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Methodology
U.S. News & World Report
Best Children's Hospitals 2014-15

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Version: June 6, 2014

To Whom It May Concern:

Executive Summary

In 1990, U.S. News & World Report began publishing what was then called America's Best Hospitals. The intent was to identify the best medical centers in various specialties for the most difficult patients – those whose illnesses pose unusual challenges because of underlying conditions, procedure difficulty or other medical issues that add significant risk.

The 2014-15 rankings mark the 25th year of annual publication. The focus on identifying top sources of care for the most difficult patients remains the same.

Pediatrics was among the original specialties in which hospitals were ranked, but until 2007 the pediatric rankings were based entirely on a reputational survey of physicians. Hard data that would inform the rankings was absent. Such data are critical because young patients present special challenges. Their small size relative to adults complicates every facet of care, from intubation to drug dosages; they are more vulnerable to infection; they depend on adults to manage and administer their medications, and they are treated for congenital diseases such as spina bifida and cystic fibrosis.

In the absence of databases for pediatrics comparable to MedPAR for Medicare recipients, U.S. News resolved to collect data directly from children's hospitals. The first rankings that incorporated such data were published in 2007.

Those rankings listed the top 30 children's centers only in General Pediatrics. Data collection was subsequently broadened and deepened, and Best Children's Hospitals now ranks the top 50 centers in 10 specialties: Cancer, Cardiology & Heart Surgery, Diabetes & Endocrinology, Gastroenterology & GI Surgery, Neonatology, Nephrology, Neurology & Neurosurgery, Orthopedics, Pulmonology and Urology.

The current methodology combines clinical and operational data, results from a reputational survey of board-certified pediatric specialists, and supplemental information from resources such as the National Cancer Institute.

Most of the 183 facilities surveyed for the 2014-15 Best Children's Hospitals rankings are either a freestanding children's hospital or a "hospital within a hospital" – a large, essentially autonomous multidisciplinary pediatric department within a major medical center. Almost all are members of the Children's Hospital Association (CHA).*

* In 2012, the National Association for Children's Hospitals and Related Institutions (NACHRI) was renamed the Children's Hospital Association. For more information, please visit: http://www.childrenshospitals.net.

RTI International,† which developed the methodology for U.S. News, collects and analyzes the data for the "Best Children's Hospitals" rankings. The methodology reflects the level and quality of *hospital resources* directly related to patient care, such as staffing, technology and special services; *delivery of healthcare*, such as reputation among pediatric specialists, programs that prevent infections and adherence to best practices; and *clinical outcomes*, such as patient survival, infection rates and complications.

In the 2014-15 rankings, 89 of the 183 surveyed hospitals ranked in at least one specialty. The Honor Roll recognizes hospitals with top 10 percent scores in at least three specialties. The 2014-15 Honor Roll lists 10 such hospitals.

† RTI International is the trade name of Research Triangle Institute.

Table of Contents

I. Introduction 1

II. Eligibility 3

A. General Eligibility 3

B. Specialty-Specific Eligibility 3

III. Pediatric Hospital Survey 4

IV. Structure 5

A. Structural Measures 6

Active Fellowship Program (All Specialties) 6
Adoption of Health Information Technology (All Specialties) 6
Adult Congenital Heart Program (Cardiology & Heart Surgery) 6
Advanced Clinical Services (All Specialties) 8
Advanced Technologies (All Specialties) 13
Bone Marrow Transplant Services (Cancer) 15
Clinical Support Services (All Specialties) 16
Commitment to Clinical Research (All Specialties) 16
Commitment to Quality Improvement (All Specialties) 20
Congenital Heart Program (Cardiology & Heart Surgery) 21
ECMO Availability (Neonatology) 21
FACT-Accredited for BMT and Tissue Transplant (Cancer) 22
Fulltime Subspecialists Available (All Specialties) 22
Heart Transplant Program (Cardiology & Heart Surgery) 22
Liver Transplant Program (Gastroenterology & GI Surgery) 27
Lung Transplant Program (Pulmonology) 28
Management of Asthma Patients (Pulmonology) 28
Management of Lung Disease of Prematurity (Pulmonology) 28
Management of Neuromuscular Weakness Disorder (Pulmonology) 29
Nurse Magnet Recognition (All Specialties) 29
Nursing Intensity (All Specialties) 29
Palliative Care Program (Cancer) 29
Patient and Family Services (All Specialties) 30
Specialized Clinics and Programs (Cancer, Cardiology & Heart Surgery, Diabetes & Endocrinology, Gastroenterology & GI Surgery, Neonatology, Neurology & Neurosurgery, Orthopedics, Urology) 31
Steps to Engage Families (All Specialties) 32
Transplants to Dialysis Patients (Nephrology) 33
Volume of Patients (All Specialties) 33

B. Normalization 44

C. Weighting 44

V. Process 46

A. Commitment to Best Practices 47

B. Use of Infection-Preventing Measures 60
All-Specialty Infection-Preventing Measures 61
Specialty-Specific Infection Prevention Measures 62
C. Reputation with Pediatric Specialists 63
Eligibility Requirements 64
Survey Procedure 65
Survey Response Weighting 66
Log Transformation 66
D. Normalization and Weighting 68

VI. Outcomes 68

A. Outcome Measures 69
Cancer 69
Cardiology & Heart Surgery 70
Diabetes & Endocrinology 71
Gastroenterology & GI Surgery 72
Neonatology 73
Nephrology 74
Neurology & Neurosurgery 75
Orthopedics 76
Pulmonology 77
Urology 79
B. Normalization and Weighting 79

VII. U.S. News Score 80

VIII. Pediatric Honor Roll 81

IX. Summary of 2014-15 Changes 82

X. Future Improvements 83

X. Contact Information 84

XI. References 84

List of Tables

Table 1. Specialty-Specific Eligibility Requirements 4
Table 2. Active Fellowship Programs by Specialty 7
Table 3. Advanced Clinical Services Offered by Specialty 8
Table 4. Advanced Technologies by Specialty 14
Table 5. Clinical Support Services, by Specialty 17
Table 6. Subspecialists by Specialty 23
Table 7. Volume Measures by Specialty 34
Table 8. Percent Weights of Individual Structural Measures by Specialty 45
Table 9. Commitment to Best Practices by Specialty 47
Table 10. Core Infection Prevention Measures, All Specialties (21 points) 61
Table 11. Physician Sample Mapping 64
Table 12. Physician Survey Mailing Schedule 65
Table 13. Response Rates (%) by Region and Specialty, 2014 66
Table 14. Percent Weights of Outcomes Measures, by Specialty 80

List of Figures

Figure 1. Impact of Log Transformation on Reputation 67

List of Appendixes

Appendix A Glossary of Terms A-1
Appendix B 2014-15 Sample Physician Questionnaire B-1
Appendix C 2014-15 Best Chidlren's Hospitals Rankings by Specialty C-1
Appendix D 2014-15 Best Children's Hospitals Honor Roll D-1

I. Introduction

Rankings in pediatrics were included when U.S. News introduced "America's Best Hospitals" in 1990. Until 2007, however, the pediatric rankings relied entirely on reputational surveys of board-certified pediatricians and adolescent-medicine specialists. Quantitative measures in pediatrics barely existed. A large, rich database comparable to MedPAR (Medicare Provider Analysis and Review), used to determine mortality in 12 adult specialties, was unavailable[§]. Reliable structural measures also were absent. Available data sources generally reported volume, advanced technologies and patient services for the hospital as a whole and did not break out pediatric-specific information.

Continuing to rank children's hospitals on reputation for an indeterminate period while performance data were codified and the means of collecting and verifying them were settled was unacceptable. U.S. News therefore asked RTI to develop a methodology for ranking hospitals in pediatrics that would incorporate data obtained directly from the hospitals.

Rankings incorporating data through a survey (the Pediatric Hospital Survey) appeared in the September 3, 2007, issue of U.S. News & World Report as "Best Children's Hospitals." The pediatric rankings were published separately from the issue with the adult rankings to highlight the change and minimize possible confusion stemming from the use of similar methodologies in both sets of rankings.

In 2008, the Pediatric Hospital Survey and the Physician Survey were expanded, permitting pediatric hospitals to be ranked in General Pediatrics and in six pediatric specialties.[**] In 2009, General Pediatrics was dropped and the number of specialties was further expanded to the 10 listed below:

- Cancer
- Cardiology & Heart Surgery
- Diabetes & Endocrinology
- Gastroenterology & GI Surgery
- Neonatology
- Nephrology
- Neurology & Neurosurgery
- Orthopedics
- Pulmonology
- Urology

§ A relatively small number of children, under narrow eligibility definitions, do receive care under Medicare because of legislatively mandated changes in coverage over time.

** Previous methodology reports are available online at www.rti.org/besthospitals.

The Best Children's Hospitals rankings, like their adult counterpart, reflect the interrelationship between *structure*, *process* and *outcomes*, the three components of the Donabedian paradigm.[1-5] The specific measures, their weights and the way in which hospitals are scored are quite different in the pediatric rankings, however.

The concepts of the Donabedian components are as follows:

- *Structure* refers to hospital resources directly related to patient care. Examples include the ratio of nurses to patients, specialized clinics and programs, and certification by recognized external organizations.
- The *process* of healthcare delivery encompasses overall rendering of diagnosis, treatment, prevention and patient education. In both the pediatric and adult rankings, process is represented primarily by a reputational score based on the annual survey of board-certified physicians cited above. Starting with the 2012-13 rankings, compliance with best practices and activities to prevent infections and other patient safety issues were added to the pediatric rankings.
- *Outcomes* most obviously include survival but can also include functional success, such as in children with cystic fibrosis and adverse events, such as bloodstream infections and failure of transplanted organs.

Section II of this report provides an overview of the general eligibility requirements for the pediatric rankings. As in previous years, most structure and outcomes data for the 2014-15 rankings were obtained directly from children's hospitals through the Pediatric Hospital Survey (***Section III***). The specific mission of the Best Children's Hospitals rankings is to identify hospitals that provide the highest quality of care for children with the most serious or complicated medical conditions, using the most robust and sensitive measures available to represent the three Donabedian components. ***Section IV*** describes the data and the construction of each component. The methodology also incorporates nominations of hospitals from board-certified pediatric specialists in each of the 10 specialties through the Pediatric Physician Survey (***Section VI***). External organizations supplied data for three measures: the American Nurses Credentialing Center (Nurse Magnet recognition), the Foundation for the Accreditation of Cellular Therapy (FACT-accredited for BMT and tissue transplant) and National Association of Epilepsy Centers (Commitment to best practices).

II. Eligibility

A. General Eligibility

To be considered for the pediatric rankings, hospitals had to provide extensive data about their services and capabilities on the 2014-15 Pediatric Hospital Survey (https://usnewspediatricsurvey.rti.org/Documents/PediatricHospitalSurvey_Full.pdf). Most hospitals asked to submit data fell into one of three Children's Hospital Association (CHA)[††] membership categories: a freestanding children's hospital; a "hospital within a hospital" (a pediatric service that functions autonomously but is not physically separate); or an associate member (a pediatric hospital that is affiliated with a medical school but is not the medical school's primary pediatric teaching hospital). Several CHA specialty hospitals (such as orthopedics) were included as well.

A small number of hospitals that are not CHA members were added because they had appeared previously in the Best Children's Hospitals rankings or expert advisory panels on pediatric hospital quality measures recommended that they be included.

Of the 183 hospitals that qualified for inclusion, 116 submitted sufficient data to be considered for ranking in at least one specialty, a response rate of 63.4 percent.

B. Specialty-Specific Eligibility

To be eligible for ranking within a specialty, hospitals had to satisfy two additional requirements:

- In all specialties other than Neonatology, a hospital had to indicate in the Pediatric Hospital Survey that the specialty was in fact available. In Neonatology, hospitals had to have a Level IV neonatal intensive care unit (NICU). For validating the latter status, we accepted hospitals that either have been granted Level IV status by their state or that meet the eligibility requirements for a Level IV NICU, as specified by the American Academy of Pediatrics guidelines.[‡‡]
- A full-time equivalent (FTE) of at least 1.0 attending physicians in certain specialty-related medical fields was required. The physician categories are shown in ***Table 1***. Text and table references (e.g. "B2a") indicate the related section and question in the Pediatric Hospital Survey.

[††] More information about CHA and its member hospitals can be found at www.childrenshospitals.net.

[‡‡] AAP guidelines, Pediatrics, 2012, 130:587-597.

Table 1. Specialty-Specific Eligibility Requirements

Specialty	Must have at least 1.0 FTE attending staff in the following categories:
Cancer	Pediatric hematologist/oncologist (B2a)*
Cardiology & Heart Surgery	Pediatric cardiothoracic surgeon (E2a) **and** Pediatric cardiac intensivist (from training in cardiology, pediatric critical care or anesthesiology) **or** Other pediatric cardiac specialist (pediatric cardiac interventionalist, pediatric cardiac electrophysiologist, or pediatric anesthesiologist with specialty cardiac training) (E2b, E2c, E2d, E2e, E2f or E2g)
Diabetes & Endocrinology	Pediatric endocrinologist (C2a)
Gastroenterology & GI Surgery	Pediatric gastroenterologist (D2a)
Neonatology	Pediatric neonatologist (F2a)
Nephrology	Pediatric nephrologist (G2a)
Neurology & Neurosurgery	Pediatric neurologist (H2a) **or** Pediatric neurosurgeon (H2b)
Orthopedics	Pediatric orthopedic surgeon (I2a) **or** General orthopedist (I2b)
Pulmonary	Pediatric pulmonologist (J2a) **or** Pediatric sleep medicine physician (J2b)
Urology	Pediatric urologist (K2a)

* Parenthetical references indicate relevant survey questions

III. Pediatric Hospital Survey

In the process of creating the pediatric rankings, RTI convened advisory panels to inform the hospital survey. These working groups have been retained to help the survey evolve by providing new findings and perspectives that can be incorporated before the survey is finalized and sent to hospitals.

Panel members are recruited in cooperation with the CHA, which issues a request to the pediatric hospital community to propose candidates with broad expertise in both general and specialty pediatric medical care and familiarity with current research on hospital quality. The 2014-15 panels comprised pediatric physicians, nurses, hospital quality experts, health information systems/coding experts and other healthcare professionals. A group of infection-control experts worked with the 10 specialty panels to address specialty-specific infection-control and prevention issues.

Through conference calls, ad hoc phone discussions and emails during the summer and fall of 2013, panel members proposed, reviewed and discussed revisions to the previous survey, including prospective new measures.

The RTI project team created a draft set of measures and a survey instrument. A smaller group of advisors reviewed both the broad content and specific information, such as individual ICD-9-CM (*International Classification of Diseases, Ninth Revision, Clinical Modification*) codes that identify diagnoses and treatments.[6] In addition, experts at several children's hospitals extensively reviewed the survey to ensure that the questions were appropriate and answerable. The final result was a slightly expanded and refined version of the 2014-15 survey.

The survey was provided as a Microsoft Word document to hospitals in mid-December 2013 for information only to provide them with as much time as possible to collect and organize data. They received the data submission form in early January 2014 via a dedicated Web page; this form was administered through March.

Following data submission, some measures were ultimately excluded because the results failed to demonstrate meaningful variability. The remaining items defined the majority of the structural, process and outcomes measures. The items are described in detail below. References to the corresponding survey question numbers are provided in parentheses.

The Pediatric Hospital Survey data submission form will continue to be updated and modified in subsequent years to reflect the quality of care provided by U.S. pediatric facilities and the evolving discipline of quality improvement.

IV. Structure

The structural component is represented by volume, technology, clinical services and other characteristic features of a high-quality pediatric hospital. In the Best Hospitals adult specialty rankings, most structural measures and their associated data derive from the American Hospital Association (AHA) annual survey. Because the AHA survey focuses primarily on overall hospital measures, however, pediatric data from the survey lack specificity. Structural data were therefore collected through the Pediatric Hospital Survey.

All measures used in the rankings are described in the following sections. The print version of the rankings displays a subset of the online measures.

A. Structural Measures

The structural measures used in the rankings were selected because they represent fundamental elements of high-quality, hospital-based pediatric care. Descriptions of the measures and the specialties to which they are applied are listed alphabetically. Text and table references such as (A6a) indicate the related section and question in the Pediatric Hospital Survey. The relative weight of each measure within a specialty is provided in ***Section IV.B. Normalization and Weighting***.

Active Fellowship Program (All Specialties)

Participation in fellowship training programs represents a commitment by hospitals to provide high-quality care in a specialty area and assure that their programs meet standards of quality. Hospitals that offer fellowship programs accredited by the Accreditation Council for Graduate Medical Education were awarded 1 point for each fellowship program that had at least one active fellow in the program in the past academic year. ***Table 2*** indicates fellowships credited.

Adoption of Health Information Technology (All Specialties)

In each specialty, hospitals received up to 10 points for incorporating and using a computerized physician order entry (CPOE) system and electronic medical records (EMRs). Hospitals received up to 6 points for CPOE: 1 point for implementing a CPOE system (A20), 1 point for documenting 95% or more of inpatient medication orders (A21a), 1 point for identifying medication orders if an allergy to the medication is documented (A21b), 1 point for including alerts for dosing errors for high-risk medications (A21c) and up to 2 points for providing details on two or more current projects using CPOE that focus on dosing errors for high-risk medications (A21.1). Hospitals received up to 4 points for EMR: 1 point for implementation (A22), 1 point if the EMR identifies and reports potential adverse events for patients (A23) and up to 2 points for providing details on two current projects with the EMR system that identify potential adverse events (A23.1).

Adult Congenital Heart Program (Cardiology & Heart Surgery)

In Cardiology & Heart Surgery, hospitals received up to 10 points for having an adult congenital heart program. Hospitals received 1 point for providing an organized adult congenital heart program (E16). Hospitals could also receive 1 additional point if the program was listed with the Adult Congenital Heart Association (E20). These programs are often provided by pediatric heart centers, which frequently have the most expertise in inherited or congenital heart disorders.

Table 2. Active Fellowship Programs by Specialty

Fellowship Program*	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Child neurology (A6a)					●		●			
Congenital cardiac surgery (A6b)		●			●					
Neonatal-perinatal medicine (A6c)					●					
Neurosurgery (with training in pediatrics) (A6d)					●		●			
Pediatric cardiology(A6e)		●			●					
Pediatric endocrinology (A6f)			●							
Pediatric gastroenterology (A6g)				●	●					
Pediatric hematology-oncology (A6h)	●									
Pediatric nephrology (A6i)						●				
Pediatric orthopedics (A6j)								●		
Neuroradiology or interventional radiology (with training in pediatrics) (A6k)	●				●					
Pediatric pulmonology (A6l)					●				●	
Pediatric urology (A6m)										●
Pediatric surgery (A6n)		●								
Pediatric infectious diseases (A6o)	●	●	●	●	●	●	●	●	●	●
Total Elements	**3**	**4**	**2**	**2**	**9**	**2**	**3**	**2**	**2**	**2**

* Parenthetical references indicate relevant survey questions

Up to 6 additional points were awarded if the adult congenital heart program provided the following: a formal plan to transition patients from the pediatric to adult congenital heart program (E17a); joint participation from adult and pediatric cardiologists (E17b); participation from cardiothoracic surgeons (E17c), cardiothoracic interventionalists (E17d) and cardiothoracic electrophysiologists (E17e) who have specialty expertise in the care of adults with congenital heart disease; and specialty care for high-risk obstetrics for patients with congenital heart disease (E17f).

Hospitals received 1 point for performing from 1 to 49 cardiac surgical encounters on patients age 18 and above in the past four calendar years and 2 points for performing 50 or more surgical encounters in the past four calendar years (E19).

Advanced Clinical Services (All Specialties)

Hospitals frequently offer clinical services and organize teams or programs to address special needs of specific groups of patients. These services or programs may be organized around a particular diagnosis, need or age group. The structure of the services or programs ensures that a range of resources is available. Specialized skills of a multidisciplinary staff improve overall quality of care and, presumably, outcomes. The clinical services recognized in each specialty are described in ***Table 3***. Four points were awarded for having a pediatric trauma center in all specialties except Neonatology and Urology. In those specialties, only 2 points were awarded. The trauma center measure recognizes the enhanced resources and staff available to hospitals that provide this service, which benefit other inpatient specialty care. One point was awarded for the additional services listed for each specialty.

Table 3. Advanced Clinical Services Offered by Specialty

Cancer (25 points)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	4
Cancer care coordination	Primary oncologist is involved in more than 50% of the evaluations and management visits with pediatric patient on active cancer therapy (B7)	1
Support staff/programs	Offers the following: • Complementary and alternative medicine or holistic health program (B11a) • Pediatric child-life specialists (B11b) • School programs for hospitalized patients (B11c) • Psychosocial support program (B11d) • Social work support (B11e) • Neuropsychological evaluation focused on school re-entry issues (B11f) • Formal fertility consult program (B11g) • APHON chemotherapy/biotherapy course and safe handling procedures (B11h) • Nurses with national oncology certification (B11i) • Adolescent and young adult support program (B11j)	10

* Parenthetical references indicate relevant survey questions (continued)

Table 3. Advanced Clinical Services Offered by Specialty (continued)

Cancer (25 points)		
Service	**Description***	**Points**
Chemotherapy support services	Offers the following: • Dedicated pediatric chemotherapy pharmacy (B15a) • Pediatric oncology pharmacist (B15b) • Pharmacists assigned to participate in daily inpatient rounds with the pediatric cancer treatment team (B15c) • Outpatient pediatric chemotherapy facility (B15d) • Formal annual training in chemotherapy order writing (B15e) • Formal chemotherapy safety program with standardized procedures and event tracking (B15f) • Designated pediatric oncology faculty leader for the chemotherapy safety program (B15g) • Reporting system capturing chemotherapy order misses/near misses (B15h)	8
Chemotherapy orders	1 point for handwritten chemotherapy orders without a template; 2 points for orders written using word processing or spreadsheet software or CPOE (B16)	2
Cardiology & Heart Surgery (20 points)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	4
ECMO	ECMO program designated as center of excellence by the Extracorporeal Life Support Organization (ELSO) (A9)	1
Echocardiography laboratory	Offers certified echocardiography laboratory (E5) in: • Transthoracic echocardiographic testing • Transesophageal echocardiographic testing • Fetal echocardiographic testing	3
Cardiovascular services	Offers these diagnostic and treatment services (E6a-j): • Inpatient cardiology consultation • Dedicated pediatric cardiac surgical operating room • Cardiac intensive care unit • Remote monitoring capability • Cardiac diagnostic catheterization laboratory • Cardiac interventional catheterization laboratory • Electrophysiology laboratory • Ventricular assist program • 24/7 ECMO • Cardiovascular genetics clinic	10
Heart failure program	Provides heart failure program with a designated medical director and nursing coordinator (E24)	1
Circulatory support	Provided ventricular assist devices (other than ECMO) for one or more patients in the past 4 years (E26)	1

* Parenthetical references indicate relevant survey questions (continued)

Table 3. Advanced Clinical Services Offered by Specialty (continued)

Diabetes & Endocrinology (23 points)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	4

Diabetes support staff	Has following personnel available for consultation:
	• Staff who are certified diabetes educators (CDE) (C6)
	  ○ Social workers or psychologists
	  ○ Dieticians
	  ○ Diabetes educators
	• Other staff (C7)
	  ○ Genetic counselors
	  ○ Certified exercise physiologists or physical therapists
	  ○ Psychiatrists
	  ○ Pharmacists
		7

Remote access to records	1 point for providing physicians with remote access (e.g., EHRs) to patient records or 2 points for providing remote access for both inpatients and outpatients (C8)	2
Diabetes patient services	Provides the following services onsite (C9): • Written educational protocol used to evaluate and prepare patients for use of an insulin pump • Certified pump educators to provide insulin pump training to patients and their families • Written education program used to evaluate and prepare patients for use of continuous glucose monitors (CGMs) • Certified CGM trainers to provide CGM training to patients and their families • Written educational program for families of new-onset diabetes patients • Formal diabetes educational program for school nurses through a yearly school nurse education conference • A specified RN or CDE who has special expertise in guiding and supporting schools in setting up safe programs for managing diabetes	7
Support services	Offers the following programs or services : • Providing, encouraging or supporting diabetes-specific support group for parents and families (C12) • Taking a leadership role in organizing or supporting family-support groups for special populations (e.g., Turner syndrome) (C60) • Has a Family Advisory Board that includes families of non-diabetes Endocrinology patients (C61)	3

* Parenthetical references indicate relevant survey questions (continued)

Table 3. Advanced Clinical Services Offered by Specialty (continued)

Gastroenterology & GI Surgery (12 points)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	4
Gastro-intestinal (GI) specialists	Has following specialists available for consultation 7 days a week (D8): • Pediatric gastroenterology/liver-specialized pathologists • Pediatric interventional radiologists	2
GI support groups	Provides access to the following support groups (D12): • Inflammatory bowel disease • Celiac disease • Liver disease • Cystic fibrosis • Eosinophilic esophagitis • Chronic intestinal failure	6
Neonatology (6 points)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	2
NICU support staff	NICU-dedicated staff in these units (F7): • NICU-specific pharmacist onsite who attends rounds with clinical team • NICU-dedicated respiratory therapy team who attends rounds with clinical team • NICU-designated nutritionist who supports clinical team • NICU-dedicated social workers (F11)	4
Nephrology (13 services)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	4
Maintenance dialysis staff	Has following staff dedicated to maintenance dialysis (G5): • Clinical nurses • Social workers • Dieticians • Advanced practice nurses • Child life specialists	5
Dialysis treatment	Provides following dialysis options for acute kidney insufficiency (G7): • Hemodialysis • Peritoneal dialysis • Continuous renal replacement therapy	3
Kidney transplant	United Network for Organ Sharing (UNOS)-recognized kidney transplant program (G28)	1

* Parenthetical references indicate relevant survey questions

(continued)

Table 3. Advanced Clinical Services Offered by Specialty (continued)

Neurology & Neurosurgery (14 points)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	4
Neurology & neurosurgery support services and technology	Offers the following: • Ketogenic diet evaluation and management program (H5c) • Neuroradiology interventionalists (H5d) • Neuroanesthesia program (H5e) • Neurocritical care program (H24) • Coordinated discharge plan for former critical care patients (H11) • Neurological rehabilitation program (H13) • Neurological rehabilitation program certified by Commission on Accreditation of Rehabilitation Facilities (H13.1) • Psychologists who specialize in neuropsychological testing (H14)	8
Epilepsy treatment	Offers the following: • Electroencephalography (EEG) lab staffed 24/7, accredited by ABRET (H7) • Epilepsy monitoring unit with emergency management of seizures protocols (H30)	2
Orthopedics (9 points)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	4
Advanced care services	Comprehensive pediatric orthopedic program with: • Designated inpatient unit for pediatric orthopedic patients (I7) • Dedicated pediatric imaging center (I8) • Imaging center staffed by a pediatric radiologist (I9) • Multidisciplinary musculoskeletal oncology program (I16) • Motion laboratory (gait laboratory) (I19)	5

* Parenthetical references indicate relevant survey questions (continued)

Table 3. Advanced Clinical Services Offered by Specialty (continued)

Pulmonology (18 points)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	4
Asthma care specialists	At least 1 FTE staff with clinical responsibilities (J5): • Respiratory therapists • Certified asthma educators • Social workers • Dieticians	4
Dedicated staff	Following cystic fibrosis center staff who attend clinic or participate in patient care conferences (J17): • Gastroenterologist • Endocrinologist Following staff who support patients with neuromuscular weakness disorders (J32): • Pulmonologist • Physiatrist • Orthopedist • Cardiologist • Neurologist • Physical therapist	8
Support services	Offers following: • Cystic fibrosis center accredited by Cystic Fibrosis Foundation (J16) • Sleep center accredited by American Academy of Sleep Medicine (J35)	2
Urology (6 points)		
Service	**Description***	**Points**
Pediatric trauma center	Level 1 or 2 pediatric trauma center certified by American College of Surgeons or state licensing board (A19)	2
Treatment options	Offers the following treatment modalities (K11): • Stone treatment, including shock wave lithotripsy • Laparoscopic orchiopexy/orchidectomy • Robotic-assisted laparoscopic pediatric surgery • Laparoscopic surgery, including cyst ablation, pyeloplasty, nephrectomy and partial nephrectomy	4

* Parenthetical references indicate relevant survey questions

Advanced Technologies (All Specialties)

Hospitals can either provide access to key diagnostic and treatment technologies directly, through the hospital's health system or a local community network, or indirectly, through a

contractual arrangement or joint venture with another community provider. On- and off-site services received equal credit. Data are from the Pediatric Hospital Survey. The values for this measure were based on specialty-specific mixes of technology, as listed in ***Table 4***. Definitions can be found in the glossary in ***Appendix A***.

