Procedures, 2016, Ambulatory Surgery Center and Outpatient Hospital, Current Procedural Terminology™ Categories, Median Charges, Billed Charges, and Expected Primary Payer

Rank	Current Procedural Terminology™ Description	CPT code	Median Charges	Billed Charges	Medicare	Medicaid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS CHAMPVA	Other
<b>Ambulatory Surgical Center 2016</b>												
1	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	45378	\$2,700	\$9,497,796	312	216	2,786	4	20	0	142	108
2	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification)	66984	\$3,078	\$13,987,068	2047	85	1,053	0	8	0	62	221
3	Esophagogastroduodenoscopy, flexible, transoral; with biopsy, single or multiple	43239	\$2,710	\$6,263,341	582	277	1,555	2	8	0	177	24
4	Colonoscopy, flexible; with biopsy, single or multiple	45380	\$2,086	\$6,575,076	498	181	1,789	0	11	0	108	19
5	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	45385	\$2,781	\$7,256,670	640	153	1,636	0	3	0	108	16
6	Injection, anesthetic agent; brachial plexus, single	64415	\$2,511	\$3,515,324	149	79	710	225	24	0	52	16
7	Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, single level	64483	\$3,250	\$4,437,144	351	173	387	123	9	0	68	38
8	Unlisted procedure, dentoalveolar structures	41899	\$4,536	\$4,286,194	4	741	218	0	10	0	14	0
9	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed	29881	\$12,955	\$12,152,595	88	85	567	126	8	0	36	44
10	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level	64493	\$5,015	\$4,870,251	247	170	231	68	3	0	76	28
11	Tympanostomy (requiring insertion of ventilating tube), general anesthesia	69436	\$2,000	\$3,139,008	11	299	398	0	3	0	9	51
12	Submucous resection inferior turbinate, partial or complete, any method	30140	\$6,785	\$5,346,134	36	87	476	2	1	0	15	48
13	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, single facet joint	64635	\$2,155	\$2,688,949	204	89	190	40	0	0	118	14
14	Discission of secondary membranous cataract (opacified posterior lens capsule and/or anterior hyaloid); laser surgery (e.g., YAG laser) (1 or more stages)	66821	\$636	\$532,182	402	0	183	0	0	0	0	30
15	Injection, anesthetic agent; brachial plexus, continuous infusion by catheter (including catheter placement)	64416	\$2,511	\$1,805,062	31	9	389	119	1	0	8	2

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Table 9.1: Leading Outpatient Surgical Procedures, 2016, Ambulatory Surgery Center and Outpatient Hospital, Current Procedural Terminology™ Categories, Median Charges, Billed Charges, and Expected Primary Payer

Rank	Current Procedural Terminology™ Description	CPT code	Median Charges	Billed Charges	Medi-care	Medic-aid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS CHAMPVA	Other
<b>Hospital Outpatient Surgery 2016</b>												
1	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	45378	\$4,404	\$16,168,909	358	754	1,966	2	872	284	44	106
2	Colonoscopy, flexible; with biopsy, single or multiple	45380	\$3,168	\$8,926,785	474	430	1,246	0	292	126	46	107
3	Esophagogastroduodenoscopy, flexible, transoral; with biopsy, single or multiple	43239	\$2,332	\$6,350,737	459	537	1,021	1	140	197	37	149
4	Unlisted procedure, dentoalveolar structures	41899	\$9,713	\$19,429,527	37	931	390	1	460	20	4	24
5	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	45385	\$4,297	\$7,166,481	265	280	722	1	316	96	26	71
6	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification)	66984	\$5,968	\$3,897,159	251	99	175	0	107	2	15	23
7	Tympanostomy (requiring insertion of ventilating tube), general anesthesia	69436	\$4,750	\$2,117,785	2	396	180	0	73	5	3	7
8	Esophagogastroduodenoscopy, flexible, transoral; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	43235	\$4,096	\$1,855,597	101	212	166	0	102	1	6	12
9	Insertion of tunneled centrally inserted central venous access device, with subcutaneous port; age 5 years or older	36561	\$7,118	\$3,629,318	126	102	192	0	22	0	5	25
10	Hysteroscopy, surgical; with sampling (biopsy) of endometrium and/or polypectomy, with or without D & C	58558	\$4,550	\$1,842,253	29	73	201	0	34	3	8	10
11	Laparoscopy, surgical; cholecystectomy	47562	\$7,640	\$2,883,353	36	100	177	0	13	8	9	6
12	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level	64493	\$7,382	\$2,062,876	39	101	93	0	97	0	7	2
13	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; second level (List separately in addition to code for primary procedure)	64494	\$2,854	\$784,396	24	97	81	0	93	0	6	2
14	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed	29881	\$7,950	\$2,164,402	25	52	149	7	52	0	6	11
15	Removal of implant; deep (e.g., buried wire, pin, screw, metal band, nail, rod or plate)	20680	\$10,763	\$2,963,353	13	118	87	4	59	2	1	12

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Table 9.2: Leading Outpatient Surgical Procedures, 2017, Ambulatory Surgery Center and Outpatient Hospital, Current Procedural Terminology™ Categories, Median Charges, Billed Charges, and Expected Primary Payer

