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The 2001 Index of Hospital Quality

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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 6,116 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."

In the NORC report card, each hospital receives a score called the Index of Hospital Quality (IHQ) that assesses hospital quality by taking into account the three fundamental dimensions of health care delivery: process, structure, and outcome. None of these dimensions by itself can completely and accurately represent quality of care; all three must be assessed and combined. 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—our application of the Donabedian paradigm[1,2] of structure, process and outcomes—combines robust and sensitive measures of each of these dimensions for the universe of tertiary-care hospitals across a wide range of medical and surgical practice specialties. The IHQ draws from secondary sources, such as the Annual Survey of Hospitals by the American Hospital Association (AHA), for data about 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.

For the 2001 rankings, we made the following changes:

- Introduced new procedures allowing all hospitals that do not respond to the AHA survey to be eligible for ranking.
- Completed the transition to a revised calculation of mortality ratios.
- Refined the selection of Diagnosis-Related Groups (DRGs) for the heart and orthopedic specialties.
- Tested the impact on the response rate to the annual physician survey of either an explicit reference in the survey letter or questionnaire to the "America's Best Hospitals" issue of *U.S. News & World Report* or implicitly to the 12th Annual Survey of Physicians for *U.S. News & World Report.*
- Redesigned the appearance of the questionnaire.
- Incorporated into this report a flow chart illustrating the analytical steps of the methodology.

We regularly examine the impact of hospital mergers on our rankings. For this release, three mergers among hospitals previously ranked as independent entities appear on the lists: Albany Medical Center, N.Y.; Evanston Northwestern Medical Center, Evanston, Ill. and Harper Hospital, Detroit. These hospitals responded as new corporate entities for the first time in the 1999 AHA database. The following sections define the universe of tertiary-care hospitals for the purpose of this project, describe and define the standardized mortality ratios and the structural components, and explain how process-related data is collected. As a guide, the materials on which each of the components of the index is based are outlined below.

I Reputation

- The reputational score is based on cumulative information from three NORC surveys of physicians carried out in 1999, 2000, and 2001; the sample design is consistent across the three years.
- The sample for the 2001 survey consists of 2,550 board-certified physicians selected from the American Medical Association's (AMA) Physician Masterfile of 811,000 physicians.
- Stratifying by region and by specialty within region, we selected a sample of 150 physicians from each of 17 specialty areas for a total of 2,550 physicians.
- The final sample includes both non-federal and federal medical and osteopathic physicians residing in the 50 states and the District of Columbia.

II 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 elements of the hospital environment.
- Most of the data comes from the 1999 AHA Annual Survey.
- The volume data comes from the Health Care Financing Administration's (HCFA) MEDPARS database, which contains information on all Medicare discharges (primarily aged over 65) in each specialty.

III Outcome

- The outcome measure is based on HCFA's MEDPARS database.
- An adjusted mortality rate is computed based on predicted mortality rates.
- The data and the model were provided by Solucient, Inc. of Evanston, Ill., 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.
- This method is applied to the pooled 1997, 1998, and 1999 data set of Medicare reimbursement claims made to HCFA by hospitals.

In the final section, we outline new directions anticipated for the index. For a more exhaustive review of the foundation as well as 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

A. Universe Definition

We have implemented a two-stage approach to defining eligible hospitals for each of the IHQ specialty lists.

First, eligible hospitals must be considered tertiary-care centers. To be identified as a tertiary-care hospital, a hospital must meet *at least one* of the following criteria:

- COTH membership *or*
- medical school affiliation *or*
- a score of 9 or higher on our hospital-wide high-technology index (Appendix A).

Using these criteria, we identified 1,878 tertiary-care hospitals that were eligible for any of the thirteen IHQ-based rankings. Once the eligible hospitals were identified, data for these hospitals were drawn from the 1999 AHA Annual Survey. As with any data collection effort, the AHA Annual Survey database is incomplete due to nonresponding hospitals. Although it did not affect the analysis this year, we have a procedure to allow eligible hospitals that are nonresponders to the current AHA Annual Survey to remain in our database. First, for all previously ranked hospitals that are nonresponders to the current survey, we average the two prior years of data and substitute the result for the missing data. Two-year non-responders that lack data both from the current survey *and* from the previous two surveys are ranked without any structure data. Although nonresponding hospitals need to be treated separately for the IHQ analysis, it is unnecessary to do so for the four reputation-only lists.

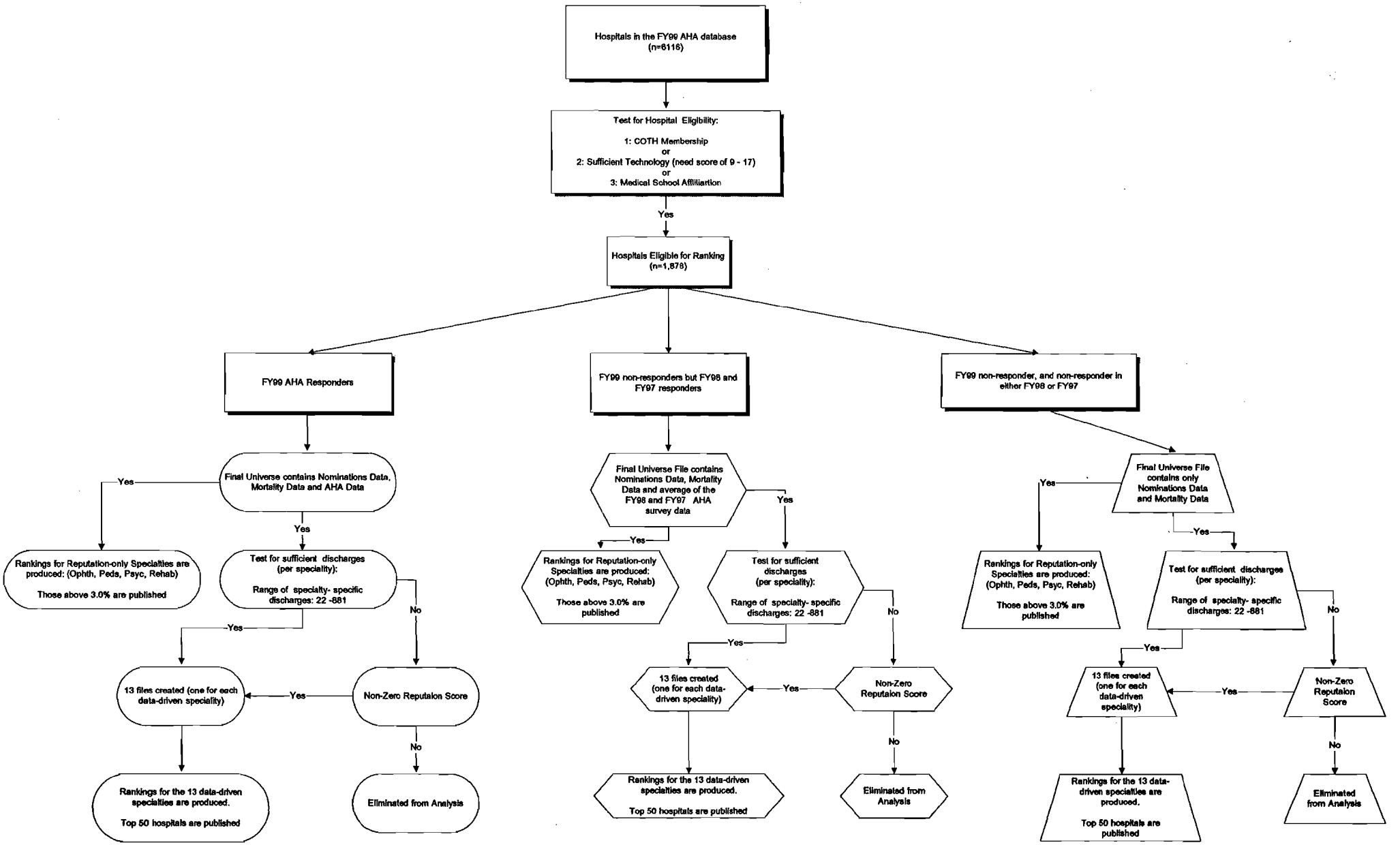
We then created separate analytic universes for each of the 13 IHQ-driven specialties, using criteria such as specialty-specific technology or facilities and a minimum number of discharges across appropriate DRGs (Figure 1). However, hospitals with a non-zero reputational score were deemed eligible for ranking even if they had insufficient volume (discharges) in a specialty.

The flow chart in Figure 2 illustrates the eligibility process.

Figure 1: 1999 Universe Definition by Specialty

Specialty	Eligibility Criteria	Number of Hospitals
Cancer	minimum of 380 discharges for relevant DRGs or non-zero reputation score	**935**
Digestive disorders	minimum of 734 discharges for relevant DRGs or non-zero reputation score	**1,394**
Ear, nose, and throat	minimum of 37 discharges for relevant DRGs or non-zero reputation score	**1,371**
Geriatrics	score of 1 or more on the geriatrics service index, and minimum of 5,947 discharges for all DRGs or non-zero reputation score	**1,412**
Gynecology	minimum of 52 discharges for relevant DRGs or non-zero reputation score	**1,356**
Heart	have a cardiac catheterization lab, or offer open heart surgery, or offer angioplasty, and minimum of 245 surgical discharges for relevant DRGs or non-zero reputation score	**853**
Hormonal disorders	Minimum of 361.5 discharges for relevant DRGs or non-zero reputation score	**944**
Kidney disease	Minimum of 185 discharges for relevant DRGs or non-zero reputation score	**1,389**
Neurology and Neurosurgery	Minimum of 464 discharges for relevant DRGs or non-zero reputation score	**1,408**
Orthopedics	Minimum of 392 discharges for relevant DRGs or non-zero reputation score	**1,406**
Respiratory disorders	Minimum of 881 discharges for relevant DRGs or non-zero reputation score	**1,409**
Rheumatology	Minimum of 22 discharges for relevant DRGs or non-zero reputation score	**1,376**
Urology	Minimum of 133 discharges for relevant DRGs or non-zero reputation score	**1,370**

Figure 2: Analysis Procedure for the 2001 America's Best Hospitals Survey



B. Composite Measure of Structure

The structural dimension defines the tools and environment available to care providers in treating patients. It represents the possibilities of care for a patient and physician. Healthcare 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 measures that are specialty-specific and are weighted relative to each other.

For the 2001 index, all structural elements other than volume are derived from the 1999 AHA Annual Survey of Hospitals database and are described below. For specific mapping of variables to the AHA data elements, see Appendix B.

COTH membership. This dichotomous variable indicates membership in the Council of Teaching Hospitals.

Technology indices. In 2001, we added "medical and surgical intensive care beds" to the list of nephrology elements. All other technology elements for all other specialties are unchanged. A complete list of the technologies considered for each specialty can be found in Appendix A.

Since the 1996 version of the index, we have allowed our technology indices to reflect 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 have taken this into account by giving hospitals that provide a service such as ultrasound on-site one full point for that element; 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.

Volume. The volume measure reflects the total number of medical or surgical (or both when appropriate) discharges in the appropriate specialty-specific DRG groupings submitted for HCFA reimbursement. In the heart specialty, surgical discharges indicates volume. Data from the three most recent years is pooled. The DRG groupings are shown in Appendix C.

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

Trauma. In 1992, the annual 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 this data for heart, hormonal disorders, digestive disorders, gynecology, kidney disease, neurology and neurosurgery, orthopedics, ear, nose and throat, respiratory disorders, and urology.

The trauma indicator is dichotomous and reflects two variables from 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 either 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]

Discharge planning. The three elements of discharge planning are patient-education services, case management services, and patient representative services. TA service must be provided in-hospital to receive credit.

Service mix. This indicator ranges from 0 to 10 points and comprises alcohol/drug abuse or dependency inpatient care, hospice, 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. We do not award a half-point for items in this measure.

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 in-hospital.

Gynecology services. This indicator was introduced in 1997.[5] It provides a means to better rate the quality of services a hospital provides for its gynecological and obstetric patients. High factor loadings provide support to 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. The half-point scheme used for the technology indices was not employed for this indicator.

Medical/surgical intensive care beds. This indicator is new in 2001: it surfaced as an important factor for the nephrology 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.

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 3 provides the factor weights assigned to each element for the 2001 release.

Figure 3: Factor Loading by Specialty

Specialty	COTH	Technical Indexes	Volume	R.N.s/ Beds	Trauma	Dis-charge Planning	Service Mix	Geri-atric Services	Gyne-cology Services	Medical/ Surgical Beds
Cancer	73	59	70	70						
Digestive disorders	69	52	60	63	61					
Ear, nose, and throat	72	54	64	63	60					
Geriatrics	35	81		36		82	82	77		
Gynecology	61	71	50	56	57				70	
Heart	72	62	65	61	56					
Hormonal disorders	71	53	56	65	63					
Kidney disease	63	66	62	57	54	55				77
Neurology and neurosurgery	68	54	62	66	62					
Orthopedics	69	46	54	66	63					
Respiratory disorders	50	73	31	51	58	73				
Rheumatology	45	82		61		80				
Urology	73	49	68	62	58					

C. Process

The process dimension of the quality equation is the sum or net effect of physicians' clinical decision-making. Physicians' clinical choices about the use of medication or diagnostic tests, admission to the hospital or one of its units, and length of stay account for a large fraction of the outcomes experienced by patients. However, measurements of process on a national scale are extremely difficult to obtain. In order to measure process, we rely on an alternative measure to act as a proxy for "process." 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. In order to collect these nominations, we conduct an annual survey of board-certified physicians. As in past releases, we have pooled nominations for the past three years [1999-2001] to arrive at the process measure.

Survey sample. The sample for the 2001 survey consists of 2,550 board-certified physicians selected from the American Medical Association's (AMA) Physician Masterfile of 811,000 physicians. From within the Masterfile, we selected a target population of 194,916 board-certified physicians who met the eligibility requirements listed in Figure 4. 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 physicians. The final sample includes both non-federal and federal medical and osteopathic physicians residing in the 50 states and the District of Columbia. Figure 4 displays the list of specialties surveyed in 2001.

Eligibility requirements. We defined a probability sample of physicians who could properly represent the 17 specialty groupings delineated by *U.S. News & World Report.* 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 related 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 4 displays the correspondence between the specialty specified for *U.S. News & World Report*, AMA self-designated specialty, and the corresponding member board.

Figure 4: Physician Sample Mapping

U.S. NEWS SPECIALTY	AMA KEY CODE	AMA SELF-DESIGNATED	AMERICAN BOARD OF:
Cancer	HEM/22 ON/24	Hematology Oncology	Internal medicine Internal medicine
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 OBG/42	Gynecology Obstetrics & gynecology	Obstetrics & gynecology Obstetrics & gynecology
Heart	CD/08 CDS/08	Cardiovascular diseases Cardiovascular surgery	Internal medicine Surgery
Hormonal disorders	END/14 DIA/12	Endocrinology Diabetes	Internal medicine Internal medicine
Kidney disease	NEP	Nephrology	Internal Medicine
Neurology and Neurosurgery	N/36 NS	Neurology Neurological surgery	Psychiatry & neurology
Orthopedics	ORS/85	Orthopedic surgery	Orthopedic surgery
Pediatrics	PD/55 ADL/01	Pediatrics Adolescent medicine	Pediatrics Pediatrics
Psychiatry	P/63	Psychiatry	Psychiatry & neurology
Rehabilitation	PM/62	Physical medicine & rehabilitation	Physical medicine & rehabilitation
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 used proportionate stratification across the four United States Census regions (West, Northeast, South, and North Central). Within each of the 17 strata, we achieved a sample that was also geographically representative of the spread of physicians across the country.

2001 physician survey. Sampled physicians were mailed a three-page questionnaire (see Appendix D), a cover letter, and a prepaid return envelope. We also included 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 second mailing to nonrespondents including the questionnaire, a cover letter and a business reply envelope. Three weeks after the second mailing, we re-sent the questionnaire to nonrespondents. This third mailing was sent by Federal Express and included the questionnaire, a cover letter, and a business reply envelope.

2001 questionnaire redesign. In consultation with Dr. Donald Dillman of Washington State University, a noted questionnaire designer, we revised the physical layout of the project questionnaire (Appendix D) so that respondents could read and complete it more easily. We believe that the redesign had appreciable impact on this year's response rate (below and Figure 5).

Response rate. Of the 2,550 physicians surveyed for this year's report, 1,377 physicians returned a useable questionnaire, a response rate of 54.7 percent. (Response rate is calculated as the ratio of completed questionnaires to the total eligible; in accordance with standard practice, any member of the sample found to be ineligible was removed from the denominator of the equation for calculation purposes.) Figure 5 shows response rates by specialty for the three years used for the 2001 index.