Table 4. Advanced Technologies by Specialty

Specialty	Technologies*
Cancer (16 technologies)	• Positron emission tomography (PET) or PET/computerized tomography (PET/CT) scanning (A10a or A10b) • Intraoperative magnetic resonance imaging (ioMRI) (A10c) • 3-Tesla magnetic resonance imaging (3T MRI) (A10d) • Image-guided radiation therapy (A10e) • Intensity-modulated radiation therapy (A10f) • Bone scan (A10g) • Linear accelerator or other linear particle accelerator, gamma knife, CyberKnife, or other shaped-beam stereotactic radiation therapies (A11) • Magnetic resonance spectroscopy (B8a) • Therapeutic/diagnostic meta-iodine-benzyl-guanidine with I-131 radionuclide (B8b) • Functional magnetic resonance (B8c) • Intraoperative ultrasound for vascular access procedures (B8d) • Stereotactic radiosurgery (B8e) • Dedicated pediatric anesthesiology for radiation therapy (B8f) • Intra-arterial chemotherapy or embolization for solid tumors (B8g) • Radiofrequency ablation and/or cryoablation (B8h) • Pediatric interventional radiology equipment and room (B9)
Cardiology & Heart Surgery (5)	• CT angiography (E7a) • Cardiac MRI (E7b) • Transcatheter arrhythmia ablation methodologies (three-dimensional mapping, cryoablation, or radiofrequency ablation) (E14a-c) • ECMO program available 24/7 (A9) • Transesophageal echocardiographic testing (E6k)
Diabetes & Endocrinology (8)	• PET or PET/CT scanning (A10a or A10b) • Diagnostic radioisotope scan (C51a) • Therapeutic radioiodine treatment for Graves' disease (C51b) • Therapeutic radioiodine treatment for thyroid cancer (C51c) • Fine needle aspiration of thyroid nodule (C51d) • Thyroidectomy(C51e) • Dual-energy x-ray absorptiometry (DXA) scans using pediatric software and normative data (C51f) • Endocrine testing and infusion studies (C55)

* Parenthetical references indicate relevant survey questions (continued)

Table 4. Advanced Technologies, by Specialty (continued)

Specialty	Technologies*
Gastroenterology & GI Surgery (11)	• PET or PET/CT scanning (A10a or A10b) • Magnetic resonance cholangiopancreatography (D7a) • Magnetic resonance enterography (D7b) • DXA scan (D7c) • Capsule endoscopy (D11a) • Endoscopic band ligation (D11b) • Esophageal impedance monitoring (D11c) • Endoscopic retrograde cholangiopancreatography (D11d) • Antroduodenal and full colonic motility studies (D11e) • Esophageal dilation, either bougie or pneumatic (D11f) • Alternative hemostatis therapies (D11g)
Neonatology (6)	• PET or PET/CT scanning (A10a or A10b) • Continuous electroencephalography (EEG) monitoring with pediatric neurology support (F12a) • Unsedated MRI (F12b) • Molecular diagnostic/virology laboratory (F12c) • Specialized chemistry laboratory with tandem mass spectroscopy (F12d) • Onsite genetic specialists with expertise in interpreting and counseling family about exome sequencing results (F12e)
Nephrology (1)	• PET or PET/CT scanning (A10a or A10b)
Neurology & Neurosurgery (7)	• PET or PET/CT scanning (A10a or A10b) • ioMRI (A10c) • 3T MRI (A10d) • Neurophysiological intraoperative monitoring (H5a) • EEG source localization (H5b) • Functional MRI (H5f) • Availability of 24/7 EEG monitoring in pediatric intensive care unit (PICU)/neonatal intensive care unit (NICU) (H5g)
Orthopedics (3)	• PET or PET/CT scanning (A10a or A10b) • Bone scan (A10g) • Remote retrieval of test results, images, and medical records (I10c)
Pulmonology (1)	• PET or PET/CT scanning (A10a or A10b)
Urology (3)	• PET or PET/CT scanning (A10a or A10b) • Dedicated laparoscopic skills lab for faculty and trainees (K7a) • Video pediatric urodynamic fluoroscopy (K7b)

* Parenthetical references indicate relevant survey questions

Bone Marrow Transplant Services (Cancer)

In Cancer, hospitals could receive up to 21 points for having a stem cell transplant program. Stem cell transplants are critical in treating a variety of cancers:

- Hospitals received 1 point for having a stem cell transplant unit with specially trained pediatric nurses and physicians (B17).
- Hospitals received up to 6 points for offering various stem cell transplant services (B18): cord blood stem cell transplantation, autologous stem cell transplantation, allogeneic matched unrelated transplantation, allogeneic sibling-matched transplantation, haploidentical (half-matched) transplantation and cellular therapy infusions.
- Hospitals received up to 12 points based on the volume of transplants (B18). For each of the four types of transplantation listed above, hospitals received points as follows: 1 point for conducting from 2 to 10 transplants in the past 3 years, and 2 points for conducting 11 or more transplants in the past 3 years.
- Hospitals received up to 2 points for recognition as a transplant center by the National Marrow Donor Program (B19b) and for membership in the Pediatric Blood and Marrow Transplant Consortium (B19c).

Clinical Support Services (All Specialties)

Many hospitals provide access to medical and surgical clinical support services through the hospital's health system, a local community network or a contractual arrangement or joint venture with another provider in the community. On- and off-site services received equal credit. Up to 11 services are included in the clinical support services, depending on specialty. Data came from the Pediatric Hospital Survey. For eligible hospitals, specialty-specific mixes of medical and surgical services are used in computing the points for this measure. ***Table 5*** presents the complete list of medical and surgical services considered for each specialty in 2014-15. Definitions can be found in the glossary in ***Appendix A***.

Commitment to Clinical Research (All Specialties)

Networks, clinical trials and other research activities advance the ability of the field to treat pediatric patients and also enhance care by making new or novel treatments available at centers that participate in such research.

Cancer (13 points). Hospitals received up to 13 total points for participating in clinical research activities such as clinical trials or other translational research activities. Hospitals received up to 4 points for participating in cancer research networks (B24) such as the Children's Oncology Group, National Cancer Institute (NCI) Phase 1/Pilot Consortium, NCI-Designated Cancer Center or another cancer-related organized clinical research network. Hospitals received 1 point each for

having at least one Phase I or Phase II clinical trial (translational research) during the past two years (B25). Hospitals received up to 6 points for engaging in clinical trials in these specific areas (B26): leukemia, brain tumors, sarcomas, neuroblastomas, trials for biologically targeted novel agents that are not disease specific (e.g., tyrosine kinase inhibitors) or stem cell transplant trials for malignant diseases. Hospitals could receive an additional 1 point by demonstrating the depth of their involvement in any of the clinical trials (B26.1).

Table 5. Clinical Support Services, by Specialty

Clinical Support Service*	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Neonatal intensive care unit (A7a)	●	●	●	●		●	●	●	●	●
Pediatric intensive care unit (A7b)	●	●	●	●		●	●	●	●	●
Dedicated surgical intensive care unit or beds (A7c)	●	●	●	●		●	●	●	●	●
Protective environment (A7d)	●									
Genetic testing/counseling (A7e)	●		●	●	●					
Palliative care program (A7f)	●	●	●	●	●	●	●	●	●	●
Vascular tumor program (A35)	●	●	●	●	●	●	●	●	●	●
Rapid response team available onsite 24/7 (A8a)	●	●	●	●	●	●	●	●	●	●
Pediatric anesthesia program available onsite 24 hours a day (A8b)	●	●	●	●	●	●	●	●	●	●
Pediatric pain management program available onsite 24/7 (A8c)	●	●	●	●	●	●	●	●	●	●
Multidisciplinary pediatric acute pain/sedation service available onsite 24/7 hours a day (A8d)	●	●		●	●	●	●	●	●	●
Total Elements	**11**	**9**	**9**	**10**	**7**	**9**	**9**	**9**	**9**	**9**

* Parenthetical references indicate relevant survey questions

Cardiology & Heart Surgery (10 points). Hospitals received points for participating in externally audited, national quality-improvement research networks. Hospitals received 1 point for being an auxiliary clinical center or 2 points for being a primary clinical center for the Pediatric Heart Research Network (E30). Hospitals received up to an additional 8 points for participating and contributing data to the following organizations:

- Society of Thoracic Surgeons (E29a)
- Congenital Heart Surgeons' Society (E29b)
- National Pediatric Cardiology Quality Improvement Collaborative (E29c)
- Congenital Cardiac Anesthesia Society database (E29d)
- National Cardiovascular Disease Registry—improving pediatric and adult congenital treatment (E29e)
- National Cardiovascular Disease Registry—internal cardioverter defibrillator (E29f)
- Pediatric Cardiac Critical Care Consortium or Virtual Pediatric ICU System (E29g)
- Other externally audited national quality-improvement initiatives (E29.1)

Diabetes & Endocrinology (4 points). Hospitals received 1 point for participating in Institutional Review Board (IRB)-approved clinical research studies that give patients access to novel, unlabeled medications, diagnostic/monitoring devices or treatment options in the following areas:

- Type 1 diabetes (C68a)
- Type 2 diabetes (C68b)
- Growth hormone therapies (C68c)
- Other endocrinology conditions (C68.1).

Gastroenterology & GI Surgery (4 points). Hospitals received up to 4 points for participating in externally audited, national quality-improvement research networks. Hospitals received 1 point each for participating in prospective research activities (D15): randomized clinical trials, observational studies, or clinical databases on patient care. Hospitals received 1 point for having at least one IRB-approved study being led by the Pediatric Gastroenterology & GI Surgery program (D16).

Neonatology (4 points). Hospitals received up to 4 total points for participation in externally audited, national NICU treatment and quality-improvement research networks. Hospitals received 1 point for participating in clinical research activities that allow patients access to novel medications or experimental treatment options (F25). Hospitals received up to 3 additional points for participation in the following organizations (F24):

- Vermont Oxford Network, Children's Hospitals Neonatal Consortium or Child Health Corporation of America database

- Extracorporeal Life Support Organization (ELSO) data exchange network/registry
- Other clinical research or data exchange program.

Nephrology (9 points). Hospitals received points for participation in externally audited, national quality-improvement research networks. Hospitals received 1 point for participating in specialty-specific clinical research activities that allow patients access to novel medications or experimental treatment options (G39). Hospitals received up to 8 additional points for participation in the following research collaboratives (G40):

- Midwest Pediatric Nephrology Consortium
- International Pediatric Dialysis Network
- North American Pediatric Renal Trials and Collaborative Studies
- Prospective Pediatric Acute Kidney Injury Research Group
- Pediatric Trials Network
- Chronic Kidney Disease in Children cohort study
- Nephrotic Syndrome Study Network
- CHA Peritonitis Collaborative (SCOPE).

Neurology & Neurosurgery (4 points). Hospitals received 1 point for belonging to a neuro-oncology clinical research consortium (H21) and up to 3 additional points for participating in active research protocols, trials, studies or databases (H6a-H6f) with 1, 2 or 3 points, respectively, for 1-4, 5-9 and 10 or more research activities within the past year.

Orthopedics (1 point). Hospitals received 1 point for participating in 1 or more IRB-approved trials, studies or databases, such as prospective randomized clinical trials, prospective observational studies or prospective clinical database on patient care (I38).

Pulmonology (4 points). Hospitals received 1 point for participating in 1 or more IRB-approved trials, studies or databases, such as prospective randomized clinical trials, prospective observational studies or prospective clinical database on patient care (J51). Hospitals received up to three points for being members of the following research networks (J52): Children's Interstitial Lung Disease Foundation; Therapeutics Development Network of the CF Foundation; and certified site for the Severe Asthma Research Program, the Inner City Asthma Consortium or Asthma-Net.

Urology (3 points). Hospitals received up to 3 total points for participating in the following prospective research activities: randomized clinical trials, observational studies or clinical databases on patient care (K18).

Commitment to Quality Improvement (All Specialties)

Hospitals received points in all specialties for participation in quality-improvement activities. Such activities promote internal review and improvement programs and procedures that often lead to improvements in care. The number of points varies by specialty, but in all specialties, hospitals could receive up to 15 points for participating in the following quality improvement activities:

- 1 point for publicly reporting performance data on one or more quality metrics (A16 and A16.1);
- Hospitals received up to 2 points for having quality improvement projects approved by the American Board of Pediatrics (A17):
    - 2 points for being a pediatric portfolio sponsor for Part 4 Maintenance of Certification (MOC);
    - 1 point for supporting one or more projects that are approved for Part 4 MOC.
- 1 point for participating in an external review process for measuring patient/parent satisfaction (A18.a);
- 1 point for participating in the American College of Surgeons National Surgical Quality Improvement Program (A30a)
- 1 point for participating in the Children's Hospital Solutions for Patient Safety learning network (A30b)
- 1 point for bedside care staff (e.g., nurses, physicians assistants, nurse practitioners) participating in quality and safety initiatives (A40)
- Up to 2 points for having a physician serve as a designated Chief Quality/Safety Officer (A41):
    - 2 points for at least .50 FTE
    - 1 point for at least .25 FTE, but less than .50 FTE.

In all specialties, hospitals received up to 6 additional points for implementing specialty-specific quality measures (B23, C53, D25, E28, F27, G11, H23, I11, J45, K5). These include 1 point each for implementing a formal program review plan, determining appropriate performance-based metrics, regularly tracking patient data, regularly presenting results of clinical quality performance metrics to clinical staff and encouraging staff to conduct mini-root cause analyses meetings or other quality improvement teams. One additional point was awarded for participating in one or more national quality initiatives.

In Diabetes & Endocrinology, hospitals received an additional 1 point (16 points total) for supporting development of a physician-led innovation to improve health care delivery for Pediatric Endocrinology patients (C67).

In Gastroenterology & GI Surgery, hospitals received up to 5 additional points (20 points total) for participating in the following formal quality initiatives (D14, D14.1): studies in pediatric liver transplantation, pediatric acute liver failure, cystic fibrosis liver disease, Improve Care Now or other formal multicenter quality initiatives.

In Neonatology, hospitals received up to 2 additional points (17 points total) if the quality initiatives included having a specified quality-improvement or safety leader (F28). Hospitals received 1 point for having a safety leader with less than 0.5 FTE devoted to quality improvement or safety and 2 points for 0.5 FTE or more.

Congenital Heart Program (Cardiology & Heart Surgery)

In Cardiology & Heart Surgery, hospitals received up to 20 points for having a congenital heart program. Hospitals were rewarded for tracking and reporting data for their congenital heart surgery program and for the volume and type of congenital heart surgeries offered:

- Hospitals received 1 point for having at least one congenital heart surgeon who performed 100 or more congenital heart procedures in the past calendar year and 2 points for having two or more surgeons (E39).
- Hospitals could receive up to 8 points based on the mechanism for determining and reporting volume and outcomes measures. For each of the past four reporting years, hospitals received 2 points each year for reporting to the Society of Thoracic Surgeons (STS) Congenital Heart Surgery Database or 1 point for reporting to another organization (E18).
- Hospitals received up to 1 point for treating 1 to 4 patients with a Berlin Heart or other ventricular assist device and 2 points for treating 5 or more patients (E26).
- Hospitals received up to 8 points based on the number of cardiac surgical procedures performed in the operating room in the four reporting years: 1 point for 100-249 surgeries/year and 2 points for 250 or more surgeries/year (E38).

ECMO Availability (Neonatology)

Extracorporeal membrane oxygenation (ECMO) technology involves a pump that circulates blood through an artificial lung back into the bloodstream of a very ill neonate, essentially providing

heart-lung bypass support outside the child's body. In Neonatology, hospitals received up to 5 points for ECMO services. Hospitals received 1 point for having a specialized, multidisciplinary ECMO team (F14d), 1 point if the ECMO program was available 24 hours a day (A8e), and 1 point if the ECMO program is designated as a Center for Excellence by the Extracorporeal Life Support Organization (A9). Hospitals also received 1 point for having a neonatal-specific transport team capable of transporting high-risk pre-ECMO patients between hospitals (F13) and 1 additional point if the neonatal-specific transport team has monthly case reviews (F13.1).

FACT-Accredited for BMT and Tissue Transplant (Cancer)

Accreditation indicates that as of March 1, 2014, a hospital met standards set by FACT for transplanting cells to treat pediatric cancer, an indication of a high degree of care in handling and using cellular tissue. Programs can be certified as an adult or as a pediatric service provider and as offering two types of transplant services: autologous and allogeneic. For the Cancer specialty, a hospital was awarded 1 point if it was accredited by FACT as a pediatric service provider for allogeneic transplants (B19a). Currently accredited facilities are listed at http://www.factwebsite.org.

Fulltime Subspecialists Available (All Specialties)

This measure evaluates the presence of a variety of physician specialists, surgeons and dedicated full-time medical staff who are critical to the delivery of appropriate care by pediatric hospitals. ***Table 6*** identifies the relevant specialists, surgeons and other medical staff for each pediatric specialty. Hospitals received 1 point for each appropriate specialist or surgeon and 1 point for having at least 1.0 FTE of the other medical staff relevant to the specialty.

Heart Transplant Program (Cardiology & Heart Surgery)

In Cardiology & Heart Surgery, hospitals received up to 4 points for having a heart transplant program. Hospitals received 1 point for having an on-site heart or heart-lung transplant program recognized by the United Network for Organ Sharing (UNOS) (E21). Hospitals received up to 3 additional points based on the number of unique patients who received heart transplants in the past 4 years combined (E22): 1 point for 1-7 transplants, 2 points for 8-15 transplants and 3 points for 16 or more transplants.

Table 6. Subspecialists by Specialty

Cancer* (14 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least one of the following staff: • Pediatric head and neck surgeon (A5a) • Pediatric general surgeon (A5c) • Pediatric neurosurgeon (A5d) • Pediatric ophthalmology surgeon (A5e) • Pediatric orthopedic surgeon (A5f) • Pediatric urology surgeon (A5g)
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric hematologists/oncologists (B2a) • Other attending on-staff physicians with specific involvement in pediatric cancer program (B2b) • Nurse practitioner and/or physician assistant (B3a and B3b)
Cardiology & Heart Surgery* (12 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least 1.0 FTE of the following staff: • Pediatric cardiothoracic surgeon (A5b)
Other medical staff	At least 2.0 FTE of the following staff: • Pediatric cardiothoracic surgeon (E2a) • Pediatric cardiac intensivists (cardiologists, pediatric critical care or anesthesiologists) (E2b, E2c, or E2d) • Pediatric cardiac interventionalists (E2e) At least 1.0 FTE of the following staff: • Pediatric cardiac electrophysiologist (E2f) • Anesthesiologist with pediatric training/experience (E2g) • Nurse practitioner and/or physician assistant (E3a or E3b) • Cardiology fellow and/or cardiac surgery fellow (E3c or E3d)

* Parenthetical references indicate relevant survey questions (continued)

Table 6. Subspecialists by Specialty (Continued)

Diabetes & Endocrinology* (13 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric rheumatologist (A4e) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least one of the following staff: • Pediatric head and neck surgeon (A5a) • Pediatric general surgeon (A5c) • Pediatric neurosurgeon (A5d)
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric endocrinologist (C2a) • Nurse practitioner and/or physician assistant (C3) • Bachelor's-level registered nurse (C4b) • Master's-level or doctorate- level registered nurse (C4c, C4d)
Gastroenterology & GI Surgery* (8 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon (A5c)
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric gastroenterologist (D2a) • Nurse practitioner and/or physician assistant (D3)

* Parenthetical references indicate relevant survey questions (continued)

Table 6. Subspecialists by Specialty (continued)

Neonatology* (15 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least one of the following staff: • Pediatric head and neck surgeon (A5a) • Pediatric cardiothoracic surgeon (A5b) • Pediatric general surgeon (A5c) • Pediatric neurosurgeon (A5d) • Pediatric ophthalmology surgeon (A5e) • Pediatric orthopedic surgeon (A5f) • Pediatric urology surgeon (A5g)
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric neonatologist (F2a) • Physician extenders (F3) • Clinical care registered nurse certified in neonatal intensive care (F4a)
Nephrology* (8 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon (A5c)
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric nephrologist (G2a) • Nurse practitioner and/or physician assistant (G3)

* Parenthetical references indicate relevant survey questions (continued)

Table 6. Subspecialists by Specialty (continued)

Neurology & Neurosurgery* (11 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon (A5c) • Pediatric neurosurgeon (A5d)
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric neurologist (H2a) • Pediatric neurosurgeon (H2b) • Nurse practitioner and/or physician assistant (H3) • Certified neuroscience nurse (H4)
Orthopedics* (18 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric rheumatologist (A4e) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon (A5c) • Pediatric orthopedic surgeon (A5f) • Hand surgery fellow (I6a) • Spinal surgery fellow (I6b) • Musculoskeletal oncology surgical fellow (I6c) • Sports medicine surgical fellow (I6d) • Pediatric orthopedic surgery fellow (I6.1a) • Pediatric orthopedic surgery resident (I6.1b)
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric orthopedic surgeon (I2a) • General orthopedist (I2b) • Nurse practitioner and/or physician assistant (I3) • Clinical registered nurses (I4)

* Parenthetical references indicate relevant survey questions (continued)

Table 6. Subspecialists by Specialty (continued)

Pulmonology* (10 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon (A5c)
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric pulmonologist (J2a) • Pediatric sleep medicine physician (J2b) • Nurse practitioner and/or physician assistant (J3) • Clinical registered nurse (J4)
Urology* (10 points)	
Physician specialists	At least one of the following staff: • Pediatric anesthesiologist (A4a) • Pediatric critical care specialist (A4b) • Pediatric radiologist specializing in diagnostic radiology (A4c) • Pediatric radiologist specializing in interventional radiology (A4d) • Pediatric infectious disease specialist (A4f)
Pediatric surgeons	At least one of the following staff: • Pediatric general surgeon (A5c) • Pediatric urology surgeon (A5g)
Other medical staff	At least 1.0 FTE of the following staff: • Pediatric urologist (K2a) • Nurse practitioner and/or physician assistant (K3) • Clinical registered nurse (K4)

* Parenthetical references indicate relevant survey questions

Liver Transplant Program (Gastroenterology & GI Surgery)

In Gastroenterology & GI Surgery, hospitals received up to 4 points for having a liver transplant program. Hospitals received 1 point for having a UNOS-recognized liver transplant program (D20) and up to 3 additional points based on the number of unique patients who received a liver transplant in the past 2 years (D21): 1 point for 1-9 patients, 2 points for 10-19 patients, and 3 points for 20 or more patients.

Lung Transplant Program (Pulmonology)

In Pulmonology, hospitals received up to 6 points for having a lung transplant program. Hospitals received 1 point for offering a UNOS-recognized lung transplant program (J46). Hospitals received 1 point for performing one lung transplant in the past 2 years or 2 points for performing two or more lung transplants in the past 2 years (J47). Hospitals received up to 3 points based on the most recent 3-year Scientific Registry of Transplant Recipients (SRTR)/UNOS patient survival percentage for pediatric lung transplant patients (J48). Points were awarded as follows: 1 point for a survival rate ≥ 50% and < 80%, 2 points for a survival rate ≥ 80% and < 90% and 3 points for a survival rate ≥ 90%.

Management of Asthma Patients (Pulmonology)

In Pulmonology, hospitals received up to 17 points for management of asthma patients, based on the percentage of patients following specific protocols. Hospitals received 1 point for having a system to identify and treat patients with high-risk asthma (J7) and 1 point for having a written protocol for evaluation of patients with high-risk asthma (J8). Hospitals received points based on the percentage of asthma patients following five specific protocols. The protocols evaluated were the following: providing inpatients with documentation of a personalized asthma management plan (J10b), providing outpatients in subspecialty care clinics with documentation of a personalized asthma management plan (J10d), providing outpatients in subspecialty care clinics with a documented assessment of asthma control (e.g., ACT, ATAQ) (J10e), providing outpatients in primary care clinics with documentation of a personalized asthma management plan (J10g) and providing outpatients in primary care clinics with a documented assessment of asthma control (J10h). For each protocol, up to 3 points were awarded for the percentage of patients following the protocol: 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90% and 3 points for ≥ 90%.

Management of Lung Disease of Prematurity (Pulmonology)

In Pulmonology, hospitals received up to 6 points for management of lung disease of prematurity. Hospitals received up to 6 points based on the percentage of patients diagnosed with chronic lung disease or prematurity (J28a) who received respiratory syncytial virus (RSV) prophylaxis (J28b) and the percentage of patients who received all of their recommend doses for the most recent RSV prophylaxis season (J28c). Hospitals received up to 3 points for each item as follows: 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%.

Management of Neuromuscular Weakness Disorder (Pulmonology)

In Pulmonology, hospitals received up to 6 points for muscular dystrophy management. This measure is composed of two items: the percentage of muscular dystrophy patients who had pulmonary function testing in the past calendar year (J30) and the percentage of muscular dystrophy patients undergoing general anesthesia who had pulmonary function testing within 90 days prior to the procedure (J31). Hospitals received up to 3 points for each item based on the percentage of patients as follows: 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%.

Nurse Magnet Recognition (All Specialties)

Nurse magnet recognition is a formal designation by the Magnet Recognition Program, developed by the American Nurses Credentialing Center to recognize hospitals that meet specific standards of nursing excellence. The list of Nurse Magnet hospitals is updated throughout the year as hospitals apply for designation and redesignation. Hospitals with Magnet Recognition Program status as of March 1, 2014, received 1 point in all specialties. The current list of all Nurse Magnet hospitals is at http://www.nursecredentialing.org/FindaMagnetHospital.aspx.

Nursing Intensity (All Specialties)

This measure is a relative ratio of the number of nurses to the average daily patient census. The numerator is the number of on-staff registered nurses (RNs) dedicated to inpatient clinical care, expressed as FTEs (A2). Nurses are included only if they have an RN degree from an approved nursing school and hold a current state license. The denominator is the average daily number of pediatric inpatients (A1). The source was the Pediatric Hospital Survey. This measure was used in all specialties. For Neonatology, the measure counted only nurses dedicated specifically to the NICU (F4a) and the average daily census comprised only NICU patients (F6). For scoring purposes, nurse-patient values above 4.0 were capped at 4.0 in all specialties to prevent skewness in this measure.

