The 2003 Index of Hospital Quality

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NORC 6126

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I Introduction

Health care providers and consumers today face a dynamic and often puzzling array of choices with few tools to inform their critical decisions about quality of care. No single standard measure of quality of care is available for the 6,003 hospitals in the United States. In 1993, the National Opinion Research Center at the University of Chicago (NORC) developed such a measure. This "report card" is supported and published annually by *U.S. News & World Report* in an issue entitled "America's Best Hospitals" that identifies centers of exceptional capability in 17 medical specialties.

In the NORC report card, each hospital receives a score called the Index of Hospital Quality (IHQ), which assesses hospital quality by taking into account the three fundamental dimensions of health care delivery: structure, process, and outcome (the Donabedian paradigm[1,2]). None of these dimensions alone can completely and accurately represent quality of care; all three must be combined to produce a comprehensive measure. Care starts with the structural characteristics of an institution (such as the number of patients served and the range of medical technology available), moves through the process of delivering care, and produces results, or outcomes, for the patients served. To be most useful to the consumer and provider of care, the IHQ combines robust and sensitive measures of each of these dimensions for the universe of hospitals across a wide range of medical and surgical practice specialties. The IHQ draws from secondary sources, such as the American Hospital Association (AHA) Annual Survey of Hospitals, for data concerning various quality dimensions. We continually try to improve the specificity and sensitivity of the measures we use to rank hospitals and to identify the best possible sources of data.

The following sections define the universe of hospitals for the purpose of this project, describe and define the standardized mortality ratios and the structural components, and explain how process-related data are collected. A description of changes made for the 2003 IHQ is also provided. A short description of each of the component of the index is provided below:

Reputation

The reputational score is based on cumulative information from three NORC surveys of physicians carried out in 2001, 2002, and 2003. For the 2001 and 2003 surveys, the samples consisted of 2,550 board-certified physicians selected from the American Medical Association (AMA) Physician Masterfile of approximately 811,000 physicians. In 2002 the overall sample size was increased from 2,550 to 3,060 to test response rates when administering a short form questionnaire versus a long form questionnaire. The samples of physicians for each year were stratified by region and by specialty within region. We selected a sample of 150 physicians for each of the 17 specialty areas in both 2001 and 2003. In 2002, 180 physicians were selected in each specialty.

The final aggregated sample includes both non-federal and federal medical and osteopathic physicians residing in the fifty states and the District of Columbia.

Structure

The structural score is based on data related to the structural characteristics of each specialty within each hospital. These elements represent volume of work, technology, and other characteristics of the hospital environment. The majority of the data elements are derived from the 2001 AHA Annual Survey. The volume data are taken from the MEDPARS database, maintained by the Centers for Medicare and Medicaid Services (CMS). It contains information on all Medicare discharges in each specialty. CMS is the federal agency formerly known as the Health Care Financing Administration (HCFA).

Mortality

> The outcomes measure is based on CMS's MEDPARS database. An adjusted mortality rate for each hospital and specialty is computed based on predicted and actual mortality rates by MEDSTAT Group, Inc. of Franklin, Tenn., using the All Patient Refined Diagnosis Related Group (APR-DRG) method designed by 3M Health Information Systems. The APR-DRG adjusts expected deaths for severity of illness by means of principal diagnosis and categories of secondary diagnoses. The method is applied to the pooled 1999, 2000 and 2001 set of Medicare reimbursement claims made to CMS by hospitals.

A detailed description of these components follows in Section II of this report. For a more exhaustive review of the foundation as well as of the 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."[3]

II The Index of Hospital Quality (IHQ)

A. Universe Definition

We have implemented a two-stage approach to defining eligible hospitals for each of the IHQ specialty lists. (**Hospitals ranked solely by reputation do not have to meet eligibility standards**.) First, eligible hospitals must meet *at least one* of the following criteria:

1) Council of Teaching Hospitals (COTH) membership, *or*

2) Medical school affiliation, *or*

3) A score of 9 or higher on the hospital-wide technology index (see Part II, Section B)

Using these criteria, we identified 2,072 hospitals that were eligible in 2003 for one or more of the 13 IHQ-based rankings. Once eligible hospitals were identified, data for them were drawn from the 2001 AHA Annual Survey database.

As with any data collection effort, the AHA Annual Survey database is incomplete due to non-responding hospitals. We have a procedure to allow eligible hospitals that are non-responders to the current AHA Annual Survey to remain in our database. First, for all previously ranked hospitals, we average the two prior years of survey data and substitute the result for the missing data. Hospitals lacking data both from the current survey *and* from one of the previous two surveys are ranked without any structure data. Although non-responding hospitals need to be treated separately for the IHQ analysis, it is unnecessary to do so for the four reputation-only lists.

We then created separate analytic universes for each of the 13 IHQ-driven specialties, using criteria such as specialty-specific technology or facilities. Hospitals had to have a specified number of discharges across appropriate DRGs. Hospitals with insufficient volume (discharges) were considered eligible for ranking if they received any reputational nominations (a non-zero reputational score).

Until 2002, the discharges threshold that determined eligibility included all discharges, regardless of the medical-surgical mix.[1] In 2002 and again this year, the mix in certain specialties was specified: For Cancer; Digestive Disorders; Ear, Nose, and Throat; Gynecology; Neurology and Neurosurgery; Orthopedics, and Urology, the median ratio of surgical to total discharges for hospitals surpassing the all-discharges threshold was multiplied by total discharges to obtain a minimum for surgical discharges.

For Heart and Heart Surgery, the minimum number of surgical discharges for eligibility was set at 500. To obtain a minimum threshold for all discharges, this number was multiplied by the median ratio of all discharges to surgical discharges for all hospitals surpassing the surgical discharges threshold. This resulted in a minimum of 1,285 total discharges–500 surgical and 785 medical.

We regularly examine the impact of hospital mergers on our rankings. Ranking hospitals responding as new corporate entities for the first time in the AHA database are treated as a single unit and listed in this report. For this release, one merger among hospitals previously ranked as independent entities appears on the lists. This hospital is now called St. Luke's-Cornwall Hospital, Newburgh, N.Y., and is made up of two previously separate hospitals: St. Luke's Hospital, Newburgh, N.Y., and Cornwall Hospital, Cornwall, N.Y.

Figure 1 presents the eligibility criteria and the number of hospitals meeting the criteria from the 2001 AHA Annual Survey. Figure 2 illustrates the eligibility process.

[1] The exception until 2002 was Heart and Heart Surgery, in which surgical discharges alone determine the threshold for eligibility. Beginning in 2002, both medical and surgical discharges determine eligibility.

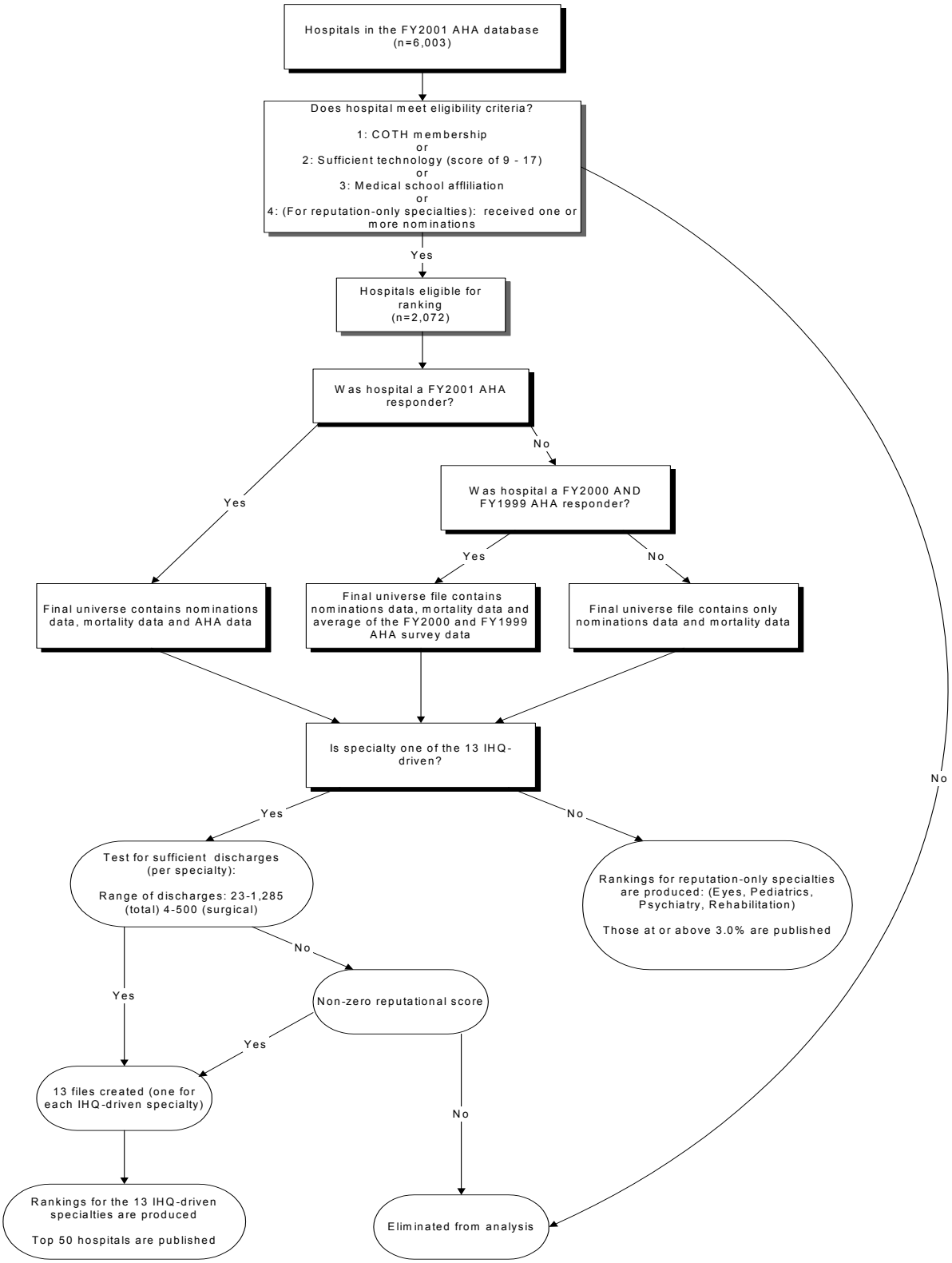
Figure 1. Universe Definition by Specialty

Specialty	Minimum Total Discharges	Minimum Surgical Discharges	Number of Eligible Hospitals
Cancer	349	78	890
Digestive Disorders	744	209	1,426
Ear, Nose, and Throat	38	4	1,295
Geriatrics*	5,967	--	1,392
Gynecology	49	46	1,493
Heart and Heart Surgery**	1,285	500	770
Hormonal Disorders	381	--	1,040
Kidney Disease	200	--	1,527
Neurology and Neurosurgery	455	80	1,245
Orthopedics	387	345	1,511
Respiratory disorders	873	--	1,547
Rheumatology	23	--	1,536
Urology	121	106	1,467

* In addition to the discharge eligibility criteria, a hospital must have a score of 1 or more on the Geriatrics service index for inclusion in the Geriatrics universe. Discharges for Geriatrics are calculated on a hospital-wide basis and are not DRG-specific.

** In addition to the discharge eligibility criteria, a hospital must have a cardiac catheterization lab, offer open-heart surgery, or offer angioplasty for inclusion in the Heart and Heart Surgery universe.

Figure 2. Analysis Procedure for “America’s Best Hospitals 2003"



B. Composite Measure of Structure

The structural dimension defines the tools and environment available to care providers in treating patients. Health care research overwhelmingly supports the use of a measure of structure in assessing quality of care. However, no prior research has revealed a single indicator of quality that summarizes all others or that adequately represents the structure construct on its own. Thus, the structural component must be represented by a composite variable comprising different specialty-specific measures that are weighted relative to each other.

For the 2003 index, most structural elements are derived from the 2001 AHA Annual Survey of Hospitals database and are described below. For the specific mapping of variables to the AHA data elements, see Appendix A.

1) *Technology indices:*

For 2003, technology elements for all specialties are unchanged. Since the 1996 version of the index, our technology indices have reflected the real cost of high-technology services. While providing a service inside the hospital is convenient for patients, the cost may be unacceptable to some hospitals. 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 this into account by giving hospitals that provide a service such as ultrasound one full point if it is provided on-site; hospitals that provide the service locally through a formal arrangement receive a half-point. A hospital receives no more than one point for each element of the index. Figure 3 presents the complete list of technologies considered for each specialty.

Figure 3. Technology Indices by Specialty

Technology	All Hospital Index*	Cancer	Digestive Disorders	Ear, Nose, and Throat	Heart and Heart Surgery	Hormonal Disorders	Geriatrics	Gynecology	Kidney Disease	Neurology and Neurosurgery	Orthopedics	Respiratory Disorders	Rheumatology	Urology
1) Angioplasty	✓				✓									
2) Cardiac Catheterization Lab	✓				✓		✓							
3) Cardiac Intensive Care Beds	✓				✓		✓							
4) Computed Tomography Scanner	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5) Diagnostic Radioisotope Facility	✓		✓			✓			✓	✓		✓		✓
6) Diagnostic Mammography Services	✓							✓						
7) Extracorporeal Shock Wave Lithiotripter	✓		✓						✓					✓
8) Magnetic Resonance Imaging	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
9) Medical/Surgical Intensive Care	✓													
10) Neonatal Intensive Care	✓							✓						
11) Oncology Services		✓												
12) Open Heart Surgery	✓				✓									
13) Pediatric Intensive Care Beds	✓	✓												
14) Positron Emission Tomography Scanner	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
15) Reproductive Health	✓													
16) Single Photon Emission Computed Tomography	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓
17) Transplant Services									✓					
18) Ultrasound	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
19) X-ray Radiation Therapy	✓	✓	✓	✓		✓	✓	✓		✓		✓		✓
TOTAL ELEMENTS	17	7	8	5	9	7	8	8	5	7	5	4	5	8

* The All Hospital Index is used to define the universe of eligible hospitals.

2) *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 structure score for all data-driven specialties other than Geriatrics and Rheumatology.

In the Heart and Heart Surgery specialty, surgical discharges indicated volume until 2002, when the volume variable was changed to include both medical and surgical discharges. The methodology now matches the other specialties in this respect.

Volumes at the extreme for particular hospitals and specialties were trimmed to eliminate the influence of very wide variation. Figure 4 shows the percentile at which each of the volume distributions was trimmed.

3) *RNs to beds:*

A hospital's number of beds is defined by the AHA as beds set up and staffed at the end of the reporting period. Only nurses with RN degrees from approved schools of nursing and currently registered by their state are considered. Nurses must be full-time (35 hours/week or more), and on staff. Private-duty nurses, staff nurses whose salary is financed entirely by outside sources (e.g., an agency or a research grant), and LPNs are not counted. Registered nurses more appropriately classified in other occupational categories (e.g., supervisory nurses, facility administrators) are also not counted.

As with volume, RNs to beds ratios were trimmed to eliminate the influence of very wide variation. Figure 4 shows the percentiles at which each of the RNs to beds distributions was trimmed.

Figure 4. Percentile Where Volume and RNs/Beds Distributions Were Trimmed

Specialty	Volume Percentile	RNs/Beds Percentile
Cancer	90	95
Digestive Disorders	90	95
Ear, Nose, and Throat	95	95
Geriatrics	--	90
Gynecology	90	95
Heart and Heart Surgery	90	95
Hormonal Disorders	no trimming	95
Kidney Disease	no trimming	95
Neurology and Neurosurgery	no trimming	95
Orthopedics	90	90
Respiratory Disorders	90	95
Rheumatology	--	90
Urology	95	90

A second round of standardization is performed after trimming extremes. Restandardization restores balance so that trimmed and untrimmed measures have the same influence on the final score.

4) *Trauma:*

In 1992, a U.S. News survey of board-certified physicians ranked the presence of an emergency room and a hospital's trauma provider level high on a list of hospital quality indicators. Physicians in nine specialties ranked trauma as one of the top five indicators of quality. The indications of these specialists and resultant high factor loadings supported the inclusion of these data for Digestive Disorders; Ear, Nose, and Throat; Gynecology; Heart and Heart Surgery; Hormonal Disorders; Kidney Disease; Neurology and Neurosurgery; Orthopedics; Respiratory Disorders, and Urology.

The trauma indicator is dichotomous and derived from two variables in the AHA database: whether the hospital has a certified trauma center in the hospital and the level of the trauma center. To receive credit for trauma services, hospitals must provide Level 1 or Level 2 trauma services in-hospital (as opposed to providing trauma services only as part of a health system, network, or joint venture). Level 1 trauma service is defined 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."[4] Level 2 is defined by the AHA as "a community trauma center, which is capable of providing trauma care to all but the most severely injured patients who require highly specialized care."[4] Certification is required.

5) *Discharge planning:*

The three elements of discharge planning are patient education services, case management services, and patient representative services. A service must be provided within the hospital to receive credit.

6) *Service mix:*

This indicator ranges from 0 to 9 points and comprises alcohol/drug abuse or dependency inpatient care, home health services, social work services, reproductive health services, psychiatric education services, women's health center/services, and psychiatric consultation/liaison services. Services must be provided within the hospital. As of 2003, hospice services were removed from this indicator since they are accounted for in the hospice/palliative care indicator and the maximum score for this indicator was therefore reduced from 10 points to 9 points.

7) *Geriatric services:*

This indicator ranges from 0 to 7 points and comprises arthritis treatment centers, adult day care programs, patient representative services, geriatric services, meals on wheels, assisted living, and transportation to health facilities. Again, to receive credit for a service, it must be provided within the hospital.

8) *Gynecology services:*

This indicator was introduced in 1997.[5] It provides a means to better rate the quality of services a hospital provides for gynecological and obstetric patients. High factor loadings provide support for this variable's inclusion. With a range of 0 to 4, the services included are obstetric care, reproductive health care, birthing rooms, and women's health center. We do not award a half-point for items in this measure.

9) *Medical/surgical intensive care beds:*

This indicator is included as an important factor in the Kidney Disease specialty. The AHA database provides the number of medical and surgical intensive care beds per facility. To be counted, beds must be physically located within the hospital and set up and staffed at the end of the reporting period.

10) *National Cancer Institute (NCI) indicator*

This indicator was introduced in 2002. The NCI is the principal federal agency for cancer research and training. NCI-designated cancer centers are the principal deliverers of medical advances to patients and families, and the chief educators of health care professionals and the public.[6]

There are three classifications of NCI-designated cancer centers. Cancer Center is the first level, denoting a facility that conducts a high volume of advanced laboratory research with federal funding. Clinical Cancer Centers, the next level up, add clinical cancer research activities. The highest level is Comprehensive Cancer Center. These institutions add prevention research, community outreach and service activities.[6]

We award one point to NCI-designated Clinical and Comprehensive Cancer Centers. All other hospitals receive zero points.

11) *Hospice/palliative care indicator:*

The hospice/palliative care indicator also was added in 2002. It 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 or 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, Geriatrics, 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. In Rheumatology, hospitals receive 1 point if they have a qualifying palliative care program; hospice is not considered. 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).

To combine these structural variables, we weight the elements to create a final composite measure. Using factor analysis, we force a one-factor solution and use the resultant loadings as “weight” values for each variable in the composite structural measure. The relative weight assigned to each element varies from specialty to specialty and from one release to the next within specialty. Figure 5 provides the factor weights assigned to each element for 2003.

Figure 5. Factor Loading by Specialty

Specialty	Tech-nology Indices	Volume	RNs/ Beds	Trauma	Dis-charge Planning	Service Mix	Geriatric Services	Gyne-cology Services	Medical/ Surgical Beds	NCI Desig-nation	Hospice/ Palliative Care
Cancer	65	69	60							71	50
Digestive Disorders	63	65	54	67							
Ear, Nose, and Throat	67	64	49	67							
Geriatrics	60		34		59	70	65				52
Gynecology	77	54	38	62				78			
Heart and Heart Surgery	69	64	43	57							58
Hormonal Disorders	64	53	55	71							
Kidney Disease	73	60	43	54	65				79		
Neurology and Neurosurgery	62	65	50	68							
Orthopedics	57	66	54	69							
Respiratory disorders	81	30	20	49	79						67
Rheumatology	85		25		84						60*
Urology	62	69	57	64							

* Rheumatology includes palliative care, but not hospice.

C. Process

The process dimension of the quality equation is the net effect of physicians' clinical decision-making. Clinical choices about the use of medication or diagnostic tests, admission to a hospital or one of its units, and length of stay account for a large proportion of the outcomes experienced by patients. However, national measurements of process are extremely difficult to obtain. We therefore rely on an alternative measure to act as a proxy. We contend that when a qualified expert identifies a hospital as one of the "best," he or she is, in essence, endorsing the process choices made at that hospital. Thus, we use the "nomination" of a hospital by a board-certified specialist as a measure of process. To collect these nominations, NORC conducts an annual survey of board-certified physicians. As in the past, we have pooled nominations for the most recent three years (2001-2003) to arrive at the process measure.

