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# OREGON HOSPITAL QUALITY INDICATOR PROJECT, 2004

## USER GUIDE

[HTTP://EGOV.OREGON.GOV/DAS/OHPPR/RSCH/HOSPITALQUALITY.SHTML](http://egov.oregon.gov/das/ohppr/rsch/hospitalquality.shtml)

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### Purpose of the Reports

This site represents a first but important step for Oregon in measuring, and ultimately improving, the quality of health care in the state with a first focus on hospital services. As such, it also represents the generous and ongoing cooperation of numerous stakeholders, including the hospitals themselves.

"Quality" is difficult to define in almost any context, and the context of hospital care is no exception. The quality of a hospital includes everything from subjective measures such as how satisfied patients are with the care they receive to objective measures such as how many patients leave the hospital alive. While most people would agree that knowing more about the quality of hospital care is vitally important -- particularly to individuals trying to make the best health care decisions for themselves and their families -- the standards by which we measure that quality remain elusive.

It is important to note that the measures provided here have definite limitations. First, they were derived from hospital discharge data whose original purpose was other than assessing quality. Second, they are limited to quantitative, objective indicators of quality--mainly, the number of admissions for various procedures and the death rates associated with certain procedures and conditions. While these are useful indicators of hospital quality, they are by no means conclusive. Hence, this site will be updated periodically to provide additional useful information, and you are strongly encouraged to consult other sources of relevant information, some of which are provided at this site under "[Other Online Resources](#)".

### The Data You'll See

As noted above, the quality indicators presented here are divided into two categories: volumes (or counts) and death rates.

- **Volume Indicators.** This measure is simply a count of hospital admissions for a given procedure. The counts presented here are of relatively rare and specialized procedures for which scientific research suggests that performing more of the procedure often leads to better patient outcomes. In the accompanying displays, volumes are shown compared to a "threshold" number identified by the Agency for Healthcare Research and Quality (AHRQ) as the point at which improved patient outcomes have been observed. While volume is not a direct measure of quality of care, it is useful in gauging how much experience a particular hospital has for a given procedure.
- **Death Rate Indicators.** The death rate is the number of patients admitted for a specific procedure or condition who died in the hospital, divided by the total number of patients admitted for that procedure or condition. However, because the patients' age, sex, or severity of condition may increase their risk of death, the death rates for each hospital are adjusted to account for these factors. Other factors—for example, that some hospitals may transfer out all but the most mild or most severe cases—are not accounted for in the risk-adjustment methods used here. Hence, while death rates constitute a more sensitive indicator of quality than mere procedure counts, they too should be considered in tandem with comments submitted by hospitals, as well as with other information about quality of care.

## How to Read and Interpret the Indicator Reports

1. Hospitals are arranged alphabetically by region. Each chart provides the results for specific hospitals as well as a statewide average.
2. If a hospital you are interested in is not listed for a particular indicator, it means that the hospital did not have enough cases for that indicator to be reliable. You might want to look at another quality indicator for that hospital's performance.
3. Every hospital was given the opportunity to comment on their data, and many have provided important background information or clarifications. Underlined hospital names indicate that comments are available. You may view the hospital's comments by clicking on the hospital name.

If you compare the results of these reports with others that you find on the Internet or elsewhere, you should be aware that the results are sure to be different unless the exact same methodology was used.

## How you can use these reports

While the indicators provided here can be useful for choosing a hospital, the reality is that these quality indicators are only one source of information. Other factors that need to be considered include the patient's health plan coverage, place of residence, location of the patient's physician, and recommendations from family and friends.

Also keep in mind that doctors direct and oversee the medical care in hospitals, prescribing the tests, medications, and treatments. These reports do not separate the effect of the doctor from the effect of the hospital. The quality of care provided in a hospital is influenced by how well its doctors, nurses, support staff, and management team work together, as well as by the availability of technology and other resources. If a major change occurs that affects any of these—for example, the departure of a key surgeon or the addition of new technology—the indicators for a given hospital may change dramatically and rapidly.

Medical practice and standards of care also change as new procedures and medicines become available and as research studies demonstrate the effectiveness of specific treatments or procedures. Patients should talk with their doctors and hospitals about their care and ask questions about what changes, if any, have occurred that could affect that care.

## Important cautions about these data

Differences in indicator rates between hospitals may reflect a difference in quality, but may also be caused by factors not related to quality of care. Among these factors are patient, data, and hospital characteristics.