Rank	Current Procedural Terminology™ Description	CPT code	Median Charges	Billed Charges	Medicare	Medicaid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS CHAMPVA	Other
<b>Ambulatory Surgical Center 2017</b>												
1	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification)	66984	\$3,259	\$18,160,600	2,614	152	1,193	0	16	0	135	335
2	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	45378	\$2,700	\$10,420,765	322	336	2,922	0	16	0	112	50
3	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	45385	\$2,781	\$8,537,124	795	207	1,849	0	9	1	76	18
4	Esophagogastroduodenoscopy, flexible, transoral; with biopsy, single or multiple	43239	\$2,710	\$6,734,964	638	332	1,515	1	7	1	179	13
5	Colonoscopy, flexible; with biopsy, single or multiple	45380	\$2,148	\$6,558,926	506	238	1,702	0	16	1	91	11
6	Injection(s), of diagnostic or therapeutic substance(s) (e.g., anesthetic, antispasmodic, opioid, steroid, other solution), not including neurolytic substances, including needle or catheter placement, interlaminar epidural or subarachnoid, lumbar or sacral (caudal); with imaging guidance (i.e., fluoroscopy or CT)	62323	\$2,850	\$2,877,575	362	137	347	55	3	0	99	63
7	Injection, anesthetic agent; brachial plexus, single	64415	\$2,511	\$2,860,717	100	66	552	170	14	0	16	136
8	Injection(s), anesthetic agent and/or steroid, transforaminal epidural, with imaging guidance (fluoroscopy or CT); lumbar or sacral, single level	64483	\$3,250	\$3,583,153	292	113	347	79	3	0	43	83
9	Tympanostomy (requiring insertion of ventilating tube), general anesthesia	69436	\$3,792	\$4,841,117	12	354	351	0	2	0	16	94
10	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed	29881	\$12,955	\$9,302,634	68	72	400	76	9	0	19	79
11	Unlisted procedure, dentoalveolar structures	41899	\$4,536	\$2,927,785	4	543	74	0	6	0	8	0
12	Submucous resection inferior turbinate, partial or complete, any method	30140	\$6,785	\$4,915,180	36	81	399	1	1	0	10	76
13	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level	64493	\$4,432	\$3,040,215	146	75	242	26	1	0	46	40
14	Destruction by neurolytic agent, paravertebral facet joint nerve(s), with imaging guidance (fluoroscopy or CT); lumbar or sacral, single facet joint	64635	\$2,566	\$3,025,672	153	88	193	18	0	0	78	15
15	Discission of secondary membranous cataract (opacified posterior lens capsule and/or anterior hyaloid); laser surgery (e.g., YAG laser) (1 or more stages)	66821	\$840	\$609,639	349	3	154	0	3	0	1	29

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Table 9.2: Leading Outpatient Surgical Procedures, 2017, Ambulatory Surgery Center and Outpatient Hospital, Current Procedural Terminology™ Categories, Median Charges, Billed Charges, and Expected Primary Payer

Rank	Current Procedural Terminology™ Description	CPT code	Median Charges	Billed Charges	Medicare	Medicaid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS CHAMPVA	Other
<b>Hospital Outpatient Surgery 2017</b>												
1	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	45378	\$4,297	\$16,106,244	512	950	2,116	0	702	30	68	122
2	Colonoscopy, flexible; with biopsy, single or multiple	45380	\$3,608	\$9,257,989	526	536	1,264	1	301	22	31	132
3	Esophagogastroduodenoscopy, flexible, transoral; with biopsy, single or multiple	43239	\$3,017	\$8,045,982	578	727	1,106	2	171	17	31	160
4	Unlisted procedure, dentoalveolar structures	41899	\$10,200	\$20,428,078	12	1,108	397	0	431	8	16	12
5	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	45385	\$4,512	\$7,019,783	358	391	717	0	240	12	24	70
6	Extracapsular cataract removal with insertion of intraocular lens prosthesis (1 stage procedure), manual or mechanical technique (e.g., irrigation and aspiration or phacoemulsification)	66984	\$5,581	\$6,039,173	435	191	252	0	121	0	28	15
7	Tympanostomy (requiring insertion of ventilating tube), general anesthesia	69436	\$4,750	\$2,489,227	7	517	177	0	101	0	2	19
8	Esophagogastroduodenoscopy, flexible, transoral; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	43235	\$4,096	\$2,259,094	105	215	180	0	119	1	11	23
9	Insertion of tunneled centrally inserted central venous access device, with subcutaneous port; age 5 years or older	36561	\$7,474	\$3,760,939	152	88	191	0	13	0	7	30
10	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; single level	64493	\$7,752	\$2,460,518	79	144	103	1	78	0	17	9
11	Arthroscopy, knee, surgical; with meniscectomy (medial OR lateral, including any meniscal shaving) including debridement/shaving of articular cartilage (chondroplasty), same or separate compartment(s), when performed	29881	\$8,520	\$2,977,861	48	77	141	19	55	0	11	13
12	Injection(s), diagnostic or therapeutic agent, paravertebral facet (zygapophyseal) joint (or nerves innervating that joint) with image guidance (fluoroscopy or CT), lumbar or sacral; second level (List separately in addition to code for primary procedure)	64494	\$2,996	\$938,501	55	128	84	0	77	0	12	7
13	Hysteroscopy, surgical; with sampling (biopsy) of endometrium and/or polypectomy, with or without D & C	58558	\$6,859	\$2,289,548	26	66	190	0	57	1	3	9
14	Tonsillectomy and adenoidectomy; younger than age 12	42820	\$6,250	\$2,182,532	0	242	53	0	37	0	2	8
15	Laparoscopy, surgical; cholecystectomy	47562	\$10,135	\$3,444,457	42	87	173	0	28	2	1	4



## 2016-2017 Observation and Other Outpatient Quick Facts

- Number of observation visits:
  - 9,454 in 2016
  - 9,208 in 2017
- Leading cause of observation visits in both years: *Suicidal ideation*
  - 266 in 2016
  - 357 in 2017
- Number of other outpatient visits (non-ED, non-surgery, and non-observation) :
  - 964,186 in 2016
  - 1,038,896 in 2017
- Leading cause of other outpatient visits in both years: *Encounter for screening mammogram for malignant neoplasm of breast*:
  - 30,907 in 2016
  - 25,506 in 2017
- Combined visits:
  - 973,640 in 2016
  - 1,048,104 in 2017
- Combined billed charges:
  - \$1.3 billion in 2016
  - \$1.4 billion in 2017

Outpatient Observation and Other Outpatient Tables

The Outpatient Observation and Other Outpatient tables 10.1-11.2 contain data about the number of visits for leading diagnoses, age groups of the patients, billed charges, median billed charges, and expected primary payer for 2016-2017, using *International Classification of Disease, Tenth Revision*.

