

SELECTED FINDINGS

Inpatient Data

- In 2022, Wisconsin hospitals reported 529,233 inpatient hospitalizations, with 529,201 hospitalizations having stays of less than 1,000 days, which qualified them for inclusion in this report. These resulted in 2.8 million days of care and total billed charges of \$25.4 billion (see Table 1 for details).
- On average, a hospital patient was charged \$48,001 per hospitalization during 2022. In general medical-surgical (GMS) hospitals, the average inpatient charge was \$48,946. In the non-GMS (specialty) hospitals, charges differed between long-term care and short-term specialty care. The average charge was \$313,567 in LTAC hospitals, \$18,079 in psychiatric hospitals, \$47,777 in rehabilitation hospitals, and \$31,374 at the state-operated mental health institutes (see Table 2 for details).
- The average hospital stay was 5.2 days. Patients stayed an average of 4.9 days at GMS hospitals, 37.3 days at LTAC hospitals, 6.3 days at psychiatric hospitals, 13.2 days at rehabilitation hospitals, and 24.5 days at the state-operated mental health institutes (see Table 2 for details).
- In 2022, there were 53,578 obstetrical hospitalizations and 58,863 neonatal hospitalizations. There were also 66,000 cardiovascular, 37,348 orthopedic, 36,764 psychiatric, and 13,394 AODA-related hospitalizations in Wisconsin (including rehabilitation hospitals and state-operated mental health institutes). Combined, these accounted for 50 percent of all hospitalizations in the state.
- The most common reasons for hospitalization were related to childbirths. These included Normal Newborn, Birthweight 2500+ grams (APR-DRG 640) and Vaginal Delivery (APR-DRG 560). Together, these two APR-DRGs represented 17 percent of all hospitalizations.
- Most neonatal stays were classified as Normal Newborn, Birthweight 2500+ grams (APR-DRG 640), accounting for 49,834 hospitalizations (85 percent of all neonatal hospitalizations) with an average charge of \$4,990 and an average length of stay of 1.9 days (see Table 5 for details).
- Seventy-five percent of all childbirths were classified as vaginal deliveries (APR-DRGs 541, 542, and 560). Vaginal-delivery childbirths accounted for 40,317 hospitalizations at an average charge of \$14,556. In 5.8 percent of these childbirths, there were complications or additional surgery at the time of delivery (e.g., sterilization, etc.) (see Table 4 for details).
- Twenty-five percent of all newborns were delivered by Cesarean section, also called C-sections (see Table 4 for details).
- Statewide, 5,588 patients had open-heart surgery at 34 GMS hospitals, with an average length of stay of 7.8 days and an average charge of \$184,548.
- Five GMS hospitals performed a total of 71 heart transplants (APR-DRG 002; MDC 05), with an average charge of \$1,254,776 and an average length of stay of 44.4 days.
- The most expensive APR-DRGs were Neonate with External Heart and Lung Oxygen Support (APR-DRG 583), at an average charge of \$1,755,934 and Heart and/or Lung Transplant (APR-DRG 002), at an average charge of \$1,210,467.

Combined, they accounted for only 137 hospitalizations, yet their complexity and length of stay resulted in \$173 million total charges and 6,113 patient days.

- The APR-DRGs generating the most total charges were Blood Infection/Septicemia (APR-DRG 720), at \$1.7 billion, and Respiratory Infections and Inflammations (APR-DRG 137), at \$665.5 million.
- Females accounted for 55 percent of all hospitalizations. Eighteen percent of hospitalizations among females were obstetric-related.
- During 2022, injury-related hospitalizations and ambulatory surgeries accounted for \$6.4 billion in charges at hospitals and FASCs.

Ambulatory Surgery Data

- Ambulatory surgery procedures were performed at 134 Wisconsin GMS hospitals and 70 FASCs in 2022. Data for 1,022,670 cases were collected: 796,283 from hospitals and 226,387 from FASCs.
- Lesion Removal Colonoscopy by Snare was the most frequently reported principal ambulatory procedure in 2022, with 89,935 cases.
- The principal procedure producing the highest average charge among the 20 common principal procedures was Total Hip Arthroplasty, at \$47,271. The least expensive among the top 20 most common principal procedures was Drain/Inject – Joint/Bursa with an average charge of \$2,826.

Emergency Department Data

- In 2022, Wisconsin hospitals reported over 1.8 million visits to hospital emergency departments.
- The most common primary diagnoses associated with emergency department visits was symptoms and signs involving the circulatory and respiratory system, representing about eight percent of all visits.
- Included in the 2022 emergency department visits were 403,047 visits (approximately 21 percent of the overall total) related to all types of injury and poisoning.
- Injury-related emergency department visits accounted for \$1.4 billion in charges (approximately 21 percent of the overall total).

Comparison to 2021 Data

- Compared to 2021, the number of hospitalizations in 2022 decreased by 3.8 percent while the number of patient days decreased by 0.5 percent. The average length of stay increased by 3.4 percent (see Table 1 for details).
- Statewide, the average charge per hospitalization rose from \$45,687 to \$48,001 (5.1 percent) between 2021 and 2022 (see Table 1 for details).
- The average charge per hospitalization increased from \$46,701 to \$48,946 (4.8 percent) at GMS hospitals, from \$250,062 to \$313,567 (25.4 percent) at LTAC hospitals, from \$17,311 to \$18,079 (4.4 percent) at psychiatric hospitals, from \$45,192 to \$47,777 (5.7 percent) at the rehabilitation hospitals and from \$30,029 to \$31,374 (4.5 percent) at the state-operated mental health institutes (see Table 3 for details).
- The average length of stay increased from 4.7 days to 4.9 days (4.8 percent) at GMS hospitals, from 35.3 days to 37.3 days (5.6 percent) at the LTAC hospitals, from 13.0 days to 13.2 days (1.4 percent) at the rehabilitation hospitals, and from 6.2 days to 6.3 days (0.5 percent) at the psychiatric hospitals.
- The average length of stay decreased from 24.8 days to 24.5 days (1.3 percent) at the state-operated mental health institutes.
- The 40 most frequently performed ambulatory surgery procedures comprised 60 percent of all reported cases. Charges for the top 40 procedures combined increased 10 percent from 2021. Some fluctuations in utilization may be observed compared to previous years.
- The number of reported emergency department visits increased by 6.8 percent, from 1.76 million in 2021 to 1.88 million in 2022.

READER'S GUIDE TO THE REPORT

This Reader's Guide provides a basis for understanding and evaluating the data in this report. It explains the kinds of data collected and the terminology needed to understand it.

Data Source

This report presents selected data from 2022 patient-level data submitted by Wisconsin hospitals and FASCs and collected by WHA Information Center, LLC.

The patient-level data submitted include items such as patient characteristics (age, sex, and race), diagnoses, procedures, and charges. Data is derived from billing forms and includes information on each patient served in a hospital or FASC. Patient name is not collected in order to maintain patient confidentiality. Hospitals and FASCs submit patient level data every three months.

What You Can Learn From this Report

The following is a summary of the information presented in this report:

- The report identifies the average charges for selected medical or surgical inpatient and ambulatory treatments. It does not address how much an individual will actually be billed by the facility for that service because each case is different.
- The report does not provide information on physician charges because those data are not collected.
- The report identifies the variation in inpatient and ambulatory charges among facilities. Facility charges vary for many reasons.
- The report identifies trends in inpatient and ambulatory utilization and charges.
- The report provides information about the volume and types of services delivered through Wisconsin hospital emergency departments.

Charges vs. Revenues

The amount a facility bills for a patient's care is known as the charge. The payment a facility actually receives is known as revenue. This report lists the average charges billed by facilities for selected services. These charges are derived from billing forms, which list the actual charges for each patient. However, government health care programs like Medicare and Medical Assistance (Medicaid) generally pay substantially less than the actual charges. In addition, facilities frequently negotiate discounts with insurance companies or other private purchasers of health care services. As a result, the amount actually collected by the facility may differ substantially from the amount billed. In addition, changes in charges from year to year do not necessarily imply that revenues are changing at the same rate.

Adjusting the Data for Patient Risk

Many factors affect how much hospitals charge patients for care. One major factor is patient risk, or the severity of illness of patients served by a facility. Sicker patients tend to stay in the hospital longer, require more intensive care, and use more resources than patients who are less ill. Because these factors affect how much patients are charged, comparing charges among patients with the same illness but different degrees of severity is problematic. However, differences in severity of patient illness can be

estimated, and adjustments can be made that allow better comparisons of charges between patients with varying severity.

In recent years, a number of methods have been developed to measure and adjust for variations in hospital charges caused by illness severity differences in patients. WHA Information Center used a computer software product to risk adjust the inpatient data submitted by hospitals.

The risk adjustment software used for this report looks at the diagnosis and procedure codes, sex, age, and discharge status for each inpatient discharge to determine the base APR-DRG classification, and severity of illness. The severity of illness is then used to compute the risk adjusted charge. The risk adjusted charge is an estimate of what a patient's charges would have been if the patient's severity of illness was the same as the "average" patient's.

For example, if the hospital charge is \$100 and the patient is of "average" risk, then the risk adjusted charge is also \$100. If the charge is \$100 and the patient had a greater than average severity of illness, the risk adjusted charge would be higher than \$100. If the charge is \$100 and the patient had a less than average severity of illness, the risk adjusted charge would be less than \$100.

Once a facility's charges have been risk adjusted, they may be compared to other risk adjusted charges, such as those of another hospital or group of hospitals.

In this report, risk adjusted APR-DRG (All Patient Refined Diagnosis Related Group) charge data is presented for each GMS hospital and the following three comparison groups: analysis area, inpatient volume group, and all GMS hospitals as a single group. Analysis areas group GMS hospital geographically; inpatient volume groups allow comparisons between GMS hospitals of similar size; the "all GMS hospitals" data permit comparison to statewide totals and averages.

The report does not risk adjust charges for psychiatric and alcohol and other drug abuse (AODA) APR-DRGs because difference in charges for these APR-DRGs usually reflect program differences rather than variations in illness severity. For example, one hospital may treat psychiatric patients in longer-term inpatient programs, while another hospital may stabilize similar patients and then transfer them to residential facilities following a short inpatient stay.

Why Charges May Differ Between Facilities

There are many reasons that charges may differ between facilities. Among them are the following:

Payer mix – As with other businesses, hospitals cannot survive if costs exceed revenues over a long period of time. Government programs (like Medicare, Medicaid, BadgerCare and General Relief) generally reimburse hospitals at rates that do not cover the costs they incur to provide care. Therefore, facilities that have a relatively high percentage of government-program patients are forced to recover a greater percentage of their operational costs from privately insured and self-pay patients through higher charges.

Facility cost structures – Facilities differ in their approach to pricing based on operational costs. Some facilities try to spread the cost of all services and equipment among all patients. Others establish charges for specific services based on the cost to provide each specific service. Furthermore, some facilities may decide, or be forced to provide certain services at a loss while other facility operations subsidize

the losses. Any of these situations can result in significantly different charges among facilities for a given type of service.

New technology - The equipment facilities use to provide services differs in age, sophistication, and frequency of use. Facilities with the latest technology may have higher charges than those with older, less sophisticated equipment.

Staffing costs - Salary scales may differ by region and are typically higher in urban areas than rural areas. Shortages of nurses and other medical personnel may affect different regions differently. Where shortages are more severe, staffing costs, and therefore charges, may be higher.

Intensity of care - Some facilities are equipped to care for more severely ill patients than others. Patients within the same diagnosis or procedure category may need very different levels of service and staff attention, causing variation in charges.

Range of services provided - Facilities differ in the range of services they provide to patients. Some may provide the full range of services required for diagnosis and treatment during the stay. Others may stabilize patients and then transfer them to another facility for more specialized or rehabilitative care.

Service frequency – The per-patient cost of services is generally higher if the type of service occurs infrequently at the facility. Furthermore, a single case with unusually high or low charges can greatly affect a facility's average charge if the facility reported only a few cases in a given time period.

Differences in coding - Facilities vary in their coding methods and personnel, and in the number of billing codes they routinely include on a billing form. This may result in similar types of services being classified differently from facility to facility.

Capital expenses - Facilities differ in the amount of debt and depreciation they must cover in their charge structure. A facility with a lot of debt may have higher charges than a facility not facing such expenses. Furthermore, facilities may choose to lease or purchase equipment or facilities. The choices made about financing of capital projects may affect charges in different ways.

Basic Terms and Concepts

Statistical Terms

Distribution – Distribution is term referring to a set of events, or data. The charges in the following example could be referred to as a distribution. The distribution can be described in many ways, such as the range, which indicates the low and high values in the distribution (in the case below, \$4,984-\$7,002).

