



turning knowledge into practice

America's Best Hospitals

2006 Methodology

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I. Introduction

For families faced with the most serious or complex medical problems, the choice of which hospital to attend can be critical. Until 1990, patients and healthcare providers had few reliable tools or resources to help focus the decision process. From 1990 to the present, however, *U.S. News & World Report* has conducted an annual assessment of the quality of U.S. hospitals in the form of lists collectively titled “America’s Best Hospitals.” Each summer, the magazine identifies and ranks hospitals of exceptional quality, this year drawing from a universe of 5,189 community hospitals.* Hospitals are assigned a composite score and ranked at the specialty level, based on data from multiple sources.

From 1993 to 2004, the National Opinion Research Center (NORC) at the University of Chicago executed the methodology for *U.S. News*. In 2005, RTI International (RTI)[†] in Research Triangle Park, N.C., began producing the rankings. The methodology has changed only slightly, although larger-scale adjustments are under constant consideration and will be adopted if they clearly enhance the quality and robustness of the rankings.

In 2006, hospitals are ranked in 16 specialties:

- Cancer
- Digestive Disorders
- Ear, Nose, and Throat
- Endocrinology
- Gynecology
- Heart and Heart Surgery
- Kidney Disease
- Neurology and Neurosurgery
- Ophthalmology
- Orthopedics
- Pediatrics
- Psychiatry
- Rehabilitation
- Respiratory Disorders
- Rheumatology
- Urology

The rankings were developed and the specialties chosen explicitly to help consumers determine which hospitals provide the best care for the most serious and complicated medical conditions and procedures—not for those that are relatively commonplace. The roster of specialties has slightly expanded and contracted over the years. For example, in 1998, AIDS was dropped from the specialties when it became clear that most AIDS care had shifted to an outpatient setting. This year, Geriatrics no longer appears on the list because the specialty overlaps with several others, such as Heart and Heart Surgery, in which older patients are often treated. Overall, the choice of specialties reflects a hospital with a broad service line.

*We excluded military installations, federal institutions, and institutional hospital units (e.g., prison hospitals, college infirmaries).

[†] RTI International is a trade name of Research Triangle Institute.

A. Index of Hospital Quality

The 16 specialties are ranked using one of two approaches. The first approach assigns hospitals a score, the Index of Hospital Quality (IHQ). This approach is employed in 11 specialties: Cancer; Digestive Disorders; Ear, Nose, and Throat; Endocrinology; Gynecology; Heart and Heart Surgery; Kidney Disease; Neurology and Neurosurgery; Orthopedics; Respiratory Disorders; and Urology.

The IHQ reflects the interrelationship among the Donabedian paradigm's three fundamental dimensions of excellent healthcare: (1) structure, (2) process, and (3) outcomes.¹⁻⁵ The structural characteristics of a hospital are its resources for delivering patient care. Structural factors include the number of available nurses relative to the number of patients, the number of beds in the hospital, the presence of desirable technologies and patient or community services, and the special status conferred by a recognized external organization, such as designation as a Nurse Magnet hospital by the American Nurse Credentialing Center (ANCC) or as a National Cancer Institute (NCI) Cancer Center.

Excellent healthcare is also shaped by the process of delivering care to patients, including diagnosis, treatment, prevention, and patient education. A hospital's structure and process are related to the results of care—the patient's outcomes. Outcomes are typically measured by risk-adjusted mortality rates (i.e., the likelihood of mortality given the complexity of the case). Using robust and sensitive measures for each factor, the IHQ is able to identify the hospitals that provide the best care in each of the named specialties. Many of these measures come from secondary data sources. The American Hospital Association (AHA) Annual Survey Database, for example, provides information regarding various structural characteristics of hospital quality. Each year, the measures used in the structural, process, and outcomes components of the IHQ are reevaluated and enhanced to increase the quality of the rankings. In addition, steps are taken to identify the best possible data sources for these measures. Throughout this report we will refer to these specialties as the IHQ-driven specialties.

Below is a brief description of each component of the IHQ rankings. These will be discussed in more detail later in the report.

Structure

This score is based on data related to the structural characteristics of each medical specialty within a given hospital. These elements represent volume (i.e., number of discharges), technology, and other features that characterize the hospital environment. The majority of these

data elements are derived from the most recent AHA Annual Survey Database, which covers fiscal year (FY) 2004. Volume data are taken from the Medicare Provider Analysis and Review (MEDPAR) database maintained by the Centers for Medicare & Medicaid Services (CMS). This database contains information on all Medicare beneficiaries who use hospital inpatient services.

Process

The process component of the IHQ (which is the sole determinant of the reputation-only rankings) can be referred to as the reputational score, because it represents a measure of a hospital's reputation for providing high-quality care in a given specialty. The reputational score also serves as a method of peer review. The score is based on cumulative responses from three surveys of board-certified physicians, conducted for 2004, 2005, and 2006, in which the respondents were asked to nominate up to five "best hospitals" in their field of care, irrespective of expense or location, for patients with serious or difficult conditions. (For the physician questionnaires used in the 2006 rankings, see *Appendixes A, B, and C*.) The 2004 survey sample consisted of 150 board-certified physicians in each specialty, selected from the American Medical Association (AMA) Physician Masterfile, a database of approximately 860,000 physicians.[‡] The 2005 and 2006 surveys increased the sample size to 200 physicians in each specialty.

The physician sample is stratified by region and by specialty. The final aggregated sample includes both federal and nonfederal medical and osteopathic physicians residing in all 50 states and the District of Columbia.

Outcomes

The outcomes score measures mortality at the time of discharge. Like the volume indicator, the outcomes measure is based on the MEDPAR database. For each hospital and specialty, MEDSTAT Group, Inc., computed an adjusted mortality rate based on predicted and actual mortality rates from admission to discharge, using the All Patient Refined Diagnosis Related Group (APR-DRG) method, designed by 3M Health Information Systems.⁶ APR-DRGs adjust the value for expected deaths by severity of illness using the patient's principal and secondary diagnoses. The method is applied to the three most recent years of Medicare reimbursement claims made by hospitals to CMS in FY 2002, 2003, and 2004.

[‡] Does not include medical students, residents, retirees, or deceased physicians.

B. Reputation-Only Rankings

In the remaining five specialties—Ophthalmology, Pediatrics, Psychiatry, Rehabilitation, and Rheumatology—the ranking score consists only of the reputational factor of the process component. Many of the additional measures are inapplicable to these specialties because the procedures performed are done largely on an outpatient basis (such as Ophthalmology and Psychiatry), or because Medicare data are unavailable (e.g., Pediatrics). For this report, these specialties are referred to as reputation-only specialties; the associated rankings are referred to as reputation-only rankings.

Report Outline

The remainder of the report is structured as follows.

- **Section II** describes the IHQ components in detail. (For a more exhaustive review of the foundation, development, and use of the individual measures and the composite index, see “Best Hospitals: A Description of the Methodology for the Index of Hospital Quality.”⁷)
- **Section III** describes the process used to develop the rankings for the five reputation-only specialties.
- **Section IV** presents an additional measure—the Honor Roll—which indicates excellence across a broad range of specialties.
- **Section V** provides a summary of the changes for this year’s rankings.
- **Section VI** describes several improvements under consideration for future releases of the rankings.

II. The Index of Hospital Quality

This section describes hospital eligibility criteria and the procedures used to derive the IHQ for the 11 IHQ-driven specialties. Hospitals ranked in 2006 that are the result of new or merged corporate entities in the AHA database are treated as a single unit and listed in this report. For this year’s rankings, there is one merger between hospitals previously listed as independent entities: Winter Park Memorial Hospital, Winter Park, Fla., was acquired by Florida Hospital, Orlando, Fla.

A. Eligibility

The eligibility criteria for the IHQ-driven specialties have two stages. Hospitals must successfully meet the requirements in each stage to be considered eligible for the rankings.

Stage 1. The first stage begins with the 5,189 community hospitals[§] included in the FY2004 AHA universe. For a hospital to be considered eligible, it must have at least one of the following criteria:

1. Membership in the Council of Teaching Hospitals (COTH),
2. Medical school affiliation, or
3. At least 9 of 18 important medical technologies (see *Section II.B. Technology*).

Hospitals that did not respond to the FY2004 AHA Annual Survey were allowed to remain eligible in our database. For hospitals that did not respond in 2004 but responded in 2003 and 2002, we used survey data from 2003. Nonresponders lacking data from both the current survey and from one of the previous two surveys were ranked without any AHA data. A total of 1,556 hospitals passed through the first stage of the eligibility process.

Stage 2. In the second stage, hospitals needed a specified number of discharges in a selection of specific diagnosis-related groups (DRGs) to remain eligible for the rankings. Through 2002, the threshold determining eligibility included all discharges, regardless of the proportion of medical to surgical discharges.^{**} Since 2002, that proportion has been specified for Cancer; Digestive Disorders; Ear, Nose, and Throat; Gynecology; Neurology and Neurosurgery; Orthopedics, and Urology. For these specialties, we calculated the median ratio of surgical to total discharges for hospitals meeting the total discharge threshold. In each specialty, the median ratio was multiplied by the total number of discharges to determine the minimum surgical discharges needed to be considered eligible.

Setting discharge minimums ensures that the ranking-eligible hospitals have demonstrable experience treating a set number of complex cases in a given specialty. Prior to RTI's involvement, it was determined that for Heart and Heart Surgery, the minimum number of surgical discharges would be set to 500. For all hospitals meeting the minimum of 500 surgical

[§] We excluded military installations, federal institutions, and institutional hospital units (e.g., prison hospitals, college infirmaries).

^{**} The exception was Heart and Heart Surgery, where surgical discharges alone determined the threshold for eligibility. Beginning in 2002, both medical and surgical discharges determined eligibility.

discharges, a ratio of total discharges to surgical discharges was calculated. The median of this ratio was then multiplied by 500 to determine the minimum number of all discharges. To maintain consistency with prior years' rankings, this threshold was used again in 2006. The minimums for this and all specialties will be reviewed for future rankings and will be adjusted as needed. **Table 1** presents the discharge volume and the number of hospitals meeting the criteria for the IHQ-driven specialties. A total of 1,301 unique hospitals met the volume criteria in at least one specialty.

Table 1. Minimum Discharges by Specialty

Specialty	Minimum Total Discharges	Minimum Surgical Discharges	Hospitals Meeting Volume Eligibility
Cancer	441	124	658
Digestive Disorders	787	215	1,076
Ear, Nose, and Throat	19	5	969
Endocrinology	437	0	764
Gynecology	48	43	1,069
Heart and Heart Surgery*	1,005	500	596
Kidney Disease	130	0	1,137
Neurology and Neurosurgery	512	171	943
Orthopedics	415	392	1,126
Respiratory Disorders	949	0	1,150
Urology	226	72	1,023

* In addition to the discharge eligibility criteria, a hospital must offer cardiac intensive care, adult interventional cardiac catheterization, and adult cardiac surgery to be considered.

Hospitals with insufficient volume were considered eligible if they received one or more nominations in the physician survey (i.e., a non-zero reputational score) and had at least 10 total discharges. However, mortality rates could not be accurately calculated for hospitals with volumes below the 75th percentile or fewer than 150 total discharges during the past 3 years. These hospitals received a “degranulated” mortality score because they had too few discharges to provide reliable measures of mortality. See **Section II.C, Mortality Values for Hospitals with Low Volumes**, for more information.

Table 2 presents the number of hospitals that did not pass the minimum discharge criteria, but became eligible in that specialty because they had a non-zero reputation score and at least 10 discharges. Also presented is the total number of hospitals eligible in each specialty that met either the minimum discharge criteria or the non-zero reputation score criteria. The third column shows the number of hospitals that received a degranulated mortality score in that specialty due to insufficient volume.

Table 2. Hospitals Eligible under the Non-Zero Reputation Rule

Specialty	Total Eligible Hospitals	Hospitals Meeting Non-Zero Reputation Eligibility	Hospitals Needing a Degranulated Mortality Score
Cancer	676	18	294
Digestive Disorders	1,086	10	702
Ear, Nose, and Throat	973	4	890
Endocrinology	789	25	405
Gynecology	1,084	15	710
Heart and Heart Surgery	596	0	0
Kidney Disease	1,141	4	760
Neurology and Neurosurgery	954	11	572
Orthopedics	1,132	6	750
Respiratory Disorders	1,161	11	776
Urology	1,034	11	654

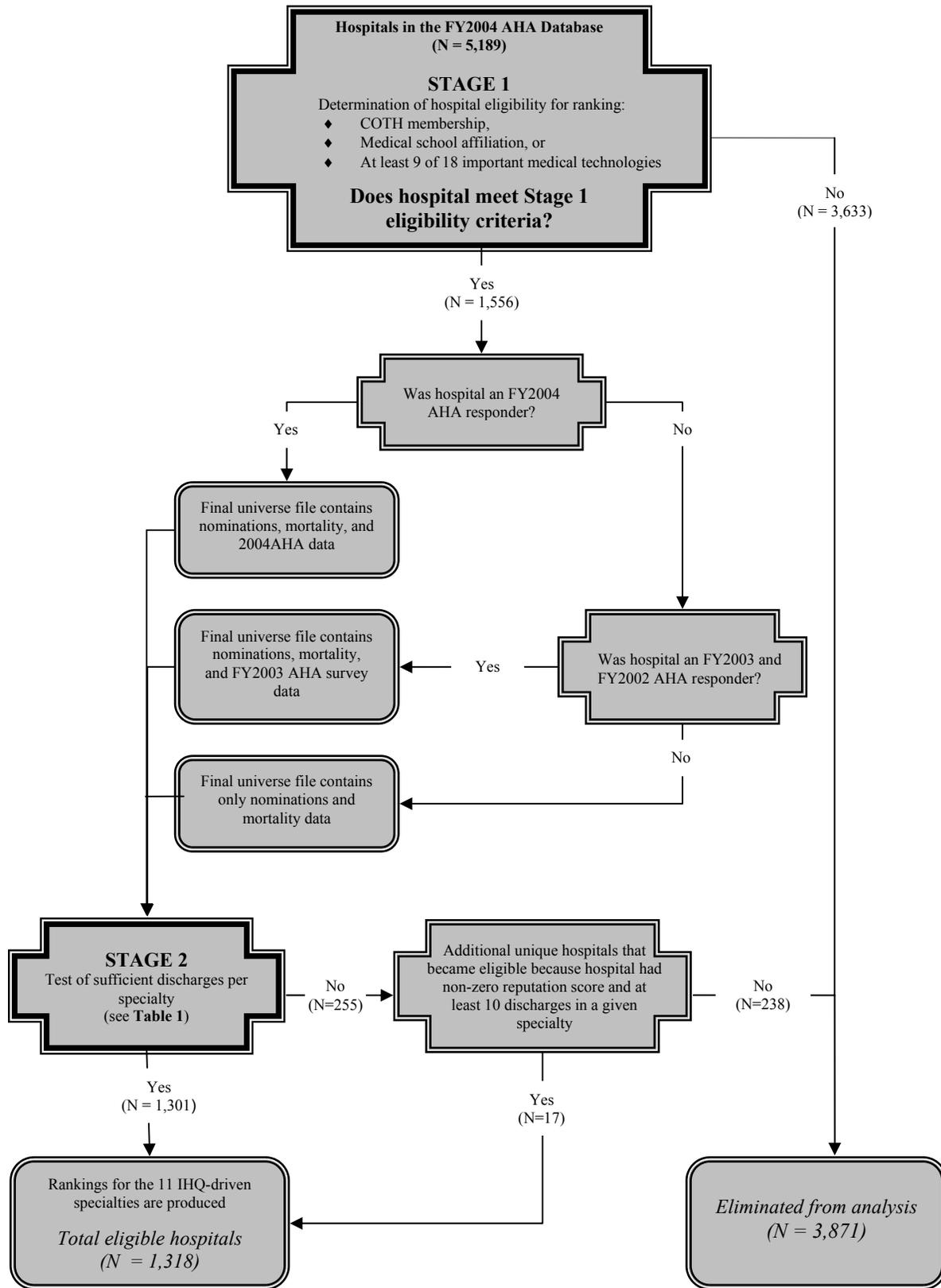
For the 2006 rankings, a total of 1,318 unique hospitals were deemed eligible for at least one of the IHQ-driven specialties under the full criteria. We then conducted separate analyses for each of the 11 IHQ-driven specialties. The top 50 hospitals in each IHQ specialty are published in *U.S. News & World Report*. **Figure 1** illustrates the eligibility and analysis process for IHQ-driven specialties, as described in the steps above.

B. Structure

The structural dimension defines the tools available at hospitals for treating patients. Healthcare research overwhelmingly supports the use of a structural measure to assess quality of care. However, no prior research has revealed a single structural indicator of quality that summarizes all others or that adequately represents the structural dimension construct on its own. Thus, the structural component must be represented by a composite variable consisting of different specialty-specific measures given different weights.

For the 2006 index, most structural elements were derived from the 2004 AHA Annual Survey Database. Additional components came from external organizations including the National Cancer Institute, the American Nursing Credentialing Center, and the National Association of Epilepsy Centers.

Figure 1. Eligibility and Analysis Process for IHQ-Driven Specialties



AHA Survey

The AHA has been conducting its annual survey of hospitals since 1946. The survey is the most comprehensive and dependable healthcare provider database on the market.⁸ During the past 5 years, the average response rate for the AHA survey is 83%. The database contains hospital-specific data items for more than 6,000 hospitals and healthcare systems, including more than 700 data fields that cover organizational structure, personnel, hospital facilities and services, and financial performance. (For specific mapping of variables to the AHA data elements, see *Appendix D*.) The following items taken from the AHA Annual Survey Database are used to develop the majority of the structural score for the IHQ.

Technology

The technology elements for each specialty are reviewed and updated every year to remain consistent with the types of key technologies expected from a “best hospital.” A hospital must have at least 9 out of 18 technologies to be considered eligible for the rankings (see *Section II.A, Eligibility*). The technologies included in the eligibility criteria are described below:

- **Adult interventional cardiac catheterization.** A non-surgical procedure for adults that uses the same basic principles as diagnostic catheterization, as well as advanced techniques, to improve the heart’s function.
- **Bone marrow transplant.** A surgical procedure that transplants tissue from one person to another to replace a diseased structure or to restore function.
- **Cardiac intensive care unit (ICU).** A unit that provides support and treatment equipment for patients who, because of heart-seizure, open-heart surgery, or other life-threatening conditions, require intensified, comprehensive observation and care.
- **Diagnostic mammography.** An X-ray exam of the breasts that evaluates an abnormality detected during screening mammography.
- **Diagnostic radioisotope services.** A procedure that uses radioactive isotopes (radiopharmaceuticals) as tracers to detect abnormal conditions or diseases.
- **Extracorporeal shockwave lithotripsy.** A medical device that uses sound waves (also called shock waves) to break up and remove stones in the kidney or urether.

- **Fertility clinic.** A specialized program that provides counseling, education, and advanced fertility techniques to help patients achieve successful pregnancies.
- **Gamma knife.** A noninvasive procedure using hundreds of powerful, highly focused gamma radiation beams to treat patients with tumors and other disorders.
- **Kidney transplant.** A surgical procedure that transplants a kidney from one person to another to replace a diseased structure or to restore function.
- **Magnetic resonance imaging (MRI).** A procedure that uses a uniform magnetic field and radio frequencies to study tissue and structure of the body, enabling visualization of biochemical activity of the cell.
- **Multislice computed tomography (CT).** A procedure that uses X-rays to make detailed pictures of structures inside of the body, providing advanced 3-dimensional processing that allow pictures to be produced in narrow multiple slices of the body.
- **Neonatal ICU.** A unit that provides mechanical ventilation, neonatal surgery, and special care for the sickest infants born in the hospital or transferred from another institution.
- **Pediatric ICU.** Provides care to pediatric patients requiring more intensive care than provided in the acute area, yet less intensive care than is provided in the ICU.
- **Pediatric interventional cardiac catheterization.** A non-surgical procedure for pediatrics that uses the same basic principles as diagnostic catheterization, as well as advanced techniques, to improve heart's function.
- **Positron emission tomography (PET) scanner.** A nuclear medicine imaging technology that uses radioactive isotopes and computers to produce composite pictures of organs, such as the heart and brain, at work.
- **Shaped beam radiation.** A noninvasive procedure that delivers a therapeutic dose of radiation to a specific area of a tumor to shrink or destroy cancerous cells.
- **Single photon emission CT.** A nuclear medicine imaging technology that combines radioactive material with CT imaging to show how blood flows to tissues and organs.

- **Ultrasound.** A procedure that uses acoustic waves above the range of 20,000 cycles per second to visualize internal body structures.

For eligible hospitals, specialty-specific mixes of technology are used in computing the *U.S. News* scores (*Section II.E, Calculation of the Index*). **Table 3** presents the complete list of technologies considered for each specialty in 2006. Please note that not all the technologies used for the eligibility criteria are included in the specialty-specific indices. Certain technologies, such as Pediatric ICU, are important indicators of a “Best Hospital,” but are not necessarily required for any one specialty in particular.

Starting with the 1996 version of the rankings, the technology indices have given partial credit to hospitals that provide a key service or services even if it is off-site. Many hospitals provide access to technology services through the hospital’s health system, a local community network, or a contractual arrangement or joint venture with another provider in the community. We take these off-site services into account when calculating the rankings. However, our primary focus is on the service’s quality and convenience for the patient. Therefore, hospitals that provide a service, such as ultrasound, are given 1 full point if it is provided on-site; hospitals that provide the service locally through a formal arrangement receive half a point. A hospital receives no more than 1 point for each element in the index.

Volume

The volume measure reflects total medical and surgical discharges in the appropriate specialty-specific DRG groupings submitted for CMS reimbursement. The measure is incorporated into the structural score for all data-driven specialties. To reduce the effect of extreme values or outliers for the some of the structural measures and the mortality outcomes measure, a cap was calculated in prior years for each variable for several specialties. In 2006, we used an inverse logit transformation to reduce the effect of outliers (see the section on *Trimming*, on page 18).

Nursing Index

The nursing index reflects the total level of effort devoted to both inpatients and outpatients. The nurses measure in the numerator is the number of on-staff registered nurses (RNs), expressed in full-time equivalents (FTEs) (e.g., two half-time nurses equal one FTE). Only nurses with RN degrees from approved nursing schools and current state registration are considered. The patient measure in the denominator is the adjusted average daily census of patients; the measure estimates the total amount of care devoted to both inpatients and

Table 3. Technologies by Specialty

Technology	Cancer	Digestive Disorders	Ear, Nose, and Throat	Endocrinology	Gynecology	Heart and Heart Surgery	Kidney Disease	Neurology and Neurosurgery	Orthopedics	Respiratory Disorders	Urology
1. Adult interventional cardiac catheterization						○					
2. Bone marrow transplant	○										
3. Cardiac ICU						●					
4. Diagnostic mammography					●						
5. Diagnostic radioisotope services		●		●			●	●		●	●
6. Extracorporeal shock wave lithotripsy		●					●				●
7. Fertility clinic					●						
8. Gamma knife		●	●	●	●		●	●			●
9. Kidney transplant							○				
10. MRI	●	●	●	●	●	●		●	●		●
11. Multislice CT										●	
12. Neonatal ICU					●						
13. Pediatric interventional cardiac catheterization						○					
14. PET scanner	●	●	●	●	●	●		●	●		●
15. Shaped beam radiation	○	○	○	○	○		○	○			○
16. Single photon emission CT	●	●	●	●	●	●		●	●		●
17. Ultrasound		●		●	●	●	●	●	●	●	●
Total Elements	5	8	5	7	9	7	6	7	4	3	8

● Indicates a technology is included in the index for that specialty.

○ Indicates a technology included in the index that is new or new to that specialty for 2006.

outpatients by reflecting the number of days of inpatient care plus the estimated volume of outpatient services. This measure gives more weight to inpatient care, while still recognizing that the vast majority of patients are outpatient. The components of this index are available from AHA. As with volume, the nursing index has been transformed also using an inverse logit transformation to eliminate the influence of very wide variation.