2001 experiments. NORC conducted two experiments as part of the physician survey for 2001. Briefly, the experiments were: 1) a Web version of the survey, permitting direct on-line response for physicians, and 2) a comparison of explicit citations of the America's Best Hospitals project for *U.S. News & World Report* and implicit references to the 12th Annual

Survey of Physicians conducted for *U.S. News & World Report*. Citations appeared on both the cover letters and questionnaire cover. As with last year's experimental launching of the Web version, this year's version was used successfully by a small number of respondents. We plan to evaluate the cost-effectiveness of this strategy before using it again next year. With regard to the project citation experiment, half of the physicians in each specialty were told explicitly that their responses would be used to rank hospitals in America's Best Hospitals issue of *U.S. News & World Report* and the other half were told that they were participating in an annual survey of physicians for *U.S. News & World Report*. Our comparison of the explicit and implicit project citations indicated no difference in response rates. The difference in the number of survey questionnaires returned by each group, within each specialty, ranged from 1 to 8. Figure 5 details the total number of surveys returned for each specialty.

Figure 5: Response Rate by Year (150 sampled physicians per specialty per year)

SPECIALTY	1999		2000		2001		**3-year total**	
	n	%	n	%	N	%	n	%
Cancer	70	47.0	59	43.0	82	55.0	211	48.0
Digestive disorders	71	47.0	60	41.0	79	53.0	210	47.0
Ear, Nose & Throat	82	55.0	84	57.0	90	61.0	256	58.0
Eyes	75	50.0	73	50.0	91	61.0	239	54.0
Geriatrics	84	58.0	82	60.0	90	61.0	256	60.0
Gynecology	70	48.0	58	36.0	77	52.0	205	45.0
Heart	62	42.0	55	38.0	81	54.0	198	45.0
Hormonal disorders	68	46.0	55	42.0	74	50.0	197	46.0
Kidney disease	62	43.0	53	38.0	72	49.0	187	43.0
Neurology and Neurosurgery	78	52.0	71	49.0	79	53.0	228	51.0
Orthopedics	67	46.0	60	43.0	72	49.0	199	46.0
Pediatrics	82	56.0	72	53.0	80	54.0	234	54.0
Psychiatry	78	53.0	61	43.0	86	58.0	225	51.0
Rehabilitation	95	64.0	76	54.0	81	55.0	252	58.0
Respiratory disorders	79	53.0	59	42.0	74	50.0	212	48.0
Rheumatology	85	57.0	78	53.0	86	58.0	249	56.0
Urology	72	49.0	67	47.0	83	56.0	222	51.0
TOTAL	*1,280*	*51.0*	*1,123*	*46.0*	*1,377*	*55.0*	3,780	51.0

Weighting. Weighting was carried out in two steps. First, weights were assigned to physicians 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 poststratified 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.

D. Outcome

Many healthcare professionals have decried the use of mortality rates because of limitations in the methods used to adjust for risk. Nonetheless, research strongly suggests a positive correlation between a risk-adjusted mortality rate that is better than average and overall quality.[8-17] Based on these findings, we used adjusted mortality rate as the outcome measure for our quality of care model. All predicted mortality rates were provided by Solucient, Inc., of Evanston, Ill. 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 E. Solucient applied this method to the pooled 1997, 1998 and 1999 data set of reimbursement claims made to HCFA by hospitals. These complete data sets were the most current available.

2001 DRG refinements. We annually review the DRG-groupings for every specialty. In 2001 we chose to conduct a thorough examination of the DRG groupings in heart and orthopedics. Because we anticipated likely changes as a result, we conducted two independent reviews. Solucient conducted a review of each specialty, and an independent consultant — a cardiologist and an orthopedic surgeon—conducted a review in his specialty. Where the two reviews agreed, as they did in each of the two specialties, we implemented the recommended changes. Revisions for each specialty are detailed below.

Heart DRGs. Three DRGs were added:

109 = Coronary bypass w/o cardiac cath

124 = Circulatory disorders except AMI, w cardiac cath and complex diag

125 = Circulatory disorders except AMI, w cardiac cath and w/o complex diag

Orthopedic DRGs. Two DRGs were deleted and six were added:

Deleted DRGs:

214 = Back & neck procedures w/ CC

215 = Back & neck procedures w/o CC

Added DRGs:

496 = Combined anterior/posterior spinal fusion

497 = Spinal fusion w/ CC

498 = Spinal fusion w/o CC

501 = Knee proc w/ pdx of infection w/ CC

502 = Knee proc w/ pdx of infection w/o CC

503 = Knee proc w/o pdx of infection

As in previous years, we used an "all-cases" mortality rate for four specialties (geriatrics, gynecology, ear, nose, and throat, 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 C lists the DRGs for each specialty.

In 2000 we modified the construction of the outcome measure. The IHQ is the final score for each hospital in the specialty rankings. It gives equal weight to process (represented by reputation), outcome (mortality), and structure (volume, technology, and other elements of the hospital environment). The numbers produced for each of these three measures, however, differ greatly in magnitude and in range, or variability. Without correcting for that, the final score, even when the three measures are weighted equally, would be distorted.

Pre-2000 solution. For each specialty prior to 2000, the calculated mortality ratio for each hospital was inverted--the ratio of actual to expected deaths was divided into 1 so that, as with other measures, higher meant better. For example, a better-than-expected mortality ratio of 0.8 would produce an inverted result of 1.25; a worse-than-expected ratio of 1.2 would produce an inverted result of 0.83. (The published rankings continued to display the ratio of actual to expected deaths.) Then the scores for reputation, mortality, and structure were standardized, or adjusted so that the degree of variability in each measure was the same.

A difficulty with this approach was that inverting caused very low mortality ratios to distort the outcome. (Inverted, a mortality ratio of 0.25 produces a score of 4, a ratio of 0.05 produces a score of 20, and a ratio of 0.01 produces a score of 100.) If instead of being *divided into* 1 the mortality ratio is *subtracted from* 1–this could be called reverse scoring–such extremes are eliminated. Using 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 a ratio of 0.01 produces a mortality score of .99. This maintains the magnitudes of the differences and avoids extreme values. Accordingly, the new rankings reflect reverse scoring in mortality. To dampen the effect of year-to-year fluctuations, mortality scores will be averaged over three years.

Finally, scores at the extremes in mortality and in certain structural measures were trimmed to eliminate the influence of very wide variation. Figure 6 gives the percentile at which each of the mortality distributions was trimmed.

Figure 6: Percentile at Which Each Mortality Distribution Was Trimmed

Specialty	Percentile	Specialty	Percentile
Cancer	95%	Kidney disease	99%
Digestive disorders	99%	Neurology and neurosurgery	99%
Ear, nose, and throat	95%	Orthopedics	95%
Geriatrics	99%	Respiratory disorders	99%
Gynecology	99%	Rheumatology	99%
Heart	95%	Urology	90%
Hormonal disorders	95%		

A second round of standardizing also was added in 2000 after trimming extremes. Previously this second standardization was not performed, resulting in trimmed measures having less influence on the final score than other measures did. Restandardizing restores the balance so that trimmed and untrimmed measures have the same influence.

Phase-in. The changes described affect the final scores, so they are phased in over two years. For 2000, each hospital's final score averaged pre-2000 and current methodologies. As before, the top hospital in each specialty received a score of 100, with other hospitals scaled down from that figure.

In 2001, the phase-in is complete, with the 2001 mortality ratios fully reflecting the revised methodology.

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 not only provides an easier-to-use result, but yields a more accurate portrayal of overall quality than would the three aspects individually.

Therefore, in computing the final scores for a particular specialty, the reputational score, mortality scores, 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 ratio (OUTCOME)

The general formula for deriving the index scores for tertiary-level hospitals is the same as it began in 1993. Each of the three components--structure, process, and outcomes--is considered equally in determining the final, overall score. For presentation purposes, we standardized raw scores, then equated the raw IHQ scores as computed above to a 100-point scale, where the top hospital in each specialty received a score of 100.

The mean and standard deviation of each of the 17 specialties are listed in Figure 7. Note that for the four reputation-only rankings, mean and standard deviation of the reputational score are presented. This data further illustrates 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.

We could not calculate scores for hospitals that provide care in eyes, pediatrics, psychiatry, or rehabilitation, because data for robust and meaningful structural and outcomes 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 reputational scores are still useful in identifying truly superior hospitals (in terms of statistically relevant nomination scores).

Figure 7: Mean and Standard Deviations of IHQ and Reputational Scores

	Mean	**Standard deviation**	**1 SD above the mean**	**2 SDs above the mean**	**3 SDs above the mean**
		IHQ Score			
Cancer	23.90	6.52	30.42	36.94	43.46
Digestive disorders	15.14	5.38	20.52	25.90	31.28
Ear, nose and throat	20.64	6.47	27.11	33.58	40.05
Geriatrics	20.49	5.88	26.37	32.25	38.13
Gynecology	18.57	5.98	24.55	30.53	36.51
Heart	20.79	6.74	27.53	34.27	41.01
Hormonal disorders	25.45	5.74	31.19	36.93	42.67
Kidney disease	26.00	7.58	33.58	41.16	48.74
Neurology and neurosurgery	17.81	5.62	23.43	29.05	34.67
Orthopedics	19.60	5.39	24.99	30.38	35.77
Respiratory disorders	16.65	5.69	22.34	28.05	33.72
Rheumatology	37.68	4.54	42.22	46.76	51.30
Urology	19.30	5.02	24.32	29.34	34.36
		Reputational Score			
Eyes	4.55	12.72	17.27	29.99	42.71
Pediatrics	2.99	6.59	9.58	16.17	22.76
Psychiatry	2.52	5.24	7.76	13.00	18.24
Rehabilitation	2.87	7.77	10.64	18.41	26.18

III. Directions for Future Releases

The U.S. News Index has since its inception used the most rigorous methodology available to define, measure, and combine the components of quality incorporated in its construction. Over the next few years we plan to subject each of the components (process, outcome, and structure) to a searching re-examination. We are aware that the skewed distribution of the reputation scores can appear to give an inappropriate advantage to hospitals that obtain a high percentage of nominations, and we will continue to examine the way in which the reputation scores are used to define the process score. We intend to test and evaluate different transformations of the raw scores to see whether a transformation would produce a superior measure. With regard to outcome, the refinement of definitions of non-fatal outcomes–particularly in some specialties–suggests incorporating some of these measures into outcome scores. We will continue to refine and develop our measures of technology for the structural component. Finally, we will re-examine the way in which the three components are combined into the IHQ. There may be ways to maintain the principle of equal weight for the three components while improving the method of combining them.

We will also examine the possibility of extending the evaluation of the four specialties that are currently ranked only on reputation to incorporate appropriate structure and outcome measures.

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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Appendix A

Technology Indices by Specialty

All Hospital Index *17 elements (used to define eligible hospitals)*	*Angioplasty*
	Cardiac Catheterization Lab
	Cardiac Intensive Care Beds
	Computed Tomography Scanner
	Diagnostic Radioisotope Facility
	Diagnostic Mammography Services
	Extracorporeal Shock Wave Lithiotripter
	Magnetic Resonance Imaging
	Medical/Surgical Intensive Care
	Neonatal Intensive Care Beds
	Open Heart Surgery
	Pediatric Intensive Care Beds
	Positron Emission Tomography Scanner
	Reproductive Health
	Single Photon Emission Computed Tomography
	Ultrasound
	X-ray Radiation Therapy

Cancer *7 Elements*	*Computed Tomography Scanner*
	Magnetic Resonance Imaging
	Oncology Services
	Pediatric Intensive Care
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	X-ray Radiation Therapy

Digestive disorders *8 Elements*	*Computed Tomography Scanner*
	Diagnostic Radioisotope Facility
	Extracorporeal Shock Wave Lithiotripter
	Magnetic Resonance Imaging
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	Ultrasound
	X-ray Radiation Therapy

Ear, Nose and Throat *5 Elements*	*Computed Tomography Scanner*
	Magnetic Resonance Imaging
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	X-ray Radiation Therapy

Heart *9 Elements*	*Angioplasty*
	Cardiac Catheterization Lab
	Cardiac Intensive Care
	Computed Tomography Scanner
	Magnetic Resonance Imaging
	Open Heart Surgery
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	Ultrasound

Hormonal disorders ***7 Elements***	***Computed Tomography Scanner***
	Diagnostic Radioisotope Facility
	Magnetic Resonance Imaging
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	Ultrasound
	X-ray Radiation Therapy

Geriatrics ***8 Elements***	***Cardiac Catheterization Lab***
	Cardiac Intensive Care
	Computed Tomography Scanner
	Magnetic Resonance Imaging
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	Ultrasound
	X-ray Radiation Therapy

Gynecology ***8 Elements***	***Computed Tomography Scanner***
	Diagnostic Mammography Services
	Magnetic Resonance Imaging
	Neonatal Intensive Care
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	Ultrasound
	X-ray Radiation Therapy

Kidney disease *5 Elements*	*Extracorporeal Shock Wave Lithiotripter*
	Ultrasound
	Computed Tomography Scanner
	Diagnostic Radioisotope Facility
	Transplant Services

Neurology and Neurosurgery *7 Elements*	*Computed Tomography Scanner*
	Diagnostic Radioisotope Facility
	Magnetic Resonance Imaging
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	Ultrasound
	X-ray Radiation Therapy

Orthopedics *5 Elements*	*Computed Tomography Scanner*
	Magnetic Resonance Imaging
	Positron Emissions Tomography Scanner
	Single Photon Emissions Computed Tomography
	Ultrasound

Respiratory disorders *4 Elements*	*Computed Tomography Scanner*
	Diagnostic Radioisotope Facility
	Radiation Therapy
	Ultrasound

Rheumatology ***5 Elements***	***Computed Tomography Scanner***
	Magnetic Resonance Imaging
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	Ultrasound

Urology ***8 Elements***	***Extracorporeal Shock Wave Lithiotripter***
	X-ray Radiation Therapy
	Computed Tomography Scanner
	Diagnostic Radioisotope Facility
	Magnetic Resonance Imaging
	Positron Emission Tomography Scanner
	Single Photon Emission Computed Tomography
	Ultrasound

Appendix B

Structural Variable Map

The following variables, used to construct structural elements of the 2001 IHQ, were taken from the 1999 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 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 HOSPCHOS=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

COTH
"Yes" if MAPP8=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

Appendix C

Diagnosis-Related Group (DRG) Groupings by Specialty

Cancer

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

Digestive Disorders

DRG #146	RECTAL RESECTION W CC
DRG #147	RECTAL RESECTION W/O CC
DRG #148	MAJOR SMALL & LARGE BOWEL PROCEDURES W CC
DRG #149	MAJOR SMALL & LARGE BOWEL PROCEDURES W/O CC
DRG #150	PERITONEAL ADHESIOLYSIS W CC
DRG #151	PERITONEAL ADHESIOLYSIS W/O CC
DRG #152	MINOR SMALL & LARGE BOWEL PROCEDURES W CC
DRG #153	MINOR SMALL & LARGE BOWEL PROCEDURES W/O CC
DRG #154	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W CC
DRG #155	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE >17 W/O CC
DRG #156	STOMACH, ESOPHAGEAL & DUODENAL PROCEDURES AGE 0-17
DRG #170	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W CC
DRG #171	OTHER DIGESTIVE SYSTEM O.R. PROCEDURES W/O CC
DRG #174	G.I. HEMORRHAGE W CC
DRG #175	G.I. HEMORRHAGE W/O CC
DRG #176	COMPLICATED PEPTIC ULCER
DRG #177	UNCOMPLICATED PEPTIC ULCER W CC
DRG #178	UNCOMPLICATED PEPTIC ULCER W/O CC
DRG #179	INFLAMMATORY BOWEL DISEASE
DRG #180	G.I. OBSTRUCTION W CC
DRG #181	G.I. OBSTRUCTION W/O CC
DRG #182	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W CC
DRG #183	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE >17 W/O CC
DRG #184	ESOPHAGITIS, GASTROENT & MISC DIGEST DISORDERS AGE 0-17
DRG #188	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W CC
DRG #189	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE >17 W/O CC
DRG #190	OTHER DIGESTIVE SYSTEM DIAGNOSES AGE 0-17
DRG #191	PANCREAS, LIVER & SHUNT PROCEDURES W CC
DRG #192	PANCREAS, LIVER & SHUNT PROCEDURES W/O CC
DRG #193	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W CC
DRG #194	BILIARY TRACT PROC EXCEPT ONLY CHOLECYST W OR W/O C.D.E. W/O CC
DRG #195	CHOLECYSTECTOMY W C.D.E. W CC
DRG #196	CHOLECYSTECTOMY W C.D.E. W/O CC
DRG #197	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W CC
DRG #198	CHOLECYSTECTOMY EXCEPT BY LAPAROSCOPE W/O C.D.E. W/O CC
DRG #200	HEPATOBILIARY DIAGNOSTIC PROCEDURE FOR NON-MALIGNANCY
DRG #201	OTHER HEPATOBILIARY OR PANCREAS O.R. PROCEDURES
DRG #202	CIRRHOSIS & ALCOHOLIC HEPATITIS
DRG #204	DISORDERS OF PANCREAS EXCEPT MALIGNANCY
DRG #205	DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W CC
DRG #206	DISORDERS OF LIVER EXCEPT MALIG,CIRR,ALC HEPA W/O CC
DRG #207	DISORDERS OF THE BILIARY TRACT W CC
DRG #208	DISORDERS OF THE BILIARY TRACT W/O CC
DRG #493	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W CC
DRG #494	LAPAROSCOPIC CHOLECYSTECTOMY W/O C.D.E. W/O CC