Mean (Average) – The mean, or average, is the sum of all values in a distribution divided by the number of values in the distribution. For example, to determine the average charge per discharge for seven pneumonia patients at a particular hospital, the charges for each patient are added together and divided by seven. If the charges for the seven patients were \$6,216, \$5,425, \$4,984, \$5,733, \$7,002, \$6,558, and \$5,193, the average charge per discharge would be computed as follows:

$$\begin{array}{r} \$6,216 \\ 5,425 \\ 4,984 \\ 5,733 \\ 7,002 \\ 6,558 \\ + 5,193 \\ \hline \$41,111 \end{array} \qquad \$41,111 / 7 = \$5,873$$

Median – The median is the middle value in a distribution when all the values are ranked in order from low to high or high to low. To determine the median charge for the same seven pneumonia patients, the charges are first ranked in order:

\$4,984, \$5,193, \$5,425, **\$5,733**, \$6,216, \$6,558, and \$7,002

The median charge is the middle value: \$5,733

Averages (means) can be significantly affected by a few unusually low or high values (called “outliers”). Since median figures are not affected to such a degree by outliers, they may be more representative of the distribution. Notice if the highest charge for the seven pneumonia patients was \$10,502 instead of \$7,002, the average charge would climb from \$5,873 to \$6,373, but the median charge would remain at \$5,733. In this case the median charge is a better representation of the facility’s charges for pneumonia patients.

Percentile and percentile distribution – A percentile marks a point in a distribution above and below which some percentage of the events, or data, fall. For instance, if \$2,000 represents the 25th percentile of charges for a certain APR-DRG or ambulatory surgical procedure, it means 25 percent of the patients who were in the APR-DRG or who had the procedure were charged \$2,000 or less. Conversely, 75 percent of the patients were charged \$2,000 or more. The 25th, 50th (median), and 75th percentiles are also referred to as quartiles, because they mark the points in the distribution above and below which lie one-quarter, one-half, and three-quarters of the data in the distribution.

Standard deviation – This is a measure of the average variation above or below the mean. When data are in a normal distribution, approximately 68 percent of the values

will fall within one standard deviation of the mean, 95 percent within two standard deviations, and 99.7 percent within three standard deviations.

Inpatient Data Terms

Analysis areas – These are groups of counties originally established as health planning districts for federal and state governments. The analysis areas are: Southern (Area 1), Southeastern (Area 2A), Milwaukee County (Area 2B), Lake Winnebago (Area 3), Northeastern (Area 4), West Central (Area 5A), Southwestern (Area 5B), North Central (Area 6), and Western Lake Superior (Area 7).

Average (mean) charge – This is the sum of all charges for a service or facility or group of services or facilities divided by the number of discharges for that service or facility. The average charge is an approximation of what an average patient would be charged. The charges listed in these reports do not include fees for physician services.

Average (mean) length of stay – This is the total number of days spent in a hospital or group of hospitals by a group of patients divided by the number of discharges. Length of stay affects charges because longer stays generally produce higher charges. In addition, it is a rough indicator of hospital efficiency, assuming similar severity of illness or program philosophy. For example, two hospitals may have significantly different average stays for similar psychiatric diagnoses. These differences may indicate that a facility offers extended inpatient stays, which tend to have higher charges, or alternatives, such as outpatient treatment, which tend to have lower charges. Differences in physician practice patterns can also affect length of stay.

Discharge – A patient is discharged once he or she officially leaves the hospital. The number of discharges affects how a hospital is staffed, what types of services it offers, and how well it competes in the broader health care system. To some degree it also affects costs because, when viewed relative to the facility's capacity, the number of discharges is a partial indicator of efficiency. The number of discharges is used to calculate the average charge and average length of stay at a facility. In some cases, transfers of patients between distinct units of a hospital are submitted to WHA Information Center as separate discharges. This reflects standard billing guidelines and data submission requirements developed by the Wisconsin Bureau of Health Information.

APR-DRG – The basic unit of analysis for inpatient hospitalizations in this report is the All Patient Refined Diagnosis Related Group, or APR-DRG. It is one method of patient classification. Prior to the 2008 report, DRG (Diagnosis Related Group) was used as the unit of analysis for inpatient hospitalizations. The federal government established DRGs as a way to pay hospitals for care of Medicare patients. The DRG system focused on the resources consumed by patients. APR-DRGs expand the basic DRG structure by adding four subclasses to each DRG and considering the entire patient population, not just Medicare patients. The addition of the four subclasses addresses patient differences relating to severity of illness and risk of mortality. More than a third of the hospitals in the United States are using APR-DRG software to analyze comparative hospital performance.

For this report, WHA Information Center used APR-DRGs to classify all hospital inpatient stays, except those at rehabilitation hospitals. A description of each of the APR-DRGs referenced in this report is included in Chapter IV.

To describe patients at rehabilitation hospitals, WHA Information Center used a classification system developed by the federal Centers for Medicare and Medicaid

Services (formerly the Health Care Financing Administration). This system groups patients into rehabilitation categories (e.g., stroke, spinal cord injury, etc.). Appendix 2 – Methodology and Technical Notes describes in greater detail the methodology used to determine rehabilitation categories.

External cause codes – Health care providers and death certificate coders use external cause codes to describe an injury resulting in treatment or death. External cause codes are part of the International Classification of Diseases (ICD-10-CM codes), which are used to describe all diagnoses and some surgical procedures. WHA Information Center collected external cause codes for injury related hospitalizations, emergency department visits and outpatient surgeries in Wisconsin.

Expected payer – Data on expected payers are compiled from bills for hospital or FASC services. The bills indicate who the facility expects will pay for the services; however, the expected payer is not always the actual payer. A patient's insurance may not cover the particular procedure. The indicated insurer may not actually cover a patient. Therefore, expected pay sources are to be viewed as preliminary.

Expected pay sources include the following:

Medicare – reimbursement under Part A (facility care) of Title XVIII. Medicare is a federal health insurance program for the elderly and disabled.

Medicaid/BadgerCare – reimbursement from Wisconsin's Medicaid (Title XIX) and BadgerCare programs. Medicaid is a federal/state program that helps pay for health care for indigent and other eligible persons. BadgerCare provides Medicaid benefits to certain persons whose income would otherwise disqualify them from Medicaid eligibility.

Other Government – reimbursement from Tri-Care (formerly known as CHAMPUS, Civilian Health and Medical Program of the Uniformed Services – health benefits for military personnel and dependents), county general relief, county 51.42/51.437 programs, and other government sources. Reimbursement from Medicaid programs in other states is also included.

Commercial or Private Insurance – reimbursement from Blue Cross/Blue Shield and other traditional insurance companies, alternative payment systems (e.g., HMOs, PPOs), self-funded plans, and Worker's Compensation.

Self-Pay – reimbursement from a patient's own resources. Self-Pay may also include insurance that has not been assigned (i.e., reimbursement is made by the insurer directly to the patient, rather than to the facility).

Unknown – the facility had not yet determined from whom it expected reimbursement.

For more information regarding Payer Code Assignment, please refer to Appendix 2 – Methodology and Technical Notes.

Hospital Types – There are six types of hospitals providing services in Wisconsin:

Alcohol and other drug abuse (AODA) hospitals – provide diagnostic and therapeutic services to patients with drug or alcohol dependencies.

General medical-surgical (GMS) hospitals – provide diagnostic and therapeutic services to patients for a variety of medical conditions, both surgical and non-surgical.

Long-Term Acute Care (LTAC) hospitals – focus on patients who, on average, stay more than 25 days. They specialize in treating patients who may have more than one serious condition, but who may improve with time and care, and return home.

Psychiatric hospitals – provide diagnostic and therapeutic services to patients with mental, emotional, or developmental disorders.

Rehabilitation hospitals – provide a comprehensive array of restoration services for the disabled and support services necessary to help patients attain their maximum functioning.

State-operated mental health institutes – provide comprehensive and intensive diagnostic, therapeutic, and support services to patients with unusually complex or difficult mental, emotional, or developmental disorders.

ICD-10-CM codes –The tenth version of a coding scheme (International Classification of Diseases-Clinical Modification) used by health care providers and third-party payers to classify diagnoses and procedures.

Inpatient volume groups – A system for classifying hospitals based on the total number of discharges, adjusted yearly to account for patient mix. The number of patients within each APR-DRG at a hospital was multiplied by the statewide average charge for that APR-DRG. These adjusted charges were then totaled for each hospital, and the hospitals were ranked from lowest to highest adjusted total charges. Based on these data, six inpatient volume groups for GMS hospitals were created: the smallest, Volume Group 1, to the largest, Volume Group 6. All specialty hospitals were placed in a group by themselves (Inpatient Volume Group 7).

MDC – A broad grouping, or Major Diagnostic Category, of APR-DRGs according to type of disease, condition or body part treated.

Median charge and median length of stay – Charges and lengths of stay may also be presented as medians. The median charge is the midpoint between the highest charge and the lowest charge. The median length of stay is expressed as a number of days. Half the patients stayed in the hospital longer than the median length of stay, and half stayed a shorter period of time.

Newborn – A discharge reported in the range of ICD-10-CM codes Z381 through Z389 under *Principal Diagnosis*. The term refers to a baby born in a hospital or admitted on the day of its birth.

Racial distribution – Data on the racial background self-reported by patients. Racial groups appearing in this report include American Indian/Alaskan Native, Asian, Black/African American, Native Hawaiian/Pacific Islander, White, Multiracial, Declined, and Unavailable. Patients are not required by facilities to identify their racial background. The data are based solely on how patients classify themselves.

Risk adjusted rate – A modification of the unadjusted rate that takes into account a hospital's case-mix severity. It can be thought of as the rate that would be expected if the hospital had an "average" case mix. Generally, risk adjusted rates lower than the unadjusted rate suggests that case mix severity is greater than average. A risk adjusted rate higher than the unadjusted rate suggests that the case mix is less severe than average.

Risk adjustment – Also known as **severity adjustment**, the modification of hospital data to account for differences in the severity of illness of patients. By adjusting for variation caused by differences in patient risk or severity of illness, more valid comparisons of data (e.g., charges) can be made between hospitals.

Severity adjustment – see risk adjustment, risk adjusted rate.

Specialty hospital – A hospital other than a GMS hospital that provides services to patients with specified medical conditions or for special categories of patients. In Wisconsin, this includes long-term acute care (LTAC), psychiatric, alcohol and other drug abuse (AODA), and rehabilitation hospitals, as well as the state-operated mental health institutes. Specialty hospitals were placed in a group by themselves (Inpatient Volume Group 7).

Ambulatory Surgery Data Terms

Ambulatory surgery – Also called outpatient surgery, ambulatory surgery refers to surgical procedures for which patients require less than a 24-hour stay. For purposes of this report, certain invasive diagnostic procedures are reported as ambulatory surgeries.

Patients undergoing ambulatory surgery are not necessarily comparable to those undergoing the same procedure on an inpatient basis. An inpatient may have greater severity of illness than an outpatient or may have additional, more complicated procedures performed at the same time. Physicians may differ regarding the choice of an inpatient versus an outpatient setting for surgery on the same type of patient.

However, there is probably little difference between the patients treated in hospital-based ambulatory surgery units and freestanding ambulatory centers (FASCs). FASCs tend to be located in urban areas and compete with hospitals for patients.

Average (mean) charge – see definition under **Inpatient Data Terms**

Case – Defined as one patient visit, even though more than one procedure may be performed during the same surgical episode. For instance, if a myringotomy (incision in the middle ear) is performed on each ear during one visit, only one case will be counted, even though two procedures are performed.

CPT-4² codes – A coding scheme (Physicians' Current Procedural Terminology) developed by the American Medical Association to classify procedures performed in an ambulatory setting.

Freestanding ambulatory surgery center (FASC) – A facility dedicated solely to the provision of surgery on an outpatient basis. FASCs are owned and operated independently of a hospital. WHA Information Center collects data only from FASCs certified to treat Medicare patients, although these facilities typically treat many patients whose services are reimbursed by a variety of third-party payers. The FASC data include data related to all patients who underwent ambulatory surgery, regardless of payer type.

Hospital-based outpatient surgery unit – A section of a hospital that provides ambulatory surgery. Such units may be part of a hospital campus or in separate buildings. They are owned and controlled by the parent hospital facility.

ICD-10-CM codes – see definition under **Inpatient Data Terms**

Median charge – see definition under **Inpatient Data Terms**

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Number (#) of cases – The number of cases at the facility for which the CPT-4 code was listed as the principal procedure.

Percentile charges – Mark the point above and below which some percentage of the patients' charges fall. For instance, half the patients were charged less than the 50th percentile, or median charge, and half were charged more. Similarly, 95 percent were charged less than the 95th percentile, and 5 percent were charged more.

Procedure – A surgical operation performed on a person during a patient visit, as identified by the CPT-4 procedure codes. A person may undergo more than one procedure during a single surgical operation. For example, a patient who had arthroscopy with tendon repair on one leg undergoes two separate procedures.

Standard deviation – A measure of the average variation above and below the average, or mean, charge. When charges are in a normal distribution, approximately 68 percent of the cases will fall within one standard deviation of the mean, 95 percent within two standard deviations, and 99.7 percent within three standard deviations.

Three-digit ZIP code area – Used for geographic comparisons of ambulatory surgery utilization and charge data. Each area contains all facilities whose ZIP code begins with the same three digits (e.g., 530, 537). Refer to the map in Appendix 3 for the three-digit ZIP code area boundaries.

Emergency Department Data Terms

External cause code – see definition under **Inpatient Data Terms**

Visit rate – The number of visits per 100 or 100,000 population. The rate is calculated by dividing the total number of visits in a particular age, sex, or diagnosis category by the U.S. Census Bureau's 2022 population estimate for that age, sex, analysis area or statewide total, then multiplying the result by 100 or 100,000, as applicable.