Palliative Care Program (Cancer)

In Cancer, hospitals received up to 7 points for palliative care. Hospitals received 1 point for offering a qualified palliative care program onsite (B29). A qualified program is organized and staffed for children nearing the end of life or living with conditions that limit lifespan or quality of life. It is intended to minimize pain and discomfort, provide emotional and spiritual support for children and their families, assist with financial guidance and social services and support decision making. The program must include at least one physician providing direct patient care as well as a

nurse coordinator and either a social worker, certified child life specialist or pastoral counselor, and all staff must have training in palliative care.

Hospitals could receive up to 3 points for offering the following pain control programs (B29.1): patient-controlled analgesia, nurse-controlled analgesia and pediatric pain service consults.

Hospitals received 1 point for having at least 1 physician board-certified in Hospice and Palliative Medicine (B29.2).

Hospitals could receive up to 2 points based on the percentage of patients with advanced and refractory cancer who were referred to the palliative care program (B30): 1 point for ≥ 50% and < 75%, and 2 points for ≥ 75%.

Patient and Family Services (All Specialties)

The Patient and Family Services measure evaluates access to medical specialists and services. The Pediatric Hospital Survey supplied the data. A core set of submeasures for all specialties is worth up to 8 points, which includes providing direct access to a family resource center (A13a), sleep rooms for parents or siblings (A13b), a school intervention program (A13c), a Ronald McDonald House (or other residential facility) (A13d), certified child life specialists (A12a), family-support specialists (A12b), pediatric psychologists or psychiatrists (A12c) and interpreter services (A12d).

In Neonatology, hospitals could receive up to 7 additional points (for a total of 15 points). Hospitals received points for offering the following patient and family services (F8): NICU-specific family support program, 24/7 parental visitation, sibling visitation, influenza vaccination program for parents of NICU patients, NICU-specific parent-to-parent support groups, designated psychologists or psychiatrists available for referrals and consultations with parents and Child Life support team available to NICU families.

In Nephrology, hospitals could receive up to 4 additional points (for a total of 12 points). Hospitals received 1 point for offering summer camp for kidney transplant patients (G33b). Hospitals received up to an additional 3 points for offering the following programs to support patients in a pediatric maintenance dialysis program (G9): teachers dedicated to working with patients, a standard review of school performance and patient's Individualized Education Program and/or summer camp.

Specialized Clinics and Programs (Cancer, Cardiology & Heart Surgery, Diabetes & Endocrinology, Gastroenterology & GI Surgery, Neonatology, Neurology & Neurosurgery, Orthopedics, Urology)

Cancer (8 points). Hospitals received 1 point for each of the following specialized treatment programs (B10): clinical brain tumor program, clinical bone and soft tissue sarcomas program, clinical leukemia/lymphoma program, comprehensive longer-term survivors program, pediatric limb-sparing surgery program, fertility preservation program, cancer genetics/hereditary program or bone marrow failure program.

Cardiology & Heart Surgery (11 points). Hospitals received points for each of the following catheter procedures (E8, E9, E11, E12, D15) offered to at least one patient in the past calendar year: balloon angioplasty, balloon valvuloplasty, stent implantation; transcatheter occlusion of cardiac shunts, transcatheter placement (or attempted placement) of stented pulmonary valves (e.g. Melody), aortic and pulmonary catheter-based valvuloplasty, transcatheter arrhythmia ablations, ablations for atrial tachycardia, supraventricular tachycardia and ventricular tachycardia and implantation of permanent transvenous pacing/cardioversion/defibrillation or event recording devices.

Diabetes & Endocrinology (10 points). Hospitals received 1 point for each of the following specialized treatment programs for endocrine patients (C46): lipid disorders, hypertension, comprehensive weight management, Turner syndrome, cystic fibrosis-related diabetes, oncology or brain tumors, gender dysphoria, disorders of sexual development, metabolic bone disorders or thyroid nodules.

Gastroenterology & GI Surgery (10 points). Hospitals received 1 point for each of the following interdisciplinary treatment programs for gastrointestinal disorders (D10): intestinal rehabilitation, cystic fibrosis treatment, total parenteral nutrition (TPN), pediatric intensive feeding, multidisciplinary childhood obesity management, inflammatory bowel disease, multidisciplinary allergic disease, chronic liver disease, neurogastrointestinal/motility and advanced therapeutic endoscopy.

Neonatology (16 points). Hospitals received 1 point for having a cardiac ICU to care for neonatal patients needing specialized care for heart conditions (F17) and up to 15 additional points for providing specialized treatment teams or clinics to deal with particularly challenging conditions (F14, F15). Hospitals received 1 point for each of the following: craniofacial team, spina bifida team, comprehensive retinopathy of prematurity program, neonatal-neurointensive care program, palliative care program, micrognathia team, chronic lung disease team, congenital diaphragmatic hernia team, chronic pulmonary hypertension team, neonatal dialysis team, metabolic team, bowel rehabilitation

team, home ventilator management team, neurodevelopmental follow-up clinic for premature/high-risk NICU patients and neurodevelopmental clinic for high-risk congenital heart NICU patients.

Neurology & Neurosurgery (18 points). Hospitals received up to 18 points for access to specialized treatment clinics or programs for pediatric neurological disorders (H12). To receive credit, a hospital had to have an organized program that included a medical director and nursing coordinator. One point was awarded for each of the following clinics or programs: cerebral palsy/spasticity clinic, cerebrovascular accident, craniofacial surgical, movement disorders, neurofibromatosis, neuromuscular, neuro-oncology, spina bifida, tuberous sclerosis, brachial plexus, metabolic/white matter, neonatal neurology, multidisciplinary spine, head trauma/post-concussion, new-onset seizures, neuro-fetal, headache and pain.

Orthopedics (9 points). Hospitals received up to 9 points for providing specialized treatment clinics or programs to treat significant conditions (I15). To receive credit, the clinic had to be attended regularly by the pediatric orthopedic service. Hospitals received 1 point for each of the following clinics or programs: spina bifida, spasticity, skeletal dysplasia, brachial plexus, neurofibromatosis, muscle disease, pain, sports medicine and sports concussion program.

Urology (6 points). Hospitals received 1 point for each of the following specialized treatment clinics or programs to treat significant urological conditions (K10): spina bifida, voiding dysfunction, comprehensive stone program, prenatal intervention, disorders of sexual differentiation and genitourinary reconstructive surgery/exstrophy.

Steps to Engage Families (All Specialties)

This measure reflects the extent to which a hospital involves parents and families in care. It applied to all pediatric specialties and was worth up to 7 points. Hospitals received 1 point if they have a parent advisory committee that meets one to three times a year or 2 points for having a committee that meets at least four or more times a year (A14.1). Hospitals received up to 4 additional points if the hospital met all of the following requirements (A15): at least one parent or family member is an active member of the strategic or facility committee; at least one parent or family member is an active member of one or more standing committees (e.g., quality improvement, patient safety, ethics); parents or family members are regularly involved in clinical decision making in ways such as family-centered rounds, care conferences or other participatory programs; and parents or family members can participate in family-centered rounds. Hospitals received 1 additional point for describing the impact of having patients' family members serve on advisory committees (A15.1).

In Neonatology, hospitals could receive 1 additional point (for a total of 8 points) for having a NICU-specific parent advisory committee that meets regularly (F9.1).

Transplants to Dialysis Patients (Nephrology)

Hospitals received up to 12 points in Nephrology based on the percentage of patients receiving maintenance dialysis (G20) who received kidney transplants within the past 2 years (G21). In the Nephrology specialty, four groups of patients were evaluated separately: children under 5 receiving hemodialysis, children aged 5-19 receiving hemodialysis, children under 5 receiving peritoneal dialysis and children aged 5-19 receiving peritoneal dialysis. For each type of patient, hospitals received up to 3 points for having a higher percentage of patients receiving transplants as follows: 1 point if ≥ 25% and < 50%, 2 points if ≥ 50% and < 75%, and 3 points if ≥ 75%.

Volume of Patients (All Specialties)

Unless noted otherwise, volume measures indicate the number of unique patients in the past calendar year who had the specified diagnoses or conditions or who received the specified procedures or treatments. If data were unavailable for the most recent calendar year, hospitals were instructed to use data from the most recent 12 months that data were available.

Points were assigned based on the distribution of volume across all hospitals. Hospitals that had zero volume or did not respond received 0 points. Hospitals with volume in the lowest one-third of the distribution received 1 point, hospitals with volume in the middle one-third received 2 points and hospitals with volume in the highest one-third received 3 points. The points at the high end of the range were used to cap these measures to ensure that outliers did not significantly affect scoring. For items with extremely low volume, such as cardiac hybrid procedures, the measure was divided into low and high only for a maximum of 2 points. ***Table 7*** identifies the volume measures used by specialty and the points assigned to volume scores within a certain range.

Table 7. Volume Measures by Specialty

Cancer Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
New-patient volume, 2 years (B6), (max points = 3)	1-99	100-399	400+
Patient volume (max points = 9)			
• Leukemia (B27a1)	1-199	200-399	400+
• Brain tumors (B27b1)	1-149	150-299	300+
• Solid tumors (B27c1)	1-299	300-599	600+
Surgery volume** (B27), (max points = 6)			
• Brain tumors (B27b2)	1-149	150-299	300+
• Solid tumors (B27c2)	1-299	300-599	600+
Cardiology & Heart Surgery Volume Measures*	**Low Volume (1 point)**	**Medium Volume (2 points)**	**High Volume (3 points)**
Catheter procedure volume* (max points = 30)			
• Balloon angioplasty procedures (E8a)	1-29	30-59	60+
• Balloon valvuloplasty procedures (E8b)	1-19	20-39	40+
• Stent implantation procedures (E8c)	1-34	35-69	70+
• Transcatheter occlusion of cardiac shunt procedures (E8d)	1-59	60-119	120+
• Transcatheter placement of stented pulmonary valve (E8e)	1-14	15-29	30+
• Aortic/pulmonary catheter-based valvuloplasty (E10)	1-6	7-13	14+
• Atrial tachycardia procedures (E12a)	1-19	20-39	40+
• Supraventricular tachycardia procedures (E12b)	1-39	40-79	80+
• Ventricular tachycardia procedures (E12c)	1-4	5-8	9+
• Placement of permanent transvenous pacing (E15)	1-19	20-39	40+
Norwood/hybrid surgery volume (max points = 12)			
• Patients receiving hybrid or Norwood Stage 1, year 1 (E40a)	1-6	7-13	14+
• Patients receiving hybrid or Norwood Stage 1, year 2 (E40b)	1-6	7-13	14+
• Patients receiving hybrid or Norwood Stage 1, year 3 (E40c)	1-6	7-13	14+
• Patients receiving hybrid or Norwood Stage 1, year 4 (E40d)	1-6	7-13	14+

* Parenthetical references indicate relevant survey questions. (continued)
** Volume represents procedures, not patients.

Table 7. Specialty-Specific Volume Measures (continued)

Cardiology & Heart Surgery Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Surgery volume (max points = 12)			
• STAT[§§] Level 2: Years 1-4 (E42a-e)	1-299	300-599	600+
• STAT Level 3: Years 1-4 (E42f-j)	1-249	250-499	500+
• STAT Level 4: Years 1-4 (E42k-0)	1-149	150-299	300+
• STAT Level 5: Years 1-4 (E42p-t)	1-59	60-119	120+
Diabetes & Endocrinology Volume Measures*	**Low Volume (1 point)**	**Medium Volume (2 points)**	**High Volume (3 points)**
Patient volume (max points = 48)			
• Type 1 primary care diabetes outpatients (C29a)	1-299	300-799	800+
• Type 2 primary care diabetes outpatients (C29b)	1-74	75-149	150+
• Diabetes-related care admissions for Type 1 primary care patients (C29c)	1-149	150-299	300+
• Diabetes-related care admissions for Type 2 primary care patients (C29d)	1-19	20-39	40+
• Congenital adrenal hyperplasia (C47a)	1-39	40-79	80+
• CNS and endocrine tumors (C47b)	1-99	100-199	200+
• Diabetes insipidus (C47c)	1-24	25-49	50+
• Hypopituitarism (C47d)	1-99	100-199	200+
• Turner Syndrome (C47e)	1-24	25-49	50+
• Noonan Syndrome(C47f)	1-24	25-49	50+
• Gender dysphoria (C47g)	1-24	25-49	50+
• Disorders of sexual development (C47h)	1-24	25-49	50+
• Metabolic bone disease (C47i)	1-24	25-49	50+
• Newly diagnosed growth hormone deficiency (C48)	1-24	25-49	50+
• Nondiabetes endocrine disorders outpatients (C57a1)	1-1,999	2,000-3,999	4,000+
• Nondiabetes endocrine disorders inpatients (C57b1)	1-124	125-249	250+

* Parenthetical references indicate relevant survey questions. (continued)

[§§] Society of Thoracic Surgery & European Association for Cardio-Thoracic Surgery Congenital Heart Surgery Mortality Categories (STAT)

Table 7. Specialty-Specific Volume Measures (continued)

Diabetes & Endocrinology Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Procedure volume* (max points = 27)			
• Diagnostic radioisotope (C51a)	1-19	20-39	40+
• Therapeutic radioiodine for Graves' disease (C51b)	1-5	6-10	11+
• Therapeutic radioiodine for thyroid cancer (C51c)	1-3	4-7	8+
• Fine needle aspiration of thyroid nodule (C51d)	1-4	5-9	10+
• Thyroidectomy (C51e)	1-4	5-9	10+
• Dual-energy x-ray absorptiometry (DXA) scans (C51f)	1-39	40-79	80+
• Brain or pituitary MRI (C49a)	1-29	30-59	60+
• Growth hormone therapy (C49b)	1-29	30-59	60+
• Serum IGF-1 measurement (C49c)	1-29	30-59	60+
Gastroenterology & GI Surgery Volume Measures*	**Low Volume (1 point)**	**Medium Volume (2 points)**	**High Volume (3 points)**
Nonsurgical procedure volume**, (max points = 21)			
• Capsule endoscopy (D11a)	1-19	20-39	40+
• Endoscopic band ligation (D11b)	1-9	10-19	20+
• Esophageal impedance monitoring (D11c)	1-49	50-99	100+
• Endoscopic retrograde cholangiopancreato-graphy (D11d)	1-29	30-59	60+
• Antroduodenal and full colonic motility studies (D11e)	1-14	15-29	30+
• Esophageal dilation (D11f)	1-49	50-99	100+
• Alternative hemostasis therapies (D11g)	1-7	8-15	16+
Patient volume, (max points = 60)			
• Intestinal rehabilitation program (D10a)	1-44	45-89	90+
• Cystic fibrosis treatment program (D10b)	1-99	100-199	200+
• Total parenteral nutrition support program (D10c)	1-299	300-599	600+
• Pediatric intensive feeding program (D10d)	1-299	300-599	600+
• Multidisciplinary childhood obesity program (D10e)	1-299	300-599	600+
• Inflammatory bowel program (D10f)	1-299	300-599	600+

* Parenthetical references indicate relevant survey questions.
** Volume represents procedures, not patients.

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Gastroenterology & GI Surgery Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
• Multidisciplinary allergic disease program (D10g)	1-149	150-300	300+
• Chronic liver disease program (D10h)	1-199	200-399	400+
• Neurogastrointestinal/motility program (D10i)	1-99	100-199	200+
• Advanced therapeutic endoscopy program (D10j)	1-99	100-199	200+
• Gastrointestinal bleeding (D13a)	1-149	150-299	300+
• Pseudo-obstruction (D13b)	1-12	13-24	25+
• Chronic intestinal failure (D13c)	1-29	30-59	60+
• Chronic liver disease (D13d)	1-69	70-139	140+
• Recurring acute or chronic pancreatitis (D13e)	1-34	35-69	70+
• Biliary atresia (D13f)	1-19	20-39	40+
• Portal hypertension (D13g)	1-19	20-39	40+
• Celiac disease (D13h)	1-149	150-299	300+
• Inflammatory bowel disease (D13i)	1-249	250-499	500+
• Eosinophilic esophagitis (D13j)	1-74	75-149	150+
Surgery volume (max points = 16)			
• Hepatoportoenterostomy or Kasai procedure (D17a)	1-3	4+	n/a
• Bowel lengthening (D17b)	1	2+	n/a
• Laparoscopic gastrointestinal surgeries (D17c)	1-19	20+	n/a
• Bariatric surgery (D17d)	1-3	4+	n/a
• Posterior sagittal anorectoplasties (Pena) (D17e)	1-4	5+	n/a
• Pull-through procedure for Hirschsprung's (D17f)	1-19	20+	n/a
• Laparoscopic procedures for ulcerative colitis (pouch) and Crohn's disease (D17g)	1-19	20+	n/a
• Laparoscopic pyloromyotomies for pyloric stenosis (D17h)	1-4	5+	n/a

n/a = not applicable. (continued)

* Parenthetical references indicate relevant survey questions.

** Volume represents procedures, not patients.

Table 7. Specialty-Specific Volume Measures (continued)

Neonatology Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Patient volume (max points = 21)			
• Congenital diaphragmatic hernia (F16a)	1-5	6-11	12+
• Hirschsprung's disease treatment (F16b)	1-4	5-9	10+
• Hypothermia treatment (F16c)	1-8	9-17	18+
• Spina bifida treatment (F16d)	1-7	8-15	16+
• Surgical care of gastroschisis (F16e)	1-8	9-17	18+
• Repair of tracheoesophageal fistula (F16f)	1-4	5-9	10+
• Cardiac surgeries (F19)	1-44	45-89	90+
Nephrology Volume Measures*	**Low Volume (1 point)**	**Medium Volume (2 points)**	**High Volume (3 points)**
Catheter procedure volume**, 2 years (max points = 15)			
• Permanent hemodialysis vascular central venous catheters placed in children < 5 years of age) (G22a)	1-2	3-6	7+
• Permanent hemodialysis vascular central venous catheters placed in children, 5-19 years of age (G22b)	1-9	10-17	18+
• Hemodialysis AV fistula/graft access placements in children, 5-19 years of age (G22c)	1-3	4-7	8+
• Peritoneal dialysis catheters placed in children < 5 (G22d)	1-3	4-7	8+
• Peritoneal dialysis catheters placed in children and adolescents, 5-19 (G22e)	1-3	4-7	8+
Dialysis volume, 2 years (max points = 18)			
• Hemodialysis with children < 5 years of age (G20a)	1-2	3-4	5+
• Hemodialysis with children 5-19 years of age (G20b)	1-10	11-26	27+
• Peritoneal dialysis with children < 5 years of age (G20c)	1-3	4-8	9+
• Peritoneal dialysis with children 5-19 years of age (G20d)	1-6	7-20	21+
• Dialysis treatment volume in days (previous year) (G8a)	1-249	250-499	500+
• Dialysis treatment volume in days (current year) (G8b)	1-249	250-499	500+

* Parenthetical references indicate relevant survey questions. (continued)
** Volume represents procedures, not patients.

Table 7. Specialty-Specific Volume Measures (continued)

Nephrology Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Kidney biopsy volume, 2 years (max points = 9)			
• Native kidney percutaneous biopsies (G14a)	1-50	51-99	100+
• Nonprotocol kidney transplant biopsies (G27a)	1-20	21-54	55+
• Protocol kidney transplant biopsies (G27b)	1-10	11-20	21+
Kidney transplant volume, 2 years (max points = 6)			
• Deceased-donor kidney transplant patients (G31a)	1-8	9-17	18+
• Living-donor kidney transplant patients (G31b)	1-7	8-16	17+
Patient volume, 2 years (max points = 36)			
• Acute kidney insufficiency (G6)	1-99	100-249	250+
• Primary nephrotic syndrome (G18a)	1-29	30-59	60+
• Henoch-Schönlein purpura (G18b)	1-10	11-47	48+
• Hemolytic uremic syndrome (G18c)	1-10	11-23	24+
• Chronic kidney disease (nontransplant) Stages II-IV (G18d)	1-39	40-79	80+
• Primary or essential hypertension (G18e)	1-50	51-99	100+
• Polycystic kidney disease (G18f)	1-19	20-45	46+
• Membranoproliferative glomerulonephritis (G16a)	1-5	6-12	13+
• IgA nephropathy (G16b)	1-10	11-36	37+
• Systemic lupus erythematosus with renal involvement (G16c)	1-8	9-24	25+
• Membraneous nephropathy (G16d)	1-5	6-15	16+
• Focal segmental glomerulosclerosis (G16e)	1-5	6-12	13+
Neurology & Neurosurgery Volume Measures*	**Low Volume (1 point)**	**Medium Volume (2 points)**	**High Volume (3 points)**
Clinic patient volume (max points = 54)			
• Cerebal palsy/spasticity clinic (H12a)	1-249	250-499	500+
• Cerebrovascular accident (stroke) program (H12b)	1-49	50-99	100+
• Craniofacial surgical program (H12c)	1-249	250-499	500+
• Movement disorders program (H12d)	1-199	200-399	400+
• Neurofibromatosis clinic(H12e)	1-69	70-139	140+

* Parenthetical references indicate relevant survey questions. (continued)
** Volume represents procedures, not patients.

Table 7. Specialty-Specific Volume Measures (continued)

Neurology & Neurosurgery Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
• Neuromuscular clinic (H12f)	1-199	200-399	400+
• Neuro-oncology program (H12g)	1-99	100-199	200+
• Spina bifida program (H12h)	1-149	150-299	300+
• Tuberous sclerosis clinic (H12i)	1-39	40-79	80+
• Brachial plexus clinic (H12j)	1-49	50-99	100+
• Metabolic/white matter clinic (H12k)	1-79	80-159	160+
• Neonatal neurology clinic (H12l)	1-149	150-299	300+
• Multidisciplinary spine program (H12m)	1-199	200-399	400+
• Head trauma/post-concussion (H12n)	1-199	200-399	400+
• New-onset seizures (H12o)	1-299	300-599	600+
• Neuro-fetal program (H12p)	1-29	30-59	60+
• Headache clinic (H12q)	1-299	300-599	600+
• Pain clinic (H12r)	1-299	300-599	600+
Epilepsy workup and care volume* (max points = 18)			
• Initial medical evaluations for epilepsy (H9a)	1-599	600-1,199	1,200+
• Number of standard EEG evaluations (H9b)	1-999	1,000-1,999	2,000+
• Number of long-term video EEG (vEEG) evaluations (H9c)	1-599	600-1,199	1,200+
• Evaluations for surgery related to epilepsy (H9d)	1-79	80-159	160+
• Number of first-time surgical procedures for epilepsy (H9e)	1-24	25-49	50+
• VNS procedures for epilepsy (H9f)	1-24	25-49	50+
Surgical volume (max points = 42)			
• Surgical procedure for epilepsy (H8)	1-149	150-299	300+
• Brain tumors (benign/malignant) (H16a)	1-34	35-69	70+
• Craniosynostosis (H16b)	1-29	30-59	60+
• Hydrocephalus patient shunt procedures (H16c)	1-49	50-99	100+
• Implantation of ICP monitors for head trauma (H16d)	1-19	20-39	40+
• Medically intractable epilepsy (H16e)	1-24	25-49	50+
• Spinal dysraphism (H16f)	1-19	20-39	40+
• Chiari I malformation/syringomyelia (H16g)	1-19	20-39	40+

* Parenthetical references indicate relevant survey questions. (continued)
** Volume represents procedures, not patients.

Table 7. Specialty-Specific Volume Measures (continued)

Neurology & Neurosurgery Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
• Endoscopic third ventriculostomy (H16h)	1-24	25-49	50+
• Brachial plexus exploration/reconstruction (H16i)	1-7	8-15	16+
• Spasticity (H16j)	1-19	20-39	40+
• Vascular cases including endovascular procedures (H16k)	1-24	25-49	50+
• Brain stimulation (H16l)	1-24	25-49	50+
• Spinal instrumentation (H16m)	1-19	20-39	40+
Orthopedics Volume Measures*	**Low Volume (1 point)**	**Medium Volume (2 points)**	**High Volume (3 points)**
Patient volume (max points = 33)			
• Spina bifida clinic (I15a)	1-149	150-299	300+
• Spasticity or cerebral palsy clinic (I15b)	1-299	300-599	600+
• Skeletal dysplasia clinic (I15c)	1-99	100-199	200+
• Brachial plexus clinic (I15d)	1-59	60-119	120+
• Neurofibromatosis clinic (I15e)	1-59	60-119	120+
• Muscular dystrophy clinic (I15f)	1-149	150-299	300+
• Pain clinic (I15g)	1-149	150-299	300+
• Sports medicine clinic (I15h)	1-1,499	1,500-2,999	3,000+
• Sports concussion program (I15i)	1-349	350-699	700+
• Orthopedic trauma cases (I14)	1-499	500-999	1,000+
• Scoliosis correction patients (I31a-d)	1-74	75-149	150+
Procedure volume ** (max points = 45)			
• Motion laboratory evaluations (I20)	1-24	25-49	50+
• Developmental dysplasia of the hip (I24a)	1-29	30-59	60+
• Perthes disease (I24b)	1-9	10-19	20+
• Slip capital femoral epiphysis (I24c)	1-24	25-49	50+
• Complex hip surgery, children ages 12-18 (I24d)	1-14	15-29	30+
• Clubfeet—minimally invasive treatment (I24e)	1-9	10-19	20+
• Clubfeet—more-extensive open procedure (I24f)	1-14	15-29	30+
• Knee injury—anterior cruciate ligament repair (I24g)	1-39	40-79	80+

* Parenthetical references indicate relevant survey questions.
** Volume represents procedures, not patients.

(continued)

Table 7. Specialty-Specific Volume Measures (continued)

Orthopedics Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
• Brachial plexus injury—primary repair with patients < 1 years of age (I24h)	1	2-3	4+
• Brachial plexus injury—secondary procedure with patients ≥ 1 years of age) (I24i)	1-29	30-59	60+
• Operative reduction and fixation of the supracondylar fracture of the humerus (I24j)	1-124	125-249	250+
• Operative reduction and fixation of the femur fractures with patients 6-12 years of age (I24k)	1-19	20-39	40+
• Operative reduction and fixation of both bone fractures of the forearm (I24l)	1-34	35-69	70+
• Limb salvage for malignant tumors (I24m)	1-19	20-39	40+
• Implantation of a vertical expandable prosthetic titanium rib (I24n)	1-7	8-15	16+
Pulmonology Volume Measures*	**Low Volume (1 point)**	**Medium Volume (2 points)**	**High Volume (3 points)**
Nonsurgical procedure volume* (max points = 12)			
• 12- or 32- channel polysomnographic studies (J36)	1-699	700-1,399	1,400+
• Non-invasive positive pressure ventilation support (J37)	1-74	75-149	150+
• Home nocturnal PAP or bilevel therapy (J38)	1-74	75-149	150+
• Bronchoscopy (J49)	1-249	250-499	500+
Patient volume (max points = 24)			
• Asthma inpatients (J10a)	1-399	400-799	800+
• Asthma outpatients in subspecialty care clinics (J10c)	1-1,499	1,500-2,999	3,000+
• Asthma outpatients in primary care clinics (J10f)	1-1,499	1,500-2,999	3,000+
• CF patients (J24a)	1-124	125-249	250+
• Muscular dystrophy (J29)	1-39	40-79	80+
• Ventilator dependent patients (J40)	1-29	30-59	60+
• Rare lung disease (J26)	1-29	30-59	60+
• Lung disease of prematurity (J27)	1-59	60-129	120+

* Parenthetical references indicate relevant survey questions. (continued)
** Volume represents procedures, not patients.

