Overview
Evidence suggests that high mortality rates may be associated with deficiencies in the quality of hospital care provided. The Inpatient Mortality Indicators (IMIs) are part of a suite of measures called Inpatient Quality Indicators (IQIs), developed by the federal Agency for Healthcare Research and Quality (AHRQ), that provide a perspective on hospital quality of care, calculated using patient data reported to OSHPD by all California-licensed hospitals.

Why Report IMIs?
OSHPD reports IMIs for California hospitals to improve the quality of patient care in the State through greater transparency, to help consumers make more informed healthcare decisions, to help payers and employers spend their healthcare dollars wisely, and to provide hospitals performance benchmarks that aid in their review of internal processes of care and quality improvement activities.

How OSHPD Calculated IMIs
Data to calculate the IMIs come from all California-licensed hospitals. All IMIs include risk-adjustment, a process that takes into account patients’ pre-existing health problems to "level the playing field" and allow fair comparisons among hospitals. For this release OSHPD used Version 5.0 of the AHRQ software that incorporates changes made by AHRQ and OSHPD. Additional information about the IMI calculation methods and technical details about their validity and limitations can be found on the AHRQ website and in the OSHPD Technical Note.

2014 IMI Results
The 2014 IMI report includes the 12 overall indicators and five sub-measures shown below.

California 2014 Inpatient Mortality Indicator (IMI) Statewide Mortality Rates
(Per 100 Cases)

Medical Conditions

- Acute Myocardial Infarction \(\text{[heart attack including transfers between healthcare facilities]}\) 5.9
- Acute Stroke, Total 9.0
  - Acute Stroke, Hemorrhagic 21.9
  - Acute Stroke, Ischemic* 5.0
  - Acute Stroke, Subarachnoid 20.4
- Gastrointestinal Hemorrhage \(\text{[intestinal bleeding]}\) 2.2
- Heart Failure 2.9
- Hip Fracture** 1.9
- Pneumonia 3.8
### Procedures

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abdominal Aortic Aneurism Repair, Un-ruptured [for bulging abdominal aorta]</td>
<td>1.2</td>
</tr>
<tr>
<td>Carotid Endarterectomy [surgery on the carotid artery in neck]</td>
<td>0.7</td>
</tr>
<tr>
<td>Craniotomy [operation through the skull, including brain surgery]</td>
<td>7.0</td>
</tr>
<tr>
<td>Esophageal Resection [removal of all or part of the esophagus]</td>
<td>2.9</td>
</tr>
<tr>
<td>Pancreatic Resection, Total [removal of all or part of the pancreas]</td>
<td>2.3</td>
</tr>
<tr>
<td>Pancreatic Resection, Cancer</td>
<td>2.3</td>
</tr>
<tr>
<td>Pancreatic Resection, Other</td>
<td>2.3</td>
</tr>
<tr>
<td>Percutaneous Coronary Intervention (PCI) [non-surgical coronary artery disease treatment, including insertion of a stent]</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Individual hospitals showed relatively consistent performance across all IMIs. Note that a hospital may perform better or worse on one of the sub-measures but not the total measure, or vice versa. The numbers of “Better” or “Worse” performing hospitals cited below do not include the sub-measures. Among the 328 hospitals in the report:

- One hundred and thirty-eight hospitals were rated “Better” and 71 were rated “Worse” than the state average on at least one indicator. There were 139 hospitals rated as “Average,” or not significantly different from the state average, on all 12 overall indicators.
- Among hospitals with “Worse” ratings, 50 were rated “Worse” on a single indicator, 17 on two indicators, two on three indicators, and two on four indicators.
- Of the hospitals with “Better” ratings, 80 were rated “Better” on a single indicator, 34 on two indicators, 16 on three indicators, seven on four indicators, and one hospital was rated “Better” on five of the 12 indicators.
- Hospitals showed relatively consistent performance across the Indicators. That is, only six percent of hospitals had “mixed” results – 20 hospitals in 2014 were ranked as “Better” on one indicator and “Worse” on another.

* OSHPD also produces additional ischemic stroke measures for 30-day mortality and 30-day readmissions.

**OSHPD also produces a 30-day mortality hip fracture repair measure.**