CHAPTER I. OVERVIEW OF HOSPITAL INPATIENT UTILIZATION AND CHARGES

Since Wisconsin hospitals began publicly reporting inpatient data in 1989, the average length of stay at GMS hospitals declined until 2008. Between 1999 and 2007 the average length of stay decreased from 4.4 days to 4.0 days. From 2008 thru 2022, the average length of stay has varied between 4.0 and 4.9 days. The upward trend in average charges at GMS hospitals continued, with average charges rising from \$46,701 in 2021 to \$48,946 in 2022. It is important to recognize, however, that since hospitals do not collect their total charges, actual hospital revenues have increased at a much slower rate.

The average charge per stay at LTAC hospitals increased 25.4 percent from 2021 to 2022. The number of hospitalizations decreased 11.7 percent, patient days decreased 6.8 percent, and average length of stay increased 5.6 percent.

The average charge per stay at psychiatric hospitals increased 4.4 percent from 2021 to 2022. The number of hospitalizations decreased 8.1 percent, patient days decreased 7.6 percent, and average length of stay increased 0.5 percent.

The average charge per stay at rehabilitation facilities increased 5.7 percent from 2021 to 2022. The number of hospitalizations increased 32.7 percent, patient days increased 34.6 percent, and average length of stay increased 1.4 percent.

The average charge per stay at the state-operated mental health institutes increased 4.5 percent from 2021 to 2022. The number of hospitalizations decreased 5.4 percent, patient days decreased 6.7 percent, and average length of stay decreased 1.3 percent.

Note: In this report, the terms *hospitalization* and *discharge* are used interchangeably.

	2022	2021	% Difference
Number of Hospitalizations	529,233	550,221	-3.8%
Total Patient Days	2,759,065	2,773,597	-0.5%
Average Stay (days)	5.2	5.0	3.4%
Hospitalizations per 1,000 population	91.2	94.8	-3.8%
Patient Days per 1,000 population	475.2	477.7	-0.5%
Total Charges	\$25,403,716,270	\$25,138,119,198	1.1%
Average Charge per Hospitalization	\$48,001	\$45,687	5.1%

Note: Except for the state-operated mental health institutes, hospitalizations with lengths of stay greater than 100 days were not included when computing the charge data above. These hospitalizations **were** included to compute the number of hospitalizations, patient days, average length of stay, and population-based rates. All hospitalizations of more than 999 days were excluded entirely from the data. During 2022 there were 32 such hospitalizations. Lengths of stay for inpatients who remained in the hospital less than 24 hours were counted as one-day stays.

Source: Inpatient Data, WHA Information Center, LLC.

Table 2. Summary data for Wisconsin hospitals, by type, 2022

Type	Number of Hospitals	Number of Hospitalizations	Patient Days	Average Stay (days)	Average Charge per Day	Average Charge per Stay
GMS	142	499,033	2,437,416	4.9	\$10,021	\$48,946
LTAC	4	962	35,840	37.3	\$8,417	\$313,567
PSYCH	14	21,782	136,628	6.3	\$2,882	\$18,079
REHAB	5	2,956	38,907	13.2	\$3,630	\$47,777
STATE	2	4,500	110,274	24.5	\$1,280	\$31,374
TOTAL	167	529,233	2,759,065	5.2	\$9,207	\$48,001

Note: Except for the state-operated mental health institutes, hospitalizations with lengths of stay greater than 100 days were not included when computing the charge data above. These hospitalizations **were** included to compute the number of hospitalizations, patient days, average length of stay, and population-based rates. All hospitalizations of more than 999 days were excluded entirely from the data. During 2022 there were 32 such hospitalizations. Lengths of stay for inpatients who remained in the hospital less than 24 hours were counted as one-day stays.

Source: Inpatient Data, WHA Information Center, LLC.

Table 3. Percent change in utilization and charges in Wisconsin hospitals, by type, 2021 to 2022

Type	Number of Hospitalizations	Patient Days	Average Length of Stay	Average Charge per Stay
GMS	-3.7%	-0.1%	3.6%	4.8%
LTAC	-11.7%	-6.8%	5.6%	25.4%
PSYCH	-8.1%	-7.6%	0.5%	4.4%
REHAB	32.7%	34.6%	1.4%	5.7%
STATE	-5.4%	-6.7%	-1.3%	4.5%
TOTAL	-3.8%	-0.5%	3.4%	5.1%

Note: Except for the state-operated mental health institutes, hospitalizations with lengths of stay greater than 100 days were not included when computing the charge data above. These hospitalizations **were** included to compute the number of hospitalizations, patient days, average length of stay, and population-based rates. All hospitalizations of more than 999 days were excluded entirely from the data. During 2022 there were 32 such hospitalizations. Lengths of stay for inpatients who remained in the hospital less than 24 hours were counted as one-day stays.

Source: Inpatient Data, WHA Information Center, LLC.

CHAPTER II. SERVICES PROVIDED TO INPATIENTS

This chapter has two sections. The first presents statewide information on six broad categories of hospitalizations: obstetrical, neonatal, cardiovascular, orthopedic, psychiatric, and alcohol and other drug abuse (AODA). Data reported include the number of hospitalizations, the average length of stay, the average charge, and the median charge per hospitalization.

The second section reviews the ten most common reasons for hospitalization, the top ten types of hospitalizations by average charge, and the ten types of hospitalizations that generated the greatest total charges. Three tables are presented, again containing the number of hospitalizations, the average length of stay, the average charge, and the median charge per hospitalization, or total charges.

This chapter's analysis is restricted to GMS, LTAC, and psychiatric facilities. Patients in these facilities accounted for 98.6 percent of all Wisconsin hospitalizations in 2022.

Patients in the state-operated mental health institutes and the rehabilitation hospitals are excluded because of their atypical characteristics (unusually long lengths of stay and high charges). Additional data on these specialty facilities are available upon request.

Patient hospitalizations are defined in terms of major diagnostic categories (MDCs) and All Patient Refined Diagnosis Related Groups (APR-DRGs). APR-DRGs are a method of classifying hospital stays according to the diagnosis of the patient, the procedures performed, and other factors, such as age and the presence of complications or comorbidities (other conditions that affect the amount of care required by a patient). MDCs are broad groupings of APR-DRGs. The APR-DRG system is widely used in many kinds of health data analysis. This report uses APR-DRGs to compare similar patients.

Section 1: Hospitalization Categories

Birth-Related Hospitalizations: The Mothers

In 2022, 53,578 women delivered babies (single and multiple births) in Wisconsin hospitals, down from 55,347 in 2021.

Most childbirths (70.9 percent) were normal and uncomplicated (APR-DRG 560). The remaining vaginal deliveries, including those with complicating diagnoses or concurrent procedures, such as sterilization (APR-DRGs 541 and 542), represented 5.8 percent of childbirths.

Statewide, the rate for Cesarean sections, also called C-sections (APR-DRG 540) remained the same as 2021 at 24.8 percent of childbirths.

Differences in C-section rates by hospital are often studied because they reflect individual physician practices, socioeconomic factors, access to and availability of prenatal care, and other factors. Hospitals with few childbirths may have higher C-section rates simply because small changes in the number of C-sections affect rates more when the number of childbirths is small than when it is large. However, hospitals with many childbirths may also have high C-section rates because they have programs aimed at treating high-risk pregnancies. Therefore, a C-section rate by itself is not an indicator of hospital quality or performance but may highlight an area for further review.

Among hospitals with more than 500 obstetric cases, Aspirus Wausau Hospital had the highest C-section rate at 32.1 percent of all childbirths, Froedtert South, Kenosha, had a rate of 31.7 percent, and ThedaCare Regional Medical Center - Neenah had a rate of 31.1 percent.

Table 4. Childbirths in Wisconsin, 2022

APR-DRG	Description	Number of Hospitalizations	Average Stay (days)	Average Charge	Median Charge
540	Cesarean Delivery	13,261	3.4	\$27,648	\$24,729
541	Vaginal Delivery with Sterilization	699	2.2	\$24,075	\$22,474
542	Vaginal Delivery with Proc Except Sterilization	1,643	2.6	\$20,594	\$17,492
560	Vaginal Delivery	37,975	2.1	\$14,120	\$12,853
	Total Childbirths	53,578	2.4	\$17,796	\$15,133

Note: Data exclude hospitalizations at rehabilitation facilities and state-operated mental health institutes.
Source: Inpatient Data, WHA Information Center, LLC.

Birth-Related Hospitalizations: The Babies

Obstetric hospitalizations refer to the delivering mothers. The inpatient stays of newborn babies are referred to as neonatal hospitalizations. They include newborns and other neonates with conditions originating in the perinatal period.

Neonatal hospitalizations in GMS facilities decreased to 58,863 in 2022 from 60,571 in 2021.

APR-DRG	Description	Number of Hospitalizations	Average Stay (days)	Average Charge	Median Charge
580	Neonate, Transferred <5 Days Old, Not Born Here	123	1.3	\$13,942	\$10,573
581	Neonate, Transferred <5 Days Old, Born Here	1,584	1.2	\$5,363	\$2,717
583	Neonate with External Heart and Lung Oxygen Support	14	80.4	\$1,755,934	\$1,121,521
588	Neonate Birthwt <1500g with Major Procedure	22	95.3	\$968,586	\$949,046
589	Neonate Birthwt <500g or Gestational Age <24 weeks	72	26.1	\$243,100	\$4,239
591	Neonate Birthwt 500-749g without Major Procedure	54	71.4	\$603,241	\$521,734
593	Neonate Birthwt 750-999g without Major Procedure	120	70.4	\$535,868	\$490,186
602	Neonate Birthwt 1000-1249g with Respiratory Distress Syndrome	156	57.5	\$391,695	\$372,564
603	Other Neonate Birthwt 1000-1249g	6	29.5	\$191,411	\$207,970
607	Neonate Birthwt 1250-1499g with Respiratory Distress Syndrome	151	46.1	\$298,926	\$259,435
608	Other Neonate Birthwt 1250-1499g	34	29.5	\$159,105	\$145,571
609	Neonate Birthwt 1500-2499g with Major Procedure	23	65.5	\$720,800	\$764,209
611	Neonate Birthwt 1500-1999g with Major Anomaly	68	28.5	\$178,218	\$152,347
612	Neonate Birthwt 1500-1999g with Respiratory Distress Syndrome	303	30.3	\$172,965	\$157,819
613	Neonate Birthwt 1500-1999g with Congenital Or Perinatal Infections	2	16.0	\$100,475	\$100,475
614	Other Neonate Birthwt 1500-1999g	367	14.7	\$67,617	\$54,969
621	Neonate Birthwt 2000-2499g with Major Anomaly	124	16.7	\$113,669	\$67,886
622	Neonate Birthwt 2000-2499g with Respiratory Distress Syndrome	377	18.7	\$103,529	\$91,620
623	Neonate Birthwt 2000-2499g with Congenital Or Perinatal Infections	5	14.6	\$116,960	\$127,617
625	Neonate Birthwt 2000-2499g with Other Significant Condition	214	12.7	\$54,121	\$45,286
626	Normal Newborn Birthweight 2000g - 2499g	1,628	4.1	\$14,830	\$6,117
630	Neonate Birthwt >2499g with Major Cardiovascular Procedure	50	39.3	\$683,255	\$474,050
631	Neonate Birthwt >2499g with Other Major Procedure	62	45.6	\$526,281	\$320,263
633	Neonate Birthwt >2499g with Major Anomaly	857	7.8	\$58,411	\$10,888
634	Neonate Birthwt >2499g with Respiratory Distress Syndrome	1,257	10.1	\$66,223	\$41,269
636	Neonate Birthwt >2499g with Congenital or Perinatal Infections	111	7.0	\$37,084	\$19,951
639	Neonate Birthwt >2499g with Other Significant Condition	1,245	5.9	\$27,760	\$11,310
640	Normal Newborn, Birthweight 2500g+	49,834	1.9	\$4,990	\$4,076
Total Neonatal Hospitalizations		58,863	3.4	\$16,415	\$4,317

Note: Includes newborns in the hospital of birth, newborns transferred to other hospitals, and low-birthweight infants readmitted when less than 28 days old after their initial hospital stay. Data exclude hospitalizations at rehabilitation facilities and state-operated mental health institutes.

Cardiovascular Hospitalizations

In 2022, cardiovascular diagnoses accounted for 66,000 hospitalizations (down from 66,484 in 2021) (not including patients treated at rehabilitation hospitals or state-operated mental health institutes). These patients represented 12.5 percent of all hospitalizations and 20.0 percent of all inpatient charges, compared to 12.1 percent and 19.2 percent, respectively, the year before. Charges for cardiovascular-related hospitalizations in 2022 totaled \$5.1 billion, up from \$4.8 billion the previous year.

Thirty-four GMS hospitals performed open-heart surgery (APR-DRGs 162-163, and 165-167) on 5,588 patients, a 0.4 percent decrease from 2021.

The largest number of open-heart surgeries (1,218) was performed by Aurora St. Luke's Medical Center in Milwaukee.

Five hospitals performed a total of 71 heart transplants in 2022. These five urban teaching hospitals performed all heart transplants in 2022. Froedtert Hospital, Milwaukee, performed 24 transplants, Aurora St. Luke's Medical Center, Milwaukee, performed 22 transplants, UW Hospital and Clinics Authority, Madison, performed 19, Children's Wisconsin-Milwaukee Hospital performed 5, and Aurora St. Luke's South Shore, Cudahy, performed 1.