### ***Patient characteristics***

Patients admitted for the same diagnosis vary widely in the severity of their illness and in demographics such as age and gender. For example, an elderly individual with the same primary diagnosis, but with multiple conditions, is expected to require more resources and possibly experience less positive outcomes than a young adult with the single diagnosis.

With the exception of the volume indicators, many of these differences are adjusted for in the quality indicators presented. Death rate indicators are adjusted for multiple complex factors, including diagnosis, severity, procedure type, age, sex, and complications and co-occurring conditions (comorbidities). Because these methods are not perfect and cannot account for all of the factors that influence health outcomes, it is even more important to read the hospital comments.

### ***Data characteristics***

The data used for these reports are collected for billing purposes rather than research purposes and do not have the clinical detail necessary to completely adjust for severity of illness. (Detailed information about

the process used to organize and adjust the data for study purposes can be found on the AHRQ website at <http://www.qualityindicators.ahrq.gov>.)

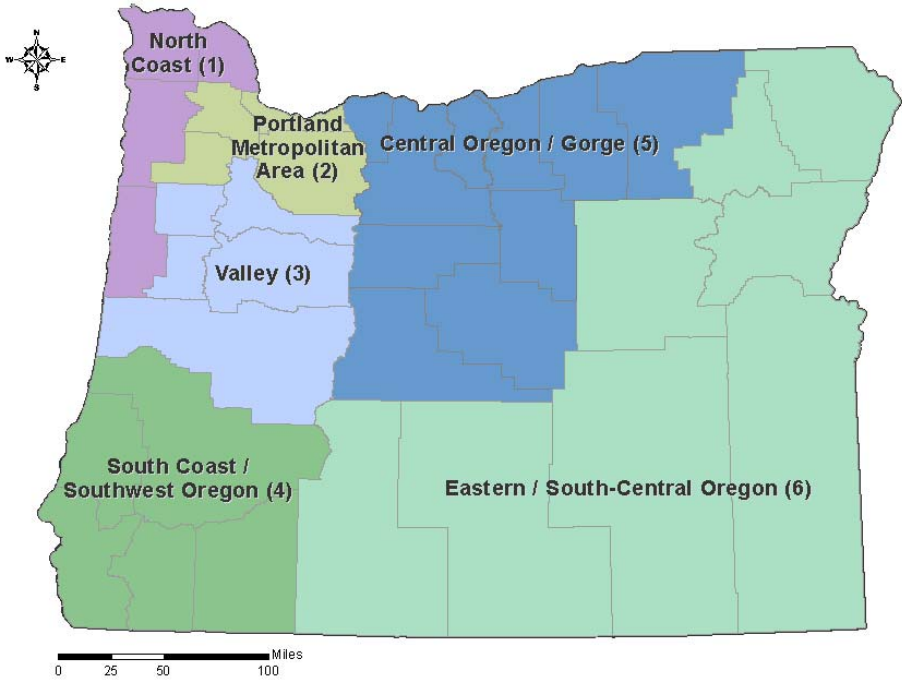
Also, while there are some established standards for coding the billing data, coding and reporting practices by each hospital may vary and, therefore, influence reported quality.

Finally, measures and indicators become strongly influenced by random variation when volume is small. A small number of reported cases for a given condition or procedure is often not sufficient for establishing a pattern of care. For this reason, death rate indicators are not reported for hospitals with fewer than 30 cases for that procedure or diagnosis in the reporting year.

### ***Hospital characteristics***

The location of the hospital, as well as its teaching status, can affect the services and personnel available and therefore influence patient characteristics. Also, hospitals offering extensive and sophisticated services require expensive medical equipment and specialized personnel, and tend to attract patients with more complex and severe conditions. The risk-adjustment methodology attempts to adjust for these differences, but, again, it is not perfect.

# Oregon Regions and Their Hospitals



Information in the quality indicator charts and tables are grouped into six geographic regions. Regions were defined as follows:

**Region 1 – North Coast:** Clatsop, Lincoln, and Tillamook Counties

- Columbia Memorial Hospital
- Providence Seaside Hospital
- Samaritan North Lincoln Hospital
- Samaritan Pacific Communities Hospital
- Tillamook County General Hospital

**Region 2 – Portland Metropolitan Area:** Clackamas, Multnomah, Washington, and Yamhill Counties

- Adventist Medical Center
- Kaiser Sunnyside Medical Center
- Legacy Emanuel Hospital
- Legacy Good Samaritan Hospital and Medical Center
- Legacy Meridian Park Hospital
- Legacy Mt. Hood Medical Center
- OHSU Hospital
- Providence Milwaukie Hospital
- Providence Newberg Hospital
- Providence Portland Medical Center
- Providence St. Vincent Medical Center
- Tuality Healthcare
- Willamette Falls Hospital
- Willamette Valley Medical Center