Outpatient Observation and Other Outpatient stays are areas for further analysis in coming years.

Data Highlights

- The number of outpatient observation visits due to *suicide ideation* increased by 34% from 2016 to 2017 (Table 10.1).
- From 2016 to 2017, the number of mammogram screenings for breast cancer decreased from 30,907 to 25,506; however there was a 45% increase in median charges (Tables 11.1-2).
- *Unspecified acute appendicitis* resulted in the highest median charges of the leading causes of outpatient observation visits in 2016 and 2017 (\$31,739 in 2016 and \$27,920 in 2017) (Table 10.2).

Table 10.1: Leading Causes of Outpatient Observation Visits, Age Group By International Classification of Diseases, Tenth Revision

Rank	ICD-10 Description	ICD-10 Code	Number of Obs.	Age<1	Age 1-17	Age 18-64	Age 65+
<b>2016</b>							
1	Suicidal ideations	R45851	266	0	25	233	8
2	Other pregnancy related conditions, third trimester	O26893	236	0	4	232	0
3	Unspecified psychosis not due to a substance or known physiological condition	F29	222	0	4	206	12
4	False labor before 37 completed weeks of gest, third tri	O4703	217	0	5	212	0
5	False labor at or after 37 completed weeks of gestation	O471	193	0	13	180	0
6	Major depressive disorder, single episode, unspecified	F329	179	0	24	153	2
7	Syncope and collapse	R55	160	0	2	55	103
8	Feeding problem of newborn, unspecified	P929	149	149	0	0	0
9	Other chest pain	R0789	140	0	1	90	49
10	Unspecified acute appendicitis	K3580	126	0	40	84	2
11	Chest pain, unspecified	R079	125	0	0	76	49
12	Pneumonia, unspecified organism	J189	115	6	13	31	65
13	Alcohol abuse with intoxication, unspecified	F10129	114	0	6	103	5
14	Other pregnancy related conditions, second trimester	O26892	97	0	1	96	0
15	Chronic obstructive pulmonary disease w (acute) exacerbation	J441	95	0	0	42	53
<b>2017</b>							
1	Suicidal ideations	R45851	357	0	37	312	8
2	Feeding problem of newborn, unspecified	P929	288	287	1	0	0
3	Unspecified psychosis not due to a substance or known physiological condition	F29	224	0	1	216	7
4	Other pregnancy related conditions, third trimester	O26893	200	0	5	195	0
5	Major depressive disorder, single episode, unspecified	F329	176	0	31	138	7
6	Other chest pain	R0789	151	0	0	86	65
7	False labor before 37 completed weeks of gest, third tri	O4703	146	0	1	145	0
8	Syncope and collapse	R55	144	0	5	53	86

**Table 10.1: Leading Causes of Outpatient Observation Visits, Age Group By International Classification of Diseases, Tenth Revision**

Rank	ICD-10 Description	ICD-10 Code	Number of Obs.	Age<1	Age 1-17	Age 18-64	Age 65+
9	False labor at or after 37 completed weeks of gestation	O471	142	0	9	133	0
10	Unspecified acute appendicitis	K3580	120	0	34	79	7
11	Chronic obstructive pulmonary disease w (acute) exacerbation	J441	109	0	0	42	67
12	Other pregnancy related conditions, second trimester	O26892	108	0	6	102	0
13	Chest pain, unspecified	R079	108	0	1	66	41
14	Brief psychotic disorder	F23	104	0	1	101	2
15	Feeding difficulties	R633	84	84	0	0	0

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Table 10.2: Leading Causes of Outpatient Observation Visits, Number, Median and Billed Charges, and Primary Payer By International Classification of Diseases, Tenth Revision