Table 7. Specialty-Specific Volume Measures (continued)

Urology Volume Measures*	Low Volume (1 point)	Medium Volume (2 points)	High Volume (3 points)
Minimally invasive procedure volume (max points = 12)			
• Shock wave lithotripsy (K11a)	1-7	8-15	16+
• Laparoscopic orchiopexy (K11b)	1-24	25-49	50+
• Robotic laparoscopic pediatric surgery (K11c)	1-9	10-19	20+
• Laparoscopic pyeloplasty, nephrectomy and partial nephrectomy (K11d)	1-11	12-23	24+
Patient volume (max points = 24)			
• Pediatric urology outpatients (2 years), (K8b)	1-7,999	8,000-15,999	16,000+
• Pediatric urology surgical patients (K9)	1-999	1,000-1999	2,000+
• Spina bifida program (K10a)	1-124	125-249	250+
• Voiding dysfunction program (K10b)	1-599	600-1,199	1,200+
• Comprehensive stone program (K10c)	1-99	100-199	200+
• Prenatal program (K10d)	1-99	100-199	200+
• Disorders of sexual differentiation program (K10e)	1-49	50-99	100+
• Exstrophy/cloaca/GU sinus program (K10f)	1-49	50-99	100+
Surgery volume (max points = 19)			
• Open pyeloplasty (K12a)	1+	n/a	n/a
• Radical nephrectomy (K12b)	1-4	5+	n/a
• Open heminephrectomy, ureteral reimplantation or ureteroureterostomy for patients with duplication anomalies of the kidney (K12c)	1-19	20+	n/a
• Laparoscopic heminephrectomy, ureteral reimplantation or ureteroureterostomy for patients with duplication anomalies of the kidney (K12d)	1-4	5+	n/a
• Exstrophy closures (K13a)	1-2	3+	n/a
• Reconstructive procedures for incontinence or hostile bladder - open (K13b)	1-39	40+	n/a
• Endoscopic procedure for incontinence or hostile bladder (K13c)	1-9	10+	n/a
• Posterior urethral valve ablation (K13d)	1-8	9+	n/a
• Proximal urethroplasty for hypospadias (K13e)	1-44	45+	n/a
• Female reconstructive procedures (K13e)	1-5	6+	n/a

n/a = not applicable.
* Parenthetical references indicate relevant survey questions.
** Volume represents procedures, not patients.

B. Normalization

Starting with the 2012-13 rankings, all structural measures underwent normalization prior to weighting. Normalization transforms index values into a distribution between 0 and 1 based on the range of possible values for a given measure. The formula for normalization is provided in Equation (1):

Equation (1) $$Normalized\ Value = X_i)/(Maximum_i - Minimum_i)$$

where

X_i = the value for measure *i* and

$Maximum_i$ = the highest *possible* value for measure *i*.

$Minimum_i$ = the lowest *possible* value for measure *i*.

For example, the Urology patient volume measure is worth a maximum of 24 points. If a given hospital received 18 out of 24 points, the normalized value for Urology patient volume would be (18/24) = 0.75. For nurse-patient ratio, which does not have an absolute maximum, we capped the maximum value at 4.0 to reduce skewness in the data.

C. Weighting

For the 2012-13 rankings, we convened a special panel to provide feedback on the weighting of each measure within the three major rankings components. This evaluation was conducted both across specialties to build in a degree of consistency in weighting, and within specialties to identify keys to quality in a particular specialty. Overall, the weights were determined using input from the project team and working groups based on how important each measure was in defining the Donabedian components of quality of care within hospitals. The weights were revised slightly for 2014-15, based on changes to the measures used in each specialty.

Table 8 shows the actual weight for each of the measures that make up the structural component of the rankings, by specialty. The sum of the structural weights is 33.3% of the overall score for all specialties.

Table 8. Percent Weights of Individual Structural Measures by Specialty

Measure	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Active fellowship program	1.8	1.8	2.3	2.1	2.3	2.2	2.2	2.3	2.2	2.2
Adoption of health information technology	1.4	1.4	1.9	1.7	1.8	1.7	1.8	1.9	1.5	1.8
Adult congenital heart program		1.8								
Advanced clinical services	1.4	1.4	1.9	1.7	1.8	1.7	1.8	1.9	1.5	1.8
Advanced technologies	1.4	1.4	1.9	1.7	1.8	1.7	1.8	1.9	1.5	1.8
Bone marrow transplant services	1.4									
Clinical support services	1.4	1.4	1.9	1.7	1.8	1.7	1.8	1.9	1.5	1.8
Commitment to clinical research	1.8	1.8	2.3	2.1	2.3	2.2	2.2	2.3	2.2	2.6
Commitment to quality improvement	2.2	2.2	2.8	2.5	2.7	2.6	2.7	2.8	2.2	2.6
Congenital heart program		1.8								
ECMO availability					1.8					
FACT-accredited for BMT and tissue transplant	2.2									
Fulltime subspecialists available	1.4	1.4	1.9	1.7	1.8	1.7	1.8	1.9	1.5	1.8
Management of asthma patients									1.9	
Management of lung disease of prematurity									1.9	
Management of neuro-muscular weakness disorder									1.9	
Nurse Magnet recognition	2.9	2.2	2.8	2.5	2.7	2.6	2.7	2.8	2.2	2.6
Nursing intensity	2.9	2.9	3.8	3.4	3.7	3.4	3.6	3.8	3.0	3.5
Palliative care program	2.2									
Patient and family services	1.4	1.4	1.9	1.7	1.8	1.7	1.8	1.9	1.5	1.8

(continued)

Table 8. Percent Weights of Individual Structural Measures by Specialty (continued)

Measure	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Specialized clinics and programs	1.4	1.4	1.9	1.7	1.8		1.8	1.9		1.8
Steps to engage families	1.8	1.8	2.3	2.1	2.3	2.2	2.2	2.3	1.9	2.2
Transplant program/survival		1.8		1.7					1.9	
Transplants to dialysis patients						2.2				
Volume: Catheter procedure		1.4				1.2				
Volume: Dialysis						1.2				
Volume: Epilepsy workup and care							1.8			
Volume: Kidney biopsy						1.2				
Volume: Kidney transplant						1.2				
Volume: New-patient	1.4									
Volume: Norwood/hybrid surgery		1.4								
Volume: Patient	1.4		1.9	1.7	2.7	1.2	1.8	1.9	1.5	1.8
Volume: Procedure volume			1.9	1.7				1.9	1.5	1.8
Volume: Surgery volume	1.4	2.2		1.7			1.8			1.8
Total*	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**

* The sum of individual measures may not equal 33.3 due to rounding.

V. Process

The process component in Best Children's Hospitals is represented by three measures—commitment to best practices, use of infection-preventing measures, and reputation with pediatric specialists. Their sum, as is the case for the structural measures, is 33.3% of the overall score.

A. Commitment to Best Practices

This measure evaluates hospitals' commitment to following and implementing best practices. Best practices were identified for all specialties. ***Table 9*** identifies the best practices identified for each specialty and the number of points awarded.

Table 9. Commitment to Best Practices by Specialty

Cancer* (27 points)	Points
Participating in regular morbidity and mortality conferences (B12)	1
Having multidisciplinary tumor boards that meet at least quarterly to discuss the following patient populations in active treatment (B13):	
• Hematologic malignancy • Solid tumor • Brain tumor	3
Promoting ease of access through the following mechanisms (B14):	
• Satellite offices and/or outreach clinics • Affiliate programs to assist patients facing barriers to care/community-based follow-up care • Multidisciplinary clinics allowing patients to see multiple care providers in a single visit	3
Percentage of patients presenting with febrile neutropenia who receive intravenous antibiotics within one hour of initial triage (B31.1)	1: ≥ 50% & < 75% 2: ≥ 75% & < 90% 3: ≥ 90%
Having case managers (comprising nurse practitioners, physician assistants or clinical nurses) spend 25% or more of their time in care for the following patient populations (B4):	
• Hematologic malignancies • Solid tumors • Brain tumors • Stem cell transplants	4
Engaging in activities designed to ensure high reliability (A39):	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	5
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1
Offering an on-site code team to address emergencies in outpatient cancer treatment clinics (B5.1)	1

* Parenthetical references indicate relevant survey questions. (continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Cancer* (27 points)	Points
Percentage of patients at hospital seen in a formally structured late effects or off-therapy clinic from 2011-2013 (B28)	1: ≥ 50% & < 75% 2: ≥ 75%
Percentage of active patients with brain tumors MDS and leukemia who have formal neuropsychological evaluations (B28.1)	1: ≥ 25% & < 75% 2: ≥ 75%
Percentage of school-age patients with brain tumors, MDS and leukemia who have formal school intervention evaluations (B28.2)	1: ≥ 25% & < 75% 2: ≥ 75%
Cardiology & Heart Surgery* (29 points)	**Points**
Offering the following conferences/programs (E27):	
• Multidisciplinary morbidity and mortality conferences • Multidisciplinary maternal/fetal medicine conferences • Active home surveillance program for infants after Stage 1 palliation for hypoplastic left heart syndrome • A follow-up program for children with complex congenital heart disease or at risk for adverse neurodevelopmental outcomes • Patient planning conference	5
Engaging in the following surgical safety procedures (E35):	
• Conventional pre-procedural "time-out" • Pre-procedural briefings • Post-procedural debriefings • Implementation of a hand-off protocol or briefing	4
Using clinical practice guidelines to manage perioperative and postoperative care for the following patient populations (E36):	
• Single ventricle/shunt management • Two-ventricle repairs • Infant feeding • Anticoagulation with Coumadin	4
Routinely tracking and reporting every occurrence of the following surgical admission outcomes parameters to the STS database (E37):	
• Unplanned reoperation during the same hospital admission • Re-exploration for bleeding • Deep sternal wound infection/mediastinitis requiring debridement • Atrioventricular block requiring placement of a permanent pacemaker	4
Number of pediatric cardiothoracic surgeons with subspecialty certification in congenital heart surgery (E2.1)	1: 1 surgeon 2: 2+ surgeons
Percent of hybrid and Norwood Stage 1 surgery patients in the past 4 years alive 1 year after surgery who had a neurodevelopment evaluation between 9 and 15 months of age (E40.2):	
• At least 75% of patients with evaluation (Year 1) • At least 75% of patients with evaluation (Year 2) • At least 75% of patients with evaluation (Year 3) • At least 75% of patients with evaluation (Year 4)	4

* Parenthetical references indicate relevant survey questions. (continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Cardiology & Heart Surgery* (29 points)	Points
Engaging in activities designed to ensure high reliability (A39):	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan addressing problems identified during training or simulation	5
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1
Diabetes & Endocrinology* (89 points)	**Points**
New-onset Type 1 diabetes patients initially treated and given diabetes education predominantly as outpatients (as opposed to inpatients) (C5)	1
Having pediatric diabetes staff take a leadership role in advocating for the rights of patients (C11)	1
Providing, encouraging, or supporting a diabetes-specific technology education program (C13)	1
Administering a formal assessment of diabetes knowledge after initial education and periodically thereafter (C15)	1
Percent of diabetes inpatients (treated with insulin) admitted to other services, but seen by providers in the pediatric diabetes program (C16)	1: ≥ 50% & < 75% 2: ≥ 75% & < 90% 3: ≥ 90%
Having a formal written transition program to prepare pediatric patients for the transition to an adult diabetes program (C17)	1
Percentage of diabetes patients receiving a written (or electronic) report of their diagnosis/findings and a treatment plan at the conclusion of their most recent visit:	
• Outpatients (C18a) • Inpatients (C18b)	For each measure: 1: ≥ 50% & < 75% 2: ≥ 75% & < 90% 3: ≥ 90%

* Parenthetical references indicate relevant survey questions.

(continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Diabetes & Endocrinology* (89 points)	Points
Including the following elements in summaries given to patients in outpatient clinic visits (C19):	
• Complete insulin dosages • Blood glucose testing and record-keeping recommendations • A1c values from today • Next visit date and time • Information on when and how to contact the Diabetes Center • Referrals made for laboratory, ophthalmological, dental and mental health before next visit	6
Having a clinical database of attributes of current, active diabetes patients that is used for quality assessment and improvement (C20)	1
Having a written plan to review inpatient incidents of insulin-related medication errors and adverse drug events requiring IV glucose treatment (C21)	1
Having written consensus protocols for management of the following patient populations (C22):	
• Inpatient management of diabetic ketoacidosis • Glucagon mini-dose for families • Periodic screening for complications of diabetes in the outpatient clinic • Evaluation of hyperglycemia in critically ill inpatients • Outpatient management of Type 2 diabetes patients • Outpatient management of pre-diabetes patients who typically have obesity and insulin resistance	6
Performing care review for all inpatients with diabetes at an interdisciplinary team prior to discharge (C23)	1
Conducting bedside rounds of all diabetes inpatients that involve an exchange of information between the interdisciplinary diabetes team members, the bedside nurse and the patient/family (C24)	1
Having regularly scheduled interdisciplinary care conferences to discuss diabetes patients with poor control (C26)	1: 1-11 times/year 2: 12+ times/year
Having written protocols for identifying "high risk" patients and enrolling them in special pathways (C27)	1
Interacting with clinical laboratory or pathology service to review lab findings, problems and updates (C28)	1
Percentage of primary diabetes care patients with following encounters (C30):	
• Medical nutrition therapy • Diabetes education with CDE or equivalent	For each measure: 1: ≥ 50% & < 75% 2≥ 75%
• Social worker or psychologist assessment	1: ≥ 25% & < 50% 2: ≥ 50%

* Parenthetical references indicate relevant survey questions. (continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Diabetes & Endocrinology* (89 points)	Points
Percentage of Type 1 primary care diabetes patients	
• with a TSH performed and documented in past 2 years (C31a)	1: ≥ 50% & < 75% 2: ≥ 75%
• scheduled for 4 or more outpatient clinic visits in past 12 months (C32a) • attended 4 or more outpatient clinic visits (C32b)	For each measure 1: ≥ 50% & < 75% 2: ≥ 75% & < 90% 3: ≥ 90%
Percentage of Type 1 primary care diabetes patients on an insulin pump in the past calendar year (C33)	1: ≥ 25% & < 50% 2: ≥ 50%
Percentage of Type 1 and Type 2 primary care diabetes patients screened for depression in the past calendar year (C34)	1: ≥ 25% & < 50% 2: ≥ 50%
Points were awarded based on the percentage of patients meeting each condition:	
• Percentage of Type 1 diabetes outpatients with daily glucose blood glucose measurements available for review for the past 2 weeks (C36) • Percentage of Type 1 diabetes outpatients over age 10 with documentation of microalbumin screening (C38a) • Percentage of Type 1 diabetes outpatients over age 10 with documentation of non-mydriatic camera examination (C39b)	For each measure: 1: ≥ 50% & < 75% 2: ≥ 75% & < 90% 3: ≥ 90%
Tracking the number of school days missed for diabetes-related reasons (C39)	1
Providing a dedicated team of Type 2 diabetes providers (C40)	1
Developing or providing patient education materials on various conditions in written form or on the hospital's website (C45)	1
Discussing thyroid cancer patient cases in active treatment at a tumor board at least once a quarter (C56)	1
Diabetes staff taking a leadership role in organizing and running a diabetes camp (C10)	1
Using a clinical database used by the program to evaluate performance (C54.1)	1
Percentage of patients admitted to the hospital in the past year with an endocrine disorder that were seen by a physician in the pediatric endocrinology program (C58)	1: ≤50% 2: >50%
Diabetes education program recognized by American Diabetes Association or American Association of Diabetes Educators as of December 31, 2013 (C14)	1
Implementing a policy where all bone age films ordered by Pediatric Endocrinology are interpreted by a radiologist (C50)	1: Outside radiologist without formal evaluation 2: In house or with formal validation

* Parenthetical references indicate relevant survey questions.

(continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Diabetes & Endocrinology* (89 points)	Points
Percentage of your pediatric Type 1 diabetes outpatients used continuous glucose monitoring in the last year (C52)	1: ≥ 50% & < 75% 2: ≥ 75%
Encouraging use of a patient portal to access electronic medical records and communicate with other physicians and staff (C62)	1
Having a system in place to alert providers that the following types of patients have not returned for care (C63): • Type 1 diabetes • Congenital hypothyroidism • Congenital adrenal hyperplasia • Growth hormone therapy • Precocious puberty on therapy	1: 1-3 types 2: 4-5 types
Having regularly scheduled conferences with pediatric radiologic to review the following tests (C64): • Abnormal brain and pituitary MRIs • Abnormal pelvic ultrasounds • Abnormal thyroid ultrasounds	1: 1-2 tests 2: 3 tests
Participating in multidisciplinary evaluation and management of the following types of patients (C65): • Endocrine complications in hematology/oncology patients • Endocrine complications in post-transplant patients • Metabolic bone disease and osteogenesis imperfecta • Inborn errors of metabolism or evaluation of hypoglycemia	1: 1-2 types 2: 3 types
Hosting or conducting the following conferences or educational programs in the last year (C66): • Joint case conferences with Internal Medicine • Joint case conferences with genetics program • Pediatric endocrinology case conference • Pediatric endocrinology journal club • CME-granting education activity conferences	1: 1-35 conferences 2: 35+ conferences
Engaging in activities designed to ensure high reliability (A39):	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	5
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1

* Parenthetical references indicate relevant survey questions.

(continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Gastroenterology & GI Surgery* (10 points)	Points
Having regular, multidisciplinary morbidity and mortality conferences for pediatric GI patients (D26)	1
Having a standard mechanism to determine if complications have occurred in patients who underwent outpatient GI procedures (D27)	1
Having 1 or more IRB-approved protocols that provide GI patients access to drugs or devices through compassionate use (D28)	1
Providing educational programs for the following disease-specific GI conditions (D9):	
• Inflammatory bowel disease, Crohn's disease or colitis • Celiac disease • Liver disease • Cystic fibrosis • Eosinophilic esophagitis • Chronic intestinal failure	6
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1
Neonatology* (57 points)	**Points**
Patient load per nurse practitioners or physician assistants (F3)	1: ≥ 9 2: < 9
Patient load per staff person: • Neonatologists (F5) • Nutritionists (F7.1)	For each measure: 1: ≥ 20 2: < 20
Patient load per staff person: • Licensed independent contractor (attending, fellow, resident or physician extender) on the night shift (F5.1) • Social workers (F11.1)	For each measure: 1: ≥ 15 2: < 15
Percent of direct clinical care RNs who are nationally certified in neonatal intensive care (F4b)	1: ≥ 50% & <75% 2: ≥ 75%
Engaging in the following interaction with hospital's NICU (F18):	
• All high-risk newborn cardiac patients receiving a neonatology consult • All preterm patients receiving a neonatology consult • Neonatology fellows rotating through NICU	3
Providing a percutaneous intravenous central catheter (PICC) team with specialized training to place and maintain PICC lines in NICU patients (F20)	1
Availability of PICC line placement services (F20.1)	1: day shift 2: 24/7 coverage

* Parenthetical references indicate relevant survey questions. (continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Neonatology* (57 points)	Points
Requiring NICU staff to participate in the following training protocols at least once in the past 2 years (F22):	
• Neonatal unplanned code response • Arrhythmia treatment including use of defibrillator • Simulation of emergency evacuation of the NICU • Neonatal resuscitation • ECMO simulation training • Exchange transfusion simulation training • Other training	7
Having at least 75% of neonatal fellows complete training in the following procedure protocols (F23.1):	
• Chest tube placement • Intubation • Neonatal resuscitation program	3
Having at least 75% of neonatal physician extenders complete training in the following procedure protocols (F23.1):	
• Chest tube placement • Intubation • Neonatal resuscitation program	3
Programs that do not have a formal procedure/protocol for training staff in chest tube placement, intubation and neonatal resuscitation every 2 years were asked to describe how competency for NICU attending physicians is managed for infrequently performed procedures (F23.2)	1
Having a quality metric for the NICU that includes monitoring the percent of infants discharged on breast milk (F10)	1
Offering a dedicated area within the facility for milk and formula preparation (F10.2)	1
Offering the following for nutrition and breastfeeding (F10.3)	
• NICU-dedicated certified lactation specialists • Cohort of NICU RNs specially trained in lactation counseling • NICU-specific breast milk committee • Process to rent breast pumps to families • Breast milk warmer at each bedside	5

* Parenthetical references indicate relevant survey questions. (continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Neonatology* (57 points)	Points
Number of standardized hand-off tools used by physicians and physician extenders to inform clinical staff during shift transitions (F29.1)	1: 1-2 tools 2: 3-4 tools
Number of standardized hand-off tools used by nurses to inform clinical staff during shift transitions (F30.1)	1: 1 tool 2: 2-3 tools
Engaging in activities designed to ensure high reliability (A39):	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	5
Recording the first temperature on return to the NICU after operating room procedure (F31)	1
Percentage of temperatures under 36°C (F31.1)	1: 15-20% 2: <15%
Having a multidisciplinary quality review process to evaluate unintended extubation of NICU patients (F32)	1
Frequency of quality review process (F32.1): • 1 points for a multidisciplinary review at some regular interval • 1 point for a mini-root cause analysis review within 12 hours	2
Tracking readmissions of NICU graduates within 30 days of discharge or transfer to a step down unit (F33)	1
Conducting multidisciplinary review of readmissions to determine if preventable (F33.2)	1
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1
Nephrology* (30 points)	**Points**
Percentage of school-age pediatric dialysis patients enrolled in a school or vocational rehabilitation program (G10)	1: <50% 2: ≥ 50%
Participating in regular interdisciplinary clinical conferences to review and coordinate the care of patients in the following specialties (G17):	
• Urology/uroradiology • Renal pathology • Rheumatology	3

* Parenthetical references indicate relevant survey questions. (continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Nephrology* (30 points)	Points
Engaging in activities designed to ensure high reliability (A39):	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow review of performance and need for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	5
Providing the following services in support of the pediatric dialysis unit (G19):	
• Designated medical director board-certified in pediatric nephrology • Quality Assurance Performance Improvement activities reviewed independently from the adult dialysis service • Pediatric maintenance dialysis patients receive treatment in a unit independent from adult patients • Dedicated nursing staff with formal training in pediatric dialysis • At-home maintenance hemodialysis program for adolescents • Ambulatory blood pressure monitoring • At-home maintenance peritoneal dialysis program • Plasmapharesis program	8
Offering a formal transition program for kidney transplant patients from pediatric to adult care when needed (G25)	1
Offering a formal transition program for dialysis patients into adult care when needed (G26)	1
Percentage of living donor nephrectomies conducted via laparoscopic procedure (G29)	1: ≤ 50% 2: > 50%
Reviewing the care of all kidney transplant inpatients at an interdisciplinary care conference (G30)	1
Maintaining a database of current kidney transplant patients with clinical data to allow for quality assessment and improvement of care (G38)	1
Offering the following programs to support pediatric patients undergoing kidney transplant (G33):	
• Quality of life assessment • Child life program for kidney transplant patients • Transplant pharmacist	3
Percentage of kidney transplant patients <18 years of age that were preemptive (G31.1)	1: 10-20% 2: >20%
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1

* Parenthetical references indicate relevant survey questions. (continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Neurology & Neurosurgery* (20 points)	Points
Conducting both pre- and postsurgical neuropsychological evaluations for surgical patients with the following diagnoses (H15):	
• Benign or malignant brain tumors • Traumatic brain injury/concussion • Medically intractable epilepsy • Craniofacial disorders	4
Participating in the following nationally audited research programs that focus on outcome measures specific to neurology and neurosurgery (H19)	
• Park-Reeves Syringomyelia Research Consortium or Pediatric National Surgical Quality Improvement Program • National Healthcare Safety Network • International Pediatric Stroke Study	3
Having an epilepsy program designated Level IV by National Association of Epilepsy Centers (H33)	1
Engaging in the following activities (H22):	
• Maintaining a surgical mortality database • Holding regular mortality and morbidity conferences • Regularly holding interdisciplinary care conferences	3
Having $\geq$ 75% of EEG tests incorporated into the patients' medical chart within 36 hours (H10):	
• Standard EEG medical evaluations for epilepsy within 36 hours • Long-term vEEG evaluations for epilepsy within 5 days from discharge	2
Participating in community outreach programs to improve health in the community (H20.1)	1
Engaging in activities designed to ensure high reliability (A39):	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	5
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1

* Parenthetical references indicate relevant survey questions. (continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Orthopedics* (35 points)	Points
Number of pediatric orthopedic surgeons who are active or candidate members of the Pediatric Orthopaedic Society of North America (I5)	1: 1-2 2: 3+
Percentage of pediatric orthopedic staff receiving orthopedic surgery-related continuing education credit or continuing medical credit	
• Nurse practitioners (I3.1) • Physician assistants (I3.1) • RNs (I4.1)	For each measure: 1: ≥50% and <75% 2: ≥75%
Providing pediatric imaging center with the following services (I10):	
• Pediatric protocols to reduce radiation exposure • Ultrasonographers with specialized training to perform hip exams • Remote retrieval of test results, images, and medical records from locations off-site or away from the hospital • Intraoperative navigation system • Upright whole-body low-dose radiography system for evaluating scoliosis	5
Participating in a Tumor Board (I17)	1
Participating in regular multidisciplinary morbidity and mortality conferences (I18)	1
Percentage of spine patients completing SRS-22 or SRS-30	1 : ≥50% and <75% 2: ≥75%
Percent compliance with written checklists and/or evidence based guidelines for patients with the following orthopedic injuries (I37):	
• Neurological injury associated with surgery for idiopathic scoliosis • Neurovascular injuries associated with supracondylar fractures or dislocation of the knee • Acute spine injury	For each measure: 1: ≥70 and <85% 2: ≥ 85%
Having a designated trauma operating room that guarantees orthopedics a "first case of the day start" (I28)	1
Having a policy in place that provides even greater operating room access based on periodic demand (I29)	1
Having access to at least 1 of the following types of anesthesiologists:	
• Pediatric anesthesiologists or pediatric spine anesthesiologists to assist with pediatric orthopedic surgeries (I34) • Pediatric anesthesiologists or pediatric spine anesthesiologists to assist with pediatric surgical correction of scoliosis (I35)	2
Having at least 1 in-service presentation or formal lecture to an RN audience (I39)	1
Establishing a professional relationship with one or more prosthetic/orthotics providers such that they attend clinic on a regular basis (I40)	1

* Parenthetical references indicate relevant survey questions.

(continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Orthopedics* (35 points)	Points
Engaging in activities designed to ensure high reliability (A39):	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	5
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1
Pulmonology* (21 points)	**Points**
Screening all pulmonology patients for tobacco smoke exposure and actively counseling family members who smoke (J6)	1
Having written consensus protocols for the following conditions (J13):	
• Asthma exacerbations • Bronchiolitis • Croup • Cystic fibrosis • Uncomplicated pneumonia • Complicated pneumonia • Tracheostomy or ventilator-dependent patients	7
Routinely involve pulmonologists in outpatient management of pediatric patients with the following conditions (J50):	
• Sickle cell anemia • Primary immunodeficiency and/or post-bone marrow transplantation • Rheumatologic disorders	3
Engaging in activities designed to ensure high reliability (A39):	
• All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with the development of an action plan to address problems identified during the training or simulation	5

* Parenthetical references indicate relevant survey questions. (continued)

Table 9. Commitment to Best Practices by Specialty (continued)

Pulmonology* (21 points)	Points
Provide thorough assessment of patients' home environment and offer guidance for reducing exposures that contribute to asthma (J9)	1
Evaluate the adherence of patients on positive airway pressure, bilevel or nocturnal non-invasive positive pressure ventilation treatment (J39)	1
Have multidisciplinary care team to coordinate the care of long-term ventilator-dependent patients (J41)	1
Have a formal plan to actively transition CF patients from pediatric care to adult care (J25)	1
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1
Urology* (10 points)	**Points**
Engaging in activities designed to ensure high reliability (A39): • All clinical staff are trained in code response using simulations or other team trainings • Team trainings include clear instructions and demonstration of roles and lines of communication • Team trainings are videotaped to allow review of performance and needs for improvement • Team trainings include critical event debriefing or team discussions that focus on identifying what worked well and where improvement is needed • All team trainings end with development of action plan to address problems identified during the training or simulation	5
Having regular morbidity and mortality conferences to discuss pediatric urology patients (K6a)	1
Having regular case conferences to discuss surgical management of complex cases (K6b)	1
Having an established surveillance system to monitor surgical site infections for major urological procedures and providing a description of the process (K17.1)	2
Participating in a program to reduce radiation exposure to patients and staff (A10.1)	1

* Parenthetical references indicate relevant survey questions.

B. Use of Infection-Preventing Measures

Incorporating infection-preventing measures captures the commitment of a hospital to identifying and implementing proven means of reducing the risk of various infections.

All-Specialty Infection-Preventing Measures

A core set of submeasures for all specialties was worth up to 21 points, as shown in ***Table 10***. Specialty-specific measures in all specialties except Neonatology and Urology allowed an additional 4-30 points, depending on the specialty.

Table 10. Core Infection Prevention Measures, All Specialties (21 points)

All Specialties* (21 points)	Points
Auditing hand hygiene compliance rates (A24)	1
Auditing hand hygiene compliance rates via electronic monitoring or direct observation (compared to self-report) (A24)	1
Percentage of compliant hand hygiene observations in the past 12 months (A25)	1: ≥ 80% & < 90% 2: ≥ 90%
Providing at least .50 FTE financial support for a pediatric infectious disease specialist to serve as a dedicated director of the infection prevention program (A26)	1
Having at least 1.0 FTE infection preventionists (A27)	1
Having at least 1 infection preventionist certified by the Certification Board in Infection Control (A27.1)	1
Ensuring that at least 75% of the following staff received influenza vaccination (A28): • Physicians (including attending physicians, fellows, residents) • Nursing staff and mid-level providers • All other employees	3
Ensuring that at least 50% of the following staff received Tdap vaccination (A29): • Physicians (including attending, fellows, residents) • Nursing staff and mid-level providers • All other employees	3
Having the following elements of antimicrobial stewardship program (A31): • Publishing yearly antimicrobial susceptibility summary that is readily available to clinicians • Restricting pharmacy use of selected antimicrobial agents to prevent potential resistance from overuse • Implementing prospective audit with intervention and feedback • Providing dedicated pharmacist to antimicrobial stewardship program (ASP) • FTE support for the role of medical director of the pediatric ASP program • Microbiology laboratory that restricts reporting of susceptibilities to some antimicrobials to prevent overuse	6
Performing surveillance for 1 or more respiratory viruses (A32)	1
Having formal program to prevent hospital-acquired pressure ulcers (A36)	1

* Parenthetical references indicate relevant survey questions.

Specialty-Specific Infection Prevention Measures

Cancer (4 additional points). Hospitals received 1 point for actively tracking seasonal influenza vaccinations in leukemia patients (B32). Up to 3 additional points were awarded according to the percentage vaccinated (B33): 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%.

Cardiology & Heart Surgery (6 additional points). Hospitals received 1 point for monitoring compliance with preoperative antibiotic prophylaxis for a sample of cases. or 2 points for monitoring compliance for all cardiothoracic surgeries (E32). Up to 2 additional points were awarded according to the percentage of compliance (E33): 1 point if ≥ 75% and < 90%, and 2 points if ≥ 90%. Hospitals received 2 points for formally monitoring surgical site infections (SSIs) for major cardiothoracic procedures (E34/E34.1).

Diabetes & Endocrinology (4 additional points). Hospitals received 1 point for actively tracking seasonal influenza vaccinations in diabetes outpatients (C42). Up to 3 additional points were awarded according to the percentage vaccinated (C43): 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%.

Gastroenterology & GI Surgery (9 additional points). Hospitals received 1 point each (up to 3 points) for actively tracking seasonal influenza vaccinations for short-gut patients (D18), liver-transplant patients (D23) and total parenteral nutrition patients (D32). Up to 3 points were awarded based on the percentage of both short-gut patients (D19) and liver-transplant patients (D24) vaccinated: 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%.

Neonatology (0 additional points). There are currently no additional infection prevention measures.

Nephrology (25 additional points). Hospitals received 1 point each (up to 6 points) for actively tracking seasonal influenza and pneumococcal vaccinations for hemodialysis patients (G12a, G13a), peritoneal patients (G12b, G13b) and kidney transplant patients (G34, G35). Up to 3 additional points were awarded for each of the 6 groups (up to 18 points) according to the percentage vaccinated (G12a, G12b, G13a, G13b, G34.1, G35.1): 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%. One additional point was awarded for tracking dialysis catheter-associated bloodstream infection (BSI) rates using NHSN guidelines for pediatric outpatients on maintenance dialysis (G36).

Neurology & Neurosurgery (17 additional points). Hospitals received 1 point for monitoring compliance with preoperative antibiotic prophylaxis for a sample of cases and 2 points for monitoring compliance for all ventricular surgeries (H25). Up to 2 additional points were awarded based on the percentage of compliance (H26): 1 point if ≥ 75% and < 90%, and 2 points if ≥ 90%. Hospitals received 1 point for actively tracking SSIs for ventricular shunt surgeries (H27). Up to 12 additional points were awarded for evaluating the percentage of SSIs for new or primary shunt placements in each of the past 2 years (H28b) and evaluating the percentage of SSIs for replacement, revision or removal shunt procedures in each of the past 2 years (H28c). Points were awarded as follows: 1 point if > 9% and ≤ 15%, 2 points if > 3% and ≤ 9%, and 3 points if ≤ 3%.

Orthopedics (5 additional points). Hospitals received 1 point for monitoring compliance with preoperative antibiotic prophylaxis for a sample of cases and 2 points for monitoring compliance for all spinal fusion surgeries (I21). Up to 2 additional points were awarded according to the percentage of compliance (I22): 1 point if ≥ 75% and < 90%, and 2 points if ≥ 90%. Hospitals received 1 point for actively monitoring SSIs using NHSN criteria.

Pulmonology (17 additional points). Hospitals received 1 point each (up to 4 points) for actively tracking seasonal influenza vaccinations for asthma patients (J14), cystic fibrosis patients (J18), neuromuscular weakness disorder patients (J33) or ventilator-dependent patients (J43). Up to 3 additional points were awarded for each of the 4 groups (up to 12 points) according to the percentage vaccinated (J15, J19, J34, J44): 1 point for ≥ 50% and < 75%, 2 points for ≥ 75% and < 90%, and 3 points for ≥ 90%. Hospitals received 1 additional point for implementing infection-control guidelines recommended by the Cystic Fibrosis Foundation (J20).

Urology (0 additional points). There are currently no additional infection prevention measures in Urology.

C. Reputation with Pediatric Specialists

Reputation can be viewed as a form of peer review of the hospital's capabilities across a wide variety of processes related to quality of care. For all specialties, reputational scores were based on responses to the physician surveys in 2012, 2013 and 2014.

The 2014 survey sample consisted of 1,500 board-certified pediatric specialists selected from the American Medical Association Masterfile.[***] Stratifying by census region (http://www.census.gov/geo/www/us_regdiv.pdf) and by specialty within region, we selected a probability (i.e., random) sample of 150 specialists for each of the 10 specialty areas. The final

[***] Details on previous surveys can be found in past methodology reports at www.rti.org/besthospitals.

sample included federal and nonfederal medical and osteopathic physicians in all 50 states and Washington, D.C.

Eligibility Requirements

To define a probability sample of physicians to properly represent the 10 specialty groupings, we used (1) a mapping between the 10 U.S. News specialties and the American Board of Medical Specialties (ABMS) member boards, and (2) a mapping between the ABMS specialty and subspecialty boards. For the two surgical subspecialties, sample members were selected from the society memberships for those specialties. Physicians who designated a primary specialty in one of the areas listed were eligible for the survey. ***Table 11*** displays the association among the specialty listed in Best Children's Hospitals and the corresponding member board.

Table 11. Physician Sample Mapping

Best Children's Hospitals Specialty	ABMS Specialty	ABMS Subspecialties
Cancer	Pediatrics	Pediatric Hematology-Oncology
Cardiology & Heart Surgery	Pediatrics	Pediatric Cardiology
	Congenital Heart Surgery	Congenital Heart Surgeon Society*
Gastroenterology & GI Surgery	Pediatrics	Pediatric Gastroenterology
Diabetes & Endocrinology	Pediatrics	Pediatric Endocrinology
Neonatology	Pediatrics	Neonatal-Perinatal Medicine
Nephrology	Pediatrics	Pediatric Nephrology
Neurology & Neurosurgery	Psychiatry and Neurology	Child Neurology
	Pediatric Neurological Surgery	Pediatric Neurological Surgery**
Orthopedics	Orthopedics	Pediatric Orthopedics
Pulmonology	Pediatrics	Pediatric Pulmonary
Urology	Urology	Pediatric Urology

* These specialists were selected from the Congenital Heart Surgeons Society membership list.
** These specialists were selected from the American Society of Pediatric Neurosurgeons.

Survey Procedure

Sampled physicians were asked to complete a brief survey containing a single nomination element. The survey asked physicians to supply the names of up to 10 hospitals in their specialty that provide the best care to patients with serious conditions, without considering location or expense (see ***Appendix B***).

For physicians whose email address was available, a mixed-mode (mail and Web) methodology was employed. In the mixed-mode approach, sampled physicians were sent by first-class mail a letter in advance alerting them to the nature of the study. Within a few days of receiving the advance letter, the physicians were sent an email with a link to the online survey. Nonresponding physicians were sent a reminder email 6 days later. Physicians who did not access the Web survey were sent up to three follow-up reminders by mail. Along with the questionnaire, mailings included a cover letter and a business reply envelope. The first follow-up mailing was sent using First Class mail, the second follow-up mailing was sent via Priority mail, and the third follow-up mailing was sent via UPS.

Physicians without an email address were sent a mailed copy of the survey instead of a prenotification letter. The schedule for the three reminder mailings was the same. The physician survey mailings were conducted in stages over several weeks starting at the beginning of 2014, as shown in ***Table 12***.

Table 12. Physician Survey Mailing Schedule

Materials Mailed	Method of Delivery	Materials Included	Date
Prenotification Letter	USPS, First Class mail	Cover letter, $2 incentive (half of sample)	January 2, 2014
Initial email invitation	email	Email with link to Web survey	January 8, 2014
Email reminder	email	Email with link to Web survey	January 14, 2014
1st mailed follow-up	USPS, First Class mail	Cover letter, survey, return envelope, $2 incentive (half of sample)	January 21, 2014
2nd mailed follow-up	USPS, Priority mail	Cover letter, survey, return envelope	February 3, 2014
3rd mailed follow-up	UPS 2nd-day delivery	Cover letter, survey, return envelope	February 20, 2014

2014 Response Rates

Of the 1,500 physicians sampled for this year's report, 144 were deemed ineligible after determining that they were no longer actively practicing. Of the remaining 1,356 physicians, 630 returned the completed questionnaire by the deadline of April 1, 2014. The final response rate was 46.5% using the American Association of Public Opinion Research standard response rate 6†††, which treats undeliverables as ineligible cases. ***Table 13*** shows response rates by region and specialty.

Table 13. Response Rates (%) by Region and Specialty, 2014

Specialty	Midwest	Northeast	South	West	Total
Cancer	62.9	42.4	32.4	30.3	**42.2**
Cardiology & Heart Surgery	76.5	58.1	61.1	55.9	**63.0**
Diabetes & Endocrinology	56.7	37.1	43.8	31.4	**41.7**
Gastroenterology & GI Surgery	50.0	46.9	30.3	41.7	**42.2**
Neonatology	20.6	27.3	15.6	20.6	**21.1**
Nephrology	57.9	22.2	28.6	43.8	**38.3**
Neurology & Neurosurgery	68.6	42.4	41.9	51.6	**51.5**
Orthopedics	66.7	55.6	48.5	38.2	**52.5**
Pulmonology	37.1	47.1	47.1	28.6	**39.9**
Urology	82.4	52.9	78.4	72.7	**71.7**
Total	**58.0**	**43.0**	**43.3**	**41.2**	**46.5**

Survey Response Weighting

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

Log Transformation

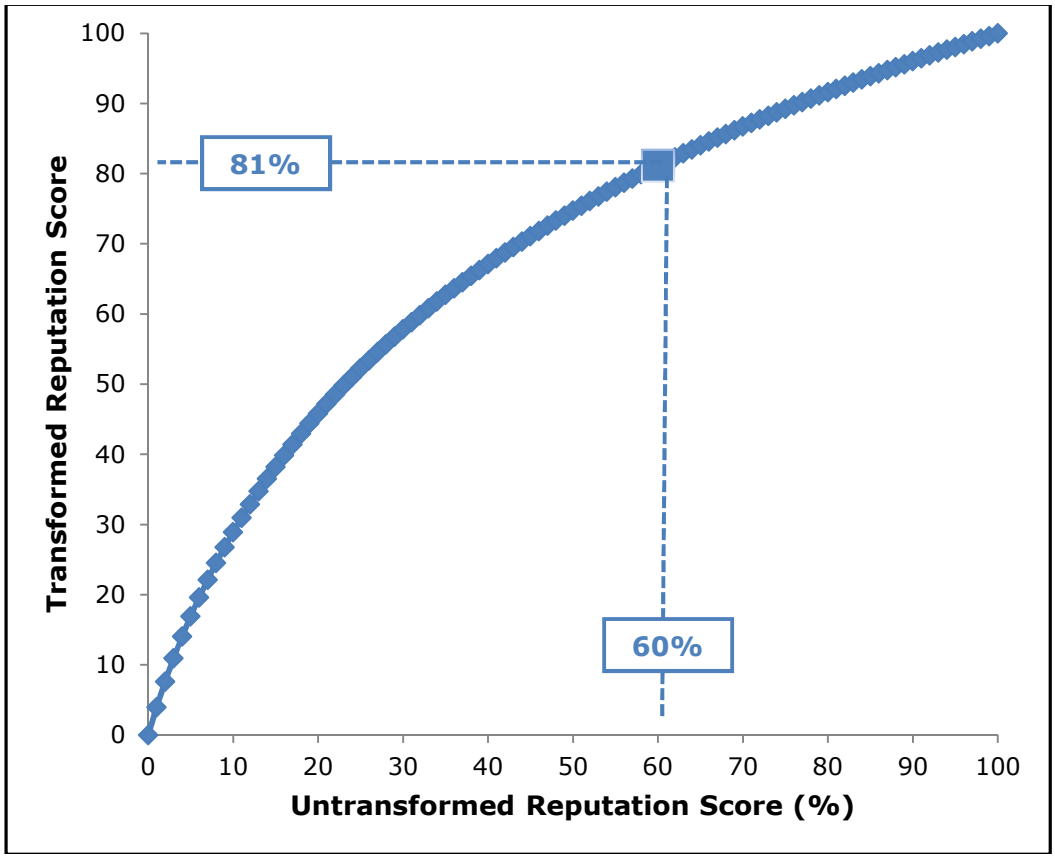
The weighted reputation values are displayed in the ranking tables. Before the reputation data were combined into the Index of Hospital Quality (IHQ), log transformation was implemented to adjust for the skewed distribution of values. By its nature, a survey that solicits recommendations for "best hospitals" will result in data that do not follow a normal distribution—relatively few

††† Definitions are available online at http://www.aapor.org/Content/aapor/AdvocacyandInitiatives/StandardsandEthics/StandardDefinitions/StandardDefinitions2011.pdf

hospitals will receive even one recommendation, and of the hospitals recommended, even fewer will receive a substantial number of nominations. Since other ranking components such as structural measures and mortality are not similarly skewed, reputation would have a greater impact on the final rankings than is warranted if left unadjusted.

Log transformation reshapes the distribution to more closely match reputation data to those of other components. The transformation is applied to the weighted reputation data. The transformed data are then normalized and multiplied by 100 to provide scores ranging from 0 to 100. ***Figure 1*** demonstrates the effect of the transformation.

Figure 1. Impact of Log Transformation on Reputation



The transformed reputation scores are mostly higher than the untransformed scores, but the relative increases are larger for low scores than for high ones. For example, an untransformed reputation value of 1% has a transformed score of 4 (4 times greater), an untransformed value of 10% has a transformed score of 29 (2.9 times greater), and an untransformed value of 60% has a transformed score of 81 (1.4 times greater). Skewness is thus reduced, and the impact of reputation on final standing in the rankings is slightly diminished.

D. Normalization and Weighting

The process component in each specialty is worth one-third (33.3%) of the overall score. For all specialties, commitment to best practices and having an infection-prevention program were each worth 25% of the process score (8.3% of the overall score). Reputation made up the other 50% of the process score (16.7% of the overall score).

As with the other components, individual process measures were normalized before being combined in the Index of Hospital Quality (IHQ). Normalization, as described in ***Section IV.B***, transforms a measure's index values into a distribution between 0 and 1 based on the range of possible values. The range of reputation scores is from 0% (no nominations) to 100% (every surveyed physician nominated the hospital). Starting with 2013-14 rankings, the normalized reputation score has determined the number of points hospitals received for reputation. After log transformation, if the highest reputation score in a given specialty is 80, for example, the hospital with that score receives a normalized score of 0.80. Because reputation is worth 16.7% of the overall score, the hospital receives 0.80 x 16.7, or 13.4 points, for reputation. In past years, hospitals with the highest reputation scores received the full point total, which would have been 16.7 points in this example.

VI. Outcomes

For the Best Hospitals adult specialty rankings, risk-adjusted mortality 30 days after admission is a key outcome measure. Other measures now used by healthcare researchers as quality indicators include readmissions following surgical or hospital discharge, patient functional status (or improvement), infection rates, and medical complications.[##]

Because of the absence of comprehensive national sources of pediatric outcomes data comparable to the Medicare Provider Analysis and Review (MedPAR) data used in the adult rankings, outcomes-related data are obtained directly from pediatric hospitals through the Pediatric Hospital Survey. Such data include BSI rates, transplant survival rates, mitigation of adverse events, and surgical outcomes. Other data will be added over time to address the need for relevant outcomes measures and to provide a more complete picture of pediatric hospital care. Measures for the 2014-15 rankings were developed from recommendations by expert advisory panels, as previously described. Details on specific outcomes measures, how they were calculated and how they were scored are provided below.

For more information on hospital quality measures and updates on national quality of hospital care initiatives, see reports from the Agency for Healthcare Research and Quality (AHRQ) at http://www.qualitymeasures.ahrq.gov/ and the Joint Commission at http://www.jointcommission.org/.

A. Outcome Measures

Outcome measures are listed below, by specialty. Scoring rules used to assign points to hospitals for these outcomes are also described below. For all outcomes measures, a higher number of points indicates better outcomes (e.g., higher survival, lower mortality, fewer complications).

Cancer

Prevention of ICU Infections (15 points). The rate of infections in intensive care units (ICUs) is considered a good benchmark of patient safety and outcome because such infections in hospital-based care should be minimal. Rates for two types of infections were tracked: central line-associated blood-stream infections (CLABSIs) and catheter-associated urinary tract infections (CAUTIs). CLABSI rates were calculated as the number of BSIs per 1,000 central-line days during the previous 12 months, and CAUTI rates were calculated as the number of infections per 1,000 catheter days during the previous 12 months.

CLABSI (A33) and CAUTI (A34) rates were tracked for critical care patients (average across patients in PICU, SICU, medical/surgical critical care and cardiothoracic critical care units). CLABSI rates were also tracked for all oncology/stem cell transplant patients (B22). Hospitals were rewarded for lower rates of infections. For hospital-wide CLABSI rates, hospitals received up to 5 points per group: 1 point for > 2.0 and ≤ 4.0 infections per 1,000 days, 2 points for > 1.5 and ≤ 2.0 infections per 1,000 days, 3 points for > 1.0 and ≤ 1.5 infections, per 1,000 days 4 points for > 0.5 and ≤ 1.0 infections per 1,000 days, and 5 points for ≤ 0.5 infections per 1,000 days. For hospital-wide CAUTI rates, hospitals received up to 5 points per group: 1 point for > 4.0 and ≤ 6.0 infections per 1,000 days, 2 points for > 3.0 and ≤ 4.0 infections per 1,000 days, 3 points for > 2.0 and ≤ 3.0 infections per 1,000 days, 4 points for > 1.0 and ≤ 2.0 infections per 1,000 days, and 5 points for ≤ 1.0 infections. Finally, for oncology/stem cell transplant patients CLABSI rates, hospitals received up to 5 points per group: 1 point for > 4.0 and ≤ 6.0 infections per 1,000 days, 2 points for > 2.0 and ≤ 4.0 infections per 1,000 days, 3 points for > 1.0 and ≤ 2.0 infections per 1,000 days, 4 points for > 0.5 and ≤ 1.0 infections and 5 points for ≤ 0.5 infections per 1,000 days.

Prevention of Pressure Ulcers (3 points). Hospitals received up to 3 points for having lower rates of Stage III, Stage IV and unstageable hospital-acquired pressure ulcers (A38). For each of the three categories, hospitals received 1 point for a pressure ulcer rate of ≤ 1 per 1,000 patient admissions.

Survival after Bone Marrow Transplant (6 points). This measure assessed the percentage of pediatric patients aged 20 years or younger receiving allogeneic blood marrow (including cord blood and stem cell) transplants (BMTs) in the past 3 years who survived for at least 100 days

following transplant (B20). Hospitals could receive up to 3 points for survival rates for sibling-matched allogeneic transplants and up to 3 points for all other allogeneic transplants: 1 point for ≥ 75% and < 90% survival, 2 points for ≥ 90% and < 95% survival, and 3 points for ≥ 95% survival.

Survival at Three Years (12 points). This measure evaluated the percentage of pediatric patients at least 18 months old with all subtypes and risk levels of acute lymphoblastic leukemia (ALL), acute myeloid leukemia (AML), Stage I-II neuroblastoma and Stage III-IV neuroblastoma who were alive after 3 years of treatment in the pediatric cancer program (B35). For each of the three measures, hospitals could receive up to 3 points for having a high percentage of 3-year survivors. For ALL, points were awarded as follows: 1 point for ≥ 70% and < 85% survival, 2 points for ≥ 85 and < 95% survival, and 3 points for ≥ 95% survival. For AML, points were awarded as follows: 1 point for ≥ 35% and < 50% survival, 2 points for ≥ 50 and < 60% survival, and 3 points for ≥ 60% survival. For Stage I-II neuroblastoma, points were awarded as follows: 1 point for ≥ 35% and < 50% survival, 2 points for ≥ 50 and < 70% survival, and 3 points for ≥ 70% survival. For Stage III-IV neuroblastoma, points were awarded as follows: 1 point for ≥ 30% and < 50% survival, 2 points for ≥ 50 and < 70% survival, and 3 points for ≥ 70% survival.

Cardiology & Heart Surgery

Norwood/Hybrid Surgery Survival (12 points). Hospitals received up to 12 points based on the percentage of patients who received the hybrid or Norwood Stage 1 procedure and were alive without a heart transplant at 1 year of age (E40.1). To receive points, hospitals had to report data for each of the four most recent reporting periods. Up to 3 points were awarded for each of the four reporting years for 1-year survival rates. Points were awarded as follows: 1 point for survival rates ≥ 25% and < 50%, 2 points for survival rates ≥ 50% and < 75%, and 3 points for survival rates ≥ 75%.

Prevention of ICU Infections (10 points). The rate was calculated as the number of CLABSI (A33) and CAUTI (A34) infections per 1,000 device-days (i.e., central-line days and catheter-days) in critical care patients (average across patients in PICU, SICU, medical/surgical critical care and cardiothoracic critical care units) during the previous 12 months. Hospitals were rewarded for lower rates of infections. For hospital-wide CLABSI rates, hospitals received up to 5 points per group: 1 point for > 2.0 and ≤ 4.0 infections per 1,000 days, 2 points for > 1.5 and ≤ 2.0 infections, 3 points for > 1.0 and ≤ 1.5 infections, 4 points for > 0.5 and ≤ 1.0 infections, and 5 points for ≤ 0.5 infections. For hospital-wide CAUTI rates, hospitals received up to 5 points per group: 1 point for > 4.0 and ≤ 6.0 infections per 1,000 days, 2 points for > 3.0 and ≤ 4.0 infections, 3 points for > 2.0 and ≤ 3.0 infections, 4 points for > 1.0 and ≤ 2.0 infections, and 5 points for ≤ 1.0 infections.

Prevention of Pressure Ulcers (3 points). Hospitals received up to 3 points for having lower rates of Stage III, Stage IV and unstageable hospital-acquired pressure ulcers (A38). For each of the three categories, hospitals received 1 point for having a pressure ulcer rate of ≤ 1 per 1,000 patient admissions.

Survival After Various Complex Procedures (15 points). This measure represents the rate of patient deaths following moderately complex to very difficult heart surgery procedures (STAT levels 1-5) at pediatric hospitals in the four most recent reporting periods (E42). For each STAT level 1-5, a survival rate was computed based on data from the past 4 years. In each of the five STAT levels, hospitals received greater points for having a higher survival rate following surgery as follows: 1 point for survival rates ≥ 80% and ≤ 90%, 2 points for survival rates ≥ 90% and ≤ 95%, and 3 points for survival rates >95%.

Transplant Survival (6 points). Hospitals received up to 3 points for higher 1-year and 3-year survival rates for patients who received heart transplants from the pediatric heart transplant program (E23). Both 1- and 3-year survival rates are used here because they provide somewhat different information about short-term and longer-term survival. Points were awarded as follows: 1 point for survival rates ≥ 70% and < 80%, 2 points for survival rates ≥ 80% and < 90%, and 3 points for survival rates ≥ 90%.

Diabetes & Endocrinology

Diabetic Patient Management (26 points). This measure evaluated adverse events in Type 1 diabetes outpatients, mean hemoglobin A1c levels in primary care Type 1 diabetes outpatients and inpatient admissions for Type 1 and Type 2 primary care diabetes patients. Diabetes-related adverse events can result from lapse of care. Such events included diabetes-related morbidity, severe hypoglycemic events and diabetes-related mortality (C41). Hospitals received up to 2 points in each of the 3 conditions (6 points total), with more points for lower levels of adverse events. Points were awarded as follows: 1 point for > 10% and ≤ 25% of patients with adverse events, and 2 points for having ≤ 10% of patients with adverse events.