Table 6. Cardiovascular Hospitalizations (MDC 05) in Wisconsin, 2022

APR-DRG	Description	Number of Hospitalizations	Average Stay (days)	Average Charge	Median Charge
002	Heart Transplant	71	44.4	\$1,254,776	\$912,795
161	Defibrillator and Heart Assist Implant	24	36.8	\$1,115,567	\$1,154,543
162	Cardiac valve procedures w AMI or complex PDX	280	14.2	\$317,405	\$268,049
163	Cardiac valve procedures w/o AMI or complex PDX	1,686	7.4	\$190,397	\$162,132
165	Coronary bypass w AMI or complex PDX	970	9.7	\$202,065	\$180,839
166	Coronary bypass w/o AMI or complex PDX	2,078	6.7	\$153,124	\$135,790
167	Other cardiothoracic & thoracic vascular procedures	574	6.9	\$186,721	\$139,921
170	Pacemaker Implant with Heart Attack, Heart Failure or Shock	14	6.9	\$109,054	\$83,079
171	Pacemaker Implant without Heart Attack, Heart Failure or Shock	1,708	4.1	\$74,742	\$63,328
174	Percutaneous coronary intervention w AMI	5,220	2.9	\$82,667	\$70,749
175	Percutaneous coronary intervention w/o AMI	3,290	3.0	\$99,095	\$86,462
176	Pacemaker/Defibrillator Replacement	103	5.1	\$103,960	\$87,507
177	Pacemaker/Defibrillator Revision Except Replacement	88	4.6	\$89,013	\$62,596
190	Circulatory Disorders with Heart Attack	3,866	3.3	\$38,737	\$31,257
191	Cardiac catheterization for coronary artery disease	755	2.1	\$42,198	\$36,817
192	Cardiac catheterization for other non-coronary conditions	3,444	5.3	\$69,524	\$52,805
194	Heart Failure	17,219	5.1	\$36,628	\$27,674
196	Cardiac arrest & shock	440	4.8	\$64,435	\$44,013
198	Chest Pain with Angina Pectoris or Coronary Atherosclerosis	731	2.5	\$25,625	\$19,701
199	Hypertension	1,665	3.2	\$30,065	\$24,813
200	Heart Structural and Valve Disorders	241	4.1	\$37,162	\$27,345
201	Heart Abnormal Rhythm and Conduction Disorders	7,292	3.2	\$26,479	\$19,728
203	Chest Pain	261	2.2	\$23,793	\$21,636
204	Fainting and Collapse	1,185	3.5	\$32,709	\$26,651
206	Malfunction/ Reaction/Complication of Heart Device or Procedure	584	5.8	\$56,673	\$37,986
	All Other Cardiovascular Hospitalizations	11,567	5.9	\$126,673	\$90,999
	Total Cardiovascular Hospitalizations	66,000	4.8	\$77,043	\$45,618

Note: Data exclude hospitalizations at rehabilitation facilities and state-operated mental health institutes.
Source: Inpatient Data, WHA Information Center, LLC.

Orthopedic Hospitalizations

Diseases and injuries related to muscles and the skeletal system resulted in 37,348 hospitalizations in 2022 (not including patients treated at rehabilitation hospitals or state-operated mental health institutes). Orthopedic patients accounted for 7.1 percent of all hospitalizations and 10.5 percent of total inpatient charges.

Hip & Femur Fracture Repair (APR-DRG 308) was the most frequent reason for Orthopedic Hospitalizations

APR-DRG	Description	Number of Hospitalizations	Average Stay (days)	Average Charge	Median Charge
303	Dorsal and Lumbar Fusion with Principal Diagnosis of Back Curvature	248	4.9	\$171,128	\$144,169
304	Dorsal and Lumbar Fusion Without Principal Diagnosis of Back Curvature	3,479	3.9	\$121,433	\$99,343
305	Amputation of Lower Limb Except Toes	1,365	12.1	\$103,734	\$73,596
308	Hip & femur fracture repair	4,370	6.1	\$68,168	\$58,570
309	Other significant hip & femur surgery	566	6.6	\$95,654	\$75,521
310	Back/Neck Procedures Except Dorsal and Lumbar Fusion	596	5.3	\$68,254	\$55,190
313	Other Knee/Lower Leg Surgery	2,047	6.2	\$82,657	\$65,580
314	Foot/Toe Surgery	1,215	7.0	\$66,037	\$49,509
315	Shoulder, upper arm & forearm procedures except joint replacement	769	5.3	\$82,014	\$66,615
316	Hand/Wrist Surgery	287	4.6	\$56,593	\$41,979
321	Upper Spinal Fusion	1,390	4.0	\$90,705	\$78,277
323	Non-elective or complex hip joint replacement	3,137	5.7	\$76,190	\$65,337
324	Elective hip joint replacement	2,005	2.1	\$57,608	\$53,995
325	Non-elective or complex knee joint replacement	1,317	3.5	\$87,761	\$77,444
326	Elective knee joint replacement	2,807	1.8	\$53,464	\$48,986
340	Thigh Fracture	662	4.9	\$28,744	\$21,141
341	Pelvis Fracture/Hip Dislocation	460	4.5	\$28,395	\$24,054
342	Fracture or Dislocation Except Thigh, Pelvis, Back	1,072	4.8	\$33,284	\$26,483
343	Musculoskeletal Malignancy	409	7.1	\$62,736	\$47,438
347	Other Back/Neck Disorders, Fractures, Injuries	2,435	5.2	\$39,326	\$30,458
351	Other Musculoskeletal System and Connective Tissue Diagnoses	2,367	4.9	\$33,441	\$25,631
	All Other Orthopedic Hospitalizations	4,345	7.2	\$73,670	\$51,310
	Total Orthopedic Hospitalizations	37,348	5.3	\$71,293	\$57,162

Note: Data exclude hospitalizations at rehabilitation facilities and state-operated mental health institutes.

Psychiatric Hospitalizations

GMS, and psychiatric hospitals treated 32,825 psychiatric inpatients in 2022 (down from 35,558 in 2021). They represented 6.2 percent of all hospitalizations and 2.5 percent of total inpatient charges.

The number of psychiatric hospitalizations increased by 4.0 percent from 2021, and patient days increased by 2.6 percent.

The average charge for psychiatric hospitalizations increased by 4.7 percent in 2022 to \$19,170, from \$18,310 the year before.

APR-DRG	Description	Number of Hospitalizations	Average Stay (days)	Average Charge	Median Charge
740	Mental Illness Diagnosis with O.R. Procedure	117	7.6	\$81,021	\$59,683
750	Schizophrenia	3,691	9.2	\$23,959	\$16,806
751	Psychoses	13,966	5.9	\$17,756	\$14,838
752	Personality and Impulse Control Disorders	454	3.8	\$13,559	\$10,311
753	Bipolar Disorders	7,310	5.9	\$17,660	\$14,172
754	Depression	3,104	4.2	\$13,476	\$10,716
755	Neuroses Other Than Depression	1,442	4.5	\$14,011	\$9,936
756	Acute Adjust React Psychosocial Dysfunction	1,297	4.4	\$19,827	\$14,830
757	Organic Disturbances and Mental Retardation	209	7.9	\$26,651	\$17,334
758	Behavioral disorders	387	6.1	\$20,670	\$17,157
759	Eating Disorders	404	19.5	\$67,835	\$47,650
760	Other Mental Disorders	443	10.9	\$43,002	\$27,580
	All Other Psychiatric Hospitalizations	1	15.0	\$335,070	\$335,070
	Total Psychiatric Hospitalizations	32,825	6.2	\$19,170	\$14,426

Note: Data exclude hospitalizations at rehabilitation facilities and state-operated mental health institutes.

Source: Inpatient Data, WHA Information Center, LLC.

AODA Hospitalizations

Inpatient treatment of alcohol and other chemical dependencies accounted for 13,039 hospitalizations in 2022 in GMS and psychiatric facilities, down from 14,656 in 2021.

APR-DRG	Description	Number of Hospitalizations	Average Stay (days)	Average Charge	Median Charge
770	Substance Abuse/Dependence, Left Against Medical Advice	1,212	2.2	\$13,531	\$8,753
772	Substance Abuse/Dependence with Rehab and/or Detox	402	4.0	\$12,155	\$10,222
773	Opioid Abuse/Dependence	2,023	4.3	\$17,617	\$14,198
774	Cocaine Abuse/Dependence	703	4.0	\$19,965	\$15,349
775	Alcohol Abuse/Dependence	8,170	4.1	\$21,316	\$14,421
776	Other Substance Abuse/Dependence	474	4.4	\$14,509	\$9,374
	All Other AODA Hospitalizations	55	15.1	\$148,623	\$111,522
	Total AODA Hospitalizations	13,039	4.0	\$19,953	\$13,712

Note: Data exclude hospitalizations at rehabilitation facilities and state-operated mental health institutes.

Source: Inpatient Data, WHA Information Center, LLC.

Section 2: Reasons for Hospitalization: Most Frequently Occurring, Highest Average Charges and Highest Total Charges

Most Frequently Occurring APR-DRGs

The ten most frequently occurring APR-DRGs (see Table 10) accounted for 39.0 percent of all hospitalizations and 19.3 percent of all inpatient charges at GMS, LTAC, and psychiatric facilities in 2022.

Birth-related hospitalizations (APR-DRGs 540, 541, 542, and 560 and MDC 15) accounted for 21.5 percent of all hospitalizations at these facilities, but only 7.5 percent of charges.

The average hospital stays for patients with the most frequently reported APR-DRGs were relatively short at 3.9 days. Average charges were also relatively low for the most common APR-DRGs (\$24,633) compared to the average charge for all inpatients at GMS, LTAC, and psychiatric facilities (\$49,234).

APR-DRG	Description	Number of Hospitalizations	Average Stay (days)	Average Charge	Median Charge
640	Normal Newborn, Birthweight 2500g+	49,834	1.9	\$4,990	\$4,076
560	Vaginal Delivery	37,975	2.1	\$14,120	\$12,853
720	Blood Infection/Septicemia	31,008	6.5	\$55,537	\$37,111
194	Heart Failure	17,219	5.1	\$36,628	\$27,674
137	Respiratory Infections and Inflammations	14,986	6.2	\$44,410	\$32,263
751	Psychoses	13,966	5.9	\$17,756	\$14,838
540	Cesarean Delivery	13,261	3.4	\$27,648	\$24,729
775	Alcohol Abuse/Dependence	8,170	4.1	\$21,316	\$14,421
139	Pneumonia	7,429	4.3	\$31,499	\$24,232
753	Bipolar Disorders	7,310	5.9	\$17,660	\$14,172
Above Hospitalizations Total		201,158	3.9	\$24,633	\$15,217

Note: Data exclude hospitalizations at rehabilitation facilities and state-operated mental health institutes.

Source: Inpatient Data, WHA Information Center, LLC.

Highest Average Charges

The top ten APR-DRGs in 2022 based on the average charge accounted for only 0.2 percent of all hospitalizations but 3.6 percent of total inpatient charges among GMS, LTAC, and psychiatric hospitals in 2022 (see Table 11).

These APR-DRGs required specialized treatment and long hospital stays. Together, they represented only 1,068 hospitalizations.

APR-DRG	Description	Number of Hospitalizations	Average Stay (days)	Average Charge	Median Charge
583	Neonate with External Heart and Lung Oxygen Support	14	80.4	\$1,755,934	\$1,121,521
002	Heart and/or Lung Transplant	123	40.6	\$1,210,467	\$853,160
161	Defibrillator and Heart Assist Implant	24	36.8	\$1,115,567	\$1,154,543
588	Neonate Birthwt <1500g with Major Procedure	22	95.3	\$968,586	\$949,046
001	Liver Transplant	126	29.2	\$849,771	\$582,604
009	Extracorporeal membrane oxygenation (ECMO)	214	29.6	\$845,286	\$597,148
004	Tracheostomy w MV 96+ hours w extensive procedure	455	51.2	\$773,097	\$596,626
609	Neonate Birthwt 1500-2499g with Major Procedure	23	65.5	\$720,800	\$764,209
630	Neonate Birthwt >2499g with Major Cardiovascular Procedure	50	39.3	\$683,255	\$474,050
841	Burns, 3rd Degree with Skin Graft	17	32.8	\$679,659	\$320,521
Above Hospitalizations Total		1,068	43.5	\$864,765	\$650,662

Note: Data exclude hospitalizations at rehabilitation facilities and state-operated mental health institutes.

Source: Inpatient Data, WHA Information Center, LLC.

Highest Total Charges

The ten APR-DRGs that generated the highest total charges accounted for 22.7 percent of all hospitalizations and 24.1 percent of total charges among GMS, LTAC, and psychiatric hospitals in 2022 (see Table 12). They included a mixture of high-cost conditions (e.g., Tracheostomy), high-volume APR-DRGs (e.g., Vaginal Delivery), and APR-DRGs that were relatively high both in volume and charges (e.g., Blood Infection/Septicemia).