Survey sample

The sample for the 2003 survey consists of 2,550 board-certified physicians selected from the American Medical Association (AMA) Physician Masterfile of approximately 811,000 physicians. From within the Masterfile, we selected a target population of 220,245 board-certified physicians who met the eligibility requirements listed in Figure 6. Stratifying by region and by specialty within region, we selected a probability (random) sample of 150 physicians from each of 17 specialty areas, for a total of 2,550 (for 2002, 180 physicians were selected from each of the 17 specialty areas). The final sample includes non-federal and federal medical and osteopathic physicians residing in the 50 states and the District of Columbia. Figure 6 displays the list of specialties surveyed for 2003.

Eligibility requirements

We defined a probability sample of physicians who could properly represent the 17 specialty groupings. We used two rules of eligibility: one related to a mapping between the 17 specialties and the AMA's list of 85 self-designated specialties, and the second to a mapping between these 85 specialties and the 23 member boards of the American Boards of Medical Specialties (ABMS).

Under the first rule, we linked each of the 17 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 17 specialties were preliminarily eligible for the survey. Under the second rule, the physicians must also be certified by the corresponding member board of the ABMS. Figure 6 displays the correspondence between the specialty specified for *U.S. News & World Report*, AMA self-designated specialty, and the corresponding member board.

Figure 6. Physician Sample Mapping

"America's Best Hospitals" Specialty	AMA Key Code	AMA Self-Designated Specialty	American Board of:
Cancer	HEM/22	Hematology	Internal Medicine
	ON/24	Oncology	
Digestive Disorders	GE/17	Gastroenterology	Internal Medicine
Ear, Nose, and Throat	OTO/48	Otolaryngology	Otolaryngology
Eyes	OPH/46	Ophthalmology	Ophthalmology
Geriatrics	FPG/38, IMG/38	Geriatrics	Internal Medicine
Gynecology	GYN/21	Gynecology	Obstetrics & Gynecology
	OBG/42	Obstetrics & Gynecology	
Heart and Heart Surgery	CD/08	Cardiovascular Diseases	Internal Medicine
	CDS/08	Cardiovascular Surgery	Surgery
Hormonal Disorders	END/14	Endocrinology	Internal Medicine
	DIA/12	Diabetes	
Kidney Disease	NEP	Nephrology	Internal Medicine
Neurology and Neurosurgery	N/36	Neurology	Psychiatry & Neurology
	NS	Neurological Surgery	
Orthopedics	ORS/85	Orthopedic Surgery	Orthopedic Surgery
Pediatrics	PD/55	Pediatrics	Pediatrics
	ADL/01	Adolescent Medicine	
Psychiatry	P/63	Psychiatry	Psychiatry &
Rehabilitation	PM/62	Physical Medicine &	Physical Medicine &
Respiratory Disorders	PUD	Pulmonary Diseases	Internal Medicine
Rheumatology	RHU/74	Rheumatology	Internal Medicine
Urology	U/91	Urological Surgery	Urology

Stratification

To compensate for the widely varying number of eligible physicians across the targeted specialties, we used different probabilities of selection for each grouping and proportionate stratification across the four United States Census regions (Northeast, Midwest, South, and West). Within each of the 17 strata, we achieved a sample that was also geographically representative of the spread of physicians across the country.

2003 physician survey

For 2003, 150 sampled physicians per specialty were mailed a one-page questionnaire (see Appendix C). In 2002, 150 sampled physicians per specialty were mailed a three-page questionnaire (see Appendix B) and an additional 30 physicians per specialty were mailed a one-page questionnaire containing only the hospital nomination item. Since the response rate in 2002 was higher for physicians who received the short form questionnaire, it was utilized for all physicians in 2003. In 2001, half of the questionnaires made explicit reference to the *U.S. News & World Report* publication and half simply indicated that the questionnaire was for an annual survey of physicians. In 2002 and 2003, all questionnaires made reference to *U.S. News & World Report*.

Along with the questionnaires, physicians were also sent a cover letter, a prepaid return envelope, and a token incentive in the form of a two-dollar bill. One week after the initial survey mailing, a reminder postcard was sent to the sampled physicians. Two weeks following the reminder mailing, we sent a United States Postal Service Priority mailing to non-respondents including the questionnaire, a cover letter and a business reply envelope. Three weeks after the second mailing, a third mailing was sent via Federal Express and included the questionnaire, a cover letter, and a business reply envelope.

Response rate

Of the 2,550 physicians sampled for this year's report, 1,300 (51%) filled out and returned a questionnaire. In accordance with standard practice, any member of the sample found to be ineligible was removed from the denominator of the response rate equation. Subtracting 24 ineligible physicians because they had retired or died resulted in an overall response rate of 51.5%. Figure 7 shows response rates by specialty for the three years used in the 2003 index.

Figure 7. Response Rate by Year*

Specialty	2001		2002		2003		3-year total	
	n	%	n	%	n	%	n	%
Cancer	82	54.7	71	39.4	80	53.7	233	49.7
Digestive Disorders	79	52.7	81	45.0	76	50.7	236	49.4
Ear, Nose, and Throat	90	60.0	104	57.8	99	66.9	293	61.6
Eyes	91	60.7	102	56.7	75	50.3	268	56.3
Geriatrics	90	60.0	93	51.7	72	48.3	255	53.7
Gynecology	77	51.3	80	44.4	71	48.0	228	47.9
Heart and Heart Disease	81	54.0	74	41.1	75	50.7	230	48.8
Hormonal Disorders	74	49.3	80	44.4	75	51.4	229	48.3
Kidney Disease	72	48.0	73	40.6	66	44.0	211	44.2
Neurology and Neurosurgery	79	52.7	92	51.1	84	56.4	255	53.3
Orthopedics	72	48.0	92	51.1	73	49.3	237	49.6
Pediatrics	80	53.3	95	52.8	87	58.0	262	54.7
Psychiatry	86	57.3	84	46.7	65	44.2	235	49.9
Rehabilitation	81	54.0	88	48.9	75	50.3	244	51.0
Respiratory Disorders	74	49.3	89	49.4	74	49.7	237	49.5
Rheumatology	86	57.3	103	57.2	74	49.7	263	55.1
Urology	83	55.3	83	46.1	79	53.4	245	51.6
TOTAL	1,377	54.0	1,484	48.5	1,300	51.0	4,161	51.1
Overall Response Rate**		**55.0**		**49.1**		**51.5**		**51.8**

* In 2001 and 2003, 150 physicians were sampled for each specialty; in 2002, 180 were sampled per specialty.

** The numerator of the overall response rate includes all physicians who returned a questionnaire with at least one item completed and subtracts ineligible cases from the denominator.

Weighting

Weighting was carried out in two steps. First, physicians were assigned weights that reflected the probabilities of selection within specialty groups and the overall rates of response within these groups. Second, the weights from the first step were post-stratified using the two-dimensional contingency table of specialty (17 categories) by census region (Northeast, Midwest, South, and West). To check the weights, we confirmed that the sum across the sample of the weights in each cell of the classifications (specialty x region) equaled the population size.

In 2002, weighting across the three years of survey data was modified. In previous rankings, weights were assigned to physicians for each year individually as described in the paragraph above, and these year-specific weights were applied to the nominations for the three years contributing to the reputation score (2001, 2002, and 2003). According to this method, a nomination in region X and specialty Y could have a different weight from another nomination in the same region and specialty if it was made in a different year. Physicians now are pooled for all three years, and weights are then assigned as described in the paragraph above. Using this method, all nominations in region X and specialty Y have the same weight, regardless of the year in which the nomination was made. Post-stratification was carried out to the current contingency table of specialty by census region counts rather than the mean counts for the three years. This new method was implemented to reduce the range in weights across specialty and region and between years.

D. Outcome

Many healthcare professionals have decried the use of mortality rates as an outcomes measure because of limitations in the methods used to adjust for risk. Nonetheless, research strongly suggests a positive correlation between a better-than-average risk-adjusted mortality rate and overall quality of care.[7-16] Based on these findings, we used adjusted mortality rate as the outcome measure for our quality of care model. Predicted mortality rates were provided by MEDSTAT Group, Inc., of Franklin, Tenn., using the All Patient Refined Diagnosis Related Group (APR-DRG) method designed by 3M Health Information Systems. The APR-DRG adjusts expected deaths for severity of illness by means of principle diagnosis and categories of secondary diagnoses. A detailed description of the full APR-DRG methodology is provided in Appendix D. The method was applied to the pooled 1999, 2000, and 2001 MEDPARS data set of reimbursement claims made to CMS by hospitals. These complete data sets were the most current available for analysis.

2003 DRG refinements

We annually review the DRG groupings for every specialty. The groupings are important because they define the cases included in the mortality measures as well as the volume measure in the structural component. In 2003, we conducted a thorough examination of the DRG groupings in Digestive Disorders, Orthopedics, and Gynecology. Several physicians independently conducted reviews of the DRG groupings (two for Digestive Disorders, two for Orthopedics, and one representative for Gynecology). Based on the review and recommendations, the changes in Figure 8 were made for 2003.

Figure 8. Changes to Specialty Definitions for Mortality

Specialty	DRGs Added	DRGs Deleted
Digestive Disorders	172: DIGESTIVE MALIGNANCY W CC	(none)
	173: DIGESTIVE MALIGNANCY W/O CC	
	203: MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS	
Orthopedics	(none)	213: AMPUTATION FOR MUSCULOSKELETAL SYSTEM &
		216: BIOPSIES OF MUSCULOSKELETAL SYSTEM &
		217: WND DEBRID & SKN GRFT EXCEPT HAND,FOR MUSCSKELET &
		240: CONNECTIVE TISSUE DISORDERS W CC
		241: CONNECTIVE TISSUE DISORDERS W/O CC
Gynecology	354: UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC	
	355: UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC	
	357: UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY	
	366: MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W CC	
	367: MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC	

As in previous years, we used an “all-cases” mortality rate in four specialties (Ear, Nose, and Throat, Geriatrics, Gynecology and Rheumatology) rather than a specialty-specific rate, either because the number of hospitals with sufficient discharges in the particular DRG grouping was too low or because the DRG groupings proved to be less robust than was desired. Appendix E lists the DRGs for each specialty.

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 score of 0.75, a ratio of 0.05 produces a score of 0.95, and so on. This method maintains the magnitudes of the differences and avoids extreme values. To

dampen the effect of year-to-year fluctuations, mortality scores are averaged over three years.

As with volume and RNs/beds ratios in the structural component, scores at the extreme in mortality were trimmed to eliminate the influence of very wide variation. Figure 9 shows the percentile at which each of the mortality distributions was trimmed.

Figure 9. Percentile Where Mortality Distributions Were Trimmed

Specialty	Percentile
Cancer	95
Digestive Disorders	99
Ear, Nose, and Throat	95
Geriatrics	99
Gynecology	99
Heart and Heart Surgery	95
Hormonal Disorders	95
Kidney Disease	99
Neurology and Neurosurgery	99
Orthopedics	95
Respiratory Disorders	99
Rheumatology	99
Urology	90

As with volume and RNs/beds, restandardization is performed on the mortality scores after trimming extremes.

E. Calculation of the Index

The calculation of the IHQ for each hospital (other than in specialties ranked solely on reputation) considers equally the three dimensions of quality of care: structure, process, and outcome. Although all three measures represent a specific aspect of quality, a single score provides an easier-to-use result and yields a more accurate portrayal of overall quality than would the three aspects individually.

Therefore, in computing the final scores for a particular specialty, reputational score, mortality score, and the collective set of structural indicators receive arithmetically equivalent importance.

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

$$IHQ_i = \{[(S_1 * F_1) + (S_2 * F_2) + (...S_n * F_n)] + [P_i * \sum F_{1\text{-}n}] + [\, M * \sum F_{1\text{-}n}]\}$$

where:

IHQ_i = Index for Hospital Quality for specialty *I*
$S_{1\text{-}n}$ = Structural indicators (STRUCTURE)
F = Factor loading
P = Nomination score (PROCESS)
M = Standardized mortality score (OUTCOME)

The general formula for deriving the index scores for tertiary-level hospitals is the same as when it began in 1993. For presentation purposes, we standardize raw scores, then equate the raw IHQ scores as computed above to a 100-point scale, where the top hospital in each specialty receives a score of 100.

The mean and standard deviation of each of the 17 specialties are listed in Figure 10. For the four reputation-only rankings, mean and standard deviation of the reputation score are presented. These data further illustrate that the spread of IHQ scores produces a very small number of hospitals two and three standard deviations above the mean. Horizontal lines in each of the 17 specialty lists in Appendices F and G indicate the cutoff points of two and three standard deviations above the mean.

IHQ scores for the specialties of Eyes, Pediatrics, Psychiatry, and Rehabilitation cannot be calculated, because data for robust and meaningful structural and outcome measures are not available for these specialties. Thus, as shown in Appendix G, we rank hospitals in these specialties solely by reputation. Although the four reputation-only specialties are ranked without the Index of Hospital Quality, standard deviations of the reputation scores are still useful in identifying truly superior hospitals (in terms of statistically relevant nomination scores).

Figure 10. Mean and Standard Deviations of IHQ and Reputation Scores

IHQ Score					
Specialty	Mean	Standard deviation	1 SD above the mean	2 SDs above the mean	3 SDs above the mean
Cancer	21.92	6.88	28.80	35.68	42.56
Digestive Disorders	22.45	5.16	27.62	32.78	37.95
Ear, Nose, and Throat	21.38	5.87	27.25	33.12	39.00
Geriatrics	20.85	5.62	26.47	32.09	37.71
Gynecology	21.85	6.20	28.05	34.25	40.45
Heart and Heart Surgery	20.47	7.14	27.60	34.74	41.88
Hormonal Disorders	20.37	6.24	26.61	32.84	39.08
Kidney Disease	29.46	7.10	36.57	43.67	50.77
Neurology and Neurosurgery	20.30	6.60	26.90	33.50	40.09
Orthopedics	20.40	5.42	25.82	31.23	36.65
Respiratory disorders	20.57	5.38	25.96	31.34	36.72
Rheumatology	26.07	5.77	31.83	37.60	43.37
Urology	23.29	4.86	28.15	33.01	37.87
Reputational Score					
Specialty	Mean	Standard deviation	1 SD above the mean	2 SDs above the mean	3 SDs above the mean
Eyes	4.41	13.27	17.68	30.95	44.22
Pediatrics	3.23	7.83	11.05	18.88	26.71
Psychiatry	3.34	7.33	10.67	18.01	25.34
Rehabilitation	3.50	8.90	12.40	21.30	30.20

F. Summary of Changes for 2003

- The overall sample size of the physician survey returned to 2,550 from 3,060 by reducing the number of physicians surveyed to 150 from 180 per specialty (p. 2).

- Hospice Care was removed from the Service Mix Index, which changed the maximum score for this indicator from 10 to 9. Hospice care is taken into account in the hospice/palliative care indicator which was added to the structural measures in several specialties in 2002 (p. 12).

- The second additional postcard reminder (which was previously sent to all non-responders one month after the third mailing) was not utilized in 2003 (p. 19).

- All physicians received the short form of the questionnaire, which was introduced in 2002 (p. 19).

- DRG groupings were updated in Digestive Disorders, Orthopedics, and Gynecology (p. 23).

III Directions for Future Releases

Since its inception, the U.S. News Index has used the most rigorous methodology available to define, measure, and combine the components of quality incorporated in its construction. We will continue to re-examine them. Continuing research will address the way in which reputational score is used to define process; transformations of the raw scores; measures of technology for the structural component, and refinement of the definitions of non-fatal outcomes.

We will also continue to investigate the availability and quality of 30-day mortality rates as compared to death-at-discharge rates. The ability to measure the outcomes of procedures after a patient's release from the hospital would enhance the quality of the rankings. Before implementing such a measure, however, we must assess the quality of the data available for input.

As in years past, we welcome input from users of the index in charting new directions. Readers and users are encouraged to contact the authors with suggestions and questions.

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V Appendices

Appendix A

Structural Variable Map

The following variables, used to construct structural elements of the 2003 IHQ, were taken from the 2001 Annual Survey of Hospitals Data Base published by the American Hospital Association.

All Hospital Index (used to define hospital eligibility)
1 point if ANGIOHOS=1, half point if ANGIOSYS, ANGIONET, or ANGIOVEN=1
1 point if CCLABHOS=1, half point if CCLABSYS, CCLABNET, or CCLABVEN=1
1 point if CICBDHOS=1, half point if CICBDSYS, CICBDNET, or CICBDVEN=1
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if ESWLHOS=1, half point if ESWLSYS, ESWLNET, or ESWLVEN=1
1 point if MAMMSHOS=1, half point if MAMMSSYS, MAMMSNET, or MAMMSVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if MSICHOS=1, half point if MSICSYS, MSICNET, or MSICVEN=1
1 point if NICBDHOS=1, half point if NICBDSYS, NICBDNET, or NICBDVEN=1
1 point if OHSRGHOS=1, half point if OHSRGSYS, OHSRGNET, or OHSRGVEN=1
1 point if PEDBDHOS=1, half point if PEDBDSYS, PEDBDNET, or PEDBDVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if REPROHOS=1, half point if REPROSYS, REPRONET, or REPROVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Cancer Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if ONCOLHOS=1, half point if ONCOLSYS, ONCOLNET, or ONCOLVEN=1
1 point if PEDICHOS=1, half point if PEDICSYS, PEDICNET, or PEDICVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1

Digestive Disorders Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if ESWLHOS=1, half point if ESWLSYS, ESWLNET, or ESWLVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Ear, Nose, and Throat Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1

Heart and Heart Surgery Technology Index
1 point if ANGIOHOS=1, half point if ANGIOSYS, ANGIONET, or ANGIOVEN=1
1 point if CCLABHOS=1, half point if CCLABSYS, CCLABNET, or CCLABVEN=1
1 point if CICHOS=1, half point if CICSYS, CICNET, or CICVEN=1
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if OHSRGHOS=1, half point if OHSRGSYS, OHSRGNET, or OHSRGVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Hormonal Disorders Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Geriatrics Technology Index
1 point if CCLABHOS=1, half point if CCLABSYS, CCLABNET, or CCLABVEN=1
1 point if CICHOS=1, half point if CICSYS, CICNET, or CICVEN=1
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Gynecology Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MAMMSHOS=1, half point if MAMMSSYS, MAMMSNET, or MAMMSVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if NICHOS=1, half point if NICSYS, NICNET, or NICVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Kidney Disease Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if ESWLHOS=1, half point if ESWLSYS, ESWLNET, or ESWLVEN=1
1 point if TPLNTHOS=1, half point if TPLNTSYS, TPLNTNET, or TPLNTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Neurology and Neurosurgery Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Orthopedics Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Respiratory Disorders Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Rheumatology Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Urology Technology Index
1 point if CTSCNHOS=1, half point if CTSCNSYS, CTSCNNET, or CTSCNVEN=1
1 point if DRADFHOS=1, half point if DRADFSYS, DRADFNET, or DRADFVEN=1
1 point if ESWLHOS=1, half point if ESWLSYS, ESWLNET, or ESWLVEN=1
1 point if MRIHOS=1, half point if MRISYS, MRINET, or MRIVEN=1
1 point if PETHOS=1, half point if PETSYS, PETNET, or PETVEN=1
1 point if RADTHHOS=1, half point if RADTHSYS, RADTHNET, or RADTHVEN=1
1 point if SPECTHOS=1, half point if SPECTSYS, SPECTNET, or SPECTVEN=1
1 point if ULTSNHOS=1, half point if ULTSNSYS, ULTSNNET, or ULTSNVEN=1

Discharge Planning
1 point if CMNGTHOS=1
1 point if PATEDHOS=1
1 point if PATRPHOS =1

Geriatric Services
1 point if ADULTHOS=1
1 point if ARTHCHOS=1
1 point if ASSTLHOS=1
1 point if GERSVHOS=1
1 point if MEALSHOS=1
1 point if PATRPHOS=1
1 point if TPORTHOS=1

Gynecology Services
1 point if BROOMHOS=1
1 point if OBLEV=2 or 3 *and* OBHOS=1
1 point if REPROHOS=1
1 point if WOMHCHOS=1

Service Mix
1 point if ALCHHOS=1
1 point if COUTRHOS=1
1 point if HOMEHHOS=1
1 point if PSYEDHOS=1
1 point if PSYLSHOS=1
1 point if REPROHOS=1
1 point if SOCWKHOS=1
1 point if WOMHCHOS=1

R.N.'s to Beds
Full-time Registered Nurses (FTRNTF) divided by Total Hospital Beds (HOSPBD)

Trauma
"Yes" if TRAUML90=1 or 2 *and* TRAUMHOS=1

NCI
"Yes" if a National Cancer Institute designated Comprehensive or Clinical Cancer Center

Hospice/Palliative Care
"H, 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)

"H" if HOSPCHOS=1 or HOSPCSYS=1 or HOSPCNET=1 or HOSPCVEN=1

"P" if PALHOS=1 or PALSYS=1 or PALNET=1 or PALVEN=1

Palliative Care
"Yes" if PALHOS=1 or PALSYS=1 or PALNET=1 or PALVEN=1

Appendix B

2002 Sample Physician Questionnaire (Long Form)

NORC
UNIVERSITY OF CHICAGO

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.