Ear, Nose and Throat

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

Geriatrics

ALL CASES

Gynecology

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

Heart

DRG #103	HEART TRANSPLANT
DRG #104	CARDIAC VALVE PROCEDURES W CARDIAC CATH
DRG #105	CARDIAC VALVE PROCEDURES W/O CARDIAC CATH
DRG #106	CORONARY BYPASS W CARDIAC CATH
DRG #107	CORONARY BYPASS W/O CARDIAC CATH
DRG #108	OTHER CARDIOTHORACIC PROCEDURES
DRG#109	CORONARY BYPASS W/O CARDIAC CATH
DRG #110	MAJOR CARDIOVASCULAR PROCEDURES W CC
DRG #111	MAJOR CARDIOVASCULAR PROCEDURES W/O CC
DRG #112	PERCUTANEOUS CARDIOVASCULAR PROCEDURES
DRG #115	PERM CARDIAC PACEMAKER IMPLANT W AMI, HEART FAILURE OR SHOCK
DRG #116	OTH PERM CARDIAC PACEMAKER IMPLANT OR AICD LEAD OR GENERATOR PRO
DRG #117	CARDIAC PACEMAKER REVISION EXCEPT DEVICE REPLACEMENT
DRG #118	CARDIAC PACEMAKER DEVICE REPLACEMENT
DRG #121	CIRCULATORY DISORDERS W AMI & C.V. COMP DISCH ALIVE
DRG #122	CIRCULATORY DISORDERS W AMI W/O C.V. COMP DISCH ALIVE
DRG #123	CIRCULATORY DISORDERS W AMI, EXPIRED
DRG #124	CIRCULATORY DISORDERS EXCEPT AMI, W/CARD CATH AND CMPLX DIAG
DRG #125	CIRCULATORY DISORDERS EXCEPT AMI, W/CARD CATH W/O CMPLX DIAG
DRG #126	ACUTE & SUBACUTE ENDOCARDITIS
DRG #127	HEART FAILURE & SHOCK
DRG #128	DEEP VEIN THROMBOPHLEBITIS
DRG #129	CARDIAC ARREST, UNEXPLAINED
DRG #130	PERIPHERAL VASCULAR DISORDERS W CC
DRG #131	PERIPHERAL VASCULAR DISORDERS W/O CC
DRG #132	ATHEROSCLEROSIS W CC
DRG #133	ATHEROSCLEROSIS W/O CC
DRG #135	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W CC
DRG #136	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE >17 W/O CC
DRG #137	CARDIAC CONGENITAL & VALVULAR DISORDERS AGE 0-17
DRG #138	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W CC
DRG #139	CARDIAC ARRHYTHMIA & CONDUCTION DISORDERS W/O CC
DRG #140	ANGINA PECTORIS
DRG #141	SYNCOPE & COLLAPSE W CC
DRG #142	SYNCOPE & COLLAPSE W/O CC
DRG #144	OTHER CIRCULATORY SYSTEM DIAGNOSES W CC
DRG #145	OTHER CIRCULATORY SYSTEM DIAGNOSES W/O CC

Hormonal Disorders

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

Kidney Disease

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

Neurology and Neurosurgery

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

Orthopedics

DRG #209	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF LOWER EXTREMITY
DRG #210	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W CC
DRG #211	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE >17 W/O CC
DRG #212	HIP & FEMUR PROCEDURES EXCEPT MAJOR JOINT AGE 0-17
DRG #213	AMPUTATION FOR MUSCULOSKELETAL SYSTEM & CONN TISSUE DISORDERS
DRG #216	BIOPSIES OF MUSCULOSKELETAL SYSTEM & CONNECTIVE TISSUE
DRG #217	WND DEBRID & SKN GRFT EXCEPT HAND,FOR MUSCSKELET & CONN TISS DIS
DRG #218	LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE >17 W CC
DRG #219	LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE >17 W/O CC
DRG #220	LOWER EXTREM & HUMER PROC EXCEPT HIP,FOOT,FEMUR AGE 0-17
DRG #221	KNEE PROCEDURES W CC
DRG #222	KNEE PROCEDURES W/O CC
DRG #223	MAJOR SHOULDER/ELBOW PROC, OR OTHER UPPER EXTREMITY PROC W CC
DRG #224	SHOULDER,ELBOW OR FOREARM PROC,EXC MAJOR JOINT PROC, W/O CC
DRG #225	FOOT PROCEDURES
DRG #226	SOFT TISSUE PROCEDURES W CC
DRG #227	SOFT TISSUE PROCEDURES W/O CC
DRG #228	MAJOR THUMB OR JOINT PROC,OR OTH HAND OR WRIST PROC W CC
DRG #229	HAND OR WRIST PROC, EXCEPT MAJOR JOINT PROC, W/O CC
DRG #230	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES OF HIP & FEMUR
DRG #231	LOCAL EXCISION & REMOVAL OF INT FIX DEVICES EXCEPT HIP & FEMUR
DRG #232	ARTHROSCOPY
DRG #233	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W CC
DRG #234	OTHER MUSCULOSKELET SYS & CONN TISS O.R. PROC W/O CC
DRG #235	FRACTURES OF FEMUR
DRG #236	FRACTURES OF HIP & PELVIS
DRG #237	SPRAINS, STRAINS, & DISLOCATIONS OF HIP, PELVIS & THIGH
DRG #238	OSTEOMYELITIS
DRG #240	CONNECTIVE TISSUE DISORDERS W CC
DRG #241	CONNECTIVE TISSUE DISORDERS W/O CC
DRG #471	BILATERAL OR MULTIPLE MAJOR JOINT PROCS OF LOWER EXTREMITY
DRG #485	LIMB REATTACHMENT, HIP AND FEMUR PROC FOR MULT SIGNIFICANT
DRG #491	MAJOR JOINT & LIMB REATTACHMENT PROCEDURES OF UPPER EXTREMITY
DRG #496	COMBINED ANTERIOR/POSTERIOR SPINAL FUSION
DRG #497	SPINAL FUSION W/ CC
DRG #498	SPINAL FUSION W/O CC
DRG #501	KNEE PROC W/ PDX OF INFECTION W/ CC
DRG #502	KNEE PROC W/ PDX OF INFECTION W/OCC
DRG #503	KNEE PROC W/OPDX OF INFECTION W/ CC

Respiratory Disorders

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

Rheumatology

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

Urology

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

Appendix D

2001 Sample Physician Questionnaire

NORC
AT THE
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 rehabilitation 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 that provide the best care/affiliated medical schools	**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

NORC
AT THE
UNIVERSITY OF CHICAGO

12th Annual Survey of Physicians

Direct input from physicians is
crucial in evaluating hospital quality.

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 that provide the best care/affiliated medical schools	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.

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- ☐ 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?***

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- ☐ No
- ☐ Does not apply

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

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- ☐ No
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Thank you again for your participation

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1155 East 60th Street, Chicago, IL 60637

Appendix E

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 14.0 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 1970's 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[1] 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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[1] 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 F

Index of Hospital Quality (IHQ) Scores by Specialty

2001 Cancer Best Hospital List

Rank	Hospital	IHQ	Reputational score	Mortality rate	COTH Member	Technology score (of 7)	Discharges	R.N.'s to beds	
1	Memorial Sloan-Kettering Cancer Center, New York	100.0	71.8	0.93	Yes	6.0	5167	2.12	
2	University of Texas, M. D. Anderson Cancer Center, Houston	98.2	68.5	0.77	Yes	5.0	5103	2.68	
3	Johns Hopkins Hospital, Baltimore	67.8	35.9	0.69	Yes	7.0	1578	1.42	
4	Dana-Farber Cancer Institute, Boston	63.7	38.8	0.81	No	6.0	218	2.27	
5	Mayo Clinic, Rochester, Minn.	58.1	25.0	0.60	Yes	7.0	3771	1.31	(+3 SD)
6	UCLA Medical Center, Los Angeles	41.0	7.9	0.56	Yes	7.0	1219	1.08	
7	University of Chicago Hospitals	40.6	6.5	0.66	Yes	7.0	1469	1.94	
8	Duke University Medical Center, Durham, N.C.	40.1	7.1	0.75	Yes	7.0	3494	1.81	
9	Hospital of the University of Pennsylvania, Philadelphia	40.0	9.1	0.82	Yes	6.0	1844	1.61	
10	Stanford University Hospital, Stanford, Calif.	38.5	10.7	0.92	Yes	4.0	1105	1.61	
11	University of Michigan Medical Center, Ann Arbor	38.4	3.1	0.42	Yes	7.0	1656	1.79	
12	University of Washington Medical Center, Seattle	38.3	7.9	0.66	Yes	6.0	926	1.10	
13	Massachusetts General Hospital, Boston	38.0	8.8	0.95	Yes	7.0	2022	1.38	
14	Clarian Health Partners, Indianapolis	37.8	5.2	0.75	Yes	7.0	2149	1.67	
15	University of Pittsburgh Medical Center	37.4	2.6	0.56	Yes	6.5	2310	1.67	(+2 SD)
16	Cleveland Clinic	36.2	3.1	0.74	Yes	7.0	2078	1.94	
17	Roswell Park Cancer Institute, Buffalo	36.1	5.5	0.85	Yes	5.0	1676	2.87	
18	Brigham and Women's Hospital, Boston	35.5	3.7	0.73	Yes	6.0	1415	1.43	
19	University of Kentucky Hospital, Lexington	35.1	0.5	0.56	Yes	7.0	1047	2.20	
20	Fox Chase Cancer Center, Philadelphia	35.0	5.6	0.83	Yes	5.0	1046	1.58	
21	H. Lee Moffitt Cancer Center, Tampa, Fla.	35.0	1.5	0.65	Yes	6.0	1644	1.68	
22	University of Virginia Health Sciences Center, Charlottesville	34.9	0.5	0.61	Yes	6.0	1346	2.27	
23	Vanderbilt University Hospital and Clinic, Nashville	34.8	1.7	0.67	Yes	7.0	999	2.40	
24	Shands Hospital at the University of Florida, Gainesville	34.7	1.4	0.46	Yes	6.0	1023	1.57	
25	Allegheny General Hospital, Pittsburgh	34.6	0.0	0.57	Yes	6.0	1222	1.91	
26	University of Alabama Hospital at Birmingham	34.4	1.7	0.67	Yes	6.0	1615	1.51	
27	Beth Israel Deaconess Medical Center, Boston	34.3	1.5	0.66	Yes	5.5	1414	1.58	
28	University Hospital of Arkansas, Little Rock	34.3	0.5	0.63	Yes	5.5	1287	2.54	
29	University Hospital, Denver	34.2	2.7	0.57	Yes	5.0	431	2.40	
30	University Medical Center, Tucson, Ariz.	34.2	2.3	0.49	Yes	6.0	448	1.72	
31	Yale-New Haven Hospital, New Haven, Conn.	34.2	0.0	0.61	Yes	7.0	1555	1.53	
32	Arthur G. James Cancer Hospital, Columbus, Ohio	34.1	0.0	0.48	Yes	5.5	2147	1.56	
33	University of Wisconsin Hospital and Clinics, Madison	34.0	1.9	0.69	Yes	7.0	1142	1.36	
34	Summa Health System, Akron, Ohio	33.9	0.0	0.50	Yes	5.5	1481	1.49	
35	New York Presbyterian Hospital	33.7	3.4	0.86	Yes	7.0	3103	1.32	
36	University of California, San Francisco Medical Center	33.5	3.0	0.71	Yes	6.0	573	1.75	
37	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	33.3	1.6	0.70	Yes	6.0	1023	1.62	
38	University of North Carolina Hospitals, Chapel Hill	33.3	0.0	0.62	Yes	6.0	1279	1.52	
39	North Carolina Baptist Hospital, Winston-Salem	33.3	1.9	0.84	Yes	7.0	2021	1.61	
40	Fairview-University Medical Center, Minneapolis	33.2	0.4	0.62	Yes	5.0	1248	1.56	
41	Greater Baltimore Medical Center, Baltimore	33.2	0.0	0.58	Yes	3.5	1239	2.00	
42	University Hospitals of Cleveland	33.0	0.0	0.64	Yes	7.0	1871	1.21	
43	University of Iowa Hospitals and Clinics, Iowa City	32.9	0.4	0.70	Yes	7.0	1305	1.34	
44	St. John's Hospital, Springfield, Ill.	32.8	0.0	0.55	Yes	6.0	996	1.33	
45	Henry Ford Hospital, Detroit	32.7	0.0	0.76	Yes	6.5	1473	1.82	
46	Barnes-Jewish Hospital, St. Louis	32.6	0.5	0.74	Yes	6.5	2756	1.49	
47	Lutheran General Healthsystem, Park Ridge, Ill.	32.6	0.0	0.62	Yes	6.0	1420	1.14	
48	Georgetown University Hospital, Washington, D.C.	32.4	0.5	0.50	Yes	7.0	776	1.09	
49	Cook County Hospital, Chicago	32.3	0.4	0.49	Yes	5.0	491	2.10	
50	Washington Hospital Center, Washington, D.C.	32.2	0.9	0.80	Yes	5.0	1324	1.92	