APR-DRG	Description	Number of Hospitalizations	Average Stay (days)	Average Charge	Total Charges
720	Blood Infection/Septicemia	31,008	6.5	\$55,537	\$1,722,096,944
137	Respiratory Infections and Inflammations	14,986	6.2	\$44,410	\$665,524,425
194	Heart Failure	17,219	5.1	\$36,628	\$630,690,962
710	Infectious & parasitic diseases including HIV w O.R. procedure	4,096	13.6	\$141,296	\$578,749,038
560	Vaginal Delivery	37,975	2.1	\$14,120	\$536,188,823
183	Percutaneous structural cardiac procedures	2,558	2.8	\$170,074	\$435,049,943
174	Percutaneous coronary intervention w AMI	5,220	2.9	\$82,667	\$431,519,805
304	Dorsal and Lumbar Fusion Without Principal Diagnosis of Back Curvature	3,479	3.9	\$121,433	\$422,465,550
130	Respiratory System DX w/ Vent Support 96+ Hrs	1,318	22.7	\$302,574	\$398,792,135
021	Craniotomy Except For Trauma	2,259	8.0	\$167,190	\$377,681,389
Above Hospitalizations Total		120,118	5.0	\$51,606	

CHAPTER III. INJURY-RELATED HOSPITALIZATIONS AND AMBULATORY SURGERIES (External Cause Codes)

External cause codes are part of the International Classification of Diseases (ICD-10-CM) system that all hospitals and death certificate coders use for the disease or injury resulting in hospitalization or death. External cause codes are required to be reported when diagnoses are reported in a certain ICD-10-CM diagnostic range.

Ranges of external cause codes are reserved for broad categories of injuries, such as those arising from motor vehicle accidents, falls, firearms, and so forth. ICD-10 codes within the range of V00-Y99 are external cause codes. The range of T36-T65 is also included for poisoning, as external cause codes are not required for this diagnosis range. Only initial visits are included in the Wisconsin Injury tables. With ICD-10 external cause codes were greatly expanded so an individual code can provide the nature of the injury, the location of the injury, and also the intent (accidental, self-inflicted, assault, and undetermined).

In this report external cause codes have been grouped into broader categories, like those described above. These groups are similar to those being suggested nationally for reporting injury mortality and morbidity.

Although many categories are self-explanatory, some merit further explanation:

- *Motor vehicle traffic* accidents are those involving motor vehicles that occur on public roads.
- *Motor vehicle nontraffic* accidents are those involving a motor vehicle that occur entirely off public roads.

Motor vehicles are defined as mechanically or electrically powered devices that can transport people or property on a highway. They include both on-road (e.g., automobile, motorcycle, bus) and off-road (e.g., snowmobile, ATV) devices.

- *Other pedal cycle* accidents include bicycle or tricycle accidents that are either non-motor vehicle or motor vehicle nontraffic in nature.
- *Other transport* includes all types of accidents involving trains, watercraft, aircraft, or transport animals, but not involving motor vehicles or pedal cycles. For instance, watercraft accidents include injuries arising from collisions with other boats, overturning or sinking of boats, fires and explosions on boats, etc.
- *Natural/environmental* injuries include those caused by exposure, hunger, thirst, venomous animals and plants, other animals (e.g., dog bites), and cataclysmic storms, lightning, or earth movement (e.g., mudslides).
- *Striking/struck by* includes injuries caused by falling objects, accidentally striking against or being struck by objects or persons (e.g., sports accidents), unarmed fights, and being intentionally struck by blunt or thrown objects.

This chapter includes information on injuries for hospital inpatients and patients treated in hospital-based ambulatory surgery settings and FASCs. The database excludes persons treated in emergency rooms but not admitted to the hospital (because they either died or were treated and released). In Chapter VIII of this report, you can find similar information for emergency department visits.

The table on the next page presents statewide data; tables follow it for each of nine analysis areas dividing the state. The tables show the number of cases, the rate per

100,000 population (based on the 2022 population estimates acquired from the U.S. Census Bureau – see Appendix 1), and the total charges for each injury category. Totals are also shown for self-inflicted injuries and injuries caused by assault. Inpatient and ambulatory surgery data are combined.

The Analysis Areas referenced in the tables are located in Appendix 3, Wisconsin Analysis Areas.

This chapter concludes with two additional statewide tables: one displays data on self-inflicted injuries by sex; the other presents data on assaultive injuries by sex.

To be consistent with previous reports, “Legal Intervention” external cause codes were categorized as “Assault” for purposes of Tables 13-22.

Table 13. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), All Analysis Areas - Statewide, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	2,160	36.6	\$58,698,301
Accidental	1,365	23.2	\$33,518,457
Self-Inflicted	673	11.4	\$18,408,953
Assault	111	1.9	\$6,528,638
Undetermined	11	0.2	\$242,252
Drown/Submersion	27	0.5	\$1,432,123
Accidental	18	0.3	\$962,449
Self-Inflicted/Assault/Undetermined	9	0.2	\$469,674
Falls	37,726	640.1	\$2,112,415,507
Accidental	37,701	639.7	\$2,106,858,880
Self-Inflicted/Assault/Undetermined	25	0.4	\$5,556,627
Fire/Flames	257	4.4	\$28,980,926
Accidental	242	4.1	\$28,661,931
Self-Inflicted/Assault/Undetermined	15	0.3	\$318,995
Firearms	747	12.7	\$88,104,168
Accidental	368	6.2	\$35,276,985
Self-Inflicted	51	0.9	\$5,816,521
Assault	308	5.2	\$45,798,121
Undetermined	20	0.3	\$1,212,541
Hot Objects/Scalds	772	13.1	\$32,490,968
Accidental	301	5.1	\$13,673,644
Self-Inflicted/Assault/Undetermined	471	8.0	\$18,817,324
Machinery	594	10.1	\$21,869,238
Motor Veh Traffic	3,736	63.4	\$383,464,131
Accidental	3,719	63.1	\$382,452,065
Self-Inflicted/Assault/Undetermined	17	0.3	\$1,012,067
Oth Pedal Cycle	687	11.7	\$30,975,022
Oth Mot Veh Nontraffic	1,005	17.1	\$61,300,252
Oth Transport	220	3.7	\$12,769,522
Natural/Environmental	34,596	587.0	\$1,273,196,277
Overexertion	4,150	70.4	\$106,653,616
Poisoning	31,894	541.2	\$2,046,792,294
Accidental	798	13.5	\$42,187,746
Self-Inflicted	1,235	21.0	\$27,343,005
Assault	2	0.0	\$29,889
Undetermined	29,859	506.6	\$1,977,231,654
Striking/Struck By	3,001	50.9	\$113,927,228
Accidental	2,558	43.4	\$93,589,329
Assault	443	7.5	\$20,337,899
Other Injury	722	12.3	\$22,263,791
Accidental	648	11.0	\$18,088,144
Self-Inflicted	14	0.2	\$447,027
Assault	40	0.7	\$3,190,580
Undetermined	14	0.2	\$243,659
Others	6	0.1	\$294,381
Total Injuries	122,294	2,075.0	\$6,395,333,366
Total Self-Inflicted	2,307	39.1	\$70,258,076
Total Assaults	914	15.5	\$76,926,103

Source: Inpatient Data, WHA Information Center, LLC.

Table 14. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), Analysis Area 1 - Southern, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	386	33.0	\$11,520,525
Accidental	272	23.2	\$6,712,016
Self-Inflicted	91	7.8	\$3,320,895
Assault	19	1.6	\$1,404,987
Undetermined	4	0.3	\$82,627
Drown/Submersion	8	0.7	\$403,420
Accidental	3	0.3	\$69,773
Self-Inflicted/Assault/Undetermined	5	0.4	\$333,646
Falls	6,713	573.6	\$415,593,624
Accidental	6,709	573.2	\$414,425,705
Self-Inflicted/Assault/Undetermined	4	0.3	\$1,167,919
Fire/Flames	88	7.5	\$12,104,210
Accidental	87	7.4	\$12,097,276
Self-Inflicted/Assault/Undetermined	1	0.1	\$6,934
Firearms	82	7.0	\$11,209,105
Accidental	52	4.4	\$5,453,074
Self-Inflicted	10	0.9	\$1,915,234
Assault	16	1.4	\$3,250,142
Undetermined	4	0.3	\$590,655
Hot Objects/Scalds	181	15.5	\$9,919,647
Accidental	88	7.5	\$5,640,304
Self-Inflicted/Assault/Undetermined	93	7.9	\$4,279,343
Machinery	131	11.2	\$6,242,490
Motor Veh Traffic	681	58.2	\$83,592,526
Accidental	678	57.9	\$83,498,326
Self-Inflicted/Assault/Undetermined	3	0.3	\$94,200
Oth Pedal Cycle	169	14.4	\$9,256,233
Oth Mot Veh Nontraffic	168	14.4	\$13,336,870
Oth Transport	47	4.0	\$3,023,901
Natural/Environmental	6,118	522.7	\$246,663,699
Overexertion	831	71.0	\$23,629,257
Poisoning	5,352	457.3	\$436,672,095
Accidental	121	10.3	\$6,884,726
Self-Inflicted	209	17.9	\$6,375,442
Assault	1	0.1	\$948
Undetermined	5,021	429.0	\$423,410,979
Striking/Struck By	496	42.4	\$21,981,707
Accidental	424	36.2	\$17,698,332
Assault	72	6.2	\$4,283,375
Other Injury	128	10.9	\$5,562,348
Accidental	110	9.4	\$4,469,022
Self-Inflicted	5	0.4	\$240,236
Assault	9	0.8	\$753,790
Undetermined	3	0.3	\$92,788
Others	1	0.1	\$6,511
Total Injuries	21,579	1,843.7	\$1,310,711,656
Total Self-Inflicted	375	32.0	\$15,684,120
Total Assaults	118	10.1	\$9,777,494

Source: Inpatient Data, WHA Information Center, LLC.

Table 15. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), Analysis Area 2A - Southeastern, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	295	26.6	\$7,941,516
Accidental	166	15.0	\$3,877,170
Self-Inflicted	123	11.1	\$3,899,017
Assault	4	0.4	\$144,979
Undetermined	2	0.2	\$20,350
Drown/Submersion	3	0.3	\$140,620
Accidental	3	0.3	\$140,620
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Falls	6,910	623.3	\$384,794,596
Accidental	6,908	623.1	\$384,700,463
Self-Inflicted/Assault/Undetermined	2	0.2	\$94,133
Fire/Flames	9	0.8	\$221,890
Accidental	8	0.7	\$194,856
Self-Inflicted/Assault/Undetermined	1	0.1	\$27,034
Firearms	26	2.3	\$861,645
Accidental	14	1.3	\$311,929
Self-Inflicted	3	0.3	\$107,349
Assault	9	0.8	\$442,367
Undetermined	0	N/A	N/A
Hot Objects/Scalds	129	11.6	\$5,154,777
Accidental	14	1.3	\$649,333
Self-Inflicted/Assault/Undetermined	115	10.4	\$4,505,444
Machinery	50	4.5	\$1,642,777
Motor Veh Traffic	368	33.2	\$22,677,835
Accidental	367	33.1	\$22,661,029
Self-Inflicted/Assault/Undetermined	1	0.1	\$16,806
Oth Pedal Cycle	84	7.6	\$3,575,880
Oth Mot Veh Nontraffic	86	7.8	\$4,840,901
Oth Transport	20	1.8	\$692,624
Natural/Environmental	6,877	620.3	\$227,503,071
Overexertion	380	34.3	\$13,338,476
Poisoning	4,842	436.8	\$242,679,589
Accidental	137	12.4	\$6,338,222
Self-Inflicted	104	9.4	\$2,248,981
Assault	0	N/A	N/A
Undetermined	4,601	415.0	\$234,092,387
Striking/Struck By	411	37.1	\$14,530,446
Accidental	357	32.2	\$12,564,848
Assault	54	4.9	\$1,965,597
Other Injury	74	6.7	\$2,020,221
Accidental	66	6.0	\$1,710,045
Self-Inflicted	0	N/A	N/A
Assault	5	0.5	\$127,582
Undetermined	2	0.2	\$17,450
Others	1	0.1	\$165,143
Total Injuries	20,564	1,855.0	\$932,616,862
Total Self-Inflicted	300	27.1	\$9,911,141
Total Assaults	73	6.6	\$2,845,668

Source: Inpatient Data, WHA Information Center, LLC.

Table 16. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), Analysis Area 2B - Milwaukee County, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	465	49.5	\$18,845,706
Accidental	255	27.1	\$10,463,200
Self-Inflicted	151	16.1	\$4,774,506
Assault	57	6.1	\$3,508,947
Undetermined	2	0.2	\$99,053
Drown/Submersion	7	0.7	\$430,649
Accidental	6	0.6	\$394,623
Self-Inflicted/Assault/Undetermined	1	0.1	\$36,026
Falls	7,867	837.4	\$655,562,540
Accidental	7,858	836.4	\$652,115,865
Self-Inflicted/Assault/Undetermined	9	1.0	\$3,446,675
Fire/Flames	114	12.1	\$15,088,503
Accidental	112	11.9	\$15,031,959
Self-Inflicted/Assault/Undetermined	2	0.2	\$56,543
Firearms	564	60.0	\$72,376,400
Accidental	256	27.2	\$28,028,708
Self-Inflicted	23	2.4	\$2,741,248
Assault	274	29.2	\$41,237,641
Undetermined	11	1.2	\$368,803
Hot Objects/Scalds	263	28.0	\$11,403,563
Accidental	139	14.8	\$5,686,362
Self-Inflicted/Assault/Undetermined	124	13.2	\$5,717,200
Machinery	107	11.4	\$6,772,202
Motor Veh Traffic	1,270	135.2	\$181,524,297
Accidental	1,264	134.5	\$180,794,025
Self-Inflicted/Assault/Undetermined	6	0.6	\$730,271
Oth Pedal Cycle	138	14.7	\$9,474,408
Oth Mot Veh Nontraffic	158	16.8	\$16,731,586
Oth Transport	37	3.9	\$3,724,110
Natural/Environmental	7,184	764.7	\$397,155,812
Overexertion	503	53.5	\$15,305,784
Poisoning	10,867	1,156.7	\$942,585,187
Accidental	245	26.1	\$17,931,415
Self-Inflicted	340	36.2	\$7,741,032
Assault	0	N/A	N/A
Undetermined	10,282	1,094.4	\$916,912,739
Striking/Struck By	766	81.5	\$39,801,074
Accidental	602	64.1	\$30,956,047
Assault	164	17.5	\$8,845,027
Other Injury	150	16.0	\$7,420,106
Accidental	122	13.0	\$5,144,385
Self-Inflicted	2	0.2	\$65,008
Assault	21	2.2	\$2,180,993
Undetermined	5	0.5	\$29,720
Others	0	N/A	N/A
Total Injuries	30,460	3,242.2	\$2,394,201,924
Total Self-Inflicted	588	62.6	\$21,648,693
Total Assaults	522	55.6	\$56,550,451

Source: Inpatient Data, WHA Information Center, LLC.