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

Start Here

THE NATION'S BEST HOSPITALS

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 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.			
b.			
c.			
d.			
e.			

THE INTERNET AND MEDICAL PRACTICE

Answers to these questions will help us to understand the impact of the Internet on medical practices.

2 **Have you ever suggested to your patients that they go to the Internet for information about their conditions?**

- ☐ Yes
- ☐ No

3 **Have your patients been helped or hindered by the information they have obtained from the Internet *following your suggestion?***

- ☐ Helped
- ☐ Hindered
- ☐ Neither
- ☐ Both
- ☐ Does not apply

Continued

4 **Have your patients been helped or hindered by the information they have obtained from the Internet *by themselves?***

- ☐ Helped
- ☐ Hindered
- ☐ Neither
- ☐ Both
- ☐ I don't know

5 **In the area of medical information on the Internet, what one development, if any, has proven most beneficial to patients?**

6 **How often do you use the Internet?**

- ☐ Nearly every day
- ☐ A day or two a week
- ☐ Several times a month
- ☐ Less than once a month
- ☐ Never

7 **Do you ever access pharmaceutical company web sites?**

- ☐ Yes
- ☐ No
- ☐ Does not apply

8 **Do you ever access medical association web sites?**

- ☐ Yes
- ☐ No
- ☐ Does not apply

9 **What other medical sites, if any, do you sometimes access?**

10 **Do you think that the quality of information on the Internet is... ?**

- ☐ Very good
- ☐ Good
- ☐ Neither good nor bad
- ☐ Bad
- ☐ Very bad
- ☐ Don't know

11 **In the area of medical information on the Internet, what one development, if any, has proven most beneficial to physicians?**

12 **Do you/does your office have an electronic mail address?**

- ☐ Yes
- ☐ No

13 **Do you allow your patients to communicate with you via electronic mail?**

- ☐ Yes
- ☐ No
- ☐ Does not apply

14 **Do you encourage your patients to communicate with you via electronic mail?**

- ☐ Yes
- ☐ No
- ☐ Does not apply

Thank you again for your participation

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

Appendix C

2002/2003 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.			
b.			
c.			
d.			
e.			

Conducted by the National Opinion Research Center at the University of Chicago
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Thank you again for your participation

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Appendix D

Predicted Mortality: APR-DRG Methodology

Introduction to DRGs

The All Patient Refined Diagnosis Related Groups (APR-DRGs) were developed by 3M Health Information Systems (3M-HIS) in conjunction with the National Association of Children's Hospitals and Related Institutions (NACHRI). APR-DRGs expand the basic diagnosis-related group (DRG) structure to address patient severity of illness, risk of mortality, and resource intensity. The APR-DRG Version 15.0 uses the Health Care Financing Administration (HCFA) Version 14.0 DRG methodology. Because APR-DRGs are based on DRGs and All Patient DRGs (AP-DRGs), a brief explanation of both structures will be useful.

Current HCFA DRG Structure

Created from Adjacent Diagnosis Related Groups (ADGs) which combine patients into groups with common characteristics, DRGs were developed by Yale University in the 1970s to relate a hospital's case mix index to the resource demands and associated costs experienced by the hospital.

ADGs were created by subdividing an MDC[2] into two groups based on the presence or absence of an operating room procedure. Surgical patients, identified as those having an operating room procedure, were then classified by type of procedure to form surgical ADGs. Patients with multiple procedures were assigned to the highest surgical class. Medical patients were divided into smaller groups, based on their principal diagnosis, to form medical ADGs.

DRGs use ADGs as a base and then further classify patients into selected disease and procedure categories based on whether or not they have substantial comorbidities or complications (CC). Approximately 3,000 diagnosis codes have been designated by HCFA as substantial CCs, (defined by a list of additional diagnosis codes that a panel of physicians felt would increase the length of stay by at least one day for 75 percent of the patients). This list covers a broad range of disease conditions, and no differentiation in severity or complexity level was made among the additional diagnoses. The patient's age and discharge status were sometimes used in the definition of DRGs.

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[2] Major Diagnostic Categories (MDCs) are broad medical and surgical categories one step hierarchically higher than DRGs (several DRGs roll-up into an MDC). MDCs are divided by body systems such as nervous; ear, nose, and throat; and respiratory.

Current AP-DRG Structure

In 1987, the New York State Department of Health entered into an agreement with 3M-HIS to evaluate the applicability of DRGs to a non-Medicare population with a specific focus on neonates and patients with Human Immunodeficiency Virus (HIV) infections. The DRG definitions developed by this relationship are referred to as the AP-DRGs.

The AP-DRGs are modeled after the HCFA DRGs and attempt to improve the DRGs in an effort to more accurately predict a hospital's resource demands and associated costs for all acute care patients. In the creation of AP-DRGs, the modifications made to the DRG structure can be summarized as follows:

- Except for neonates who die or are transferred within the first few days of life, AP-DRGs define six ranges of birth weight that represent distinct demands on hospital resources. Within each birth weight range, neonates are then subdivided based on the presence of a significant operating room procedure, and then further subdivided based on presence of multiple major, minor, or other problems.

- Assignment to neonatal MDC is based on age. Specifically, the AP-DRGs assign a patient to the neonatal MDC when the age of the patient is less than 29 days at admission regardless of the principal diagnosis.

- MDC 25 was created to account for the highly specialized treatment of multiple trauma patients. Patients assigned to MDC 25 have at least two significant trauma diagnoses from different body sites.

- MDC 20 for alcohol and substance abuse was restructured to differentiate patients based on the substance being abused.

- Across all MDCs, patient with a tracheostomy were put into either of two tracheostomy AP-DRGs: tracheostomy performed for therapeutic reasons and tracheostomy representing long-term ventilation.

- All liver, bone marrow, heart, kidney, and lung transplant patients were assigned to an AP-DRG independent of the MDC of the principal diagnosis.

- For several MDCs, a single major comorbidity and complication (CC) AP-DRG was formed across all surgical patients within an MDC and a single major CC AP-DRG was formed across all medical patients within an MDC.

The AP-DRGs introduced changes to the HCFA DRGs in an attempt to depart from using the principal diagnosis as the initial variable for assignment. The AP-DRGs were designed to more accurately group patients into like groups that provide an operational means of defining and measuring a hospital's case mix complexity.

All Patient Refined DRGs

APR-DRG Objectives

The primary objective of the HCFA DRG and AP-DRG patient classification systems was to relate the type of patients treated to the hospital resources they consumed. This limited focus on resource intensity does not allow providers to classify patients into other groups for meaningful analysis. The APR-DRG patient classification system goes beyond traditional resource intensity measures and was designed with the ability to address the following needs:

- Compare hospitals across a wide range of resource and outcome measures
- Evaluate differences in inpatient mortality rates
- Implement and support critical pathways
- Identify continuous quality improvement initiatives
- Support internal management and planning systems
- Manage capitated payment arrangements.

To meet these needs, the APR-DRG system classifies patients according to severity of illness, risk of mortality, and resource intensity. Therefore, in the APR-DRG classification system a patient is assigned three distinct descriptors: base APR-DRG, severity of illness subclass, and risk of mortality subclass.

Severity of illness can be defined as the extent of physiologic decompensation or organ system loss of function experienced by the patient. In contrast, risk of mortality is defined as the patient's likelihood of dying.

For analyses such as evaluating resource intensity or patient care outcomes, the base APR-DRGs in conjunction with the severity of illness subclass is used. For evaluating patient mortality, the base APR-DRGs in conjunction with the risk of mortality subclass is used.

Development of the APR-DRGs

The AP-DRGs were used as the base DRGs in the development of the APR-DRGs because they were representative of the entire inpatient population and accounted for populations not included in DRGs at the time of development. Several consolidations, additions, and modifications were made to the AP-DRGs to form the list of APR-DRGs used in the severity of illness and risk of mortality subclass assignments.

The following list summarizes the revisions made to the AP-DRGs in the creation of the APR-DRGs:

- All age, CC, and major CC splits were consolidated.
- Splits based on discharge status or death were consolidated.
- Definitions based on the presence or absence of a complicated principal diagnosis were consolidated.
- Additional APR-DRGs were created for pediatric patients.
- APR-DRGs for newborns were completely restructured to create medical and surgical hierarchies within each birth weight range.
- Low volume APR-DRGs were consolidated into other related APR-DRGs.
- APR-DRGs that could be explained by the severity of illness subclasses were consolidated into one APR-DRG.
- Due to risk of mortality subclasses, several APR-DRGs were split to account for significant differences in mortality between patient groups.

APR-DRG Severity of Illness Subclass Assignment

With the exception of neonatal patients, after a patient has been given an APR-DRG code, a Severity of Illness Subclass is assigned based on the level of the secondary diagnoses, presence of certain non-OR procedures, and the interaction among secondary diagnoses, age, APR-DRG and principal diagnosis. Neonatal patients

have their own hierarchical method for determining severity of illness and will be discussed later. The four severity of illness subclasses are:

Subclass (PSC)	Severity of Illness
1	Minor (Includes non CC)
2	Moderate
3	Major
4	Extreme

The severity of illness subclass is used in conjunction with the patient's base APR-DRG for analysis such as evaluating resource intensity or patient care outcomes. A patient's severity of illness subclass should not be used with their DRG because several DRGs may form one APR-DRG. Therefore, since severity of illness subclasses correspond to the APR-DRG number and not the DRG, it is important to use the APR-DRG number to accurately interpret data.

The process for assigning a patient a severity of illness subclass is a three phase process and is summarized as follows:

Phase I

- Secondary diagnoses that are closely related to the principal diagnosis are eliminated from further analysis.

- Remaining secondary diagnoses are assigned one of four distinct Standard Severity of Illness Levels. Figure 1 presents examples of secondary diagnoses in each severity of illness level.

Figure 1. Examples of Secondary Diagnoses by Severity of Illness Level

Severity of Illness Level	Examples of Secondary Diagnoses
Minor	Benign hypertension, acute bronchitis, lumbago
Moderate	Chronic renal failure, viral pneumonia, diverticulitis
Major	Diabetic ketoacidosis, chronic heart failure, acute cholecystitis
Extreme	Septicemia, acute myocardial infarction, cerebral vascular accident

- The Standard Severity of Illness Level is modified for some secondary diagnoses based on age, APR-DRG, and presence of non-OR procedures. Figure 2 displays an example of modifications to the standard severity of illness level based on the APR-DRG.

Figure 2. Examples of Standard Severity of Illness Modifications

Secondary Diagnosis	Standard Severity of Illness Level	APR-DRG	Modified Severity of Illness Level
Stridor	Moderate	Bronchitis and asthma	Minor
Chronic renal failure	Moderate	Diabetes	Major
Cardiomegaly	Moderate	Chronic heart failure	Minor
Uncomplicated diabetes	Minor	Vaginal delivery	Moderate

Phase II

- All secondary diagnoses that are closely related to other secondary diagnoses are eliminated from further analysis, and the secondary diagnosis with the highest Severity of Illness Level is retained. This prevents double counting clinically similar diagnoses.

- The Base Severity of Illness Subclass of the patient is set to the highest Standard Severity of Illness Level of any of the secondary diagnoses.

- Patients with a Base Severity of Illness Subclass of major (3) or extreme (4), will be reduced to the next lower subclass unless the patient has multiple secondary diagnoses with a high Standard Severity of Illness Level. Figure 3 displays the requirements for keeping a severity of illness subclass of major or extreme.

Figure 3. Multiple Secondary Diagnoses Requirements

Base Severity of Illness Subclass	Multiple Secondary Diagnoses Requirements to Prevent Reduction of Severity of Illness Subclass
Major	Two or more secondary diagnoses that are major or one secondary diagnosis that is major and at least two secondary diagnoses that are moderate
Extreme	Two or more secondary diagnoses that are extreme or one secondary diagnosis that is extreme and at least two secondary diagnoses that are major

Phase III

- A minimum Severity of Illness Subclass is established based on the patient's principal diagnosis. This accounts for patients assigned to codes that contain both the underlying disease and an associated manifestation of the disease (i.e. diabetes with hyperosmolar coma), but is only assigned to the APR-DRG that accounts for the underlying disease.

- A minimum Severity of Illness Subclass is established based on combinations of principal diagnosis and age for specific APR-DRGs.

- A minimum Severity of Illness Subclass is established for some APR-DRGs with certain APR-DRG and non-OR procedure combinations as well as principal diagnosis and non-OR procedure combinations

- A minimum Severity of Illness Subclass is established based on the presence of certain combinations of secondary diagnoses. Figure 4 shows the combination of secondary diagnoses necessary to increase the severity of illness subclass to a minimum severity of illness level. For example, a type 1 combination would be a major bacterial infection with pleural effusion. If a diagnosis from both of these categories is present plus at least one other secondary diagnosis that is at least a major severity of illness level, then the minimum patient severity of illness subclass will be extreme.

Figure 4. Minimum Severity of Illness Requirements

Combination Type	Combination of Categories	Additional Secondary Diagnoses Required	Minimum Severity of Illness
1	Specified combinations of two major categories	At least one additional major secondary diagnosis	Extreme
2	Specified combinations of two moderate categories	At least one additional moderate secondary diagnosis	Major
3	Specified combinations of a moderate and a minor category	At least one additional moderate secondary diagnosis	Major
4	Specified combinations of two minor categories	At least two additional minor secondary diagnoses	Moderate
5	Specified combinations of two moderate categories	None	Major

- The final patient Severity of Illness Subclass is selected based on the maximum of the Phase II Base Patient Severity of Illness Subclass and the Phase III minimum Severity of Illness Subclass

Both medical and surgical patients are assigned a severity of illness level of 1-4 based on the assignment process outlined previously.

APR-DRG Risk of Mortality Subclass Assignment

Similar to the Severity of Illness Subclass assignment, the Risk of Mortality Subclass assignment is based on the level of the secondary diagnoses and the interaction among secondary diagnoses, age, APR-DRG, and principal diagnosis. In general, the patients Risk of Mortality Level and Subclass will be lower than the Severity of Illness Level and Subclass, respectively. Neonatal patients have their own hierarchical method for determining risk of mortality and will be discussed later. The four severity of illness subclasses are:

Subclass (PSC2)	Risk of Mortality
1	Minor (includes non CC)
2	Moderate
3	Major
4	Extreme

The risk of mortality subclass is used in conjunction with the patient's base APR-DRG for evaluating patient mortality. Like the severity of illness subclass, a patient's risk of mortality subclass should not be used with their DRG because several DRGs may form one APR-DRG. Therefore, since risk of mortality subclasses correspond to the APR-DRG number and not the DRG, it is important to use the APR-DRG number to accurately interpret data.

The process for assigning a patient a risk of mortality subclass is a three phase process and is summarized as follows:

Phase I

- Secondary diagnoses that are closely related to the principal diagnosis are eliminated from further analysis.

- Remaining secondary diagnoses are assigned one of four distinct Risk of Mortality Levels.

- The Risk of Mortality Level is modified for some secondary diagnosis based on the patients age and APR-DRG.

Phase II

- All secondary diagnoses that are closely related to other secondary diagnoses are eliminated from further analysis, and the secondary diagnosis with the highest Risk of Mortality Level is retained. This prevents double counting clinically-similar diagnoses.

- The Base Risk of Mortality Subclass of the patient is set to the highest Risk of Mortality Level of any of the secondary diagnoses.

- Patients with a Base Risk of Mortality Subclass of major (3) or extreme (4), will be reduced to the next lower subclass unless the patient has multiple secondary diagnoses with a high Risk of Mortality Level.

Phase III

- A minimum Risk of Mortality Subclass is established based on the patients principal diagnosis. This accounts for specific APR-DRGs that have a principal diagnosis indicative of a higher risk of mortality relative to the other principal diagnoses in the APR-DRG.

- A minimum Risk of Mortality Subclass is established based on the presence of certain combinations of secondary diagnoses.

- The final patient Risk of Mortality Subclass is selected based on the maximum of the Phase II Base Risk of Mortality Subclass and the Phase III minimum Risk of Mortality Subclass.

Appendix E

Diagnosis-Related Group (DRG) Groupings by Specialty

2003 Diagnosis-Related Group (DRG) Groupings by Specialty

Cancer

#10 NERVOUS SYSTEM NEOPLASMS W CC
#11 NERVOUS SYSTEM NEOPLASMS W/O CC
#64 EAR, NOSE, MOUTH & THROAT MALIGNANCY
#82 RESPIRATORY NEOPLASMS
#172 DIGESTIVE MALIGNANCY W CC
#173 DIGESTIVE MALIGNANCY W/O CC
#199 HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR MALIGNANCY
#203 MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS
#239 PATHOLOGICAL FRACTURES & MUSCULOSKELETAL & CONN TISS MALIGNANCY
#257 TOTAL MASTECTOMY FOR MALIGNANCY W CC
#258 TOTAL MASTECTOMY FOR MALIGNANCY W/O CC
#259 SUBTOTAL MASTECTOMY FOR MALIGNANCY W CC
#260 SUBTOTAL MASTECTOMY FOR MALIGNANCY W/O CC
#274 MALIGNANT BREAST DISORDERS W CC
#275 MALIGNANT BREAST DISORDERS W/O CC
#318 KIDNEY & URINARY TRACT NEOPLASMS W CC
#319 KIDNEY & URINARY TRACT NEOPLASMS W/O CC
#338 TESTES PROCEDURES, FOR MALIGNANCY
#344 OTHER MALE REPRODUCTIVE SYSTEM O.R. PROCEDURES FOR MALIGNANCY
#346 MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W CC
#347 MALIGNANCY, MALE REPRODUCTIVE SYSTEM, W/O CC
#354 UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC
#355 UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC
#357 UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY
#366 MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W CC
#367 MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC
#400 LYMPHOMA & LEUKEMIA W MAJOR O.R. PROCEDURE
#401 LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W CC
#402 LYMPHOMA & NON-ACUTE LEUKEMIA W OTHER O.R. PROC W/O CC
#403 LYMPHOMA & NON-ACUTE LEUKEMIA W CC
#404 LYMPHOMA & NON-ACUTE LEUKEMIA W/O CC
#405 ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE AGE 0-17
#409 RADIOTHERAPY
#410 CHEMOTHERAPY W/O ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS
#411 HISTORY OF MALIGNANCY W/O ENDOSCOPY
#412 HISTORY OF MALIGNANCY W ENDOSCOPY
#413 OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W CC
#414 OTHER MYELOPROLIF DIS OR POORLY DIFF NEOPL DIAG W/O CC
#473 ACUTE LEUKEMIA W/O MAJOR O.R. PROCEDURE AGE >17
#492 CHEMOTHERAPY W ACUTE LEUKEMIA AS SECONDARY DIAGNOSIS

Digestive Disorders

#146 RECTAL RESECTION W CC
#147 RECTAL RESECTION W/O CC
#148 MAJOR SMALL & LARGE BOWEL PROCEDURES W CC
#149 MAJOR SMALL & LARGE BOWEL PROCEDURES W/O CC
#150 PERITONEAL ADHESIOLYSIS W CC
#151 PERITONEAL ADHESIOLYSIS W/O CC
#152 MINOR SMALL & LARGE BOWEL PROCEDURES W CC
#153 MINOR SMALL & LARGE BOWEL PROCEDURES W/O CC
#154 STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W CC
#155 STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W/O CC
#156 STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE 0-17
#170 OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W CC
#171 OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W/O CC
#172 DIGESTIVE MALIGNANCY W CC
#173 DIGESTIVE MALIGNANCY W/O CC
#174 G.I. HEMORRHAGE W CC
#175 G.I. HEMORRHAGE W/O CC
#176 COMPLICATED PEPTIC ULCER
#177 UNCOMPLICATED PEPTIC ULCER W CC
#178 UNCOMPLICATED PEPTIC ULCER W/O CC
#179 INFLAMMATORY BOWEL DISEASE
#180 G.I. OBSTRUCTION W CC
#181 G.I. OBSTRUCTION W/O CC
#182 ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W CC
#183 ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W/O CC
#184 ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE 0-17
#188 OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W CC
#189 OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W/O CC
#190 OTHER DIGESTIVE SYSTEM DIAGNOSES AGE 0-17
#191 PANCREAS, LIVER & SHUNT PROCEDURES W CC
#192 PANCREAS, LIVER & SHUNT PROCEDURES W/O CC
#193 BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W CC
#194 BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W/O CC
#195 CHOLECYSTECTOMY W C.D.E. W CC
#196 CHOLECYSTECTOMY W C.D.E. W/O CC
#197 CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W CC
#198 CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W/O CC
#200 HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR NON-MALIGNANCY
#201 OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES
#202 CIRRHOSIS & ALCOHOLIC HEPATITIS
#203 MALIGNANCY OF HEPATOBILIARY SYSTEM OR PANCREAS
#204 DISORDERS OF PANCREAS EXCEPT MALIGNANCY
#205 DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W CC