2001 Digestive Disorders Best Hospital List

Rank	Hospital	IHQ	Reputational score	Mortality rate	COTH Member	Technology score (of 8)	Discharges	R.N.'s to beds	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	59.8	0.59	Yes	8.0	7660	1.31	Yes	
2	Johns Hopkins Hospital, Baltimore	68.2	35.0	0.63	Yes	7.5	3128	1.42	Yes	
3	Cleveland Clinic	62.7	30.5	0.57	Yes	8.0	4475	1.94	No	
4	Massachusetts General Hospital, Boston	58.9	29.9	0.87	Yes	8.0	4403	1.38	Yes	
5	Mount Sinai Medical Center, New York	49.5	23.2	0.98	Yes	8.0	5220	1.57	Yes	
6	UCLA Medical Center, Los Angeles	44.5	18.5	0.81	Yes	8.0	2540	1.08	Yes	
7	Duke University Medical Center, Durham, N.C.	39.7	14.3	0.90	Yes	8.0	3787	1.81	Yes	
8	University of California, San Francisco Medical Center	37.9	13.2	0.70	Yes	7.0	1596	1.75	No	
9	University of Chicago Hospitals	37.0	13.1	0.93	Yes	8.0	1984	1.94	Yes	(+3 SD)
10	Parkland Memorial Hospital, Dallas	30.6	5.7	0.61	Yes	8.0	913	1.98	Yes	
11	University of Pittsburgh Medical Center	29.9	5.2	0.75	Yes	8.0	4048	1.67	Yes	
12	Hospital of the University of Pennsylvania, Philadelphia	29.5	7.7	0.99	Yes	8.0	2348	1.61	Yes	
13	Barnes-Jewish Hospital, St. Louis	29.2	4.7	0.72	Yes	8.0	5689	1.49	Yes	
14	University of Michigan Medical Center, Ann Arbor	29.1	3.8	0.68	Yes	8.0	2816	1.79	Yes	
15	Brigham and Women's Hospital, Boston	29.0	4.9	0.74	Yes	8.0	2636	1.43	Yes	
16	Stanford University Hospital, Stanford, Calif.	28.0	5.0	0.74	Yes	5.0	2034	1.61	Yes	
17	Clarian Health Partners, Indianapolis	27.8	5.2	0.92	Yes	8.0	5286	1.67	Yes	
18	Yale-New Haven Hospital, New Haven, Conn.	27.6	4.5	0.84	Yes	8.0	2828	1.53	Yes	
19	Beth Israel Deaconess Medical Center, Boston	27.4	3.4	0.73	Yes	7.0	4527	1.58	Yes	
20	Georgetown University Hospital, Washington, D.C.	27.1	3.0	0.45	Yes	8.0	992	1.09	Yes	
21	Memorial Sloan-Kettering Cancer Center, New York	26.5	1.6	0.49	Yes	7.0	2618	2.12	No	
22	New York Presbyterian Hospital	26.2	5.2	1.01	Yes	8.0	4884	1.32	Yes	
23	University of Wisconsin Hospital and Clinics, Madison	26.0	2.0	0.65	Yes	8.0	2184	1.36	Yes	(+2 SD)
24	Medical University of South Carolina, Charleston	25.8	6.9	1.20	Yes	7.0	2202	2.09	Yes	
25	Shands Hospital at the University of Florida, Gainesville	25.1	2.2	0.75	Yes	6.5	2472	1.57	Yes	
26	William Beaumont Hospital, Royal Oak, Mich.	25.0	0.8	0.70	Yes	8.0	5809	1.88	Yes	
27	Baylor University Medical Center, Dallas	24.9	2.6	0.78	Yes	6.0	4673	1.22	Yes	
28	Allegheny General Hospital, Pittsburgh	24.8	0.0	0.60	Yes	7.0	2648	1.91	Yes	
29	St. Louis University Hospital	24.2	1.4	0.69	Yes	7.5	1677	1.47	Yes	
30	Los Angeles County-USC Medical Center	24.2	0.8	0.37	Yes	6.0	395	1.67	Yes	
31	Vanderbilt University Hospital and Clinic, Nashville	24.0	1.8	0.79	Yes	7.0	1825	2.40	Yes	
32	University of Washington Medical Center, Seattle	24.0	3.9	0.78	Yes	8.0	1134	1.10	No	
33	Lutheran General Healthsystem, Park Ridge, Ill.	23.8	0.0	0.59	Yes	6.0	3127	1.14	Yes	
34	University of Texas, M. D. Anderson Cancer Center, Houston	23.7	3.3	0.80	Yes	6.0	1361	2.68	No	
35	Lahey Hitchcock Clinic, Burlington, Mass.	23.6	0.0	0.67	Yes	7.0	2677	1.52	Yes	
36	Cedars-Sinai Medical Center, Los Angeles	23.4	2.7	0.94	Yes	8.0	4795	1.06	Yes	
37	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	23.4	0.0	0.66	Yes	7.0	2180	1.62	Yes	
38	Mary Hitchcock Memorial Hospital, Lebanon, N.H.	23.4	0.4	0.68	Yes	7.0	1558	1.94	Yes	
39	University of California, Davis Medical Center, Sacramento	23.3	0.0	0.68	Yes	8.0	1751	2.79	Yes	
40	University of Iowa Hospitals and Clinics, Iowa City	23.3	1.3	0.77	Yes	8.0	1931	1.34	Yes	
41	New England Medical Center, Boston	23.3	2.0	0.82	Yes	7.0	1188	2.42	Yes	
42	Froedtert Memorial Lutheran Hospital, Milwaukee	23.2	0.0	0.63	Yes	7.0	1929	1.46	Yes	
43	Thomas Jefferson University Hospital, Philadelphia	23.2	0.8	0.76	Yes	7.0	3206	1.23	Yes	
44	Temple University Hospital, Philadelphia	23.0	1.7	0.70	Yes	7.5	1450	1.46	No	
45	Greater Baltimore Medical Center, Baltimore	23.0	1.2	0.71	Yes	5.0	2495	2.00	No	
46	Henry Ford Hospital, Detroit	22.9	0.8	0.86	Yes	7.5	3475	1.82	Yes	
47	University of North Carolina Hospitals, Chapel Hill	22.9	1.0	0.81	Yes	6.0	2986	1.52	Yes	
48	Ochsner Foundation Hospital, New Orleans	22.8	1.5	0.74	Yes	6.5	2465	1.40	No	
49	Florida Hospital Medical Center, Orlando, Fla.	22.8	0.0	0.62	No	7.0	5778	1.67	Yes	
50	University Hospital, Denver	22.7	1.7	0.81	Yes	6.0	1151	2.40	Yes	

2001 Ear, Nose, and Throat Best Hospital List

Rank	Hospital	IHQ	Reputational score	Hospitalwide mortality rate	COTH Member	Technology score (of 5)	Discharges	R.N.'s to beds	Trauma Center	
1	Johns Hopkins Hospital, Baltimore	100.0	40.2	0.82	Yes	5.0	264	1.42	Yes	
2	University of Iowa Hospitals and Clinics, Iowa City	85.4	32.4	0.86	Yes	5.0	219	1.34	Yes	
3	Massachusetts Eye and Ear Infirmary, Boston	76.6	27.1	0.11	No	3.0	268	1.87	Yes	
4	Mayo Clinic, Rochester, Minn.	68.2	21.0	0.72	Yes	5.0	502	1.31	Yes	
5	University of Michigan Medical Center, Ann Arbor	63.9	19.0	0.82	Yes	5.0	283	1.79	Yes	
6	University of Pittsburgh Medical Center	62.3	18.5	0.84	Yes	5.0	363	1.67	Yes	
7	UCLA Medical Center, Los Angeles	62.1	18.9	0.83	Yes	5.0	288	1.08	Yes	
8	University of Texas, M. D. Anderson Cancer Center, Houston	51.6	14.7	0.89	Yes	4.0	124	2.68	No	
9	Hospital of the University of Pennsylvania, Philadelphia	50.5	13.6	1.02	Yes	5.0	267	1.61	Yes	
10	Cleveland Clinic	49.5	10.6	0.67	Yes	5.0	236	1.94	No	
11	Vanderbilt University Hospital and Clinic, Nashville	46.4	9.3	0.84	Yes	5.0	284	2.40	Yes	
12	Stanford University Hospital, Stanford, Calif.	46.1	10.8	0.86	Yes	3.0	134	1.61	Yes	
13	Barnes-Jewish Hospital, St. Louis	45.8	9.0	0.82	Yes	5.0	398	1.49	Yes	
14	University of Washington Medical Center, Seattle	42.5	10.1	0.87	Yes	5.0	86	1.10	No	
15	Methodist Hospital, Houston	40.9	10.2	1.07	Yes	4.0	230	1.33	No	(+3 SD)
16	Memorial Sloan-Kettering Cancer Center, New York	39.1	5.4	0.79	Yes	5.0	249	2.12	No	
17	Mount Sinai Medical Center, New York	38.6	7.8	1.11	Yes	5.0	312	1.57	Yes	
18	University of Cincinnati Hospital	37.9	4.5	0.79	Yes	5.0	166	1.57	Yes	
19	University of California, San Francisco Medical Center	37.8	6.3	0.85	Yes	4.0	131	1.75	No	
20	Duke University Medical Center, Durham, N.C.	35.0	4.3	0.93	Yes	5.0	153	1.81	Yes	
21	University of Wisconsin Hospital and Clinics, Madison	34.0	1.9	0.77	Yes	5.0	232	1.36	Yes	
22	University of Virginia Health Sciences Center, Charlottesville	33.9	3.0	0.81	Yes	4.0	195	2.27	No	
23	University of North Carolina Hospitals, Chapel Hill	33.7	2.2	0.79	Yes	4.0	189	1.52	Yes	(+2 SD)
24	Parkland Memorial Hospital, Dallas	33.4	2.6	0.77	Yes	5.0	44	1.98	Yes	
25	Shands Hospital at the University of Florida, Gainesville	33.3	1.8	0.76	Yes	4.0	167	1.57	Yes	
26	North Carolina Baptist Hospital, Winston-Salem	33.1	2.6	0.92	Yes	5.0	243	1.61	Yes	
27	Ohio State University Medical Center, Columbus	33.0	2.9	0.76	Yes	3.5	112	1.01	Yes	
28	Henry Ford Hospital, Detroit	32.9	0.5	0.73	Yes	4.5	214	1.82	Yes	
29	St. Louis University Hospital	32.5	1.2	0.71	Yes	5.0	113	1.47	Yes	
30	Georgetown University Hospital, Washington, D.C.	32.4	1.7	0.53	Yes	5.0	89	1.09	Yes	
31	Northwestern Memorial Hospital, Chicago	32.3	2.6	0.92	Yes	4.0	184	1.70	Yes	
32	Rush-Presbyterian-St. Luke's Medical Center, Chicago	32.3	2.0	0.70	Yes	5.0	145	1.14	No	
33	Fairview-University Medical Center, Minneapolis	32.3	2.3	0.79	Yes	3.0	357	1.56	No	
34	University of Chicago Hospitals	31.9	2.5	0.90	Yes	5.0	100	1.94	Yes	
35	University Hospital, Denver	31.7	1.5	0.74	Yes	4.0	52	2.40	Yes	
36	Thomas Jefferson University Hospital, Philadelphia	31.7	1.9	0.85	Yes	4.0	199	1.23	Yes	
37	Summa Health System, Akron, Ohio	31.6	0.0	0.68	Yes	4.0	287	1.49	Yes	
38	University of California, Davis Medical Center, Sacramento	31.5	0.5	0.76	Yes	5.0	143	2.79	Yes	
39	Los Angeles County-USC Medical Center	31.2	1.3	0.20	Yes	3.5	42	1.67	Yes	
40	Yale-New Haven Hospital, New Haven, Conn.	31.2	1.6	0.92	Yes	5.0	243	1.53	Yes	
41	University of Texas Medical Branch Hospitals, Galveston	31.1	2.7	0.91	Yes	4.0	118	1.53	Yes	
42	Lutheran General Healthsystem, Park Ridge, Ill.	30.9	0.0	0.70	Yes	4.0	212	1.14	Yes	
43	University of Illinois Hospital and Clinics, Chicago	30.6	1.2	0.66	Yes	2.5	87	1.29	Yes	
44	Lahey Hitchcock Clinic, Burlington, Mass.	30.5	0.5	0.76	Yes	4.0	138	1.52	Yes	
45	Arthur G. James Cancer Hospital, Columbus, Ohio	30.4	0.0	0.57	Yes	4.0	131	1.56	Yes	
46	Washington Hospital Center, Washington, D.C.	30.3	0.5	0.86	Yes	4.0	216	1.92	Yes	
47	Clarian Health Partners, Indianapolis	30.2	0.4	0.87	Yes	5.0	355	1.67	Yes	
48	William Beaumont Hospital, Royal Oak, Mich.	30.2	0.0	0.85	Yes	5.0	286	1.88	Yes	
49	New York Eye and Ear Infirmary, New York	30.2	1.7	0.00	No	3.5	50	2.53	Yes	
50	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	30.0	1.0	0.87	Yes	4.0	165	1.62	Yes	

2001 Geriatrics Best Hospital List

Rank	Hospital	IHQ	Reputational score	Hospitalwide mortality rate	COTH Member	Technology score (of 8)	R.N.'s to beds	Discharge planning (of 3)	Service mix (of 10)	Geriatric services (of 7)	
1	UCLA Medical Center, Los Angeles	100.0	39.7	0.83	Yes	8.0	1.08	3	6	5	
2	Johns Hopkins Hospital, Baltimore	89.5	33.6	0.82	Yes	8.0	1.42	3	9	4	
3	Mount Sinai Medical Center, New York	73.3	27.6	1.11	Yes	8.0	1.57	3	8	4	
4	Duke University Medical Center, Durham, N.C.	61.1	19.8	0.93	Yes	8.0	1.81	3	7	3	
5	Massachusetts General Hospital, Boston	59.4	18.5	0.93	Yes	8.0	1.38	3	8	4	
6	Mayo Clinic, Rochester, Minn.	51.1	11.2	0.72	Yes	8.0	1.31	3	10	6	
7	St. Louis University Hospital	45.2	9.5	0.71	Yes	8.0	1.47	3	4	3	
8	Yale-New Haven Hospital, New Haven, Conn.	43.3	10.0	0.92	Yes	8.0	1.53	3	7	3	
9	Cleveland Clinic	42.8	7.0	0.67	Yes	8.0	1.94	3	8	4	
10	University of Michigan Medical Center, Ann Arbor	42.2	7.9	0.82	Yes	8.0	1.79	3	9	4	
11	Beth Israel Deaconess Medical Center, Boston	41.1	7.7	0.84	Yes	7.0	1.58	3	9	4	(+3 SD)
12	University of Washington Medical Center, Seattle	36.8	7.3	0.87	Yes	7.0	1.10	2	6	2	
13	University of Chicago Hospitals	35.4	5.0	0.90	Yes	8.0	1.94	3	8	4	
14	Barnes-Jewish Hospital, St. Louis	33.6	3.2	0.82	Yes	8.0	1.49	3	9	4	
15	University Hospital, Denver	33.4	2.5	0.74	Yes	7.0	2.40	3	8	5	
16	Brigham and Women's Hospital, Boston	32.8	3.0	0.81	Yes	8.0	1.43	3	7	4	
17	Rush-Presbyterian-St. Luke's Medical Center, Chicago	32.5	1.4	0.70	Yes	8.0	1.14	3	9	5	
18	University of California, San Francisco Medical Center	32.5	3.6	0.85	Yes	7.0	1.75	3	6	4	(+2 SD)
19	Stanford University Hospital, Stanford, Calif.	32.0	3.4	0.86	Yes	6.0	1.61	3	9	3	
20	Hospital of the University of Pennsylvania, Philadelphia	31.6	4.4	1.02	Yes	8.0	1.61	3	8	3	
21	University Hospitals of Cleveland	31.3	2.5	0.79	Yes	8.0	1.21	2	8	4	
22	Parkland Memorial Hospital, Dallas	31.3	1.8	0.77	Yes	8.0	1.98	3	7	4	
23	North Carolina Baptist Hospital, Winston-Salem	31.1	2.0	0.92	Yes	8.0	1.61	3	10	6	
24	Georgetown University Hospital, Washington, D.C.	30.8	0.5	0.53	Yes	7.0	1.09	3	8	4	
25	University of Illinois Hospital and Clinics, Chicago	30.7	1.1	0.66	Yes	5.5	1.29	3	7	4	
26	New York University Medical Center	30.4	4.1	1.05	Yes	8.0	1.18	3	7	4	
27	Fairview-University Medical Center, Minneapolis	30.4	1.4	0.79	Yes	6.0	1.56	3	9	5	
28	Boston Medical Center	30.4	1.6	0.75	Yes	6.0	2.10	3	7	4	
29	Francis Scott Key Medical Center, Baltimore	30.4	1.8	0.80	Yes	7.0	0.79	3	8	5	
30	Sparrow Hospital and Health System, Lansing, Mich.	30.4	0.0	0.65	No	7.0	1.13	3	10	6	
31	University of Pittsburgh Medical Center	30.2	0.8	0.84	Yes	8.0	1.67	3	9	7	
32	Los Angeles County-USC Medical Center	30.1	0.3	0.20	Yes	6.5	1.67	3	8	3	
33	Northwestern Memorial Hospital, Chicago	29.8	2.3	0.92	Yes	7.0	1.70	3	9	4	
34	Summa Health System, Akron, Ohio	29.7	0.3	0.68	Yes	7.0	1.49	3	9	3	
35	Cook County Hospital, Chicago	29.6	0.0	0.55	Yes	6.0	2.10	3	7	4	
36	University of Connecticut Health Center, Farmington	29.4	4.6	1.00	Yes	6.0	2.60	3	3	2	
37	Hospital for Special Surgery, New York	29.1	0.0	0.10	Yes	6.0	1.57	3	5	4	
38	University Medical Center, Tucson, Ariz.	29.0	0.0	0.66	Yes	7.0	1.72	3	7	3	
39	University of North Carolina Hospitals, Chapel Hill	28.9	0.7	0.79	Yes	7.0	1.52	3	10	3	
40	Thomas Jefferson University Hospital, Philadelphia	28.9	1.3	0.85	Yes	7.0	1.23	3	9	4	
41	Hennepin County Medical Center, Minneapolis	28.9	0.0	0.61	Yes	6.5	1.05	3	7	3	
42	St. Luke's Hospital, Chesterfield, Mo.	28.8	0.0	0.67	No	7.0	1.06	3	6	6	
43	Augusta Health Care, Fishersville, Va.	28.7	0.0	0.65	No	5.0	1.35	3	8	5	
44	John D. Archbold Memorial Hospital, Thomasville, Ga.	28.6	0.0	0.63	No	7.0	0.93	3	7	4	
45	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	28.5	1.4	0.87	Yes	7.0	1.62	3	9	3	
46	University of California, Davis Medical Center, Sacramento	28.4	0.4	0.76	Yes	8.0	2.79	3	6	4	
47	Lutheran General Healthsystem, Park Ridge, Ill.	28.4	0.0	0.70	Yes	7.0	1.14	3	7	4	
48	Henry Ford Hospital, Detroit	28.3	0.4	0.73	Yes	7.5	1.82	3	4	4	
49	University of Virginia Health Sciences Center, Charlottesville	28.2	0.3	0.81	Yes	7.0	2.27	3	9	4	
50	St. Joseph Hospital, Denver	28.0	0.0	0.53	No	7.0	1.03	3	6	3	