Table 17. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), Analysis Area 3 - Lake Winnebago, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	268	42.5	\$4,758,924
Accidental	162	25.7	\$2,513,789
Self-Inflicted	97	15.4	\$1,844,111
Assault	9	1.4	\$401,024
Undetermined	0	N/A	N/A
Drown/Submersion	1	0.2	\$56,035
Accidental	1	0.2	\$56,035
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Falls	3,854	611.8	\$136,071,910
Accidental	3,854	611.8	\$136,071,910
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Fire/Flames	8	1.3	\$263,908
Accidental	8	1.3	\$263,908
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Firearms	19	3.0	\$862,032
Accidental	10	1.6	\$296,421
Self-Inflicted	8	1.3	\$506,401
Assault	1	0.2	\$59,210
Undetermined	0	N/A	N/A
Hot Objects/Scalds	60	9.5	\$1,973,498
Accidental	16	2.5	\$395,248
Self-Inflicted/Assault/Undetermined	44	7.0	\$1,578,250
Machinery	82	13.0	\$1,483,344
Motor Veh Traffic	315	50.0	\$18,878,143
Accidental	313	49.7	\$18,850,358
Self-Inflicted/Assault/Undetermined	2	0.3	\$27,785
Oth Pedal Cycle	91	14.4	\$2,087,243
Oth Mot Veh Nontraffic	100	15.9	\$3,053,668
Oth Transport	24	3.8	\$983,049
Natural/Environmental	2,751	436.7	\$65,806,153
Overexertion	592	94.0	\$10,841,053
Poisoning	2,554	405.4	\$89,612,425
Accidental	45	7.1	\$955,852
Self-Inflicted	150	23.8	\$2,074,388
Assault	0	N/A	N/A
Undetermined	2,359	374.5	\$86,582,185
Striking/Struck By	283	44.9	\$7,548,594
Accidental	247	39.2	\$6,047,825
Assault	36	5.7	\$1,500,769
Other Injury	105	16.7	\$1,865,938
Accidental	99	15.7	\$1,751,010
Self-Inflicted	4	0.6	\$80,927
Assault	1	0.2	\$27,519
Undetermined	0	N/A	N/A
Others	1	0.2	\$6,483
Total Injuries	11,107	1,763.1	\$346,145,916
Total Self-Inflicted	303	48.1	\$6,094,205
Total Assaults	48	7.6	\$1,995,004

Source: Inpatient Data, WHA Information Center, LLC.

Table 18. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), Analysis Area 4 - Northeastern, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	216	33.5	\$5,705,986
Accidental	150	23.3	\$3,311,000
Self-Inflicted	57	8.8	\$1,934,549
Assault	8	1.2	\$443,324
Undetermined	1	0.2	\$17,114
Drown/Submersion	3	0.5	\$100,001
Accidental	0	N/A	N/A
Self-Inflicted/Assault/Undetermined	3	0.5	\$100,001
Falls	4,354	675.3	\$205,510,490
Accidental	4,350	674.7	\$204,882,483
Self-Inflicted/Assault/Undetermined	4	0.6	\$628,007
Fire/Flames	13	2.0	\$658,240
Accidental	11	1.7	\$550,647
Self-Inflicted/Assault/Undetermined	2	0.3	\$107,593
Firearms	18	2.8	\$1,029,200
Accidental	12	1.9	\$389,261
Self-Inflicted	1	0.2	\$111,759
Assault	5	0.8	\$528,180
Undetermined	0	N/A	N/A
Hot Objects/Scalds	32	5.0	\$1,195,039
Accidental	12	1.9	\$467,328
Self-Inflicted/Assault/Undetermined	20	3.1	\$727,712
Machinery	69	10.7	\$1,521,674
Motor Veh Traffic	359	55.7	\$23,242,459
Accidental	357	55.4	\$23,177,751
Self-Inflicted/Assault/Undetermined	2	0.3	\$64,708
Oth Pedal Cycle	84	13.0	\$2,803,852
Oth Mot Veh Nontraffic	103	16.0	\$5,405,517
Oth Transport	22	3.4	\$983,922
Natural/Environmental	6,221	964.9	\$185,099,456
Overexertion	683	105.9	\$16,624,317
Poisoning	3,004	465.9	\$135,005,658
Accidental	74	11.5	\$2,973,182
Self-Inflicted	158	24.5	\$3,656,352
Assault	1	0.2	\$28,941
Undetermined	2,771	429.8	\$128,347,183
Striking/Struck By	432	67.0	\$14,680,424
Accidental	383	59.4	\$12,682,353
Assault	49	7.6	\$1,998,071
Other Injury	106	16.4	\$2,229,833
Accidental	104	16.1	\$2,166,623
Self-Inflicted	0	N/A	N/A
Assault	1	0.2	\$36,137
Undetermined	0	N/A	N/A
Others	1	0.2	\$27,073
Total Injuries	15,719	2,438.1	\$601,796,069
Total Self-Inflicted	238	36.9	\$6,834,391
Total Assaults	64	9.9	\$3,034,652

Source: Inpatient Data, WHA Information Center, LLC.

Table 19. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), Analysis Area 5A - West Central, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	217	43.3	\$3,656,639
Accidental	127	25.3	\$2,131,163
Self-Inflicted	86	17.2	\$1,348,232
Assault	4	0.8	\$177,244
Undetermined	0	N/A	N/A
Drown/Submersion	0	N/A	N/A
Accidental	0	N/A	N/A
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Falls	2,767	552.2	\$96,806,662
Accidental	2,764	551.6	\$96,764,202
Self-Inflicted/Assault/Undetermined	3	0.6	\$42,460
Fire/Flames	7	1.4	\$107,868
Accidental	2	0.4	\$50,025
Self-Inflicted/Assault/Undetermined	5	1.0	\$57,843
Firearms	5	1.0	\$69,979
Accidental	3	0.6	\$33,881
Self-Inflicted	2	0.4	\$36,098
Assault	0	N/A	N/A
Undetermined	0	N/A	N/A
Hot Objects/Scalds	43	8.6	\$945,558
Accidental	14	2.8	\$299,344
Self-Inflicted/Assault/Undetermined	29	5.8	\$646,214
Machinery	42	8.4	\$874,136
Motor Veh Traffic	206	41.1	\$14,486,154
Accidental	203	40.5	\$14,407,858
Self-Inflicted/Assault/Undetermined	3	0.6	\$78,296
Oth Pedal Cycle	35	7.0	\$854,165
Oth Mot Veh Nontraffic	80	16.0	\$2,762,483
Oth Transport	26	5.2	\$668,583
Natural/Environmental	2,049	408.9	\$49,675,990
Overexertion	393	78.4	\$9,983,840
Poisoning	1,769	353.1	\$59,217,597
Accidental	45	9.0	\$1,848,693
Self-Inflicted	88	17.6	\$1,443,542
Assault	0	N/A	N/A
Undetermined	1,636	326.5	\$55,925,362
Striking/Struck By	213	42.5	\$4,222,416
Accidental	192	38.3	\$3,632,555
Assault	21	4.2	\$589,860
Other Injury	38	7.6	\$621,641
Accidental	34	6.8	\$518,663
Self-Inflicted	1	0.2	\$7,152
Assault	1	0.2	\$25,546
Undetermined	1	0.2	\$7,256
Others	1	0.2	\$63,024
Total Injuries	7,890	1,574.7	\$244,953,709
Total Self-Inflicted	200	39.9	\$3,291,934
Total Assaults	27	5.4	\$799,904

Source: Inpatient Data, WHA Information Center, LLC.

Table 20. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), Analysis Area 5B - Southwestern, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	129	46.2	\$2,732,284
Accidental	88	31.5	\$1,949,464
Self-Inflicted	35	12.5	\$609,652
Assault	5	1.8	\$161,561
Undetermined	1	0.4	\$11,607
Drown/Submersion	3	1.1	\$74,887
Accidental	3	1.1	\$74,887
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Falls	1,608	576.1	\$61,291,314
Accidental	1,607	575.8	\$61,173,632
Self-Inflicted/Assault/Undetermined	1	0.4	\$117,682
Fire/Flames	4	1.4	\$82,383
Accidental	3	1.1	\$73,523
Self-Inflicted/Assault/Undetermined	1	0.4	\$8,859
Firearms	12	4.3	\$617,657
Accidental	7	2.5	\$169,208
Self-Inflicted	3	1.1	\$350,874
Assault	0	N/A	N/A
Undetermined	2	0.7	\$97,575
Hot Objects/Scalds	21	7.5	\$618,441
Accidental	7	2.5	\$226,438
Self-Inflicted/Assault/Undetermined	14	5.0	\$392,003
Machinery	39	14.0	\$1,864,496
Motor Veh Traffic	169	60.6	\$11,634,143
Accidental	169	60.6	\$11,634,143
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Oth Pedal Cycle	34	12.2	\$1,166,579
Oth Mot Veh Nontraffic	67	24.0	\$3,020,594
Oth Transport	12	4.3	\$637,087
Natural/Environmental	1,021	365.8	\$28,310,160
Overexertion	297	106.4	\$8,814,173
Poisoning	1,188	425.6	\$40,308,803
Accidental	45	16.1	\$1,574,498
Self-Inflicted	114	40.8	\$2,105,851
Assault	0	N/A	N/A
Undetermined	1,029	368.7	\$36,628,453
Striking/Struck By	149	53.4	\$4,293,111
Accidental	130	46.6	\$3,795,332
Assault	19	6.8	\$497,779
Other Injury	45	16.1	\$1,184,473
Accidental	42	15.0	\$1,130,897
Self-Inflicted	1	0.4	\$14,562
Assault	2	0.7	\$39,014
Undetermined	0	N/A	N/A
Others	0	N/A	N/A
	Total Injuries	4,798	\$166,650,584
	Total Self-Inflicted	168	\$3,573,617
	Total Assaults	26	\$698,353

Source: Inpatient Data, WHA Information Center, LLC.

Table 21. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), Analysis Area 6 - North Central, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	168	35.6	\$3,226,834
Accidental	138	29.2	\$2,417,839
Self-Inflicted	25	5.3	\$522,422
Assault	5	1.1	\$286,573
Undetermined	0	N/A	N/A
Drown/Submersion	2	0.4	\$226,511
Accidental	2	0.4	\$226,511
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Falls	3,259	689.9	\$147,739,929
Accidental	3,257	689.4	\$147,680,177
Self-Inflicted/Assault/Undetermined	2	0.4	\$59,751
Fire/Flames	10	2.1	\$388,253
Accidental	10	2.1	\$388,253
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Firearms	19	4.0	\$1,066,868
Accidental	12	2.5	\$583,222
Self-Inflicted	1	0.2	\$47,558
Assault	3	0.6	\$280,581
Undetermined	3	0.6	\$155,507
Hot Objects/Scalds	36	7.6	\$1,120,148
Accidental	9	1.9	\$283,937
Self-Inflicted/Assault/Undetermined	27	5.7	\$836,212
Machinery	74	15.7	\$1,468,119
Motor Veh Traffic	363	76.8	\$27,304,230
Accidental	363	76.8	\$27,304,230
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Oth Pedal Cycle	48	10.2	\$1,624,863
Oth Mot Veh Nontraffic	232	49.1	\$11,888,620
Oth Transport	32	6.8	\$2,056,247
Natural/Environmental	1,983	419.8	\$65,078,350
Overexertion	425	90.0	\$7,265,928
Poisoning	2,011	425.7	\$94,540,424
Accidental	73	15.5	\$3,453,026
Self-Inflicted	61	12.9	\$1,397,107
Assault	0	N/A	N/A
Undetermined	1,877	397.3	\$89,690,292
Striking/Struck By	223	47.2	\$6,288,373
Accidental	200	42.3	\$5,695,597
Assault	23	4.9	\$592,776
Other Injury	72	15.2	\$1,308,180
Accidental	67	14.2	\$1,146,446
Self-Inflicted	1	0.2	\$39,141
Assault	0	N/A	N/A
Undetermined	3	0.6	\$96,445
Others	1	0.2	\$26,148
Total Injuries	8,957	1,896.0	\$372,591,876
Total Self-Inflicted	108	22.9	\$2,574,961
Total Assaults	31	6.6	\$1,159,930

Source: Inpatient Data, WHA Information Center, LLC.