Standardization is performed after trimming extremes to ensure that the data are distributed normally, with a mean of zero. This step is necessary to prepare the data for factor analysis, restoring balance so that trimmed and untrimmed measures have the same influence on the final score.

Trauma Center

In a *U.S. News & World Report* survey of board-certified physicians, the presence of an emergency room and a hospital's status as a Level 1 or Level 2 trauma-care provider were ranked high on a list of hospital quality indicators. Physicians in nine specialties ranked trauma-center status as one of the top five indicators of quality. These indicator rankings and resultant high factor loadings supported inclusion of these data for the following specialties: Digestive Disorders; Ear, Nose, and Throat; Endocrinology; Gynecology; Heart and Heart Surgery; Kidney Disease; Neurology and Neurosurgery; Orthopedics; Respiratory Disorders; and Urology.

The trauma center indicator is dichotomous and is derived from two variables in the AHA database: (1) presence of a state-certified trauma center in-hospital (as opposed to trauma services provided only as part of a health system, network, or joint venture) and (2) level of the trauma center. To receive credit for trauma services, hospitals must provide Level 1 or Level 2 trauma services. AHA defines Level 1 trauma service as "a regional resource trauma center, which is capable of providing total care for every aspect of injury and plays a leadership role in trauma research and education."⁸ Level 2 is "a community trauma center, which is capable of providing trauma care to all but the most severely injured patients who require highly specialized care."⁸ One point is awarded for either Level 1 or Level 2 trauma certification.

Patient/Community Services

Created in 2004, the patient/community services index is updated each year to reflect the most current services available. The index encompasses items representing a major convenience for patients, such as translators; an advanced degree or sophistication of care; an essential service in a comprehensive high-quality hospital, such as an infection isolation room; or a service that

reflects forward thinking and sensitivity to community needs, such as a women's health center. In 2006, one additional service was added to all specialties: patient-controlled analgesia. In addition, the gynecology services index,⁹ which used to be an independent index consisting of birthing rooms and Level 3 obstetric care, was incorporated into the patient/community services index for Gynecology. The services included in the index are briefly described below.

- **Ambulance services.** The provision of ambulance services to the ill and injured who require medical attention on a scheduled and unscheduled basis.
- **Birthing rooms.** A home-like, single-room setting for child birth and maternity care, with a separate postpartum area.
- **Case management.** A system of assessment, treatment planning, referral, and follow-up that ensures the provision of comprehensive services and reimbursement for care.
- **Enabling services.** A program designed to help the patient access healthcare services by offering transportation and/or referrals to local social services agencies.
- **Genetic testing/counseling.** A service to advise parents and prospective parents on potential problems in cases of genetic defects.
- **Infection isolation room.** A single-occupancy room typically with controlled ventilation, air pressure, and filtration to minimize the transmission of infections.
- **Obstetric care.** A Level 3 obstetric care unit that provides services for all serious illnesses and abnormalities and is supervised by a full-time maternal/fetal specialist.
- **Pain management program.** A program that provides specialized care, drugs, or therapies for the management of acute or chronic pain.
- **Patient-controlled analgesia.** A system that allows the patient to control intravenously administered pain medicine.
- **Patient representative.** An organized hospital service that provides personnel through whom patients and staff can seek solutions to problems affecting delivery of care.

- **Rehabilitation care.** A care unit that provides restoration services for the disabled and all support services necessary to help patients attain their maximum functional capacity.
- **Sports medicine.** A department that provides diagnostic screening and assessment, as well as clinical and rehabilitation services, for sports-related injuries.
- **Translators.** A service provided by the hospital to assist non-English-speaking patients.
- **Women's health center.** A coordinated education and treatment services center specifically for women.

There are between 8 and 14 services included for each specialty. A hospital receives no more than 1 point for each element of the index. *Table 4* presents the complete list of services considered for each specialty in 2006.

Medical/Surgical Intensive Care Beds

The medical/surgical bed measure used in previous years for Kidney Disease was dropped from the methodology for 2006. Discussions with project research staff and external experts suggested this measure was not vital to the methodology, and review of the data showed that this factor had little influence on the overall rankings because it was highly correlated with volume.

Hospice/Palliative Care Indicator

The hospice/palliative care indicator, added in 2002, addresses a hospital's ability in certain specialties to meet the needs of patients whose lives are ending or who are experiencing acute or chronic pain and other symptoms of illness. A qualifying hospice program provides care (including pain relief) and supportive services for the terminally ill and their families. A qualifying palliative care program provides care by specially trained physicians and other clinicians for relief of acute or chronic pain or to control symptoms of illness; in addition, supportive services such as counseling on advance directives are provided for patients with advanced disease. In the specialties of Cancer, Heart and Heart Surgery, and Respiratory Disorders, hospitals receive 1 point if they have a qualifying hospice or palliative care program and 2 points if they have both. Hospitals that provide either service locally through a formal

arrangement receive a full point for each applicable component of the indicator (rather than a half-point, as in several other components of the structural dimension).

Table 4. Patient/Community Services Index

Service	Cancer	Digestive Disorders	Ear, Nose, and Throat	Endocrinology	Gynecology	Heart and Heart Surgery	Kidney Disease	Neurology and Neurosurgery	Orthopedics	Respiratory Disorders	Urology
1. Ambulance services		●	●	●	●	●	●	●		●	●
2. Birthing rooms					○						
3. Case management	●	●	●	●	●	●	●	●	●	●	●
4. Enabling services	●	●	●	●	●	●	●	●	●	●	●
5. Genetic testing/counseling	●	●	●	●	●		●	●		●	●
6. Infection isolation room	●	●	●	●	●		●	●		●	●
7. Obstetric care					○						
8. Pain management program	●	●	●	●	●	●	●	●	●	●	●
9. Patient-controlled analgesia	○	○	○	○	○	○	○	○	○	○	○
10. Patient representative	●	●	●	●	●	●	●	●	●	●	●
11. Rehabilitation care		●	●	●	●	●	●	●	●	●	●
12. Sports medicine		●	●	●	●		●	●	●	●	●
13. Translators	●	●	●	●	●	●	●	●	●	●	●
14. Women's health center		●	●	●	●		●	●		●	●
Total Elements	8	12	12	12	14	8	12	12	8	12	12

● Indicates a technology is included in the index for that specialty.

○ Indicates a technology included in the index that is new or new to that specialty for 2006.

External Organizations

To remain a reliable indicator of hospital quality, the rankings reflect data from a variety of sources and organizations in addition to those already cited. These data are the basis for additional structural measures.

National Cancer Institute (NCI) Cancer Center Indicator

The NCI cancer center indicator was added to the rankings in 2002. NCI is the principal federal agency for cancer research and training, promoting research and standards of care in a number of different ways, including certification as an NCI-designated care center. NCI-designated cancer centers are committed to advancing cancer research and ultimately reducing the incidence of cancer and increasing the likelihood of positive health outcomes.¹⁰

NCI-designated centers have three classifications: (1) cancer center, the lowest level, denoting a facility that conducts a high volume of advanced laboratory research with federal funding; (2) clinical cancer center, the middle level, also conducts clinical cancer research activities; and (3) comprehensive cancer center, the highest level, also conducts prevention research, community outreach, and service activities.¹⁰

Hospitals designated as NCI Clinical Cancer Centers and Comprehensive Cancer Centers as of April 14, 2006, were awarded 1 point. The list used in the 2006 rankings was last updated on February 9, 2006, because no additional hospitals were designated between then and the April 14 cut-off. Hospitals that earned designation status after this date did not receive a point in this year's rankings.

The NCI list of designated cancer centers is updated continuously throughout the year. The list is located on the Web at <http://www3.cancer.gov/cancercenters/centerslist.html>.

Nurse Magnet Hospital

The Nurse Magnet hospital indicator, added to all specialties in 2004, is a formal designation by the American Nurses Credentialing Center (ANCC), an arm of the American Nursing Association (ANA), for hospitals that meet certain quality indicators on specific standards of nursing excellence. The list of Nurse Magnet hospitals is updated throughout the year as hospitals apply for designation and redesignation status. Hospitals accorded Nurse Magnet hospital status by the ANCC as of April 14, 2006, received 1 point.

A current list of hospitals designated by the ANCC as Nurse Magnet hospitals can be found on the Web at www.nursingworld.org/ancc/magnet/facilities.html.

Epilepsy Center Certification

The epilepsy center certification indicator was added to Neurology and Neurosurgery in 2004. All hospitals designated as Level 4 epilepsy centers by the National Association of Epilepsy Centers as of April 14, 2006, were given 1 point. A Level 4 epilepsy center serves as a regional or national referral facility. These centers provide more complex forms of intensive neurodiagnostic monitoring, as well as more extensive medical, neuropsychological, and psychosocial treatment. Level 4 centers also offer a complete evaluation for epilepsy; surgery, including intracranial electrodes; and a broad range of surgical procedures for epilepsy.¹¹ The list of hospitals is updated throughout the year whenever a new member joins or an existing member changes membership information.

A current list of epilepsy centers can be found on the Web at www.naecepilepsy.org/centers/centers.html#NC.

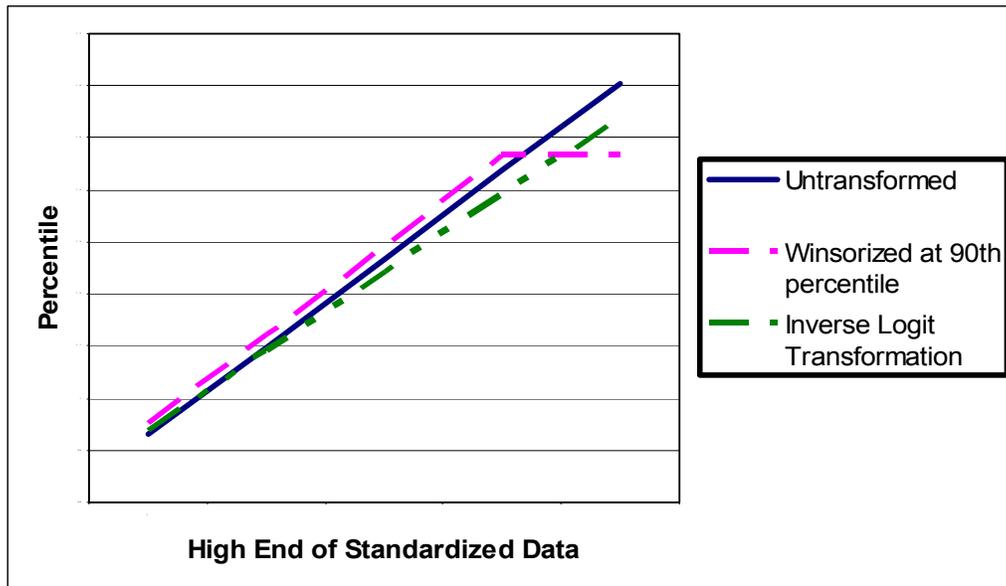
Trimming

In past years, the distributions for mortality, volume, and the nursing index were transformed using a statistical procedure called winsorization. This procedure took extreme values over a certain threshold and moved them toward the center of the distribution. For example, values over the 95th percentile on mortality for Cancer were recoded to match the value at the 95th percentile. This process, also referred to as “trimming” in past years’ reports, reduced the effect of extreme outliers. A disadvantage of this approach was that it treated extreme values as if they were equal to the level to which they were recoded and did not allow for variation at the extremes. Also, the winsorization required setting different percentile cut points for different variables and specialties in a way that was not standard across specialties.

The new trimming process uses an inverse logit transformation of the distribution for the analysis variables noted above. The function $\exp(x) / \{1 + [\exp(x)]\}$ is used to transform the variables before standardization. This technique is sensitive to the number of outliers and produces a transformed distribution, reducing the effect of extreme outliers.

Figure 2 shows the effect of winsorization at the 90th percentile versus logit transformation on the high end of a standardized distribution.

Figure 2. Effect of Winsorization at the 90th Percentile versus Inverse Logit Transformation



Weighting

To combine the structural variables from the AHA database and other external databases, the elements are weighted to create a final composite measure. Using factor analysis, we reduced the number of variables to force a one-factor solution for each specialty. Factor analysis is a statistical technique used to identify underlying similarities among the structural variables. In simple terms, variables that have a strong association with one another receive lower factor loadings than those that are unique in their distributions. The factor loadings, or weights, are applied to reduce the effect of multiple variables that, because of their strong associations, may be measuring the same concept. The relative weight assigned to each element varies by specialty and within a specialty from one year to the next. *Table 5* provides the factor weights assigned to each element for 2006.

C. Outcomes

Although many healthcare professionals object to the use of mortality as an outcomes measure because of limitations in risk-adjustment methods, research strongly suggests a positive

Table 5. Weights for Structural Variables by Specialty

Structural Variables	Cancer	Digestive Disorders	Ear, Nose, and Throat	Endocrinology	Gynecology	Heart and Heart Surgery	Kidney Disease	Neurology and Neurosurgery	Orthopedics	Respiratory Disorders	Urology
Technology indices	79.2	74.6	74.7	78.7	82.5	67.4	77.5	70.7	70.1	72.2	76.8
Volume	62.3	52.0	65.3	46.2	60.3	54.9	64.8	61.0	58.7	38.8	49.6
Nursing index	51.2	44.4	52.5	46.6	40.1	45.3	46.5	44.8	39.8	34.5	43.2
Trauma center		59.8	57.1	61.6	60.5	54.0	58.1	57.2	58.7	53.5	57.7
Patient/community services	74.4	80.4	76.1	81.6	80.9	67.5	77.5	75.0	75.6	85.8	80.9
Hospice/palliative care indicator	56.5					52.9				67.3	
NCI cancer care indicator	61.2										
Nurse Magnet hospital	39.8	44.1	43.1	42.3	44.0	46.4	44.3	42.3	44.8	37.2	44.0
Epilepsy center certification								53.1			

correlation between overall quality of care and a better-than-average risk-adjusted mortality rate.¹²⁻²¹ Based on these findings, we use specialty-specific adjusted mortality rate as the outcomes measure for the IHQ.

Mortality data are reported using The International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM). The ICD-9-CM is the official system used by the National Center for Health Statistics and CMS for assigning codes to diagnoses and procedures associated with hospital utilization in the United States.²² DRGs classify the more than 10,000 ICD-9-CM diagnosis codes into more meaningful patient groups based on clinical and cost similarity. The 3M Health Information Systems All Patient Refined Diagnosis Related Groups (APR-DRGs) refine the DRG concept by taking into account severity of illness, risk of mortality, and resources used.²³⁻²⁵ The patient groups are further classified based on whether they have substantial comorbidities or complications.

The predicted mortality rates were provided by MEDSTAT Group, Inc., using APR-DRGs as risk adjusters. The method was applied to the pooled 2002, 2003, and 2004 Medicare Provider Analysis and Review (MEDPAR) data set based on reimbursement claims submitted to CMS by hospitals. These complete data sets were the most current available for analysis. MEDPAR is the data set maintained by CMS for analysis of utilization, cost, and impacts of inpatient payment system changes (these data are organized in an easier-to-use format than claims files). The MEDPAR file contains information on patients' diagnoses, procedures, DRG, length of stay in the hospital, and discharge status for all Medicare patients. A DRG is assigned to each patient discharge based on the patient's diagnosis, surgery, age, sex, and discharge destination.²⁶

2006 DRG Review

The DRG groupings used in the rankings are reviewed and adjusted annually for every specialty (see *Appendix E* for the DRGs used for 2006). Any changes are applied the appropriate DRG groupings for each year of data included in the analysis. The groupers are important because they define which cases are included in the specialty's mortality measures, as well as the volume measures used in the structural component. It is important to include only DRGs that represent challenging and critical procedures. For example, tonsillectomies are too common to be included in the DRG groupings for Ear, Nose, and Throat. An annual review of the DRG groupings assures changes and advancements in medicine are reflected. The standard DRG review uses the guidelines outlined below.^{††}

1. Exclude DRGs for very-low-intensity cases
2. Exclude DRGs related to complications of care provided in the hospital.
3. Exclude DRGs not generally appropriate for a Medicare or elderly population.
4. Reevaluate the “exclude” and “include” DRGs based on their embedded diagnoses.
5. Further refine the “exclude” and “include” categorizations based on the within-DRG variation in diagnostic complexity.
6. Reevaluate DRGs not assigned to a specific specialty to determine whether they would be better categorized more specifically.
7. Perform a final evaluation for clinical consistency.

^{††} For a more detailed review of these procedures, see the 2005 methodology report at www.rti.org/besthospitals.

In addition to the standard review described above, three additional revisions were added in 2006.

8. ICD-9-CM diagnosis and procedure codes were used to provide further specificity when needed. The benefit of ICD-9-CM codes is that they yield an added level of specificity. Instead of including an entire DRG, we can select specific diagnoses or procedures within the DRG. For example, DRG 75 in Heart and Heart Surgery for major chest procedures is largely composed of procedures not related to the cardiac specialty. For 2006, DRG 75 was refined to include only the ICD-9-CM codes related to Heart and Heart Surgery.
9. DRGs that appeared in more than one category were divided by principal diagnosis or procedures present and distributed to the specialty where they are most likely to occur in hospital care. An example of this change is that many of the DRGs that were previously assigned to both Kidney Disease and Urology have been divided, and the resulting subsets assigned to either one or the other to help further differentiate these specialty areas.
10. A new APR-DRG threshold measure was created to further refine the lists by taking into account severity of illness as measured by comorbidities and interaction with the principal diagnosis. This allowed us to include in the analyses only diagnoses that represented the most serious or difficult medical conditions. This threshold was used for the calculation of mortality, but the structural volume measure does not use the threshold.

Based on the review process, various DRGs were added or deleted in each category for 2006. In addition, certain ICD-9-CM diagnosis or procedure codes were deleted from several DRGs. *Appendix F* identifies the changes for each specialty.

Risk-adjusted mortality ratios are computed by dividing the actual mortality rate by the expected rate, given the complexity of the cases treated. Expected mortality is an estimate of what the hospital's mortality rate would be if its rate for patients in each APR-DRG and severity level was equal to the national average. Mortality ratios greater than 1 suggest that more patients died in a particular hospital than expected. Mortality ratios less than 1 suggest that fewer died than expected. For the IHQ, we transformed mortality ratios into mortality scores. Mortality scores are computed by subtracting each specialty-specific mortality ratio from 1. Using this reverse scoring, a mortality ratio of 0.25 produces a mortality score of 0.75, a ratio of 0.05 produces a score of 0.95, and so on. This method maintains the magnitude of the differences. To lessen the effect of year-to-year fluctuations, we averaged mortality scores for 3 years. As with volume and the nursing index in the structural component, we transformed scores at the extreme ends to eliminate the influence of very wide variation.

Mortality Values for Hospitals with Low Volume

A new procedure was put into place this year to address instances in which a hospital with relatively few discharges during the last 3 available years of data (i.e., low volume) had an inordinately low or high mortality score because of the dearth of applicable cases associated with that hospital. For instance, a hospital treating only 75 Medicare patients in the last 3 years in a particular specialty might have an observed-versus-expected mortality ratio of zero or close to zero. With so few cases to examine, we were not confident that the mortality numbers for this hospital reflected a real measure of outcomes rather than an extreme value based on too few cases. To correct for this, we assigned mortality scores for hospitals below the 75th percentile on volume to the 25th, 50th, or 75th percentile value on mortality, where the mortality distribution was based on those hospitals at or above the 75th percentile on volume.^{‡‡} Mortality at or below the 25th percentile was coded to the 25th percentile. Mortality between the 25th and 75th percentiles was coded to the 50th percentile. Mortality at or above the 75th percentile was coded to the 75th percentile. This helped reduce the effect of mortality outliers associated with low volume. We refer to this recoding as “reduced granularity” for mortality.

The effect of reduced granularity on mortality scores for hospitals with low volume is shown below in *Figure 3*.

Figure 3. Effect of Reduced Granularity for Mortality on Low-Volume Hospitals



^{‡‡} For specialties where the 75th percentile on volume was below 150, we substituted 150 for the threshold for applying this rule, because analysis of the distributions suggested this was an appropriate absolute minimum for the reliability of mortality data.

D. Process

The process dimension of the Donabedian paradigm reflects physician decision making in the hospital setting, such as choices about the use of medication, diagnostic tests, admission to a hospital, course of treatment, or length of stay. However, it is extremely difficult to obtain national measurements of process; therefore, we used an alternative proxy measure. We contend that when a physician who is qualified to judge identifies a hospital as among the “best,” he or she is, in essence, endorsing the process choices made at that hospital. Thus, we use the nomination of hospitals by board-certified specialists as a measure of process.

To collect these nominations, a survey of board-certified physicians across the country is conducted each year. For the 2006 rankings, we pooled the nominations for the three most recent surveys (2004, 2005, and 2006) to arrive at the process measure. We treated the IHQ-driven and reputation-only specialties identically for the reputation component. Therefore, this section presents the methodology and results for both.

Sample for the 2006 Survey

The sample for the 2006^{§§} survey consisted of 3,200 board-certified physicians selected from the American Medical Association (AMA) Physician Masterfile, a database of approximately 860,000 member physicians licensed to practice in the United States. From within the Masterfile, we selected a target population of 261,132 board-certified physicians who met the eligibility requirements listed below. Stratifying by region and by specialty within region, we selected a probability (i.e., random) sample of 200 physicians (50 from each region) from each of the 16 specialty areas, for a total of 3,200. The physicians’ final sample included federal and nonfederal medical and osteopathic physicians practicing in all 50 states and the District of Columbia. A sample of neonatologists was included in the physician sample for the Gynecology specialty for the first time.

Eligibility Requirements

To define a probability sample of physicians who properly represent the 16 specialty groupings, we used two rules of eligibility: (1) a mapping between the 16 specialties and the AMA’s list of 85 self-designated specialties, and (2) a mapping between those 85 specialties and the 23 member boards of the American Boards of Medical Specialties.

§§ For information on the 2005 and 2004 samples, please see the respective methodology reports at www.rti.org/besthospitals.

Under the first rule, we linked each of the 16 specialties to one or more relevant AMA specialties from the list of AMA self-designated practice specialty codes. Physicians who designated a primary specialty in one of the 16 specialties were eligible for the survey. **Table 6** displays the association among the specialty listed in “America’s Best Hospitals,” the AMA self-designated specialty, and the corresponding member board.

Table 6. Physician Sample Mapping

“America’s Best Hospitals” Specialty	American Board of	AMA Self-Designated Specialty (AMA Key Code)
Cancer	Internal Medicine	Hematology (HEM/22)
		Oncology (ON/24)
Digestive Disorders	Internal Medicine	Gastroenterology (GE/17)
Ear, Nose, and Throat	Otolaryngology	Otolaryngology (OTO/48)
Endocrinology	Internal Medicine	Endocrinology (END/14)
		Diabetes (DIA/12)
Gynecology*	Obstetrics & Gynecology	Gynecology (GYN/21)
		Obstetrics & Gynecology (OBG/42)
Heart and Heart Surgery	Internal Medicine	Cardiovascular Diseases (CD/08)
	Surgery	Cardiovascular Surgery (CDS/08)
Kidney Disease	Internal Medicine	Nephrology (NEP/12)
Neurology and Neurosurgery	Psychiatry & Neurology	Neurology (N/36)
		Neurological Surgery (NS)
Ophthalmology	Ophthalmology	Ophthalmology (OPH/46)
Orthopedics	Orthopedic Surgery	Orthopedic Surgery (ORS/85)
Pediatrics	Pediatrics	Pediatrics (PD/55)
		Adolescent Medicine (ADL/01)
Psychiatry	Psychiatry & Neurology	Psychiatry (P/63)
Rehabilitation	Physical Medicine & Rehabilitation	Physical Medicine & Rehabilitation (PM/62)
Respiratory Disorders	Internal Medicine	Pulmonary Diseases (PUD)
Rheumatology	Internal Medicine	Rheumatology (RHU/74)
Urology	Urology	Urological Surgery (U/91)

* “America’s Best Hospitals Specialty” for Gynecology also included 50 neonatologists.