2001 Gynecology Best Hospital List

Rank	Hospital	IHQ	Reputational score	Hospitalwide mortality rate	COTH Member	Technology score (of 8)	Discharges	R.N.'s to beds	Trauma Center	Gynecology services (of 4)	
1	Johns Hopkins Hospital, Baltimore	100.0	32.5	0.82	Yes	8.0	240	1.42	Yes	4	
2	Mayo Clinic, Rochester, Minn.	75.3	21.0	0.72	Yes	8.0	1340	1.31	Yes	3	
3	Brigham and Women's Hospital, Boston	67.0	17.7	0.81	Yes	8.0	483	1.43	Yes	4	
4	UCLA Medical Center, Los Angeles	58.3	14.2	0.83	Yes	8.0	310	1.08	Yes	4	
5	University of Texas, M. D. Anderson Cancer Center, Houston	57.2	15.9	0.89	Yes	6.0	234	2.68	No	0	
6	Duke University Medical Center, Durham, N.C.	49.9	10.9	0.93	Yes	8.0	512	1.81	Yes	4	
7	Massachusetts General Hospital, Boston	49.6	11.0	0.93	Yes	8.0	418	1.38	Yes	4	
8	Parkland Memorial Hospital, Dallas	48.9	10.1	0.77	Yes	8.0	94	1.98	Yes	3	
9	New York Presbyterian Hospital	43.7	10.0	1.15	Yes	8.0	560	1.32	Yes	4	
10	University of North Carolina Hospitals, Chapel Hill	40.6	6.1	0.79	Yes	7.0	343	1.52	Yes	4	
11	Memorial Sloan-Kettering Cancer Center, New York	40.3	7.4	0.79	Yes	7.0	179	2.12	No	1	
12	Stanford University Hospital, Stanford, Calif.	38.7	6.7	0.86	Yes	5.0	274	1.61	Yes	2	
13	Magee-Womens Hospital, Pittsburgh	38.4	5.0	0.67	Yes	6.5	551	1.53	No	3	
14	University of Michigan Medical Center, Ann Arbor	38.3	5.2	0.82	Yes	8.0	390	1.79	Yes	3	
15	Northwestern Memorial Hospital, Chicago	36.5	5.2	0.92	Yes	7.0	291	1.70	Yes	4	(+3 SD)
16	Yale-New Haven Hospital, New Haven, Conn.	36.3	5.0	0.92	Yes	8.0	346	1.53	Yes	4	
17	Cleveland Clinic	35.9	3.7	0.67	Yes	7.0	711	1.94	No	3	
18	Hospital of the University of Pennsylvania, Philadelphia	35.4	5.5	1.02	Yes	8.0	222	1.61	Yes	4	
19	University of Chicago Hospitals	35.1	4.3	0.90	Yes	8.0	233	1.94	Yes	4	
20	University of California, San Francisco Medical Center	34.3	5.0	0.85	Yes	7.0	51	1.75	No	3	
21	Vanderbilt University Hospital and Clinic, Nashville	33.8	3.5	0.84	Yes	8.0	302	2.40	Yes	3	
22	Georgetown University Hospital, Washington, D.C.	32.2	1.2	0.53	Yes	8.0	169	1.09	Yes	4	
23	Los Angeles County-USC Medical Center	31.7	1.2	0.20	Yes	6.5	40	1.67	Yes	4	
24	Barnes-Jewish Hospital, St. Louis	31.6	2.3	0.82	Yes	7.5	623	1.49	Yes	4	
25	Rush-Presbyterian-St. Luke's Medical Center, Chicago	31.5	2.2	0.70	Yes	8.0	303	1.14	No	3	
26	University of Alabama Hospital at Birmingham	31.4	3.1	0.96	Yes	8.0	411	1.51	Yes	4	(+2 SD)
27	Thomas Jefferson University Hospital, Philadelphia	29.7	1.9	0.85	Yes	7.0	337	1.23	Yes	4	
28	University Medical Center, Tucson, Ariz.	29.5	0.8	0.66	Yes	7.0	150	1.72	Yes	3	
29	University Hospital, Denver	29.2	1.3	0.74	Yes	6.0	90	2.40	Yes	4	
30	Mount Sinai Medical Center, New York	29.2	3.2	1.11	Yes	8.0	317	1.57	Yes	4	
31	Arthur G. James Cancer Hospital, Columbus, Ohio	29.1	0.0	0.57	Yes	7.0	173	1.56	Yes	3	
32	Cook County Hospital, Chicago	29.0	0.0	0.55	Yes	6.0	68	2.10	Yes	4	
33	University of California, Irvine Medical Center, Orange	28.9	3.0	0.82	Yes	6.0	68	1.05	Yes	1	
34	University of Washington Medical Center, Seattle	28.8	2.4	0.87	Yes	8.0	207	1.10	No	4	
35	St. Joseph Hospital, Denver	28.8	0.8	0.53	No	7.0	289	1.03	No	4	
36	Cedars-Sinai Medical Center, Los Angeles	28.4	2.9	1.07	Yes	8.0	502	1.06	Yes	4	
37	Summa Health System, Akron, Ohio	28.3	0.0	0.68	Yes	6.5	376	1.49	Yes	4	
38	Baylor University Medical Center, Dallas	28.3	1.6	0.88	Yes	6.5	559	1.22	Yes	4	
39	Mary Hitchcock Memorial Hospital, Lebanon, N.H.	28.2	1.2	0.86	Yes	7.0	234	1.94	Yes	4	
40	Emory University Hospital, Atlanta	28.1	3.8	0.90	Yes	6.0	209	0.93	No	0	
41	Women and Infants Hospital of Rhode Island, Providence	28.1	0.4	0.29	Yes	5.0	519	0.63	No	4	
42	Beth Israel Deaconess Medical Center, Boston	28.0	1.2	0.84	Yes	7.0	286	1.58	Yes	3	
43	Clarian Health Partners, Indianapolis	27.9	1.1	0.87	Yes	8.0	558	1.67	Yes	3	
44	Ohio State University Medical Center, Columbus	27.7	1.0	0.76	Yes	6.5	157	1.01	Yes	4	
45	William Beaumont Hospital, Royal Oak, Mich.	27.5	0.4	0.85	Yes	8.0	595	1.88	Yes	4	
46	Lutheran General Healthsystem, Park Ridge, Ill.	27.4	0.0	0.70	Yes	7.0	260	1.14	Yes	4	
47	University of Wisconsin Hospital and Clinics, Madison	27.2	1.2	0.77	Yes	7.0	207	1.36	Yes	1	
48	Shands Hospital at the University of Florida, Gainesville	27.1	0.5	0.76	Yes	7.0	262	1.57	Yes	2	
49	Greater Baltimore Medical Center, Baltimore	27.0	0.0	0.69	Yes	5.5	460	2.00	No	4	
50	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	27.0	1.0	0.87	Yes	7.0	186	1.62	Yes	4	

2001 Heart Best Hospital List

Rank	Hospital	IHQ	Reputational score	Mortality rate	COTH Member	Technology score (of 9)	Surgical volume	R.N.'s to beds	Trauma Center	
1	Cleveland Clinic	100.0	64.2	0.65	Yes	9.0	9073.0000	1.94	No	
2	Mayo Clinic, Rochester, Minn.	90.9	55.5	0.72	Yes	9.0	8278.0000	1.31	Yes	
3	Massachusetts General Hospital, Boston	63.4	31.6	0.82	Yes	9.0	5205.0000	1.38	Yes	
4	Johns Hopkins Hospital, Baltimore	58.7	29.1	0.91	Yes	9.0	3479.0000	1.42	Yes	
5	Brigham and Women's Hospital, Boston	57.1	26.2	0.85	Yes	9.0	4321.0000	1.43	Yes	
6	Duke University Medical Center, Durham, N.C.	53.4	21.3	0.81	Yes	9.0	5892.0000	1.81	Yes	
7	Texas Heart Institute-St. Luke's Episcopal Hospital, Houston	45.3	19.3	0.94	Yes	8.0	6027.0000	1.33	No	
8	Stanford University Hospital, Stanford, Calif.	43.2	15.6	0.91	Yes	7.0	3006.0000	1.61	Yes	(+3 SD)
9	Emory University Hospital, Atlanta	37.5	11.4	0.91	Yes	9.0	4669.0000	0.93	No	
10	Beth Israel Deaconess Medical Center, Boston	35.9	8.7	0.94	Yes	8.0	5608.0000	1.58	Yes	
11	Barnes-Jewish Hospital, St. Louis	35.5	5.0	0.80	Yes	9.0	3987.0000	1.49	Yes	(+2 SD)
12	William Beaumont Hospital, Royal Oak, Mich.	34.2	3.7	0.84	Yes	9.0	8667.0000	1.88	Yes	
13	University of Alabama Hospital at Birmingham	33.4	6.8	0.99	Yes	9.0	5154.0000	1.51	Yes	
14	University of California, San Francisco Medical Center	32.8	6.1	0.83	Yes	8.0	982.0000	1.75	No	
15	Lahey Hitchcock Clinic, Burlington, Mass.	31.8	0.6	0.70	Yes	8.0	2903.0000	1.52	Yes	
16	Parkland Memorial Hospital, Dallas	31.8	1.3	0.66	Yes	9.0	137.0000	1.98	Yes	
17	Orlando Regional Medical Center, Orlando, Fla.	31.4	0.0	0.70	Yes	9.0	2816.0000	1.28	Yes	
18	Henry Ford Hospital, Detroit	31.2	0.0	0.72	Yes	8.5	1858.0000	1.82	Yes	
19	Thomas Jefferson University Hospital, Philadelphia	30.7	2.7	0.80	Yes	8.0	1829.0000	1.23	Yes	
20	Summa Health System, Akron, Ohio	30.5	0.0	0.72	Yes	8.0	2246.0000	1.49	Yes	
21	University of Pittsburgh Medical Center	30.5	2.8	0.94	Yes	9.0	4718.0000	1.67	Yes	
22	Boston Medical Center	30.3	1.0	0.76	Yes	7.0	1760.0000	2.10	Yes	
23	St. Louis University Hospital	30.2	0.8	0.76	Yes	9.0	1153.0000	1.47	Yes	
24	North Carolina Baptist Hospital, Winston-Salem	30.2	0.3	0.83	Yes	9.0	3993.0000	1.61	Yes	
25	University Medical Center, Tucson, Ariz.	30.1	0.6	0.74	Yes	8.0	1093.0000	1.72	Yes	
26	University of Michigan Medical Center, Ann Arbor	30.0	1.7	0.91	Yes	9.0	2697.0000	1.79	Yes	
27	Mount Sinai Medical Center, New York	29.8	4.7	1.06	Yes	9.0	4253.0000	1.57	Yes	
28	New York Presbyterian Hospital	29.7	6.1	1.11	Yes	9.0	5776.0000	1.32	Yes	
29	UCLA Medical Center, Los Angeles	29.5	3.7	0.92	Yes	9.0	1504.0000	1.08	Yes	
30	University of Wisconsin Hospital and Clinics, Madison	29.5	0.0	0.76	Yes	9.0	1510.0000	1.36	Yes	
31	Lutheran General Healthsystem, Park Ridge, Ill.	29.3	0.0	0.72	Yes	8.0	1709.0000	1.14	Yes	
32	Florida Hospital Medical Center, Orlando, Fla.	29.3	0.3	0.75	No	8.0	10916.0000	1.67	Yes	
33	Vanderbilt University Hospital and Clinic, Nashville	29.3	1.4	0.89	Yes	9.0	1738.0000	2.40	Yes	
34	University of Washington Medical Center, Seattle	29.2	10.7	1.16	Yes	8.0	1208.0000	1.10	No	
35	Rush-Presbyterian-St. Luke's Medical Center, Chicago	29.2	1.4	0.76	Yes	9.0	1415.0000	1.14	No	
36	St. Luke's Hospital, Bethlehem, Pa.	29.1	0.0	0.76	Yes	8.0	3298.0000	0.87	Yes	
37	Sentara Norfolk General Hospital, Norfolk, Va.	29.1	0.0	0.82	Yes	8.0	5575.0000	1.51	Yes	
38	St. Vincent Hospital and Health Center, Indianapolis	28.9	0.6	0.84	Yes	8.0	8048.0000	1.37	Yes	
39	Howard University Hospital, Washington	28.9	0.0	0.65	Yes	9.0	256.0000	1.10	Yes	
40	Cedars-Sinai Medical Center, Los Angeles	28.9	3.5	0.99	Yes	9.0	3964.0000	1.06	Yes	
41	Sinai Hospital of Baltimore	28.9	0.0	0.76	Yes	8.0	2033.0000	1.21	Yes	
42	Spectrum Health, Grand Rapids, Mich.	28.9	0.0	0.78	Yes	8.0	2837.0000	1.06	Yes	
43	North Shore University Hospital, Manhasset, N.Y.	28.9	0.6	0.87	Yes	9.0	4710.0000	1.27	Yes	
44	Washington Hospital Center, Washington, D.C.	28.8	0.0	0.86	Yes	8.0	8954.0000	1.92	Yes	
45	Mary Hitchcock Memorial Hospital, Lebanon, N.H.	28.7	0.0	0.84	Yes	8.0	2445.0000	1.94	Yes	
46	Georgetown University Hospital, Washington, D.C.	28.6	0.0	0.60	Yes	8.0	789.0000	1.09	Yes	
47	Medical Center of Delaware, Wilmington	28.5	0.0	0.87	Yes	8.0	4068.0000	1.75	Yes	
48	Christ Hospital, Cincinnati	28.4	0.0	0.70	No	8.5	4527.0000	1.59	No	
49	St. Thomas Hospital, Nashville	28.3	0.6	0.76	No	8.0	8151.0000	1.99	No	
50	Lankenau Hospital, Wynnewood, Pa.	28.3	0.0	0.71	No	8.0	3145.0000	1.70	No	