Median hemoglobin A1c percentages were evaluated for two types of payers (private insurance and Medicaid) and three age groups (0-5 years of age, 6-12 years of age and 13-19 years of age). Increases in A1c values increase the risk of microvascular complications in patients. Hospitals received up to 2 points in each of the six groups (12 points total) for maintaining lower median A1c values (C35). Points were awarded as follows: 1 point for median hemoglobin A1c values > 8% and ≤ 10%, and 2 points for values ≥ 4% and ≤ 8%.

Successful management of Type 1 and Type 2 diabetes patients is reflected by the type of primary care these patients receive. Hospitals were rewarded for a lower incidence of inpatient admissions and visits to the ER/urgent care for diabetes-related causes (C29). For inpatient admissions, up to 2 points were awarded for Type 1 primary care diabetes patients as follows: 1 point for > 5% and ≤ 10% of patients admitted for diabetes-related reasons, and 2 points for having ≤ 5% of patients admitted. Up to 2 points were awarded for Type 2 primary care diabetes patients as follows: 1 point for having > 8% and ≤ 16% of patients admitted for diabetes-related reasons, and 2 points for having ≤ 8% of patients admitted. For ER/urgent care visits, up to 2 points were awarded separately for Type 1 and Type 2 primary care diabetes patients (4 points total) as follows: 1 point for having > 10% and ≤ 25% of patients come to ER/urgent care for diabetes-related reasons, and 2 points for having ≤ 10% of patients come to ER/urgent care.

Hypothyroid Patient Management (4 points). Hospitals received up to 4 points based on two indicators of hypothyroid management (C59). The first indicator was the percentage of new congenital hypothyroid patients referred at < 21 days of age with a confirmatory serum TSH > 50uIU/ml who began thyroid hormone therapy before 21 days of age. The second indicator was the percentage of these patients with a confirmatory serum TSH > 50uIU/ml who were offered diagnostic ultrasound, technetium and/or iodine thyroid scans. For new congenital hypothyroid patients who began thyroid hormone therapy, points were awarded as follows: 1 point for ≥ 50% and < 75% of patients in each condition, and 2 points for ≥ 75% of patients in each condition. For the percentage of patients offered diagnostic ultrasound, technetium, or iodine thyroid scans, points were awarded as follows: 1 point for ≥ 25% and < 50% of patients in each condition, and 2 points for ≥ 50% of patients in each condition.

Gastroenterology & GI Surgery

Liver Transplant Survival (3 points). Hospitals received up to 3 points each for higher 3-year survival of patients who received liver transplants from the pediatric liver transplant program (D22). Points were awarded as follows: 1 point for survival rates ≥ 50% and < 80%, 2 points for survival rates ≥ 80% and < 90%, and 3 points for survival rates ≥ 90%.

Prevention of ICU Infections (10 points). The rate was calculated as the number of CLABSI (A33) and CAUTI (A34) infections per 1,000 device-days (i.e., central-line days and catheter-days) in critical care patients (average across patients in PICU, SICU, medical/surgical critical care and cardiothoracic critical care units) during the previous 12 months. Hospitals were rewarded for lower rates of infections. For hospital-wide CLABSI rates, hospitals received up to 5 points per group: 1 point for > 2.0 and ≤ 4.0 infections per 1,000 days, 2 points for > 1.5 and ≤ 2.0 infections, 3 points for > 1.0 and ≤ 1.5 infections, 4 points for > 0.5 and ≤ 1.0 infections, and 5 points for ≤ 0.5 infections. For hospital-wide CAUTI rates, hospitals received up to 5 points per

group: 1 point for > 4.0 and ≤ 6.0 infections per 1,000 days, 2 points for > 3.0 and ≤ 4.0 infections, 3 points for > 2.0 and ≤ 3.0 infections, 4 points for > 1.0 and ≤ 2.0 infections, and 5 points for ≤ 1.0 infections.

Prevention of Pressure Ulcers (3 points). Hospitals received up to 3 points for having lower rates of Stage III, Stage IV and unstageable hospital-acquired pressure ulcers (A38). For each of the three categories, hospitals received 1 point for having a pressure ulcer rate of ≤ 1 ulcer per 1,000 patient admissions.

Success of Selected Treatments (9 points). This measure is comprised of three items: percentage of patients receiving endoscopic procedures without severe complications (D29), percentage of patients receiving successful Kasai procedures (i.e., improvement total in bilirubin, no synthetic dysfunction, no surgical complications and delayed need for liver transplant) (D30) and percentage of patients treated for inflammatory bowel disease (IBD) experiencing prednisone-free remission. For endoscopic procedures, points were awarded for the lack of complications as follows: 1 point for ≥ 95% and < 97% success, 2 points for ≥ 97% and < 99% success, and 3 points for ≥99% success. For Kasai procedure success and IBD prednisone-free remission, points were awarded as follows: 1 point for ≥ 50% and < 75% success, 2 points for ≥ 75% and < 90% success, and 3 points for ≥90% success.

Neonatology

Minimizing 30-Day Readmissions (3 points). Hospitals were rewarded for having lower 30-day readmission rates in the NICU (F33.1). Points were awarded as follows: 1 point for > 5% and ≤ 10%, 2 points for > 2% and ≤ 5%, and 3 points for ≤ 2%.

On Breast Milk at Discharge (3 points). Hospitals were rewarded for having higher rates of infants admitted at less than 7 days of age being discharged on partial or full breast milk (F10.1). Points were awarded as follows: 1 point for > 0% and < 50%, 2 points for ≥ 50% and < 75%, and 3 points for ≥75%.

Prevention of ICU Infections (5 points). The rate was calculated as the number of BSIs per 1,000 central-line days during the previous 12 months (F26). Hospitals were rewarded for lower rates. Hospitals received up to 5 points per group: 1 point for > 3.0 and ≤ 5.0 infections per 1,000 days, 2 points for > 2.0 and ≤ 3.0 infections, 3 points for > 1.0 and ≤ 2.0, 4 points for > 0.5 and ≤ 1.0 infections, and 5 points for ≤ 0.5 infections.

Nephrology

Managing Dialysis Patients (20 points). This measure evaluates outcomes for patients on maintenance dialysis during the past 2 calendar years (G23). Hospitals received up to 12 points for higher percentage of patients with these favorable outcomes: monthly Kt/V values of > 1.2 for patients who received hemodialysis three times a week, percentage of total Kt/V values of ≥ 1.8 for patients receiving peritoneal dialysis, and percentage of patients with average Hb between 10g/dl and 13g/dl at least once on record in the past 12 months. Points were awarded separately for the two most recent years for each of the three outcomes. For the first two outcomes, points were awarded as follows: 1 point for desirable outcome rates ≥ 80% and < 90%, and 2 points for desirable outcome rates ≥ 90%. For the third outcome, points were awarded as follows: 1 point for desirable outcome rates ≥ 60% and < 80%, and 2 points for desirable outcome rates ≥ 80%.

Hospitals received up to an additional 8 points based on the percentage of patients receiving maintenance dialysis for at least 3 consecutive months who survived (G20). Rates were divided into four submeasures: hemodialysis with infants and children under 5 years of age, hemodialysis in children and adolescents aged 5-19, peritoneal dialysis with infants and children under 5 years of age, and peritoneal dialysis in children and adolescents aged 5-19. Up to 2 points per item were awarded: 1 point for survival rates ≥ 80% and < 90%, and 2 points for survival rates ≥ 90%.

Preventing Biopsy Complications (3 points). This item measures the percentage of patients receiving kidney biopsy procedures who had to stay longer or be readmitted after discharge because of a complication (G15). Hospitals receive more points for having lower complication rates, as follows: 1 point for complication rates > 5% and ≤ 10%, 2 points for complication rates > 2% and ≤ 5%, and 3 points for ≤ 2%.

Prevention of Dialysis-Related Infections (12 points). Hospitals received 6 points based on a lower peritonitis rate (months of dialyses/cases of peritonitis) for patients on chronic peritoneal dialysis for the last 2 calendar years (G24). In each year, up to 3 points were awarded: 1 point for a peritonitis rate of < 10 months between peritonitis cases, 2 points for a rate of ≥ 10 and < 20 months between cases, and 3 points for a rate of ≥ 20 months between cases.

Hospitals could receive an additional 6 points for having lower hemodialysis catheter-associated BSIs for outpatients on maintenance hemodialysis in each of the last 2 years (G37). Hospitals received points for each year as follows: 1 point for > 3.0 and ≤ 6.0 infections per 100 patient months, and 2 points for > 1.0 and ≤ 3.0 infections, and 3 points for ≤ 1.0 infections.

Prevention of ICU Infections (10 points). The rate was calculated as the number of CLASBI (A33) and CAUTI (A34) infections per 1,000 device-days (i.e., central-line days and

catheter-days) in critical care patients (average across patients in PICU, SICU, medical/surgical critical care and cardiothoracic critical care units) during the previous 12 months. Hospitals were rewarded for lower rates of infections. For hospital-wide CLABSI rates, hospitals received up to 5 points per group: 1 point for > 2.0 and ≤ 4.0 infections per 1,000 days, 2 points for > 1.5 and ≤ 2.0 infections, 3 points for > 1.0 and ≤ 1.5 infections, 4 points for > 0.5 and ≤ 1.0 infections, and 5 points for ≤ 0.5 infections. For hospital-wide CAUTI rates, hospitals received up to 5 points per group: 1 point for > 4.0 and ≤ 6.0 infections per 1,000 days, 2 points for > 3.0 and ≤ 4.0 infections, 3 points for > 2.0 and ≤ 3.0 infections, 4 points for > 1.0 and ≤ 2.0 infections, and 5 points for ≤ 1.0 infections.

Prevention of Pressure Ulcers (3 points). Hospitals received up to 3 points for having lower rates of Stage III, Stage IV and unstageable hospital-acquired pressure ulcers (A38). For each of the three categories, hospitals received 1 point for having a pressure ulcer rate of ≤ 1 ulcer per 1,000 patient admissions.

Survival After Kidney Transplant (24 points). Hospitals received up to 24 points for higher 1- and 3-year survival rates for tissue grafts and for patients who received kidney transplants from the pediatric kidney transplant program (G32). A total of eight sets of rates, each worth up to 3 points, were included: 1- and 3-year graft survival rates (deceased donor), 1- and 3-year graft survival rates (living donor), 1- and 3-year patient survival rates (deceased donor) and 1- and 3-year patient survival rates (living donor). Both 1- and 3-year survival rates were used because they provide somewhat different information about short-term and longer-term survival. Points were awarded as follows: 1 point for survival ≥ 50% and < 80%, 2 points for survival ≥ 80% and < 90%, and 3 points for survival ≥ 90%.

Neurology & Neurosurgery

Management of Epilepsy Patients (8 points). Hospitals received up to 6 points for the percentage of patients receiving three specific treatments for epilepsy (temporal lobe epilepsy surgery, extra-temporal lobe epilepsy surgery and functional hemispherectomy/callosotomy surgery) who were seizure-free after 12 months (H31). Hospitals were rewarded for higher rates as follows: 1 point for seizure-free rates ≥ 50% and < 80% and 2 points for seizure-free rates ≥ 80%.

Hospitals received up to 2 points for the percentage of patients admitted to the Epilepsy Monitoring Unit who developed convulsive seizures that persisted longer than 30 minutes despite the use of antiseizure medicine (H30.1). Hospitals were rewarded for lower rates as follows: 1 point for > 3% and ≤ 10% of patients having an adverse event and 2 points for ≤ 3% of patients having an adverse event.

Prevention of Surgical Complications (19 points). This measure rewards hospitals for having lower readmission rates for surgical complications. Hospitals received up to 8 points total for having a lower percentage of patients readmitted for cerebrospinal fluid leaks within 30 days of the following four surgical procedures: craniotomy, spinal surgery for dysraphism, Chiari decompression and shunt placement (H17). Points were awarded in each group as follows: 1 point for > 5% and ≤ 15% readmission rate and 2 points for ≤ 5% readmission rate.

Hospitals received up to 2 points for having a lower 90-day readmission rates for patients receiving an intrathecal baclofen pump insertion procedure (H18). Points were awarded as follows: 1 point for > 5% and ≤ 15% readmission rate and 2 points for ≤ 5% readmission rate.

Hospitals received up to 3 points for having lower 90-day readmission rates for patients receiving new/initial neurosurgical shunt placements (H29). Points were awarded as follows: 1 point for > 5% and ≤ 15% readmission rate, 2 points for > 3% and ≤ 5 readmission rate and 3 points for ≤ 3% readmission rate.

Hospitals received up to 3 points for having a lower percentage of unplanned returns to the operating room within two 30 days of receiving a craniotomy (H17.1). Points were awarded as follows: 1 point for > 5% and ≤ 15% readmission rate, 2 points for > 3% and ≤ 5% readmission rate and 3 points for ≤ 3% readmission rate.

Hospitals received up to 3 points for having a lower complication rate for craniofacial procedures performed (H32.2). Points were awarded as follows: 1 point for > 5% and ≤ 15% complication rate, 2 points for > 3% and ≤ 5% complication rate and 3 points for ≤ 3% complication rate.

Surgical Survival (12 points). Hospitals received up to 12 points for surgical survival rates for six significant neurological disorders or procedures (H16), including brain tumors, craniosynostosis, hydrocephalus patient shunts, medically intractable epilepsy, spinal dysraphism and Chiari I malformation/syringomyelia. Lower mortality rates indicate better performance (i.e., a lower rate of death following surgery). Points were awarded as follows: 1 point for survival rates ≥ 95% and <99% and 2 points for survival rates ≥ 99%.

Orthopedics

Preventing Surgical Complications (12 points). Hospitals received up to 12 points based on the rate of adverse outcomes for patients who received surgical correction for two types of scoliosis: idiopathic scoliosis and neuromuscular scoliosis. Two adverse outcomes were measured for each type of scoliosis: unplanned admissions within 30 days of procedure and returns to the

operating room for equipment or mechanical issues with 90 days (I32). Hospitals received up to 3 points in each of the four categories, with more points for better performance (i.e., lower levels of adverse events): 1 point for complication rate > 7% and ≤ 10%, 2 points for complication rate > 3% and ≤ 7% and 3 points for complication rate ≤ 3%.

Speed and Success with Complex Fractures (6 points). Hospitals received up to 4 points for having a higher percentage of patients with an operating room start time within 12 hours of admission to the ER for two conditions: operative reduction and fixation of supracondylar fracture (I25) of the humerus and femoral shaft fracture (I26). Points were awarded for supracondylar fractures as follows: 1 point for ≥ 25% and <60% of patients with operating room start times within 12 hours and 2 points for ≥ 60%. Points were awarded for femoral shaft fractures as follows: 1 point for ≥ 20% and <50% of patients with operating room start times within 12 hours and 2 points for ≥ 50%.

Hospitals received up to 2 points for successful outpatient treatment (without requiring hospital admission) of patients with radiographically assisted reductions of displaced forearm fractures (I27). Points were awarded as follows: 1 point for ≥ 50% and <75% of patients without requiring hospital admission and 2 points for ≥ 75%.

Pulmonology

Management of Cystic Fibrosis Patients (13 points). This measure is comprised of three items representing better outcomes for patients with cystic fibrosis (J24b-d). Hospitals received up to 9 points (3 points for each item) for improving the functional status of cystic fibrosis patients' median body mass index (BMI), median forced expiratory volume (FEV_1) and the percentage of children 6-17 who met treatment guidelines for CF patients (at least four outpatient visits, one culture, two spirometries). More points indicate better outcomes or better functional status. For BMI, points were awarded as follows: 1 point for median BMI percentile ≥ 40 and < 45%, 2 points for median BMI percentile ≥ 45% and < 50% and 3 points for median BMI percentile ≥ 50%. For the FEV_1 measure, points were awarded as follows: 1 point for median FEV_1 ≥ 80 and < 90%, 2 points for median FEV_1 ≥ 90% and < 100% and 3 points for median FEV_1 ≥ 100%. For the percentage of children meeting treatment guidelines, points were awarded as follows: 1 point for ≥ 50 and < 75%, 2 points for 5 ≥ 75% and < 90% and 3 points for median FEV_1 ≥ 90%.

Hospitals received up to 2 additional points for meeting performance benchmarks for cystic fibrosis. One point was awarded for having met the benchmark of < 10% quantity not sufficient (QNS) when conducting pilocarpine iontophoresis (sweat test) for cystic fibrosis with infants (0-3 months of age) (J21); 1 additional point was awarded for meeting the benchmark of < 5% QNS for children over 3 months (J22).

Hospitals received up to 2 points for having higher rates of patients over age 10 with cystic fibrosis (not already taking insulin) who completed an oral glucose tolerance test in the previous 12 months (J23). One point was awarded for ≥ 50% and < 75% of patients completing the test and 2 points were awarded for ≥ 75% of patients completing the test.

Prevention of ICU Infections (10 points). The rate was calculated as the number of CLABSI (A33) and CAUTI (A34) infections per 1,000 device-days (i.e., central-line days and catheter days) in critical care patients (average across patients in PICU, SICU, medical/surgical critical care and cardiothoracic critical care units) during the previous 12 months. Hospitals were rewarded for lower rates of infections. For hospital-wide CLABSI rates, hospitals received up to 5 points per group: 1 point for > 2.0 and ≤ 4.0 infections per 1,000 days, 2 points for > 1.5 and ≤ 2.0 infections, 3 points for > 1.0 and ≤ 1.5 infections, 4 points for > 0.5 and ≤ 1.0 infections and 5 points for ≤ 0.5 infections. For hospital-wide CAUTI rates, hospitals received up to 5 points per group: 1 point for > 4.0 and ≤ 6.0 infections per 1,000 days, 2 points for > 3.0 and ≤ 4.0 infections, 3 points for > 2.0 and ≤ 3.0 infections, 4 points for > 1.0 and ≤ 2.0 infections and 5 points for ≤ 1.0 infections.

Prevention of Pressure Ulcers (3 points). Hospitals received up to 3 points for having lower rates of Stage III, Stage IV and unstageable hospital-acquired pressure ulcers (A38). For each of the three categories, hospitals received 1 point for having a pressure ulcer rate of ≤ 1 ulcer per 1,000 patient admissions.

Success with Asthma Inpatients (5 points). Success with asthma patients was measured by two factors: shorter inpatient stays and lower readmission rates for asthma-related symptoms. Up to 2 points are awarded for shorter lengths of stay for asthma inpatients (J11): 1 point for an average stay > 3 days and ≤ 5 days and 2 points for a stay ≤ 3 days.

Hospitals were awarded up to 3 points based on the percentage of asthma inpatients readmitted within 7 days for exacerbation of asthma-related symptoms (J12). Hospitals were rewarded for lower percentages of inpatient readmissions: 1 point for readmission rates > 3% and ≤ 5%, 2 points for rates > 1% and ≤ 3% and 3 points for rates ≤ 1%.

Ventilator Patient Survival (6 points). Hospitals received up to 6 points for lower rates of inpatient deaths and at-home deaths for ventilator-dependent patients due to accidental obstruction, decannulation or tracheostomy (J42). For both inpatient and at-home, higher survival rates indicate better performance (i.e., lower rate of death of patients on ventilators) and were awarded more points, as follows: 1 point for survival ≥ 95% and < 97%, 2 points for survival ≥ 97% and < 99% and 3 points for survival ≥ 99%.

Urology

Prevention of Surgical Complications (18 points). This measure evaluated a number of complications and adverse outcomes in patients who received urologic surgical procedures. Complications included distal hypospadias, proximal hypospadias and pyeloplasty (K15). Hospitals received up to 9 points total for the three measures, with more points awarded for better performance (i.e., lower complication rates): 1 point for rates > 3% and ≤ 5%, 2 points for rates > 1% and ≤ 3% and 3 points for rates ≤ 1%.

Adverse events included unplanned hospital admissions for urologic issue within 30 days of inpatient surgery, unplanned hospital admission within 30 days following an ambulatory procedure, and unplanned reoperation for a urologic issue within 48 days of surgery (K16). Hospitals received up to 9 points total for the three measures, with more points awarded for better performance (i.e., lower adverse event rates): 1 point for rates > 5% and ≤ 10%, 2 points for rates > 1% and ≤ 5% and 3 points for rates ≤ 1%.

Prevention of Urinary Tract Infections (5 points). The rate was calculated as the number of CAUTI infections per 1,000 catheter-days in critical care patients (average across patients in PICU, SICU, medical/surgical critical care and cardiothoracic critical care units) during the previous 12 months (A34). Hospitals were rewarded for lower rates of infections. For hospital-wide CAUTI rates, hospitals received up to 5 points per group: 1 point for > 4.0 and ≤ 6.0 infections per 1,000 days, 2 points for > 3.0 and ≤ 4.0 infections, 3 points for > 2.0 and ≤ 3.0 infections, 4 points for > 1.0 and ≤ 2.0 infections and 5 points for ≤ 1.0 infections.

B. Normalization and Weighting

As with structural and process measures, individual outcomes measures were normalized to have a distribution between 0 and 1. The overall outcomes component was worth one-third (33.3%) of the overall score. ***Table 14*** shows the weight of each measure on the total outcomes score for that specialty. The sum of the weights for each specialty is 33.3, which reflects the weight of the outcomes component in the overall score.

Table 14. Percent Weights of Outcomes Measures, by Specialty

Measure	Cancer	Cardiology & Heart Surgery	Diabetes & Endocrinology	Gastroenterology & GI Surgery	Neonatology	Nephrology	Neurology & Neurosurgery	Orthopedics	Pulmonology	Urology
Diabetic patient management			22.2							
Hypothyroid patient management			11.1							
Management of cystic fibrosis patients									11.1	
Management of epilepsy patients							10.3			
Managing dialysis patients						6.1				
Minimizing 30-day readmissions					8.3					
Norwood/hybrid surgery survival		6.1								
On breast milk at discharge					8.3					
Preventing biopsy complications						6.1				
Prevention of dialysis related infections						6.1				
Prevention of infections	9.5	6.1		7.4	16.7	6.1			5.6	12.1
Prevention of pressure ulcers	4.8	3.0		3.7		3.0			2.8	
Prevention of surgical complications							12.8	16.7		21.2
Speed and success with complex fractures								16.7		
Success at selected treatments				14.8						
Success with asthma inpatients									8.3	
Surgical survival							10.3			
Survival after bone marrow transplant	9.5									
Survival after various complex procedures		12.1								
Survival at three years	9.5									
Transplant survival		6.1		7.4		6.1				
Ventilator patient survival									5.6	
Total*	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**	**33.3**

* The sum of individual measures may not equal 33.3 due to rounding.

VII. U.S. News Score

The weight of each major component of the U.S. News ranking score—structure, outcomes and process—was worth exactly one-third of the overall score.

Although each measure represents a specific aspect of quality, a single score provides a result that is easy to use and understand and that portrays overall quality more accurately than any of the three components would individually. The rankings for the top 50 hospitals in each of the pediatric

specialties, by U.S. News score, are shown in ***Appendix C***. Starting with the 2012-13 rankings, hospitals with the same U.S. News rounded score are considered tied.

The formula for calculating the U.S. News score for a given hospital is shown in Equation (2). The score can be thought of as a simple weighted sum of structural, process and outcome measures as shown below:

Equation (2) $Score = \left(\sum_{i=1}^{n_s} wts_i * s_i\right) + \left(\sum_{i=1}^{n_p} wtp_i * p_i\right) + \left(\sum_{i=1}^{n_o} wto_i * o_p\right)$,

where

$Score$ = raw hospital score in a given specialty,

wts_i = weight assigned to structure measure *i*,

wtp_i = weight assigned to process measure *i*,

wto_i = weight assigned to outcomes measure *i*,

s_i = normalized value for structural measure *i,*

p_i = normalized value for process measure *i*,

o_i = normalized value for outcomes measure *i.*

Please note that the formula is meant for illustrative purposes only; it *cannot* be used to directly calculate a score for an individual hospital. For presentation purposes, raw scores are transformed to a scale that assigns a U.S. News score of 100 to the top hospital. The formula for the transformation is shown in Equation (3):

Equation (3) U.S. News *Score* = *(score - minimum)/range*

VIII. Pediatric Honor Roll

In all, 89 different hospitals were ranked in at least one pediatric specialty in the 2014-15 rankings. The Best Children's Hospitals Honor Roll, established in 2009, recognizes excellence across a broad range of pediatric specialties. Honor Roll hospitals are highly ranked in at least three specialties. Within the Honor Roll, hospitals are ordered by points. Starting with the 2012-13 rankings, a hospital received 2 points if it ranked among the top 5% of all ranking-eligible hospitals in a specialty (among the top five in a specialty with 90 to 109 eligible hospitals, for example) and 1 point if ranked in the top 6-10%. For 2014-15, 10 hospitals qualified for the Honor Roll. ***Appendix D*** lists the 2014-15 Honor Roll hospitals.

IX. Summary of 2014-15 Changes

- **Added process measures.** More measures were added to the best practices and infection-prevention indicators. To reflect the additional data, the combined weight of these two indicators was doubled. They now make up half of the process component or 16.7% of a hospital's overall score.
- **Reduced the weight of reputation**. By identifying additional process measures, the weight assigned to reputation was lowered to 50% of the process component from 75% in 2013-14. Reputation now represents 16.7% of the overall score compared to 25% in 2013-14.
- **Added outcome measures**. Four new outcome measures were added in three different specialties:
    - **Success of Selected Treatment (Gastroenterology).** This measure integrates three different metrics from the Improve Care Now (ICN) collaborative, which focuses on enhancing pediatric gastroenterology care. The questions address complications occurring in endoscopic procedures, successful use of the Kasai procedure and prednisone-free remission following treatment for inflammatory bowel disease.
    - **Minimizing 30-Day Readmission Rates (Neonatology)**. This measure assesses the rate of readmissions to the NICU within 30 days of discharge of neonates who were admitted within 7 days of birth. Successful treatment and discharge planning should reduce the likelihood of readmission. The measure recognizes hospitals that achieve a very low readmission rate.
    - **On Breast Milk at Discharge (Neonatology)**. It is desirable that infants discharged from the NICU have their nutritional needs met at the time of discharge at least in part from human breast milk. The benefits have been well documented. This measure recognizes the success of NICU programs in helping the transition to breast milk.
    - **Speed and Success with Complex Fractures (Orthopedics)**. This measure recognizes the speed and efficiency demonstrated in treating complex fractures in the emergency department, trauma center or outpatient settings. Hospitals are recognized for ability in quickly handling cases and avoiding inpatient admissions.
- **Scoring revised for Prevention of ICU infections**. This measure was revised from a 3-point to a 5-point score. This allows the rankings to better reward hospitals that

are truly exceptional at preventing infections in the ICU. The change will also result in less volatility in the overall score when hospitals experience fluctuations in ICU infection rates year over year.

- **Diabetes Care Options removed from structural measures**. This measure was removed based on feedback from the physician advisory groups indicating that offering options is important but may be driven in large measure by the patients' insurance coverage. The measure was removed from the questionnaire and we revised the diabetic patient management outcome measure to integrate insurance (or payer) type to account for differences in access to care.
- **Additional refinements**. Other changes reflect revisions to the survey that improve the quality of the data collected and reported by hospitals. Revisions to scoring ranges and relative weights were also made to better reflect excellent care by hospitals.

