

Patient Origin and Market Share Query Tool Documentation

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I. GUIDE TO USING PATIENT ORIGIN / MARKET SHARE DATA

1. Patient Origin

Patient Origin is the proportion of patients from a particular hospital, emergency department, or ambulatory surgery center that comes from a particular community (defined by ZIP Code or county). OSHPD's Patient Origin Reports display ZIP Codes for patients receiving inpatient, emergency department, or ambulatory surgery care at licensed California facilities.

- What ZIP Codes represent about 80% of the facility's discharges?
- Do the ZIP Codes from which patients are drawn differ by service line?
- Do the ZIP Codes from which patients are drawn differ by patient type (inpatient, ED, AS)?
- Do the most common service lines (“% of all service lines”) differ by ZIP Code?

2. Market Share

Market Share is the proportion of a defined community that goes to a particular hospital, emergency department, or ambulatory surgery center. OSHPD's Market Share Reports display the facilities to which patients from a specific ZIP Code or county go for inpatient, emergency department, or ambulatory surgery care.

- A. First, think through the significance of these service lines/issues for your organization:
- Obstetrics/Gynecology – This service line is important because women make healthcare decisions for their family.
 - Outpatient Surgery/Orthopedics – This service line is important because surgeries are profitable.
 - General Medicine – This service line is important because it is the largest inpatient volume and covers overhead.
 - Other service lines important to your institution?
 - Do service lines differ by age group?
 - Do service lines differ by payer?
- B. Next, select your ZIP Code (because hospital preference/use is driven by proximity).
- What was your facility's overall market share?
 - What was the percent change of the overall market share over the last two years?
 - What facilities are in position #1, #2, and #3 of market share?
 - To what facility(ies) are you losing /gaining shares to/from?
 - If losing patients to another facility: what is happening at that hospital?
 - If losing patients to another facility: how is it marketed?
 - What communities are highly reliant on your facility (for example, more than 50% of the community relies on your facility for service)?
 - What communities fall into market share cutoffs (25%, 50%, 75% “commitment” to your facility)?
 - Are there differences by age group?
 - Are there differences by expected payer?
- C. Next select your county. Answer the above questions.
- D. Next, select the ZIP Codes from which 80% of your patients are drawn (see Patient Origin).

II. DATA DICTIONARY

Age Group

Definition: The patient's age at time of service.

Values: <= 17
18-64
65+

Discharges

Definition: "Discharges" are counts of "Inpatient" or "Inpatient from ED" hospitalizations and counts of "ED Only (Emergency Department Treat & Release)" or "AS Only (Ambulatory Surgery)" visits.

Expected Source of Payment – Payer Category

Definition: The type of entity or organization expected to pay the greatest share of the patient's bill.

Values: Medicare
Medi-Cal
Private Coverage
Uninsured
Other

Hospital County

Definition: The California county where the facility (hospital, emergency department, or ambulatory surgery center) is located (see list under "Patient County").

Hospital ZIP Code

Definition: The 5-digit ZIP Code where the facility (hospital, emergency department, or ambulatory surgery center) is located.

Patient County

Definition: The patient's county of residence. OSHPD assigns the patient county of residence based on the patient ZIP Code. Because ZIP Codes can cross county boundaries, OSHPD assigns the county with the greatest population in the respective ZIP Code. County and ZIP Code variables for patients from California counties with fewer than 30,000 people per the most recent census report were identified and recoded into larger geographic groupings: 5-digit ZIP Codes were replaced with the 3-digit ZIP Code prefix; county values were replaced by "small county" groupings – CE, NE, and NW:

CE	Central California group = Alpine, Inyo, Mariposa, Mono
NE	Northeast California group = Modoc, Plumas, Sierra
NW	Northwest California group = Colusa, Del Norte, Glenn, Trinity

Alameda	Mariposa (CE)	Santa Cruz
Alpine (CE)	Mendocino	Shasta
Amador	Merced	Sierra (NE)
Butte	Modoc (NE)	Siskiyou
Calaveras	Mono (CE)	Solano
Colusa (NW)	Monterey	Sonoma
Contra Costa	Napa	Stanislaus
Del Norte (NW)	Nevada	Sutter
El Dorado	Orange	Tehama
Fresno	Placer	Trinity (NW)
Glenn (NW)	Plumas (NE)	Tulare
Humboldt	Riverside	Tuolumne
Imperial	Sacramento	Ventura
Inyo (CE)	San Benito	Yolo
Kern	San Bernardino	Yuba
Kings	San Diego	_Arizona
Lake	San Francisco	_Homeless
Lassen	San Joaquin	_Nevada (State)
Los Angeles	San Luis Obispo	_Oregon
Madera	San Mateo	_Other U.S.
Marin	Santa Barbara	_Outside U.S.
	Santa Clara	_Unknown

Patient Type

Definition: The type of patient record, based on facility type.

Values: Inpatient

AS Only - Ambulatory Surgery

ED Only - Emergency Department. Visits to the ED that do not result in hospital admission. Also referred to as “treat-and-release”.

Inpatient from ED – ED visits that result in admission to the hospital.

Patient ZIP Code

Definition: The patient's 5-digit ZIP Code of residence. If the ZIP Code is unknown, it is assigned a value of XXXXX. If only the city of residence is known, the first three digits of the ZIP Code are reported followed by two zeros. Invalid and blank ZIP Codes are set to "00000". The 5-digit ZIP Code for records that were assigned to "small counties" (CE, NE, and NW) were replaced with the three-digit ZIP Code prefix (see "Patient County").

Percent (%)

Definition: Represents the column percent of the County or Total User Selection.

Percent Change

Definition: Relative percent change. Formula = $((\text{most current year} - \text{initial year}) / \text{initial year})$.

Percent (%) of all Service Lines

Definition: Represents the row percent.

Service Line

Definition: Service line categories were based on Medicare Severity-Diagnosis Related Group (MS-DRG) and were developed by the Minnesota Hospital Association. The MS-DRG is a patient classification system defined by the federal Department of Health and Human Services. One MS-DRG is assigned to each inpatient stay using the principal diagnosis and additional diagnoses, the principal procedure and additional procedures, sex, and discharge status. Note that, because MS-DRG is only reported for hospital discharges, patient types "ED Only" and "AS Only" have a Service Line of "Not Available."

Year

Definition: Year of discharge or visit.

III. METHOD TO PROTECT PATIENT CONFIDENTIALITY

To protect patient confidentiality, records of patients from California counties with fewer than 30,000 people per the most recent census report were identified. For these 23,318 (.61%) records, the county information was rolled into central (CE), northeastern (NE), and northwestern (NW) California “small county groups” and 5-digit ZIP Codes were replaced by the 3-digit ZIP Code prefix.

Next, records in the three-year data set were assessed for uniqueness, whether there were less than six records with identical combinations of five identifier variables: discharge year; type of care (PDD, ED, AS); OSHPD facility ID; age group; and patient ZIP Code. There were 591,084 records (15.5%) with a unique combination of these variables. The 5-digit ZIP Codes on these records were replaced with 3-digit ZIP Code prefixes. The data set with the modified ZIP Codes was assessed for unique combinations of the five variables (unique = 1 record with that combination of variables). There were 337,852 (8.86%) records with a unique combination. The 3-digit ZIP Codes on these records were masked with an “*”.

“Small County” group values and 3-digit ZIP Code prefixes replaced the county and 5-digit ZIP Code values for records from these counties:	
CE	Central California group = Alpine, Inyo, Mariposa, Mono
NE	Northeast California group = Modoc, Plumas, Sierra
NW	Northwest California group = Colusa, Del Norte, Glenn, Trinity