2001 Hormonal Disorders Best Hospital List

Rank	Hospital	IHQ	Reputational score	Mortality rate	COTH Member	Technology score (of 7)	Discharges	R.N.'s to beds	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	61.2	0.66	Yes	7.0	1459	1.31	Yes	
2	Massachusetts General Hospital, Boston	88.9	52.7	0.81	Yes	7.0	1183	1.38	Yes	
3	Johns Hopkins Hospital, Baltimore	59.6	25.2	0.64	Yes	7.0	807	1.42	Yes	
4	Brigham and Women's Hospital, Boston	53.6	20.5	0.72	Yes	7.0	677	1.43	Yes	
5	Beth Israel Deaconess Medical Center, Boston	45.5	11.3	0.62	Yes	6.0	1146	1.58	Yes	
6	University of Virginia Health Sciences Center, Charlottesville	45.4	11.5	0.49	Yes	6.0	1029	2.27	No	
7	University of California, San Francisco Medical Center	45.3	14.5	0.72	Yes	6.0	476	1.75	No	
8	Barnes-Jewish Hospital, St. Louis	45.3	11.8	0.95	Yes	7.0	1968	1.49	Yes	
9	Cleveland Clinic	43.7	9.3	0.48	Yes	7.0	1133	1.94	No	(+3 SD)
10	University of Michigan Medical Center, Ann Arbor	41.6	8.2	0.66	Yes	7.0	813	1.79	Yes	
11	University of Chicago Hospitals	41.1	8.9	0.82	Yes	7.0	807	1.94	Yes	
12	UCLA Medical Center, Los Angeles	41.0	10.4	0.84	Yes	7.0	752	1.08	Yes	
13	University of Washington Medical Center, Seattle	38.8	8.4	0.56	Yes	7.0	319	1.10	No	
14	New York Presbyterian Hospital	38.3	11.1	1.54	Yes	7.0	1552	1.32	Yes	
15	Vanderbilt University Hospital and Clinic, Nashville	37.8	3.9	0.55	Yes	7.0	757	2.40	Yes	
16	Northwestern Memorial Hospital, Chicago	37.5	5.1	0.73	Yes	6.0	975	1.70	Yes	
17	Henry Ford Hospital, Detroit	37.5	1.2	0.56	Yes	6.5	1945	1.82	Yes	(+2 SD)
18	Stanford University Hospital, Stanford, Calif.	36.7	6.6	0.83	Yes	5.0	472	1.61	Yes	
19	Parkland Memorial Hospital, Dallas	36.4	3.6	0.56	Yes	7.0	328	1.98	Yes	
20	Duke University Medical Center, Durham, N.C.	35.9	2.7	0.68	Yes	7.0	916	1.81	Yes	
21	University Hospital, Denver	35.8	2.5	0.45	Yes	6.0	320	2.40	Yes	
22	Washington Hospital Center, Washington, D.C.	35.7	2.0	0.76	Yes	6.0	1658	1.92	Yes	
23	University of Pittsburgh Medical Center	35.4	1.6	0.65	Yes	7.0	1259	1.67	Yes	
24	Ohio State University Medical Center, Columbus	34.7	2.7	0.51	Yes	5.5	719	1.01	Yes	
25	Hospital of the University of Pennsylvania, Philadelphia	34.5	2.3	0.73	Yes	7.0	866	1.61	Yes	
26	St. Louis University Hospital	34.3	0.7	0.40	Yes	7.0	637	1.47	Yes	
27	University of Alabama Hospital at Birmingham	34.3	1.1	0.64	Yes	7.0	1080	1.51	Yes	
28	University Hospital, Portland, Ore.	34.2	2.8	0.48	Yes	6.0	328	0.91	Yes	
29	University of Texas Medical Branch Hospitals, Galveston	33.9	0.5	0.48	Yes	6.0	818	1.53	Yes	
30	Good Samaritan Regional Medical Center, Phoenix	33.8	1.0	0.17	Yes	7.0	580	1.07	Yes	
31	University of North Carolina Hospitals, Chapel Hill	33.7	0.6	0.52	Yes	6.0	791	1.52	Yes	
32	University of Wisconsin Hospital and Clinics, Madison	33.7	0.5	0.33	Yes	7.0	579	1.36	Yes	
33	William Beaumont Hospital, Royal Oak, Mich.	33.7	0.6	0.80	Yes	7.0	1414	1.88	Yes	
34	Florida Hospital Medical Center, Orlando, Fla.	33.7	0.0	0.51	No	6.0	1696	1.67	Yes	
35	University of Maryland Medical System, Baltimore	33.6	0.6	0.57	Yes	7.0	553	1.94	Yes	
36	University of California, Davis Medical Center, Sacramento	33.4	0.6	0.59	Yes	7.0	557	2.79	Yes	
37	Shands Hospital at the University of Florida, Gainesville	33.3	0.5	0.50	Yes	6.0	560	1.57	Yes	
38	Yale-New Haven Hospital, New Haven, Conn.	33.2	3.8	1.03	Yes	7.0	810	1.53	Yes	
39	Lutheran General Healthsystem, Park Ridge, Ill.	32.9	0.0	0.38	Yes	6.0	768	1.14	Yes	
40	Lehigh Valley Hospital, Allentown, Pa.	32.9	0.0	0.49	Yes	5.5	856	1.35	Yes	
41	Allegheny General Hospital, Pittsburgh	32.8	0.0	0.56	Yes	6.0	610	1.91	Yes	
42	Mount Sinai Medical Center, New York	32.7	6.4	1.67	Yes	7.0	1555	1.57	Yes	
43	Georgetown University Hospital, Washington, D.C.	32.6	0.5	0.20	Yes	7.0	329	1.09	Yes	
44	Memorial Medical Center, Savannah, Ga.	32.6	0.0	0.48	Yes	6.0	552	1.42	Yes	
45	Medical College of Georgia Hospital and Clinic, Augusta	32.3	0.0	0.31	Yes	5.0	381	1.50	Yes	
46	St. Luke's Medical Center, Milwaukee, Wis.	32.3	0.0	0.62	Yes	6.0	1370	0.86	Yes	
47	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	32.3	1.0	0.71	Yes	6.0	643	1.62	Yes	
48	University of Iowa Hospitals and Clinics, Iowa City	32.3	0.7	0.68	Yes	7.0	685	1.34	Yes	
49	Medical Center of Delaware, Wilmington	32.1	0.0	0.81	Yes	6.0	1235	1.75	Yes	
50	University of Cincinnati Hospital	32.1	0.0	0.68	Yes	7.0	773	1.57	Yes	

2001 Kidney Disease Best Hospital List

Rank	Hospital	IHQ	Reputational score	Mortality rate	COTH Member	Technology score (of 5)	Discharges	R.N.'s to beds	Trauma Center	Discharge planning (of 3)	Medical/ Surgical Beds	
1	Massachusetts General Hospital, Boston	100.0	27.6	0.95	Yes	5.0	1091	1.38	Yes	3	83	
2	Brigham and Women's Hospital, Boston	95.6	25.6	0.61	Yes	5.0	742	1.43	Yes	3	30	
3	Mayo Clinic, Rochester, Minn.	82.8	18.5	0.63	Yes	5.0	1217	1.31	Yes	3	94	
4	Cleveland Clinic	82.8	19.4	0.53	Yes	5.0	1124	1.94	No	3	44	
5	New York Presbyterian Hospital	80.6	19.6	1.22	Yes	5.0	1617	1.32	Yes	3	111	
6	Johns Hopkins Hospital, Baltimore	77.3	17.4	0.54	Yes	4.5	811	1.42	Yes	3	41	
7	UCLA Medical Center, Los Angeles	72.6	15.3	0.60	Yes	5.0	975	1.08	Yes	3	54	
8	Duke University Medical Center, Durham, N.C.	69.6	14.3	0.78	Yes	5.0	1106	1.81	Yes	3	57	
9	Barnes-Jewish Hospital, St. Louis	68.7	12.0	0.59	Yes	5.0	1863	1.49	Yes	3	76	
10	University Hospital, Denver	65.8	14.1	0.61	Yes	4.0	408	2.40	Yes	3	0	
11	University of Michigan Medical Center, Ann Arbor	58.9	8.8	0.54	Yes	5.0	922	1.79	Yes	3	60	
12	Vanderbilt University Hospital and Clinic, Nashville	57.8	9.1	0.49	Yes	4.0	850	2.40	Yes	3	28	
13	Stanford University Hospital, Stanford, Calif.	56.6	8.9	0.63	Yes	4.0	528	1.61	Yes	3	67	
14	Parkland Memorial Hospital, Dallas	56.1	7.3	0.31	Yes	5.0	660	1.98	Yes	3	39	
15	University of Pittsburgh Medical Center	54.1	6.6	0.62	Yes	5.0	1128	1.67	Yes	3	80	
16	University of California, San Francisco Medical Center	53.4	7.4	0.45	Yes	5.0	631	1.75	No	3	35	
17	Hospital of the University of Pennsylvania, Philadelphia	52.8	7.5	0.73	Yes	5.0	962	1.61	Yes	3	44	
18	Emory University Hospital, Atlanta	52.1	7.7	0.58	Yes	4.5	784	0.93	No	3	48	
19	University of Washington Medical Center, Seattle	51.6	7.8	0.55	Yes	5.0	421	1.10	No	2	46	(+3 SD)
20	University of Alabama Hospital at Birmingham	47.3	5.6	0.93	Yes	4.0	1202	1.51	Yes	2	86	
21	Beth Israel Deaconess Medical Center, Boston	45.3	4.7	0.61	Yes	5.0	1013	1.58	Yes	3	0	
22	Henry Ford Hospital, Detroit	44.7	2.1	0.58	Yes	5.0	1459	1.82	Yes	3	76	
23	University of North Carolina Hospitals, Chapel Hill	44.5	3.7	0.48	Yes	4.0	1033	1.52	Yes	3	16	
24	Fairview-University Medical Center, Minneapolis	44.4	5.2	0.72	Yes	5.0	690	1.56	No	3	24	
25	University of Chicago Hospitals	44.2	3.1	0.47	Yes	5.0	758	1.94	Yes	3	30	
26	Hermann Hospital, Houston	42.4	1.7	0.30	Yes	4.5	668	1.14	Yes	3	54	
27	Rush-Presbyterian-St. Luke's Medical Center, Chicago	41.8	1.6	0.37	Yes	5.0	1273	1.14	No	3	49	
28	New England Medical Center, Boston	41.6	4.2	0.79	Yes	5.0	330	2.42	Yes	2	30	
29	University of California, Davis Medical Center, Sacramento	41.6	2.2	0.55	Yes	5.0	681	2.79	Yes	3	40	
30	Yale-New Haven Hospital, New Haven, Conn.	41.2	3.8	0.99	Yes	5.0	943	1.53	Yes	3	52	(+2 SD)
31	Los Angeles County-USC Medical Center	40.9	0.4	0.08	Yes	4.5	213	1.67	Yes	3	43	
32	Shands Hospital at the University of Florida, Gainesville	40.6	3.4	0.74	Yes	4.5	699	1.57	Yes	2	30	
33	St. Louis University Hospital	39.9	1.2	0.41	Yes	4.5	587	1.47	Yes	3	43	
34	Boston Medical Center	39.4	1.5	0.44	Yes	4.0	405	2.10	Yes	3	36	
35	University of Texas Medical Branch Hospitals, Galveston	39.0	0.5	0.41	Yes	5.0	890	1.53	Yes	3	38	
36	University Hospital, Portland, Ore.	39.0	3.4	0.72	Yes	4.5	356	0.91	Yes	3	18	
37	Methodist Hospital, Houston	38.9	3.3	1.00	Yes	4.5	796	1.33	No	3	69	
38	Northwestern Memorial Hospital, Chicago	38.8	0.6	0.60	Yes	5.0	935	1.70	Yes	3	63	
39	Froedtert Memorial Lutheran Hospital, Milwaukee	38.7	1.2	0.55	Yes	5.0	784	1.46	Yes	3	35	
40	University Hospitals and Clinics, Columbia, Mo.	38.7	2.6	0.66	Yes	4.5	374	1.51	Yes	2	30	
41	University of Illinois Hospital and Clinics, Chicago	38.5	0.0	0.19	Yes	4.5	382	1.29	Yes	3	42	
42	University Medical Center, Tucson, Ariz.	38.3	0.0	0.29	Yes	4.5	376	1.72	Yes	3	46	
43	University of Miami, Jackson Memorial Hospital	38.3	1.2	0.41	Yes	0.0	814	1.68	No	1	91	
44	William Beaumont Hospital, Royal Oak, Mich.	38.3	0.3	0.74	Yes	5.0	1686	1.88	Yes	3	60	
45	University of Maryland Medical System, Baltimore	38.1	0.5	0.61	Yes	4.5	941	1.94	Yes	3	63	
46	University of Wisconsin Hospital and Clinics, Madison	37.7	2.2	0.82	Yes	5.0	820	1.36	Yes	3	32	
47	Bexar County Hospital District, San Antonio	37.7	1.6	0.64	Yes	4.5	368	1.21	Yes	3	51	
48	Georgetown University Hospital, Washington, D.C.	37.7	0.5	0.43	Yes	5.0	395	1.09	Yes	3	53	
49	University of Virginia Health Sciences Center, Charlottesville	37.7	1.4	0.64	Yes	5.0	930	2.27	No	3	34	
50	Baylor University Medical Center, Dallas	37.5	0.5	0.72	Yes	4.5	976	1.22	Yes	3	86	

2001 Neurology and Neurosurgery Best Hospital List

Rank	Hospital	IHQ	Reputational score	Mortality rate	COTH Member	Technology score (of 7)	Discharges	R.N.'s to beds	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	57.5	0.91	Yes	7.0	4763	1.31	Yes	
2	Massachusetts General Hospital, Boston	83.7	46.0	0.95	Yes	7.0	3705	1.38	Yes	
3	Johns Hopkins Hospital, Baltimore	74.6	37.2	0.70	Yes	7.0	2641	1.42	Yes	
4	New York Presbyterian Hospital	72.7	37.3	0.95	Yes	7.0	4078	1.32	Yes	
5	University of California, San Francisco Medical Center	51.6	24.1	1.00	Yes	6.0	1503	1.75	No	
6	Cleveland Clinic	51.2	18.8	0.65	Yes	7.0	3338	1.94	No	
7	Barnes-Jewish Hospital, St. Louis	38.9	9.2	0.81	Yes	7.0	4667	1.49	Yes	
8	Hospital of the University of Pennsylvania, Philadelphia	37.4	10.5	0.91	Yes	7.0	2286	1.61	Yes	(+3 SD)
9	Duke University Medical Center, Durham, N.C.	32.4	7.0	1.02	Yes	7.0	2921	1.81	Yes	
10	UCLA Medical Center, Los Angeles	32.2	6.4	0.80	Yes	7.0	1967	1.08	Yes	
11	Mount Sinai Medical Center, New York	31.7	5.5	0.85	Yes	7.0	2383	1.57	Yes	
12	Methodist Hospital, Houston	31.5	6.2	0.86	Yes	6.0	3768	1.33	No	
13	Brigham and Women's Hospital, Boston	31.5	6.6	0.93	Yes	7.0	1925	1.43	Yes	
14	University of Michigan Medical Center, Ann Arbor	30.4	6.8	1.06	Yes	7.0	1702	1.79	Yes	
15	St. Joseph's Hospital and Medical Center, Phoenix	30.4	5.2	0.92	Yes	6.0	3336	1.27	Yes	
16	Los Angeles County-USC Medical Center	29.9	0.4	0.29	Yes	5.5	399	1.67	Yes	
17	Henry Ford Hospital, Detroit	29.9	1.3	0.64	Yes	6.5	3299	1.82	Yes	
18	Denver Health and Hospitals	29.5	0.4	0.16	No	5.5	353	1.70	Yes	
19	Stanford University Hospital, Stanford, Calif.	29.4	4.9	0.89	Yes	5.0	1906	1.61	Yes	
20	Dana-Farber Cancer Institute, Boston	29.4	0.3	0.00	No	6.5	6	2.27	No	
21	Georgetown University Hospital, Washington, D.C.	29.3	1.5	0.46	Yes	7.0	1151	1.09	Yes	
22	University of Iowa Hospitals and Clinics, Iowa City	29.1	3.7	0.82	Yes	7.0	2186	1.34	Yes	(+2 SD)
23	University of Texas, M. D. Anderson Cancer Center, Houston	28.8	1.3	0.36	Yes	6.0	336	2.68	No	
24	New York University Medical Center	28.8	1.8	0.70	Yes	7.0	3234	1.18	Yes	
25	Shands Hospital at the University of Florida, Gainesville	28.8	2.7	0.70	Yes	6.0	1598	1.57	Yes	
26	Northwestern Memorial Hospital, Chicago	28.7	2.1	0.70	Yes	6.0	1970	1.70	Yes	
27	University Hospital, Denver	28.7	3.3	0.73	Yes	6.0	613	2.40	Yes	
28	Clarian Health Partners, Indianapolis	28.6	0.8	0.79	Yes	7.0	4469	1.67	Yes	
29	University of Virginia Health Sciences Center, Charlottesville	28.5	3.4	0.83	Yes	6.0	3229	2.27	No	
30	Doctors Community Hospital, Lanham, Md.	28.0	0.0	0.05	No	5.5	901	0.97	No	
31	Rehabilitation Institute of Chicago	27.8	0.0	0.00	Yes	3.0	870	0.34	No	
32	Parkland Memorial Hospital, Dallas	27.7	1.8	0.70	Yes	7.0	896	1.98	Yes	
33	William Beaumont Hospital, Royal Oak, Mich.	27.6	0.0	0.82	Yes	7.0	4844	1.88	Yes	
34	St. Luke's Hospital, Newburgh, N.Y.	27.5	0.0	0.02	No	5.0	826	0.80	No	
35	Boston Medical Center	27.4	2.5	0.77	Yes	5.0	1255	2.10	Yes	
36	Fairview-University Medical Center, Minneapolis	27.4	2.0	0.61	Yes	5.0	1685	1.56	No	
37	University Medical Center, Tucson, Ariz.	27.4	0.0	0.50	Yes	6.0	865	1.72	Yes	
38	Summa Health System, Akron, Ohio	27.3	0.0	0.66	Yes	6.0	3299	1.49	Yes	
39	Schwab Rehabilitation Hospital, Chicago	27.0	0.0	0.23	Yes	2.5	769	0.41	Yes	
40	Cook County Hospital, Chicago	26.8	0.0	0.49	Yes	5.0	498	2.10	Yes	
41	St. Vincent Hospital and Health Center, Indianapolis	26.6	0.0	0.70	Yes	6.0	3289	1.37	Yes	
42	Rush-Presbyterian-St. Luke's Medical Center, Chicago	26.5	0.6	0.54	Yes	7.0	1848	1.14	No	
43	Beth Israel Deaconess Medical Center, Boston	26.5	1.4	0.85	Yes	6.0	2838	1.58	Yes	
44	National Rehabilitation Hospital, Washington, D.C.	26.4	0.0	0.06	No	3.5	1264	0.38	No	
45	Vanderbilt University Hospital and Clinic, Nashville	26.3	1.8	0.88	Yes	7.0	1658	2.40	Yes	
46	University of Illinois Hospital and Clinics, Chicago	26.2	1.3	0.62	Yes	4.5	830	1.29	Yes	
47	Harper Hospital, Detroit	26.1	0.4	0.55	Yes	6.0	2072	1.26	No	
48	Evanston Northwestern Health Care, Evanston, Ill.	26.1	0.9	0.75	Yes	6.0	2933	1.02	Yes	
49	Washington Hospital Center, Washington, D.C.	25.9	0.4	0.77	Yes	6.0	2269	1.92	Yes	
50	Cardinal Hill Rehabilitation Hospital, Lexington, Ky.	25.8	0.0	0.02	No	0.5	1313	0.55	No	