Rank	ICD-10 Description	ICD-10	Median Charges	Billed Charges	Medicare	Medicaid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS CHAMPVA	Other
<b>2016</b>												
1	Suicidal ideations	R45851	\$8,565	\$2,494,615	35	135	48	0	33	0	1	13
2	Other pregnancy related conditions, third trimester	O26893	\$1,271	\$602,928	0	184	34	0	3	1	1	13
3	Unspecified psychosis not due to a substance or known physiological condition	F29	\$9,561	\$2,363,034	51	97	25	0	38	0	0	11
4	False labor before 37 completed weeks of gest, third tri	O4703	\$2,056	\$583,806	0	169	37	1	2	0	0	8
5	False labor at or after 37 completed weeks of gestation	O471	\$863	\$214,240	0	155	29	0	0	0	1	8
6	Major depressive disorder, single episode, unspecified	F329	\$8,157	\$1,606,575	16	89	35	0	14	0	0	24
7	Syncope and collapse	R55	\$16,643	\$2,754,547	89	16	32	0	4	2	10	6
8	Feeding problem of newborn, unspecified	P929	\$0	\$1,626	0	41	98	0	2	3	5	0
9	Other chest pain	R0789	\$13,887	\$2,337,654	58	18	38	0	12	2	6	4
10	Unspecified acute appendicitis	K3580	\$31,739	\$4,184,331	2	47	48	0	27	0	1	1
11	Chest pain, unspecified	R079	\$15,067	\$2,079,583	50	24	35	0	6	2	4	3
12	Pneumonia, unspecified organism	J189	\$11,363	\$1,434,257	62	22	16	0	3	2	5	5
13	Alcohol abuse with intoxication, unspecified	F10129	\$7,554	\$905,324	10	49	21	0	24	1	2	7
14	Other pregnancy related conditions, second trimester	O26892	\$1,492	\$266,878	0	70	19	0	1	0	0	7
15	Chronic obstructive pulmonary disease w (acute) exacerbation	J441	\$13,453	\$1,386,624	60	18	15	1	0	0	1	0
<b>2017</b>												
1	Suicidal ideations	R45851	\$9,060	\$3,895,760	43	192	72	0	20	1	3	26
2	Feeding problem of newborn, unspecified	P929	\$0	\$12,310	0	66	185	0	11	0	26	0
3	Unspecified psychosis not due to a substance or known physiological condition	F29	\$11,470	\$3,007,832	61	104	22	1	20	0	0	16
4	Other pregnancy related conditions, third trimester	O26893	\$1,363	\$509,254	0	172	17	0	2	0	0	9
5	Major depressive disorder, single episode, unspecified	F329	\$9,335	\$1,922,812	15	81	49	0	15	0	0	16
6	Other chest pain	R0789	\$16,581	\$2,973,019	65	25	37	2	4	0	13	5
7	False labor before 37 completed weeks of gest, third tri	O4703	\$2,248	\$446,519	0	107	28	0	2	0	0	9
8	Syncope and collapse	R55	\$21,239	\$3,102,025	83	19	25	0	5	0	8	4
9	False labor at or after 37 completed weeks of gestation	O471	\$907	\$157,817	0	111	22	0	0	0	0	9
10	Unspecified acute appendicitis	K3580	\$27,920	\$3,541,837	7	41	47	0	21	0	2	2
11	Chronic obstructive pulmonary disease w (acute) exacerbation	J441	\$13,380	\$1,661,068	72	10	17	0	2	1	6	1
12	Chest pain, unspecified	R079	\$13,280	\$1,762,134	45	23	27	1	4	2	2	4
13	Other pregnancy related conditions, second trimester	O26892	\$1,229	\$325,304	0	79	19	0	2	0	1	7
14	Brief psychotic disorder	F23	\$10,022	\$1,280,886	24	48	13	1	12	0	0	6
15	Feeding difficulties	R633	\$0	\$0	0	29	42	0	3	3	7	0

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Table 11.1: Leading Causes of Other Outpatient Visits, Number, and Age Group By International Classification of Diseases, Tenth Revision

Rank	ICD-10 Description	ICD-10 Code	Number of Visits	Age<1	Age 1-17	Age 18-64	Age 65+
<b>2016</b>							
1	Encounter screen mammogram for malignant neoplasm of breast	Z1231	30,907	0	0	22,738	8,169
2	Essential (primary) hypertension	I10	15,969	2	148	8,749	7,070
3	Encounter for other pre-procedural examination	Z01818	12,130	17	1,220	7,796	3,097
4	Encounter for routine child health exam w/o abnormal findings	Z00129	11,873	3,858	7,993	22	0
5	Type 2 diabetes mellitus without complications	E119	11,276	0	66	6,487	4,723
6	Low back pain	M545	9,701	0	396	7,493	1,812
7	Encounter for general adult medical exam w/o abnormal findings	Z0000	8,180	6	207	6,750	1,217
8	Cough	R05	7,562	320	1,396	3,759	2,087
9	Hypothyroidism, unspecified	E039	7,465	27	213	4,879	2,346
10	Unspecified abdominal pain	R109	7,445	7	1,153	5,140	1,145
11	Encounter for immunization	Z23	7,314	678	3,687	2,088	861
12	Acute pharyngitis, unspecified	J029	7,217	26	4,037	2,929	225
13	Urinary tract infection, site not specified	N390	5,427	104	753	2,715	1,855
14	Segmental and somatic dysfunction of cervical region	M9901	5,149	0	190	4,739	220
15	Atherosclerosis heart disease of native coronary artery w/o angina pectoris	I2510	4,972	0	1	1,838	3,133
<b>2017</b>							
1	Encounter screen mammogram for malignant neoplasm of breast	Z1231	25,506	0	0	18,105	7,401
2	Essential (primary) hypertension	I10	18,165	1	136	9,821	8,207
3	Encounter for routine child health exam w/o abnormal findings	Z00129	13,791	4,180	9,577	34	0
4	Encounter for other pre-procedural examination	Z01818	13,444	44	1,332	8,306	3,762
5	Type 2 diabetes mellitus without complications	E119	12,419	0	49	7,061	5,309
6	Acute pharyngitis, unspecified	J029	10,186	20	5,751	4,072	343
7	Encounter for general adult medical exam w/o abnormal findings	Z0000	9,346	2	155	7,505	1,684
8	Low back pain	M545	8,759	0	324	6,652	1,783
9	Cough	R05	8,658	319	1,628	4,166	2,545
10	Encounter for immunization	Z23	8,166	744	3,707	2,551	1,164
11	Hypothyroidism, unspecified	E039	7,867	16	220	4,945	2,686
12	Unspecified abdominal pain	R109	7,112	7	1,128	4,852	1,125
13	Urinary tract infection, site not specified	N390	6,483	74	688	3,475	2,246
14	Acute upper respiratory infection, unspecified	J069	6,273	648	2,643	2,426	556
15	Obstructive sleep apnea (adult) (pediatric)	G4733	5,375	3	197	3,796	1,379