#206 DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W/O CC
#207 DISORDERS OF THE BILIARY TRACT W CC
#208 DISORDERS OF THE BILIARY TRACT W/O CC
#493 LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W CC
#494 LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W/O CC

Ear, Nose, and Throat

#49 MAJOR HEAD & NECK PROCEDURES
#50 SIALOADENECTOMY
#51 SALIVARY GLAND PROCEDURES EXCEPT SIALOADENECTOMY
#55 MISCELLANEOUS EAR, NOSE, MOUTH & THROAT PROCEDURES
#57 T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17
#58 T&A PROC, EXCEPT TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE 0-17
#59 TONSILLECTOMY &/OR ADENOIDECTOMY ONLY, AGE >17
#61 MYRINGOTOMY W TUBE INSERTION AGE >17
#62 MYRINGOTOMY W TUBE INSERTION AGE 0-17
#63 OTHER EAR, NOSE, MOUTH & THROAT O.R. PROCEDURES
#65 DYSEQUILIBRIUM
#66 EPISTAXIS
#67 EPIGLOTTITIS
#68 OTITIS MEDIA & URI AGE >17 W CC
#69 OTITIS MEDIA & URI AGE >17 W/O CC
#70 OTITIS MEDIA & URI AGE 0-17
#71 LARYNGOTRACHEITIS
#72 NASAL TRAUMA & DEFORMITY
#73 OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE >17
#74 OTHER EAR, NOSE, MOUTH & THROAT DIAGNOSES AGE 0-17

Geriatrics

ALL CASES

Gynecology

#353 PELVIC EVISCERATION, RADICAL HYSTERECTOMY & RADICAL VULVECTOMY
#354 UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W CC
#355 UTERINE, ADNEXA PROC FOR NON-OVARIAN/ADNEXAL MALIG W/O CC
#356 FEMALE REPRODUCTIVE SYSTEM RECONSTRUCTIVE PROCEDURES
#357 UTERINE & ADNEXA PROC FOR OVARIAN OR ADNEXAL MALIGNANCY
#358 UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W CC
#359 UTERINE & ADNEXA PROC FOR NON-MALIGNANCY W/O CC
#360 VAGINA, CERVIX & VULVA PROCEDURES
#361 LAPAROSCOPY & INCISIONAL TUBAL INTERRUPTION
#362 ENDOSCOPIC TUBAL INTERRUPTION
#363 D&C, CONIZATION & RADIO-IMPLANT, FOR MALIGNANCY
#364 D&C, CONIZATION EXCEPT FOR MALIGNANCY
#365 OTHER FEMALE REPRODUCTIVE SYSTEM O.R. PROCEDURES
#366 MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W CC
#367 MALIGNANCY, FEMALE REPRODUCTIVE SYSTEM W/O CC
#368 INFECTIONS, FEMALE REPRODUCTIVE SYSTEM
#369 MENSTRUAL & OTHER FEMALE REPRODUCTIVE SYSTEM DISORDERS

Heart and Heart Surgery

#75 MAJOR CHEST PROCEDURES
#104 CARDIAC VALVE & OTHER MAJOR CARDIOTHORACIC PX W CARDIAC CATH
#105 CARDIAC VALVE & OTHER MAJOR CARDIOTHORACIC PX W/O CARDIAC CATH
#106 CORONARY BYPASS WITH PTCA
#107 CORONARY BYPASS WITH CARDIAC CATH
#108 OTHER CARDIOTHORACIC PROCEDURES
#110 MAJOR CARDIOVASCULAR PROCEDURES W CC
#111 MAJOR CARDIOVASCULAR PROCEDURES W/O CC
#115 PRM CARD PACEM IMPL W AMI,HRT FAIL OR SHK,OR AICD LEAD OR GNRTR PROC
#116 OTHER PERMANENT CARDIAC PACEMAKER IMPLANTATION
#117 CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT
#118 CARDIAC PACEMAKER DEVICE REPLACEMENT
#121 CIRCULATORY DISORDERS W AMI & MAJOR COMP, DISCHARGED ALIVE
#122 CIRCULATORY DISORDERS W AMI W/O MAJOR COMP, DISCHARGED ALIVE
#123 CIRCULATORY DISORDERS W AMI, EXPIRED
#126 ACUTE & SUBACUTE ENDOCARDITIS
#127 HEART FAILURE & SHOCK
#132 ATHEROSCLEROSIS W CC
#133 ATHEROSCLEROSIS W/O CC
#134 HYPERTENSION
#135 CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W CC
#136 CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W/O CC
#137 CARDIAC CONGENITAL & VALVULAR DISORDERS AGE 0-17
#138 CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W CC
#139 CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W/O CC
#140 ANGINA PECTORIS
#143 CHEST PAIN
#144 OTHER CIRCULATORY SYSTEM DIAGNOSES W CC
#145 OTHER CIRCULATORY SYSTEM DIAGNOSES W/O CC
#514 CARDIAC DEFIBRILLATOR IMPLANT W CARDIAC CATH
#515 CARDIAC DEFIBRILLATOR IMPLANT W/O CARDIAC CATH
#516 PERCUTANEOUS CARDIOVASCULAR PROC W AMI
#517 PERC CARDIO PROC W CORONARY ARTERY STENT W/O AMI
#518 PERC CARDIO PROC W/O CORONARY ARTERY STENT OR AMI

Hormonal Disorders

#286 ADRENAL & PITUITARY PROCEDURES
#287 SKIN GRAFTS & WOUND DEBRID FOR ENDOC, NUTRIT & METAB DISORDERS
#288 O.R. PROCEDURES FOR OBESITY
#289 PARATHYROID PROCEDURES
#290 THYROID PROCEDURES
#292 OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W CC
#293 OTHER ENDOCRINE, NUTRIT & METAB O.R. PROC W/O CC
#294 DIABETES AGE >35
#295 DIABETES AGE 0-35
#296 NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W CC
#297 NUTRITIONAL & MISC METABOLIC DISORDERS AGE >17 W/O CC
#298 NUTRITIONAL & MISC METABOLIC DISORDERS AGE 0-17
#299 INBORN ERRORS OF METABOLISM
#300 ENDOCRINE DISORDERS W CC
#301 ENDOCRINE DISORDERS W/O CC

Kidney Disease

#316 RENAL FAILURE
#317 ADMIT FOR RENAL DIALYSIS
#320 KIDNEY & URINARY TRACT INFECTIONS AGE >17 W CC
#321 KIDNEY & URINARY TRACT INFECTIONS AGE >17 W/O CC
#322 KIDNEY & URINARY TRACT INFECTIONS AGE 0-17
#325 KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W CC
#326 KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE >17 W/O CC
#327 KIDNEY & URINARY TRACT SIGNS & SYMPTOMS AGE 0-17
#331 OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W CC
#332 OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE >17 W/O CC
#333 OTHER KIDNEY & URINARY TRACT DIAGNOSES AGE 0-17

Neurology and Neurosurgery

#1 CRANIOTOMY AGE >17 EXCEPT FOR TRAUMA
#2 CRANIOTOMY FOR TRAUMA AGE >17
#3 CRANIOTOMY AGE 0-17
#4 SPINAL PROCEDURES
#5 EXTRACRANIAL VASCULAR PROCEDURES
#6 CARPAL TUNNEL RELEASE
#7 PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W CC
#8 PERIPH & CRANIAL NERVE & OTHER NERV SYST PROC W/O CC
#9 SPINAL DISORDERS & INJURIES
#12 DEGENERATIVE NERVOUS SYSTEM DISORDERS
#13 MULTIPLE SCLEROSIS & CEREBELLAR ATAXIA
#14 SPECIFIC CEREBROVASCULAR DISORDERS EXCEPT TIA
#15 TRANSIENT ISCHEMIC ATTACK & PRECEREBRAL OCCLUSIONS
#16 NONSPECIFIC CEREBROVASCULAR DISORDERS W CC
#17 NONSPECIFIC CEREBROVASCULAR DISORDERS W/O CC
#18 CRANIAL & PERIPHERAL NERVE DISORDERS W CC
#19 CRANIAL & PERIPHERAL NERVE DISORDERS W/O CC
#20 NERVOUS SYSTEM INFECTION EXCEPT VIRAL MENINGITIS
#21 VIRAL MENINGITIS
#22 HYPERTENSIVE ENCEPHALOPATHY
#23 NONTRAUMATIC STUPOR & COMA
#24 SEIZURE & HEADACHE AGE >17 W CC
#25 SEIZURE & HEADACHE AGE >17 W/O CC
#26 SEIZURE & HEADACHE AGE 0-17
#27 TRAUMATIC STUPOR & COMA, COMA >1 HR
#28 TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W CC
#29 TRAUMATIC STUPOR & COMA, COMA <1 HR AGE >17 W/O CC
#30 TRAUMATIC STUPOR & COMA, COMA <1 HR AGE 0-17
#31 CONCUSSION AGE >17 W CC
#32 CONCUSSION AGE >17 W/O CC
#33 CONCUSSION AGE 0-17
#34 OTHER DISORDERS OF NERVOUS SYSTEM W CC
#35 OTHER DISORDERS OF NERVOUS SYSTEM W/O CC

Orthopedics

#209 MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF LOWER EXTREMITY
#210 HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W CC
#211 HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W/O CC
#212 HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE 0-17
#218 LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE >17 W CC
#219 LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE >17 W/O CC
#220 LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE 0-17
#223 MAJOR SHOULDER/ELBOW PROC, OR OTHER UPPER EXTREMITY PROC W CC
#224 SHOULDER,ELBOW OR FOREARM PROC,EXC MAJOR JOINT PROC, W/O CC
#225 FOOT PROCEDURES
#226 SOFT TISSUE PROCEDURES W CC
#227 SOFT TISSUE PROCEDURES W/O CC
#228 MAJOR THUMB OR JOINT PROC,OR OTH HAND OR WRIST PROC W CC
#229 HAND OR WRIST PROC, EXCEPT MAJOR JOINT PROC, W/O CC
#230 LOCAL EXCISION & REMOVAL OF INT FIX DEVICES OF HIP & FEMUR
#231 LOCAL EXCISION & REMOVAL OF INT FIX DEVICES EXCEPT HIP & FEMUR
#232 ARTHROSCOPY
#233 OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W CC
#234 OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W/O CC
#235 FRACTURES OF FEMUR
#236 FRACTURES OF HIP & PELVIS
#237 SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH
#238 OSTEOMYELITIS
#248 TENDONITIS, MYOSITIS & BURSITIS
#250 FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W CC
#251 FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE >17 W/O CC
#252 FX, SPRN, STRN & DISL OF FOREARM, HAND, FOOT AGE 0-17
#253 FX, SPRN, STRN & DISL OF UPARM,LOWLEG EX FOOT AGE >17 W CC
#254 FX, SPRN, STRN & DISL OF UPARM,LOWLEG EX FOOT AGE >17 W/O CC
#255 FX, SPRN, STRN & DISL OF UPARM, LOWLEG EX FOOT AGE 0-17
#471 BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY
#485 LIMB REATTACHMENT, HIP AND FEMUR PROC FOR MULTIPLE SIGNIFICANT TRAUM
#491 MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF UPPER EXTREMITY
#496 COMBINED ANTERIOR/POSTERIOR SPINAL FUSION
#497 SPINAL FUSION EXCEPT CERVICAL W CC
#498 SPINAL FUSION EXCEPT CERVICAL W/O CC
#501 KNEE PROCEDURES W PDX OF INFECTION W CC
#502 KNEE PROCEDURES W PDX OF INFECTION W/O CC
#503 KNEE PROCEDURES W/O PDX OF INFECTION

Respiratory Disorders

#76 OTHER RESP SYSTEM O.R. PROCEDURES W CC
#77 OTHER RESP SYSTEM O.R. PROCEDURES W/O CC
#78 PULMONARY EMBOLISM
#79 RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W CC
#80 RESPIRATORY INFECTIONS & INFLAMMATIONS AGE >17 W/O CC
#81 RESPIRATORY INFECTIONS & INFLAMMATIONS AGE 0-17
#85 PLEURAL EFFUSION W CC
#86 PLEURAL EFFUSION W/O CC
#87 PULMONARY EDEMA & RESPIRATORY FAILURE
#88 CHRONIC OBSTRUCTIVE PULMONARY DISEASE
#89 SIMPLE PNEUMONIA & PLEURISY AGE >17 W CC
#90 SIMPLE PNEUMONIA & PLEURISY AGE >17 W/O CC
#91 SIMPLE PNEUMONIA & PLEURISY AGE 0-17
#92 INTERSTITIAL LUNG DISEASE W CC
#93 INTERSTITIAL LUNG DISEASE W/O CC
#94 PNEUMOTHORAX W CC
#95 PNEUMOTHORAX W/O CC
#96 BRONCHITIS & ASTHMA AGE >17 W CC
#97 BRONCHITIS & ASTHMA AGE >17 W/O CC
#98 BRONCHITIS & ASTHMA AGE 0-17
#99 RESPIRATORY SIGNS & SYMPTOMS W CC
#100 RESPIRATORY SIGNS & SYMPTOMS W/O CC
#101 OTHER RESPIRATORY SYSTEM DIAGNOSES W CC
#102 OTHER RESPIRATORY SYSTEM DIAGNOSES W/O CC
#128 DEEP VEIN THROMBOPHLEBITIS
#475 RESPIRATORY SYSTEM DIAGNOSIS WITH VENTILATOR SUPPORT

Rheumatology

#242 SEPTIC ARTHRITIS
#244 BONE DISEASES & SPECIFIC ARTHROPATHIES W CC
#245 BONE DISEASES & SPECIFIC ARTHROPATHIES W/O CC
#246 NON-SPECIFIC ARTHROPATHIES
#247 SIGNS & SYMPTOMS OF MUSCULOSKELETAL SYSTEM & CONN TISSUE
#256 OTHER MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE DIAGNOSES

Urology

#302 KIDNEY TRANSPLANT
#303 KIDNEY,URETER & MAJOR BLADDER PROCEDURES FOR NEOPLASM
#304 KIDNEY,URETER & MAJOR BLADDER PROC FOR NON-NEOPL W CC
#305 KIDNEY,URETER & MAJOR BLADDER PROC FOR NON-NEOPL W/O CC
#306 PROSTATECTOMY W CC
#307 PROSTATECTOMY W/O CC
#308 MINOR BLADDER PROCEDURES W CC
#309 MINOR BLADDER PROCEDURES W/O CC
#310 TRANSURETHRAL PROCEDURES W CC
#311 TRANSURETHRAL PROCEDURES W/O CC
#312 URETHRAL PROCEDURES, AGE >17 W CC
#313 URETHRAL PROCEDURES, AGE >17 W/O CC
#314 URETHRAL PROCEDURES, AGE 0-17
#315 OTHER KIDNEY & URINARY TRACT O.R. PROCEDURES
#323 URINARY STONES W CC, &/OR ESW LITHOTRIPSY
#324 URINARY STONES W/O CC
#328 URETHRAL STRICTURE AGE >17 W CC
#329 URETHRAL STRICTURE AGE >17 W/O CC
#330 URETHRAL STRICTURE AGE 0-17
#334 MAJOR MALE PELVIC PROCEDURES W CC
#335 MAJOR MALE PELVIC PROCEDURES W/O CC
#336 TRANSURETHRAL PROSTATECTOMY W CC
#337 TRANSURETHRAL PROSTATECTOMY W/O CC
#339 TESTES PROCEDURES, NON-MALIGNANCY AGE >17
#340 TESTES PROCEDURES, NON-MALIGNANCY AGE 0-17
#341 PENIS PROCEDURES
#342 CIRCUMCISION AGE >17
#343 CIRCUMCISION AGE 0-17
#348 BENIGN PROSTATIC HYPERTROPHY W CC
#349 BENIGN PROSTATIC HYPERTROPHY W/O CC
#350 INFLAMMATION OF THE MALE REPRODUCTIVE SYSTEM
#351 STERILIZATION, MALE
#352 OTHER MALE REPRODUCTIVE SYSTEM DIAGNOSES

Appendix F

Index of Hospital Quality (IHQ) Scores by Specialty

2003 Cancer Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 7)	NCI cancer center	Hospice, palliative care	
1	University of Texas, M. D. Anderson Cancer Center, Houston	100.0	74.6	0.77	4924	2.97	6.0	Yes	P	
2	Memorial Sloan-Kettering Cancer Center, New York	97.2	71.9	0.73	5275	2.32	6.0	Yes		
3	Johns Hopkins Hospital, Baltimore	70.9	38.6	0.52	1712	1.76	7.0	Yes	H, P	
4	Dana-Farber Cancer Institute, Boston	68.6	45.4	0.89	237	3.07	6.0	Yes	P	
5	Mayo Clinic, Rochester, Minn.	62.6	30.5	0.58	4308	1.51	7.0	Yes	H, P	
6	University of Chicago Hospitals	43.0	9.9	0.69	1686	1.86	7.0	Yes	H, P	(+3 SD)
7	Duke University Medical Center, Durham, N.C.	42.4	10.9	0.81	3082	2.55	7.0	Yes	H, P	
8	UCLA Medical Center, Los Angeles	41.6	8.6	0.69	1245	1.94	7.0	Yes	H, P	
9	University of Michigan Medical Center, Ann Arbor	41.0	6.6	0.48	1578	1.87	7.0	Yes	P	
10	Vanderbilt University Medical Center, Nashville	38.2	6.8	0.71	1004	2.24	7.0	Yes	P	
11	H. Lee Moffitt Cancer Center & Research Institute, Tampa	37.8	3.2	0.57	1456	2.52	6.0	Yes	H, P	
12	University of Pittsburgh Medical Center	37.4	2.8	0.50	1890	1.52	6.5	Yes	H, P	
13	Fox Chase Cancer Center, Philadelphia	37.2	7.0	0.77	924	2.01	5.0	Yes	H, P	
14	University Hospitals of Cleveland	37.1	1.4	0.53	1623	1.84	7.0	Yes	H, P	
15	University of Washington Medical Center, Seattle	36.5	8.8	0.54	886	1.38	6.0	No	H	
16	Hospital of the University of Pennsylvania, Philadelphia	36.4	7.0	0.90	1614	1.79	6.0	Yes	H	
17	University of California, San Francisco Medical Center	36.3	6.5	0.79	746	2.02	7.0	Yes	P	(+2 SD)
18	Stanford Hospital and Clinics, Stanford, Calif.	35.5	13.1	0.90	938	1.56	4.0	No	H	
19	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	35.5	5.4	0.82	2139	0.94	7.0	Yes	H, P	
20	University of Wisconsin Hospital and Clinics, Madison	35.4	3.4	0.58	1106	1.05	7.0	Yes	H	
21	North Carolina Baptist Hospital, Winston-Salem	35.2	2.5	0.74	1831	1.68	7.0	Yes	H, P	
22	Barnes-Jewish Hospital, St. Louis	35.0	2.3	0.70	2566	1.46	6.5	Yes	H, P	
23	University of Virginia Medical Center, Charlottesville	34.8	0.0	0.61	1297	2.25	7.0	Yes	H, P	
24	University of North Carolina Hospitals, Chapel Hill	34.6	0.6	0.64	1370	1.64	7.0	Yes	H, P	
25	Arthur G. James Cancer Hospital, Columbus, Ohio	34.3	0.6	0.57	2180	1.53	6.5	Yes	P	
26	Massachusetts General Hospital, Boston	33.8	8.9	1.04	2090	1.82	7.0	No	H, P	
27	Fairview-University Medical Center, Minneapolis	33.6	2.0	0.63	1226	0.50	7.0	Yes	H, P	
28	University of Alabama Hospital at Birmingham	33.4	1.0	0.75	1640	1.45	7.0	Yes	H, P	
29	Yale-New Haven Hospital, New Haven, Conn.	33.2	0.0	0.59	1191	1.43	7.0	Yes	H	
30	Dartmouth-Hitchcock Medical Center, Lebanon, N.H.	33.2	0.4	0.70	1189	1.88	6.0	Yes	H, P	
31	New York-Presbyterian Hospital	32.9	6.1	1.16	3774	1.41	7.0	Yes	H, P	
32	Northwestern Memorial Hospital, Chicago	32.8	3.1	0.97	2228	1.87	6.0	Yes	H, P	
33	Roswell Park Cancer Institute, Buffalo	32.7	4.6	1.04	1188	2.34	5.5	Yes	H, P	
34	Thomas Jefferson University Hospital, Philadelphia	32.5	1.2	0.80	1847	1.62	5.5	Yes	H, P	
35	University of Colorado Hospital, Denver	32.4	0.4	0.45	487	2.25	6.0	Yes	P	
36	University of Iowa Hospitals and Clinics, Iowa City	32.2	1.0	0.80	1222	1.35	7.0	Yes	H, P	
37	Harper University Hospital, Detroit	32.2	0.0	0.64	1563	0.89	6.0	Yes	H, P	
38	Nebraska Health System, Omaha	32.0	2.6	0.89	900	1.56	7.0	Yes	H, P	
39	Oregon Health & Science University Hospital, Portland	31.5	0.5	0.75	668	2.14	6.5	Yes	H, P	
40	University of California, Davis Medical Center, Sacramento	31.3	0.5	0.82	798	2.97	7.0	Yes	H, P	
41	UCSD Medical Center, San Diego	31.2	0.0	0.58	572	1.73	5.0	Yes	H	
42	City of Hope National Medical Center, Duarte, Calif.	31.1	2.5	0.88	897	1.37	6.0	Yes	H, P	
43	University of Utah Hospitals and Clinics, Salt Lake City	31.1	0.0	0.54	714	1.41	6.0	Yes		
44	Summa Health System, Akron, Ohio	31.0	0.0	0.53	1114	2.21	6.5	No	H, P	
45	Shands at the University of Florida, Gainesville	30.9	1.0	0.62	1496	1.62	6.0	No	H, P	
46	Cleveland Clinic	30.8	2.7	0.83	2279	2.12	7.0	No	H, P	
47	Georgetown University Hospital, Washington, D.C.	30.8	0.6	0.77	580	1.51	7.0	Yes	H, P	
48	Henry Ford Hospital, Detroit	30.5	0.5	0.66	1455	1.79	6.5	No	H, P	
49	University Medical Center, Tucson, Ariz.	30.5	1.2	0.69	452	1.78	6.0	Yes		
50	Baylor University Medical Center, Dallas	30.4	2.5	0.77	1901	1.62	6.0	No	H, P	