2001 Orthopedics Best Hospital List

Rank	Hospital	IHQ	Reputational score	Mortality rate	COTH Member	Technology score (of 5)	Discharges	R.N.'s to beds	Trauma Center	
1	Mayo Clinic, Rochester, Minn.	100.0	49.2	0.58	Yes	5.0	7752	1.31	Yes	
2	Hospital for Special Surgery, New York	88.3	40.6	0.13	Yes	4.5	6837	1.57	Yes	
3	Massachusetts General Hospital, Boston	71.3	32.0	1.01	Yes	5.0	3489	1.38	Yes	
4	Johns Hopkins Hospital, Baltimore	54.3	19.0	0.73	Yes	5.0	1628	1.42	Yes	
5	Cleveland Clinic	51.9	17.3	0.63	Yes	5.0	3620	1.94	No	
6	Duke University Medical Center, Durham, N.C.	44.0	13.4	1.07	Yes	5.0	2863	1.81	Yes	
7	Harborview Medical Center, Seattle	37.2	10.1	1.05	Yes	3.5	820	2.33	Yes	
8	University of Iowa Hospitals and Clinics, Iowa City	37.0	7.5	0.74	Yes	5.0	1509	1.34	Yes	
9	UCLA Medical Center, Los Angeles	36.0	8.4	0.99	Yes	5.0	1757	1.08	Yes	(+3 SD)
10	University of Washington Medical Center, Seattle	35.2	6.8	0.56	Yes	5.0	973	1.10	No	
11	University of Michigan Medical Center, Ann Arbor	32.9	3.9	0.68	Yes	5.0	1686	1.79	Yes	
12	Brigham and Women's Hospital, Boston	32.7	4.3	0.80	Yes	5.0	2680	1.43	Yes	
13	University of Pittsburgh Medical Center	32.6	4.8	0.92	Yes	5.0	2872	1.67	Yes	
14	Bexar County Hospital District, San Antonio	32.4	3.9	0.48	Yes	4.0	645	1.21	Yes	
15	Stanford University Hospital, Stanford, Calif.	32.3	4.9	0.87	Yes	3.0	2143	1.61	Yes	
16	University of Chicago Hospitals	31.9	3.5	0.67	Yes	5.0	1156	1.94	Yes	
17	Parkland Memorial Hospital, Dallas	31.8	7.1	1.23	Yes	5.0	587	1.98	Yes	
18	University Hospital, Denver	31.7	3.1	0.44	Yes	4.0	633	2.40	Yes	
19	Barnes-Jewish Hospital, St. Louis	31.1	3.6	0.89	Yes	5.0	2911	1.49	Yes	
20	Shands Hospital at the University of Florida, Gainesville	30.7	2.1	0.59	Yes	4.0	1781	1.57	Yes	
21	University of California, San Francisco Medical Center	30.5	6.2	1.04	Yes	4.0	927	1.75	No	(+2 SD)
22	Vanderbilt University Hospital and Clinic, Nashville	30.3	1.6	0.59	Yes	5.0	1608	2.40	Yes	
23	Hospital of the University of Pennsylvania, Philadelphia	30.1	4.5	1.04	Yes	5.0	1076	1.61	Yes	
24	University of Alabama Hospital at Birmingham	29.9	2.2	0.73	Yes	5.0	1594	1.51	Yes	
25	Hospital for Joint Diseases-Orthopedic Institute, New York	29.7	4.0	0.25	No	3.0	2110	0.93	No	
26	Summa Health System, Akron, Ohio	29.5	0.5	0.49	Yes	4.0	3899	1.49	Yes	
27	Yale-New Haven Hospital, New Haven, Conn.	29.3	1.2	0.61	Yes	5.0	1462	1.53	Yes	
28	New York Presbyterian Hospital	29.2	4.5	1.22	Yes	5.0	2394	1.32	Yes	
29	University of Tennessee Medical Center, Memphis	29.2	4.2	0.54	No	4.5	90	1.50	No	
30	University of Wisconsin Hospital and Clinics, Madison	28.9	1.1	0.61	Yes	5.0	1442	1.36	Yes	
31	University of California, Davis Medical Center, Sacramento	28.6	2.4	0.87	Yes	5.0	1156	2.79	Yes	
32	St. Louis University Hospital	28.3	0.4	0.48	Yes	5.0	819	1.47	Yes	
33	Rush-Presbyterian-St. Luke's Medical Center, Chicago	28.1	2.5	0.79	Yes	5.0	2123	1.14	No	
34	Lutheran General Healthsystem, Park Ridge, Ill.	28.0	0.0	0.46	Yes	4.0	2563	1.14	Yes	
35	Georgetown University Hospital, Washington, D.C.	28.0	0.6	0.47	Yes	5.0	952	1.09	Yes	
36	Carolinas Medical Center, Charlotte, N.C.	28.0	2.3	1.03	Yes	5.0	2900	1.84	Yes	
37	Beth Israel Deaconess Medical Center, Boston	27.9	0.6	0.71	Yes	4.0	2274	1.58	Yes	
38	Cook County Hospital, Chicago	27.7	1.2	0.55	Yes	3.0	184	2.10	Yes	
39	University of Louisville Hospital, Louisville, Ky.	27.6	0.5	0.42	Yes	4.0	317	1.90	Yes	
40	Allegheny General Hospital, Pittsburgh	27.6	0.0	0.64	Yes	4.0	2167	1.91	Yes	
41	Henry Ford Hospital, Detroit	27.6	0.0	0.63	Yes	4.5	1834	1.82	Yes	
42	University of Miami, Jackson Memorial Hospital	27.6	3.0	0.62	Yes	0.0	748	1.68	No	
43	University of North Carolina Hospitals, Chapel Hill	27.5	0.5	0.66	Yes	4.0	1518	1.52	Yes	
44	University Medical Center, Tucson, Ariz.	27.5	0.0	0.32	Yes	4.0	871	1.72	Yes	
45	Mary Hitchcock Memorial Hospital, Lebanon, N.H.	27.4	0.0	0.57	Yes	4.0	1430	1.94	Yes	
46	Baptist Memorial Hospital, Memphis	27.4	4.5	1.12	No	5.0	2914	0.93	Yes	
47	Northwestern Memorial Hospital, Chicago	27.3	1.2	0.86	Yes	4.0	2025	1.70	Yes	
48	Los Angeles County-USC Medical Center	27.3	0.5	0.00	Yes	3.5	236	1.67	Yes	
49	Medical Center of Central Massachusetts, Worcester	27.3	0.0	0.60	Yes	4.5	1285	1.88	Yes	
50	North Carolina Baptist Hospital, Winston-Salem	27.3	1.1	0.92	Yes	5.0	2120	1.61	Yes	

2001 Respiratory Disorders Best Hospital List

Rank	Hospital	IHQ	Reputational score	Mortality rate	COTH Member	Technology score (of 4)	Discharges	R.N.'s to beds	Trauma Center	Discharge planning (of 3)	
1	National Jewish Center, Denver	100.0	50.1	0.22	No	3.0	121	3.75	No	3	
2	Mayo Clinic, Rochester, Minn.	86.2	41.1	0.81	Yes	4.0	4391	1.31	Yes	3	
3	Johns Hopkins Hospital, Baltimore	63.3	28.0	0.95	Yes	4.0	1461	1.42	Yes	3	
4	Barnes-Jewish Hospital, St. Louis	54.6	21.2	0.89	Yes	4.0	5329	1.49	Yes	3	
5	University Hospital, Denver	45.7	15.1	0.83	Yes	4.0	980	2.40	Yes	3	
6	University of California, San Francisco Medical Center	43.2	15.0	0.90	Yes	4.0	1015	1.75	No	3	
7	Massachusetts General Hospital, Boston	43.1	16.4	1.14	Yes	4.0	3306	1.38	Yes	3	
8	Cleveland Clinic	42.0	12.4	0.77	Yes	4.0	2732	1.94	No	3	
9	Brigham and Women's Hospital, Boston	36.9	9.0	0.82	Yes	4.0	2526	1.43	Yes	3	
10	UCSD Medical Center, San Diego	36.8	9.1	0.80	Yes	4.0	1130	1.48	Yes	3	
11	University of Washington Medical Center, Seattle	35.4	12.0	0.98	Yes	4.0	720	1.10	No	2	
12	University of Michigan Medical Center, Ann Arbor	34.8	8.1	0.87	Yes	4.0	1927	1.79	Yes	3	(+3 SD)
13	Duke University Medical Center, Durham, N.C.	33.7	9.6	1.12	Yes	4.0	2949	1.81	Yes	3	
14	Boston Medical Center	32.5	3.8	0.57	Yes	4.0	1105	2.10	Yes	3	
15	Hospital of the University of Pennsylvania, Philadelphia	32.3	9.6	1.15	Yes	4.0	1507	1.61	Yes	3	
16	Stanford University Hospital, Stanford, Calif.	32.2	7.4	0.95	Yes	4.0	1620	1.61	Yes	3	
17	University of Pittsburgh Medical Center	30.5	6.0	0.97	Yes	4.0	2957	1.67	Yes	3	
18	UCLA Medical Center, Los Angeles	29.7	4.1	0.75	Yes	4.0	1910	1.08	Yes	3	
19	Yale-New Haven Hospital, New Haven, Conn.	29.5	5.3	0.93	Yes	4.0	2355	1.53	Yes	3	
20	University of Chicago Hospitals	28.5	5.5	1.00	Yes	4.0	1432	1.94	Yes	3	
21	University of North Carolina Hospitals, Chapel Hill	28.5	2.5	0.74	Yes	4.0	2779	1.52	Yes	3	(+2 SD)
22	Vanderbilt University Hospital and Clinic, Nashville	27.9	3.5	0.87	Yes	4.0	2051	2.40	Yes	3	
23	Los Angeles County-USC Medical Center	27.5	0.4	0.18	Yes	4.0	469	1.67	Yes	3	
24	University of California, Davis Medical Center, Sacramento	27.3	1.2	0.67	Yes	4.0	1820	2.79	Yes	3	
25	St. Louis University Hospital	27.3	1.0	0.62	Yes	4.0	1475	1.47	Yes	3	
26	Cook County Hospital, Chicago	27.3	0.0	0.49	Yes	4.0	1145	2.10	Yes	3	
27	San Francisco General Hospital Medical Center	27.0	5.8	0.87	Yes	2.0	899	1.10	No	3	
28	Hennepin County Medical Center, Minneapolis	26.7	0.0	0.52	Yes	4.0	1959	1.05	Yes	3	
29	University of Cincinnati Hospital	26.4	0.7	0.66	Yes	4.0	1763	1.57	Yes	3	
30	Georgetown University Hospital, Washington, D.C.	26.2	0.4	0.59	Yes	4.0	993	1.09	Yes	3	
31	Clarian Health Partners, Indianapolis	26.0	1.2	0.79	Yes	4.0	4295	1.67	Yes	3	
32	Rush-Presbyterian-St. Luke's Medical Center, Chicago	25.4	2.8	0.82	Yes	4.0	1856	1.14	No	3	
33	Henry Ford Hospital, Detroit	25.4	1.4	0.85	Yes	4.0	3875	1.82	Yes	3	
34	University of Virginia Health Sciences Center, Charlottesville	25.3	2.2	0.83	Yes	4.0	2302	2.27	No	3	
35	West Jefferson Medical Center, Marrero, La.	25.2	0.0	0.53	No	4.0	1494	1.13	Yes	3	
36	Summa Health System, Akron, Ohio	25.1	0.0	0.71	Yes	4.0	6185	1.49	Yes	3	
37	University of Wisconsin Hospital and Clinics, Madison	25.0	0.5	0.70	Yes	4.0	1428	1.36	Yes	3	
38	University Medical Center, Tucson, Ariz.	25.0	0.4	0.72	Yes	4.0	1071	1.72	Yes	3	
39	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	24.9	1.8	0.86	Yes	4.0	1415	1.62	Yes	3	
40	University of Illinois Hospital and Clinics, Chicago	24.9	0.5	0.66	Yes	3.5	779	1.29	Yes	3	
41	Ohio State University Medical Center, Columbus	24.6	0.0	0.63	Yes	3.5	1677	1.01	Yes	3	
42	University of Alabama Hospital at Birmingham	24.5	3.7	1.03	Yes	4.0	2116	1.51	Yes	2	
43	Harborview Medical Center, Seattle	24.4	2.4	0.89	Yes	3.0	805	2.33	Yes	3	
44	University of Iowa Hospitals and Clinics, Iowa City	24.4	2.3	0.92	Yes	4.0	1334	1.34	Yes	3	
45	Truman Medical Center-West, Kansas City, Mo.	24.4	0.0	0.64	Yes	3.5	991	1.14	Yes	3	
46	Memorial Medical Center, Savannah, Ga.	24.2	0.0	0.71	Yes	4.0	1403	1.42	Yes	3	
47	Touro Infirmary, New Orleans	24.1	0.0	0.65	Yes	4.0	1407	0.65	Yes	3	
48	St. Joseph Hospital, Denver	24.1	0.0	0.55	No	4.0	2511	1.03	No	3	
49	Los Angeles County-Harbor-UCLA Medical Center	24.0	1.3	0.70	No	4.0	420	1.65	Yes	2	
50	Baylor University Medical Center, Dallas	24.0	1.2	0.87	Yes	4.0	3026	1.22	Yes	3	