X. Future Improvements

Continued refinements are anticipated during the next few years. They are likely to include the following:

- **Expand outcome measures.** For example, we plan to explore alternatives for collecting additional mortality data, infection rates, patient functional measures, and complication rates.
- **Explore risk adjustment.** We will continue to investigate methods for risk-adjusting pediatric mortality data to better reflect hospital-to-hospital differences in patient mix, severity and comorbidities. These efforts are complicated by the fact that there are currently no national databases that cover all pediatric health care in the U.S. However organizations such as the Child Health Corporation of America, Children's Hospital Neonatal Consortium, and Society for Thoracic Surgeons are seeking to make some specialty-specific data available for the majority of pediatric institutions across the country. As these databases are developed and further expanded to include more pediatric facilities, we will explore their possible use in creating risk-adjusted outcomes and performance measures of health care.
- **Identify additional structural measures.** External certifications of hospital quality, excellence in specialty areas and awards for high-quality care will be considered for incorporation in the rankings. Additional technologies, teams and practices that define high-quality pediatric services also will be evaluated.

- **Move to ICD-10**. To adapt to the changes in hospital record-keeping practices, the Pediatric Hospital Survey will transition from ICD-9 to ICD-10 over the next couple of years. Based on recent communication, most children's hospitals plan to switch to ICD-10 diagnoses and procedures for billing and record-keeping on October 1, 2014. The survey will maintain coverage of ICD-9 diagnoses and procedures for the 2015-16 rankings by requesting data for fiscal year 2014 from children's hospitals. For 2016-17, the Pediatric Hospital Survey will move back to a calendar year format and transition to ICD-10 diagnostic and procedure codes for all measures. In preparation for this transition, the project team will collaborate with the working groups, children's hospitals and the CHA to update the survey.

The project team will continue to work with advisory panels of physicians, nurses, hospital quality specialists and other healthcare professionals. RTI and U.S. News are grateful to these expert volunteers. Their recommendations and advice have been invaluable.

X. Contact Information

We welcome suggestions and questions. Readers and users of the rankings are encouraged to contact the Best Children's Hospitals research team at BestHospitals@rti.org. This report and methodology reports for the adult rankings can be viewed or downloaded online in their entirety from the RTI International Web site at http://www.rti.org/besthospitals.

XI. References

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Appendix A

Glossary of Terms

Computer tomography (CT) enterography. CT enterography allows for visualization of the small bowel wall and lumen by combining a CT scan with large amounts of ingested contrast material.

Continuous EEG monitoring with pediatric neurology support. EEG is a technology for measuring electrical activity produced by the brain, as recorded from electrodes placed on the scalp. EEG monitoring provides the ability to collect the brain's electrical activity continuously to help detect and diagnose neurological problems.

Cryoablation. This process uses cooled, thermally conductive gases and fluids circulated through hollow needles (cryoprobes) that are inserted adjacent to diseased tissue in order to kill the tissue.

Functional magnetic resonance (fMR). fMR is a specialized type of MRI scan that measures changes in blood flow related to neural activity.

Genetic testing/counseling. A genetic testing/counseling service is equipped with the appropriate laboratory facilities and is directed by a physician qualified to advise parents and prospective parents on potential problems in cases of genetic defects. A genetic test is the analysis of human DNA, RNA, chromosomes, proteins and certain metabolites to detect heritable disease-related genotypes, mutations, phenotypes or karyotypes for clinical purposes. Genetic tests can have diverse purposes, including the diagnosis of genetic diseases in newborns, children and adults; the identification of future health risks; the prediction of drug responses; and the assessment of risks to future children.

Image-guided radiation therapy (IGRT). IGRT is an automated system that produces high-resolution x-ray images to pinpoint tumor sites, adjust patient positioning and generally make treatment more effective and efficient.

Intensity-modulated radiation therapy (IMRT). IMRT is a three-dimensional radiation therapy that improves the targeting of treatment delivery in a way that is likely to decrease damage to normal tissues and allows for varying intensities.

Intraoperative magnetic resonance imaging (ioMRI). ioMRI uses a uniform magnetic field and radio frequencies to study tissue and structure of the body. It enables visualization of biochemical cellular activity in vivo without the use of ionizing radiation, radioisotopes or ultrasound.

Magnetic resonance cholangiopancreatography (MRCP). MRCP is a noninvasive approach for imaging the biliary and pancreatic ducts using MRI.

Magnetic resonance spectroscopy (MRS). MRS differs from MRI in that MRS uses a continuous band of radio wave frequencies to analyze the chemical composition of proton (hydrogen)-hydrogen based molecules in a variety of chemical compounds. This technology evaluates the chemical composition and integrity of functioning upper-motor neurons in the brain.

Molecular diagnostic/virology laboratory. This is a diagnostic laboratory that supports the NICU by conducting culture and tissue studies to determine the nature of biological and virological conditions.

Multidisciplinary pediatric acute pain/sedation service (available onsite 24 hours a day). This service provides monitored anesthesia care and sedation within the hospital (but not within an operating room or PICU), as well as emergency airway management and acute and chronic pain management for neonates and pediatric patients on a 24-hour basis. A qualified program must have

at least an identified medical director (e.g., general pediatrician, pediatric subspecialist or anesthesiologist) with documented education in conscious sedation and a registered nurse coordinator (or pain management clinical nurse specialist).

Neonatal intensive care unit (NICU). An NICU provides mechanical ventilation, neonatal surgery and special care for the sickest infants, including those with the lowest birth weights (below 1,500 grams), who are born in the hospital or transferred from another institution. The NICU is separate from the newborn nursery. A full-time neonatologist serves as director.

Neurophysiological intraoperative monitoring. This uses electrophysiological methods, including electroencephalography and electromyography, to monitor parts of the brain, spinal cord and peripheral nerves during surgery.

Non-sedate MRI (e.g., MRI-compatible neonatal transporter). This is an MRI-compatible incubator system with integrated coils to support imaging that includes a trolley to facilitate safe intrahospital transport of neonates.

Palliative care program. A palliative care program is organized and staffed for children nearing the end of life or living with lifespan-limiting conditions. The program's purpose is to minimize pain and discomfort, provide emotional and spiritual support for children and their families, assist with financial guidance and social services and support decision making. Programs must include at least one physician providing direct patient care; a nurse coordinator; and a social worker, certified child-life specialist or pastoral counselor. All program staff must have training in palliative care.

Pediatric anesthesia program (available onsite 24 hours a day). This team provides anesthesia care for children before, during and after surgery (or other medical procedures). The team provides 24-hour coverage by board-certified anesthesiologists who specialize in pediatric anesthesia.

Pediatric intensive care unit (PICU). A PICU is staffed with specially trained personnel and has monitoring and specialized support equipment for treating pediatric patients who, because of shock, trauma or other life-threatening conditions, require intensified, comprehensive observation and care.

Pediatric pain management program (available onsite 24 hours a day). Administered by specially trained physicians and other clinicians, this is a recognized clinical service or program providing specialized medical care, drugs or therapies for the management of acute or chronic pain and other distressing symptoms among children suffering from an acute illness of diverse causes.

PET/computed tomography (PET/CT) scanning. PET/CT combines the capabilities of PET and CT scanning into a single, integrated device that provides metabolic functional information for monitoring chemotherapy, radiotherapy, and surgical planning.

Positron emission tomography (PET) scanning. PET scanning is a computerized nuclear medicine imaging technology that uses radioactive (positron-emitting) isotopes created in a cyclotron or generator to produce composite images of the brain and heart activity. The scans are sectional images depicting metabolic activity or blood flow rather than anatomy.

Radiofrequency ablation. This procedure involves placing probes that emit radiofrequency energy into the heart using a catheter. The radiofrequency energy is then used to destroy abnormal electrical activity in the heart tissue.

Rapid response team. A rapid response team, also known as a medical emergency team, is distinct from the hospital "code" team. It is available 24 hours a day and has three essential characteristics: (1) the team creates tools and provides staff education for recognizing an acute deterioration in patient condition; (2) the team follows the SBAR (situation, background, assessment, recommendation) method to communicate such a change in condition effectively and efficiently (i.e., escalation policy); and (3) the team responds to the change in condition with the goal of reducing/eliminating preventable "codes."

Reverse isolation/infection control facilities. Reverse isolation/infection control facilities are controlled environments that protect patients from getting an infection caused by bacteria, viruses or fungi in the environment or carried by staff and visitors.

Specialized chemistry laboratory with tandem mass spectroscopy. This specialized diagnostic laboratory has the ability to use tandem mass spectroscopy and other advanced techniques to aid in the diagnosis of medical conditions in NICU patients.

Surgical intensive care unit (SICU) or dedicated beds in an NICU or a PICU for surgical patients. A SICU is a specialized unit designed to meet the needs of pediatric surgical patients who require intensive care services following surgery. If you do not have a SICU, having dedicated surgical intensive care beds in your PICU is acceptable.

Therapeutic meta-iodine-benzyl-guanidine (I-131 MIBG). I-131 MIBG is a functional imaging agent used to help locate and diagnose tumors of adrenergic tissues, such as neuroblastoma and pheochromocytoma.

Three-dimensional mapping. This includes the use of three-dimensional imaging systems such as MRI or ultrasound to guide ablation probes.

3-Tesla magnetic resonance imaging (3T MRI). 3T MRI is a higher-powered version of MRI that offers improved morphological and functional studies of the brain compared with the more common field strength of 1.5T.

Appendix B

2014-15 Sample Physician Questionnaire

Best Children's Hospitals

Your nominations will be reflected in the 2014-15 U.S. News *& World Report* «specialty» rankings.

Please name up to 10 U.S. hospitals that you believe provide the best care in <<specialty>> for patients who have the most challenging conditions or who need particularly difficult procedures. *(Do not consider location or cost. Individual hospitals should be listed, not hospital systems or medical schools.)*

	Hospital	City	State
a.			
b.			
c.			
d.			
e.			
f.			
g.			
h.			
i.			
j.			

Fax response to (800) XXX-XXXX

or return in postpaid envelope.

Appendix C

2014-15 Best Children's Hospital Rankings by Specialty

Best Children's Hospitals 2014-15: Cancer

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival at three years	Survival after bone marrow transplant	Use of infection-preventing measures	Prevention of ICU infections	Prevention of pressure ulcers	Patient volume	New patient volume	Surgery volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	FACT-accredited for BMT and tissue transplant	Bone marrow transplant services	Palliative care program	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Fulltime subspecialists available	Active fellowship program	Commitment to clinical research	
1	Dana-Farber Boston Children's Cancer and Blood Disorders Ctr	100.0	79.8	12	4	25	12	3	9	3	6	3.8	1	27	1	18	6	25	11	16	8	8	7	15	10	14	3	13	
2	Children's Hospital of Philadelphia	92.0	81.4	9	4	25	7	3	9	3	6	3.3	1	27	1	21	7	25	11	16	8	8	7	15	10	14	3	13	
3	Cincinnati Children's Hospital Medical Center	91.1	63.9	11	4	25	8	2	9	3	6	4.0	1	27	1	18	7	25	11	16	8	8	7	15	10	14	3	13	
4	Texas Children's Hospital	87.0	53.4	9	4	25	11	2	7	3	4	3.0	1	25	1	21	7	25	11	16	8	8	7	15	10	14	3	13	
5	Children's Hospital Los Angeles	86.7	39.1	11	4	24	9	3	9	3	6	2.7	1	25	1	18	7	25	11	15	8	8	7	14	10	14	3	12	Top 5%
6	Ann and Robert H. Lurie Children's Hospital of Chicago	86.6	16.3	11	6	25	11	3	7	3	3	3.5	1	26	1	16	7	25	11	16	8	8	7	15	10	14	3	9	
7	Seattle Children's Hospital	84.2	45.7	10	5	25	5	3	9	3	6	2.4	1	23	1	19	7	20	11	15	8	8	7	15	10	14	3	11	
8	Nationwide Children's Hospital	83.1	11.3	12	4	25	11	3	8	3	5	3.6	1	27	1	16	7	25	11	16	8	8	7	15	10	14	3	13	
9	Children's Hospital Colorado	82.3	25.8	11	4	22	10	3	9	3	4	2.6	1	25	1	17	6	25	11	15	8	8	7	15	10	14	3	13	
9	St. Jude Children's Research Hospital	82.3	65.1	10	3	25	8	2	9	3	6	5.2	0	27	1	21	7	21	10	16	8	8	7	12	10	14	3	13	Top 10%
11	Children's Healthcare of Atlanta	79.8	23.0	11	4	24	9	3	9	3	5	3.7	0	26	1	20	7	25	11	16	8	8	7	14	10	14	3	13	
12	Children's National Medical Center	79.0	22.6	10	3	24	10	3	9	3	3	3.1	1	24	1	19	7	25	11	16	8	8	7	14	10	14	3	13	
13	Mayo Clinic Children's Center	78.9	6.0	10	6	22	13	3	6	3	3	3.1	1	24	1	12	7	24	11	16	8	8	7	15	10	14	3	11	
14	Johns Hopkins Children's Center	78.0	30.1	9	4	25	5	3	7	3	4	3.3	1	25	1	17	7	25	11	16	8	8	7	13	10	14	3	12	
15	Monroe Carell Jr. Children's Hospital at Vanderbilt	74.6	4.7	11	5	24	10	3	6	2	5	2.9	1	23	1	19	6	25	11	15	8	8	7	14	10	14	3	13	
16	Rady Children's Hospital	74.2	4.7	11	4	25	13	3	8	3	5	3.1	0	26	1	17	7	25	11	16	8	8	7	13	10	14	3	13	
17	Children's Mercy Hospitals and Clinics	74.1	6.0	10	6	25	3	3	7	3	2	4.0	1	27	1	19	7	25	11	15	8	8	7	15	10	14	3	13	
18	Memorial Sloan-Kettering Cancer Center	73.5	30.9	11	4	21	7	3	4	3	2	3.2	0	26	1	21	6	21	11	16	8	8	7	11	10	14	2	13	
19	Primary Children's Hospital	73.3	4.1	12	6	25	7	3	5	3	3	4.5	0	25	1	17	7	25	11	16	8	8	7	15	10	14	3	12	
20	Cleveland Clinic Children's Hospital	72.7	1.5	9	6	22	12	3	5	3	6	2.6	1	24	1	12	7	25	11	16	8	8	7	14	10	14	3	8	
21	Lucile Packard Children's Hospital at Stanford	71.9	8.7	12	3	24	10	3	7	3	5	3.4	0	26	1	18	6	25	11	15	8	8	7	15	10	14	3	12	
22	Duke Children's Hospital and Health Center	71.0	11.0	10	4	24	13	1	5	2	2	2.4	1	24	1	20	7	25	11	16	8	8	7	14	10	14	3	8	
23	Children's Hospital of Pittsburgh of UPMC	70.5	6.6	11	3	25	9	3	7	2	4	3.3	1	23	1	19	7	25	11	15	8	8	7	13	10	14	3	10	
24	Children's Hospital of Michigan	70.0	3.8	10	6	25	12	3	4	2	2	3.1	0	22	1	13	5	25	11	15	8	8	7	13	10	14	3	13	
25	UCSF Benioff Children's Hospital	69.8	14.0	10	3	23	8	3	3	2	2	3.7	1	22	1	20	7	24	11	16	8	8	7	13	10	14	3	11	
26	St. Louis Children's Hospital-Washington University	69.7	10.4	8	4	21	10	3	6	2	3	3.5	1	23	1	15	7	25	11	16	8	8	7	14	10	14	3	9	
27	Doernbecher Children's Hospital at OHSU	69.6	2.7	10	4	25	12	3	6	2	5	3.2	1	22	1	15	6	25	11	16	8	8	7	13	10	14	2	10	
28	Spectrum Health Helen DeVos Children's Hospital	68.7	2.8	11	6	22	8	3	4	2	4	2.8	1	25	1	12	6	24	9	16	8	7	7	14	10	13	1	11	
29	NY-Presbyterian Morgan Stanley-Komansky Children's Hospital	68.6	3.4	11	5	25	9	3	7	3	5	2.3	0	22	1	15	7	24	11	16	8	8	7	14	10	14	3	13	
30	Children's Medical Center Dallas	67.9	8.5	11	4	21	6	3	8	3	2	3.0	1	21	1	16	6	25	11	15	8	8	7	14	10	14	3	12	
31	American Family Children's Hospital	67.4	2.4	11	6	19	5	3	3	2	3	4.3	1	23	1	18	7	25	10	16	8	8	7	13	10	14	3	12	
32	Rainbow Babies and Children's Hospital	67.0	4.6	7	6	21	7	2	7	3	4	2.8	1	27	1	16	7	25	11	16	8	8	7	14	10	14	2	13	
33	University of Michigan C.S. Mott Children's Hospital	66.7	3.4	12	4	24	10	2	5	2	2	3.6	0	26	1	16	7	25	11	16	8	8	7	14	10	14	3	13	
34	Children's Hospital of Wisconsin	65.8	1.2	7	4	24	10	3	7	3	4	4.4	1	22	1	20	7	24	11	14	8	8	7	14	10	14	3	12	
35	Cook Children's Medical Center	65.4	2.3	10	4	24	10	3	8	2	2	3.8	1	22	1	16	7	25	11	16	8	8	7	14	10	14	0	8	
36	Levine Children's Hospital	65.0	1.2	10	5	20	13	3	3	2	2	2.7	1	26	1	16	5	24	11	14	8	8	7	14	7	14	0	7	
36	Phoenix Children's Hospital	65.0	4.2	12	3	22	9	3	7	3	4	3.1	0	25	1	17	5	25	11	15	8	8	7	13	10	14	3	13	
38	Children's Hospital of Orange County	64.2	1.9	7	3	23	14	3	6	2	2	3.2	1	26	1	14	7	21	11	14	8	8	7	14	10	14	1	13	
38	Mattel Children's Hospital UCLA	64.2	2.7	9	3	24	10	3	3	2	2	3.0	1	27	1	19	7	25	11	15	8	8	7	10	10	14	3	7	
40	Riley Hospital for Children at IU Health	64.0	4.1	10	4	23	5	3	7	2	4	3.6	1	20	1	18	7	25	11	15	8	8	7	15	10	14	2	13	
41	UF Health Shands Children's Hospital	63.8	3.1	11	4	23	9	3	3	3	2	2.2	1	21	1	15	7	24	11	16	8	8	7	13	10	14	1	9	
42	Children's Cancer Hospital-University of Texas M.D. Anderson	63.1	15.8	8	2	21	9	3	7	3	4	4.5	1	20	1	19	5	21	10	16	8	8	7	12	7	13	1	11	
42	University of Iowa Children's Hospital	63.1	1.1	11	6	23	3	3	5	2	2	2.9	1	26	1	12	7	24	11	14	8	8	7	12	10	13	1	9	
44	North Carolina Children's Hospital at UNC	63.0	1.7	12	5	21	5	3	6	2	3	3.2	1	26	1	13	6	24	11	14	7	7	7	10	10	14	2	5	
45	Yale-New Haven Children's Hospital	62.5	0.0	12	3	25	8	3	6	2	3	2.4	1	24	1	10	6	25	10	16	8	8	7	14	10	14	3	8	
46	Nemours Alfred I. duPont Hospital for Children	62.3	0.0	10	2	22	12	3	3	2	2	3.5	1	26	1	16	7	25	11	15	8	8	7	14	10	14	2	13	
47	Children's Hospital of Alabama at UAB	61.6	7.1	10	4	21	11	1	3	2	2	2.7	0	25	1	18	7	24	11	15	8	8	7	14	10	13	3	12	
48	All Children's Hospital	59.7	1.9	10	5	20	7	3	7	3	3	3.1	0	22	1	18	7	25	11	15	8	8	7	12	10	14	1	12	
48	Penn State Hershey Children's Hospital	59.7	1.7	10	4	21	7	3	4	2	2	3.3	1	23	1	14	6	25	11	15	8	8	7	13	10	13	2	7	
50	Akron Children's Hospital	58.8	0.0	7	6	24	11	2	3	2	2	3.1	1	26	0	12	7	24	11	14	7	8	7	14	10	14	1	5	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Best Children's Hospitals 2014-15: Cardiology & Heart Surgery

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival after various complex procedures	Norwood/hybrid surgery survival	Transplant survival	Prevention of ICU infections	Use of infection-preventing measures	Prevention of pressure ulcers	Surgery volume	Catheter-procedure volume	Norwood/hybrid surgery volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	Congenital heart program	Adult congenital heart program	Heart transplant program	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Fulltime subspecialists available	Active fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	90.2	13	11	5	9	27	3	12	28	12	3.8	1	29	20	10	4	20	9	5	11	8	7	15	10	12	4	9	
2	Texas Children's Hospital	90.8	70.1	13	11	5	8	26	2	10	24	12	3.0	1	25	20	10	4	20	9	5	11	8	7	15	10	12	4	10	
3	Children's Hospital of Philadelphia	86.9	89.5	12	9	3	5	27	3	11	24	12	3.3	1	25	20	10	4	20	9	5	11	8	7	15	10	12	4	10	
4	Children's Healthcare of Atlanta	85.5	41.3	13	11	6	7	26	3	10	23	12	3.7	0	26	20	10	4	20	9	5	11	8	7	14	10	12	4	10	Top 5%
5	Children's Hospital of Wisconsin	84.7	29.1	14	12	4	8	27	3	8	17	12	4.4	1	26	18	10	4	20	9	5	11	8	7	14	10	12	4	8	
6	University of Michigan C.S. Mott Children's Hospital	83.6	61.4	12	10	5	6	26	2	10	27	12	3.6	0	29	19	10	4	19	9	5	11	8	7	14	10	12	4	8	
7	Children's Hospital Los Angeles	83.0	22.7	12	12	6	7	26	3	10	22	12	2.7	1	29	20	10	4	20	9	5	11	8	7	14	10	12	4	8	
8	Lucile Packard Children's Hospital at Stanford	80.6	54.0	13	9	5	7	26	3	10	21	8	3.4	0	23	19	10	4	20	9	5	11	8	7	15	10	12	4	5	Top 10%
9	Cincinnati Children's Hospital Medical Center	79.2	43.7	12	7	5	5	27	2	6	18	9	4.0	1	29	20	10	4	20	9	5	11	8	7	15	10	12	3	10	
10	NY-Presbyterian Morgan Stanley-Komansky Children's Hospital	77.5	31.3	13	11	5	5	27	3	10	18	12	2.3	0	26	20	10	4	20	9	5	11	8	7	14	10	12	4	9	
11	Nationwide Children's Hospital	73.7	30.8	11	8	2	8	27	3	7	24	12	3.6	1	25	20	10	3	20	9	5	11	8	7	15	10	12	4	8	
12	Children's Hospital of Pittsburgh of UPMC	73.3	14.5	14	10	5	6	26	3	6	12	9	3.3	1	25	20	10	4	20	9	5	10	8	7	13	10	12	4	6	
13	Mayo Clinic Children's Center	73.1	10.1	13	11	4	10	25	3	7	19	4	3.1	1	29	16	10	3	20	9	5	11	8	7	15	10	12	3	8	
14	St. Louis Children's Hospital-Washington University	71.9	14.2	12	10	4	8	23	3	6	22	10	3.5	1	25	20	10	4	20	9	5	11	8	7	14	10	12	4	9	
15	Ann and Robert H. Lurie Children's Hospital of Chicago	71.7	8.0	14	8	5	7	27	3	6	14	4	3.5	1	29	20	10	4	19	9	5	11	8	7	15	10	12	4	7	
16	Children's Hospital Colorado	71.3	12.4	13	11	4	8	23	3	8	18	10	2.6	1	23	20	10	4	20	9	5	11	8	7	15	10	12	4	8	
17	Monroe Carell Jr. Children's Hospital at Vanderbilt	68.9	4.8	12	11	5	7	26	3	9	23	12	2.9	1	25	20	10	4	20	9	5	11	8	7	14	10	12	3	8	
18	Seattle Children's Hospital	68.5	10.3	13	9	6	3	27	3	7	20	9	2.4	1	24	20	10	4	15	9	5	11	8	7	15	10	12	4	9	
19	Duke Children's Hospital and Health Center	66.7	5.7	12	10	5	9	26	1	5	21	7	2.4	1	29	20	10	4	20	9	5	11	8	7	14	10	12	3	9	
20	Children's Medical Center Dallas	66.1	5.9	12	12	4	4	25	3	8	18	12	3.0	1	26	20	10	4	20	9	5	11	8	7	14	10	12	4	8	
21	Primary Children's Hospital	65.9	5.3	13	12	4	5	27	3	8	24	10	4.5	0	24	20	10	4	20	9	5	11	8	7	15	10	12	4	8	
22	Riley Hospital for Children at IU Health	65.1	3.0	13	10	6	4	25	3	7	12	8	3.6	1	25	20	10	4	20	9	5	11	8	7	15	10	10	3	10	
23	Cleveland Clinic Children's Hospital	64.1	3.9	12	12	3	9	24	3	4	15	6	2.6	1	29	15	10	3	20	9	5	11	8	7	14	10	12	4	8	
23	UCSF Benioff Children's Hospital	64.1	9.4	13	11	3	6	26	3	6	21	8	3.7	1	24	16	10	1	19	9	5	11	8	7	13	10	12	3	7	
25	Mattel Children's Hospital UCLA	62.0	5.4	11	9	5	8	22	3	5	25	6	3.0	1	26	19	10	4	20	9	5	11	8	7	10	10	12	3	6	
26	Miami Children's Hospital	61.6	8.6	13	11	NA	9	26	3	6	18	7	3.2	1	27	19	9	0	20	9	5	11	8	7	15	10	12	2	8	
27	UF Health Shands Children's Hospital	61.0	2.6	13	11	5	6	25	3	5	9	5	2.2	1	26	17	10	4	20	9	5	11	8	7	13	10	12	3	4	
28	Rady Children's Hospital	60.8	4.5	13	12	NR	10	27	3	7	20	8	3.1	0	29	18	10	1	19	9	5	11	8	7	13	10	12	4	8	
29	Children's National Medical Center	59.8	10.8	12	11	NR	7	25	3	7	23	10	3.1	1	23	17	10	1	19	9	5	11	8	7	14	10	12	3	9	
30	MUSC Children's Heart Program of South Carolina	59.4	11.2	12	10	2	7	22	3	7	17	12	2.9	0	25	20	10	4	19	7	5	11	7	7	15	10	12	2	9	
31	Doernbecher Children's Hospital at OHSU	57.7	0.8	11	10	6	9	27	3	4	14	5	3.2	1	24	14	10	2	18	9	5	11	8	7	13	10	9	1	5	
32	Johns Hopkins Children's Center	56.2	3.6	11	8	4	3	27	3	6	11	5	3.3	1	25	16	10	4	20	9	5	11	8	7	13	10	11	4	9	
33	SSM Cardinal Glennon Children's Medical Center	55.7	1.2	12	12	6	8	23	3	5	14	7	3.0	0	24	13	9	3	19	9	5	11	8	7	14	10	9	1	5	
34	All Children's Hospital	55.3	3.8	12	10	5	4	24	3	6	17	8	3.1	0	23	20	10	4	20	9	5	10	8	7	12	10	11	2	8	
35	Arkansas Children's Hospital	55.1	5.3	11	10	5	7	23	3	6	15	9	3.4	0	22	20	9	4	20	9	5	11	7	5	13	3	10	3	7	
36	Levine Children's Hospital	55.0	0.7	12	11	4	9	22	3	4	12	9	2.7	1	24	18	10	3	19	9	5	11	8	7	14	7	10	0	7	
37	Children's Hospital at Montefiore	54.0	1.8	12	5	6	5	27	3	4	10	4	2.8	0	27	15	9	4	20	9	5	11	8	7	14	10	12	4	7	
37	Children's Hospital of Michigan	54.0	3.5	11	5	3	9	27	3	6	21	8	3.1	0	24	20	10	4	20	9	5	11	8	7	13	10	11	3	6	
39	Nemours Alfred I. duPont Hospital for Children	53.1	2.4	12	9	1	7	23	3	5	11	7	3.5	1	28	18	9	3	20	9	5	11	8	7	14	10	10	1	9	
40	Phoenix Children's Hospital	52.7	2.6	12	11	3	7	24	3	6	18	8	3.1	0	24	16	10	4	19	9	5	11	8	7	13	10	11	1	3	
41	Advocate Children's Hospital	52.0	1.5	12	10	NA	8	23	3	7	17	12	2.9	1	29	17	9	0	13	8	5	11	8	7	15	10	12	3	6	
41	Arnold Palmer Medical Center	52.0	0.2	12	12	NA	9	23	3	4	20	6	3.1	1	29	14	9	0	18	9	5	11	8	7	13	10	11	3	8	
43	Children's Hospital of Alabama at UAB	51.1	1.3	11	8	6	7	23	1	6	22	7	2.7	0	24	20	10	4	17	9	5	11	8	7	14	10	10	2	8	
44	Holtz Children's Hospital at UM-Jackson Memorial Medical Ctr	50.4	2.6	10	8	6	10	22	3	4	7	4	2.3	0	25	14	10	3	19	9	5	8	7	7	11	7	11	3	4	
45	University of Iowa Children's Hospital	49.9	0.6	10	10	5	2	26	3	4	12	5	2.9	1	29	12	9	2	20	9	5	11	8	7	12	10	10	2	7	
46	Cook Children's Medical Center	48.9	0.0	12	11	NA	7	27	3	6	17	10	3.8	1	27	18	9	0	17	9	5	11	8	7	14	10	10	0	3	
47	Children's Hospitals and Clinics of Minnesota	48.4	1.0	14	12	NA	7	20	3	6	11	9	3.3	0	25	20	10	0	18	9	5	11	8	7	14	10	11	2	9	
48	Children's Hospital and Medical Center	48.3	0.7	12	11	NR	4	23	3	6	16	6	3.0	1	26	18	9	3	16	8	5	11	8	7	12	10	11	3	10	
49	Penn State Hershey Children's Hospital	46.9	0.2	13	11	NR	5	23	3	4	12	5	3.3	1	29	16	10	1	17	9	5	11	8	7	13	10	9	1	7	
50	Le Bonheur Children's Hospital	45.2	1.5	10	8	NA	9	24	3	6	16	5	2.5	0	27	19	10	0	20	9	5	11	8	7	14	10	12	4	8	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Best Children's Hospitals 2014-15: Diabetes & Endocrinology