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Table 11.2: Leading Causes of Other Outpatient Visits, Number, Median and Billed Charges, and Primary Payer By International Classification of Diseases, Tenth Revision

Rank	ICD-10 Description	ICD-10	Median Charges	Billed Charges	Medicare	Medicaid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS CHAMPVA	Other
<b>2016</b>												
1	Encounter screen mammogram for malignant neoplasm of breast	Z1231	\$361	\$14,236,674	7,555	1,499	19,013	10	1,733	64	440	575
2	Essential (primary) hypertension	I10	\$403	\$10,601,661	6,387	1,886	5,329	13	1,616	113	234	298
3	Encounter for other pre-procedural examination	Z01818	\$280	\$8,044,064	3,137	3,090	3,514	86	1,873	17	194	195
4	Encounter for routine child health exam w/o abnormal findings	Z00129	\$282	\$4,301,929	0	5,947	2,679	0	2,899	71	33	194
5	Type 2 diabetes mellitus without complications	E119	\$373	\$6,230,764	4,455	1,299	3,994	7	1,142	61	126	98
6	Low back pain	M545	\$446	\$8,705,365	2,013	2,465	2,886	270	1,270	129	294	280
7	Encounter for general adult medical exam w/o abnormal findings	Z0000	\$521	\$7,190,108	1,087	1,098	4,475	6	1,209	6	79	180
8	Cough	R05	\$367	\$4,541,694	2,054	1,568	2,761	3	869	28	127	126
9	Hypothyroidism, unspecified	E039	\$400	\$4,073,336	2,330	677	3,951	5	307	18	67	92
10	Unspecified abdominal pain	R109	\$597	\$8,030,410	1,182	2,087	2,874	22	845	98	125	144
11	Encounter for immunization	Z23	\$112	\$1,392,278	697	2,898	1,897	3	1,430	14	58	117
12	Acute pharyngitis, unspecified	J029	\$267	\$2,413,836	238	2,740	2,718	0	1,121	46	81	95
13	Urinary tract infection, site not specified	N390	\$313	\$3,211,463	1,809	995	1,867	6	502	28	98	83
14	Segmental and somatic dysfunction of cervical region	M9901	\$139	\$1,100,588	157	786	2,085	111	1,981	0	28	1
15	Atherosclerosis heart disease of native coronary artery w/o angina pectoris	I2510	\$589	\$13,011,007	2,698	419	1,088	1	390	8	310	50
<b>2017</b>												
1	Encounter screen mammogram for malignant neoplasm of breast	Z1231	\$409	\$10,599,411	5,398	1,427	11,298	0	1,424	25	277	357
2	Essential (primary) hypertension	I10	\$391	\$11,575,037	7,361	2,661	5,329	17	1,846	75	246	412
3	Encounter for routine child health exam w/o abnormal findings	Z00129	\$304	\$4,914,177	2	6,932	3,539	0	2,974	37	14	230
4	Encounter for other pre-procedural examination	Z01818	\$307	\$8,674,899	3,706	3,596	3,554	115	1,922	9	121	264
5	Type 2 diabetes mellitus without complications	E119	\$389	\$6,878,797	5,056	1,593	4,118	14	1,237	47	124	147
6	Acute pharyngitis, unspecified	J029	\$179	\$2,790,356	323	4,526	3,214	2	1,306	45	64	534
7	Encounter for general adult medical exam w/o abnormal findings	Z0000	\$495	\$6,870,430	1,353	1,073	4,819	5	1,596	9	248	226
8	Low back pain	M545	\$464	\$7,511,561	1,897	2,415	2,374	217	1,109	70	258	326
9	Cough	R05	\$395	\$5,104,411	2,350	1,862	2,813	6	1,122	21	112	143
10	Encounter for immunization	Z23	\$83	\$1,357,651	959	3,108	2,172	6	1,531	14	28	67
11	Hypothyroidism, unspecified	E039	\$400	\$4,104,675	2,612	820	3,909	3	340	14	49	92
12	Unspecified abdominal pain	R109	\$587	\$7,504,680	1,229	1,984	2,480	12	929	57	99	180
13	Urinary tract infection, site not specified	N390	\$322	\$3,822,684	2,231	1,360	1,997	6	609	75	59	114
14	Acute upper respiratory infection, unspecified	J069	\$280	\$2,446,382	552	2,293	1,900	3	1,315	42	23	102
15	Obstructive sleep apnea (adult) (pediatric)	G4733	\$460	\$11,134,845	1,479	1,028	1,740	3	641	12	408	61

APPENDIX A

Table 12: Health Facilities Submitting Data in 2016-2017

HOSPITALS	AMBULATORY SURGICAL CENTERS
Alaska Native Medical Center	Alaska Cardiovascular Surgery Center
Alaska Psychiatric Institute	Alaska Digestive Center, LLC
Alaska Regional Hospital	Alaska Eye Surgery and Laser Center
Bartlett Regional Hospital	Alaska Spine Center
Bristol Bay Area Health Corp	Alaska Spine Institute Surgery Center
Central Peninsula Hospital	Alaska Surgery Center
Cordova Community Medical Center	Anchorage Endoscopy Center, LLC
Fairbanks Memorial Hospital	Arctic Surgery Center/Arctic Spine Center
Maniilaq Health Center	ASC North
Mat-Su Regional Medical Center	Aurora Surgery Center (Alaska Medical Center, LLC)
Mt. Edgecumbe Hospital	Creekside Surgery Center
North Star Hospital	Geneva Woods Surgical Center
Norton Sound Regional Hospital	Muldoon ASC
PeaceHealth Ketchikan Medical Center	Pacific Cataract and Laser Institute
Petersburg Medical Center	South Anchorage Surgery Center, LLC
Providence Alaska Medical Center	Southeast Alaska Surgical Center
Providence Kodiak Island Medical Center	Surgery Center of Anchorage
Providence Seward Medical & Care Center	Surgery Center of Fairbanks
Providence Valdez Medical Center	Surgery Center of Kenai
Samuel Simmonds Memorial Hospital	Surgery Center of Wasilla, LLC
Sitka Community Hospital	
South Peninsula Hospital	
St. Elias Specialty Hospital	
Wrangell Medical Center	
Yukon Kuskokwim Delta Regional Hospital	