2003 Digestive Disorders Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 8)	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	61.6	0.75	8381	1.51	8.0	No	
2	Cleveland Clinic	73.4	38.1	0.72	4760	2.12	8.0	No	
3	Johns Hopkins Hospital, Baltimore	72.2	35.9	0.73	3638	1.76	7.5	Yes	
4	Massachusetts General Hospital, Boston	62.1	28.6	0.87	4722	1.82	8.0	Yes	
5	Mount Sinai Medical Center, New York	51.9	22.1	1.09	6508	1.68	8.0	Yes	
6	University of Chicago Hospitals	49.7	18.6	0.86	2241	1.86	8.0	Yes	
7	UCLA Medical Center, Los Angeles	45.1	15.7	0.99	2496	1.94	8.0	Yes	
8	Duke University Medical Center, Durham, N.C.	44.8	14.2	0.92	4234	2.55	8.0	Yes	
9	University of California, San Francisco Medical Center	44.5	14.9	0.75	1875	2.02	8.0	No	
10	Brigham and Women's Hospital, Boston	38.2	7.7	0.77	2773	1.64	7.5	Yes	(+3 SD)
11	Barnes-Jewish Hospital, St. Louis	37.5	7.3	0.81	6106	1.46	8.0	Yes	
12	Hospital of the University of Pennsylvania, Philadelphia	36.6	10.7	1.20	2245	1.79	8.0	Yes	
13	University of Michigan Medical Center, Ann Arbor	36.0	4.9	0.74	3128	1.87	8.0	Yes	
14	Medical University of South Carolina, Charleston	35.9	9.8	1.15	2838	1.84	6.0	Yes	
15	Beth Israel Deaconess Medical Center, Boston	34.8	4.1	0.72	4108	2.23	7.0	Yes	
16	University of Pittsburgh Medical Center	34.7	5.0	0.83	4318	1.52	8.0	Yes	
17	Shands at the University of Florida, Gainesville	34.2	4.7	0.82	3662	1.62	7.0	Yes	
18	University of North Carolina Hospitals, Chapel Hill	34.1	3.9	0.78	3115	1.64	7.5	Yes	
19	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	33.5	8.0	1.01	5902	0.94	8.0	No	(+2 SD)
20	Yale-New Haven Hospital, New Haven, Conn.	32.5	2.9	0.74	2543	1.43	8.0	Yes	
21	University of Washington Medical Center, Seattle	32.3	5.1	0.72	1478	1.38	8.0	No	
22	Baylor University Medical Center, Dallas	32.3	2.8	0.83	4949	1.62	8.0	Yes	
23	Northwestern Memorial Hospital, Chicago	31.8	3.8	0.99	3483	1.87	8.0	Yes	
24	Summa Health System, Akron, Ohio	31.7	0.0	0.62	3995	2.21	8.0	Yes	
25	Cedars-Sinai Medical Center, Los Angeles	31.5	3.3	0.94	4983	1.54	8.0	Yes	
26	University of Wisconsin Hospital and Clinics, Madison	31.5	1.0	0.55	2299	1.05	8.0	Yes	
27	St. Louis University Hospital	31.3	2.0	0.67	1937	1.41	7.5	Yes	
28	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	31.0	1.9	0.84	2799	1.72	8.0	Yes	
29	University of Virginia Medical Center, Charlottesville	31.0	1.4	0.81	3078	2.25	8.0	Yes	
30	William Beaumont Hospital, Royal Oak, Mich.	31.0	0.9	0.77	6260	1.75	8.0	Yes	
31	Memorial Sloan-Kettering Cancer Center, New York	30.9	1.7	0.68	3409	2.32	7.0	No	
32	University of Miami, Jackson Memorial Hospital	30.8	4.2	0.82	1849	1.53	8.0	No	
33	University Hospitals of Cleveland	30.7	0.5	0.75	3214	1.84	8.0	Yes	
34	Advocate Lutheran General Hospital, Park Ridge, Ill.	30.5	0.0	0.49	3429	0.94	6.5	Yes	
35	New York-Presbyterian Hospital	30.5	6.8	1.36	6339	1.41	8.0	Yes	
36	Parkland Memorial Hospital, Dallas	30.5	4.0	0.93	1010	1.72	8.0	Yes	
37	Lahey Clinic, Burlington, Mass.	30.3	0.9	0.72	2819	1.46	7.0	Yes	
38	Thomas Jefferson University Hospital, Philadelphia	30.3	0.4	0.73	3524	1.62	7.0	Yes	
39	Good Samaritan Regional Medical Center, Phoenix	30.2	0.0	0.54	2145	1.14	7.5	Yes	
40	Henry Ford Hospital, Detroit	30.1	0.5	0.79	3663	1.79	7.5	Yes	
41	St. Joseph's Hospital, Tampa	30.0	0.0	0.65	3019	1.31	7.0	Yes	
42	Tufts-New England Medical Center, Boston	29.8	2.0	0.77	1257	2.44	7.0	Yes	
43	Mayo Clinic, Jacksonville, Fla.	29.7	1.9	0.72	2287	1.75	7.0	No	
44	Allegheny General Hospital, Pittsburgh	29.5	0.4	0.77	2476	2.00	7.5	Yes	
45	Abbott Northwestern Hospital, Minneapolis	29.4	0.0	0.74	3924	1.24	8.0	Yes	
46	Meridia Hillcrest Hospital, Cleveland	29.4	0.0	0.68	2582	1.26	7.5	Yes	
47	Temple University Hospital, Philadelphia	29.3	1.3	0.82	1689	1.73	8.0	Yes	
48	Florida Hospital, Orlando	29.3	0.0	0.66	7255	1.65	8.0	No	
49	Memorial Hospital West, Pembroke Pines, Fla.	29.3	0.0	0.55	850	1.97	6.5	Yes	
50	Christ Hospital, Cincinnati	29.3	0.0	0.60	2199	1.07	7.0	Yes	

2003 Ear, Nose, and Throat Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Hospitalwide mortality rate	Discharges	R.N.'s to beds	Technology score (of 5)	Trauma Center	
1	Johns Hopkins Hospital, Baltimore	100.0	52.1	0.74	285	1.76	5.0	Yes	
2	Massachusetts Eye and Ear Infirmary, Boston	72.8	32.1	0.12	309	2.02	3.0	Yes	
3	University of Iowa Hospitals and Clinics, Iowa City	70.0	31.3	0.85	247	1.35	5.0	Yes	
4	Mayo Clinic, Rochester, Minn.	60.6	24.6	0.79	668	1.51	5.0	No	
5	University of Michigan Medical Center, Ann Arbor	55.7	18.5	0.74	297	1.87	5.0	Yes	
6	UCLA Medical Center, Los Angeles	50.8	16.6	0.89	349	1.94	5.0	Yes	
7	University of Pittsburgh Medical Center	50.4	16.7	0.88	343	1.52	5.0	Yes	
8	Hospital of the University of Pennsylvania, Philadelphia	47.5	15.6	1.01	281	1.79	5.0	Yes	
9	Cleveland Clinic	47.3	13.3	0.67	232	2.12	5.0	No	
10	University of Texas, M. D. Anderson Cancer Center, Houston	47.0	19.1	1.11	128	2.97	5.0	No	
11	Barnes-Jewish Hospital, St. Louis	43.8	11.3	0.84	421	1.46	5.0	Yes	
12	Vanderbilt University Medical Center, Nashville	43.0	11.5	0.95	279	2.24	5.0	Yes	
13	Stanford Hospital and Clinics, Stanford, Calif.	42.7	14.3	0.89	162	1.56	3.0	No	
14	University of Washington Medical Center, Seattle	41.5	11.1	0.72	120	1.38	5.0	No	
15	University of California, San Francisco Medical Center	40.8	10.9	0.83	157	2.02	5.0	No	(+3 SD)
16	Mount Sinai Medical Center, New York	37.5	9.6	1.13	458	1.68	5.0	Yes	
17	University of Virginia Medical Center, Charlottesville	35.9	5.9	0.88	198	2.25	5.0	Yes	
18	Memorial Sloan-Kettering Cancer Center, New York	35.7	6.1	0.84	283	2.32	5.0	No	
19	Shands at the University of Florida, Gainesville	34.9	4.2	0.79	255	1.62	4.0	Yes	
20	University Hospital, Cincinnati	34.8	5.2	0.80	172	1.16	5.0	Yes	
21	Duke University Medical Center, Durham, N.C.	33.8	5.2	0.92	161	2.55	5.0	Yes	
22	Methodist Hospital, Houston	33.7	6.0	0.88	215	1.33	5.0	No	(+2 SD)
23	Northwestern Memorial Hospital, Chicago	32.9	3.5	0.92	262	1.87	5.0	Yes	
24	University of California, Davis Medical Center, Sacramento	32.7	3.6	0.85	157	2.97	5.0	Yes	
25	University of Wisconsin Hospital and Clinics, Madison	32.4	2.0	0.68	207	1.05	5.0	Yes	
26	Parkland Memorial Hospital, Dallas	32.1	4.5	0.87	59	1.72	5.0	Yes	
27	Ohio State University Medical Center, Columbus	32.0	4.3	0.74	102	0.98	3.5	Yes	
28	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	32.0	1.7	0.79	217	1.72	5.0	Yes	
29	Fairview-University Medical Center, Minneapolis	31.9	3.3	0.68	376	0.50	5.0	No	
30	University of Miami, Jackson Memorial Hospital	31.8	3.4	0.82	226	1.53	5.0	No	
31	University of Chicago Hospitals	31.7	2.7	0.80	111	1.86	5.0	Yes	
32	Summa Health System, Akron, Ohio	31.7	0.0	0.62	239	2.21	5.0	Yes	
33	North Carolina Baptist Hospital, Winston-Salem	31.5	3.6	0.95	191	1.68	5.0	Yes	
34	University Hospitals of Cleveland	31.4	0.6	0.67	171	1.84	5.0	Yes	
35	Henry Ford Hospital, Detroit	31.4	0.3	0.71	230	1.79	4.5	Yes	
36	Thomas Jefferson University Hospital, Philadelphia	31.3	2.3	0.85	258	1.62	4.0	Yes	
37	University of North Carolina Hospitals, Chapel Hill	31.2	2.9	0.90	183	1.64	5.0	Yes	
38	University of Alabama Hospital at Birmingham	30.9	3.0	0.97	314	1.45	5.0	Yes	
39	Abbott Northwestern Hospital, Minneapolis	30.7	0.0	0.66	374	1.24	5.0	Yes	
40	Yale-New Haven Hospital, New Haven, Conn.	30.4	1.1	0.83	262	1.43	5.0	Yes	
41	William Beaumont Hospital, Royal Oak, Mich.	30.4	0.0	0.77	292	1.75	5.0	Yes	
42	Lahey Clinic, Burlington, Mass.	30.2	1.1	0.58	142	1.46	4.0	Yes	
43	University of Illinois Medical Center at Chicago	29.9	3.3	0.83	112	1.72	2.5	Yes	
44	Akron General Medical Center, Akron, Ohio	29.8	0.0	0.73	199	1.34	5.0	Yes	
45	New York Eye and Ear Infirmary, New York	29.5	1.6	0.00	44	2.47	3.5	Yes	
46	University of Colorado Hospital, Denver	29.5	0.4	0.65	68	2.25	5.0	Yes	
47	Advocate Lutheran General Hospital, Park Ridge, Ill.	29.4	0.0	0.62	242	0.94	4.0	Yes	
48	Rush-Presbyterian-St. Luke's Medical Center, Chicago	29.3	1.4	0.67	161	1.18	5.0	No	
49	Hospital of St. Raphael, New Haven, Conn.	29.3	0.0	0.72	250	0.88	4.5	Yes	
50	Beth Israel Deaconess Medical Center, Boston	29.3	0.3	0.80	210	2.23	4.0	Yes	

2003 Geriatrics Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Hospitalwide mortality rate	R.N.'s to beds	Technology score (of 8)	Discharge planning (of 3)	Service mix (of 9)	Geriatric services (of 7)	Hospice, palliative care	
1	UCLA Medical Center, Los Angeles	100.0	51.4	0.89	1.94	8.0	3	5	3	H, P	
2	Johns Hopkins Hospital, Baltimore	87.9	40.7	0.74	1.76	8.0	3	7	4	H, P	
3	Mount Sinai Medical Center, New York	71.7	34.1	1.13	1.68	8.0	3	8	2	H, P	
4	Massachusetts General Hospital, Boston	57.7	21.2	0.88	1.82	8.0	3	8	4	H, P	
5	Duke University Medical Center, Durham, N.C.	54.5	20.1	0.92	2.55	8.0	3	7	3	H, P	
6	Mayo Clinic, Rochester, Minn.	47.6	12.7	0.79	1.51	8.0	3	9	5	H, P	
7	Yale-New Haven Hospital, New Haven, Conn.	47.0	14.5	0.83	1.43	8.0	3	7	3	H	
8	University of Michigan Medical Center, Ann Arbor	41.1	8.8	0.74	1.87	8.0	3	8	4	P	
9	St. Louis University Hospital	39.6	8.6	0.73	1.41	8.0	3	6	3	H	
10	Cleveland Clinic	39.4	6.9	0.67	2.12	8.0	3	8	3	H, P	(+3 SD)
11	University of Washington Medical Center, Seattle	37.5	7.8	0.72	1.38	8.0	2	6	3	H	
12	University of Chicago Hospitals	37.1	5.8	0.80	1.86	8.0	3	8	5	H, P	
13	Barnes-Jewish Hospital, St. Louis	36.9	7.3	0.84	1.46	8.0	3	5	4	H, P	
14	University Hospitals of Cleveland	34.9	3.0	0.67	1.84	8.0	3	8	5	H, P	
15	University of California, San Francisco Medical Center	34.2	5.6	0.83	2.02	8.0	3	6	4	P	
16	New York-Presbyterian Hospital	33.7	7.6	1.17	1.41	8.0	3	9	4	H, P	
17	Rush-Presbyterian-St. Luke's Medical Center, Chicago	33.6	2.7	0.67	1.18	8.0	3	8	5	H	
18	Hospital of the University of Pennsylvania, Philadelphia	33.5	6.8	1.01	1.79	8.0	3	8	3	H	
19	Beth Israel Deaconess Medical Center, Boston	33.3	4.6	0.80	2.23	7.0	3	7	3	H, P	
20	University of Pittsburgh Medical Center	32.5	3.0	0.88	1.52	8.0	3	7	7	H, P	
21	NYU Medical Center, New York	32.5	6.6	1.01	1.18	7.5	3	7	2	H, P	(+2 SD)
22	Summa Health System, Akron, Ohio	32.0	1.0	0.62	2.21	8.0	3	9	3	H, P	
23	University of Wisconsin Hospital and Clinics, Madison	31.5	1.9	0.68	1.05	8.0	3	8	4	H	
24	North Carolina Baptist Hospital, Winston-Salem	30.6	3.3	0.95	1.68	8.0	3	8	4	H, P	
25	University of Miami, Jackson Memorial Hospital	30.3	1.5	0.82	1.53	8.0	3	9	4	H, P	
26	Brigham and Women's Hospital, Boston	30.2	1.5	0.76	1.64	7.5	3	7	4	H, P	
27	University of Colorado Hospital, Denver	30.1	1.9	0.65	2.25	7.0	3	5	3	P	
28	Stanford Hospital and Clinics, Stanford, Calif.	30.1	4.8	0.89	1.56	6.0	3	6	2	H	
29	University of Alabama Hospital at Birmingham	30.1	2.9	0.97	1.45	8.0	3	9	4	H, P	
30	Fairview-University Medical Center, Minneapolis	29.9	0.5	0.68	0.50	7.0	3	9	5	H, P	
31	Northwestern Memorial Hospital, Chicago	29.8	2.5	0.92	1.87	8.0	3	8	4	H, P	
32	Thomas Jefferson University Hospital, Philadelphia	29.6	2.0	0.85	1.62	7.0	3	8	4	H, P	
33	Christ Hospital, Cincinnati	29.4	0.0	0.52	1.07	7.5	3	6	3	H, P	
34	Scripps Mercy Hospital, San Diego	29.3	0.0	0.68	0.88	7.0	3	8	5	H, P	
35	Methodist Hospital, Houston	29.2	1.9	0.88	1.33	8.0	3	9	3	H, P	
36	University Hospital of Arkansas, Little Rock	29.1	4.0	0.88	2.55	7.0	3	5	3		
37	Boston Medical Center	29.1	3.7	0.97	1.30	6.0	3	7	5	P	
38	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	29.1	1.4	0.79	1.72	8.0	3	8	3	H	
39	Advocate Lutheran General Hospital, Park Ridge, Ill.	29.1	0.0	0.62	0.94	7.0	3	8	3	H, P	
40	Lahey Clinic, Burlington, Mass.	29.0	0.0	0.58	1.46	7.0	3	7	4		
41	Emory University Hospital, Atlanta	29.0	4.0	0.91	1.43	8.0	3	6	1	P	
42	Strong Memorial Hospital-University of Rochester, N.Y.	29.0	2.9	1.02	2.01	7.5	3	9	4	H, P	
43	Ingalls Hospital, Harvey, Ill.	28.9	0.0	0.64	0.67	8.0	3	9	2	H, P	
44	Miami Valley Hospital, Dayton, Ohio	28.8	0.5	0.69	1.02	8.0	3	7	4	P	
45	Shands at the University of Florida, Gainesville	28.8	1.5	0.79	1.62	7.0	3	8	2	H, P	
46	William Beaumont Hospital, Royal Oak, Mich.	28.8	0.5	0.77	1.75	8.0	3	7	4	H, P	
47	Pennsylvania Hospital, Philadelphia	28.5	0.5	0.72	0.98	7.0	3	7	4	H, P	
48	University of North Carolina Hospitals, Chapel Hill	28.5	1.5	0.90	1.64	8.0	3	9	3	H, P	
49	Akron General Medical Center, Akron, Ohio	28.4	0.0	0.73	1.34	8.0	3	8	3	H, P	
50	Henry Ford Hospital, Detroit	28.4	0.0	0.71	1.79	7.5	3	6	4	H, P	

