

Data Pulse

September 2017

Why Use Risk-Adjustment?

The purpose of Risk-adjustment is to make fair comparisons among different hospitals. Hospitals with higher-risk (sicker) patients are more likely to have higher death rates than hospitals with lower-risk (healthier) patients. Therefore, it is necessary to adjust for differences in the severity of patient illness across hospitals. Hospitals with sicker patients receive a larger risk-adjustment weight in the risk model than those hospitals with healthier patients. Thus, hospitals treating sicker patients are put on a level playing field when their performance is compared with other hospitals.

Example using actual data from a current OSHPD report:

- A. Both hospitals, *Hospital X* and *Hospital Y*, had similar observed mortality rates (see column labeled “A”)
- B. But the expected rates (which takes into account the patient illness) show that *Hospital X* treated a higher risk (sicker) patient population (see column labeled “B”)
- C. After taking patient risk into consideration, hospital performance moved in two different directions with *Hospital X* having a lower adjusted mortality rate (see column labeled “C”)
- D. And an overall rating of “Better” for *Hospital X* and “Worse” for *Hospital Y* (see column labeled “D”)

	Total cases	Deaths	(A) Observed mortality rate	(B) Expected mortality rate	(C) Risk-adjusted mortality rate	(D) Performance rating
<i>Hospital X</i>	330	31	9.4	14.2	6.5	Better
<i>Hospital Y</i>	746	71	9.5	7.1	13.2	Worse

Conclusion: Reporting the raw data alone (the observed mortality rate) would inaccurately conclude that *Hospital X* and *Hospital Y* are performing equally. Risk-adjustment provides a more accurate representation of hospital performance.



[OSHPD Data](#)



[CHHS Open Data](#)

OSHPD uses a variety of data to generate state/county-level and individual hospital outcome (quality) reports.

These data sets include hospital-submitted information on patient care (diagnoses, procedures), charges, expected payer, and individual patient demographics (age, sex, race).

OSHPD also provides special studies on current and emerging healthcare issues in patient care, such as risk-adjusted hospital quality outcomes for a variety of conditions including coronary artery bypass graft (CABG) surgeries, cancer surgeries, heart attack, ischemic stroke, community-acquired pneumonia, and hip fracture.

Sample of OSHPD

Risk-Adjusted Reports:

[Volume of Cancer Surgeries](#)
[CABG Surgery Outcomes](#)
[Hip Fracture Repair Mortality](#)
[Ischemic Stroke Outcomes](#)
[Community-Acquired Pneumonia Outcomes](#)
[Intensive Care Unit \(ICU\) Mortality](#)
[Heart Attack Outcomes](#)

CHHS Open Data Portal Healthcare Data:

<https://data.chhs.ca.gov/group/healthcare>



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