Stratification

To compensate for the widely varying number of eligible physicians across the targeted specialties and the four regions in the country, we used different probabilities of selection for each grouping. Therefore, 50 physicians were selected from each of the 16 specialties in each of the four regions. Equal-size groups permitted easier comparison of differences among regions and specialties.

Survey Procedure

Materials

For 2004, 2005, and 2006, sampled physicians in each specialty were mailed a one-page, single-sided questionnaire containing a single hospital nomination item. Respondents were asked to select as many as five hospitals in their specialty that provide the best care to patients, regardless of location or expense (see *Appendixes A, B, and C*). For 2005, 25% of physicians in each specialty were mailed a one-page, double-sided questionnaire in place of the single-sided version (see *Appendix B*). The front side of the questionnaire was the same, and the second side of the questionnaire contained questions asking the physicians what they used as a basis for the nominations they provided on the front side. An additional item on this version of the survey asked physicians what format they would prefer to use when returning surveys in the future: mail, e-mail, telephone, or fax. Along with the questionnaire, physicians were sent a cover letter, a business reply envelope, and a token incentive in the form of a \$2 bill. For 2006, physicians were given the option of either mailing or faxing their completed surveys.

Mailings

The physician survey mailings were conducted in stages during several weeks. The initial mailing was sent via United States Postal Service (USPS) first-class metered mail. Two weeks after the initial survey mailing, a thank-you/reminder note was sent to the sampled physicians. Two weeks following the reminders, we sent a USPS Priority mailing to nonresponders, along with another copy of the questionnaire, a new cover letter, and a business reply envelope. Two weeks after the second survey was sent, a third survey mailing was sent overnight via Federal Express to the remaining nonresponders; the packet included the questionnaire, a cover letter, and a business reply envelope. A final mailing was sent via USPS first-class mail approximately 4 weeks later. This mailing included the questionnaire and a personalized letter with a handwritten note and signature. (See *Table 7* for a simplified schedule of the physician survey mailing.)

Table 7. Physician Survey Mailing Schedule

Materials Mailed	Sent via	Sent to	Date
1st copy of physician survey	USPS, first-class letter	Full physician sample	September 16, 2005
Reminder/thank you	Postcard	Full physician sample	September 30, 2005
2nd copy of physician survey	Priority mail	Sample members who did not respond by Oct. 10, 2005	October 14, 2005
3rd copy of physician survey	Federal Express	Sample members who did not respond by Oct. 26, 2005	October 28, 2005
4th copy of physician survey	USPS, first-class letter	Sample members who did not respond by Dec. 5, 2005	December 7, 2005

Response Rates

Of the 3,200 physicians sampled for this year's report, 28 were considered ineligible because it was discovered they were no longer actively involved in medical practice. Of the remaining 3,172 physicians, nearly half (1,482) returned the completed questionnaire by the deadline of January 20, 2006. The final response rate, using American Association for Public Opinion Research standard response rate 2 (standard definitions are located on the Web at www.aapor.org/pdfs/standarddefs_ver3.pdf), was 46.7%.

Table 8 shows the response rate by specialty for the 3 years of survey data used in the 2006 rankings. The average response rate for the 3 years of data collection was 48.4%, with a slight downward trend each year.

Table 9 shows the response rate for 2006 by region and specialty. Overall, physicians from the Northeast were slightly more likely to respond than physicians from the South. The lower response rates for the 2006 survey in the South are likely due in part to the effects of Hurricane Katrina, which occurred at the same time as the initial survey mailout.

Table 8. Yearly Response Rate by Specialty (2004–2006)*

Specialty	2004		2005		2006		3-year total	
	n	%	N	%	n	%	n	%
Cancer	74	49.7	94	47.2	103	51.8	271	49.6
Digestive Disorders	79	52.7	95	47.7	79	39.5	253	46.7
Ear, Nose, and Throat	92	61.3	123	61.8	111	56.3	326	59.8
Endocrinology	73	49.0	86	43.4	106	53.8	265	49.1
Gynecology	64	44.4	85	43.4	75	37.5	224	41.7
Heart and Heart Surgery	68	45.9	73	36.7	74	37.0	215	39.7
Kidney Disease	80	54.1	83	42.1	75	37.9	238	44.8
Neurology and Neurosurgery	80	53.7	98	49.2	92	46.0	270	49.4
Ophthalmology	78	52.3	113	56.8	106	54.1	297	54.7
Orthopedics	69	46.6	92	46.2	87	43.7	267	45.4
Pediatrics	76	50.7	100	51.0	91	46.0	267	49.2
Psychiatry	61	41.2	76	38.2	83	41.9	220	40.4
Rehabilitation	79	53.0	109	54.8	109	55.1	297	54.4
Respiratory Disorders	69	46.6	70	35.4	87	44.2	223	41.6
Rheumatology	80	54.1	96	48.0	97	49.5	273	50.3
Urology	73	49.7	105	53.6	107	53.8	285	52.7
Overall Response Rate**	1,278	50.7	1,592	47.3	1482	46.7	4369	48.4

* In 2004, 150 physicians were sampled for each specialty. In 2005 and 2006, 200 physicians were sampled for each specialty.

** The overall response rate includes in the numerator all physicians who returned a questionnaire with at least one item completed on the front page; it subtracts ineligible cases from the denominator.

Table 9. Response Rates by Region and Specialty, 2006

Specialty	West		Northeast		South		Midwest	
	n	%	N	%	n	%	n	%
Cancer	30	61.2	24	48.0	26	52.0	23	46.0
Digestive Disorders	22	44.0	19	38.0	19	38.0	19	38.0
Ear, Nose, and Throat	28	58.3	27	54.0	23	46.0	33	67.3
Endocrinology	24	48.0	28	57.1	28	58.3	26	52.0
Gynecology	24	48.0	17	34.0	13	26.0	21	42.0
Heart and Heart Disease	21	42.0	22	44.0	15	30.0	16	32.0
Kidney Disease	13	26.0	21	42.0	22	44.9	19	38.8
Neurology and Neurosurgery	25	50.0	23	46.0	16	32.0	28	56.0
Ophthalmology	22	45.8	27	54.0	31	62.0	26	54.2
Orthopedics	21	42.0	28	56.0	16	32.7	22	44.0
Pediatrics	19	39.6	22	44.0	31	62.0	19	38.0
Psychiatry	19	38.0	24	50.0	22	44.0	18	36.0
Rehabilitation	26	52.0	30	60.0	27	55.1	26	53.1
Respiratory Disorders	24	49.0	23	46.0	21	42.0	19	39.6
Rheumatology	19	38.8	31	62.0	25	51.0	22	45.8
Urology	29	58.0	28	57.1	22	44.0	28	56.0
Overall Response Rate*	366	46.3	394	49.5	357	45.0	365	46.1

* The overall response rate includes in the numerator all physicians who returned a questionnaire with at least one item completed on the front page; it subtracts ineligible cases from the denominator.

Survey Response Weighting

The physician survey was stratified by specialty and region (West, Northeast, South, and Midwest). Weights were constructed and applied to each physician's survey response to make nominations representative at the national level. Weights were based on the probability of selection within each unique specialty-region combination, with an adjustment made to account for nonresponders.

E. Calculation of the Index

Calculation of the rankings for the IHQ-driven specialties considers structure, process, and outcomes as equal components. Although each of the three measures represents a specific aspect of quality, a single score provides a result that is easier to use and understand and also portrays overall quality more accurately than would any of the three aspects individually. Therefore, in computing the final scores for a particular specialty, equal weight is given to the structural, process, and outcomes components.

The total formula for calculation of the specialty-specific IHQs is as follows:

$$\text{IHQ}_i = \{[(S_1 * F_1) + (S_2 * F_2) + (\dots S_n * F_n)] + [(P_i * 3F_{1-n})] + [(M * 3F_{1-n})]\},$$

where

- IHQ_i = index for hospital quality for specialty *i*,
- S_{1-n} = structural indicators (STRUCTURE),
- F_{1-n} = factor loadings for each of the indicators,
- P = nomination score (PROCESS), and
- M = standardized mortality score (OUTCOMES).

The general formula for deriving the hospital index scores has remained unchanged since its creation in 1993. For presentation purposes, we transformed the raw IHQ scores to a 100-point scale, where the top hospital in each specialty received a score of 100. The transformation uses a simple equation:

$$(\text{Raw IHQ score}_i - \text{minimum}_i) / \text{range}_i.$$

The mean and standard deviation (SD) of the IHQ for each of the 11 data-driven specialties are listed in **Table 10**. These data illustrate that the spread of IHQ scores produces a very small number of hospitals that are two and three SDs above the mean. Horizontal lines in each of the 11 specialty lists in **Appendix G** indicate the cutoff points of two and three SDs above the mean.

Table 10. Mean and Standard Deviations of the IHQ

Specialty	Mean	SD	2 SDs above the mean	3 SDs above the mean
Cancer	15.84	8.71	33.26	41.97
Digestive Disorders	13.73	5.97	25.66	31.63
Ear, Nose, and Throat	19.38	7.69	34.76	42.45
Endocrinology	17.77	7.36	32.49	39.85
Gynecology	17.92	7.07	32.07	39.15
Heart and Heart Surgery	17.60	7.78	33.17	40.95
Kidney Disease	21.17	9.15	39.47	48.62
Neurology and Neurosurgery	16.45	7.69	31.83	39.53
Orthopedics	16.68	6.47	29.61	36.08
Respiratory Disorders	17.55	6.58	30.71	37.29
Urology	14.96	6.53	28.03	34.56

III. Reputation-Only Specialties

The data available for the reputation-only specialties are more limited than for the IHQ-driven specialties. This is because Ophthalmology, Psychiatry, and Rehabilitation do not usually involve life-threatening procedures. For Rheumatology, the absolute number of inpatients is extremely low, making it difficult to collect reliable mortality measures. Medicare data are insufficient for computing mortality for Pediatrics, because the vast majority of Medicare patients are not children. In addition, reliable structural measures are not currently available for these specialties; therefore, we used only the process component to develop these rankings. This section describes the eligibility and procedures used to develop the rankings for the five reputation-only specialties.

A. Eligibility

Hospitals ranked solely by reputation do not have to meet the same eligibility standards required for the IHQ-driven specialties. A hospital becomes eligible when it receives one or more physician nominations (i.e., a non-zero reputational score). Only hospitals representing 3% or more of the total nominations in a specialty are published.

B. Process

The IHQ-driven specialties and the reputation-only specialties share the same process component (see *Section II.B* for more information).

C. Calculation of the Rankings

As mentioned above, the score for the reputation-only specialties of Ophthalmology, Pediatrics, Psychiatry, Rehabilitation, and Rheumatology must be calculated differently because structural and outcomes measures are unavailable. Thus, we rank hospitals in these specialties solely by reputation (see *Appendix H*). Although the five reputation-only specialties are ranked without the IHQ, SDs of the reputational scores are still useful in identifying truly superior hospitals (in terms of statistically relevant nomination scores). *Table 11* presents the mean and SD of the reputation-only scores.

Table 11. Means and Standard Deviations for the Reputation-Only Scores

Specialty	Mean	SD	2 SDs above the mean	3 SDs above the mean
Ophthalmology	3.83	11.95	27.73	39.69
Pediatrics	2.49	5.88	14.26	20.14
Psychiatry	2.21	4.98	12.16	17.14
Rehabilitation	2.06	6.11	14.29	20.40
Rheumatology	3.63	8.82	21.28	30.11

IV. The Honor Roll

This year, 176 different hospitals were ranked in at least one specialty. To lend additional perspective, an additional measure—the Honor Roll—indicates excellence across a broad range of specialties. To be listed in the Honor Roll, a hospital must rank at least two SDs above the mean in at least 6 of the 16 specialties. For 2006, 14 hospitals are listed on the Honor Roll. A hospital’s ranking on the Honor Roll is based on points, assigned as follows:

- If a hospital ranks between two and three SDs above the mean in a specialty, it receives 1 point.
- If a hospital ranks at least three SDs above the mean, it receives 2 points.

Using standard deviations above the mean as the criterion for inclusion in the Honor Roll sets a threshold for overall excellence. The Honor Roll also indicates the relative distances between the best hospitals, which cannot be determined solely from the rankings. *Appendix I* lists the 14 hospitals that qualified for the Honor Roll in 2006.

V. Summary of Changes for 2006

RTI first worked with *U.S. News* to conduct the best hospitals rankings in 2005. To maintain consistency in the ranking process, RTI replicated the preexisting methodology in both the 2005 and 2006 rankings, implementing only minor improvements. The methodological changes that were implemented in the 2006 rankings are listed below.

- **Specialties.** Geriatrics was dropped from the list of specialties (*Section I*).
- **Eligibility.** In order for hospitals with insufficient volume for a given specialty to be considered eligible, they had to receive one or more nominations in the physician survey AND have at least 10 total discharges (*Section II.A*).
- **Trimming.** The volume, nursing, and mortality measures underwent new trimming procedures (*Section II.B*).
- **Technology indices.** The technology elements were updated for each specialty to remain consistent with the technology expected from a best hospital (*Section II.B*).
- **Patient/community services.** The patient/community services index was updated to remain consistent with the services expected from a best hospital. The index was reduced to 11 total services and tailored to each specialty (*Section II.B*).
- **DRG groupings.** DRG groupings were updated for all specialties, consistent with typical year-to-year changes. DRGs were also broken down by ICD-9-CM codes to add another level of specificity. In addition, thresholds of severity were assigned to each DRG to ensure that only the most serious and difficult conditions were included in the mortality analysis(*Section II.C*).
- **Degranulated mortality.** Hospitals with volumes below the 75th percentile or fewer than 150 total discharges during the past 3 years received a degranulated mortality score (*Section II.C*).
- **Neonatologists.** The physician survey in Gynecology now includes neonatologists (*Section II.D*).

VI. Improvements for Future Releases of the Rankings

Each year, the methodology for “America’s Best Hospitals” is examined and refined to better measure hospital quality. For 2006, changes were made on a scale similar to previous years. In future years, RTI will closely examine current measures and new data sources in the changing context of hospital organization across the nation. Our goal is to continually improve and enhance the quality of the rankings. Here we present several methodological improvements that we are considering for future rankings.

- **Review sample design for physician survey.** We will continue to explore sample design options that will yield better estimates of change in physician nominations across time.
- **Reevaluate process component.** We will continue to evaluate the way in which additional measures of process could be used to enhance the physician survey proxy measure.
- **Incorporate 30-day mortality rates.** We will continue to investigate the feasibility of incorporating 30-days-from-admission mortality rates as opposed to death-at-discharge rates.
- **Incorporate structural data for reputation-only specialties.** We are examining resources and measures that would provide structural data for the five current reputation-only specialties to further strengthen and improve the rankings for these specialties.
- **Review external data sources.** We will investigate additional and new sources of data that offer quality measures for all hospitals. Data sources under consideration include quality indicators from the Agency for Healthcare Research and Quality and the Joint Commission on Accreditation of Healthcare Organizations.
- **Reevaluate outcomes component.** We will continue to evaluate additional measures to use in measuring outcomes.

Contact Information

We welcome informed suggestions on the methodology. Readers and users are encouraged to contact the Best Hospitals research team with suggestions and questions at the address listed below. This and previous methodology reports can be viewed or downloaded online in their entirety from the RTI International Web site at <http://www.rti.org/BestHospitals>. Specific questions or comments about the contents of this report can be sent via e-mail to BestHospitals@rti.org.

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Appendix A

2004 Sample Physician Questionnaire (Short Form)

America's Best Hospitals

THIS SURVEY OF PHYSICIANS' JUDGMENTS PROVIDES THE BASIS FOR THE REPUTATION COMPONENT OF THE ANNUAL RANKING OF HOSPITALS FOR U. S. NEWS & WORLD REPORT.



NORC

Please list in the spaces below, the five hospitals (and/or affiliated medical schools) in the United States that you believe provide the best care for patients with the most serious or difficult medical problems associated with cancer regardless of location or expense (we've provided space for both hospital and/or affiliated medical school in hopes that will make it easier to provide your answer):

	Five hospitals/affiliated medical schools that provide the best care.	City	State
a.	<input type="text"/>	<input type="text"/>	<input type="text"/>
b.	<input type="text"/>	<input type="text"/>	<input type="text"/>
c.	<input type="text"/>	<input type="text"/>	<input type="text"/>
d.	<input type="text"/>	<input type="text"/>	<input type="text"/>
e.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Conducted by the National Opinion Research Center at the University of Chicago
1155 East 60th Street, Chicago, IL 60637

Thank you again for your participation

National Opinion Research Center at the University of Chicago
1155 East 60th Street, Chicago, IL 60637

Appendix B

2005 Sample Physician Questionnaire (Long Form)

America's Best Hospitals

THIS SURVEY OF PHYSICIANS' JUDGMENTS PROVIDES THE BASIS FOR THE REPUTATION COMPONENT OF THE ANNUAL RANKING OF HOSPITALS FOR U.S. NEWS & WORLD REPORT.



Research Triangle Institute

① Please list in the spaces below, the five hospitals (and/or affiliated medical schools) in the United States that you believe provide the best care for patients with the most serious or difficult medical problems associated with neurology and neurosurgery, regardless of location or expense (we've provided space for the hospitals and/or affiliated medical schools in hopes that will make it easier to provide your answer):

	Hospitals and/or affiliated medical schools that provide the best care	City	State
a.	<input type="text"/>	<input type="text"/>	<input type="text"/>
b.	<input type="text"/>	<input type="text"/>	<input type="text"/>
c.	<input type="text"/>	<input type="text"/>	<input type="text"/>
d.	<input type="text"/>	<input type="text"/>	<input type="text"/>
e.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Please turn the page ➡

Conducted by the Research Triangle Institute
3040 Cornwallis Road, P.O. Box 12194, Research Triangle Park, NC 27709-2194

- 2 Please indicate how much you Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, or Strongly Disagree that each of the following was an important influence in choosing the hospitals you named above:

For each of the following influencing factors, circle the appropriate response, 1-5.

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
a. Your own direct knowledge of those hospitals	1	2	3	4	5
b. Experiences of your own patients at those hospitals	1	2	3	4	5
c. Experiences of your colleagues or your colleagues' patients at those hospitals	1	2	3	4	5
d. Published rankings of those hospitals on various indices of performance	1	2	3	4	5
e. Direct knowledge about specific physicians on staff at those hospitals	1	2	3	4	5
f. Publications or presentations by physicians or researchers at those hospitals	1	2	3	4	5
g. Knowledge of sophisticated medical technology utilized by those hospitals	1	2	3	4	5
h. Where you went to medical school	1	2	3	4	5
i. Where you did your internship or residency training	1	2	3	4	5
j. Some other factor <i>(Please specify)</i> _____	1	2	3	4	5

- 3 If you had your choice of how to respond to this survey, how would you have preferred to complete the survey? *(Please check one)*

- By mail
 By fax
 By telephone
 By the Internet

Thank you again for your participation.

Research Triangle Institute
 3040 Cornwallis Road, P.O. Box 12194, Research Triangle Park, NC 27709-2194

Appendix C

2005–2006 Sample Physician Questionnaire (Short Form)

America's Best Hospitals

THIS SURVEY OF PHYSICIANS' JUDGMENTS PROVIDES THE BASIS FOR THE REPUTATION COMPONENT OF THE ANNUAL RANKING OF HOSPITALS FOR U.S. NEWS & WORLD REPORT.



Research Triangle Institute

Please list in the spaces below, the five hospitals (and/or affiliated medical schools) in the United States that you believe provide the best care for patients with the most serious or difficult medical problems associated with cancer, regardless of location or expense (we've provided space for the hospitals and/or affiliated medical schools in hopes that will make it easier to provide your answer):

	Hospitals and/or affiliated medical schools that provide the best care	City	State
a.	<input type="text"/>	<input type="text"/>	<input type="text"/>
b.	<input type="text"/>	<input type="text"/>	<input type="text"/>
c.	<input type="text"/>	<input type="text"/>	<input type="text"/>
d.	<input type="text"/>	<input type="text"/>	<input type="text"/>
e.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Conducted by the Research Triangle Institute
3040 Cornwallis Road, P.O. Box 12194, Research Triangle Park, NC 27709-2194

Thank you again for your participation.

*Research Triangle Institute
3040 Cornwallis Road, P.O. Box 12194
Research Triangle Park, NC 27709-2194*

Appendix D
Structural Variable Map

The following variables, used to construct structural elements of the 2006 IHQ, were taken from the 2004 Annual Survey of Hospitals Database published by the American Hospital Association. Hospitals do not receive more than 1 point for any one service.