2003 Gynecology Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Hospitalwide mortality rate	Discharges	R.N.'s to beds	Technology score (of 8)	Trauma Center	Gynecology services (of 4)	
1	Johns Hopkins Hospital, Baltimore	100.0	34.3	0.74	336	1.76	8.0	Yes	4	
2	Mayo Clinic, Rochester, Minn.	87.5	29.7	0.79	1480	1.51	8.0	No	3	
3	Brigham and Women's Hospital, Boston	68.4	19.0	0.76	577	1.64	7.5	Yes	4	
4	University of Texas, M. D. Anderson Cancer Center, Houston	66.9	23.7	1.11	240	2.97	7.0	No	0	
5	Duke University Medical Center, Durham, N.C.	61.6	16.7	0.92	568	2.55	8.0	Yes	4	
6	Massachusetts General Hospital, Boston	60.3	15.7	0.88	460	1.82	8.0	Yes	4	
7	UCLA Medical Center, Los Angeles	55.6	13.4	0.89	329	1.94	8.0	Yes	4	
8	Parkland Memorial Hospital, Dallas	46.8	9.6	0.87	125	1.72	8.0	Yes	4	
9	Hospital of the University of Pennsylvania, Philadelphia	46.8	10.3	1.01	259	1.79	8.0	Yes	4	
10	University of California, San Francisco Medical Center	46.3	9.8	0.83	131	2.02	8.0	No	4	
11	Memorial Sloan-Kettering Cancer Center, New York	45.9	10.4	0.84	309	2.32	7.0	No	1	
12	Cleveland Clinic	45.3	7.3	0.67	655	2.12	8.0	No	4	
13	New York-Presbyterian Hospital	44.5	10.3	1.17	749	1.41	8.0	Yes	4	
14	Yale-New Haven Hospital, New Haven, Conn.	41.5	6.1	0.83	407	1.43	8.0	Yes	4	
15	University of Michigan Medical Center, Ann Arbor	40.6	4.7	0.74	410	1.87	8.0	Yes	4	(+3 SD)
16	Stanford Hospital and Clinics, Stanford, Calif.	39.6	8.0	0.89	288	1.56	5.0	No	2	
17	Northwestern Memorial Hospital, Chicago	39.3	5.6	0.92	331	1.87	8.0	Yes	4	
18	Methodist Hospital, Houston	38.3	5.9	0.88	518	1.33	7.0	No	4	
19	University of Chicago Hospitals	38.1	3.9	0.80	338	1.86	8.0	Yes	4	
20	University of Colorado Hospital, Denver	37.2	3.1	0.65	113	2.25	8.0	Yes	4	
21	University of North Carolina Hospitals, Chapel Hill	36.5	4.0	0.90	375	1.64	8.0	Yes	4	
22	Barnes-Jewish Hospital, St. Louis	36.0	3.6	0.84	625	1.46	7.5	Yes	4	
23	Cedars-Sinai Medical Center, Los Angeles	35.7	4.1	0.95	610	1.54	8.0	Yes	4	
24	University of Virginia Medical Center, Charlottesville	35.2	3.1	0.88	404	2.25	8.0	Yes	4	
25	William Beaumont Hospital, Royal Oak, Mich.	35.1	2.3	0.77	673	1.75	8.0	Yes	4	
26	Christ Hospital, Cincinnati	35.0	0.9	0.52	340	1.07	7.0	Yes	4	
27	University of Washington Medical Center, Seattle	34.9	2.9	0.72	288	1.38	8.0	No	4	
28	Vanderbilt University Medical Center, Nashville	34.9	4.0	0.95	388	2.24	8.0	Yes	3	
29	Magee-Womens Hospital, Pittsburgh	34.8	1.6	0.32	508	1.32	6.0	No	4	
30	Mount Sinai Medical Center, New York	34.5	4.8	1.13	355	1.68	8.0	Yes	4	(+2 SD)
31	Thomas Jefferson University Hospital, Philadelphia	34.2	2.8	0.85	438	1.62	7.0	Yes	4	
32	Harper University Hospital, Detroit	33.9	2.7	0.73	225	0.89	7.5	Yes	3	
33	University of Alabama Hospital at Birmingham	33.9	3.4	0.97	653	1.45	8.0	Yes	4	
34	Exempla St. Joseph Hospital, Denver	33.4	1.4	0.52	248	1.15	7.0	No	3	
35	University of California, Irvine Medical Center, Orange	33.2	4.5	0.82	90	1.19	6.0	Yes	1	
36	Georgetown University Hospital, Washington, D.C.	33.0	1.6	0.73	169	1.51	8.0	Yes	4	
37	USC University Hospital, Los Angeles	32.8	4.1	0.59	51	1.11	5.0	No	0	
38	Summa Health System, Akron, Ohio	32.7	0.0	0.62	325	2.21	7.5	Yes	4	
39	Emory University Hospital, Atlanta	32.6	4.5	0.91	265	1.43	7.5	No	1	
40	University of Utah Hospitals and Clinics, Salt Lake City	32.6	2.7	0.77	208	1.41	8.0	No	3	
41	NYU Medical Center, New York	32.2	3.1	1.01	502	1.18	7.5	Yes	4	
42	University Hospitals of Cleveland	32.2	0.0	0.67	401	1.84	8.0	Yes	4	
43	Beth Israel Deaconess Medical Center, Boston	32.2	1.4	0.80	286	2.23	7.0	Yes	4	
44	Miami Valley Hospital, Dayton, Ohio	31.9	0.4	0.69	469	1.02	8.0	Yes	4	
45	Akron General Medical Center, Akron, Ohio	31.8	0.6	0.73	350	1.34	7.5	Yes	4	
46	Baylor University Medical Center, Dallas	31.8	1.8	0.91	550	1.62	8.0	Yes	4	
47	Shands at the University of Florida, Gainesville	31.7	1.0	0.79	337	1.62	7.0	Yes	4	
48	Rush-Presbyterian-St. Luke's Medical Center, Chicago	31.6	1.4	0.67	247	1.18	8.0	No	3	
49	University of Wisconsin Hospital and Clinics, Madison	31.5	1.4	0.68	258	1.05	7.0	Yes	2	
50	University of Iowa Hospitals and Clinics, Iowa City	31.4	1.3	0.85	407	1.35	8.0	Yes	4	

2003 Heart and Heart Surgery Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 9)	Trauma Center	Hospice, palliative care	
1	Cleveland Clinic	100.0	73.2	0.58	13824	2.12	9.0	No	H, P	
2	Mayo Clinic, Rochester, Minn.	82.0	58.2	0.84	15729	1.51	9.0	No	H, P	
3	Brigham and Women's Hospital, Boston	61.7	32.4	0.61	7504	1.64	8.5	Yes	H, P	
4	Duke University Medical Center, Durham, N.C.	61.6	34.6	0.84	10635	2.55	9.0	Yes	H, P	
5	Massachusetts General Hospital, Boston	60.2	31.3	0.76	10568	1.82	9.0	Yes	H, P	
6	Johns Hopkins Hospital, Baltimore	58.6	31.4	0.79	6153	1.76	9.0	Yes	H, P	
7	Emory University Hospital, Atlanta	42.0	18.1	0.85	7392	1.43	9.0	No	P	(+3 SD)
8	Texas Heart Institute at St. Luke's Episcopal Hospital, Houston	40.2	13.7	0.80	10425	1.39	9.0	No	H, P	
9	Stanford Hospital and Clinics, Stanford, Calif.	37.9	18.3	0.91	4517	1.56	7.0	No	H	
10	Barnes-Jewish Hospital, St. Louis	37.2	8.9	0.81	11177	1.46	9.0	Yes	H, P	
11	New York-Presbyterian Hospital	36.2	11.8	1.00	13765	1.41	9.0	Yes	H, P	
12	UCLA Medical Center, Los Angeles	35.0	8.1	0.82	4045	1.94	9.0	Yes	H, P	
13	Washington Hospital Center, Washington, D.C.	35.0	6.0	0.73	13400	1.43	8.0	Yes	H, P	(+2 SD)
14	William Beaumont Hospital, Royal Oak, Mich.	33.3	2.7	0.74	18141	1.75	9.0	Yes	H, P	
15	Methodist Hospital, Houston	32.5	8.5	0.94	10920	1.33	9.0	No	H, P	
16	Cedars-Sinai Medical Center, Los Angeles	31.9	4.9	0.90	9244	1.54	9.0	Yes	H, P	
17	Summa Health System, Akron, Ohio	31.8	0.5	0.68	6886	2.21	9.0	Yes	H, P	
18	University of California, San Francisco Medical Center	31.4	6.8	0.78	2711	2.02	9.0	No	P	
19	Abbott Northwestern Hospital, Minneapolis	31.2	1.1	0.67	10379	1.24	9.0	Yes	P	
20	University Hospitals of Cleveland	31.0	0.0	0.66	5614	1.84	9.0	Yes	H, P	
21	Sentara Norfolk General Hospital, Norfolk, Va.	30.8	0.0	0.58	8466	1.32	8.5	Yes	H, P	
22	University of Michigan Medical Center, Ann Arbor	30.7	3.1	0.78	5403	1.87	9.0	Yes	P	
23	Beth Israel Deaconess Medical Center, Boston	30.7	4.1	0.89	8911	2.23	8.0	Yes	H, P	
24	Parkland Memorial Hospital, Dallas	30.5	2.6	0.61	1541	1.72	9.0	Yes	P	
25	University of Alabama Hospital at Birmingham	30.4	7.1	1.03	7116	1.45	9.0	Yes	H, P	
26	St. Luke's Hospital, Bethlehem, Pa.	30.3	0.0	0.64	8310	0.73	9.0	Yes	H, P	
27	Henry Ford Hospital, Detroit	30.3	0.0	0.73	7880	1.79	8.5	Yes	H, P	
28	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	30.2	1.6	0.71	4897	1.72	9.0	Yes	H	
29	St. Francis Hospital, Roslyn, N.Y.	30.0	1.2	0.77	15199	1.31	8.5	Yes	H, P	
30	University of Chicago Hospitals	30.0	1.6	0.75	3481	1.86	9.0	Yes	H, P	
31	University of Pittsburgh Medical Center	30.0	2.1	0.82	6960	1.52	9.0	Yes	H, P	
32	Hospital of the University of Pennsylvania, Philadelphia	29.8	5.9	0.94	4904	1.79	9.0	Yes	H	
33	Christ Hospital, Cincinnati	29.8	0.0	0.47	6903	1.07	8.5	Yes	H, P	
34	Lenox Hill Hospital, New York	29.7	6.3	0.97	6894	1.65	9.0	No	H, P	
35	St. Vincent's Medical Center, Jacksonville, Fla.	29.7	0.0	0.71	7286	1.12	9.0	Yes	H, P	
36	Florida Hospital, Orlando	29.7	0.4	0.67	21337	1.65	9.0	No	P	
37	North Carolina Baptist Hospital, Winston-Salem	29.4	1.5	0.85	7474	1.68	9.0	Yes	H, P	
38	Scripps Memorial Hospital La Jolla, Calif.	29.3	1.6	0.70	3347	0.79	9.0	Yes	H, P	
39	Hackensack University Medical Center, Hackensack, N.J.	29.3	0.0	0.82	10588	2.07	9.0	Yes	H, P	
40	Delray Medical Center, Delray Beach, Fla.	29.1	0.0	0.72	9046	0.90	8.5	Yes	H, P	
41	Hamot Medical Center, Erie, Pa.	29.0	0.0	0.70	5519	1.63	8.0	Yes	H, P	
42	Mission St. Joseph's Health, Asheville, N.C.	28.8	0.5	0.45	86	1.64	9.0	Yes	H, P	
43	Northwestern Memorial Hospital, Chicago	28.8	0.5	0.79	5013	1.87	9.0	Yes	H, P	
44	Pitt County Memorial Hospital, Greenville, N.C.	28.7	0.5	0.82	9878	1.20	9.0	Yes	H, P	
45	Riverside Methodist Hospitals, Columbus, Ohio	28.7	1.0	0.84	15621	1.14	9.0	Yes	H, P	
46	Lankenau Hospital, Wynnewood, Pa.	28.6	0.5	0.63	6236	1.22	8.5	No	H, P	
47	St. Vincent Hospital and Health Center, Indianapolis	28.6	2.0	0.85	12904	1.24	8.0	Yes	H, P	
48	Lehigh Valley Hospital, Allentown, Pa.	28.6	0.0	0.77	9202	1.19	8.5	Yes	H, P	
49	Sinai Hospital of Baltimore	28.6	0.5	0.72	5512	0.71	9.0	Yes	H, P	
50	Mercy Medical Center, Canton, Ohio	28.5	0.5	0.71	4940	1.21	9.0	Yes	H	

2003 Hormonal Disorders Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 7)	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	69.8	0.81	1695	1.51	7.0	No	
2	Massachusetts General Hospital, Boston	91.9	59.3	0.68	1372	1.82	7.0	Yes	
3	Johns Hopkins Hospital, Baltimore	67.3	37.3	0.66	846	1.76	7.0	Yes	
4	University of California, San Francisco Medical Center	46.0	18.4	0.40	512	2.02	7.0	No	
5	University of Virginia Medical Center, Charlottesville	44.6	14.8	0.60	1055	2.25	7.0	Yes	
6	Barnes-Jewish Hospital, St. Louis	44.5	14.5	0.73	1866	1.46	7.0	Yes	
7	Brigham and Women's Hospital, Boston	43.4	14.5	0.53	721	1.64	6.5	Yes	
8	UCLA Medical Center, Los Angeles	43.3	13.9	0.56	790	1.94	7.0	Yes	
9	Beth Israel Deaconess Medical Center, Boston	42.1	12.2	0.48	952	2.23	6.0	Yes	
10	New York-Presbyterian Hospital	41.6	17.7	1.46	2159	1.41	7.0	Yes	
11	University of Washington Medical Center, Seattle	39.5	13.6	0.49	378	1.38	7.0	No	(+3 SD)
12	Cleveland Clinic	38.3	11.0	0.64	1209	2.12	7.0	No	
13	University of Michigan Medical Center, Ann Arbor	37.0	7.6	0.56	927	1.87	7.0	Yes	
14	Northwestern Memorial Hospital, Chicago	36.3	7.8	0.69	1064	1.87	7.0	Yes	
15	University of Chicago Hospitals	35.4	9.1	0.82	690	1.86	7.0	Yes	
16	Duke University Medical Center, Durham, N.C.	35.3	6.2	0.57	934	2.55	7.0	Yes	
17	Parkland Memorial Hospital, Dallas	34.4	7.0	0.61	431	1.72	7.0	Yes	
18	Vanderbilt University Medical Center, Nashville	33.3	5.2	0.67	894	2.24	7.0	Yes	(+2 SD)
19	Henry Ford Hospital, Detroit	32.1	1.5	0.66	1979	1.79	6.5	Yes	
20	Oregon Health & Science University Hospital, Portland	31.5	3.1	0.44	460	2.14	6.5	Yes	
21	Florida Hospital, Orlando	30.3	0.0	0.40	2017	1.65	7.0	No	
22	University of Colorado Hospital, Denver	30.3	3.3	0.61	354	2.25	7.0	Yes	
23	University Hospitals of Cleveland	30.0	0.5	0.55	1136	1.84	7.0	Yes	
24	William Beaumont Hospital, Royal Oak, Mich.	30.0	0.0	0.63	1592	1.75	7.0	Yes	
25	Washington Hospital Center, Washington, D.C.	29.7	0.5	0.66	1898	1.43	6.0	Yes	
26	University of Alabama Hospital at Birmingham	29.6	1.9	0.69	1134	1.45	7.0	Yes	
27	Inova Fairfax Hospital, Falls Church, Va.	29.4	0.5	0.43	828	1.94	6.0	Yes	
28	St. Louis University Hospital	29.4	1.0	0.34	720	1.41	7.0	Yes	
29	University of Iowa Hospitals and Clinics, Iowa City	29.3	1.8	0.55	666	1.35	7.0	Yes	
30	St. Joseph Mercy Hospital, Ann Arbor	29.2	0.0	0.50	1023	1.85	6.0	Yes	
31	Yale-New Haven Hospital, New Haven, Conn.	29.1	2.6	0.71	800	1.43	7.0	Yes	
32	Strong Memorial Hospital-University of Rochester, N.Y.	29.0	1.0	0.59	810	2.01	6.5	Yes	
33	Evanston Northwestern Healthcare, Evanston, Ill.	29.0	0.0	0.54	1254	1.31	7.0	Yes	
34	University of Miami, Jackson Memorial Hospital	29.0	2.8	0.51	683	1.53	7.0	No	
35	Ohio State University Medical Center, Columbus	29.0	2.4	0.30	713	0.98	5.5	Yes	
36	University of Pittsburgh Medical Center	28.9	1.9	0.81	1312	1.52	7.0	Yes	
37	University of North Carolina Hospitals, Chapel Hill	28.8	1.0	0.60	774	1.64	7.0	Yes	
38	University of California, Davis Medical Center, Sacramento	28.8	0.0	0.29	582	2.97	7.0	Yes	
39	Abbott Northwestern Hospital, Minneapolis	28.5	0.0	0.41	908	1.24	7.0	Yes	
40	Hospital of the University of Pennsylvania, Philadelphia	28.4	4.8	1.10	806	1.79	7.0	Yes	
41	Los Angeles County-Harbor-UCLA Medical Center	28.3	2.0	0.26	189	1.88	4.5	Yes	
42	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	28.3	1.0	0.66	736	1.72	7.0	Yes	
43	Good Samaritan Regional Medical Center, Phoenix	28.2	0.9	0.38	548	1.14	7.0	Yes	
44	Lahey Clinic, Burlington, Mass.	28.2	0.4	0.48	720	1.46	6.0	Yes	
45	University Hospital, Cincinnati	28.0	0.4	0.49	709	1.16	7.0	Yes	
46	Froedtert Memorial Lutheran Hospital, Milwaukee	27.9	0.5	0.57	909	1.46	6.0	Yes	
47	Deaconess Hospital, Evansville, Ind.	27.8	0.0	0.50	934	1.06	7.0	Yes	
48	St. Vincent Medical Center, Toledo, Ohio	27.8	0.0	0.56	800	1.56	6.5	Yes	
49	Mount Sinai Medical Center, New York	27.8	5.4	1.57	2049	1.68	7.0	Yes	
50	Poudre Valley Hospital, Fort Collins, Colo.	27.7	0.0	0.50	495	2.22	6.0	Yes	

2003 Kidney Disease Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 5)	Trauma Center	Discharge planning (of 3)	Medical/ Surgical Beds
1	Massachusetts General Hospital, Boston	100.0	31.3	0.75	1151	1.82	5.0	Yes	3	66
2	Brigham and Women's Hospital, Boston	94.9	29.4	0.65	795	1.64	5.0	Yes	3	38
3	Mayo Clinic, Rochester, Minn.	88.2	25.2	0.83	1408	1.51	5.0	No	3	96
4	Johns Hopkins Hospital, Baltimore	86.3	25.1	0.73	912	1.76	4.5	Yes	3	49
5	New York-Presbyterian Hospital	85.4	24.0	1.22	2259	1.41	5.0	Yes	3	107
6	Cleveland Clinic	81.6	23.1	0.74	1103	2.12	5.0	No	3	44
7	UCLA Medical Center, Los Angeles	75.8	18.5	0.63	1057	1.94	5.0	Yes	3	58
8	Duke University Medical Center, Durham, N.C.	67.4	16.0	0.85	1181	2.55	5.0	Yes	3	34
9	Barnes-Jewish Hospital, St. Louis	64.8	12.0	0.77	1981	1.46	5.0	Yes	3	80
10	Hospital of the University of Pennsylvania, Philadelphia	63.1	12.4	0.55	791	1.79	5.0	Yes	3	41
11	Vanderbilt University Medical Center, Nashville	62.5	13.7	0.77	909	2.24	4.5	Yes	3	28
12	University of California, San Francisco Medical Center	59.4	12.6	0.78	705	2.02	5.0	No	3	36
13	University of Colorado Hospital, Denver	59.1	11.3	0.50	449	2.25	4.0	Yes	3	24
14	University of Michigan Medical Center, Ann Arbor	58.3	9.7	0.56	1008	1.87	5.0	Yes	3	40
15	Parkland Memorial Hospital, Dallas	57.6	9.4	0.49	701	1.72	5.0	Yes	3	37
16	University of Washington Medical Center, Seattle	56.1	11.2	0.58	469	1.38	5.0	No	2	19
17	University of Pittsburgh Medical Center	54.4	7.0	0.90	1162	1.52	5.0	Yes	3	123
18	Stanford Hospital and Clinics, Stanford, Calif.	52.4	10.2	0.89	523	1.56	4.5	No	3	33
19	University of Chicago Hospitals	51.8	6.1	0.44	803	1.86	5.0	Yes	3	33 (+3 SD)
20	University of Alabama Hospital at Birmingham	50.1	7.6	1.05	1412	1.45	4.0	Yes	3	61
21	University of Miami, Jackson Memorial Hospital	49.7	3.1	0.41	752	1.53	5.0	No	3	120
22	Rush-Presbyterian-St. Luke's Medical Center, Chicago	48.9	5.2	0.56	1260	1.18	5.0	No	3	51
23	Shands at the University of Florida, Gainesville	48.2	4.5	0.52	1149	1.62	5.0	Yes	3	30
24	University of Maryland Medical System, Baltimore	48.1	3.7	0.47	1207	1.37	5.0	No	3	69
25	Fairview-University Medical Center, Minneapolis	47.2	5.4	0.50	754	0.50	5.0	No	3	39
26	Tufts-New England Medical Center, Boston	46.4	6.5	0.91	423	2.44	5.0	Yes	3	30
27	Henry Ford Hospital, Detroit	46.4	1.0	0.47	1780	1.79	5.0	Yes	3	78
28	Emory University Hospital, Atlanta	46.1	5.3	0.73	830	1.43	4.5	No	3	48
29	University of Wisconsin Hospital and Clinics, Madison	45.2	4.4	0.61	801	1.05	5.0	Yes	3	24
30	Beth Israel Deaconess Medical Center, Boston	44.5	3.9	0.81	1030	2.23	5.0	Yes	3	40
31	Florida Hospital, Orlando	44.1	0.0	0.56	1994	1.65	5.0	No	3	102
32	Yale-New Haven Hospital, New Haven, Conn.	43.8	4.5	1.00	986	1.43	5.0	Yes	3	52 (+2 SD)
33	Hennepin County Medical Center, Minneapolis	43.5	2.1	0.37	752	0.58	5.0	Yes	3	40
34	William Beaumont Hospital, Royal Oak, Mich.	43.4	1.0	0.69	1943	1.75	5.0	Yes	3	60
35	Froedtert Memorial Lutheran Hospital, Milwaukee	43.4	1.2	0.31	931	1.46	5.0	Yes	3	31
36	University of North Carolina Hospitals, Chapel Hill	43.3	3.5	0.68	1082	1.64	4.5	Yes	3	16
37	Northwestern Memorial Hospital, Chicago	42.6	1.5	0.65	1059	1.87	5.0	Yes	3	58
38	Methodist Hospital, Houston	42.1	4.3	0.90	970	1.33	4.5	No	3	43
39	Ohio State University Medical Center, Columbus	41.7	1.7	0.60	1099	0.98	4.0	Yes	3	57
40	University of Virginia Medical Center, Charlottesville	41.6	1.5	0.68	1053	2.25	5.0	Yes	3	45
41	Denver Health and Hospitals	41.4	0.0	0.09	226	2.00	4.0	Yes	3	31
42	Memorial Hermann Hospital, Houston	41.3	1.1	0.57	734	1.23	5.0	Yes	3	60
43	University Health System, San Antonio	41.2	0.5	0.29	447	1.48	4.5	Yes	3	37
44	St. Louis University Hospital	41.1	0.6	0.40	745	1.41	4.5	Yes	3	43
45	Tampa General Hospital	40.8	0.0	0.36	718	0.92	5.0	Yes	3	57
46	University Hospitals of Cleveland	40.7	1.6	0.73	1214	1.84	5.0	Yes	3	30
47	University of Missouri Hospitals and Clinics, Columbia	40.4	2.0	0.64	374	1.82	3.0	Yes	3	54
48	Baptist St. Anthony's Health System, Amarillo, Texas	40.2	0.0	0.23	725	1.47	5.0	No	3	31
49	Summa Health System, Akron, Ohio	40.2	0.0	0.57	1513	2.21	5.0	Yes	3	35
50	Temple University Hospital, Philadelphia	40.2	0.5	0.64	820	1.73	5.0	Yes	3	56