Appendix B: Diagnosis Related Groups (DRGs) Data Tables

Table 13.1: Leading Causes of Hospital Stays by Diagnosis-Related Groups, Number of Stays, Age Group, and Average Length of Stay (Avg LOS)

Rank	Diagnosis-Related Group	Number of Stays	Age 0	Age 1-17	Age 18-64	Age 65+	Avg LOS in days
<b>2016</b>							
1	Normal newborn	5,150	5,150	0	0	0	1.7
2	Vaginal delivery without complicating diagnoses	5,009	0	73	4,936	0	2.0
3	Psychoses	2,929	0	666	2,167	96	12.7
4	Neonate with other significant problems	2,724	2,722	1	1	0	2.3
5	Major joint replacement or reattachment of lower extremity without major complication or comorbidity	1,862	0	1	898	963	3.0
6	Septicemia or severe sepsis without mechanical ventilation 96+ hours with major complication or comorbidity	1,562	5	26	789	742	7.3
7	Vaginal delivery with complicating diagnoses	1,439	0	21	1,418	0	2.7
8	Cesarean section with complication or comorbidity/major complication or comorbidity	1,115	0	15	1,100	0	4.1
9	Cesarean section without complication or comorbidity/major complication or comorbidity	1,068	0	4	1,064	0	3.2
10	Alcohol/drug abuse or dependence without rehabilitation therapy without major complication or comorbidity	890	0	9	836	45	8.0
11	Cellulitis without major complication or comorbidity	875	24	102	574	175	5.1
12	Esophagitis, gastroenteritis and miscellaneous digest disorders without major complication or comorbidity	738	28	78	421	211	7.8
13	Septicemia or severe sepsis without mechanical ventilation 96+ hours without major complication or comorbidity	738	5	11	446	276	4.8
14	Full term neonate with major problems	650	650	0	0	0	6.3
15	Simple pneumonia and pleurisy with complication or comorbidity	633	52	99	199	283	3.9
<b>2017</b>							
1	Vaginal delivery without complicating diagnoses	4,818	0	77	4,741	0	2.1
2	Normal newborn	4,665	4,665	0	0	0	1.7
3	Psychoses	3,117	0	730	2,269	118	13.0
4	Neonate with other significant problems	2,501	2,497	3	1	0	2.4
5	Major joint replacement or reattachment of lower extremity without major complication or comorbidity	2,014	0	1	939	1,074	2.9
6	Septicemia or severe sepsis without mechanical ventilation 96+ hours with major complication or comorbidity	1,956	6	27	961	962	8.4
7	Vaginal delivery with complicating diagnoses	1,200	0	28	1,172	0	2.6
8	Cesarean section with complication or comorbidity/major complication or comorbidity	1,017	0	4	1,013	0	4.5
9	Cesarean section without complication or comorbidity/major complication or comorbidity	983	0	1	982	0	3.1
10	Septicemia or severe sepsis without mechanical ventilation 96+ hours without major complication or comorbidity	862	19	22	518	303	7.2
11	Alcohol/drug abuse or dependence without rehabilitation therapy without major complication or comorbidity	822	0	17	755	50	5.8
12	Cellulitis without major complication or comorbidity	758	18	71	520	149	3.8
13	Full term neonate with major problems	687	687	0	0	0	7.5
14	Esophagitis, gastroenteritis and miscellaneous digest disorders without major complication or comorbidity	684	40	81	379	184	3.1
15	Pulmonary Edema and Respiratory Failure	650	29	34	261	326	14.4

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Table 13.2: Leading Causes of Hospital Stays by Diagnosis-Related Group: Number, Billed Charges, and Primary Payer

