The Major Diagnostic Categories (MDC) group principal diagnoses into 25 mutually exclusive diagnosis categories. The categories correspond to a single organ system or etiology and, in general, are associated with a particular medical specialty.

Medicare Severity Diagnosis Related Group (DRG) categorizes patients according to clinical coherence and expected resource intensity. The assignment of a DRG is based on: principal diagnosis and any secondary diagnoses, procedures performed, comorbidities and complications, patient's age and sex, and discharge status.

These charts show **rankings** for California and for each County of the **number of persons hospitalized** for specific reasons, the **total charges** for those hospitalizations, and the associated **median charges**. These rankings provide a valuable view into the burden of disease/injury in California, and provide an important view of the economic impact of these conditions.

There are a number of nuances and sources of possible error in these charts noted in the technical documentation. Of particular note, the summaries of “charges” shown, are for just that, *charges*, and may well not reflects the actual costs, reimbursements, or payments for those charges. The presentation of these data should be considered preliminary—we are in the midst of assessing optimal ways of grouping conditions/diseases and other aspects of the sharing of these data. We welcome your input.

The **‘Hospital Discharge’ tab** shows **primary** reason for hospitalization (i.e. the first code listed), and includes rankings based on the number of **hospitalizations**, the average **length of stay**, and associated **total charges** and **median charges**. This chart is particularly valuable for comparing the different rankings for the same condition based on numbers of hospitalizations, versus total, versus median costs. Some conditions have high (or low) total charges because of high (or low) median charges, some because of large (or small) numbers of hospitalizations, and all sorts of things in between.

The **‘Primary and Any Diagnosis’ tab** shows hospitalization for a condition based it being the primary reason for hospitalization OR it being listed in ANY of the other positions for the hospitalization. This chart provides important insights for understanding burden since for some conditions it is overwhelmingly listed as “primary” (e.g. birth-related), with few listed in other positions; whereas for other conditions it is often listed in non-primary positions.

Technical Doc

\*\*Hospitalization Information\*\*

\* Data source

\* Hospitalization data are based on a 2016 nonpublic data set received from the [California Office of Statewide Health Planning and Development (OSHPD)](https://oshpd.ca.gov). OSHPD provides these data from inpatient data they collect from California-licensed hospitals in California. The data set consists of a record for each inpatient discharged from a California-licensed hospital. Licensed hospitals include general acute care, acute psychiatric, chemical dependency recovery, and psychiatric health facilities.

\* Detailed information for the current OSHPD Patient Discharge Data and data system can be found [here](https://oshpd.ca.gov/ml/v1/resources/document?rs:path=/Data-And-Reports/Documents/Request/Data-Documentation/DataDictionary\_PDD\_2018\_Nonpublic.pdf) and a link to the 2016-specific data can be found [here]( https://oshpd.ca.gov/data-and-reports/request-data/tools-resources/data-documentation/)

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\* Charges

\* For each hospitalization one summary charge is listed, reflecting the charges associated with the primary condition as well as any other charge associated with the hospitalization.

\* That monetary figure included is <b>charges</b> based on the hospital administrative system, and <b>does not indicate actual costs/payments for those charges </b>.

\* Nevertheless, because these charts describe summary data, they provide valuable information regarding the patterns of the monetary burden of disease/conditions in California from the hospitalization perspective.

\* For some hospitalizations, no charges are included, and for some hospitalization implausibly high charges have been excluded, so total charges may be underestimates from this perspective. “Average” charges in these charts are based on the median rather than the mean, so are largely not impacted by these issues.

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\* ICD-10-CM Codes

\* For each hospitalization, one condition is established and coded as the chief cause of the admission, and is noted the <b>Principal or Primary diagnosis</b>. Up to 24 other conditions that coexist at the time of admission, that develop subsequently during the hospital stay, or that affect the treatment received are also included in these data as <b>Other or Secondary diagnoses</b>.

\* Coding for these Principal and Other diagnoses are based on the ICD10-CM system (from 2016 forward; prior to 2016 ICD9-CM was used), along with standardized guidance.

\* The codes entered by the hospitals are subject to multiple sources of error, both unintentional and possibly intentional (e.g. entering a code for a condition with a larger reimbursement). Nevertheless, since the data are used in the CCB in summary form, the overall patterns displayed are likely to be meaningful and informative.

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\* Grouping of ICD-10-CM Codes

\* ICD10-CM codes are highly detailed and specific, with about 68,000 codes. There are many ways these codes can be grouped/summarized into meaningful categories, and no one system appears to be ideal for the purposes of the CCB. We continue to explore this issue and would welcome you input. Four systems include:

\* The Global Burden of Disease system (GBD) system (coded by the CCB team), groups the codes into conditions based on, generally, the Global Burden of Disease system, as describe elsewhere for death data, and includes “high volume” conditions and some other conditions of clear programmatic public health interest in California.

\* The Major Diagnostic Categories (MDCs) system (included in the OSHPD data set), groups principal diagnoses into 25 mutually exclusive diagnosis groupings. The diagnoses in each MDC correspond to a single organ system or etiology and, in general, are associated with a particular medical specialty. The system was established and is maintained by CMS.

\* Medicare Severity Diagnosis Related Group (DRG) system (included in the OSHPD data set), categorizes patients according to clinical coherence and expected resource intensity, with respect to diagnoses, treatment and length of hospital stay. The assignment of a DRG is based on: the principal diagnosis and any secondary diagnoses, surgical procedures performed, comorbidities and complications, patient's age and sex, and discharge status. The system was established and is revised annually by the U.S. Department of Health and Human Services (DHHS) Centers for Medicare and Medicaid Services (CMS). See CCR Section 97212.

\* The [Clinical Classifications Software (CCS) system](https://www.hcup-us.ahrq.gov/tools\_software.jsp) (included in the OSHPD data set), aggregates the ICD codes into a manageable number (285) of clinically meaningful categories to make it easier to quickly understand diagnosis patterns. The system is evolving, with the current system organized across 21 body systems, which generally follow the structure of the ICD-10-CM diagnosis chapters.