2003 Neurology and Neurosurgery Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 7)	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	58.5	0.95	5092	1.51	7.0	No	
2	Massachusetts General Hospital, Boston	91.6	52.8	1.09	3590	1.82	7.0	Yes	
3	Johns Hopkins Hospital, Baltimore	89.0	47.0	0.70	2555	1.76	7.0	Yes	
4	New York-Presbyterian Hospital	84.2	45.9	1.09	5104	1.41	7.0	Yes	
5	University of California, San Francisco Medical Center	62.8	33.3	1.07	1779	2.02	7.0	No	
6	Cleveland Clinic	60.8	24.3	0.62	3377	2.12	7.0	No	
7	Barnes-Jewish Hospital, St. Louis	45.9	13.5	0.93	4687	1.46	7.0	Yes	
8	UCLA Medical Center, Los Angeles	42.6	13.0	0.93	2142	1.94	7.0	Yes	
9	Hospital of the University of Pennsylvania, Philadelphia	41.9	15.2	1.14	2113	1.79	7.0	Yes	(+3 SD)
10	St. Joseph's Hospital and Medical Center, Phoenix	38.8	13.4	1.06	3075	0.91	5.0	Yes	
11	Methodist Hospital, Houston	36.7	7.4	0.78	3784	1.33	7.0	No	
12	NYU Medical Center, New York	34.6	3.8	0.68	3189	1.18	6.5	Yes	
13	Duke University Medical Center, Durham, N.C.	34.3	7.3	1.06	2851	2.55	7.0	Yes	(+2 SD)
14	William Beaumont Hospital, Royal Oak, Mich.	33.4	0.0	0.75	5270	1.75	7.0	Yes	
15	University of Chicago Hospitals	33.2	3.8	0.71	1298	1.86	7.0	Yes	
16	Brigham and Women's Hospital, Boston	32.2	7.5	1.09	1908	1.64	6.5	Yes	
17	Henry Ford Hospital, Detroit	32.2	1.8	0.77	3230	1.79	6.5	Yes	
18	Harper University Hospital, Detroit	32.1	0.4	0.41	1931	0.89	6.5	Yes	
19	Summa Health System, Akron, Ohio	31.9	0.0	0.64	2975	2.21	7.0	Yes	
20	University of Illinois Medical Center at Chicago	31.8	1.7	0.48	814	1.72	4.5	Yes	
21	Shands at the University of Florida, Gainesville	31.7	3.7	0.84	2421	1.62	6.0	Yes	
22	University Hospitals of Cleveland	31.6	1.3	0.72	2478	1.84	7.0	Yes	
23	Mount Sinai Medical Center, New York	31.6	3.2	0.90	2916	1.68	7.0	Yes	
24	Florida Hospital, Orlando	31.4	0.5	0.82	6106	1.65	7.0	No	
25	Stanford Hospital and Clinics, Stanford, Calif.	31.2	8.0	0.95	1731	1.56	5.0	No	
26	Denver Health and Hospitals	31.2	0.4	0.03	355	2.00	5.5	Yes	
27	Fairview-University Medical Center, Minneapolis	31.1	2.6	0.45	1673	0.50	7.0	No	
28	Ingalls Hospital, Harvey, Ill.	30.9	0.0	0.42	1553	0.67	7.0	Yes	
29	Evanston Northwestern Healthcare, Evanston, Ill.	30.9	0.9	0.71	2950	1.31	7.0	Yes	
30	University of Michigan Medical Center, Ann Arbor	30.8	5.5	1.04	1737	1.87	7.0	Yes	
31	Rush-Presbyterian-St. Luke's Medical Center, Chicago	30.7	1.6	0.51	1781	1.18	7.0	No	
32	St. Vincent Hospital and Health Center, Indianapolis	30.6	0.0	0.64	3437	1.24	6.0	Yes	
33	Abbott Northwestern Hospital, Minneapolis	30.6	0.5	0.71	3263	1.24	7.0	Yes	
34	University of Virginia Medical Center, Charlottesville	30.4	3.4	1.04	3252	2.25	7.0	Yes	
35	Beth Israel Deaconess Medical Center, Boston	30.3	1.8	0.82	2608	2.23	6.0	Yes	
36	University of Pittsburgh Medical Center	30.2	3.9	1.10	3756	1.52	7.0	Yes	
37	St. Elizabeth Medical Center-North, Covington, Ky.	30.1	0.0	0.48	1750	1.35	4.5	Yes	
38	Georgetown University Hospital, Washington, D.C.	29.7	1.0	0.65	1036	1.51	7.0	Yes	
39	University of Washington Medical Center, Seattle	29.4	3.5	0.68	750	1.38	7.0	No	
40	William Beaumont Hospital-Troy, Troy, Mich.	29.4	0.0	0.65	1540	1.91	6.5	Yes	
41	University of Colorado Hospital, Denver	29.4	0.8	0.67	746	2.25	7.0	Yes	
42	Hospital of St. Raphael, New Haven, Conn.	29.3	0.0	0.56	1925	0.88	6.5	Yes	
43	Baptist St. Anthony's Health System, Amarillo, Texas	29.3	0.0	0.48	2400	1.47	5.0	No	
44	Advocate Lutheran General Hospital, Park Ridge, Ill.	29.0	0.0	0.60	2376	0.94	6.0	Yes	
45	Northwestern Memorial Hospital, Chicago	29.0	1.7	0.91	2364	1.87	7.0	Yes	
46	Christ Hospital, Cincinnati	29.0	0.0	0.58	1604	1.07	6.5	Yes	
47	Memorial Sloan-Kettering Cancer Center, New York	29.0	1.4	0.57	527	2.32	7.0	No	
48	Mercy Medical Center, Mason City, Iowa	28.9	0.0	0.53	1402	1.26	5.0	Yes	
49	Akron General Medical Center, Akron, Ohio	28.8	0.0	0.71	2256	1.34	7.0	Yes	
50	Thomas Jefferson University Hospital, Philadelphia	28.8	1.7	0.91	2966	1.62	6.0	Yes	

2003 Orthopedics Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 5)	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	56.1	0.69	8147	1.51	5.0	No	
2	Hospital for Special Surgery, New York	84.2	41.5	0.08	7692	1.72	5.0	Yes	
3	Massachusetts General Hospital, Boston	77.6	38.6	0.83	3490	1.82	5.0	Yes	
4	Johns Hopkins Hospital, Baltimore	58.8	24.2	0.70	1649	1.76	5.0	Yes	
5	Cleveland Clinic	53.1	19.4	0.47	3441	2.12	5.0	No	
6	Duke University Medical Center, Durham, N.C.	43.9	13.7	0.93	2714	2.55	5.0	Yes	
7	UCLA Medical Center, Los Angeles	41.1	14.6	1.34	1687	1.94	5.0	Yes	
8	University of Iowa Hospitals and Clinics, Iowa City	39.6	10.3	0.76	1627	1.35	5.0	Yes	
9	Harborview Medical Center, Seattle	37.8	9.1	0.66	1007	2.18	4.5	Yes	
10	University of Washington Medical Center, Seattle	37.0	9.4	0.60	1042	1.38	5.0	No	(+3 SD)
11	Rush-Presbyterian-St. Luke's Medical Center, Chicago	35.6	6.7	0.41	2498	1.18	5.0	No	
12	Stanford Hospital and Clinics, Stanford, Calif.	35.0	7.8	0.65	2063	1.56	3.0	No	
13	University of Pittsburgh Medical Center	34.9	7.2	0.97	2052	1.52	5.0	Yes	
14	Brigham and Women's Hospital, Boston	34.3	5.1	0.66	2509	1.64	4.5	Yes	
15	Barnes-Jewish Hospital, St. Louis	33.2	7.1	1.18	2819	1.46	5.0	Yes	
16	Parkland Memorial Hospital, Dallas	32.8	6.3	0.80	596	1.72	5.0	Yes	
17	University of California, San Francisco Medical Center	32.7	7.7	0.90	1068	2.02	5.0	No	
18	New York-Presbyterian Hospital	32.6	7.3	1.26	3167	1.41	5.0	Yes	
19	Thomas Jefferson University Hospital, Philadelphia	32.5	4.0	0.66	3983	1.62	4.0	Yes	
20	Northwestern Memorial Hospital, Chicago	32.3	4.5	0.86	2423	1.87	5.0	Yes	
21	University Hospitals of Cleveland	32.2	2.4	0.52	2369	1.84	5.0	Yes	
22	University of Michigan Medical Center, Ann Arbor	31.6	4.0	0.69	1305	1.87	5.0	Yes	(+2 SD)
23	University of Chicago Hospitals	31.0	3.6	0.69	1245	1.86	5.0	Yes	
24	Hospital for Joint Diseases Orthopedic Institute, New York	30.8	4.0	0.18	2022	1.04	4.0	No	
25	Shands at the University of Florida, Gainesville	30.4	2.8	0.73	2448	1.62	4.0	Yes	
26	New England Baptist Hospital, Boston	30.3	3.6	0.65	3044	1.24	5.0	No	
27	Vanderbilt University Medical Center, Nashville	30.2	1.6	0.50	1467	2.24	5.0	Yes	
28	University of Virginia Medical Center, Charlottesville	29.9	1.2	0.59	2061	2.25	5.0	Yes	
29	Baylor University Medical Center, Dallas	29.4	1.2	0.68	3676	1.62	5.0	Yes	
30	Summa Health System, Akron, Ohio	29.2	0.0	0.40	3563	2.21	5.0	Yes	
31	University of Wisconsin Hospital and Clinics, Madison	29.2	1.8	0.54	1370	1.05	5.0	Yes	
32	University of California, Davis Medical Center, Sacramento	29.1	1.6	0.58	1171	2.97	5.0	Yes	
33	Methodist Hospital, Houston	29.0	4.4	0.99	3192	1.33	5.0	No	
34	Fairview-University Medical Center, Minneapolis	28.9	3.2	0.53	1968	0.50	5.0	No	
35	Grant Medical Center, Columbus, Ohio	28.8	0.0	0.50	2927	1.31	5.0	Yes	
36	Georgetown University Hospital, Washington, D.C.	28.7	1.0	0.49	930	1.51	5.0	Yes	
37	William Beaumont Hospital, Royal Oak, Mich.	28.4	0.4	0.66	5427	1.75	5.0	Yes	
38	University of Miami, Jackson Memorial Hospital	28.3	2.8	0.57	766	1.53	5.0	No	
39	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	28.2	1.4	0.70	1378	1.72	5.0	Yes	
40	University Health System, San Antonio	28.1	1.6	0.53	633	1.48	4.0	Yes	
41	Poudre Valley Hospital, Fort Collins, Colo.	28.1	0.0	0.62	2029	2.22	5.0	Yes	
42	University of Alabama Hospital at Birmingham	28.0	2.0	0.93	1895	1.45	5.0	Yes	
43	Evanston Northwestern Healthcare, Evanston, Ill.	28.0	0.0	0.60	3355	1.31	5.0	Yes	
44	Advocate Lutheran General Hospital, Park Ridge, Ill.	27.9	0.4	0.40	2381	0.94	4.0	Yes	
45	Yale-New Haven Hospital, New Haven, Conn.	27.9	1.2	0.68	1310	1.43	5.0	Yes	
46	St. Joseph's Hospital, Tampa	27.9	0.6	0.59	1687	1.31	4.5	Yes	
47	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	27.7	2.4	0.70	4216	0.94	5.0	No	
48	University of Tennessee Medical Center, Memphis	27.7	5.8	0.86	105	1.04	4.5	No	
49	Union Memorial Hospital, Baltimore	27.6	0.0	0.45	1462	1.38	4.5	Yes	
50	North Carolina Baptist Hospital, Winston-Salem	27.6	1.4	0.93	2133	1.68	5.0	Yes	

2003 Respiratory Disorders Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 4)	Trauma Center	Discharge planning (of 3)	Hospice, palliative care	
1	National Jewish Medical and Research Center, Denver	100.0	53.0	0.00	97	2.14	2.5	No	3		
2	Mayo Clinic, Rochester, Minn.	84.2	43.0	0.92	4644	1.51	4.0	No	3	H, P	
3	Johns Hopkins Hospital, Baltimore	72.2	33.0	0.82	1599	1.76	4.0	Yes	3	H, P	
4	Barnes-Jewish Hospital, St. Louis	52.2	19.1	0.88	4944	1.46	4.0	Yes	3	H, P	
5	Massachusetts General Hospital, Boston	52.1	18.9	0.88	3460	1.82	4.0	Yes	3	H, P	
6	University of California, San Francisco Medical Center	49.8	17.6	0.73	1317	2.02	4.0	No	3	P	
7	University of Colorado Hospital, Denver	47.4	13.9	0.60	1057	2.25	4.0	Yes	3	P	
8	UCSD Medical Center, San Diego	43.5	13.2	0.81	1366	1.73	4.0	Yes	3	H	
9	Duke University Medical Center, Durham, N.C.	43.0	13.8	1.01	3049	2.55	4.0	Yes	3	H, P	
10	University of Michigan Medical Center, Ann Arbor	42.2	11.4	0.75	2130	1.87	4.0	Yes	3	P	
11	Cleveland Clinic	40.8	11.1	0.82	2773	2.12	4.0	No	3	H, P	(+3 SD)
12	Hospital of the University of Pennsylvania, Philadelphia	36.1	9.8	0.99	1356	1.79	4.0	Yes	3	H	
13	University of Washington Medical Center, Seattle	35.0	11.3	1.05	873	1.38	4.0	No	2	H	
14	UCLA Medical Center, Los Angeles	34.3	6.1	0.82	1714	1.94	4.0	Yes	3	H, P	
15	Brigham and Women's Hospital, Boston	32.7	5.8	0.92	2343	1.64	4.0	Yes	3	H, P	(+2 SD)
16	Yale-New Haven Hospital, New Haven, Conn.	31.2	4.9	0.88	2437	1.43	4.0	Yes	3	H	
17	University of Pittsburgh Medical Center	31.2	5.3	0.98	2489	1.52	4.0	Yes	3	H, P	
18	University of Alabama Hospital at Birmingham	31.1	5.0	0.94	2096	1.45	4.0	Yes	3	H, P	
19	University of Chicago Hospitals	30.9	3.7	0.82	1449	1.86	4.0	Yes	3	H, P	
20	University Hospitals of Cleveland	30.8	1.1	0.62	2824	1.84	4.0	Yes	3	H, P	
21	Stanford Hospital and Clinics, Stanford, Calif.	30.3	6.7	1.02	1551	1.56	4.0	No	3	H	
22	New York-Presbyterian Hospital	30.2	6.8	1.21	5365	1.41	4.0	Yes	3	H, P	
23	Vanderbilt University Medical Center, Nashville	30.1	5.2	0.98	2143	2.24	4.0	Yes	3	P	
24	Henry Ford Hospital, Detroit	30.0	1.5	0.72	3818	1.79	4.0	Yes	3	H, P	
25	University of Iowa Hospitals and Clinics, Iowa City	29.9	2.8	0.77	1319	1.35	4.0	Yes	3	H, P	
26	Christ Hospital, Cincinnati	29.9	0.0	0.53	2456	1.07	4.0	Yes	3	H, P	
27	Denver Health and Hospitals	29.6	0.4	0.04	655	2.00	3.5	Yes	3	H, P	
28	University of Virginia Medical Center, Charlottesville	29.3	1.9	0.78	2446	2.25	4.0	Yes	3	H, P	
29	University Health System, San Antonio	28.9	0.6	0.56	674	1.48	4.0	Yes	3	P	
30	Southwest General Health Center, Middleburg Heights, Ohio	28.7	0.4	0.58	2568	0.62	4.0	Yes	3	H	
31	Miami Valley Hospital, Dayton, Ohio	28.7	0.4	0.61	3515	1.02	4.0	Yes	3	P	
32	Lahey Clinic, Burlington, Mass.	28.5	0.9	0.61	2013	1.46	4.0	Yes	3		
33	Summa Health System, Akron, Ohio	28.3	0.0	0.68	5244	2.21	4.0	Yes	3	H, P	
34	Grandview Hospital and Medical Center, Dayton, Ohio	28.2	0.0	0.53	1558	1.24	3.5	No	3	H, P	
35	University of Wisconsin Hospital and Clinics, Madison	28.1	0.8	0.64	1409	1.05	4.0	Yes	3	H	
36	CHP Hospital and Surgical Center, Lorain, Ohio	28.1	0.0	0.64	2437	0.74	4.0	Yes	3	H, P	
37	Parkland Memorial Hospital, Dallas	28.1	1.9	0.76	868	1.72	4.0	Yes	3	P	
38	LDS Hospital, Salt Lake City	28.0	1.1	0.74	1552	1.01	4.0	Yes	3	H, P	
39	Akron General Medical Center, Akron, Ohio	28.0	0.0	0.69	3721	1.34	4.0	Yes	3	H, P	
40	Meridia Hillcrest Hospital, Cleveland	28.0	0.0	0.68	2700	1.26	4.0	Yes	3	H, P	
41	Swedish Medical Center, Englewood, Colo.	27.9	0.4	0.63	1498	1.45	4.0	Yes	2	H, P	
42	University of North Carolina Hospitals, Chapel Hill	27.9	2.5	0.94	2621	1.64	4.0	Yes	3	H, P	
43	Boulder Community Hospital, Boulder, Colo.	27.8	0.0	0.57	1090	1.39	4.0	No	3	H, P	
44	Martin Memorial Medical Center, Stuart, Fla.	27.8	0.0	0.57	2928	1.25	4.0	No	3	H	
45	Mercy Hospital, Coon Rapids, Minn.	27.8	0.0	0.53	1240	0.65	3.5	Yes	2	H, P	
46	Regions Hospital, Saint Paul, Minn.	27.8	0.0	0.61	1911	0.39	3.5	Yes	3	H, P	
47	University Hospital, Cincinnati	27.8	0.0	0.66	1676	1.16	4.0	Yes	3	H, P	
48	Providence Holy Cross Medical Center, Mission Hills, Calif.	27.8	0.0	0.63	1129	0.82	4.0	Yes	3	H, P	
49	MetroHealth Medical Center, Cleveland	27.8	0.4	0.68	1733	0.66	4.0	Yes	3	H, P	
50	Fairview Hospital, Cleveland	27.7	0.0	0.66	2061	0.95	4.0	Yes	3	H, P	