**Region 3 – Valley:** Benton, Lane, Linn, Marion, and Polk Counties

Good Samaritan Regional Medical Center (Corvallis)  
McKenzie-Willamette Medical Center  
Peace Harbor Hospital  
Sacred Heart Medical Center  
Salem Hospital  
Samaritan Albany General Hospital  
Samaritan Lebanon Community Hospital  
Santiam Memorial Hospital  
Silverton Hospital  
West Valley Community Hospital

**Region 4 – South Coast/Southwestern Oregon:** Coos, Curry, Douglas, Jackson, and Josephine Counties

Ashland Community Hospital  
Bay Area Hospital  
Coquille Valley Hospital  
Curry General Hospital  
Lower Umpqua Hospital  
Mercy Medical Center  
Providence Medford Medical Center  
Rogue Valley Medical Center  
Southern Coos Hospital and Health Center  
Three Rivers Community Hospital and Health Center

**Region 5 – Central Oregon/Gorge:** Crook, Deschutes, Hood River, Jefferson, Morrow, Umatilla, and Wasco Counties (no hospitals are located in Gilliam, Sherman, and Wheeler Counties)

Good Shepherd Medical Center  
Mid-Columbia Medical Center  
Mountain View Hospital  
Pioneer Memorial Hospital (Heppner)  
Pioneer Memorial Hospital (Prineville)  
Providence Hood River Memorial Hospital  
St. Anthony Hospital  
St. Charles Medical Center (Bend)  
St. Charles Medical Center (Redmond)

**Region 6 – Eastern/South Central Oregon:** Baker, Grant, Harney, Klamath, Lake, Malheur, Union, and Wallowa Counties

Blue Mountain Hospital  
Grande Ronde Hospital  
Harney District Hospital  
Holy Rosary Medical Center  
Lake District Hospital  
Merle West Medical Center  
St. Elizabeth Health Services  
Wallowa Memorial Hospital

## Glossary

- **Expected Rate** - The expected rate is the rate the provider would have if it performed the same as the U.S. population given the hospital's actual case-mix (e.g., age, gender, specific condition or procedure, and comorbidity categories). If the observed rate is higher than the expected rate (i.e., the ratio of observed/expected is greater than 1.0, or observed minus expected is positive), then the implication is that the provider performed worse than the reference (U.S.) population for that particular indicator.<sup>1</sup>
- **Margin of Error** – A gray line representing the margin of error is displayed with each hospital rate. The larger the range is (represented by a longer line), the greater the potential influence of random chance on the calculated rate. The range will vary for each hospital depending upon the number of cases or deaths for that condition or for that procedure, and the standard error rate for that year. The margin of error is wider for hospitals with fewer cases. If the margin of error line does not intersect the state average line and is **below** the state average, the hospital's rate is statistically **lower** than the state average. If the margin of error line does not intersect the state average line and is **above** the state average, the hospital's rate is statistically higher than the state average. If the state average line intersects the hospital's margin of error line, the hospital's rate **is not** statistically different from the state average.
- **Observed Rate** - The observed rate is the raw rate from the data provided by the hospital, or simply the percentage of patients admitted for a particular condition or procedure who died.
- **Risk-adjusted rate** - The risk-adjusted rate is the rate the hospital would have if it had the same case-mix as the U.S. population, given the provider's actual performance. Adjustments are made to the Oregon hospital data based on national patient demographics such as age, gender and medical codes (diagnostic groups) for a specific condition or procedure. The risk-adjusted rate is the best estimate of what the hospital's rates would have been if the hospital had a mix of patients identical to the national-average patient mix for that year.
- **Smoothed rate** – The smoothed or “reliability-adjusted” rate minimizes random differences in patient characteristics by adjusting for the reliability of the provider's risk-adjusted rate. A ratio of (smoothed rate - population rate) / (risk-adjusted rate - population rate) greater than 0.80 suggests that the difference is likely to persist over time (whether the difference is positive or negative). A ratio less than 0.80 suggests that the difference may be due in part to random differences in patient characteristics (patient characteristics that are not observed and controlled for in the risk adjustment model).

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<sup>1</sup> With the exception of the definition of Margin of Error, all definitions are from AHRQ Quality Indicators, *E-Newsletter*, Vol. 1, No. 1, June 2005, <http://www.qualityindicators.ahrq.gov/newsletter.htm>. <7.5.05>.