Table 22. Wisconsin Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), Analysis Area 7 - Western Lake Superior, 2022

Injury Category	Number of Cases	Rate per 100,000 population	Total Charges
Cut/Pierce	16	10.8	\$309,887
Accidental	7	4.7	\$142,817
Self-Inflicted	8	5.4	\$155,569
Assault	0	N/A	N/A
Undetermined	1	0.7	\$11,502
Drown/Submersion	0	N/A	N/A
Accidental	0	N/A	N/A
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Falls	394	266.3	\$9,044,443
Accidental	394	266.3	\$9,044,443
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Fire/Flames	4	2.7	\$65,672
Accidental	1	0.7	\$11,484
Self-Inflicted/Assault/Undetermined	3	2.0	\$54,188
Firearms	2	1.4	\$11,283
Accidental	2	1.4	\$11,283
Self-Inflicted	0	N/A	N/A
Assault	0	N/A	N/A
Undetermined	0	N/A	N/A
Hot Objects/Scalds	7	4.7	\$160,298
Accidental	2	1.4	\$25,351
Self-Inflicted/Assault/Undetermined	5	3.4	\$134,947
Machinery	0	N/A	N/A
Motor Veh Traffic	5	3.4	\$124,345
Accidental	5	3.4	\$124,345
Self-Inflicted/Assault/Undetermined	0	N/A	N/A
Oth Pedal Cycle	4	2.7	\$131,801
Oth Mot Veh Nontraffic	11	7.4	\$260,014
Oth Transport	0	N/A	N/A
Natural/Environmental	392	264.9	\$7,903,586
Overexertion	46	31.1	\$850,788
Poisoning	307	207.5	\$6,170,516
Accidental	13	8.8	\$228,131
Self-Inflicted	11	7.4	\$300,311
Assault	0	N/A	N/A
Undetermined	283	191.3	\$5,642,074
Striking/Struck By	28	18.9	\$581,083
Accidental	23	15.5	\$516,438
Assault	5	3.4	\$64,645
Other Injury	4	2.7	\$51,053
Accidental	4	2.7	\$51,053
Self-Inflicted	0	N/A	N/A
Assault	0	N/A	N/A
Undetermined	0	N/A	N/A
Others	0	N/A	N/A
Total Injuries	1,220	824.6	\$25,664,770
Total Self-Inflicted	27	18.2	\$645,014
Total Assaults	5	3.4	\$64,645

Source: Inpatient Data, WHA Information Center, LLC.

Table 23. Self-inflicted Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), 2022

Injury Category	Number of Cases		Total Cases
	Male	Female	
Cutting/Piercing	267	406	673
Drowning/Submersion	7	2	9
Firearms And Explosives	44	7	51
Jumping From A High Place	6	12	18
Other Self-Inflicted Injuries	134	187	321
Poisoning	368	867	1,235
Total Self-Inflicted Injuries	826	1,481	2,307

Source: Inpatient Data, WHA Information Center, LLC.

Table 24. Assaultive Injuries (to persons treated as hospital inpatients or in hospital-based ambulatory surgery settings and freestanding ambulatory surgery centers), 2022

Injury Category	Number of Cases		Total Cases
	Male	Female	
Bite Of Human Being	8	6	14
Cutting/Piercing	90	21	111
Firearms And Explosives	253	50	303
Other Assaultive Injuries	41	19	60
Poisoning	0	2	2
Striking By Blunt Or Thrown Object	24	14	38
Unarmed Fight Or Brawl	260	126	386
Total Self-Inflicted Injuries	676	238	914

Source: Inpatient Data, WHA Information Center, LLC.

CHAPTER IV. OVERVIEW OF INDIVIDUAL HOSPITAL INPATIENT TABLES

Hospitals that Reported Data

Data were collected from 142 general medical-surgical hospitals, four long-term acute care hospitals (LTAC), fourteen psychiatric hospitals, five rehabilitation facilities, and two state-operated mental health institutes on all inpatients discharged between January 1, 2022, and December 31, 2022. The database includes partial-year data from hospitals that opened or closed during the calendar year. Please refer to Appendix 4 for all openings, closings, and mergers as they relate to facilities that submitted data in 2022.

How to Read the Tables

GMS Hospital Tables

Each individual GMS hospital table contains the following two pages of information:

First Page

Heading: The heading identifies basic facility information. This includes the hospital's three-digit facility number, name, address, and telephone number; the hospital type (in this case, GMS); the county in which the hospital is located; and the analysis area and inpatient volume group to which it was assigned by WHA Information Center.

Middle Section: The middle section contains utilization data. This is divided into the following six subsections: Overall Hospital Utilization, Obstetrical Utilization, Psychiatric Utilization, AODA Utilization, Patient Discharge Status Distribution, and Expected Pay Source Distribution.

Overall Hospital Utilization: These data provide an overall picture of utilization and charges at the facility. Included are total discharges, total patient days, average length of stay, and average charge per discharge for the calendar year. These items describe the number of inpatients discharged by a facility, the total number of days those patients stayed at the hospital, the number of days an average patient stayed, and the average charge billed for patients at the facility.

Obstetrical Utilization: The obstetric data identify the number of mothers who gave birth at the hospital (Total Childbirths) and the percentage of those childbirths that were "normal," that involved C-sections, or that had complications or involved additional procedures (e.g., sterilization).

Below that, in the category "Total Newborns," appears the number of newborns reported by the hospital during the calendar year. The number of childbirths and newborns may differ because, for example, some babies may have died during delivery, and some mothers may have given birth to twins, triplets, etc. "Total Newborns" includes those who were born elsewhere but admitted on the day of their birth.

Psychiatric/AODA Utilization: These sections list the number of discharges and patient days attributed to those patients undergoing treatment for psychiatric disorders or alcohol and other drug abuse (AODA).

The table also lists the percentage of the hospital's total discharges and patient days that were attributable to patients in either psychiatric or AODA inpatient care. For example, if a hospital reported 10 patients discharged from psychiatric care out of 1,000 total discharges, then 1.0 percent of the hospital's discharges would be attributed to patients receiving psychiatric inpatient services.

Patient Discharge Status Distribution: This section describes where patients went after being discharged from the hospital. It lists the percentage of patients who went home, were transferred to another GMS or CAH hospital, were sent to another facility (skilled nursing, intermediate care, rehabilitation facility or hospice), were sent to another type of institution (e.g., a half-way house or residential facility), were referred to a home health agency (for home care or intravenous drug therapy), left the hospital against medical advice, expired (i.e., died), were sent to jail, prison, or other detention facilities or were discharged to some other type of care (which includes transfer to a federal hospital, a Medicare approved swing bed, a Medicare certified long-term hospital, or a nursing facility certified under Medicaid but not certified under Medicare).

Expected Pay Source Distribution: This section lists the primary payer that is expected to reimburse the hospital for services. The payer categories are Medicare, Medicaid/BadgerCare, other government (e.g., county general relief, 51.42 Boards), commercial insurance, self-pay, and unknown. The category "Commercial Insurance" includes traditional and self-funded plans, private alternate payment systems (e.g., HMOs, PPOs), and Workers' Compensation.

Note: Primary payer data reflects the party billed for the service at the time of patient discharge. The actual payer may differ if the facility cannot collect from an expected payer or a third-party payer later finds a patient to be ineligible for coverage. Summary data on actual payers can be found in the Guide to Wisconsin Hospitals, published annually.

Bottom Section: This section describes patient characteristics including age, sex, and race.

Age Distribution: This section presents the percentage of total discharges and patient days reported for various age groups. The groups are based on U.S. Census categories and have been expanded from previous years.

Sex Distribution: This section presents the percentage of total discharges and patient days reported for males and females.

Race Distribution: This section presents the percentage of total discharges and patient days reported for various racial groups. The groups are based on census categories and include American Indian/Alaskan Native, Asian, Black/African American, Native Hawaiian/Pacific Islander, White, Multiracial, Declined, and Unavailable. This information is not part of the standard billing form that hospitals use. Patients are not required to provide race information; hospitals rely on the cooperation of patients.

Second Page

The second page of each GMS hospital table presents utilization and charge data for selected APR-DRGs. Data are presented for the individual hospital and for three comparison groups. The comparison groups include all GMS hospitals in the same analysis area, all hospital in the same inpatient volume group, and all GMS hospitals statewide.

APR-DRGs were selected by choosing the 15 most common APR-DRGs at hospitals in each of the inpatient volume groups. Therefore, the APR-DRGs used to compare hospitals in one inpatient volume group may differ from those used to compare hospitals in another inpatient volume group.

Note: The Normal Newborn, Birthweight 2500g+ (APR-DRG 640) category will not always correspond with the number of newborns on page 1. Some babies who are admitted after the day of their birth are classified as APR-DRG 640.

Average Length of Stay (ALOS): This section lists the number of discharges and the average length of stay at the hospital for each of the 15 selected APR-DRGs. The hospital averages are then compared to the average length of stay at the three comparison groups, and a ratio of that comparison is computed.

If the hospital reported a length of stay for a given APR-DRG that was greater than the average reported by hospitals in a comparison group, the ratio would be greater than 1.00; if it was equal, the ratio would be 1.00; if it was less at the hospital than in the comparison groups the ratio would be less than 1.00.

Example: If the average length of stay for an APR-DRG at Hospital A was 2.1 days and the analysis area average was 2.0, the ratio in the analysis area column would be 1.05 (2.1 divided by 2.0). This means that the average length of stay at Hospital A was 5 percent longer than the average stay for the analysis area as a whole.

Average Charge: This section displays actual and risk adjusted average charge data for the selected APR-DRGs. Actual average charges are presented for the hospital. Risk adjusted average charges are shown for the hospital and for the comparison groups. Risk adjusted average charges were calculated by removing the effect of severity variation from each patient's charges and averaging the results for the hospital and comparison groups.

The hospital's risk adjusted average charges may be compared to the risk adjusted average charges of the comparison groups. While risk adjustment attempts to remove severity differences, other "unadjusted" factors may influence variation. For example, differences in the accuracy and completeness of coding can affect the apparent severity of illness.

Some of these factors stem from the inherent constraints of using administrative data in risk adjustment. For example, administrative data may indicate that a patient has congestive heart failure, but relevant clinical details (e.g., left ventricular ejection fraction) may not be included in the billing record and therefore may not be available for use in calculating severity of illness.

The table lists the risk adjusted charge for each of the comparison groups (analysis area, inpatient volume group, and all GMS hospitals) and calculates the ratio of the hospital's risk adjusted average charge for an APR-DRG to that of the comparison group. These ratios are calculated and may be interpreted in the same manner as the ratios for average length of stay.

No ratios are calculated for an APR-DRG when a hospital had fewer than five discharges assigned to that APR-DRG.

Specialty Hospital Tables

LTAC Hospitals, Psychiatric and State-Operated Mental Health Institutes

The tables for the LTAC hospitals, psychiatric and the state-operated mental health institutes are presented on one page. They include much of the same descriptive data as the GMS tables, including data on APR-DRGs, but exclude risk adjusted data, and inpatient volume group and analysis area comparisons.

Heading: The top of the page contains the same information as the heading on a GMS hospital table, except that no volume group is listed since all specialty hospitals have been assigned to Inpatient Volume Group 7.

Middle Section: The middle section contains the utilization and patient characteristic data contained in the middle and bottom sections of the first page of the GMS tables, except obstetrical utilization. It is divided into the following eight subsections: Overall Hospital Utilization, Psychiatric Utilizations, AODA Utilization, Patient Discharge Status, Expected Pay Source Distribution, Age Distribution, Sex Distribution, and Race Distribution.

Bottom Section for LTAC Hospitals: This section of the table includes data on the 13 most common APR-DRGs in LTAC hospitals statewide. Facility-specific data are compared to statewide LTAC data for patients treated in LTAC hospitals only.

The first column lists the APR-DRG number and its description. The table then lists the number of discharges at the hospital for that APR-DRG.

In the columns under the broader heading “Average Length of Stay (ALOS),” the hospital’s average length of stay for the APR-DRG is compared to that of patients assigned to the same APR-DRG among all LTAC hospitals only, and a ratio of that comparison is computed. These ratios are calculated and may be interpreted in the same manner as the ratios for average length of stay at GMS hospitals.

In the columns under the broader heading “Average Charge per Discharge,” the hospital’s average charge for patients assigned to an APR-DRG is compared to the average charge for all patients assigned to that APR-DRG among all LTAC hospitals only. As with length of stay, a ratio computed from this comparison is also provided.

Bottom Section for Psychiatric Hospitals: This section of the table includes data on the 13 most common APR-DRGs in psychiatric hospitals statewide. Facility-specific data are compared to statewide psychiatric data for patients treated in psychiatric facilities only.

The first column lists the APR-DRG number and its description. The table then lists the number of discharges at the hospital for that APR-DRG.

In the columns under the broader heading “Average Length of Stay (ALOS),” the hospital’s average length of stay for the APR-DRG is compared to that of patients assigned to the same APR-DRG among all psychiatric hospitals only, and a ratio of that comparison is computed. These ratios are calculated and may be interpreted in the same manner as the ratios for average length of stay at GMS hospitals.