2001 Rheumatology Best Hospital List

Rank	Hospital	IHQ	Reputational score	Hospitalwide mortality rate	COTH Member	Technology score (of 5)	R.N.'s to beds	Discharge planning (of 3)	
1	Mayo Clinic, Rochester, Minn.	100.0	49.6	0.72	Yes	5.0	1.31	3	
2	Johns Hopkins Hospital, Baltimore	85.9	38.0	0.82	Yes	5.0	1.42	3	
3	Hospital for Special Surgery, New York	80.9	27.0	0.10	Yes	4.5	1.57	3	
4	Brigham and Women's Hospital, Boston	71.7	25.4	0.81	Yes	5.0	1.43	3	
5	Cleveland Clinic	67.6	20.3	0.67	Yes	5.0	1.94	3	
6	Massachusetts General Hospital, Boston	66.4	22.1	0.93	Yes	5.0	1.38	3	
7	UCLA Medical Center, Los Angeles	66.2	21.2	0.83	Yes	5.0	1.08	3	
8	University of Alabama Hospital at Birmingham	64.1	20.8	0.96	Yes	5.0	1.51	2	
9	Duke University Medical Center, Durham, N.C.	56.8	13.4	0.93	Yes	5.0	1.81	3	
10	University of California, San Francisco Medical Center	55.8	12.3	0.85	Yes	4.0	1.75	3	
11	Stanford University Hospital, Stanford, Calif.	53.7	11.2	0.86	Yes	3.0	1.61	3	
12	University of Michigan Medical Center, Ann Arbor	52.1	8.2	0.82	Yes	5.0	1.79	3	(+3 SD)
13	Barnes-Jewish Hospital, St. Louis	49.2	5.7	0.82	Yes	5.0	1.49	3	
14	Hospital for Joint Diseases-Orthopedic Institute, New York	48.9	5.9	0.55	No	3.0	0.93	3	
15	New York University Medical Center	48.6	7.8	1.05	Yes	5.0	1.18	3	
16	Los Angeles County-USC Medical Center	48.4	0.0	0.20	Yes	3.5	1.67	3	
17	University of Pittsburgh Medical Center	47.7	4.6	0.84	Yes	5.0	1.67	3	
18	St. Luke's Hospital, Newburgh, N.Y.	47.4	0.0	0.01	No	3.5	0.80	3	
19	University Hospital, Denver	47.0	3.6	0.74	Yes	4.0	2.40	3	
20	Parkland Memorial Hospital, Dallas	46.9	3.2	0.77	Yes	5.0	1.98	3	
21	Doctors Community Hospital, Lanham, Md.	46.9	0.0	0.07	No	3.5	0.97	2	(+2 SD)
22	Denver Health and Hospitals	46.7	0.0	0.21	No	4.0	1.70	2	
23	Hospital of the University of Pennsylvania, Philadelphia	46.6	5.3	1.02	Yes	5.0	1.61	3	
24	Rehabilitation Institute of Chicago	46.3	0.0	0.03	Yes	2.5	0.34	2	
25	Georgetown University Hospital, Washington, D.C.	46.2	0.9	0.53	Yes	5.0	1.09	3	
26	National Rehabilitation Hospital, Washington, D.C.	45.8	0.0	0.09	No	2.5	0.38	3	
27	Northwestern Memorial Hospital, Chicago	45.4	3.9	0.92	Yes	4.0	1.70	3	
28	The Institute for Rehabilitation and Research, Houston	45.3	0.0	0.13	No	1.5	0.69	3	
29	University of Chicago Hospitals	45.2	2.9	0.90	Yes	5.0	1.94	3	
30	Cardinal Hill Rehabilitation Hospital, Lexington, Ky.	44.9	0.0	0.01	No	0.5	0.55	3	
31	Beth Israel Deaconess Medical Center, Boston	44.7	2.6	0.84	Yes	4.0	1.58	3	
32	Rehabilitation Institute of Michigan, Detroit	44.7	0.0	0.12	No	2.5	0.39	2	
33	St. Louis University Hospital	44.4	0.4	0.71	Yes	5.0	1.47	3	
34	University Medical Center, Tucson, Ariz.	44.4	0.5	0.66	Yes	4.0	1.72	3	
35	Cook County Hospital, Chicago	44.3	0.0	0.55	Yes	3.0	2.10	3	
36	Sunnyview Hospital and Rehabilitation Center, Schenectady, N.Y.	44.2	0.0	0.07	No	1.0	0.43	2	
37	Boston Medical Center	43.9	1.6	0.75	Yes	3.0	2.10	3	
38	University of Wisconsin Hospital and Clinics, Madison	43.9	0.8	0.77	Yes	5.0	1.36	3	
39	Hillside Rehabilitation Hospital, Warren, Ohio	43.8	0.0	0.12	No	1.5	0.30	2	
40	University of Iowa Hospitals and Clinics, Iowa City	43.6	1.4	0.86	Yes	5.0	1.34	3	
41	University of Maryland Medical System, Baltimore	43.5	1.6	0.92	Yes	5.0	1.94	3	
42	Summa Health System, Akron, Ohio	43.5	0.0	0.68	Yes	4.0	1.49	3	
43	UCSD Medical Center, San Diego	43.5	2.6	0.90	Yes	3.0	1.48	3	
44	Rush-Presbyterian-St. Luke's Medical Center, Chicago	43.4	0.0	0.70	Yes	5.0	1.14	3	
45	Yale-New Haven Hospital, New Haven, Conn.	43.4	1.5	0.92	Yes	5.0	1.53	3	
46	Henry Ford Hospital, Detroit	43.4	0.0	0.73	Yes	4.5	1.82	3	
47	University of California, Davis Medical Center, Sacramento	43.4	0.0	0.76	Yes	5.0	2.79	3	
48	Hennepin County Medical Center, Minneapolis	43.2	0.0	0.61	Yes	3.5	1.05	3	
49	West Jefferson Medical Center, Marrero, La.	43.2	0.0	0.55	No	4.0	1.13	3	
50	Clarian Health Partners, Indianapolis	43.2	0.9	0.87	Yes	5.0	1.67	3	

2001 Urology Best Hospital List

Rank	Hospital	IHQ	Reputational score	Mortality rate	COTH Member	Technology score (of 8)	Discharges	R.N.'s to beds	Trauma Center	
1	Johns Hopkins Hospital, Baltimore	100.0	70.7	0.78	Yes	7.5	1231	1.42	Yes	
2	Cleveland Clinic	69.4	41.4	0.50	Yes	8.0	1618	1.94	No	
3	Mayo Clinic, Rochester, Minn.	68.0	39.2	0.50	Yes	8.0	3818	1.31	Yes	
4	UCLA Medical Center, Los Angeles	50.0	25.7	1.23	Yes	8.0	1450	1.08	Yes	
5	New York Presbyterian Hospital	44.1	17.9	0.79	Yes	8.0	3061	1.32	Yes	
6	Memorial Sloan-Kettering Cancer Center, New York	43.5	17.3	0.56	Yes	7.0	1161	2.12	No	
7	Duke University Medical Center, Durham, N.C.	41.3	14.9	0.81	Yes	8.0	1758	1.81	Yes	
8	Massachusetts General Hospital, Boston	40.7	15.3	0.96	Yes	8.0	1401	1.38	Yes	
9	Barnes-Jewish Hospital, St. Louis	39.0	12.9	0.82	Yes	8.0	1778	1.49	Yes	
10	Stanford University Hospital, Stanford, Calif.	38.5	15.2	1.29	Yes	5.0	973	1.61	Yes	
11	University of California, San Francisco Medical Center	35.7	10.7	0.62	Yes	7.0	783	1.75	No	(+3 SD)
12	Methodist Hospital, Houston	33.8	10.9	1.10	Yes	6.5	1381	1.33	No	
13	University of Texas, M. D. Anderson Cancer Center, Houston	33.0	10.8	1.11	Yes	6.0	690	2.68	No	
14	University of Michigan Medical Center, Ann Arbor	32.0	6.0	0.78	Yes	8.0	1285	1.79	Yes	
15	Clarian Health Partners, Indianapolis	31.0	5.4	0.86	Yes	8.0	1497	1.67	Yes	
16	Northwestern Memorial Hospital, Chicago	30.7	3.7	0.48	Yes	7.0	959	1.70	Yes	
17	Hospital of the University of Pennsylvania, Philadelphia	30.0	3.1	0.55	Yes	8.0	1274	1.61	Yes	(+2 SD)
18	Vanderbilt University Hospital and Clinic, Nashville	29.2	5.6	1.15	Yes	7.0	833	2.40	Yes	
19	Lahey Hitchcock Clinic, Burlington, Mass.	29.1	2.7	0.54	Yes	7.0	886	1.52	Yes	
20	Brigham and Women's Hospital, Boston	28.7	5.1	1.09	Yes	8.0	697	1.43	Yes	
21	Parkland Memorial Hospital, Dallas	28.6	4.1	0.65	Yes	8.0	283	1.98	Yes	
22	University of Washington Medical Center, Seattle	27.9	2.7	0.24	Yes	8.0	532	1.10	No	
23	University of Virginia Health Sciences Center, Charlottesville	27.7	2.8	0.51	Yes	7.0	732	2.27	No	
24	North Carolina Baptist Hospital, Winston-Salem	27.7	1.8	0.77	Yes	8.0	957	1.61	Yes	
25	Shands Hospital at the University of Florida, Gainesville	27.7	1.5	0.57	Yes	6.5	905	1.57	Yes	
26	Carolinas Medical Center, Charlotte, N.C.	27.6	0.0	0.33	Yes	8.0	908	1.84	Yes	
27	University of Wisconsin Hospital and Clinics, Madison	27.4	0.5	0.45	Yes	8.0	1151	1.36	Yes	
28	New York University Medical Center	27.3	1.6	0.66	Yes	8.0	1670	1.18	Yes	
29	Henry Ford Hospital, Detroit	27.2	0.0	0.43	Yes	7.5	1079	1.82	Yes	
30	University Hospital, Denver	27.0	1.0	0.00	Yes	6.0	371	2.40	Yes	
31	Thomas Jefferson University Hospital, Philadelphia	26.7	1.4	0.69	Yes	7.0	1011	1.23	Yes	
32	Yale-New Haven Hospital, New Haven, Conn.	26.7	0.5	0.68	Yes	8.0	984	1.53	Yes	
33	Washington Hospital Center, Washington, D.C.	26.7	0.0	0.42	Yes	6.0	917	1.92	Yes	
34	Albany Medical Center, Albany, N.Y.	26.6	0.5	0.47	Yes	6.0	773	1.67	Yes	
35	Los Angeles County-USC Medical Center	26.5	1.4	0.00	Yes	6.0	65	1.67	Yes	
36	William Beaumont Hospital, Royal Oak, Mich.	26.4	0.0	0.62	Yes	8.0	1730	1.88	Yes	
37	University of California, Davis Medical Center, Sacramento	26.4	1.0	0.51	Yes	8.0	412	2.79	Yes	
38	North Shore University Hospital, Manhasset, N.Y.	26.3	0.0	0.55	Yes	8.0	1354	1.27	Yes	
39	Summa Health System, Akron, Ohio	26.2	0.0	0.45	Yes	6.5	775	1.49	Yes	
40	St. Louis University Hospital	26.1	1.8	0.72	Yes	7.5	425	1.47	Yes	
41	Emory University Hospital, Atlanta	26.0	2.1	0.66	Yes	7.0	1129	0.93	No	
42	University Medical Center, Tucson, Ariz.	25.9	0.0	0.26	Yes	6.5	356	1.72	Yes	
43	University of Louisville Hospital, Louisville, Ky.	25.8	0.8	0.00	Yes	6.0	28	1.90	Yes	
44	Lehigh Valley Hospital, Allentown, Pa.	25.7	0.0	0.59	Yes	6.0	965	1.35	Yes	
45	F.G. McGaw Hospital at Loyola University, Maywood, Ill.	25.7	1.4	0.99	Yes	7.0	848	1.62	Yes	
46	University of Maryland Medical System, Baltimore	25.6	0.4	0.77	Yes	7.5	833	1.94	Yes	
47	University of North Carolina Hospitals, Chapel Hill	25.6	0.9	0.78	Yes	6.0	801	1.52	Yes	
48	University of Chicago Hospitals	25.6	2.0	1.09	Yes	8.0	701	1.94	Yes	
49	Bexar County Hospital District, San Antonio	25.6	0.5	0.00	Yes	6.5	229	1.21	Yes	
50	Georgetown University Hospital, Washington, D.C.	25.5	1.3	0.57	Yes	8.0	349	1.09	Yes	

Appendix G

Reputational Rankings for Special-Service Hospitals

2001 Eyes Reputational Score

Rank	Hospital	Reputational Score	
1	Johns Hopkins Hospital (Wilmer Eye Institute), Baltimore	71.2	
2	University of Miami (Bascom Palmer Eye Institute)	64.6	
3	Wills Eye Hospital, Philadelphia	57.0	(+3 SD)
4	Massachusetts Eye and Ear Infirmary, Boston	40.0	
5	UCLA Medical Center (Jules Stein Eye Institute), Los Angeles	30.3	(+2 SD)
6	University of Iowa Hospitals and Clinics, Iowa City	19.3	
7	USC University Hospital (Doheny Eye Institute), Los Angeles	10.3	
8	Duke University Medical Center, Durham, N.C.	8.3	
9	Emory University Hospital, Atlanta	8.0	
10	University of California, San Francisco Medical Center	6.6	
11	Mayo Clinic, Rochester, Minn.	6.3	
12	New York Eye and Ear Infirmary	6.1	
13	Barnes-Jewish Hospital, St. Louis	5.8	
14	Cleveland Clinic	5.4	
15	Methodist Hospital (Cullen Eye Institute), Houston	3.9	
16	University of Wisconsin Hospital and Clinics, Madison	3.7	
17	Hospital of the University of Pennsylvania, Philadelphia	3.6	

2001 Pediatrics Reputational Score

Rank	Hospital	Reputational Score	
1	Children's Hospital Boston	48.4	
2	Children's Hospital of Philadelphia	38.9	
3	Johns Hopkins Hospital, Baltimore	27.4	(+3 SD)
			(+2 SD)
4	Children's Hospital of Pittsburgh	12.2	
5	Children's Hospital, Denver	11.6	
6	Childrens Hospital, Los Angeles	10.9	
7	Univ. Hospitals of Cleveland (Rainbow Babies & Childrens Hosp.)	10.9	
8	Texas Children's Hospital, Houston	9.9	
9	New York Presbyterian Hospital (Babies & Children's Hospital)	9.4	
10	Children's Hospital Medical Center, Cincinnati	8.9	
11	Children's Memorial Hospital, Chicago	8.7	
12	Mayo Clinic, Rochester, Minn.	7.4	
13	University of California, San Francisco Medical Center	7.2	
14	UCLA (Mattel Children's Center), Los Angeles	6.2	
15	Lucille Packard Children's Hospital, Stanford, Calif.	6.0	
16	Massachusetts General Hospital, Boston	5.8	
17	Duke University Medical Center, Durham, N.C.	4.9	
18	Children's Hospital and Medical Center, Seattle	4.8	
19	Children's National Medical Center, Washington, D.C.	4.3	
20	University of Miami, Jackson Memorial Hospital	3.9	
21	Children's Hospital, Buffalo, N.Y.	3.7	
22	University of Michigan Hospitals, Ann Arbor	3.7	
23	St. Christopher's Hospital, Philadelphia	3.6	
24	Methodist Hospital, Houston	3.2	

2001 Psychiatry Reputational Score

Rank	Hospital	Reputational Score	
1	Massachusetts General Hospital, Boston	31.8	
2	New York Presbyterian Hospital	25.2	
3	C. F. Menninger Memorial Hospital, Topeka, Kan.	21.0	
4	McLean Hospital, Belmont, Mass.	20.6	
5	Johns Hopkins Hospital, Baltimore	19.9	(+3 SD)
6	UCLA Neuropsychiatric Hospital, Los Angeles	16.8	(+2 SD)
7	Duke University Medical Center, Durham, N.C.	10.0	
8	Yale-New Haven Hospital, New Haven, Conn.	9.2	
9	Mayo Clinic, Rochester, Minn.	8.8	
10	University of Pittsburgh Medical Center	5.6	
11	Stanford University Hospital, Stanford, Calif.	5.2	
12	Sheppard and Enoch Pratt Hospital, Baltimore	5.2	
13	University of California, San Francisco Medical Center	4.6	
14	University of Michigan Medical Center, Ann Arbor	4.0	
15	Hospital of the University of Pennsylvania, Philadelphia	3.7	
16	Mount Sinai-NYU Medical Center, New York	3.5	
17	Cleveland Clinic	3.1	

2001 Rehabilitation Reputational Score

Rank	Hospital	Reputational Score	
1	Rehabilitation Institute of Chicago	63.7	
2	The Institute for Rehabilitation and Research, Houston	37.4	
3	University of Washington Medical Center, Seattle	32.9	(+3 SD)
4	Kessler Institute for Rehabilitation, West Orange, N.J.	23.8	
5	Mayo Clinic, Rochester, Minn.	20.3	
6	Craig Hospital, Englewood, Colo.	20.0	(+2 SD)
7	New York University Medical Center	14.0	
8	Ohio State University Medical Center, Columbus	11.1	
9	Thomas Jefferson University Hospital, Philadelphia	10.7	
10	Rancho Los Amigos Medical Center, Downey, Calif.	10.0	
11	University of Michigan Medical Center, Ann Arbor	9.6	
12	Spaulding Rehabilitation Hospital, Boston	8.9	
13	National Rehabilitation Hospital, Washington, D.C.	8.6	
14	Mount Sinai Medical Center, New York	6.7	
15	Johns Hopkins Hospital, Baltimore	5.9	
16	Albert Einstein Med. Center (Moss Rehab. Hosp.), Philadelphia	5.6	
17	Stanford University Hospital, Stanford, Calif.	3.9	
18	Shepherd Center, Atlanta	3.9	
19	University Hospital, Denver	3.1	
20	Hospital of the University of Pennsylvania, Philadelphia	3.1	

Appendix H

The 2001 "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 has to rank at least 2 standard deviations (S.D.'s) above the mean in at least 6 of the 16 specialties. A hospital's ranking in the Honor Roll is based on points, assigned as follows:

- For ranking between 2 and 3 standard deviations above the mean in a specialty, a hospital receives one point.
- For ranking at least 3 standard deviations above the mean, a hospital receives two points.

We chose to use a standard deviation based criteria rather than simply adding up a hospital's rankings in individual specialties for three reasons: (1) the number of outstanding hospitals varies from specialty to specialty; (2) setting a threshhold is more informative because it establishes a level of "almost excellent"; and (3) it gives some measure of the distance between hospitals, which rankings do not.

"THE 2001 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.	27	13	1
3	Massachusetts General Hospital, Boston	26	12	2
4	Cleveland Clinic	23	11	1
5	UCLA Medical Center, Los Angeles	22	8	6
6	Duke University Medical Center, Durham, N.C.	20	8	4
7	Barnes-Jewish Hospital, St. Louis	18	6	6
7	University of Michigan Medical Center, Ann Arbor	18	6	6
7	University of California, San Francisco Medical Center	18	7	4
10	Stanford University Hospital, Stanford, Calif.	17	6	5
11	Brigham and Women's Hospital, Boston	16	6	4
12	University of Washington Medical Center, Seattle	12	4	4
13	New York Presbyterian Hospital	12	5	2
14	Hospital of the University of Pennsylvania, Philadelphia	11	3	5
15	University of Chicago Hospitals	9	1	7
16	University of Pittsburgh Medical Center	9	2	5