2003 Rheumatology Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Hospitalwide mortality rate	R.N.'s to beds	Technology score (of 5)	Discharge planning (of 3)	Palliative care	
1	Mayo Clinic, Rochester, Minn.	100.0	51.2	0.79	1.51	5.0	3	Yes	
2	Johns Hopkins Hospital, Baltimore	99.5	50.4	0.74	1.76	5.0	3	Yes	
3	Hospital for Special Surgery, New York	74.3	25.3	0.06	1.72	5.0	3	Yes	
4	Cleveland Clinic	71.3	28.4	0.67	2.12	5.0	3	Yes	
5	UCLA Medical Center, Los Angeles	66.7	27.0	0.89	1.94	5.0	3	Yes	
6	University of Alabama Hospital at Birmingham	62.7	24.8	0.97	1.45	5.0	3	Yes	
7	Massachusetts General Hospital, Boston	61.0	22.7	0.88	1.82	5.0	3	Yes	
8	Brigham and Women's Hospital, Boston	57.2	19.0	0.76	1.64	4.5	3	Yes	
9	Duke University Medical Center, Durham, N.C.	49.3	14.3	0.92	2.55	5.0	3	Yes	
10	University of California, San Francisco Medical Center	46.7	11.4	0.83	2.02	5.0	3	Yes	
11	Hospital for Joint Diseases Orthopedic Institute, New York	45.2	6.1	0.31	1.04	4.0	3	Yes	(+3 SD)
12	Stanford Hospital and Clinics, Stanford, Calif.	42.4	11.3	0.89	1.56	3.0	3	No	
13	University of Pittsburgh Medical Center	42.0	8.3	0.88	1.52	5.0	3	Yes	
14	Barnes-Jewish Hospital, St. Louis	40.9	7.2	0.84	1.46	5.0	3	Yes	
15	University of Michigan Medical Center, Ann Arbor	40.7	5.9	0.74	1.87	5.0	3	Yes	
16	Denver Health and Hospitals	39.9	0.0	0.06	2.00	4.0	3	Yes	
17	University of Chicago Hospitals	39.0	5.2	0.80	1.86	5.0	3	Yes	
18	Benedictine Hospital, Kingston, N.Y.	38.5	0.0	0.02	0.54	3.5	3	Yes	
19	NYU Medical Center, New York	38.1	7.2	1.01	1.18	4.5	3	Yes	
20	University of Colorado Hospital, Denver	38.0	3.0	0.65	2.25	5.0	3	Yes	
21	University of Washington Medical Center, Seattle	37.6	5.7	0.72	1.38	5.0	2	No	(+2 SD)
22	University Hospitals of Cleveland	36.7	2.2	0.67	1.84	5.0	3	Yes	
23	St. Luke's-Cornwall Hospital, Newburgh, N.Y.	36.6	0.0	0.11	0.75	3.0	3	No	
24	Hughston Sports Medicine Hospital, Columbus, Ga.	36.5	0.0	0.14	0.80	3.0	3	No	
25	Rehabilitation Institute of Michigan, Detroit	36.4	0.0	0.09	0.65	2.5	2	Yes	
26	Northwestern Memorial Hospital, Chicago	36.2	4.3	0.92	1.87	5.0	3	Yes	
27	Parkland Memorial Hospital, Dallas	36.2	3.8	0.87	1.72	5.0	3	Yes	
28	New York-Presbyterian Hospital	35.5	6.4	1.17	1.41	5.0	3	Yes	
29	National Rehabilitation Hospital, Washington, D.C.	35.4	0.0	0.13	0.51	2.0	3	No	
30	Methodist Rehabilitation Center, Jackson, Miss.	35.1	0.0	0.16	0.48	2.0	3	No	
31	Christ Hospital, Cincinnati	34.9	0.0	0.52	1.07	4.5	3	Yes	
32	Hospital of the University of Pennsylvania, Philadelphia	34.7	5.3	1.01	1.79	5.0	3	No	
33	Rehabilitation Institute of Chicago	34.5	0.0	0.09	0.38	2.5	2	No	
34	Summa Health System, Akron, Ohio	34.4	0.0	0.62	2.21	5.0	3	Yes	
35	Grandview Hospital and Medical Center, Dayton, Ohio	34.4	0.0	0.57	1.24	4.5	3	Yes	
36	Baptist Health Rehabilitation Institute, Little Rock, Ark.	34.3	0.0	0.08	0.18	2.5	2	No	
37	University of Miami, Jackson Memorial Hospital	34.3	1.8	0.82	1.53	5.0	3	Yes	
38	Beth Israel Deaconess Medical Center, Boston	34.2	2.3	0.80	2.23	4.0	3	Yes	
39	Georgetown University Hospital, Washington, D.C.	33.9	0.7	0.73	1.51	5.0	3	Yes	
40	West Jefferson Medical Center, Marrero, La.	33.9	0.0	0.43	0.97	4.0	3	No	
41	Abbott Northwestern Hospital, Minneapolis	33.6	0.0	0.66	1.24	5.0	3	Yes	
42	Fairview-University Medical Center, Minneapolis	33.6	0.7	0.68	0.50	5.0	3	Yes	
43	Vanderbilt University Medical Center, Nashville	33.6	2.7	0.95	2.24	5.0	3	Yes	
44	Rusk Rehabilitation Center, Columbia, Mo.	33.5	0.0	0.02	0.32	1.5	2	No	
45	Sheltering Arms Rehabilitation Hospital, Richmond, Va.	33.5	0.0	0.13	0.28	1.5	2	No	
46	Advocate Lutheran General Hospital, Park Ridge, Ill.	33.4	0.4	0.62	0.94	4.0	3	Yes	
47	Ingalls Hospital, Harvey, Ill.	33.4	0.0	0.64	0.67	5.0	3	Yes	
48	University of Iowa Hospitals and Clinics, Iowa City	33.3	1.6	0.85	1.35	5.0	3	Yes	
49	Scripps Mercy Hospital, San Diego	33.3	0.8	0.68	0.88	4.0	3	Yes	
50	Marianjoy Rehabilitation Hospital and Clinics, Wheaton, Ill.	33.3	0.0	0.03	0.20	0.0	3	No	

2003 Urology Best Hospital List

Rank	Hospital	U.S. News Index	Reputational score	Mortality rate	Discharges	R.N.'s to beds	Technology score (of 8)	Trauma Center	
1	Johns Hopkins Hospital, Baltimore	100.0	75.7	0.75	1321	1.76	7.5	Yes	
2	Cleveland Clinic	80.3	55.0	0.50	1790	2.12	8.0	No	
3	Mayo Clinic, Rochester, Minn.	65.1	39.9	0.76	3871	1.51	8.0	No	
4	UCLA Medical Center, Los Angeles	53.3	28.2	1.30	1313	1.94	8.0	Yes	
5	Barnes-Jewish Hospital, St. Louis	49.1	21.7	0.84	1648	1.46	8.0	Yes	
6	Massachusetts General Hospital, Boston	46.4	17.7	0.58	1274	1.82	8.0	Yes	
7	Memorial Sloan-Kettering Cancer Center, New York	46.2	18.7	0.40	1096	2.32	7.0	No	
8	Duke University Medical Center, Durham, N.C.	45.2	17.4	0.82	1654	2.55	8.0	Yes	
9	Methodist Hospital, Houston	40.7	14.3	0.71	1406	1.33	7.5	No	
10	New York-Presbyterian Hospital	40.3	14.9	1.37	3438	1.41	8.0	Yes	
11	University of California, San Francisco Medical Center	39.7	14.5	0.98	798	2.02	8.0	No	(+3 SD)
12	University of Michigan Medical Center, Ann Arbor	37.5	8.4	0.64	1275	1.87	8.0	Yes	
13	University of Texas, M. D. Anderson Cancer Center, Houston	36.8	10.6	0.78	880	2.97	7.0	No	
14	Stanford Hospital and Clinics, Stanford, Calif.	35.6	12.4	1.16	672	1.56	5.5	No	
15	University of Virginia Medical Center, Charlottesville	35.3	5.1	0.10	677	2.25	8.0	Yes	
16	Lahey Clinic, Burlington, Mass.	34.7	4.2	0.10	905	1.46	7.0	Yes	
17	Northwestern Memorial Hospital, Chicago	34.2	4.2	0.46	1269	1.87	8.0	Yes	
18	Clarian Health Partners (IU and Methodist Hospitals), Indianapolis	33.7	7.2	0.64	1643	0.94	8.0	No	
19	Hospital of the University of Pennsylvania, Philadelphia	33.5	6.2	1.12	1032	1.79	8.0	Yes	
20	Vanderbilt University Medical Center, Nashville	33.4	4.4	0.67	953	2.24	7.5	Yes	(+2 SD)
21	University of Iowa Hospitals and Clinics, Iowa City	32.4	4.4	0.68	695	1.35	8.0	Yes	
22	Yale-New Haven Hospital, New Haven, Conn.	31.2	0.8	0.29	838	1.43	8.0	Yes	
23	Shands at the University of Florida, Gainesville	31.0	2.4	0.76	1017	1.62	7.0	Yes	
24	Georgetown University Hospital, Washington, D.C.	30.6	1.4	0.00	351	1.51	8.0	Yes	
25	Thomas Jefferson University Hospital, Philadelphia	30.6	1.7	0.69	951	1.62	7.0	Yes	
26	North Carolina Baptist Hospital, Winston-Salem	30.5	2.1	0.87	895	1.68	8.0	Yes	
27	Henry Ford Hospital, Detroit	30.3	0.4	0.51	969	1.79	7.5	Yes	
28	St. Joseph Mercy Hospital, Ann Arbor	30.2	0.0	0.27	803	1.85	7.0	Yes	
29	Brigham and Women's Hospital, Boston	30.0	4.2	1.21	671	1.64	7.5	Yes	
30	William Beaumont Hospital, Royal Oak, Mich.	29.9	0.4	0.66	1916	1.75	8.0	Yes	
31	NYU Medical Center, New York	29.7	4.1	1.33	1493	1.18	7.5	Yes	
32	Emory University Hospital, Atlanta	29.7	2.8	0.81	1101	1.43	7.5	No	
33	University of Wisconsin Hospital and Clinics, Madison	29.6	0.4	0.51	1142	1.05	8.0	Yes	
34	Abbott Northwestern Hospital, Minneapolis	29.4	0.0	0.52	903	1.24	8.0	Yes	
35	University Hospitals of Cleveland	29.4	0.8	0.68	735	1.84	8.0	Yes	
36	University of Miami, Jackson Memorial Hospital	29.3	2.3	0.62	663	1.53	8.0	No	
37	Washington Hospital Center, Washington, D.C.	29.3	0.6	0.61	935	1.43	6.0	Yes	
38	Cox Health Systems, Springfield, Mo.	29.2	0.0	0.63	1148	1.30	8.0	Yes	
39	St. John's Regional Health Center, Springfield, Mo.	29.2	0.0	0.39	959	0.87	7.5	Yes	
40	Carolinas Medical Center, Charlotte, N.C.	29.0	0.0	0.73	1062	1.60	7.5	Yes	
41	Sentara Norfolk General Hospital, Norfolk, Va.	29.0	0.0	0.61	908	1.32	7.5	Yes	
42	Wesley Medical Center, Wichita, Kan.	29.0	0.0	0.43	801	1.23	7.0	Yes	
43	Good Samaritan Regional Medical Center, Phoenix	29.0	0.0	0.29	610	1.14	7.5	Yes	
44	University of Pittsburgh Medical Center	28.9	0.3	0.84	910	1.52	8.0	Yes	
45	Pitt County Memorial Hospital, Greenville, N.C.	28.9	0.0	0.53	798	1.20	8.0	Yes	
46	Froedtert Memorial Lutheran Hospital, Milwaukee	28.9	0.4	0.57	698	1.46	7.0	Yes	
47	Baylor University Medical Center, Dallas	28.9	1.2	1.08	1222	1.62	8.0	Yes	
48	Florida Hospital, Orlando	28.9	0.6	0.58	1975	1.65	8.0	No	
49	Memorial Regional Hospital, Hollywood, Fla.	28.8	0.0	0.19	298	1.34	8.0	Yes	
50	Danbury Hospital, Danbury, Conn.	28.8	0.0	0.26	320	1.42	8.0	Yes	

Appendix G

Reputation Rankings for Special-Service Hospitals

2003 Ophthalmology Reputational Score

Rank	Hospital	Reputational Score	
1	Wilmer Eye Institute, Johns Hopkins Hospital, Baltimore	79.4	
2	Bascom Palmer Eye Institute, Miami	76.6	
3	Wills Eye Hospital, Philadelphia	61.7	(+3 SD)
4	Massachusetts Eye and Ear Infirmary, Boston	43.1	
5	Jules Stein Eye Institute, UCLA Medical Center, Los Angeles	37.3	(+2 SD)
6	University of Iowa Hospitals and Clinics, Iowa City	22.9	
7	Doheny Eye Institute, USC University Hospital, Los Angeles	13.1	
8	Duke University Medical Center, Durham, N.C.	11.2	
9	Barnes-Jewish Hospital, St. Louis	10.6	
10	Mayo Clinic, Rochester, Minn.	8.8	
11	Cleveland Clinic	8.2	
12	University of California, San Francisco Medical Center	6.8	
13	Cullen Eye Institute, Methodist Hospital, Houston	6.1	
14	University of Michigan Medical Center, Ann Arbor	5.2	
15	Emory University Hospital, Atlanta	5.2	
16	New York Eye and Ear Infirmary, New York	5.0	
17	Manhattan Eye, Ear and Throat Hospital, New York	3.7	
18	New York-Presbyterian Hospital	3.6	
19	University of Illinois Medical Center at Chicago	3.6	
20	Hospital of the University of Pennsylvania, Philadelphia	3.1	

2003 Pediatrics Reputational Score

Rank	Hospital	Reputational Score	
1	Children's Hospital of Philadelphia	58.0	
2	Children's Hospital Boston	55.4	
3	Johns Hopkins Hospital, Baltimore	35.4	(+3 SD)
			(+2 SD)
4	Children's Hospital of New York-Presbyterian	18.0	
5	Texas Children's Hospital, Houston	13.9	
6	Rainbow Babies & Children's Hospital, Cleveland	13.9	
7	Children's Hospital of Pittsburgh	12.9	
8	Children's Hospital Medical Center, Cincinnati	12.9	
9	Children's Hospital, Denver	11.3	
10	University of California, San Francisco Medical Center	10.5	
11	Children's Memorial Hospital, Chicago	9.8	
12	Childrens Hospital Los Angeles	9.6	
13	Mattel Children's Hospital at UCLA, Los Angeles	8.8	
14	Children's National Medical Center, Washington, D.C.	8.6	
15	Children's Hospital and Medical Center, Seattle	7.8	
16	Massachusetts General Hospital, Boston	7.6	
17	Mayo Clinic, Rochester, Minn.	7.5	
18	Lucile Packard Children's Hospital at Stanford, Palo Alto, Calif.	7.4	
19	Duke University Medical Center, Durham, N.C.	5.9	
20	St. Jude Children's Research Hospital, Memphis	5.1	
21	St. Louis Children's Hospital	4.4	
22	St. Christopher's Hospital for Children, Philadelphia	4.1	
23	Barnes-Jewish Hospital, St. Louis	3.9	
24	Miami Children's Hospital	3.5	
25	NYU Medical Center, New York	3.3	
26	Yale-New Haven Hospital, New Haven, Conn.	3.2	
27	Strong Memorial Hospital-University of Rochester, N.Y.	3.0	
28	Cleveland Clinic	3.0	

2003 Psychiatry Reputational Score

Rank	Hospital	Reputational Score	
1	Massachusetts General Hospital, Boston	51.4	
2	New York-Presbyterian Hospital	40.5	
3	Johns Hopkins Hospital, Baltimore	34.8	
4	McLean Hospital, Belmont, Mass.	26.4	(+3 SD)
5	The Menninger Clinic, Houston	23.5	
6	UCLA Neuropsychiatric Hospital, Los Angeles	22.6	(+2 SD)
7	Yale-New Haven Hospital, New Haven, Conn.	15.5	
8	Mayo Clinic, Rochester, Minn.	14.3	
9	Stanford Hospital and Clinics, Stanford, Calif.	12.5	
10	Duke University Medical Center, Durham, N.C.	12.3	
11	Sheppard and Enoch Pratt Hospital, Baltimore	11.5	
12	University of Pittsburgh Medical Center	9.0	
13	Austen Riggs Center, Stockbridge, Mass.	7.6	
14	University of Iowa Hospitals and Clinics, Iowa City	7.2	
15	Barnes-Jewish Hospital, St. Louis	6.9	
16	University of California, San Francisco Medical Center	6.8	
17	Emory University Hospital, Atlanta	6.8	
18	NYU Medical Center, New York	6.3	
19	Hospital of the University of Pennsylvania, Philadelphia	5.9	
20	University of Michigan Medical Center, Ann Arbor	5.8	
21	Methodist Hospital, Houston	4.3	
22	Cleveland Clinic	4.0	
23	Montefiore Medical Center, Bronx, N.Y.	3.9	
24	Parkland Memorial Hospital, Dallas	3.9	
25	Medical University of South Carolina, Charleston	3.8	
26	Butler Hospital, Providence, R.I.	3.5	
27	University of Washington Medical Center, Seattle	3.5	
28	Ohio State University Medical Center, Columbus	3.3	
29	Mount Sinai Medical Center, New York	3.0	
30	University of Maryland Medical System, Baltimore	3.0	

2003 Rehabilitation Reputational Score

Rank	Hospital	Reputational Score	
1	Rehabilitation Institute of Chicago	72.2	
2	TIRR-The Institute for Rehabilitation and Research, Houston	42.3	
3	University of Washington Medical Center, Seattle	37.7	
4	Mayo Clinic, Rochester, Minn.	30.7	(+3 SD)
5	Craig Hospital, Englewood, Colo.	26.7	
6	Kessler Institute for Rehabilitation, West Orange, N.J.	26.1	(+2 SD)
7	Rusk Institute, NYU Medical Center, New York	15.1	
8	Thomas Jefferson University Hospital, Philadelphia	15.0	
9	Spaulding Rehabilitation Hospital, Boston	14.7	
10	Ohio State University Medical Center, Columbus	14.2	
11	Rancho Los Amigos National Rehabilitation Center, Downey, Calif.	13.5	
12	Johns Hopkins Hospital, Baltimore	12.7	
13	National Rehabilitation Hospital, Washington, D.C.	11.2	
14	University of Michigan Medical Center, Ann Arbor	9.5	
15	Moss Rehabilitation Hospital, Albert Einstein Medical Center, Philadelphia	8.1	
16	Shepherd Center, Atlanta	6.6	
17	Mount Sinai Medical Center, New York	5.3	
18	Stanford Hospital and Clinics, Stanford, Calif.	4.4	
19	Temple University Hospital, Philadelphia	4.0	
20	UCLA Medical Center, Los Angeles	3.8	
21	New York-Presbyterian Hospital	3.8	
22	Cleveland Clinic	3.7	
23	University of Alabama Hospital at Birmingham	3.3	

Appendix H

The 2003 “Honor Roll”

The Honor Roll

To lend additional perspective, we have constructed a measure called the Honor Roll to indicate excellence across a broad range of specialties.

To be listed on the Honor Roll, a hospital must rank at least two standard deviations (SDs) above the mean in at least six of the 17 specialties. A hospital's ranking in 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 one point.

- If a hospital ranks at least three SDs above the mean, it receives two points.

Using standard deviations above the mean as the criteria for inclusion in the Honor Roll sets a threshold for overall excellence. The Honor Roll also gives an indication of the relative distances between the best hospitals which is not possible to determine solely from the rankings.

The 2003 Honor Roll

Rank	Hospital	Points	3 SDs over the mean	2 SDs over the mean
1	Johns Hopkins Hospital, Baltimore	32	16	0
2	Mayo Clinic, Rochester, Minn.	28	14	0
3	UCLA Medical Center, Los Angeles	24	10	4
4	Massachusetts General Hospital, Boston	24	12	0
5	Cleveland Clinic	23	11	1
6	Duke University Medical Center, Durham, N.C.	22	9	4
7	University of California, San Francisco Medical Center	21	9	3
8	Barnes-Jewish Hospital, St. Louis	18	6	6
9	University of Michigan Medical Center, Ann Arbor	16	5	6
10	University of Washington Medical Center, Seattle	15	5	5
11	New York-Presbyterian Hospital	15	6	3
12	Brigham and Women's Hospital, Boston	14	6	2
13	Hospital of the University of Pennsylvania, Philadelphia	13	4	5
14	University of Chicago Hospitals	10	3	4
15	Stanford Hospital and Clinics, Stanford, Calif.	9	2	5
15	University of Pittsburgh Medical Center	9	2	5
17	Vanderbilt University Medical Center, Nashville	8	2	4

Contact Information

This document can be viewed or downloaded online in its entirety and is available at the NORC website at the following address: **http://norc.uchicago.edu**

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