Rank	Diagnosis-Related Group	Median Charges	Billed Charges	Medicare	Medicaid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS	CHAMPVA	Other
<b>2016</b>												
1	Normal newborn	\$4,402	\$22,668,705	0	2,318	1,999	0	398	33		119	283
2	Vaginal delivery without complicating diagnoses	\$15,268	\$76,477,515	9	2,314	2,150	0	215	21		118	182
3	Psychoses	\$38,325	\$112,253,149	505	1,382	566	0	179	4		123	170
4	Neonate with other significant problems	\$8,319	\$22,661,239	0	1,383	920	0	234	14		65	108
5	Major joint replacement or reattachment of lower extremity without major complication or comorbidity	\$83,932	\$156,281,722	897	212	551	12	31	0		83	76
6	Septicemia or severe sepsis without mechanical ventilation 96+ hours with major complication or comorbidity	\$74,959	\$117,086,185	791	455	194	4	60	2		26	30
7	Vaginal delivery with complicating diagnoses	\$21,038	\$30,274,343	9	783	493	0	65	3		23	63
8	Cesarean section with complication or comorbidity/major complication or comorbidity	\$36,540	\$40,741,694	6	509	487	0	49	1		18	45
9	Cesarean section without complication or comorbidity/major complication or comorbidity	\$28,202	\$30,120,131	2	361	613	0	26	2		31	33
10	Alcohol/drug abuse or dependence without rehabilitation therapy without major complication or comorbidity	\$26,307	\$23,413,146	94	437	105	0	76	17		98	63
11	Cellulitis without major complication or comorbidity	\$24,598	\$21,523,576	206	363	147	9	74	9		9	58
12	Esophagitis, gastroenteritis and miscellaneous digestive disorders without major complication or comorbidity	\$23,402	\$17,270,912	240	226	173	0	43	13		12	31
13	Septicemia or severe sepsis without mechanical ventilation 96+ hours without major complication or comorbidity	\$41,390	\$30,545,847	291	245	124	3	47	7		10	11
14	Full term neonate with major problems	\$47,826	\$31,086,893	0	347	197	0	44	8		31	23
15	Simple pneumonia and pleurisy with cc	\$27,932	\$17,681,073	277	211	85	0	26	3		6	25
<b>2017</b>												
1	Vaginal delivery without complicating diagnoses	\$16,712	\$80,517,000	15	2,257	2,087	0	193	10		100	156
2	Normal newborn	\$4,626	\$21,578,239	0	1,942	1,884	0	445	27		84	283
3	Psychoses	\$40,248	\$125,454,161	555	1,637	545	0	124	3		97	156
4	Neonate with other significant problems	\$10,431	\$26,088,232	0	1,145	874	0	293	20		52	117
5	Major joint replacement or reattachment of lower extremity without major complication or comorbidity	\$90,001	\$181,261,352	1,007	260	514	17	40	0		80	96
6	Septicemia or severe sepsis without mechanical ventilation 96+ hours with major complication or comorbidity	\$78,014	\$152,596,311	1,042	544	237	4	40	5		39	45
7	Vaginal delivery with complicating diagnoses	\$22,508	\$27,009,508	6	638	444	0	52	7		15	38
8	Cesarean section with complication or comorbidity/major complication or comorbidity	\$45,792	\$46,570,629	10	457	448	0	42	3		22	35

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**Table 13.2: Leading Causes of Hospital Stays by Diagnosis-Related Group: Number, Billed Charges, and Primary Payer**

Rank	Diagnosis-Related Group	Median Charges	Billed Charges	Medi-care	Medic-aid	Com'l Ins.	Workers Comp	Self Pay	IHS	CHAMPUS	CHAMPVA	Other
9	Cesarean section without complication or comorbidity/major complication or comorbidity	\$30,035	\$29,524,550	4	329	560	0	38	2	17	33	
10	Septicemia or severe sepsis without mechanical ventilation 96+ hours without major complication or comorbidity	\$41,902	\$36,119,238	321	321	156	2	29	4	5	24	
11	Alcohol/drug abuse or dependence without rehabilitation therapy without major complication or comorbidity	\$29,528	\$24,272,258	84	478	80	0	54	17	79	30	
12	Cellulitis without major complication or comorbidity	\$25,613	\$19,414,899	158	354	131	16	40	6	9	44	
13	Full term neonate with major problems	\$57,704	\$39,642,709	0	372	188	0	70	5	29	23	
14	Esophagitis, gastroenteritis and miscellaneous digest disorders without major complication or comorbidity	\$26,881	\$18,386,502	199	226	176	1	42	2	16	22	
15	Pulmonary edema and respiratory failure	\$72,073	\$46,847,203	368	151	90	1	11	0	12	17	

**Table 14.1: Leading Causes of 2016 Hospital Stays by Hospital Type and Service Type, Diagnosis-Related Groups, Number, Age Group, and Average Length of Stay (Avg LOS)**

Rank	Diagnosis-Related Group	Number of Stays	Age 0	Age 1-17	Age 18-64	Age 65+	Avg LOS in days
<b>2016</b>							
<b>Community Hospital: Acute Medical/Surgical</b>							
1	Normal newborn	5,145	5,145	0	0	0	1.7
2	Vaginal delivery without complicating diagnoses	4,960	0	73	4,887	0	2.0
3	Neonate with other significant problems	2,651	2,650	1	0	0	2.2
4	Major joint replacement or reattachment of lower extremity without major complication or comorbidity	1,860	0	1	897	962	3.0
5	Septicemia or severe sepsis without mechanical ventilation 96+ hours with major complication or comorbidity	1,517	5	26	769	717	7.1
<b>Community Hospital: Medical Rehabilitation, Long-Term Care, And Swing Bed</b>							
1	Degenerative nervous system disorders without major complication or comorbidity	159	0	0	40	119	227.7
2	Other factors influencing health status	145	1	0	31	113	9.9
3	Organic disturbances and mental retardation	89	0	0	2	87	169.2
4	Aftercare, musculoskeletal system and connective tissue with complication or comorbidity	50	0	0	14	36	16.1
5	Vaginal delivery without complicating diagnoses	48	0	0	48	0	0.3
<b>Community Hospital: Psychiatric And Alcohol And Drug Rehabilitation</b>							
1	Psychoses	632	0	2	606	24	7.4
2	Depressive neuroses	206	0	1	202	3	16.3
3	Alcohol/drug abuse or dependence without rehabilitation therapy without major complication or comorbidity	133	0	0	133	0	3.8
4	Neuroses except depressive	51	0	1	47	3	4.0
5	Poisoning and toxic effects of drugs without major complication or comorbidity	33	0	0	32	1	6.6
<b>Psychiatric Hospital: Psychiatric And Alcohol And Drug Rehabilitation</b>							
1	Psychoses	1,450	0	452	954	44	17.5
2	Neuroses except depressive	286	0	149	133	4	14.7
3	Behavioral and developmental disorders	253	0	246	7	0	16.1
4	Alcohol/drug abuse or dependence without rehabilitation therapy without major complication or comorbidity	219	0	4	211	4	15.1
5	Depressive neuroses	136	0	36	94	6	12.3