Key Technology Index (Total of 18 points possible)

1 point awarded if...	OR ½ point awarded if...
ICLABHOS=1	ICLABSYS, ICLABNET, or ICLABVEN=1
OTBONHOS=1	OTBONSYS, OTBONNET, or OTBONVEN=1
CICHOS=1	CICSYS, CICNET, or CICVEN=1
MAMMESHOS=1	MAMMSSYS, MAMMSNET, or MAMMSVEN=1
DRADFHOS=1	DRADFSYS, DRADFNET, or DRADFVEN=1
ESWLHOS=1	ESWLSYS, ESWLNET, or ESWLVEN=1
FRTCHOS=1	FRTCSYS, FRTCNET, or FRTCEN=1
GAMNHOS=1	GAMNSYS, GAMNNET, or GAMVEN=1
IMRTHOS=1	IMRTSYS, IMRTNET, or IMRTVEN=1
KDNYHOS=1	KDNYSYS, KDNYNET, or KDNYVEN=1
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
NICHOS=1	NICSYS, NICNET, or NICVEN=1
PEDICHOS=1	PEDICSYS, PEDICNET, or PEDICVEN=1
PELABHOS=1	PELABSYS, PELABNET, or PELABVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
BEAMHOS=1	BEAMSYS, BEAMNET, or BEAMVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Cancer Technology Index (Total of 5 points possible)

1 point awarded if...	OR ½ point awarded if...
OTBONHOS=1	OTBONSYS, OTBONNET, OTBONVEN=1
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
BEAMHOS=1	BEAMSYS, BEAMNET, BEAMVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1

Digestive Disorders Technology Index (Total of 8 points possible)

1 point awarded if...	OR ½ point awarded if...
DRADFHOS=1	DRADFSYS, DRADFNET, or DRADFVEN=1
ESWLHOS=1	ESWLSYS, ESWLNET, or ESWLVEN=1
GAMNHOS=1	GAMNSYS, GAMNNET, or GAMVEN=1
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
BEAMHOS=1	BEAMSYS, BEAMNET, BEAMVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Ear, Nose, and Throat Technology Index (Total of 5 points possible)

1 point awarded if...	OR ½ point awarded if...
GAMNHOS=1	GAMNSYS, GAMNNET, or GAMVEN=1
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
BEAMHOS=1	BEAMSYS, BEAMNET, BEAMVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1

Endocrinology Technology Index (Total of 7 points possible)

1 point awarded if...	OR ½ point awarded if...
DRADFHOS=1	DRADFSYS, DRADFNET, or DRADFVEN=1
GAMNHOS=1	GAMNSYS, GAMNNET, or GAMVEN=1
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
BEAMHOS=1	BEAMSYS, BEAMNET, BEAMVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Gynecology Technology Index (Total of 9 points possible)

1 point awarded if...	OR ½ point awarded if...
FRTCHOS=1	FRTCSYS, FRTCNET, or FRTVEN=1
GAMNHOS=1	GAMNSYS, GAMNNET, or GAMVEN=1
MAMMESHOS=1	MAMMSSYS, MAMMSNET, or MAMMSVEN=1
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
NICHOS=1	NICSYS, NICNET, or NICVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
BEAMHOS=1	BEAMSYS, BEAMNET, BEAMVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Heart and Heart Surgery Technology Index (Total of 8 points possible)

1 point awarded if...	OR ½ point awarded if...
ICLABHOS=1	ICLABSYS, ICLABNET, or ICLABVEN=1
CICHOS=1	CICSYS, CICNET, or CICVEN=1
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
PELABHOS=1	PELABSYS, PELABNET, PELABVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Kidney Disease Technology Index (Total of 6 points possible)

1 point awarded if...	OR ½ point awarded if...
DRADFHOS=1	DRADFSYS, DRADFNET, or DRADFVEN=1
ESWLHOS=1	ESWLSYS, ESWLNET, or ESWLVEN=1
GAMNHOS=1	GAMNSYS, GAMNNET, or GAMVEN=1
KDNYHOS=1	KDNYSYS, KDNYNET, KDNYVEN=1
BEAMHOS=1	BEAMSYS, BEAMNET, BEAMVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Neurology and Neurosurgery Technology Index (Total of 7 points possible)

1 point awarded if...	OR ½ point awarded if...
DRADFHOS=1	DRADFSYS, DRADFNET, or DRADFVEN=1
GAMNHOS=1	GAMNSYS, GAMNNET, or GAMVEN=1
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
BEAMHOS=1	BEAMSYS, BEAMNET, BEAMVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Orthopedics Technology Index (Total of 4 points possible)

1 point awarded if...	OR ½ point awarded if...
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Respiratory Disorders Technology Index (Total of 3 points possible)

1 point awarded if...	OR ½ point awarded if...
DRADFHOS=1	DRADFSYS, DRADFNET, or DRADFVEN=1
MSCTHOS=1	MSCTSYS, MSCTNET, or MSCTVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Urology Technology Index (Total of 8 points possible)

1 point awarded if...	OR ½ point awarded if...
DRADFHOS=1	DRADFSYS, DRADFNET, or DRADFVEN=1
ESWLHOS=1	ESWLSYS, ESWLNET, or ESWLVEN=1
GAMNHOS=1	GAMNSYS, GAMNNET, or GAMVEN=1
MRIHOS=1	MRISYS, MRINET, or MRIVEN=1
PETHOS=1	PETSYS, PETNET, or PETVEN=1
BEAMHOS=1	BEAMSYS, BEAMNET, BEAMVEN=1
SPECTHOS=1	SPECTSYS, SPECTNET, or SPECTVEN=1
ULTSNHOS=1	ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Cancer Patient/Community Services (Total of 8 points possible)

1 point awarded if...
AIRBHOS=1
CMNGTHOS=1
ENBHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
GNTCHOS=1

Digestive Disorders—Patient/Community Services (Total of 12 points possible)

1 point awarded if...
AIRBHOS=1
AMBHOS=1
CMNGTHOS=1
ENBHOS=1
GNTCHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1
SPORTHOS=1
WOMHCHOS=1

Ear, Nose, and Throat—Patient/Community Services (Total of 12 points possible)

1 point awarded if...
AIRBHOS=1
AMBHOS=1
CMNGTHOS=1
ENBHOS=1
GNTCHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1
SPORTHOS=1
WOMHCHOS=1

Endocrinology—Patient/Community Services (Total of 12 points possible)

1 point awarded if...
AIRBHOS=1
AMBHOS=1
CMNGTHOS=1
ENBHOS=1
GNTCHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1
SPORTHOS=1
WOMHCHOS=1

Gynecology—Patient/Community Services (Total of 14 points possible)

1 point awarded if...
AIRBHOS=1
AMBHOS=1
BROOMHOS=1
CMNGTHOS=1
ENBHOS=1
GNTCHOS=1
LINGHOS=1
OBLEV=3 <i>and</i> OBHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1
SPORTHOS=1
WOMHCHOS=1

Heart and Heart Surgery—Patient/Community Services (Total of 8 points possible)

1 point awarded if...
AMBHOS=1
CMNGTHOS=1
ENBHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1

Kidney Disease—Patient/Community Services (Total of 12 points possible)

1 point awarded if...
AIRBHOS=1
AMBHOS=1
CMNGTHOS=1
ENBHOS=1
GNTCHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1
SPORTHOS=1
WOMHCHOS=1

Neurology and Neurosurgery—Patient/Community Services (Total of 12 points possible)

1 point awarded if...
AIRBHOS=1
AMBHOS=1
CMNGTHOS=1
ENBHOS=1
GNTCHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1
SPORTHOS=1
WOMHCHOS=1

Orthopedics—Patient/Community Services (Total of 8 points possible)

1 point awarded if...
CMNGTHOS=1
ENBHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1
SPORTHOS=1

Respiratory Disorders—Patient/Community Services (Total of 12 points possible)

1 point awarded if...
AIRBHOS=1
AMBHOS=1
CMNGTHOS=1
ENBHOS=1
GNTCHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1
SPORTHOS=1
WOMHCHOS=1

Urology—Patient/Community Services (Total of 12 points possible)

1 point awarded if...
AIRBHOS=1
AMBHOS=1
CMNGTHOS=1
ENBHOS=1
GNTCHOS=1
LINGHOS=1
PAINHOS=1
PCAHOS=1
PATRPHOS=1
REHABHOS=1
SPORTHOS=1
WOMHCHOS=1

Nursing Index

Index equals:
Full-time Equivalent Registered Nurses (FTEN where available, FTERN otherwise) divided by Adjusted Average Daily Census (ADJADC)

Trauma

"Yes" if...
TRAUML90=1 or 2 and TRAUMHOS=1

NCI

"Yes" if...
National Cancer Institute designated Comprehensive or Clinical Cancer Center

Epilepsy Centers

"Yes" if...
National Association of Epilepsy Center designated level 4 epilepsy center

Nurse Magnet Hospital

"Yes" if...
American Nurses Credentialing Center designated

Hospice/Palliative Care

"H, P" if...	OR "H" if...	OR "P" if....
(HOSPCHOS=1 or HOSPCSYS=1 or HOSPCNET=1 or HOSPCVEN=1) and (PALHOS=1 or PALSYS=1 or PALNET=1 or PALVEN=1)	HOSPCHOS=1 or HOSPCSYS=1 or HOSPCNET=1 or HOSPCVEN=1	PALHOS=1 or PALSYS=1 or PALNET=1 or PALVEN=1

Appendix E
2006 Diagnosis-Related Group (DRG)
Groupings by Specialty

Cancer

	DRGs	ICD-9-CMs	APR-DRG Threshold
#10	Nervous System Neoplasms W CC	Include All	3
#11	Nervous System Neoplasms W/O CC	Include All	3
#64	Ear, Nose, Mouth & Throat Malignancy	Include All	2
#82	Respiratory Neoplasms	Include All	3
#172	Digestive Malignancy W CC	Include All	2
#173	Digestive Malignancy W/O CC	Include All	2
#199	Hepatobiliary Diagnostic Procedure For Malignancy	Include All	2
#203	Malignancy Of Hepatobiliary System Or Pancreas	Include All	2
#239	Pathological Fractures & Musculoskeletal & Conn Tiss Malignancy	Include All	2
#257	Total Mastectomy For Malignancy W CC	Include All	2
#258	Total Mastectomy For Malignancy W/O CC	Include All	2
#259	Subtotal Mastectomy For Malignancy W CC	Include All	2
#260	Subtotal Mastectomy For Malignancy W/O CC	Include All	2
#272	Major Skin Disorders W CC	Inclusion Diagnosis: 172, 1721-9	2
#273	Major Skin Disorders W/O CC	Inclusion Diagnosis: 172, 1721-9	2
#274	Malignant Breast Disorders W CC	Include All	2
#275	Malignant Breast Disorders W/O CC	Include All	2
#303	Kidney, Ureter & Major Bladder Procedures For Neoplasm	Include All	3
#318	Kidney & Urinary Tract Neoplasms W Cc	Include All	3
#319	Kidney & Urinary Tract Neoplasms W/O CC	Include All	3
#338	Testes Procedures, For Malignancy	Include All	2
#344	Other Male Reproductive System O.R. Procedures For Malignancy	Include All	2
#346	Malignancy, Male Reproductive System, W CC	Include All	2
#347	Malignancy, Male Reproductive System, W/O CC	Include All	2
#354	Uterine, Adnexa Proc For Non-Ovarian/Adnexal Malig W CC	Include All	2
#355	Uterine, Adnexa Proc For Non-Ovarian/Adnexal Malig W/O CC	Include All	2
#357	Uterine & Adnexa Proc For Ovarian Or Adnexal Malignancy	Include All	2
#363	D&C, Conization & Radio-Implant, For Malignancy	Include All	2
#366	Malignancy, Female Reproductive System W CC	Include All	2
#367	Malignancy, Female Reproductive System W/O CC	Include All	2
#400	Lymphoma & Leukemia W Major O.R. Procedure	Include All	2
#401	Lymphoma & Non-Acute Leukemia W Other O.R. Proc W CC	Include All	2
#402	Lymphoma & Non-Acute Leukemia W Other O.R. Proc W/O CC	Include All	2
#403	Lymphoma & Non-Acute Leukemia W CC	Include All	2
#404	Lymphoma & Non-Acute Leukemia W/O CC	Include All	2
#406	Myeloprolif Disord Or Poorly Diff Neopl W Maj or Proc W CC	Include All	2

(continued)

Cancer (continued)

	DRGs	ICD-9-CMs	APR-DRG Threshold
#407	Myeloprolif Disord Or Poorly Diff Neopl W Maj or Proc W/O CC	Include All	2
#408	Myeloprolif Disord Or Poorly Diff Neopl W Other or Proc	Include All	2
#410	Chemotherapy W/O Acute Leukemia As Secondary Diagnosis	Include All	3
#413	Other Myeloprolif Dis Or Poorly Diff Neopl Diag W CC	Include All	3
#414	Other Myeloprolif Dis Or Poorly Diff Neopl Diag W/O CC	Include All	3
#473	Acute Leukemia W/O Major O.R. Procedure Age >17	Include All	2
#481	Bone Marrow Transplant	Include All	1
#492	Chemotherapy W Acute Leukemia As Secondary Diagnosis	Include All	2
#539	Lymphoma & Leukemia W Major Or Procedure W Cc	Include All	2
#540	Lymphoma & Leukemia W Major Or Procedure W/O Cc	Include All	2

Digestive Disorders

	DRGs	ICD-9-CMs	APR-DRG Threshold
#146	Rectal Resection W CC	Include All	1
#147	Rectal Resection W/O CC	Include All	2
#148	Major Small & Large Bowel Procedures W CC	Include All	2
#149	Major Small & Large Bowel Procedures W/O CC	Include All	2
#150	Peritoneal Adhesiolysis W CC	Include All	2
#151	Peritoneal Adhesiolysis W/O CC	Include All	2
#152	Minor Small & Large Bowel Procedures W CC	Include All	2
#153	Minor Small & Large Bowel Procedures W/O CC	Exclude Procedure: 4511, 4515, 4521, 4821	3
#154	Stomach, Esophageal & Duodenal Procedures Age >17 W CC	Include All	2
#155	Stomach, Esophageal & Duodenal Procedures Age >17 W/O CC	Include All	3
#170	Other Digestive System O.R. Procedures W CC	Include All	2
#171	Other Digestive System O.R. Procedures W/O CC	Include All	3
#172	Digestive Malignancy W CC	Include All	2
#173	Digestive Malignancy W/O CC	Include All	2
#174	G.I. Hemorrhage W CC	Include All	2
#175	G.I. Hemorrhage W/O CC	Include All	2
#176	Complicated Peptic Ulcer	Include All	2
#177	Uncomplicated Peptic Ulcer W CC	Include All	3
#179	Inflammatory Bowel Disease	Include All	2
#180	G.I. Obstruction W CC	Include All	3
#182	Esophagi is, Gastroent & Misc Digest Disorders Age >17 W CC	Include All	3
#188	Other Digestive System Diagnoses Age >17 W CC	Include All	2

(continued)

Digestive Disorders (continued)

	DRGs	ICD-9-CMs	APR-DRG Threshold
#191	Pancreas, Liver & Shunt Procedures W CC	Include All	1
#192	Pancreas, Liver & Shunt Procedures W/O CC	Include All	2
#193	Biliary Tract Proc Except Only Cholecyst W Or W/O C.D.E. W CC	Include All	2
#194	Biliary Tract Proc Except Only Cholecyst W Or W/O C.D.E. W/O CC	Include All	3
#195	Cholecystectomy W C.D.E. W CC	Include All	2
#196	Cholecystectomy W C.D.E. W/O CC	Include All	2
#197	Cholecystectomy Except By Laparoscope W/O C.D.E. W CC	Include All	2
#199	Hepatobiliary Diagnostic Procedure For Malignancy	Include All	2
#200	Hepatobiliary Diagnostic Procedure For Non-Malignancy	Include All	2
#201	Other Hepatobiliary or Pancreas or Procedures	Exclude Proc: 4011	3
#202	Cirrhosis & Alcoholic Hepatitis	Include All	3
#203	Malignancy Of Hepatobiliary System Or Pancreas	Include All	2
#204	Disorders Of Pancreas Except Malignancy	Include All	2
#205	Disorders of Liver Except Malig, Cirr, Alc Hepa W CC	Exclude Diag: 7948	2
#207	Disorders Of The Biliary Tract W CC	Include All	3
#493	Laparoscopic Cholecystectomy W/O C.D.E. W CC	Include All	3

Ear, Nose, and Throat

	DRGs	ICD-9-CMs	APR-DRG Threshold
#49	Major Head & Neck Procedures	Include All	2
#51	Salivary Gland Procedures Except Sialoadenectomy	Include All	3
#57	T&A Proc, Except Tonsillectomy &/or Adenoidectomy Only, Age >17	Include All	3
#63	Other Ear, Nose, Mouth & Throat O.R. Procedures	Include All	3
#64	Ear, Nose, Mouth & Throat Malignancy	Include All	2
#67	Epiglottitis	Include All	3
#68	Otitis Media & Uri Age >17 W CC	Include All	3
#71	Laryngotracheitis	Include All	3
#72	Nasal Trauma & Deformity	Include All	3
#73	Other Ear, Nose, Mouth & Throat Diagnoses Age >17	Include All	3
#482	Tracheostomy For Face, Mouth & Neck Diagnoses	Include All	2

Endocrinology

	DRGs	ICD-9-CMs	APR-DRG Threshold
#286	Adrenal & Pituitary Procedures	Include All	2
#287	Skin Grafts & Wound Debrid For Endoc, Nutrit & Metab Disorders	Include All	2
#288	O.R. Procedures For Obesity	Include All	2
#289	Parathyroid Procedures	Exclude Proc: 0613	2
#290	Thyroid Procedures	Exclude Proc: 0611-13, 0619, 0061	2
#292	Other Endocrine, Nutrit & Metab O.R. Proc W CC	Include All	2
#293	Other Endocrine, Nutrit & Metab O.R. Proc W/O CC	Include All	2
#294	Diabetes Age >35	Include All	3
#296	Nutritional & Misc Metabolic Disorders Age >17 W CC	Include All	3
#300	Endocrine Disorders W CC	Include All	3

Gynecology

	DRGs	ICD-9-CMs	APR-DRG Threshold
#353	Pelvic Evisc, Radical Hysterectomy & Radical Vulvectomy	Include All	1
#354	Uterine, Adnexa Proc for Non-Ovarian/Adnexal Malig W CC	Include All	2
#355	Uterine, Adnexa Proc for Non-Ovarian/Adnexal Malig W/O CC	Include All	2
#357	Uterine & Adnexa Proc for Ovarian Or Adnexal Malignancy	Include All	2
#358	Uterine & Adnexa Proc for Non-Malignancy W CC	Include All	2
#359	Uterine & Adnexa Proc for Non-Malignancy W/O CC	Include All	3
#360	Vagina, Cervix & Vulva Procedures	Exclude Proc: 0702, 7022-4, 7029	3
#363	D&C, Conization & Radio-Implant, For Malignancy	Include All	2
#365	Other Female Reproductive System O.R. Procedures	Include All	2
#366	Malignancy, Female Reproductive System W CC	Include All	2
#367	Malignancy, Female Reproductive System W/O CC	Include All	2
#368	Infections, Female Reproductive System	Include All	3
#369	Menstrual & Other Female Reproductive System Disorders	Include All	3

Heart and Heart Surgery

	DRGs	ICD-9-CMs	APR-DRG Threshold
#75	Major Chest Procedures	Include Procs: 3712, 3724, 3731, 3791, 3805, 3815, 3835, 3845, 3855, 3.65, 3885, 3954	2
#103	Heart Transplant	Include All	1
#104	Cardiac Valve & Other Major Cardiothoracic Px W Cardiac Cath	Include All	2
#105	Cardiac Valve & Other Major Cardiothoracic Px W/O Cardiac Cath	Include All	2
#106	Coronary Bypass With Ptca	Include All	2
#107	Coronary Bypass With Cardiac Cath	Include All	2
#108	Other Cardiothoracic Procedures	Include All	2
#109	Coronary Bypass Wo/Cardiac Cath	Include All	2
#110	Major Cardiovascular Procedures W Cc	Include All	2
#111	Major Cardiovascular Procedures W/O Cc	Include All	2
#115	Prm Card Pacem Impl W Ami, Hrt Fail Or Shk, Or Acid Lead Or Gnrtr Proc	Include All	2
#116	Other Permanent Cardiac Pacemaker Implantation	Include All	3
#117	Cardiac Pacemaker Revision Except Device Replacement	Include All	2
#121	Circulatory Disorders W Ami & Major Comp, Discharged Alive	Include All	2
#122	Circulatory Disorders W Ami W/O Major Comp, Discharged Alive	Include All	2
#123	Circulatory Disorders W Ami, Expired	Include All	2
#124	Circ Dis Ex Ami W/Cath & Complex Diag	Include All	2
#126	Acute & Subacute Endocarditis	Include All	2
#127	Heart Failure & Shock	Include All	2
#135	Cardiac Congenital & Valvular Disorders Age >17 W Cc	Include All	2
#138	Cardiac Arrhythmia & Conduction Disorders W Cc	Include All	2
#144	Other Circulatory System Diagnoses W Cc	Include All	2
#145	Other Circulatory System Diagnoses W/O Cc	Include All	3
#514	Cardiac Defibrillator Implant W Cardiac Cath	Include All	1
#515	Cardiac Defibrillator Implant W/O Cardiac Cath	Include All	1
#516	Percutaneous Cardiovascular Proc W Ami	Include All	2
#517	Perc Cardio Proc W Coronary Artery Stent W/O Ami	Include All	3
#518	Perc Cardio Proc W/O Coronary Artery Stent Or Ami	Include All	3
#525	Heart Assist System Implant	Include All	1
#526	Percut. Cv Proc W/Drug Eluting Stent W/Ami	Include All	3
#527	Percut. Cv Proc W/Drug Eluting Stent W/O Ami	Include All	3
#535	Cardiac Defibrillator Implant W Cath W Ami, Heart Failure, Or Shock	Include All	1
#536	Cardiac Defibrillator Implant W Cath W/O Ami, Heart Failure, Or Shock	Include All	3

Kidney Disease

DRGs	ICD-9-CMs	APR-DRG Threshold	DRGs
#302	Kidney Transplant	Include All	1
#303	Kidney, Ureter & Major Bladder Procedures For Neoplasm	Include Proc: 055, 0550-9, 3924, 5501-4, 5511-2, 5521- 4, 3529, 5531, 5539, 5551-4, 5561, 5569, 5581-7, 5589, 5591-9	2
#304	Kidney, Ureter & Major Bladder Proc For Non-Neopl W Cc	See DRG #303	2
#305	Kidney, Ureter & Major Bladder Proc For Non-Neopl W/O Cc	See DRG #303	3
#315	Other Kidney & Urinary Tract Or Procedures	Exclude Proc: 0068, 0640, 0681, 0689, 0774, 3328, 3402, 3972, 6495-7, 7740-9	3
#316	Renal Failure	Include All	2
#318	Kidney and Urinary Tract Neoplasms W CC	Include Diag: 189, 1890-4, 1898-9, 198, 1980-8, 19881- 2, 19889, 223, 2230-3, 2238, 22381, 22389, 2239	2
#319	Kidney and Urinary Tract Neoplasms W/O CC	See DRG #318	3
#320	Kidney & Urinary Tract Infections Age >17 W Cc	See DRG #318	2
#325	Kidney & Urinary Tract Signs & Symptoms Age >17 W Cc	Include All	3
#331	Other Kidney & Urinary Tract Diagnoses Age >17 W Cc	Too many to list*	3
#332	Other Kidney & Urinary Tract Diagnoses Age >17 W/O Cc	See DRG #331	3
#512	Simultaneous Pancreas/Kidney Transplant	Include All	1

*To obtain a complete list, send your request via e-mail to besthospitals@rti.org.

Neurology and Neurosurgery

	DRGs	ICD-9-CMs	APR-DRG Threshold
#1	Craniotomy Age >17 W CC	Include All	1
#2	Craniotomy Age >17 W/O CC	Include All	1
#4	Spinal Procedures	Include All	2
#5	Extracranial Vascular Procedures	Include All	2
#7	Periph & Cranial Nerve & Other Nerv Syst Proc W Cc	Include All	2
#8	Periph & Cranial Nerve & Other Nerv Syst Proc W/O Cc	Include All	2
#9	Spinal Disorders & Injuries	Include All	2
#10	Nervous System Neoplasm With Cc	Include All	2
#11	Nervous System Neoplasm Without Cc	Include All	2
#12	Degenerative Nervous System Disorders	Include All	2
#13	Multiple Sclerosis & Cerebellar Ataxia	Include All	2
#14	Specific Cerebrovascular Disorders Except Tia	Include All	2
#15	Transient Ischemic Attack & Precerebral Occlusions	Include All	2
#16	Nonspecific Cerebrovascular Disorders W Cc	Include All	2
#18	Cranial & Peripheral Nerve Disorders W Cc	Include All	2
#19	Cranial & Peripheral Nerve Disorders W/O Cc	Include All	2
#20	Nervous System Infection Except Viral Meningitis	Include All	2
#21	Viral Meningitis	Include All	2
#22	Hypertensive Encephalopathy	Include All	2
#23	Nontraumatic Stupor & Coma	Include All	2
#24	Seizure & Headache Age >17 W Cc	Include All	2
#27	Traumatic Stupor & Coma, Coma >1 Hr	Include All	1
#28	Traumatic Stupor & Coma, Coma <1 Hr Age >17 W Cc	Include All	1
#29	Traumatic Stupor & Coma, Coma <1 Hr Age >17 W/O Cc	Include All	1
#34	Other Disorders Of Nervous System W Cc	Include All	3
#35	Other Disorders Of Nervous System W/O Cc	Include All	3
#484	Craniotomy For Multiple Significant Trauma	Include All	2
#496	Combined Anterior/Posterior Spinal Fusion	Include All	2
#497	Spinal Fusion With Cc	Include All	2
#498	Spinal Fusion Without Cc	Include All	2
#499	Back And Neck Procedures Except Spinal Fusion With Cc	Include All	3
#500	Back And Neck Procedures Except Spinal Fusion Without Cc	Include All	3
#519	Cervical Fusion With Cc	Include All	2
#520	Cervical Fusion Without Cc	Include All	2
#528	Intracranial Vasc Proc W PDX Hemorrhage	Include All	1
#529	Ventricular Shunt Proc W CC	Include All	2
#530	Ventricular Shunt Proc W/O CC	Include All	2
#531	Spinal Procedures W CC	Include All	2
#532	Spinal Procedures W/O CC	Include All	2
#533	Extracranial Vascular Proc W CC	Include All	2

Orthopedics

	DRGs	ICD-9-CMs	APR-DRG Threshold
#4	Spinal Procedures	Include Proc: 0810, 0813, 7781, 7791, 8050-1, 8059, 8100-9, 8130- 9, 8161	3
#209	Major Joint & Limb Reattachment Procedures of Lower Extremity	Include All	2
#210	Hip & Femur Procedures Except Major Joint Age >17 W CC	Include All	2
#211	Hip & Femur Procedures Except Major Joint Age >17 W/O CC	Include All	3
#218	Lower Extrem & Humer Proc Except Hip, Foot, Femur Age >17 W CC	Include All	2
#219	Lower Extrem & Humer Proc Except Hip, Foot, Femur Age >17 W/O CC	Include All	3
#223	Maj Shoulder/Elbow Proc, or other Upper Extremity Proc W CC	Include All	2
#225	Foot Procedures	Include All	3
#226	Soft Tissue Procedures W CC	Include All	3
#228	Major Thumb or Joint Proc, or Oth Hand or Wrist Proc W CC	Include All	3
#230	Local Excision & Removal of Int Fix Devices Of Hip & Femur	Include All	3
#231	Local Excision & Removal of Int Fix Devices Except Hip & Femur	Include All	2
#233	Other Musculoskelet Sys & Conn Tiss O.R. Proc W CC	Too many to list*	3
#234	Other Musculoskelet Sys & Conn Tiss O.R. Proc W/O CC	Include All	3
#235	Fractures of Femur	Include All	2
#236	Fractures of Hip & Pelvis	Include All	2
#238	Osteomyelitis	Include All	3
#239	Pathological Fractures & Musculoskeletal & Conn Tiss Malig	Too many to list*	3
#471	Bilateral or Multiple Major Joint Procs of Lower Extremity	Include All	2
#485	Limb Reattachment, Hip And Femur Proc For Multiple Significant Trauma	Include All	1
#491	Major Joint & Limb Reattachment Proc of Upper Extremity	Include All	1
#496	Combined Anterior/Posterior Spinal Fusion	Include All	2
#497	Spinal Fusion Except Cervical W CC	Include All	2
#498	Spinal Fusion Except Cervical W/O CC	Include All	2
#499	Back And Neck Procedures Except Spinal Fusion With CC	Include All	2
#500	Back And Neck Procedures Except Spinal Fusion Without CC	Include All	2
#501	Knee Procedures W Pdx of Infection W CC	Include All	2
#502	Knee Procedures W Pdx of Infection W/O CC	Include All	2
#519	Cervical Fusion W CC	Include All	2

(continued)

Orthopedics (continued)

	DRGs	ICD-9-CMs	APR-DRG Threshold
#520	Cervical Fusion W/O CC	Include All	2
#531	Spinal Procedures W CC	Include Proc: 0810, 0813, 7781, 7791, 8050-1, 8059, 8100-9, 8130- 9, 8161	3
#532	Spinal Procedures W/O CC	See DRG #532	3
#537	Local Excis & Remov of Int Fix Dev Except Hip & Femur W CC	Include All	2
#538	Local Excis & Remov of Int Fix Dev Except Hip & Femur W/O CC	Include All	3

*To obtain a complete list, send your request via e-mail to besthospitals@rti.org.