In the columns under the broader heading “Average Charge per Discharge,” the hospital’s average charge for patients assigned to an APR-DRG is compared to the average charge for all patients assigned to that APR-DRG among all psychiatric hospitals only. As with length of stay, a ratio computed from this comparison is also provided.

Psychiatric charge data were not risk adjusted because differences in charges among psychiatric patients typically reflect programmatic differences, rather than difference in severity of illness.

Bottom Section for the State-Operated Mental Health Institutes: This section of the table includes data on the 13 most common APR-DRGs in state-operated mental health institutes. It presents the number of discharges, ALOS, and average charge per discharge for patients in the state-operated mental health institutes.

Since patients at the state-operated mental health institutes are unique in terms of illness severity, charges, and length of stay, no comparisons are made to other groups and no ratios are calculated. Average charge data are not risk adjusted for state-operated mental health institutes.

Rehabilitation Hospitals

Rehabilitation hospitals are dedicated solely to rehabilitation medicine and treat a unique class of patients. Because the federal government has not yet developed APR-DRGs for rehabilitation conditions, these facilities are exempt from APR-DRG reimbursement requirements imposed on other hospitals. In addition, the rehabilitation hospitals report data differently from other hospitals that have rehabilitation units within their facilities. For these reasons, APR-DRG-based comparisons of rehabilitation hospitals with other hospitals are not valid. Although comparisons are not currently possible, this report provides a summary of the rehabilitation hospitals' utilization and charge data.

Heading: The top of the page contains the same information as the heading on a GMS hospital table, except that no volume group is listed since all specialty hospitals have been assigned to Inpatient Volume Group 7.

Middle Section: The middle section contains the utilization and patient characteristic data contained in the middle and bottom sections of the first page of the GMS tables, except obstetrical utilization. It is divided into the following eight subsections: Overall Hospital Utilization, Psychiatric Utilization, AODA Utilization, Patient Discharge Status, Expected Pay Source Distribution, Age Distribution, Sex Distribution, and Race Distribution.

Bottom Section for the Rehabilitation Hospitals; Selected Patient Groups: Utilization and charge data for rehabilitation hospital patients are presented using the rehabilitation diagnostic categories of the federal Centers for Medicare and Medicaid Services (formerly the Health Care Financing Administration). This methodology aggregates patients into broad categories, such as stroke and amputation. The rehabilitation hospital tables list the number of discharges, average length of stay, and average charge for each of the following categories:

- Stroke
- Brain Injury
- Neurologic Conditions
- Spinal Cord Injury
- Arthritis
- Congenital Deformities
- Systemic Vasculidities
- Amputation
- Cardiac Disorders
- Debility
- Infections
- Medically Complex Conditions
- Pulmonary Disorders
- All Other Rehabilitation

Note: The "All Other Rehabilitation" category is composed of all diagnostic codes not found in the other thirteen categories.

Average charge data for rehabilitation hospitals are not risk adjusted.

APR-DRGs Used in this report

Computer software was used to assign each hospitalization a particular APR-DRG. WHA Information Center used 3M™ Core Grouping Software which includes 3M™ APR-DRG Software to assign the APR-DRG to each hospitalization.

The grouping software used up to 30 diagnoses and 30 procedures, if submitted, for each record, along with sex, discharge status, birth date, date of admission, date of discharge, and birth weight of the patient. Since 2005, WHAIC has been collecting unlimited diagnoses and procedures on each record.

Prior to the 2007 report, WHA used DRG (Diagnosis Related Group) to classify the hospitalizations. Since there is no one-to-one crosswalk from DRGs to APR-DRGs, comparison of utilization and charges over several years may be affected.

The following APR-DRGs appear in the report:

APR-DRG	Description
001	Liver Transplant
002	Heart and/or Lung Transplant
004	Tracheostomy w MV 96+ hours w extensive procedure
009	Extracorporeal membrane oxygenation (ECMO)
021	Craniotomy Except For Trauma
042	Degenerative nervous system disorders exc mult sclerosis
045	Stroke and Precerebral Occlusion with Infarct
049	Bacterial & tuberculous infections of nervous system
130	Respiratory System DX w/ Vent Support 96+ Hrs
133	Respiratory failure
137	Respiratory Infections and Inflammations
139	Pneumonia
140	Chronic Obstructive Pulmonary Disease
161	Defibrillator and Heart Assist Implant
162	Cardiac valve procedures w AMI or complex PDX
163	Cardiac valve procedures w/o AMI or complex PDX
165	Coronary bypass w AMI or complex PDX
166	Coronary bypass w/o AMI or complex PDX
167	Other cardiothoracic & thoracic vascular procedures
170	Pacemaker Implant with Heart Attack, Heart Failure or Shock
171	Pacemaker Implant without Heart Attack, Heart Failure or Shock
174	Percutaneous coronary intervention w AMI
175	Percutaneous coronary intervention w/o AMI
176	Pacemaker/Defibrillator Replacement
177	Pacemaker/Defibrillator Revision Except Replacement
183	Percutaneous structural cardiac procedures
190	Circulatory Disorders with Heart Attack
191	Cardiac catheterization for coronary artery disease

APR-DRG	Description
192	Cardiac catheterization for other non-coronary conditions
193	Acute & Subacute Endocarditis
194	Heart Failure
196	Cardiac arrest & shock
198	Chest Pain with Angina Pectoris or Coronary Atherosclerosis
199	Hypertension
200	Heart Structural and Valve Disorders
201	Heart Abnormal Rhythm and Conduction Disorders
203	Chest Pain
204	Fainting and Collapse
206	Malfunction/ Reaction/Complication of Heart Device or Procedure
247	Intestinal Obstruction without Surgery
248	Major G.I. Bacterial Infections
282	Disorders of Pancreas Except Malignancy
303	Dorsal and Lumbar Fusion with Principal Diagnosis of Back Curvature
304	Dorsal and Lumbar Fusion Without Principal Diagnosis of Back Curvature
305	Amputation of Lower Limb Except Toes
308	Hip & femur fracture repair
309	Other significant hip & femur surgery
310	Back/Neck Procedures Except Dorsal and Lumbar Fusion
313	Other Knee/Lower Leg Surgery
314	Foot/Toe Surgery
315	Shoulder, upper arm & forearm procedures except joint replacement
316	Hand/Wrist Surgery
321	Upper Spinal Fusion
323	Non-elective or complex hip joint replacement
324	Elective hip joint replacement
325	Non-elective or complex knee joint replacement
326	Elective knee joint replacement
340	Thigh Fracture
341	Pelvis Fracture/Hip Dislocation
342	Fracture or Dislocation Except Thigh, Pelvis, Back
343	Musculoskeletal Malignancy
344	Osteomyelitis and Infectious Arthritis
347	Other Back/Neck Disorders, Fractures, Injuries
349	Complications Of Orthopedic Device Or Procedure
351	Other Musculoskeletal System and Connective Tissue Diagnoses
380	Skin Ulcers
383	Cellulitis & other skin infections

APR-DRG	Description
420	Diabetes
426	Non-hypovolemic sodium disorders
463	Kidney/Urinary Tract Infection
469	Acute kidney injury
540	Cesarean Delivery
541	Vaginal Delivery with Sterilization
542	Vaginal Delivery with Proc Except Sterilization
560	Vaginal Delivery
580	Neonate, Transferred <5 Days Old, Not Born Here
581	Neonate, Transferred <5 Days Old, Born Here
583	Neonate with External Heart and Lung Oxygen Support
588	Neonate Birthwt <1500g with Major Procedure
589	Neonate Birthwt <500g or Gestational Age <24 weeks
591	Neonate Birthwt 500-749g without Major Procedure
593	Neonate Birthwt 750-999g without Major Procedure
602	Neonate Birthwt 1000-1249g with Respiratory Distress Syndrome
603	Other Neonate Birthwt 1000-1249g
607	Neonate Birthwt 1250-1499g with Respiratory Distress Syndrome
608	Other Neonate Birthwt 1250-1499g
609	Neonate Birthwt 1500-2499g with Major Procedure
611	Neonate Birthwt 1500-1999g with Major Anomaly
612	Neonate Birthwt 1500-1999g with Respiratory Distress Syndrome
613	Neonate Birthwt 1500-1999g with Congenital Or Perinatal Infections
614	Other Neonate Birthwt 1500-1999g
621	Neonate Birthwt 2000-2499g with Major Anomaly
622	Neonate Birthwt 2000-2499g with Respiratory Distress Syndrome
623	Neonate Birthwt 2000-2499g with Congenital Or Perinatal Infections
625	Neonate Birthwt 2000-2499g with Other Significant Condition
626	Normal Newborn Birthweight 2000g - 2499g
630	Neonate Birthwt >2499g with Major Cardiovascular Procedure
631	Neonate Birthwt >2499g with Other Major Procedure
633	Neonate Birthwt >2499g with Major Anomaly
634	Neonate Birthwt >2499g with Respiratory Distress Syndrome
636	Neonate Birthwt >2499g with Congenital or Perinatal Infections
639	Neonate Birthwt >2499g with Other Significant Condition
640	Normal Newborn, Birthweight 2500g+
710	Infectious & parasitic diseases including HIV w O.R. procedure
720	Blood Infection/Septicemia
721	Postoperative and Post-Traumatic Infections

APR-DRG	Description
724	Other infectious & parasitic diseases
740	Mental Illness Diagnosis with O.R. Procedure
750	Schizophrenia
751	Psychoses
752	Personality and Impulse Control Disorders
753	Bipolar Disorders
754	Depression
755	Neuroses Other Than Depression
756	Acute Adjust React Psychosocial Dysfunction
757	Organic Disturbances and Mental Retardation
758	Behavioral disorders
759	Eating Disorders
760	Other Mental Disorders
770	Substance Abuse/Dependence, Left Against Medical Advice
772	Substance Abuse/Dependence with Rehab and/or Detox
773	Opioid Abuse/Dependence
774	Cocaine Abuse/Dependence
775	Alcohol Abuse/Dependence
776	Other Substance Abuse/Dependence
841	Burns, 3rd Degree with Skin Graft
861	Signs & Symptoms
862	Other Factors Influencing Health Status
951	Moderately Extensive Procedure Unrelated to Diagnosis

Caveats/Data Limitations for Inpatient Data

1. The charge data in this report has not been audited. **As a result, the charge data provided in this report may differ from audited financial data.** All charge data provided has been rounded to the nearest whole number.
2. The reported payment sources are *expected* sources of payment at the time of billing rather than actual revenue sources. Therefore, the reported distribution of payment sources in this report may differ from the actual distribution of final revenue sources.
3. The utilization and charge figures in the narrative portion of this report were not adjusted for disease severity or any of a variety of other factors that could affect facility averages. However, risk adjustment was performed on hospital-specific APR-DRG charge data in the individual tables of GMS hospitals. In addition to differences in case mix and intensity of illness, regional pricing differentials and variations in services can affect utilization or charge figures. Also, differences in hospital patient record-keeping systems and internal information systems may affect the quality of the data submitted by individual facilities.
4. Care should be taken when comparing data from hospitals that reported small numbers of cases. A few unusual cases may unduly affect the average lengths of stay or charges for a given APR-DRG with a small number of total cases.
5. Lengths of stay for inpatients that remained in the hospital less than 24 hours were counted as one day in this report. In other analyses these may be considered zero-day lengths of stay.
6. In some cases, transfers of patients between distinct units of a hospital are submitted to WHA Information Center as separate discharges. This reflects standard billing guidelines and data submission requirements developed by the Wisconsin Bureau of Health Care Information.
7. Calculation of average charge per discharge in the following summary tables excluded any discharge with a stay longer than 100 days. An exception occurs for the two state-operated mental health institutes: charge data are included for all patients at these hospitals, except those whose length of stay was 1,000 days or greater.
 - Table 1: Comparative Summary of Utilization and Charges for Hospitalizations in Wisconsin
 - Table 2: Summary data for Wisconsin hospitals, by type
 - Table 3: Percent change in utilization and charges in Wisconsin hospitals, by type
 - Appendix 1: Comparison by Hospital Type
8. All hospitalizations of 1,000 days or longer were excluded from the data entirely.
9. Data from both rehabilitation facilities and state-operated mental health institutes were excluded from the following tables:
 - Table 4: Childbirths in Wisconsin
 - Table 5: Neonatal hospitalizations in Wisconsin
 - Table 6: Cardiovascular hospitalizations in Wisconsin
 - Table 7: Orthopedic hospitalizations in Wisconsin

- Table 8: Psychiatric hospitalizations in Wisconsin
 - Table 9: AODA hospitalizations in Wisconsin
 - Table 10: Most common hospitalizations in Wisconsin
 - Table 11: Top 10 hospitalizations by average charge in Wisconsin
 - Table 12: Hospitalizations with the highest total charge-generating APR-DRGs in Wisconsin
10. Inpatient hospitalizations were categorized by APR-DRG in this report. Previous versions of this report categorized inpatient hospitalizations by “standard” (Medicare) DRG. APR-DRGs were developed by 3M™ Corporation to be more applicable to the general patient population. There are more main categories within APR-DRGs than “standard” DRGs although differences in severities of illness or complications are generally recognized by the assignment of one of four severities of illness subcategories within each APR-DRG. “Standard” DRG’s would often distinguish between hospitalizations with and without complications by assigning the stays to different DRGs.