**Table 14.2: Leading Causes of 2017 Hospital Stays by Hospital Type and Service Type, Diagnosis-Related Groups, Number, Age Group, and Average Length of Stay (Avg LOS)**

Rank	Diagnosis-Related Group	Number of Stays	Age 0	Age 1-17	Age 18-64	Age 65+	Avg LOS in days
<b>2017</b>							
<b>Community Hospital: Acute Medical/Surgical</b>							
1	Vaginal delivery without complicating diagnoses	4,777	0	77	4,700	0	2.1
2	Normal newborn	4,644	4,644	0	0	0	1.7
3	Neonate with other significant problems	2,445	2,444	1	0	0	2.4
4	Major joint replacement or reattachment of lower extremity without major complication or comorbidity	2,014	0	1	939	1,074	2.9
5	Septicemia or severe sepsis without mechanical ventilation 96+ hours with major complication or comorbidity	1,847	6	27	905	909	7.5
<b>Community Hospital: Medical Rehabilitation, Long-Term Care, And Swing Bed</b>							
1	Other factors influencing health status	345	0	0	83	262	11.3
2	Degenerative nervous system disorders without major complication or comorbidity	212	0	0	54	158	316.6
3	Septicemia or severe sepsis without mechanical ventilation 96+ hours with major complication or comorbidity	71	0	0	39	32	11.5
4	Aftercare, musculoskeletal system and connective tissue with complication or comorbidity	53	0	0	15	38	29.6
5	Septicemia or severe sepsis without mechanical ventilation 96+ hours without major complication or comorbidity	51	0	0	11	40	43.4
<b>Community Hospital: Psychiatric And Alcohol And Drug Rehabilitation</b>							
1	Psychoses	687	0	1	667	19	7.3
2	Depressive neuroses	200	0	0	197	3	4.6
3	Alcohol/drug abuse or dependence without rehabilitation therapy without major complication or comorbidity	99	0	0	98	1	4.0
4	Neuroses except depressive	75	0	0	75	0	4.1
5	Acute adjustment reaction and psychosocial dysfunction	33	0	0	33	0	4.9
<b>Psychiatric Hospital: Psychiatric And Alcohol And Drug Rehabilitation</b>							
1	Psychoses	1,481	0	452	967	47	17.9
2	Neuroses except depressive	299	0	149	147	3	15.0
3	Behavioral and developmental disorders	217	0	246	5	0	15.0
4	Alcohol/drug abuse or dependence without rehabilitation therapy without major complication or comorbidity	143	0	4	128	5	16.8
5	Disorders of personality and impulse control	130	0	36	53	1	14.3

## Appendix C: Glossary of Terms

### **AHRQ Clinical Classification Software (CCS)**

For both inpatient and outpatient discharges, this diagnosis grouper aggregates ICD-10-CM codes into 300+ categories. The Clinical Classification Software summarizes the diagnosis data at a higher level than the DRG categories groups, combining diagnosis codes into only about 40 percent of the number of DRG categories.

### **Average length of stay:**

For inpatient discharges, the length of stay is the number of days between the admission date and the discharge date. The average length of stay for a diagnosis category is the sum of all the lengths of stay in the category divided by the number of discharges in the category.

### **Billed Charges**

The dollar amount invoiced for the discharge to the primary payer from the medical facility. Any charges related to the discharge, but not billed by the facility, are not included in billed charges, for example, some physicians might bill separately. Additionally, billed charges may differ significantly from what is actually paid, for example, medical insurance companies may have negotiated discounted rates.

### **Current Procedural Terminology™ (CPT)**

CPT is the industry standard for coding medical procedures. Procedures performed in Ambulatory Surgery Centers and Hospital Outpatient Surgery departments are analyzed using CPT categories.

### **Clinical Classification Software (CCS)**

*See AHRQ Clinical Classification Software (CCS)*

### **Diagnosis**

The condition, determined after study, which led to the patient's visit or hospitalization. Both the inpatient and outpatient conditions are identified using ICD-10-CM codes. Each discharge can have multiple diagnoses, but only the principal diagnosis is used in this report. Diagnosis code groupers such as CCS combine diagnosis codes into logical categories.

### **Diagnosis-Related Groups (DRG)**

A classification system for inpatient discharges. This diagnosis grouper uses DRG 3M software version 33 to aggregate ICD-10-CM codes into about 750 categories.

### **Discharge**

The point at which a patient officially leaves a medical facility. The same individual can have multiple discharges in one year and each discharge is counted. Note that discharges do not necessarily reflect disease incidence or prevalence, just utilization of the hospital resource.

### **Emergency Department (ED) Visits**

An outpatient discharge where the place of service is identified as the emergency room.

### **Inpatient Discharges**

A patient's discharge record from a medical facility that the facility identified as an inpatient stay.

**Other Outpatient Services**

An outpatient discharge where the place of service is identified as other outpatient.

**Outpatient Discharges**

A patient's discharge record from a medical facility that the facility identified as an outpatient visits.

**Outpatient Observation**

An outpatient discharge where the place of service is identified as outpatient observation.

**Outpatient Procedures**

An outpatient discharge where the place of service is identified as outpatient surgery, is identified with a CPT code, and has a revenue code in the following categories: Ambulatory Surgical Care - General Classification, Gastro-Intestinal Services - General Classification, Operating Room Services - General Classification, or Operating Room Services - Minor Surgery.

**Primary Payer**

The entity that the facility was expected to bill first. Examples include Medicare, Medicaid, and Commercial Insurance.