Respiratory Disorders

	DRGs	ICD-9-CMs	APR-DRG Threshold
#75	Major Chest Procedures	Too many to list*	2
#76	Other Resp System O.R. Procedures W Cc	Include All	2
#77	Other Resp System O.R. Procedures W/O Cc	Include All	3
#78	Pulmonary Embolism	Include All	1
#79	Respiratory Infections & Inflammations Age >17 W Cc	Exclude Diag: V712, 7955	2
#80	Respiratory Infections & Inflammations Age >17 W/O Cc	See DRG #79	2
#82	Respiratory Neoplasms	Exclude Diag: 2120-9, 2133	2
#83	Major Chest Trauma W CC	Include All	1
#84	Major Chest Trauma W/O CC	Include All	1
#85	Pleural Effusion W Cc	Include All	3
#87	Pulmonary Edema & Respiratory Failure	Include All	2
#88	Chronic Obstructive Pulmonary Disease	Include All	3
#89	Simple Pneumonia & Pleurisy Age >17 W Cc	Include All	3
#92	Interstitial Lung Disease W Cc	Include All	3
#93	Interstitial Lung Disease W/O Cc	Include All	3
#94	Pneumothorax W Cc	Exclude Diag: 5121	2
#96	Bronchitis & Asthma Age >17 W Cc	Include All	3
#475	Respiratory System Diagnosis With Ventilator Support	Include All	2
#483	Trac W Mech Vent 96+Hrs Or Pdx Except Face, Mouth & Neck Dx	Include All	1
#495	Lung Transplant	Include All	1

*To obtain a complete list, send your request via e-mail to besthospitals@rti.org.

Urology

	DRGs	ICD-9-CMs	APR-DRG Threshold
#303	Kidney, Ureter & Major Bladder Procedures For Neoplasm	Exclude Proc: 0055, 0550-9, 3924, 5501-4, 5511-2, 5521- 4, 5529, 5531, 5539, 5551-4, 5561, 5569, 5581-9, 5591-9	2
#304	Kidney, Ureter & Major Bladder Proc For Non-Neopl W CC	See DRG #303	2
#305	Kidney, Ureter & Major Bladder Proc For Non-Neopl W/O CC	See DRG #303	3
#306	Prostatectomy W CC	Include All	3
#308	Minor Bladder Procedures W CC	Include All	3
#309	Minor Bladder Procedures W/O CC	Include All	3
#310	Transurethral Procedures W CC	Include All	3
#312	Urethral Procedures, Age >17 W CC	Include All	3
#315	Other Kidney & Urinary Tract O.R. Procedures	Include Proc: 0640, 6495-7	3
#318	Kidney & Urinary Tract Neoplasms W CC	Exclude Diag: 189, 1890-4, 1898-9, 198, 1980-8, 19881- 2, 19889, 223, 2230-3, 2238, 22381, 22389, 2239	2
#319	Kidney & Urinary Tract Neoplasms W/O CC	See DRG #318	3
#323	Urinary Stones W Cc, &/Or Esw Lithotripsy	Include All	3
#328	Urethral Stricture Age >17 W Cc	Include All	3
#331	Other Kidney & Urinary Tract Diagnoses Age >17 W CC	Too many to list*	3
#332	Other Kidney & Urinary Tract Diagnoses Age >17 W/O CC	See DRG #331	3
#334	Major Male Pelvic Procedures W CC	Include All	2
#335	Major Male Pelvic Procedures W/O CC	Include All	2
#336	Transurethral Prostatectomy W CC	Include All	2
#338	Testes Procedures, For Malignancy	Include All	2
#339	Testes Procedures, Non-Malignancy Age >17	Include All	3
#341	Penis Procedures	Include All	3
#344	Other Male Reproductive System or Procedures for Malignancy	Include All	2
#345	Other Male Reproductive System or Proc Except for Malignancy	Include All	3
#346	Malignancy, Male Reproductive System, W CC	Include All	2
#347	Malignancy, Male Reproductive System, W/O CC	Include All	2
#350	Inflammation Of The Male Reproductive System	Include All	3
#352	Other Male Reproductive System Diagnoses	Include All	3
#476	Prostatic or Proc Unrelated to Principal Diagnosis	Include All	3

*To obtain a complete list, send your request via e-mail to besthospitals@rti.org.

Appendix F

Changes to DRG Groupings for Mortality

Specialty	DRGs Added	DRGs Deleted
Cancer	272: Major Skin Disorders W CC 273: Major Skin Disorders W/O CC 406: Myeloprolif Disord Or Poorly Diff Neopl W Maj or Proc W CC 407: Myeloprolif Disord Or Poorly Diff Neopl W Maj or Proc W/O CC 408: Myeloprolif Disord Or Poorly Diff Neopl W Other or Proc 539: Lymphoma & Leukemia W Major Or Procedure W CC 540: Lymphoma & Leukemia W Major Or Procedure W/O CC	NONE
Digestive Disorders	NONE	178: Uncomplicated Peptic Ulcer W/O Cc 181: G.I. Obstruction W/O CC 183: Esophagitis, Gastroent & Misc Digest Disorders Age >17 W/O CC 189: Other Digestive System Diagnoses Age >17 W/O CC 198: Cholecystectomy Except By Laparoscope W/O C.D.E. W/O CC 206: Disorders Of Liver Except Malig, Cirr, Alc Hepa W/O CC 208: Disorders Of The Biliary Tract W/O CC 494: Laparoscopic Cholecystectomy W/O C.D.E. W/O CC
Ear, Nose, and Throat	64: Ear, Nose, Mouth & Throat Malignancy	50: Sialoadenectomy 55: Miscellaneous Ear, Nose, Mouth & Throat Procedures 65: Dysequilibrium 66: Epistaxis 69: Otitis Media & Uri Age >17 W/O CCc
Endocrinology	NONE	297: Nutritional & Misc Metabolic Disorders Age >17 W/O CC 301: Endocrine Disorders W/O CC
Gynecology	NONE	356: Female Reproductive System Reconstructive Procedures
Heart and Heart Surgery	535: Cardiac Defibrillator Implant W Cath W Ami, Heart Failure, Or Shock 536: Cardiac Defibrillator Implant W Cath W/O Ami, Heart Failure, Or Shock	118: Cardiac Pacemaker Device Replacement 125: Circ Dis Ex Ami W/Cath Wo/Comp Diag 132: Atherosclerosis W Cc 133: Atherosclerosis W/O Cc 139: Cardiac Arrhythmia & Conduction Disorders W/O Cc 140: Angina Pectoris 143: Chest Pain

Specialty	DRGs Added	DRGs Deleted
Kidney Disease	315: Other Kidney & Urinary Tract Or Procedures 318: Kidney and Urinary Tract Neoplasms W CC 319: Kidney and Urinary Tract Neoplasms W/O CC	321: Kidney & Urinary Tract Infections Age >17 W/O Cc
Neurology & Neurosurgery	528: Intracranial Vasc Proc W PDX Hemorrhage 529: Ventricular Shunt Proc W CC 530: Ventricular Shunt Proc W/O CC 531: Spinal Procedures W CC 532: Spinal Procedures W/O CC 533: Extracranial Vascular Proc W CC	6: Carpal Tunnel Release 17: Nonspecific Cerebrovascular Disorders W/O CC
Orthopedics	4: Spinal Procedures 531: Spinal Procedures W CC 532: Spinal Procedures W/O CC 537: Local Excis & Remov of Int Fix Dev Except Hip & Femur W CC 538: Local Excis & Remov of Int Fix Dev Except Hip & Femur W/O CC	212: Hip & Femur Procedures Except Major Joint Age 0-17 224: Shoulder, Elbow Or Forearm Proc, Exc Major Joint Proc, W/O CC 227: Soft Tissue Procedures W/O CC 229: Hand Or Wrist Proc, Except Major Joint Proc, W/O CC 232: Arthroscopy 237: Sprains, Strains, & Dislocations Of Hip, Pelvis & Thigh 248: Tendonitis, Myositis & Bursitis 250: Fx, Sprn, Strn & Disl Of Forearm, Hand, Foot Age >17 W CC 253: Fx, Sprn, Strn & Disl Of Uparm, Lowleg Ex Foot Age >17 W CC 503: Knee Procedures W/O Pdx Of Infection
Respiratory Disorders	75: Major Chest Procedures 83: Major Chest Trauma W CC 84: Major Chest Trauma W/O CC	86: Pleural Effusion W/O CC 95: Pneumothorax W/O CC 102: Other Respiratory System Diagnoses W/O CC
Urology	318: Kidney & Urinary Tract Neoplasms W CC 319: Kidney & Urinary Tract Neoplasms W/O CC 332: Other Kidney & Urinary Tract Diagnoses Age >17 W/O CC 345: Other Male Reproductive System or Proc Except for Malignancy 476: Prostatic or Proc Unrelated to Principal Diagnosis	307: Prostatectomy W/O CC 311: Transurethral Procedures W/O CC 314: Urethral Procedures, Age 0-17 337: Transurethral Prostatectomy W/O CC

Appendix G
Index of Hospital Quality (IHQ)
Scores by Specialty

Final IHQ-Driven Rankings 2006—Cancer

Rank 2006	Hospital	U.S.			Discharges (3 years)	Nursing index	Nurse Magnet Hospital	Technology (of 5)	Patient/ community services (of 8)	NCI cancer center	Hospice/ palliative care
		News Score	Reputation (%)	Mortality							
1	Memorial Sloan-Kettering Cancer Center, New York	100.0	69.6	0.77	6,744	1.5	No	5.0	8	Yes	H, P
2	University of Texas M. D. Anderson Cancer Center, Houston	99.1	69.7	0.82	6,967	2.0	Yes	5.0	5	Yes	P
3	Johns Hopkins Hospital, Baltimore	69.0	35.7	0.53	2,423	2.3	Yes	5.0	8	Yes	H, P
4	Mayo Clinic, Rochester, Minn.	60.7	28.2	0.55	5,247	2.8	Yes	4.0	8	Yes	H, P
5	Dana-Farber Cancer Institute, Boston	59.7	35.8	0.64	326	0.8	Yes	2.5	5	Yes	H, P
6	University of Washington Medical Center, Seattle	44.1	14.9	0.60	1,130	2.2	Yes	5.0	7	Yes	H, P (+ 3 SD)
7	Duke University Medical Center, Durham, N.C.	36.8	7.8	0.64	3,305	1.8	No	5.0	8	Yes	H, P
8	University of Chicago Hospitals	36.5	6.9	0.52	1,872	2.3	No	5.0	7	Yes	H, P
9	UCLA Medical Center, Los Angeles	36.5	8.8	0.62	1,651	2.2	Yes	5.0	5	Yes	P
10	University of California, San Francisco Medical Center	36.1	11.8	0.86	1,488	2.3	No	5.0	8	Yes	P
11	H. Lee Moffitt Cancer Center & Research Institute, Tampa	35.6	5.7	0.43	2,145	1.4	No	5.0	8	Yes	H, P
12	University of Pittsburgh Medical Center	35.2	5.9	0.59	2,391	1.9	No	5.0	8	Yes	H, P
13	Cleveland Clinic	34.9	6.8	0.75	3,545	1.5	Yes	5.0	8	Yes	H, P
14	Stanford Hospital and Clinics, Stanford, Calif.	33.9	11.8	0.73	1,225	1.6	No	5.0	7	No	P
15	Massachusetts General Hospital, Boston	33.8	9.5	1.01	2,618	1.9	Yes	5.0	8	Yes	H, P
16	Fox Chase Cancer Center, Philadelphia	33.6	7.2	0.69	1,099	1.6	Yes	4.5	7	Yes	H, P (+2 SD)
17	Barnes-Jewish Hospital/Washington University, St. Louis	33.0	3.2	0.64	3,950	1.7	Yes	5.0	8	Yes	H, P
18	University of Michigan Hospitals and Health System, Ann Arbor	32.7	4.5	0.61	2,077	2.4	No	5.0	8	Yes	P
19	Hospital of the University of Pennsylvania, Philadelphia	30.6	7.6	0.96	1,747	1.7	No	5.0	8	Yes	H, P
20	Vanderbilt University Medical Center, Nashville	30.2	4.6	0.75	1,580	1.7	No	5.0	7	Yes	H, P
21	Ohio State University James Cancer Hospital, Columbus	29.9	3.5	0.80	2,885	1.9	No	5.0	8	Yes	H, P
22	University Medical Center, Tucson, Ariz.	29.9	0.9	0.48	664	2.1	Yes	4.5	8	Yes	H, P
23	University of Alabama Hospital at Birmingham	29.7	2.3	0.65	2,022	2.0	Yes	3.5	6	Yes	H, P
24	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	29.3	5.4	0.88	4,349	1.4	No	4.0	8	Yes	H, P
25	University Hospitals of Cleveland	28.9	1.0	0.52	1,447	1.4	No	5.0	8	Yes	H, P
26	Yale-New Haven Hospital, New Haven, Conn.	28.8	0.5	0.55	1,572	2.5	No	4.0	8	Yes	H, P
27	Brigham and Women's Hospital, Boston	28.3	1.3	0.74	1,990	2.3	No	5.0	8	Yes	H, P
28	University of Wisconsin Hospital and Clinics, Madison	28.2	1.6	0.40	1,316	1.7	No	4.0	7	Yes	P
29	University of Minnesota Medical Center, Minneapolis	28.1	1.0	0.63	1,391	1.8	No	5.0	8	Yes	H, P
30	University of Virginia Medical Center, Charlottesville	27.5	0.9	0.74	1,791	2.0	No	5.0	8	Yes	H, P
31	University of California, Irvine Medical Center, Orange	27.5	0.3	0.54	545	1.7	Yes	4.0	8	Yes	H, P
32	University of Colorado Hospital, Denver	27.3	1.9	0.64	646	2.1	Yes	4.0	7	Yes	P
33	University of California, San Diego Medical Center	27.0	0.0	0.44	642	1.9	No	4.0	7	Yes	H, P
34	University of Utah Hospitals and Clinics, Salt Lake City	26.7	0.3	0.61	967	2.2	No	5.0	8	Yes	P
35	Rush University Medical Center, Chicago	26.1	0.3	0.65	1,298	2.0	Yes	5.0	8	No	H, P
36	William Beaumont Hospital, Royal Oak, Mich.	26.0	0.6	0.70	2,972	1.8	Yes	4.0	8	No	H, P
37	Northwest Community Hospital, Arlington Heights, Ill.	25.7	0.0	0.51	1,316	2.0	Yes	4.0	6	No	H, P
38	Lehigh Valley Hospital, Allentown, Pa.	25.7	0.0	0.62	1,509	2.0	Yes	4.0	8	No	H, P
39	Henry Ford Hospital, Detroit	25.6	1.6	0.70	1,540	1.7	No	5.0	8	No	H, P
40	University of North Carolina Hospitals, Chapel Hill	25.5	0.9	0.83	1,492	1.9	No	5.0	8	Yes	H, P
41	Oregon Health & Science University Hospital, Portland	25.3	0.9	0.79	788	2.1	No	5.0	8	Yes	H, P
42	Beth Israel Deaconess Medical Center, Boston	25.3	0.8	0.61	1,555	1.6	No	5.0	7	No	H, P
43	Dartmouth-Hitchcock Medical Center, Lebanon, N.H.	25.3	0.0	0.79	1,165	1.6	Yes	5.0	8	Yes	H, P
44	Evanston Northwestern Healthcare, Evanston, Ill.	25.1	0.6	0.61	1,795	1.2	No	5.0	8	No	H, P
45	Riverside Methodist Hospital-Ohio Health, Columbus	25.0	0.0	0.60	1,549	1.4	Yes	4.0	8	No	H, P
46	University Hospital, Albuquerque, N.M.	24.8	0.3	0.67	381	2.0	No	4.0	8	Yes	H, P
47	Harper University Hospital, Detroit	24.8	0.3	0.71	1,935	0.9	No	4.5	7	Yes	H, P
48	Thomas Jefferson University Hospital, Philadelphia	24.6	0.4	0.86	1,787	1.7	No	5.0	8	Yes	H, P
49	Greater Baltimore Medical Center	24.6	0.0	0.47	1,361	1.2	No	4.0	8	No	H, P
50	Sarasota Memorial Hospital, Fla.	24.6	0.0	0.58	1,728	1.6	Yes	3.0	7	No	H, P

Final IHQ-Driven Rankings 2006—Digestive Disorders

Rank 2006	Hospital	U.S. News Score	Reputation		Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 8)	Patient/ community services (of 12)	Trauma Center
			(%)	Mortality						
1	Mayo Clinic, Rochester, Minn.	100.0	66.3	0.66	9,130	2.8	Yes	7.0	12	No
2	Cleveland Clinic	65.1	37.7	0.75	5,946	1.5	Yes	8.0	11	No
3	Johns Hopkins Hospital, Baltimore	62.5	33.4	0.68	3,998	2.3	Yes	7.5	12	Yes
4	Massachusetts General Hospital, Boston	45.6	23.7	1.04	5,309	1.9	Yes	7.0	11	Yes
5	UCLA Medical Center, Los Angeles	44.9	20.0	0.70	2,602	2.2	Yes	7.0	9	Yes
6	University of Chicago Hospitals	43.4	18.7	0.67	2,844	2.3	No	8.0	10	Yes
7	Mount Sinai Medical Center, New York	34.8	15.8	1.11	6,298	1.5	Yes	8.0	12	No
8	Duke University Medical Center, Durham, N.C.	34.7	11.8	0.73	4,634	1.8	No	6.5	11	Yes (+3 SD)
9	Clarian Health Partners, Indianapolis	31.3	8.5	0.86	5,994	1.7	Yes	8.0	11	Yes
10	Brigham and Women's Hospital, Boston	31.0	7.5	0.58	3,247	2.3	No	7.0	10	Yes
11	University of Michigan Hospitals and Health System, Ann Arbor	30.5	6.2	0.63	4,066	2.4	No	8.0	12	Yes
12	University of California, San Francisco Medical Center	30.1	9.8	0.80	2,435	2.3	No	8.0	10	No
13	University of Pittsburgh Medical Center	29.2	6.8	0.81	6,067	1.9	No	8.0	12	Yes
14	Barnes-Jewish Hospital/Washington University, St. Louis	27.5	5.9	0.90	7,001	1.7	Yes	8.0	10	Yes
15	Cedars-Sinai Medical Center, Los Angeles	26.8	6.8	0.94	5,193	1.6	Yes	7.0	9	Yes
16	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	25.8	7.9	1.06	6,892	1.4	No	8.0	11	Yes (+2 SD)
17	University of Washington Medical Center, Seattle	25.3	5.7	0.84	1,576	2.2	Yes	7.5	10	No
18	Hospital of the University of Pennsylvania, Philadelphia	25.2	8.0	1.04	2,452	1.7	No	7.0	11	Yes
19	Beth Israel Deaconess Medical Center, Boston	25.1	4.6	0.78	4,383	1.6	No	7.0	9	Yes
20	Baylor University Medical Center, Dallas	24.9	2.7	0.78	5,356	1.7	Yes	6.5	11	Yes
21	Stanford Hospital and Clinics, Stanford, Calif.	24.8	6.2	0.88	2,021	1.6	No	7.0	10	Yes
22	Oregon Health & Science University Hospital, Portland	24.4	2.9	0.63	1,465	2.1	No	7.5	10	Yes
23	Virginia Mason Medical Center, Seattle	24.1	3.9	0.51	2,523	1.1	No	7.0	8	No
24	Yale-New Haven Hospital, New Haven, Conn.	24.0	2.3	0.69	3,261	2.5	No	7.0	10	Yes
25	Lehigh Valley Hospital, Allentown, Pa.	23.8	0.0	0.63	4,481	2.0	Yes	7.0	11	Yes
26	University of North Carolina Hospitals, Chapel Hill	23.7	4.7	0.90	2,905	1.9	No	6.0	12	Yes
27	University of Miami, Jackson Memorial Hospital	23.6	3.2	0.77	2,361	1.5	No	8.0	11	Yes
28	University Hospitals of Cleveland	23.5	1.7	0.68	3,270	1.4	No	8.0	12	Yes
29	Rush University Medical Center, Chicago	23.4	0.0	0.60	2,855	2.0	Yes	7.0	11	Yes
30	University of Colorado Hospital, Denver	23.0	1.3	0.69	1,357	2.1	Yes	7.0	10	Yes
31	University of Wisconsin Hospital and Clinics, Madison	23.0	1.9	0.64	2,552	1.7	No	6.0	11	Yes
32	William Beaumont Hospital, Royal Oak, Mich.	22.8	0.0	0.73	7,321	1.8	Yes	7.0	11	Yes
33	Henry Ford Hospital, Detroit	22.8	1.6	0.72	4,441	1.7	No	7.0	10	Yes
34	St. Luke's Episcopal Hospital, Houston	22.7	1.6	0.75	3,830	1.7	Yes	7.0	11	No
35	Northwestern Memorial Hospital, Chicago	22.6	5.9	1.06	4,230	1.6	No	7.0	10	Yes
36	Summa Health System, Akron, Ohio	22.4	0.0	0.64	4,065	1.8	No	7.0	12	Yes
37	Advocate Lutheran General Hospital, Park Ridge, Ill.	22.3	0.0	0.59	4,159	1.6	No	7.0	11	Yes
38	Inova Fairfax Hospital, Falls Church, Va.	22.2	0.0	0.73	3,672	1.7	Yes	7.0	11	Yes
39	Medical University of South Carolina, Charleston	22.1	7.8	1.10	2,683	1.9	No	3.5	9	Yes
40	Kettering Memorial Hospital, Kettering, Ohio	22.0	0.5	0.59	2,695	1.1	Yes	8.0	10	No
41	University Hospital, Cincinnati	21.9	1.1	0.70	2,114	1.6	No	7.5	11	Yes
42	Sarasota Memorial Hospital, Fla.	21.8	0.0	0.62	4,629	1.6	Yes	6.0	11	No
43	Northwest Community Hospital, Arlington Heights, Ill.	21.6	0.0	0.72	4,038	2.0	Yes	6.5	8	Yes
44	Thomas Jefferson University Hospital, Philadelphia	21.6	1.6	0.85	3,111	1.7	No	8.0	12	Yes
45	University of Minnesota Medical Center, Minneapolis	21.5	0.6	0.69	2,340	1.8	No	7.0	11	Yes
46	University Medical Center, Tucson, Ariz.	21.5	0.3	0.73	1,216	2.1	Yes	7.5	10	Yes
47	Shands at the University of Florida, Gainesville	21.5	2.1	0.83	4,074	1.5	Yes	6.0	11	No
48	Hennepin County Medical Center, Minneapolis	21.5	0.0	0.50	1,559	2.0	No	5.0	12	Yes
49	University of California, Irvine Medical Center, Orange	21.3	1.3	0.72	1,170	1.7	Yes	5.0	10	Yes
50	Christ Hospital, Cincinnati	21.3	0.0	0.50	2,507	1.7	No	7.0	11	No

Final IHQ-Driven Rankings 2006—Ear, Nose, and Throat

Rank 2006	Hospital	U.S. News Score	Reputation		Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 5)	Patient/community services (of 12)	Trauma Center	
			(%)	Mortality							
1	Johns Hopkins Hospital, Baltimore	100.0	43.0	0.78	263	2.3	Yes	5.0	12	Yes	
2	University of Iowa Hospitals and Clinics, Iowa City	78.1	31.1	0.85	291	1.5	Yes	4.0	12	Yes	
3	Massachusetts Eye and Ear Infirmary, Boston	69.9	26.9	0.20	290	1.4	No	2.0	8	Yes	
4	University of Pittsburgh Medical Center	69.8	25.6	0.70	407	1.9	No	5.0	12	Yes	
5	University of Michigan Hospitals and Health System, Ann Arbor	67.1	22.2	0.15	357	2.4	No	5.0	12	Yes	
6	Barnes-Jewish Hospital/Washington University, St. Louis	57.7	16.7	0.24	368	1.7	Yes	5.0	10	Yes	
7	Cleveland Clinic	57.6	17.9	0.38	263	1.5	Yes	5.0	11	No	
8	Mayo Clinic, Rochester, Minn.	56.5	16.8	0.42	510	2.8	Yes	4.0	12	No	
9	University of Washington Medical Center, Seattle	50.8	14.0	0.39	186	2.2	Yes	4.5	10	No	
10	University of Texas M. D. Anderson Cancer Center, Houston	50.7	15.1	0.43	376	2.0	Yes	4.0	5	No	
11	UCLA Medical Center, Los Angeles	50.5	12.1	0.00	282	2.2	Yes	4.0	9	Yes	
12	Hospital of the University of Pennsylvania, Philadelphia	48.1	12.9	0.53	343	1.7	No	4.0	11	Yes	
13	Stanford Hospital and Clinics, Stanford, Calif.	42.9	9.5	0.26	144	1.6	No	5.0	10	Yes	(+3 SD)
14	Vanderbilt University Medical Center, Nashville	41.8	11.2	1.17	261	1.7	No	5.0	9	Yes	
15	University of California, San Francisco Medical Center	40.5	10.1	0.90	185	2.3	No	5.0	10	No	
16	Methodist Hospital, Houston	40.2	10.4	1.00	142	1.3	Yes	5.0	10	No	
17	University Hospital, Cincinnati	36.2	6.7	0.79	164	1.6	No	5.0	11	Yes	
18	University of North Carolina Hospitals, Chapel Hill	35.9	7.6	1.17	206	1.9	No	4.0	12	Yes	(+2 SD)
19	Mount Sinai Medical Center, New York	34.6	5.5	0.93	341	1.5	Yes	5.0	12	No	
20	Ohio State University Hospital, Columbus	34.6	4.6	0.56	82	1.7	Yes	5.0	12	Yes	
21	Memorial Sloan-Kettering Cancer Center, New York	34.3	6.7	0.74	387	1.5	No	4.0	9	No	
22	University of Miami, Jackson Memorial Hospital	32.9	3.8	0.62	336	1.5	No	5.0	11	Yes	
23	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	32.8	5.7	1.14	294	1.4	No	5.0	11	Yes	
24	Duke University Medical Center, Durham, N.C.	32.7	4.5	0.70	177	1.8	No	4.0	11	Yes	
25	University of Chicago Hospitals	32.3	1.9	0.00	143	2.3	No	5.0	10	Yes	
26	University of Virginia Medical Center, Charlottesville	31.9	5.2	1.38	206	2.0	No	5.0	12	Yes	
27	University of Texas Medical Branch Hospitals, Galveston	31.8	2.2	0.00	139	1.3	Yes	3.0	11	Yes	
28	University of California, Davis Medical Center, Sacramento	30.5	2.0	0.62	177	3.1	No	5.0	11	Yes	
29	Clarian Health Partners, Indianapolis	30.4	2.7	1.10	356	1.7	Yes	5.0	11	Yes	
30	University of Maryland Medical Center, Baltimore	30.1	1.0	0.43	279	2.4	No	5.0	11	Yes	
31	University of Colorado Hospital, Denver	29.8	0.3	0.00	75	2.1	Yes	5.0	10	Yes	
32	Wake Forest Univ. Baptist Medical Center, Winston-Salem, N.C.	29.7	1.6	0.82	300	1.6	Yes	5.0	11	Yes	
33	Ohio State University James Cancer Hospital, Columbus	29.4	0.0	0.23	380	1.9	No	5.0	12	Yes	
34	William Beaumont Hospital, Royal Oak, Mich.	29.4	0.5	0.32	180	1.8	Yes	4.0	11	Yes	
35	University of Minnesota Medical Center, Minneapolis	29.3	1.6	0.48	233	1.8	No	4.0	11	Yes	
36	Emory University Hospital, Atlanta	28.9	2.9	0.47	258	1.8	No	3.5	8	No	
37	Aurora St. Luke's Medical Center, Milwaukee	28.7	0.0	0.27	152	1.4	Yes	5.0	11	Yes	
38	Abington Memorial Hospital, Abington, Pa.	28.4	0.3	0.00	63	1.8	Yes	3.5	11	Yes	
39	Yale-New Haven Hospital, New Haven, Conn.	28.4	1.1	0.59	272	2.5	No	4.0	10	Yes	
40	Thomas Jefferson University Hospital, Philadelphia	28.3	2.4	1.09	227	1.7	No	5.0	12	Yes	
41	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	28.1	1.2	0.92	345	2.0	No	5.0	12	Yes	
42	Memorial Hermann—Texas Medical Center, Houston	27.8	0.4	0.00	61	1.8	No	4.5	11	Yes	
43	University Hospitals of Cleveland	27.8	1.3	0.67	168	1.4	No	5.0	12	Yes	
44	Lancaster General Hospital, Lancaster, Pa.	27.6	0.0	0.00	79	1.4	Yes	4.5	9	Yes	
45	University of Rochester Medical Center, N.Y.	27.6	1.0	0.73	132	1.6	Yes	4.5	11	Yes	
46	Summa Health System, Akron, Ohio	27.6	0.0	0.00	90	1.8	No	4.0	12	Yes	
47	Brigham and Women's Hospital, Boston	27.4	0.7	0.52	172	2.3	No	4.0	10	Yes	
48	St. Luke's Episcopal Hospital, Houston	27.4	0.0	0.00	95	1.7	Yes	4.0	11	No	
49	University of Kentucky Hospital, Lexington	27.3	0.4	0.34	180	1.7	Yes	4.0	6	Yes	
50	Riverside Methodist Hospital-Ohio Health, Columbus	27.2	0.0	0.38	113	1.4	Yes	5.0	10	Yes	

Final IHQ-Driven Rankings 2006—Endocrinology

Rank 2006	Hospital	U.S.			Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 7)	Patient/ community services (of 12)	Trauma center
		News Score	Reputation (%)	Mortality						
1	Mayo Clinic, Rochester, Minn.	100.0	65.0	0.43	2,031	2.8	Yes	6.0	12	No
2	Massachusetts General Hospital, Boston	94.7	61.1	0.59	1,560	1.9	Yes	6.0	11	Yes
3	Johns Hopkins Hospital, Baltimore	67.1	35.0	0.51	885	2.3	Yes	7.0	12	Yes
4	University of California, San Francisco Medical Center	46.9	19.8	0.45	671	2.3	No	7.0	10	No
5	Barnes-Jewish Hospital/Washington University, St. Louis	44.5	15.8	0.65	1,973	1.7	Yes	7.0	10	Yes
6	University of Virginia Medical Center, Charlottesville	42.8	16.6	0.77	1,034	2.0	No	7.0	12	Yes
7	Cleveland Clinic	41.7	15.2	0.70	1,428	1.5	Yes	7.0	11	No
8	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	40.3	14.4	0.74	2,134	1.4	No	7.0	11	Yes (+3 SD)
9	Brigham and Women's Hospital, Boston	39.7	11.5	0.37	861	2.3	No	6.0	10	Yes
10	UCLA Medical Center, Los Angeles	39.4	10.9	0.39	642	2.2	Yes	6.0	9	Yes
11	University of Washington Medical Center, Seattle	36.9	11.3	0.56	377	2.2	Yes	6.5	10	No
12	Beth Israel Deaconess Medical Center, Boston	35.3	7.0	0.24	1,350	1.6	No	6.0	9	Yes
13	University of Chicago Hospitals	34.5	7.3	0.51	868	2.3	No	7.0	10	Yes
14	University of Michigan Hospitals and Health System, Ann Arbor	34.0	4.8	0.38	1,118	2.4	No	7.0	12	Yes
15	University of Colorado Hospital, Denver	33.8	4.7	0.28	423	2.1	Yes	7.0	10	Yes
16	Hospital of the University of Pennsylvania, Philadelphia	33.6	7.6	0.56	860	1.7	No	6.0	11	Yes (+2 SD)
17	University of Pittsburgh Medical Center	30.3	3.8	0.69	1,631	1.9	No	7.0	12	Yes
18	Oregon Health & Science University Hospital, Portland	29.0	4.8	0.71	578	2.1	No	7.0	10	Yes
19	Duke University Medical Center, Durham, N.C.	28.9	2.9	0.54	950	1.8	No	6.0	11	Yes
20	Scripps Memorial Hospital La Jolla, Calif.	28.8	0.6	0.00	310	1.8	Yes	6.5	7	Yes
21	Rush University Medical Center, Chicago	28.7	0.6	0.48	1,057	2.0	Yes	6.0	11	Yes
22	Yale-New Haven Hospital, New Haven, Conn.	28.6	4.8	0.81	1,203	2.5	No	6.0	10	Yes
23	Lehigh Valley Hospital, Allentown, Pa.	28.2	0.0	0.49	1,248	2.0	Yes	6.0	11	Yes
24	Henry Ford Hospital, Detroit	28.0	1.7	0.56	2,057	1.7	No	6.0	10	Yes
25	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	28.0	0.8	0.54	1,078	2.0	No	7.0	12	Yes
26	University Hospital, Cincinnati	28.0	0.3	0.30	826	1.6	No	7.0	11	Yes
27	University of Minnesota Medical Center, Minneapolis	27.9	1.3	0.39	743	1.8	No	6.0	11	Yes
28	St. Joseph's Hospital and Medical Center, Phoenix	27.5	0.6	0.29	367	2.2	No	6.0	11	Yes
29	University of California, Davis Medical Center, Sacramento	27.5	0.6	0.42	405	3.1	No	7.0	11	Yes
30	William Beaumont Hospital, Royal Oak, Mich.	27.5	0.3	0.62	1,713	1.8	Yes	6.0	11	Yes
31	Summa Health System, Akron, Ohio	27.4	0.3	0.48	1,191	1.8	No	6.0	12	Yes
32	Vanderbilt University Medical Center, Nashville	27.3	4.3	0.83	1,052	1.7	No	7.0	9	Yes
33	Ohio State University Hospital, Columbus	27.1	2.0	0.77	678	1.7	Yes	7.0	12	Yes
34	University of California, San Diego Medical Center	27.1	3.0	0.45	450	1.9	No	4.5	9	Yes
35	Inova Fairfax Hospital, Falls Church, Va.	27.0	0.0	0.55	1,011	1.7	Yes	6.0	11	Yes
36	Denver Health Medical Center	26.9	0.3	0.20	328	1.9	No	4.5	12	Yes
37	Cedars-Sinai Medical Center, Los Angeles	26.9	3.1	0.83	1,277	1.6	Yes	6.0	9	Yes
38	Sioux Valley Hospital USD Medical Center, Sioux Falls, S.D.	26.9	0.0	0.59	600	2.3	Yes	7.0	11	Yes
39	Florida Hospital, Orlando	26.9	0.4	0.45	3,407	1.7	No	7.0	11	No
40	Baylor University Medical Center, Dallas	26.8	0.0	0.63	1,458	1.7	Yes	6.0	11	Yes
41	Hennepin County Medical Center, Minneapolis	26.8	0.0	0.28	824	2.0	No	4.0	12	Yes
42	University of Wisconsin Hospital and Clinics, Madison	26.8	0.3	0.22	534	1.7	No	5.0	11	Yes
43	LDS Hospital, Salt Lake City	26.5	0.0	0.45	547	1.9	Yes	5.5	10	Yes
44	Thomas Jefferson University Hospital, Philadelphia	26.1	1.5	0.71	821	1.7	No	7.0	12	Yes
45	Banner Good Samaritan Medical Center, Phoenix	26.1	0.4	0.39	708	2.0	Yes	5.0	6	Yes
46	University Hospitals of Cleveland	26.0	0.9	0.70	1,318	1.4	No	7.0	12	Yes
47	St. Cloud Hospital, St. Cloud, Minn.	26.0	0.0	0.61	773	1.6	Yes	7.0	10	Yes
48	University Health System, San Antonio	25.6	0.7	0.30	274	1.4	No	4.0	12	Yes
49	Medical Center of Central Massachusetts, Worcester	25.3	0.0	0.54	1,126	1.3	No	6.0	11	Yes
50	Pitt County Memorial Hospital, Greenville, N.C.	25.3	0.0	0.74	1,193	1.4	Yes	6.0	12	Yes

Final IHQ-Driven Rankings 2006—Gynecology

Rank 2006	Hospital	U.S. News Score	Reputation		Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 9)	Patient/ community services (of 14)	Trauma center	
			(%)	Mortality							
1	Johns Hopkins Hospital, Baltimore	100.0	32.6	0.77	367	2.3	Yes	9.0	14	Yes	
2	Brigham and Women's Hospital, Boston	67.8	18.3	0.22	651	2.3	No	8.0	12	Yes	
3	Mayo Clinic, Rochester, Minn.	64.9	17.7	0.78	1,394	2.8	Yes	8.0	14	No	
4	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	55.3	13.1	0.32	613	1.4	No	9.0	13	Yes	
5	University of Texas M. D. Anderson Cancer Center, Houston	54.0	15.2	0.97	539	2.0	Yes	6.0	5	No	
6	Massachusetts General Hospital, Boston	51.2	12.5	1.19	505	1.9	Yes	8.0	13	Yes	
7	Duke University Medical Center, Durham, N.C.	50.0	10.8	0.36	696	1.8	No	8.0	13	Yes	
8	Cleveland Clinic	47.0	11.2	1.24	712	1.5	Yes	9.0	13	No	
9	University of California, San Francisco Medical Center	45.9	10.5	0.64	237	2.3	No	9.0	12	No	
10	Yale-New Haven Hospital, New Haven, Conn.	43.0	7.4	0.18	649	2.5	No	8.0	12	Yes	
11	Parkland Memorial Hospital, Dallas	41.9	10.4	0.99	170	1.4	No	6.0	10	Yes	
12	UCLA Medical Center, Los Angeles	40.8	8.0	0.94	325	2.2	Yes	7.5	11	Yes	
13	Magee-Womens Hospital of UPMC, Pittsburgh	40.5	8.3	0.24	493	1.8	No	5.0	9	No	
14	University of North Carolina Hospitals, Chapel Hill	40.1	7.0	0.62	438	1.9	No	8.0	14	Yes	
15	University of Alabama Hospital at Birmingham	40.1	7.1	0.80	815	2.0	Yes	6.0	12	Yes	
16	Hospital of the University of Pennsylvania, Philadelphia	40.0	6.7	0.26	285	1.7	No	8.0	13	Yes	
17	University of Washington Medical Center, Seattle	39.7	7.7	0.78	306	2.2	Yes	7.5	12	No	(+3 SD)
18	Memorial Sloan-Kettering Cancer Center, New York	38.6	8.0	0.57	574	1.5	No	6.0	9	No	
19	University of Colorado Hospital, Denver	36.7	4.3	0.00	164	2.1	Yes	9.0	12	Yes	
20	Ohio State University Hospital, Columbus	35.9	4.0	0.00	87	1.7	Yes	9.0	14	Yes	
21	University of Michigan Hospitals and Health System, Ann Arbor	33.7	3.7	0.51	382	2.4	No	9.0	14	Yes	
22	University of Utah Hospitals and Clinics, Salt Lake City	33.6	3.6	0.20	278	2.2	No	8.0	14	Yes	
23	Barnes-Jewish Hospital/Washington University, St. Louis	33.5	3.4	0.59	765	1.7	Yes	8.5	12	Yes	
24	Vanderbilt University Medical Center, Nashville	33.2	3.7	0.24	403	1.7	No	9.0	10	Yes	
25	University of Virginia Medical Center, Charlottesville	32.6	3.2	0.52	566	2.0	No	9.0	14	Yes	
26	University Hospitals of Cleveland	32.2	3.8	0.62	332	1.4	No	9.0	14	Yes	(+2 SD)
27	Stanford Hospital and Clinics, Stanford, Calif.	32.1	5.1	0.95	290	1.6	No	8.0	10	Yes	
28	Northwestern Memorial Hospital, Chicago	31.6	5.1	1.22	386	1.6	No	8.0	12	Yes	
29	USC University Hospital, Los Angeles	30.7	4.4	0.00	41	2.8	No	6.0	7	No	
30	University of Iowa Hospitals and Clinics, Iowa City	30.4	2.5	0.69	456	1.5	Yes	8.0	14	Yes	
31	University of Chicago Hospitals	30.0	2.9	0.79	448	2.3	No	9.0	12	Yes	
32	University of California, San Diego Medical Center	29.3	3.6	0.54	128	1.9	No	6.5	11	Yes	
33	Emory University Hospital, Atlanta	29.1	4.3	0.67	282	1.8	No	6.5	8	No	
34	NYU Medical Center, New York	28.9	2.6	1.09	431	1.5	Yes	8.5	14	Yes	
35	Oregon Health & Science University Hospital, Portland	28.8	1.5	0.00	159	2.1	No	9.0	12	Yes	
36	William Beaumont Hospital, Royal Oak, Mich.	28.7	0.7	0.29	671	1.8	Yes	8.0	13	Yes	
37	Baylor University Medical Center, Dallas	28.5	2.6	1.16	682	1.7	Yes	7.5	13	Yes	
38	Cedars-Sinai Medical Center, Los Angeles	28.2	2.8	1.21	566	1.6	Yes	8.0	11	Yes	
39	Banner Good Samaritan Medical Center, Phoenix	28.1	1.9	0.20	244	2.0	Yes	6.5	7	Yes	
40	Rush University Medical Center, Chicago	28.1	1.1	0.47	327	2.0	Yes	8.0	13	Yes	
41	Inova Fairfax Hospital, Falls Church, Va.	28.0	1.0	0.52	629	1.7	Yes	7.5	13	Yes	
42	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	27.7	0.4	0.00	438	2.0	No	8.0	14	Yes	
43	University of Rochester Medical Center, N.Y.	27.6	0.6	0.00	141	1.6	Yes	8.5	13	Yes	
44	Sioux Valley Hospital USD Medical Center, Sioux Falls, S.D.	27.5	0.0	0.28	416	2.3	Yes	9.0	13	Yes	
45	University of California, Irvine Medical Center, Orange	27.2	2.2	0.66	142	1.7	Yes	6.0	12	Yes	
46	University of California, Davis Medical Center, Sacramento	27.2	0.6	0.18	267	3.1	No	9.0	13	Yes	
47	Methodist Hospital, Houston	27.1	3.1	1.17	475	1.3	Yes	7.5	12	No	
48	Evanston Northwestern Healthcare, Evanston, Ill.	27.0	0.7	0.19	418	1.2	No	9.0	13	Yes	
49	University of Minnesota Medical Center, Minneapolis	26.9	0.7	0.23	470	1.8	No	8.0	12	Yes	
50	Sarasota Memorial Hospital, Fla.	26.8	0.6	0.00	529	1.6	Yes	6.0	13	No	

Final IHQ-Driven Rankings 2006—Heart and Heart Surgery

Rank 2006	Hospital	U.S.			Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 7)	Patient/ community services (of 8)	Trauma center	Hospice/ palliative care	
		News Score	Reputation (%)	Mortality								
1	Cleveland Clinic	100.0	70.8	0.64	16,710	1.5	Yes	7.0	7	No	H, P	
2	Mayo Clinic, Rochester, Minn.	84.5	57.6	0.84	15,355	2.8	Yes	7.0	8	No	H, P	
3	Johns Hopkins Hospital, Baltimore	50.6	22.9	0.79	6,274	2.3	Yes	7.0	8	Yes	H, P	
4	Massachusetts General Hospital, Boston	48.3	21.9	0.85	10,756	1.9	Yes	7.0	7	Yes	H, P	
5	Brigham and Women's Hospital, Boston	48.3	20.7	0.64	7,717	2.3	No	6.5	6	Yes	H, P	
6	St. Luke's Episcopal Hospital—Texas Heart Institute, Houston	47.3	23.6	0.84	12,720	1.7	Yes	6.0	7	No	P	
7	Duke University Medical Center, Durham, N.C.	46.2	21.5	0.86	10,757	1.8	No	7.0	7	Yes	H, P	
8	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	42.0	18.1	0.90	14,539	1.4	No	7.0	8	Yes	H, P	(+3 SD)
9	UCLA Medical Center, Los Angeles	35.2	8.4	0.68	3,410	2.2	Yes	7.0	6	Yes	P	
10	Barnes-Jewish Hospital/Washington University, St. Louis	33.9	6.2	0.73	11,494	1.7	Yes	6.5	6	Yes	H, P	
11	Stanford Hospital and Clinics, Stanford, Calif.	33.4	15.6	1.02	3,288	1.6	No	7.0	7	Yes	P	(+2 SD)
12	William Beaumont Hospital, Royal Oak, Mich.	30.7	2.2	0.70	19,274	1.8	Yes	6.0	7	Yes	H, P	
13	Hospital of the University of Pennsylvania, Philadelphia	30.4	5.3	0.74	4,202	1.7	No	6.5	7	Yes	H, P	
14	University of Alabama Hospital at Birmingham	29.9	4.8	0.86	7,049	2.0	Yes	6.5	7	Yes	H, P	
15	Emory University Hospital, Atlanta	29.6	10.1	0.95	7,578	1.8	No	6.5	6	No	H, P	
16	University Medical Center, Tucson, Ariz.	29.0	0.7	0.57	2,813	2.1	Yes	6.5	6	Yes	H, P	
17	Cedars-Sinai Medical Center, Los Angeles	28.9	3.2	0.77	8,373	1.6	Yes	6.0	6	Yes	H, P	
18	Washington Hospital Center, Washington, D.C.	28.7	5.1	0.81	15,461	1.5	No	6.0	5	Yes	H, P	
19	University of California, San Francisco Medical Center	28.4	7.0	0.83	2,598	2.3	No	7.0	6	No	P	
20	Banner Good Samaritan Medical Center, Phoenix	28.2	0.4	0.57	6,343	2.0	Yes	6.0	4	Yes	H, P	
21	Christ Hospital, Cincinnati	28.2	1.0	0.58	7,987	1.7	No	6.0	8	No	H, P	
22	University of Michigan Hospitals and Health System, Ann Arbor	28.1	3.0	0.80	6,310	2.4	No	7.0	8	Yes	P	
23	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	28.0	0.0	0.67	5,514	2.0	No	7.0	8	Yes	H, P	
24	Lehigh Valley Hospital, Allentown, Pa.	27.9	0.0	0.72	9,336	2.0	Yes	6.0	7	Yes	H, P	
25	Sarasota Memorial Hospital, Fla.	27.9	0.7	0.71	13,382	1.6	Yes	6.0	8	No	H, P	
26	Inova Fairfax Hospital, Falls Church, Va.	27.9	2.6	0.87	8,942	1.7	Yes	7.0	7	Yes	H, P	
27	Sentara Norfolk General Hospital – Sentara Heart Hospital, Norfolk, Va.	27.7	0.0	0.70	9,005	1.6	No	7.0	8	Yes	H, P	
28	Yale-New Haven Hospital, New Haven, Conn.	27.5	1.2	0.76	8,452	2.5	No	7.0	6	Yes	H, P	
29	Rush University Medical Center, Chicago	27.3	1.4	0.80	3,821	2.0	Yes	7.0	7	Yes	H, P	
30	Akron General Medical Center, Ohio	27.2	0.4	0.61	6,419	1.5	No	6.0	7	Yes	H, P	
31	Mercy Hospital Medical Center, Des Moines	27.2	0.0	0.72	9,737	1.8	No	7.0	7	Yes	H, P	
32	Summa Health System, Akron, Ohio	27.1	0.0	0.69	6,121	1.8	No	6.5	8	Yes	H, P	
33	University Health System, San Antonio	27.1	1.3	0.54	1,622	1.4	No	6.0	8	Yes	P	
34	University Hospitals of Cleveland	26.8	0.0	0.68	5,297	1.4	No	7.0	8	Yes	H, P	
35	Jewish Hospital, Louisville, Ky.	26.6	0.8	0.75	12,374	1.4	Yes	6.0	5	Yes	H, P	
36	Scripps Memorial Hospital La Jolla, Calif.	26.5	2.4	0.79	4,148	1.8	Yes	6.0	5	Yes	H, P	
37	Henry Ford Hospital, Detroit	26.4	0.4	0.71	7,779	1.7	No	6.5	6	Yes	H, P	
38	Abbott Northwestern Hospital, Minneapolis	26.3	0.8	0.76	10,166	1.7	No	6.0	7	Yes	H, P	
39	University of Minnesota Medical Center, Minneapolis	26.2	0.0	0.67	2,208	1.8	No	7.0	7	Yes	H, P	
40	Pennsylvania Hospital, Philadelphia	26.2	0.0	0.49	2,413	1.5	No	6.5	7	No	H, P	
41	Advocate Illinois Masonic Medical Center, Chicago	26.1	0.0	0.59	2,514	1.5	No	6.0	7	Yes	H, P	
42	Beth Israel Deaconess Medical Center, Boston	25.8	1.2	0.75	8,229	1.6	No	6.0	6	Yes	H, P	
43	Hackensack University Medical Center, N.J.	25.7	1.2	0.89	11,172	2.0	Yes	6.0	7	Yes	H, P	
44	Baylor University Medical Center, Dallas	25.6	0.7	0.84	7,935	1.7	Yes	6.0	7	Yes	H, P	
45	University of Chicago Hospitals	25.5	0.7	0.77	3,917	2.3	No	7.0	6	Yes	H, P	
46	Riverside Methodist Hospital-Ohio Health, Columbus	25.4	0.8	0.86	18,966	1.4	Yes	6.5	6	Yes	H, P	
47	St. Vincent's Medical Center, Jacksonville, Fla.	25.2	0.0	0.68	9,132	1.1	No	6.0	6	Yes	H, P	
48	Charleston Area Medical Center, Charleston, W.Va.	25.2	0.0	0.81	15,159	1.9	No	6.0	7	Yes	H, P	
49	Hamot Medical Center, Erie, Pa.	25.0	0.0	0.70	5,670	1.9	No	5.5	6	Yes	H, P	
50	University of Virginia Medical Center, Charlottesville	25.0	1.7	0.91	6,702	2.0	No	7.0	8	Yes	H, P	

Final IHQ-Driven Rankings 2006—Kidney Disease

Rank 2006	Hospital	U.S. News Score	Reputation		Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 6)	Patient/ community (of 12)	Trauma center	
			(%)	Mortality							
1	Johns Hopkins Hospital, Baltimore	100.0	29.8	0.31	1,573	2.3	Yes	5.5	12	Yes	
2	Mayo Clinic, Rochester, Minn.	96.8	30.6	0.64	2,500	2.8	Yes	5.0	12	No	
3	Cleveland Clinic	94.7	29.9	0.64	1,884	1.5	Yes	6.0	11	No	
4	Massachusetts General Hospital, Boston	85.4	27.1	0.99	1,381	1.9	Yes	5.0	11	Yes	
5	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	83.4	27.2	0.97	2,303	1.4	No	5.0	11	Yes	
6	Brigham and Women's Hospital, Boston	82.9	24.3	0.51	815	2.3	No	5.0	10	Yes	
7	Barnes-Jewish Hospital/Washington University, St. Louis	69.1	17.4	0.75	2,697	1.7	Yes	6.0	10	Yes	
8	UCLA Medical Center, Los Angeles	67.1	16.1	0.59	1,117	2.2	Yes	5.0	9	Yes	
9	Duke University Medical Center, Durham, N.C.	61.0	13.5	0.52	1,553	1.8	No	4.5	11	Yes	
10	University of California, San Francisco Medical Center	60.5	13.6	0.55	1,185	2.3	No	6.0	10	No	
11	University of Colorado Hospital, Denver	55.0	11.1	0.65	525	2.1	Yes	5.0	10	Yes	
12	Vanderbilt University Medical Center, Nashville	53.9	10.1	0.47	1,019	1.7	No	5.5	9	Yes	
13	University of Michigan Hospitals and Health System, Ann Arbor	50.1	6.7	0.43	1,566	2.4	No	6.0	12	Yes	(+3 SD)
14	Hospital of the University of Pennsylvania, Philadelphia	48.1	8.9	0.76	806	1.7	No	5.0	11	Yes	
15	University of Washington Medical Center, Seattle	46.6	7.9	0.71	532	2.2	Yes	5.5	10	No	
16	University of Pittsburgh Medical Center	46.2	6.9	0.77	1,392	1.9	No	6.0	12	Yes	
17	University of Alabama Hospital at Birmingham	46.0	8.2	0.90	1,740	2.0	Yes	3.0	10	Yes	
18	University of Maryland Medical Center, Baltimore	42.9	3.8	0.46	1,122	2.4	No	6.0	11	Yes	
19	University of Minnesota Medical Center, Minneapolis	42.9	4.3	0.34	811	1.8	No	5.0	11	Yes	
20	Yale-New Haven Hospital, New Haven, Conn.	42.8	5.2	0.66	1,270	2.5	No	5.0	10	Yes	
21	Rush University Medical Center, Chicago	41.9	3.0	0.46	981	2.0	Yes	5.0	11	Yes	
22	Stanford Hospital and Clinics, Stanford, Calif.	41.8	7.7	0.94	592	1.6	No	5.0	10	Yes	
23	Ohio State University Hospital, Columbus	41.6	3.2	0.66	1,505	1.7	Yes	6.0	12	Yes	
24	University of California, San Diego Medical Center	41.5	4.6	0.30	540	1.9	No	4.0	9	Yes	
25	Emory University Hospital, Atlanta	41.0	6.5	0.71	1,136	1.8	No	4.0	8	No	
26	University of Chicago Hospitals	40.7	3.6	0.59	1,001	2.3	No	6.0	10	Yes	
27	University of Wisconsin Hospital and Clinics, Madison	40.6	2.9	0.28	1,460	1.7	No	4.0	11	Yes	(+2 SD)
28	University of Miami, Jackson Memorial Hospital	38.6	2.4	0.50	967	1.5	No	6.0	11	Yes	
29	University of North Carolina Hospitals, Chapel Hill	38.5	5.5	0.96	953	1.9	No	4.0	12	Yes	
30	William Beaumont Hospital, Royal Oak, Mich.	37.4	1.6	0.66	1,835	1.8	Yes	5.0	11	Yes	
31	Cedars-Sinai Medical Center, Los Angeles	37.4	2.8	0.75	1,345	1.6	Yes	5.0	9	Yes	
32	Hennepin County Medical Center, Minneapolis	36.9	1.7	0.37	653	2.0	No	4.0	12	Yes	
33	Clarian Health Partners, Indianapolis	36.8	1.6	0.76	2,138	1.7	Yes	6.0	11	Yes	
34	Baylor University Medical Center, Dallas	36.7	1.9	0.70	1,316	1.7	Yes	4.5	11	Yes	
35	Memorial Hermann—Texas Medical Center, Houston	36.4	1.1	0.42	910	1.8	No	5.5	11	Yes	
36	Henry Ford Hospital, Detroit	36.0	1.5	0.54	1,616	1.7	No	5.0	10	Yes	
37	University of California, Davis Medical Center, Sacramento	35.9	1.3	0.52	526	3.1	No	6.0	11	Yes	
38	University Hospitals of Cleveland	35.9	1.6	0.62	989	1.4	No	6.0	12	Yes	
39	University Medical Center, Tucson, Ariz.	35.6	0.0	0.30	388	2.1	Yes	6.0	10	Yes	
40	University Hospital, Cincinnati	35.0	0.7	0.44	820	1.6	No	5.5	11	Yes	
41	University of Iowa Hospitals and Clinics, Iowa City	34.7	2.9	0.94	688	1.5	Yes	5.0	12	Yes	
42	Lehigh Valley Hospital, Allentown, Pa.	34.6	0.0	0.56	932	2.0	Yes	5.0	11	Yes	
43	Parkland Memorial Hospital, Dallas	34.6	3.4	0.69	674	1.4	No	4.0	8	Yes	
44	Oregon Health & Science University Hospital, Portland	34.4	2.3	0.76	652	2.1	No	5.5	10	Yes	
45	Washington Hospital Center, Washington, D.C.	34.2	1.7	0.60	1,382	1.5	No	4.0	9	Yes	
46	Thomas Jefferson University Hospital, Philadelphia	34.2	1.1	0.72	1,031	1.7	No	6.0	12	Yes	
47	Beth Israel Deaconess Medical Center, Boston	34.0	2.1	0.74	1,078	1.6	No	5.0	9	Yes	
48	Shands at the University of Florida, Gainesville	33.7	1.9	0.73	1,195	1.5	Yes	4.0	11	No	
49	Summa Health System, Akron, Ohio	33.6	0.4	0.48	618	1.8	No	5.0	12	Yes	
50	University of Texas Medical Branch Hospitals, Galveston	33.6	0.0	0.50	746	1.3	Yes	5.0	11	Yes	

Final IHQ-Driven Rankings 2006—Neurology and Neurosurgery

Rank 2006	Hospital	U.S.			Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 7)	Patient/ community services (of 12)	Trauma center	Epilepsy center
		News Score	Reputation (%)	Mortality							
1	Mayo Clinic, Rochester, Minn.	100.0	53.4	0.98	6,592	2.8	Yes	6.0	12	No	Yes
2	Johns Hopkins Hospital, Baltimore	86.2	39.2	0.71	4,074	2.3	Yes	7.0	12	Yes	Yes
3	Massachusetts General Hospital, Boston	79.6	41.6	1.16	4,550	1.9	Yes	6.0	11	Yes	Yes
4	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	76.7	36.5	0.89	6,481	1.4	No	7.0	11	Yes	Yes
5	Cleveland Clinic	64.4	24.9	0.67	5,292	1.5	Yes	7.0	11	No	Yes
6	University of California, San Francisco Medical Center	63.2	30.8	1.07	2,619	2.3	No	7.0	10	No	Yes
7	UCLA Medical Center, Los Angeles	48.4	17.1	0.92	2,541	2.2	Yes	6.0	9	Yes	Yes
8	Barnes-Jewish Hospital/Washington University, St. Louis	47.2	15.1	0.92	5,419	1.7	Yes	7.0	10	Yes	Yes
9	St. Joseph's Hospital and Medical Center, Phoenix	44.7	13.9	0.89	4,405	2.2	No	6.0	11	Yes	Yes (+3 SD)
10	Methodist Hospital, Houston	39.0	10.1	0.89	6,260	1.3	Yes	7.0	10	No	Yes
11	NYU Medical Center, New York	35.0	3.3	0.66	3,954	1.5	Yes	6.5	12	Yes	Yes
12	Rush University Medical Center, Chicago	34.5	2.7	0.59	2,913	2.0	Yes	6.0	11	Yes	Yes
13	Brigham and Women's Hospital, Boston	33.0	5.4	0.82	2,683	2.3	No	6.0	10	Yes	Yes
14	Duke University Medical Center, Durham, N.C.	32.7	5.3	0.87	4,085	1.8	No	6.0	11	Yes	Yes
15	University of Michigan Hospitals and Health System, Ann Arbor	32.6	5.2	0.88	2,443	2.4	No	7.0	12	Yes	Yes (+2 SD)
16	University of Chicago Hospitals	31.8	3.2	0.73	2,335	2.3	No	7.0	10	Yes	Yes
17	University of Washington Medical Center, Seattle	31.2	2.6	0.62	1,042	2.2	Yes	6.5	10	No	Yes
18	Emory University Hospital, Atlanta	30.8	4.2	0.73	3,963	1.8	No	5.5	8	No	Yes
19	University of Pittsburgh Medical Center	30.4	5.7	1.07	6,700	1.9	No	7.0	12	Yes	Yes
20	Stanford Hospital and Clinics, Stanford, Calif.	30.1	5.7	0.96	2,403	1.6	No	7.0	10	Yes	Yes
21	Henry Ford Hospital, Detroit	29.9	2.2	0.75	3,690	1.7	No	6.0	10	Yes	Yes
22	University Medical Center, Tucson, Ariz.	29.6	1.1	0.68	1,077	2.1	Yes	6.5	10	Yes	Yes
23	Hospital for Special Surgery, New York	29.2	0.0	0.05	936	1.9	Yes	6.5	8	Yes	No
24	Abbott Northwestern Hospital, Minneapolis	29.0	0.6	0.70	4,921	1.7	No	6.0	11	Yes	Yes
25	University of Miami, Jackson Memorial Hospital	28.8	4.6	0.86	2,408	1.5	No	7.0	11	Yes	No
26	Hospital of the University of Pennsylvania, Philadelphia	28.7	10.6	1.40	2,143	1.7	No	6.0	11	Yes	Yes
27	William Beaumont Hospital, Royal Oak, Mich.	28.7	0.6	0.68	6,775	1.8	Yes	6.0	11	Yes	No
28	University of Minnesota Medical Center, Minneapolis	28.3	0.8	0.48	2,031	1.8	No	6.0	11	Yes	No
29	University of Texas Southwestern Medical Center, Dallas	28.1	2.6	0.65	1,422	1.3	No	5.0	11	No	Yes
30	Shands at the University of Florida, Gainesville	28.1	3.6	0.91	3,479	1.5	Yes	5.0	11	No	Yes
31	Northwestern Memorial Hospital, Chicago	27.9	3.7	0.81	3,046	1.6	No	6.0	10	Yes	No
32	University Hospitals of Cleveland	27.7	1.1	0.81	3,482	1.4	No	7.0	12	Yes	Yes
33	University of Colorado Hospital, Denver	27.4	0.7	0.64	939	2.1	Yes	7.0	10	Yes	No
34	Harper University Hospital, Detroit	27.2	0.9	0.49	2,288	0.9	No	6.5	7	No	Yes
35	Cedars-Sinai Medical Center, Los Angeles	27.1	0.4	0.82	4,337	1.6	Yes	6.0	9	Yes	Yes
36	Christ Hospital, Cincinnati	26.6	0.0	0.43	2,105	1.7	No	6.5	11	No	No
37	USC University Hospital, Los Angeles	26.6	2.6	0.60	1,039	2.8	No	6.0	7	No	No
38	University Hospital, Cincinnati	25.9	1.6	0.89	2,114	1.6	No	7.0	11	Yes	Yes
39	Ohio State University Hospital East, Columbus	25.9	0.0	0.33	684	1.3	No	5.0	8	No	Yes
40	Hinsdale Hospital, Hinsdale, Ill.	25.9	0.3	0.55	1,636	1.2	No	6.5	11	Yes	No
41	Ingalls Memorial Hospital, Harvey, Ill.	25.8	0.0	0.45	2,015	0.9	No	6.0	10	Yes	No
42	Baylor University Medical Center, Dallas	25.8	0.8	0.84	4,162	1.7	Yes	6.0	11	Yes	No
43	Ohio State University Hospital, Columbus	25.7	1.4	0.97	1,796	1.7	Yes	7.0	12	Yes	Yes
44	William Beaumont Hospital, Troy, Mich.	25.5	0.0	0.58	2,377	1.8	No	5.5	9	Yes	No
45	New England Baptist Hospital, Boston	25.4	0.0	0.11	1,085	1.4	No	6.0	8	No	No
46	Evanston Northwestern Healthcare, Evanston, Ill.	25.3	0.0	0.71	3,957	1.2	No	7.0	11	Yes	No
47	Baptist St. Anthony's (BSA) Health System, Amarillo, Texas	25.3	0.0	0.48	3,171	1.7	No	5.0	9	No	No
48	Advocate Lutheran General Hospital, Park Ridge, Ill.	25.2	0.3	0.71	2,911	1.6	No	6.0	11	Yes	No
49	Providence Hospital, Southfield, Mich.	25.1	1.2	0.60	2,943	1.1	No	5.0	10	No	No
50	Rose Medical Center, Denver	25.1	0.0	0.37	850	1.3	No	6.0	11	No	No

Final IHQ-Driven Rankings 2006—Orthopedics

Rank 2006	Hospital	U.S. News Score	Reputation		Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 4)	Patient/ community services (of 8)	Trauma center
			(%)	Mortality						
1	Mayo Clinic, Rochester, Minn.	100.0	54.2	0.56	10,257	2.8	Yes	4.0	8	No
2	Hospital for Special Surgery, New York	98.1	50.8	0.03	9,606	1.9	Yes	4.0	6	Yes
3	Massachusetts General Hospital, Boston	59.8	30.0	1.29	4,071	1.9	Yes	4.0	7	Yes
4	Johns Hopkins Hospital, Baltimore	51.4	20.3	0.77	1,829	2.3	Yes	4.0	8	Yes
5	Cleveland Clinic	48.3	18.0	0.65	4,469	1.5	Yes	4.0	7	No
6	Rush University Medical Center, Chicago	39.7	8.2	0.23	3,731	2.0	Yes	4.0	8	Yes
7	University of Iowa Hospitals and Clinics, Iowa City	39.0	12.9	0.96	2,163	1.5	Yes	4.0	8	Yes
8	UCLA Medical Center, Los Angeles	37.9	10.0	0.59	1,598	2.2	Yes	4.0	6	Yes
9	Duke University Medical Center, Durham, N.C.	36.2	9.9	0.73	3,052	1.8	No	4.0	7	Yes (+3 SD)
10	University of Washington Medical Center, Seattle	35.6	8.4	0.44	1,182	2.2	Yes	4.0	7	No
11	Barnes-Jewish Hospital/Washington University, St. Louis	34.7	7.5	0.69	3,113	1.7	Yes	4.0	7	Yes
12	University of Pittsburgh Medical Center	34.2	8.7	0.85	3,785	1.9	No	4.0	8	Yes
13	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	34.1	9.6	0.92	3,657	1.4	No	4.0	8	Yes
14	NYU Hospital for Joint Diseases, New York	33.5	7.5	0.84	4,374	1.5	Yes	3.5	8	Yes (+2 SD)
15	New England Baptist Hospital, Boston	31.5	4.9	0.17	5,157	1.4	No	4.0	6	No
16	University of Michigan Hospitals and Health System, Ann Arbor	31.1	3.7	0.26	1,684	2.4	No	4.0	8	Yes
17	Brigham and Women's Hospital, Boston	30.9	4.4	0.48	2,830	2.3	No	4.0	7	Yes
18	Harborview Medical Center, Seattle	30.3	7.5	0.84	1,068	2.2	No	3.5	7	Yes
19	Thomas Jefferson University Hospital, Philadelphia	30.2	5.1	0.74	4,288	1.7	No	4.0	8	Yes
20	Northwestern Memorial Hospital, Chicago	28.4	4.4	0.72	2,922	1.6	No	4.0	7	Yes
21	University of Chicago Hospitals	27.5	2.3	0.35	1,401	2.3	No	4.0	6	Yes
22	Baylor University Medical Center, Dallas	27.5	1.4	0.62	4,997	1.7	Yes	4.0	7	Yes
23	Stanford Hospital and Clinics, Stanford, Calif.	26.9	3.3	0.75	2,629	1.6	No	4.0	8	Yes
24	William Beaumont Hospital, Royal Oak, Mich.	26.8	0.7	0.66	7,161	1.8	Yes	4.0	8	Yes
25	University of California, San Francisco Medical Center	26.5	3.7	0.67	1,732	2.3	No	4.0	7	No
26	University of Utah Hospitals and Clinics, Salt Lake City	26.4	3.1	0.79	2,122	2.2	No	4.0	8	Yes
27	University of Minnesota Medical Center, Minneapolis	26.4	2.2	0.61	2,012	1.8	No	4.0	8	Yes
28	USC University Hospital, Los Angeles	26.1	2.9	0.42	1,711	2.8	No	3.0	6	No
29	Summa Health System, Akron, Ohio	25.9	0.0	0.44	4,185	1.8	No	4.0	8	Yes
30	St. Joseph's Hospital of Atlanta	25.9	0.5	0.26	2,895	1.3	Yes	4.0	6	No
31	Sarasota Memorial Hospital, Fla.	25.8	0.0	0.47	5,245	1.6	Yes	4.0	8	No
32	LDS Hospital, Salt Lake City	25.4	0.0	0.59	2,850	1.9	Yes	4.0	7	Yes
33	Ohio State University Hospital, Columbus	25.4	0.7	0.54	611	1.7	Yes	4.0	8	Yes
34	Methodist Hospital, Omaha, Neb.	25.2	0.0	0.52	2,605	1.4	Yes	4.0	7	Yes
35	Mission Hospitals, Asheville, N.C.	25.2	0.0	0.56	7,067	2.5	No	4.0	7	Yes
36	University Hospitals of Cleveland	25.2	2.6	0.82	2,827	1.4	No	4.0	8	Yes
37	Lehigh Valley Hospital, Allentown, Pa.	25.1	0.5	0.74	3,349	2.0	Yes	4.0	7	Yes
38	Abbott Northwestern Hospital, Minneapolis	25.0	0.0	0.57	4,983	1.7	No	4.0	8	Yes
39	Hospital of the University of Pennsylvania, Philadelphia	24.9	5.3	1.09	603	1.7	No	4.0	8	Yes
40	University Medical Center, Tucson, Ariz.	24.8	1.3	0.67	1,031	2.1	Yes	3.5	7	Yes
41	St. Luke's Episcopal Hospital, Houston	24.8	0.5	0.61	2,712	1.7	Yes	4.0	8	No
42	Edward Hospital, Naperville, Ill.	24.7	0.0	0.29	1,353	2.0	Yes	3.0	5	Yes
43	University of Colorado Hospital, Denver	24.6	0.7	0.65	859	2.1	Yes	4.0	7	Yes
44	Clarian Health Partners, Indianapolis	24.6	1.6	0.94	4,908	1.7	Yes	4.0	7	Yes
45	Tampa General Hospital	24.5	0.7	0.49	3,060	1.7	Yes	2.0	5	Yes
46	Alexian Brothers Medical Center, Elk Grove Village, Ill.	24.4	0.7	0.36	1,352	1.3	No	4.0	6	Yes
47	University of Alabama Hospital at Birmingham	24.4	1.6	0.85	2,244	2.0	Yes	3.5	7	Yes
48	Central Baptist Hospital, Lexington, Ky.	24.4	0.0	0.43	1,591	1.5	Yes	4.0	8	No
49	University Health System, San Antonio	24.3	2.3	0.62	611	1.4	No	3.0	8	Yes
50	St. Joseph's Hospital and Medical Center, Phoenix	24.3	0.0	0.51	1,661	2.2	No	4.0	8	Yes

Final IHQ-Driven Rankings 2006—Respiratory Disorders

Rank 2006	Hospital	U.S. News Score	Reputation (%)	Mortality	Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 3)	Patient/community services (of 12)	Trauma center	Hospice/palliative care	
1	National Jewish Medical and Research Center, Denver	100.0	54.6	0.00	22	1.2	No	3.0	4	No		
2	Mayo Clinic, Rochester, Minn.	77.5	37.4	0.86	6,370	2.8	Yes	3.0	12	No	H, P	
3	Johns Hopkins Hospital, Baltimore	68.4	30.4	0.83	2,494	2.3	Yes	3.0	12	Yes	H, P	
4	Massachusetts General Hospital, Boston	54.0	23.6	1.09	4,680	1.9	Yes	3.0	11	Yes	H, P	
5	University of California, San Diego Medical Center	50.5	19.1	0.74	1,395	1.9	No	2.5	9	Yes	H, P	
6	University of Colorado Hospital, Denver	50.2	17.2	0.64	1,405	2.1	Yes	3.0	10	Yes	P	
7	Cleveland Clinic	48.6	19.4	0.98	4,043	1.5	Yes	3.0	11	No	H, P	
8	Barnes-Jewish Hospital/Washington University, St. Louis	47.3	17.5	0.92	5,817	1.7	Yes	2.0	10	Yes	H, P	
9	Duke University Medical Center, Durham, N.C.	45.1	16.3	0.95	4,469	1.8	No	3.0	11	Yes	H, P	
10	University of California, San Francisco Medical Center	43.9	17.7	0.96	1,724	2.3	No	3.0	10	No	P	
11	Hospital of the University of Pennsylvania, Philadelphia	39.4	13.1	0.96	1,862	1.7	No	3.0	11	Yes	H, P	
12	University of Washington Medical Center, Seattle	38.0	13.1	1.01	1,023	2.2	Yes	3.0	10	No	H, P	(+3 SD)
13	UCLA Medical Center, Los Angeles	37.0	9.7	0.83	2,139	2.2	Yes	3.0	9	Yes	P	
14	Brigham and Women's Hospital, Boston	36.4	8.3	0.77	3,318	2.3	No	3.0	10	Yes	H, P	
15	University of Michigan Hospitals and Health System, Ann Arbor	33.6	7.3	0.85	3,171	2.4	No	3.0	12	Yes	P	
16	University of Pittsburgh Medical Center	33.3	7.2	0.92	4,649	1.9	No	3.0	12	Yes	H, P	
17	Vanderbilt University Medical Center, Nashville	33.2	7.6	0.87	3,000	1.7	No	3.0	9	Yes	H, P	
18	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	30.8	7.4	1.03	6,622	1.4	No	3.0	11	Yes	H, P	(+2 SD)
19	Mayo Clinic Arizona, Phoenix	29.2	4.1	0.61	2,068	2.3	No	3.0	7	No	P	
20	University Medical Center, Tucson, Ariz.	28.6	1.0	0.59	1,240	2.1	Yes	3.0	10	Yes	H, P	
21	University of Chicago Hospitals	28.3	3.4	0.82	2,275	2.3	No	3.0	10	Yes	H, P	
22	Summa Health System, Akron, Ohio	28.2	0.9	0.67	5,120	1.8	No	3.0	12	Yes	H, P	
23	Rush University Medical Center, Chicago	27.7	1.0	0.71	2,090	2.0	Yes	3.0	11	Yes	H, P	
24	Ohio State University Hospital, Columbus	27.5	0.5	0.69	2,134	1.7	Yes	3.0	12	Yes	H, P	
25	University Hospital, Cincinnati	27.4	0.6	0.56	2,167	1.6	No	3.0	11	Yes	H, P	
26	University of Minnesota Medical Center, Minneapolis	27.2	2.8	0.83	1,778	1.8	No	3.0	11	Yes	H, P	
27	University Hospitals of Cleveland	27.0	0.9	0.70	3,187	1.4	No	3.0	12	Yes	H, P	
28	Temple University Hospital, Philadelphia	26.8	2.3	0.81	1,995	1.7	No	3.0	11	Yes	H, P	
29	Penrose-St. Francis Health Services, Colorado Springs, Colo.	26.8	0.0	0.51	2,635	1.2	No	3.0	11	Yes	H, P	
30	Beth Israel Deaconess Medical Center, Boston	26.6	2.3	0.83	3,803	1.6	No	3.0	9	Yes	H, P	
31	MetroHealth Medical Center, Cleveland	26.6	0.5	0.67	1,866	0.7	Yes	3.0	12	Yes	H, P	
32	Lehigh Valley Hospital, Allentown, Pa.	26.5	0.0	0.75	3,750	2.0	Yes	3.0	11	Yes	H, P	
33	Alexian Brothers Medical Center, Elk Grove Village, Ill.	26.4	0.0	0.46	2,582	1.3	No	3.0	8	Yes	H, P	
34	Henry Ford Hospital, Detroit	26.4	0.5	0.70	4,441	1.7	No	3.0	10	Yes	H, P	
35	William Beaumont Hospital, Troy, Mich.	26.3	0.0	0.59	3,186	1.8	No	3.0	9	Yes	H, P	
36	Stanford Hospital and Clinics, Stanford, Calif.	26.3	8.2	1.22	1,739	1.6	No	3.0	10	Yes	P	
37	St. Joseph's Hospital and Medical Center, Phoenix	26.3	0.0	0.59	1,180	2.2	No	3.0	11	Yes	H, P	
38	Christ Hospital, Cincinnati	26.2	0.0	0.51	2,565	1.7	No	3.0	11	No	H, P	
39	Hennepin County Medical Center, Minneapolis	26.1	0.0	0.66	1,902	2.0	No	3.0	12	Yes	H, P	
40	Fort Hamilton Hospital, Hamilton, Ohio	26.0	0.0	0.45	2,243	1.4	No	3.0	10	No	H, P	
41	LDS Hospital, Salt Lake City	25.9	0.0	0.70	1,707	1.9	Yes	3.0	10	Yes	H, P	
42	St. Alexius Medical Center, Hoffman Estates, Ill.	25.9	0.5	0.54	1,964	1.4	No	3.0	7	Yes	H, P	
43	Oakwood Hospital, Dearborn, Mich.	25.8	0.0	0.68	5,032	1.4	No	3.0	10	Yes	H, P	
44	Sarasota Memorial Hospital, Fla.	25.7	0.0	0.71	4,210	1.6	Yes	3.0	11	No	H, P	
45	Akron General Medical Center, Ohio	25.7	0.0	0.69	3,606	1.5	No	3.0	11	Yes	H, P	
46	Advocate Christ Medical Center, Oak Lawn, Ill.	25.6	0.0	0.80	4,731	1.9	Yes	3.0	10	Yes	H, P	
47	Yale-New Haven Hospital, New Haven, Conn.	25.5	3.3	1.00	3,597	2.5	No	3.0	10	Yes	H, P	
48	University of Alabama Hospital at Birmingham	25.5	4.3	1.11	2,936	2.0	Yes	3.0	10	Yes	H, P	
49	Denver Health Medical Center	25.4	0.3	0.71	718	1.9	No	3.0	12	Yes	H, P	
50	Jewish Hospital, Louisville, Ky.	25.3	1.0	0.84	4,708	1.4	Yes	3.0	8	Yes	H, P	

Final IHQ-Driven Rankings 2006—Urology

Rank 2006	Hospital	U.S.	Reputation		Discharges (3 years)	Nursing Index	Nurse Magnet Hospital	Technology (of 8)	Patient/ community	Trauma center
		News Score	(%)	Mortality					services (of 12)	
1	Johns Hopkins Hospital, Baltimore	100.0	66.0	0.25	1,385	2.3	Yes	7.5	12	Yes
2	Cleveland Clinic	84.5	54.9	0.47	1,715	1.5	Yes	8.0	11	No
3	Mayo Clinic, Rochester, Minn.	63.2	34.7	0.41	3,343	2.8	Yes	7.0	12	No
4	UCLA Medical Center, Los Angeles	53.0	25.9	0.43	1,234	2.2	Yes	7.0	9	Yes
5	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	43.2	21.4	0.93	3,281	1.4	No	8.0	11	Yes
6	Memorial Sloan-Kettering Cancer Center, New York	42.5	22.3	0.78	1,248	1.5	No	6.0	9	No
7	Duke University Medical Center, Durham, N.C.	38.9	14.9	0.52	1,349	1.8	No	6.5	11	Yes
8	Barnes-Jewish Hospital/Washington University, St. Louis	37.9	11.6	0.42	1,795	1.7	Yes	8.0	10	Yes
9	Massachusetts General Hospital, Boston	35.6	10.9	0.60	1,426	1.9	Yes	7.0	11	Yes
10	University of Texas M. D. Anderson Cancer Center, Houston	35.0	18.6	1.18	1,028	2.0	Yes	6.0	5	No (+3 SD)
11	University of California, San Francisco Medical Center	33.6	10.3	0.43	999	2.3	No	8.0	10	No
12	Stanford Hospital and Clinics, Stanford, Calif.	31.8	9.5	0.50	665	1.6	No	7.0	10	Yes
13	Vanderbilt University Medical Center, Nashville	31.0	7.6	0.44	1,246	1.7	No	7.5	9	Yes
14	Clarian Health Partners, Indianapolis	30.8	8.1	0.88	2,055	1.7	Yes	8.0	11	Yes
15	University of Michigan Hospitals and Health System, Ann Arbor	30.3	5.2	0.46	1,664	2.4	No	8.0	12	Yes
16	Methodist Hospital, Houston	29.1	6.9	0.67	1,667	1.3	Yes	8.0	10	No
17	University of Iowa Hospitals and Clinics, Iowa City	28.2	5.2	0.56	513	1.5	Yes	7.0	12	Yes (+2 SD)
18	Hospital of the University of Pennsylvania, Philadelphia	27.4	6.3	0.74	1,025	1.7	No	7.0	11	Yes
19	Brigham and Women's Hospital, Boston	27.1	4.3	0.48	835	2.3	No	7.0	10	Yes
20	Northwestern Memorial Hospital, Chicago	26.5	6.3	0.85	1,525	1.6	No	7.0	10	Yes
21	Lahey Clinic, Burlington, Mass.	25.9	4.5	0.60	1,051	1.3	No	7.5	10	Yes
22	University of Pittsburgh Medical Center	25.8	1.1	0.37	1,380	1.9	No	8.0	12	Yes
23	Yale-New Haven Hospital, New Haven, Conn.	25.5	0.6	0.14	1,142	2.5	No	7.0	10	Yes
24	William Beaumont Hospital, Royal Oak, Mich.	25.4	0.6	0.47	2,482	1.8	Yes	7.0	11	Yes
25	Rush University Medical Center, Chicago	25.1	0.6	0.39	861	2.0	Yes	7.0	11	Yes
26	University of California, Irvine Medical Center, Orange	25.0	3.1	0.46	442	1.7	Yes	5.0	10	Yes
27	University Medical Center, Tucson, Ariz.	25.0	0.0	0.11	378	2.1	Yes	7.5	10	Yes
28	Thomas Jefferson University Hospital, Philadelphia	24.7	1.6	0.52	1,090	1.7	No	8.0	12	Yes
29	University Hospitals of Cleveland	24.6	1.8	0.54	1,176	1.4	No	8.0	12	Yes
30	University Hospital, Cincinnati	24.5	1.0	0.18	523	1.6	No	7.5	11	Yes
31	University of North Carolina Hospitals, Chapel Hill	24.5	2.4	0.52	822	1.9	No	6.0	12	Yes
32	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	24.4	2.0	0.64	912	2.0	No	8.0	12	Yes
33	University of Washington Medical Center, Seattle	24.3	2.3	0.57	714	2.2	Yes	7.5	10	No
34	Advocate Lutheran General Hospital, Park Ridge, Ill.	23.6	0.0	0.35	1,381	1.6	No	7.0	11	Yes
35	Shands at the University of Florida, Gainesville	23.4	1.0	0.45	1,342	1.5	Yes	6.0	11	No
36	University of California, San Diego Medical Center	23.3	1.3	0.11	407	1.9	No	5.0	9	Yes
37	Henry Ford Hospital, Detroit	23.3	1.5	0.62	1,615	1.7	No	7.0	10	Yes
38	Lehigh Valley Hospital, Allentown, Pa.	23.2	0.3	0.69	1,248	2.0	Yes	7.0	11	Yes
39	University of Miami, Jackson Memorial Hospital	23.1	2.6	0.74	793	1.5	No	8.0	11	Yes
40	St. Cloud Hospital, St. Cloud, Minn.	23.1	0.0	0.56	938	1.6	Yes	8.0	10	Yes
41	University of Minnesota Medical Center, Minneapolis	23.1	0.3	0.38	816	1.8	No	7.0	11	Yes
42	University of Chicago Hospitals	23.1	0.9	0.58	912	2.3	No	8.0	10	Yes
43	St. Luke's Regional Medical Center, Boise, Idaho	23.0	0.0	0.00	485	2.1	Yes	6.0	8	No
44	Sentara Norfolk General Hospital, Norfolk, Va.	22.9	0.5	0.48	745	1.6	No	8.0	11	Yes
45	Emory University Hospital, Atlanta	22.9	1.9	0.36	1,188	1.8	No	6.0	8	No
46	Wake Forest Univ. Baptist Medical Center, Winston-Salem, N.C.	22.8	1.0	0.78	989	1.6	Yes	8.0	11	Yes
47	Oregon Health & Science University Hospital, Portland	22.8	0.6	0.38	387	2.1	No	7.5	10	Yes
48	St. Mary's Hospital and Medical Center, Grand Junction, Colo.	22.7	0.3	0.16	598	1.6	No	7.0	8	Yes
49	LDS Hospital, Salt Lake City	22.6	0.0	0.52	710	1.9	Yes	6.5	10	Yes
50	Sioux Valley Hospital USD Medical Center, Sioux Falls, S.D.	22.5	0.0	0.62	604	2.3	Yes	7.0	11	Yes

Appendix H
Reputation-Only Rankings

Final Reputation Only Rankings 2006—Ophthalmology

Rank	Hospital	Reputation (%)	
1	Bascom Palmer Eye Institute, Miami	75.4	
2	Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore	71.5	
3	Wills Eye Hospital, Philadelphia	61.6	(+3 SD)
4	Massachusetts Eye and Ear Infirmary, Boston	35.6	
5	Jules Stein Eye Institute, UCLA Medical Center, Los Angeles	33.9	(+2 SD)
6	University of Iowa Hospitals and Clinics, Iowa City	22.3	
7	Doheny Eye Institute, USC University Hospital, Los Angeles	16.1	
8	Duke University Medical Center, Durham, N.C.	16.0	
9	New York Eye and Ear Infirmary, New York	8.6	
10	University of California, San Francisco Medical Center	7.0	
11	Barnes-Jewish Hospital/Washington University, St. Louis	6.9	
12	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	6.9	
13	Mayo Clinic, Rochester, Minn.	6.8	
14	Cleveland Clinic	5.1	
15	Cullen Eye Institute, Methodist Hospital, Houston	4.7	
16	Emory University Hospital, Atlanta	4.7	
17	University of Michigan Hospitals and Health System, Ann Arbor	4.2	
18	Hospital of the University of Pennsylvania, Philadelphia	3.2	

Final Reputation Only Rankings 2006—Pediatrics

Rank	Hospital	Reputation (%)	
1	Children's Hospital of Philadelphia	47.7	
2	Children's Hospital Boston	43.6	
3	Johns Hopkins Hospital, Baltimore	26.7	(+3 SD)
4	Rainbow Babies and Children's Hospital, Cleveland	16.4	
5	Texas Children's Hospital, Houston	15.6	
6	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	14.7	(+2 SD)
7	Children's Hospital, Denver	12.9	
8	Cincinnati Children's Hospital Medical Center	12.3	
9	Children's National Medical Center, Washington, D.C.	11.2	
10	Children's Memorial Hospital, Chicago	10.4	
11	Children's Hospital of Pittsburgh of UPMC	10.3	
12	Children's Hospital and Regional Medical Center, Seattle	8.2	
13	Lucile Packard Children's Hospital at Stanford, Palo Alto, Calif.	7.8	
14	St. Louis Children's Hospital	7.2	
15	Mattel Children's Hospital at UCLA, Los Angeles	7.2	
16	Childrens Hospital Los Angeles	7.1	
17	St. Jude Children's Research Hospital, Memphis	6.6	
18	Duke University Medical Center, Durham, N.C.	5.8	
19	University of California, San Francisco Medical Center	5.5	
20	Cleveland Clinic	5.5	
21	Massachusetts General Hospital, Boston	5.0	
22	Columbus Children's Hospital	4.5	
23	Mayo Clinic, Rochester, Minn.	3.3	
24	Children's Healthcare of Atlanta	3.1	
25	Arkansas Children's Hospital, Little Rock, Ark.	3.1	
26	University of Michigan Hospitals and Health System, Ann Arbor	3.1	

Final Reputation Only Rankings 2006—Psychiatry

Rank	Hospital	Reputation (%)	
1	Massachusetts General Hospital, Boston	43.6	
2	Johns Hopkins Hospital, Baltimore	26.4	
3	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	22.3	
4	McLean Hospital, Belmont, Mass.	19.2	
5	UCLA's Neuropsychiatric Hospital, Los Angeles	18.8	(+3 SD)
6	Menninger Clinic, Houston	15.1	
7	Yale-New Haven Hospital, New Haven, Conn.	14.5	
8	Stanford Hospital and Clinics, Stanford, Calif.	12.4	
9	Sheppard and Enoch Pratt Hospital, Baltimore	12.4	
10	Duke University Medical Center, Durham, N.C.	12.3	(+2 SD)
11	Mayo Clinic, Rochester, Minn.	11.3	
12	University of Pittsburgh Medical Center	10.9	
13	Hospital of the University of Pennsylvania, Philadelphia	7.0	
14	Barnes-Jewish Hospital/Washington University, St. Louis	6.2	
15	Emory University Hospital, Atlanta	6.0	
16	University of California, San Francisco Medical Center	5.8	
17	Methodist Hospital, Houston	5.3	
18	NYU Medical Center, New York	5.1	
19	Austen Riggs Center, Stockbridge, Mass.	4.9	
20	Cleveland Clinic	4.6	
21	University Hospital, Cincinnati	3.5	
22	University of North Carolina Hospitals, Chapel Hill	3.4	
23	Georgetown University Hospital, Washington, D.C.	3.2	
24	University Hospitals of Cleveland	3.1	
25	Bellevue Hospital Center, New York	3.0	
26	University of Michigan Hospitals and Health System, Ann Arbor	3.0	

Final Reputation Only Rankings 2006—Rehabilitation

Rank	Hospital	Reputation (%)	
1	Rehabilitation Institute of Chicago	62.4	
2	Kessler Institute for Rehabilitation, West Orange, N.J.	32.5	
3	University of Washington Medical Center, Seattle	30.4	
4	Mayo Clinic, Rochester, Minn.	22.1	
5	TIRR (The Institute for Rehabilitation and Research), Houston	21.6	(+3 SD)
6	Craig Hospital, Englewood, Colo.	16.3	
7	Spaulding Rehabilitation Hospital, Boston	15.2	
8	Rusk Institute, NYU Medical Center, New York	14.8	(+2 SD)
9	Ohio State University Hospital, Columbus	13.3	
10	National Rehabilitation Hospital, Washington, D.C.	9.2	
11	University of Michigan Hospitals and Health System, Ann Arbor	9.0	
12	Shepherd Center, Atlanta	8.2	
13	Moss Rehab, Elkins Park, PA	7.5	
14	Thomas Jefferson University Hospital, Philadelphia	6.9	
15	Magee Rehabilitation Hospital, Philadelphia	6.7	
16	Rancho Los Amigos National Rehabilitation Center, Downey, Calif.	6.5	
17	Johns Hopkins Hospital, Baltimore	6.0	
18	Mount Sinai Medical Center, New York	5.1	
19	Stanford Hospital and Clinics, Stanford, Calif.	4.7	
20	Baylor Institute for Rehabilitation, Dallas	4.6	
21	Montefiore Medical Center, New York	4.5	
22	Cleveland Clinic	4.2	
23	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	4.1	
24	Hospital of the University of Pennsylvania, Philadelphia	3.0	

Final Reputation Only Rankings 2006—Rheumatology

Rank	Hospital	Reputation (%)	
1	Johns Hopkins Hospital, Baltimore	52.2	
2	Mayo Clinic, Rochester, Minn.	46.6	
3	Hospital for Special Surgery, New York	38.8	
4	Cleveland Clinic	38.3	(+3 SD)
5	Brigham and Women's Hospital, Boston	25.7	
6	University of Alabama Hospital at Birmingham	23.6	
7	UCLA Medical Center, Los Angeles	23.2	(+2 SD)
8	Massachusetts General Hospital, Boston	19.8	
9	NYU Hospital for Joint Diseases, New York	13.1	
10	University of California, San Francisco Medical Center	11.9	
11	Duke University Medical Center, Durham, N.C.	11.2	
12	Stanford Hospital and Clinics, Stanford, Calif.	11.2	
13	University of Pittsburgh Medical Center	10.3	
14	University of Michigan Hospitals and Health System, Ann Arbor	9.8	
15	New York-Presbyterian Univ. Hosp. of Columbia & Cornell	7.3	
16	Barnes-Jewish Hospital/Washington University, St. Louis	6.0	
17	University of California, San Diego Medical Center	4.3	
18	Hospital of the University of Pennsylvania, Philadelphia	3.9	
19	Northwestern Memorial Hospital, Chicago	3.5	
20	University of Washington Medical Center, Seattle	3.5	

Appendix I

The 2006 Honor Roll

Honor Roll 2006

Rank	Hospital	Points	Specialties
1	Johns Hopkins Hospital, Baltimore	30	15
2	Mayo Clinic, Rochester, Minn.	26	13
3	Cleveland Clinic	23	12
4	Massachusetts General Hospital, Boston	22	12
5	UCLA Medical Center, Los Angeles	20	13
6	New York-Presbyterian Univ. Hosp. of Columbia and Cornell	18	11
7	Duke University Medical Center, Durham, N.C.	17	10
8	Barnes-Jewish Hospital/Washington University, St. Louis	16	10
9	University of California, San Francisco Medical Center	14	9
10	University of Washington Medical Center, Seattle	13	8
11	Brigham and Women's Hospital, Boston	12	9
12	University of Michigan Hospitals and Health System, Ann Arbor	11	9
13	Stanford Hospital and Clinics, Stanford, Calif.	8	7
14	University of Pittsburgh Medical Center	7	6