Rank	Hospital	U.S. News Score	Reputation with specialists	Diabetic patient management	Hypothyroid patient management	Use of infection-preventing measures	Patient volume	Procedure volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Full time subspecialists available	Active fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	72.7	26	4	23	40	26	3.8	1	69	22	9	8	10	8	7	16	10	13	2	4	
2	Children's Hospital of Philadelphia	98.0	76.2	22	4	25	41	27	3.3	1	82	23	9	8	10	8	7	16	10	13	2	4	
3	Yale-New Haven Children's Hospital	88.5	29.8	23	4	25	33	20	2.4	1	84	22	8	8	10	8	7	15	10	13	2	3	
4	Children's Hospital Colorado	87.9	43.7	20	4	21	38	21	2.6	1	83	23	9	8	10	8	7	16	10	13	2	4	Top 5%
5	Children's Hospital of Pittsburgh of UPMC	86.9	36.0	21	4	24	37	25	3.3	1	78	22	9	8	9	8	7	14	10	12	2	2	
6	Cincinnati Children's Hospital Medical Center	83.8	33.8	17	4	24	35	18	4.0	1	72	23	9	8	10	8	7	16	10	13	2	4	
7	Children's Hospital Los Angeles	82.5	31.3	26	2	24	40	12	2.7	1	66	22	9	8	8	8	7	15	10	13	2	4	
8	Texas Children's Hospital	80.6	24.9	21	3	22	42	26	3.0	1	70	22	9	8	9	8	7	16	10	12	2	4	
9	Nationwide Children's Hospital	80.4	9.9	20	4	24	40	23	3.6	1	76	22	9	8	10	8	7	16	10	13	2	4	Top 10%
10	UCSF Benioff Children's Hospital	80.3	16.9	21	4	23	22	15	3.7	1	81	23	9	8	10	8	7	14	10	13	2	1	
11	NY-Presbyterian Morgan Stanley-Komansky Children's Hospital	80.1	19.4	22	4	25	35	17	2.3	0	80	22	9	8	10	8	7	15	10	13	2	3	
12	Rady Children's Hospital	78.9	4.6	26	4	24	37	21	3.1	0	78	22	9	8	8	8	7	14	10	13	2	4	
13	Seattle Children's Hospital	75.3	13.6	19	4	23	36	21	2.4	1	67	18	9	8	10	8	7	16	10	13	2	2	
14	UF Health Shands Children's Hospital	75.2	13.8	20	4	23	21	13	2.2	1	78	22	9	8	10	8	7	14	10	12	1	3	
15	Duke Children's Hospital and Health Center	75.0	5.9	20	4	24	31	18	2.4	1	76	22	9	8	9	8	7	15	10	11	2	4	
16	Johns Hopkins Children's Center	74.4	21.3	20	2	25	36	17	3.3	1	84	21	9	8	10	8	7	14	10	12	2	1	
17	Miami Children's Hospital	72.8	5.3	20	4	24	33	15	3.2	1	83	22	9	7	10	8	7	16	10	12	1	1	
18	Children's Healthcare of Atlanta	72.3	2.1	21	4	23	46	20	3.7	0	74	22	9	8	10	8	7	15	10	13	2	4	
19	Winthrop-University Hospital Children's Medical Center	71.4	3.7	20	4	25	32	14	4.3	0	83	22	9	8	8	8	7	15	10	13	1	4	
20	Holtz Children's Hospital at UM-Jackson Memorial Medical Ctr	71.2	1.4	25	4	20	30	26	2.3	0	84	21	9	8	10	7	7	12	7	11	2	3	
21	Riley Hospital for Children at IU Health	71.0	18.2	18	2	23	37	20	3.6	1	73	22	9	8	10	8	7	16	10	13	1	4	
22	Mount Sinai Kravis Children's Hospital	70.1	3.9	16	4	23	29	16	3.4	1	82	18	9	8	10	8	7	13	10	13	2	4	
23	Nemours Alfred I. duPont Hospital for Children	69.4	0.0	21	4	22	29	14	3.5	1	77	23	9	8	10	8	7	15	10	13	0	4	
24	Lucile Packard Children's Hospital at Stanford	69.3	20.2	21	2	23	27	17	3.4	0	66	21	9	8	7	8	7	16	10	13	2	3	
25	Children's Memorial Hermann Hospital	67.9	1.5	25	4	19	34	21	3.5	0	79	20	8	8	10	8	3	12	10	11	2	0	
26	Children's Hospital of Wisconsin	67.8	2.2	18	4	21	25	13	4.4	1	74	21	9	8	10	8	7	15	10	12	2	1	
27	University of Chicago Comer Children's Hospital	67.7	4.0	23	4	18	18	13	2.8	0	72	21	9	8	10	8	5	12	10	13	2	3	
28	Cook Children's Medical Center	67.6	3.1	17	4	23	43	17	3.8	1	79	22	9	8	9	8	7	15	10	13	0	2	
29	Ann and Robert H. Lurie Children's Hospital of Chicago	67.3	5.9	19	2	24	39	22	3.5	1	74	22	9	8	9	8	7	16	10	13	2	2	
30	Children's Mercy Hospitals and Clinics	66.9	2.5	19	2	23	42	22	4.0	1	77	23	9	8	10	8	7	16	10	13	2	3	
31	Monroe Carell Jr. Children's Hospital at Vanderbilt	66.4	6.8	19	2	23	36	22	2.9	1	69	22	9	8	10	8	7	15	10	12	2	3	
32	Children's Hospital of Alabama at UAB	66.3	2.2	18	4	21	36	21	2.7	0	81	23	9	8	9	8	7	15	10	13	2	3	
32	North Carolina Children's Hospital at UNC	66.3	3.2	18	4	22	32	9	3.2	1	78	19	9	7	9	7	7	11	10	12	1	3	
34	Doernbecher Children's Hospital at OHSU	65.9	8.3	17	4	24	31	19	3.2	1	59	20	9	8	7	8	7	14	10	10	1	0	
35	Barbara Bush Children's Hospital at Maine Medical Center	64.9	2.2	24	4	19	21	10	1.9	1	73	17	8	7	8	6	6	12	10	9	0	3	
35	University of Michigan C.S. Mott Children's Hospital	64.9	7.7	14	4	24	33	20	3.6	0	74	22	9	8	10	8	7	15	10	12	2	1	
37	Akron Children's Hospital	64.8	1.3	18	4	23	33	17	3.1	1	75	22	9	8	10	8	7	15	10	13	0	1	
38	Massachusetts General Hospital for Children	64.1	7.6	19	3	19	35	7	2.9	1	62	22	9	8	9	8	7	14	10	11	1	3	
39	Mayo Clinic Children's Center	63.8	5.3	20	2	21	27	17	3.1	1	73	20	9	8	9	8	7	16	10	12	2	1	
39	University of Minnesota Children's Hospital	63.8	2.0	21	4	18	30	14	2.8	0	70	17	8	8	9	8	7	14	10	12	2	2	
41	Arnold Palmer Medical Center	63.6	0.0	17	4	17	38	26	3.1	1	76	17	9	8	6	8	7	14	10	11	2	3	
42	University of Iowa Children's Hospital	63.3	2.0	22	2	23	28	14	2.9	1	69	21	9	8	10	8	7	13	10	11	1	3	
43	Rainbow Babies and Children's Hospital	62.5	9.6	15	2	21	28	12	2.8	1	82	22	9	8	10	8	7	15	10	12	2	3	
44	Mattel Children's Hospital UCLA	62.3	11.8	16	2	23	23	24	3.0	1	77	18	9	8	10	8	7	11	10	12	2	0	
45	Primary Children's Hospital	61.9	0.0	19	4	23	32	14	4.5	0	62	21	9	8	10	8	7	16	10	13	1	1	
46	St. Christopher's Hospital for Children	61.8	1.7	17	4	22	25	9	3.0	1	68	19	9	7	5	7	6	12	10	12	2	2	
47	Cleveland Clinic Children's Hospital	61.3	2.9	18	2	22	35	21	2.6	1	71	21	9	8	10	8	7	15	10	13	1	4	
48	Baystate Children's Hospital	61.0	0.0	20	4	18	22	17	2.4	1	67	19	8	8	5	8	7	11	10	10	1	3	
48	Connecticut Children's Medical Center	61.0	2.9	20	4	16	26	18	2.3	0	69	20	7	8	8	7	7	16	10	12	1	3	
50	Children's National Medical Center	60.5	4.8	17	2	21	33	18	3.1	1	64	22	9	8	10	8	7	15	10	13	2	2	
50	St. Louis Children's Hospital-Washington University	60.5	10.6	16	2	17	35	17	3.5	1	60	20	9	8	10	8	7	15	10	13	2	2	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Best Children's Hospitals 2014-15: Gastroenterology & GI Surgery

Rank	Hospital	U.S. News Score	Reputation with specialists	Success of selected treatments	Liver transplant survival	Prevention of pressure ulcers	Use of infection-preventing measures	Prevention of ICU infections	Patient volume	Surgery volume	Nonsurgical procedure volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	Liver transplant program	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Fulltime subspecialists available	Active fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	77.2	6	3	3	30	9	60	16	21	3.8	1	10	4	12	10	11	10	8	7	19	10	8	2	4	
2	Ann and Robert H. Lurie Children's Hospital of Chicago	92.4	21.5	9	3	3	30	7	50	12	13	3.5	1	10	4	12	10	11	10	8	7	19	10	8	2	4	
3	Cincinnati Children's Hospital Medical Center	90.7	82.7	6	2	2	30	5	55	16	18	4.0	1	10	4	12	10	11	10	8	7	20	10	8	2	4	
4	Children's Hospital of Philadelphia	89.3	78.0	4	3	3	30	5	58	12	18	3.3	1	10	4	12	10	11	10	8	7	19	10	8	2	4	Top 5%
5	Texas Children's Hospital	89.2	51.9	5	3	2	30	8	49	14	19	3.0	1	10	4	12	10	11	10	8	7	19	10	8	2	4	
6	Children's Hospital of Pittsburgh of UPMC	88.2	45.5	6	3	3	29	6	54	14	9	3.3	1	10	4	11	10	10	10	8	7	16	10	8	2	4	
7	Johns Hopkins Children's Center	85.3	14.9	9	3	3	30	3	54	15	15	3.3	1	10	3	12	10	11	10	8	7	17	10	8	2	4	
8	Nationwide Children's Hospital	83.8	58.2	7	NA	3	30	8	60	15	14	3.6	1	10	NA	12	10	11	10	8	7	17	10	8	2	4	
9	Children's Hospital Los Angeles	82.2	16.0	7	3	3	24	7	50	11	18	2.7	1	10	4	12	10	11	10	8	7	17	10	8	2	4	Top
10	Children's Hospital Colorado	81.8	51.9	4	2	3	25	8	51	13	18	2.6	1	10	3	12	10	11	10	8	7	20	10	8	2	4	
11	Cleveland Clinic Children's Hospital	81.0	11.9	6	3	3	27	9	47	14	16	2.6	1	10	3	12	10	11	10	8	7	18	10	8	2	4	
12	Children's National Medical Center	78.3	4.8	9	2	3	29	7	38	13	12	3.1	1	9	4	12	10	11	10	8	7	18	10	8	2	4	
13	Lucile Packard Children's Hospital at Stanford	78.2	14.6	6	3	3	29	7	48	13	10	3.4	0	10	4	12	10	11	10	8	7	20	10	8	2	4	
14	Children's Healthcare of Atlanta	76.7	10.6	6	3	3	25	7	54	16	18	3.7	0	10	4	12	10	11	10	8	7	19	10	8	2	4	
15	Mattel Children's Hospital UCLA	76.6	15.0	6	3	3	29	8	34	9	12	3.0	1	7	4	12	10	11	10	8	7	12	10	8	2	4	
16	Rady Children's Hospital	76.2	2.7	8	3	3	28	10	41	14	11	3.1	0	10	2	12	10	11	10	8	7	13	10	8	2	4	
17	Mayo Clinic Children's Center	75.8	4.3	7	3	3	23	10	40	13	12	3.1	1	9	2	10	10	11	9	8	7	18	10	8	2	4	
18	Yale-New Haven Children's Hospital	74.4	3.0	9	3	3	30	4	17	9	7	2.4	1	10	3	12	9	10	7	8	7	19	10	8	2	4	
19	Children's Hospital of Wisconsin	74.2	9.4	7	1	3	27	8	42	12	16	4.4	1	10	2	12	10	11	10	8	7	17	10	8	2	4	
20	Seattle Children's Hospital	73.5	16.2	5	3	3	29	3	46	9	14	2.4	1	10	4	8	10	11	10	8	7	20	10	8	2	4	
21	UCSF Benioff Children's Hospital	71.9	10.0	6	2	3	29	6	34	11	7	3.7	1	9	3	12	10	11	10	8	7	17	10	8	2	4	
22	St. Louis Children's Hospital-Washington University	71.7	11.0	5	3	3	24	8	36	10	12	3.5	1	7	3	12	10	11	9	8	7	19	10	8	2	4	
23	Children's Medical Center Dallas	70.0	6.3	5	3	3	27	4	46	13	17	3.0	1	9	4	12	10	11	10	8	7	18	10	8	2	4	
24	NY-Presbyterian Morgan Stanley-Komansky Children's Hospital	69.9	12.1	6	2	3	30	5	54	6	18	2.3	0	10	4	12	10	11	10	8	7	17	10	8	2	4	
25	Holtz Children's Hospital at UM-Jackson Memorial Medical Ctr	68.1	0.0	8	3	3	25	10	21	8	7	2.3	0	9	4	11	10	11	9	7	7	14	7	8	2	4	
26	Riley Hospital for Children at IU Health	67.3	8.4	5	2	3	28	4	48	13	16	3.6	1	10	2	12	10	11	10	8	7	19	10	8	1	4	
27	Primary Children's Hospital	67.2	2.8	5	3	3	28	5	53	12	13	4.5	0	10	4	12	10	11	10	8	7	17	10	8	2	4	
28	Massachusetts General Hospital for Children	66.1	5.4	7	3	3	24	3	39	8	11	2.9	1	9	2	11	10	11	9	8	7	15	10	8	1	4	
29	University of Michigan C.S. Mott Children's Hospital	65.4	1.9	7	2	2	29	6	44	13	11	3.6	0	9	4	12	10	11	10	8	7	18	10	8	2	4	
30	Miami Children's Hospital	65.3	3.0	8	NA	3	29	9	36	12	14	3.2	1	10	NA	12	10	11	10	8	7	18	10	8	0	4	
31	SSM Cardinal Glennon Children's Medical Center	64.1	1.3	8	2	3	26	8	25	10	8	3.0	0	10	2	12	10	10	9	8	7	18	10	8	0	4	
32	Children's Mercy Hospitals and Clinics	64.0	0.9	6	2	3	26	2	50	12	18	4.0	1	10	3	12	10	11	9	8	7	19	10	8	2	4	
33	Children's Hospital of Alabama at UAB	63.2	0.0	7	3	1	26	7	29	12	8	2.7	0	10	3	12	10	9	10	8	7	18	10	8	2	4	
34	UF Health Shands Children's Hospital	63.1	0.7	7	2	3	28	6	23	6	8	2.2	1	10	2	10	10	11	10	8	7	16	10	8	1	4	
35	Children's Hospital at Montefiore	62.6	2.6	6	3	3	30	5	23	12	6	2.8	0	9	2	11	10	10	9	8	7	16	10	8	2	3	
36	Arnold Palmer Medical Center	62.5	2.0	7	NA	3	26	9	36	11	12	3.1	1	10	NA	10	10	10	10	8	7	17	10	8	2	4	
36	Nemours Alfred I. duPont Hospital for Children	62.5	2.8	5	1	3	27	7	41	12	13	3.5	1	10	3	12	10	11	10	8	7	19	10	8	1	4	
38	Cook Children's Medical Center	61.6	3.1	9	NA	3	26	7	37	5	16	3.8	1	9	NA	11	10	11	10	8	7	15	10	8	0	3	
39	Levine Children's Hospital	61.2	2.4	4	3	3	23	9	25	10	11	2.7	1	10	2	10	10	11	8	8	7	17	7	8	0	4	
40	Monroe Carell Jr. Children's Hospital at Vanderbilt	60.2	1.7	6	NA	3	29	7	49	14	11	2.9	1	10	NA	12	10	10	10	8	7	18	10	8	2	4	
40	Mount Sinai Kravis Children's Hospital	60.2	3.7	4	2	3	27	5	30	14	7	3.4	1	9	4	7	10	10	9	8	7	16	10	8	2	4	
42	Children's Hospital and Medical Center	59.9	3.2	9	NA	3	22	4	29	12	7	3.0	1	10	NA	10	9	11	10	8	7	14	10	8	2	4	
43	Children's Hospital of Orange County	59.8	1.4	7	NA	3	28	10	35	11	10	3.2	1	10	NA	8	10	11	9	8	7	15	10	8	0	4	
44	Children's Hospital of Michigan	59.6	0.7	8	NR	3	26	9	40	12	9	3.1	0	9	1	12	10	11	10	8	7	14	10	8	2	4	
45	Steven and Alexandra Cohen Children's Medical Center	58.9	2.9	7	NA	3	30	6	39	13	12	3.3	0	10	NA	12	10	11	10	8	7	15	10	8	2	4	
46	Maria Fareri Children's Hospital at Westchester Medical Ctr	58.4	2.6	8	3	3	27	6	30	10	12	2.9	0	3	2	9	10	10	9	8	7	11	10	7	1	4	
47	Duke Children's Hospital and Health Center	58.0	2.6	5	3	1	20	9	29	11	8	2.4	1	9	3	9	10	10	9	8	7	14	10	8	1	2	
48	North Carolina Children's Hospital at UNC	57.9	2.6	6	2	3	27	5	33	9	11	3.2	1	8	2	10	10	10	10	7	7	12	10	8	0	4	
49	American Family Children's Hospital	57.2	0.7	6	3	3	23	3	17	7	7	4.3	1	8	2	10	9	11	7	8	7	14	10	8	1	4	
50	Doernbecher Children's Hospital at OHSU	54.7	1.4	6	NA	3	30	9	24	13	6	3.2	1	9	NA	11	10	11	7	8	7	15	10	8	0	3	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Best Children's Hospitals 2014-15: Neonatology

Rank	Hospital	U.S. News Score	Reputation with specialists	On breast milk at discharge	Minimizing 30-day readmissions	Use of infection-preventing measures	Prevention of NICU infections	Patient volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	ECMO availability	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Full-time subspecialists available	Active fellowship programs	Commitment to clinical research	
1	Children's Hospital of Philadelphia	100.0	70.8	3	3	21	3	21	3.6	1	54	5	6	7	6	16	15	8	17	10	15	9	4	
2	Texas Children's Hospital	91.1	36.9	3	3	21	3	20	2.9	1	54	5	6	7	6	16	15	8	17	10	15	9	4	
3	Cincinnati Children's Hospital Medical Center	91.0	52.7	2	2	21	4	19	3.8	1	52	5	6	7	6	16	15	8	17	10	15	8	4	
4	Children's Hospital Colorado	89.3	20.4	3	3	18	4	20	3.4	1	50	5	6	7	6	16	15	8	17	10	15	9	4	
5	Boston Children's Hospital	86.1	60.1	2	2	21	3	17	3.5	1	54	5	6	7	6	16	15	8	17	10	15	9	4	Top 5%
6	Children's Hospital Los Angeles	86.0	19.2	2	2	21	5	19	3.7	1	48	5	6	7	6	16	15	8	16	10	15	9	4	
6	NY-Presbyterian Morgan Stanley-Komansky Children's Hospital	86.0	27.9	3	3	21	4	16	2.5	0	49	5	6	7	6	16	15	8	16	10	15	9	4	
8	Children's Hospital of Pittsburgh of UPMC	85.3	16.5	2	3	21	4	18	4.0	1	54	5	6	7	6	16	15	8	15	10	15	9	4	
9	Children's National Medical Center	85.0	24.2	2	2	20	5	16	3.0	1	50	5	6	7	6	16	15	8	16	10	15	7	4	
10	Miami Children's Hospital	84.5	7.1	3	3	20	5	13	3.6	1	50	5	6	7	6	16	15	8	17	10	15	4	3	Top 10%
11	St. Louis Children's Hospital-Washington University	82.7	24.4	2	3	17	4	15	3.0	1	51	5	6	7	6	16	15	8	16	10	15	9	4	
12	Lucile Packard Children's Hospital at Stanford	80.7	29.0	3	3	20	3	17	3.4	0	48	5	6	7	6	16	14	8	17	10	15	9	4	
13	Mattel Children's Hospital UCLA	79.3	6.3	3	3	20	4	11	4.0	1	51	5	6	7	6	16	15	8	12	10	15	8	4	
14	Rainbow Babies and Children's Hospital	79.1	41.0	3	2	17	3	10	2.9	1	52	5	6	7	6	16	14	8	16	10	15	7	4	
15	Doernbecher Children's Hospital at OHSU	75.6	2.5	3	2	21	5	13	2.7	1	54	5	6	7	6	16	15	8	15	10	15	4	4	
16	Ann and Robert H. Lurie Children's Hospital of Chicago	75.2	15.7	2	2	21	4	12	3.0	1	50	5	6	7	6	16	15	7	17	10	15	9	4	
17	Children's Hospital of Orange County	74.7	1.5	3	3	19	5	12	2.3	1	52	4	4	7	6	16	15	8	16	10	15	3	4	
18	Duke Children's Hospital and Health Center	74.6	7.6	2	2	20	5	14	2.5	1	52	5	6	7	6	16	15	8	16	10	15	6	4	
19	Johns Hopkins Children's Center	73.8	31.1	2	2	21	3	18	2.7	1	45	5	6	7	6	15	13	8	15	10	15	9	4	
19	Women and Infants Hospital of Rhode Island	73.8	9.4	3	3	18	5	9	2.3	0	43	5	6	7	4	14	15	8	13	10	14	8	4	
21	Children's Hospital of Wisconsin	73.4	5.6	3	3	21	3	17	2.7	1	50	5	6	7	6	16	14	8	16	10	15	9	4	
22	Arnold Palmer Medical Center	72.2	5.9	2	3	17	5	11	2.8	1	42	5	6	7	6	16	14	8	15	10	15	5	4	
23	Children's Mercy Hospitals and Clinics	70.4	5.0	2	3	21	3	19	4.4	1	52	5	6	7	6	16	15	8	17	10	15	7	4	
24	Children's Healthcare of Atlanta	70.2	7.6	2	3	20	4	20	3.0	0	46	5	6	7	6	15	15	8	16	10	15	9	4	
25	Rady Children's Hospital	70.1	6.3	3	2	21	4	19	2.7	0	50	5	6	7	6	16	15	8	15	10	15	9	4	
26	Brenner Children's Hospital	69.8	1.4	3	3	16	5	8	2.8	1	44	5	6	6	6	13	13	8	16	10	14	3	4	
26	UCSF Benioff Children's Hospital	69.8	11.3	3	3	20	2	16	3.2	1	50	4	6	7	6	16	15	8	15	10	15	8	4	
28	Seattle Children's Hospital	69.3	22.3	3	0	21	3	19	4.0	1	53	4	4	7	6	16	15	8	17	10	15	9	4	
28	University of California Davis Children's Hospital	69.3	0.0	3	3	20	4	17	3.0	1	52	5	5	6	6	16	15	7	16	10	15	2	4	
30	University of Iowa Children's Hospital	69.0	4.0	2	3	20	4	13	2.5	1	51	5	6	7	6	16	15	8	14	10	14	6	4	
31	Children's Medical Center Dallas-Parkland Memorial Hospital	68.8	6.9	2	2	19	4	19	2.4	1	50	5	6	7	6	16	15	8	16	10	15	9	4	
32	Steven and Alexandra Cohen Children's Medical Center	68.6	2.5	3	3	21	4	12	2.1	0	52	5	6	7	6	16	15	8	15	10	15	7	4	
33	Akron Children's Hospital	68.2	2.2	2	3	20	5	9	2.6	1	47	4	6	7	5	16	15	8	16	10	15	0	4	
34	Nationwide Children's Hospital	66.9	18.6	1	1	21	4	19	2.5	1	49	5	6	7	6	16	15	8	17	10	15	9	4	
35	Advocate Children's Hospital	66.4	1.4	2	3	17	5	7	2.4	1	49	5	4	6	6	15	15	8	17	10	15	4	4	
36	UF Health Shands Children's Hospital	65.8	0.0	2	3	19	4	13	2.8	1	53	5	6	7	6	16	15	8	15	10	15	7	4	
37	Yale-New Haven Children's Hospital	65.3	4.2	2	1	21	5	10	2.4	1	48	5	6	7	6	14	15	8	16	10	15	8	4	
38	University of Minnesota Children's Hospital	65.0	4.2	3	2	16	5	10	2.8	0	46	5	4	7	6	16	15	8	15	10	15	6	4	
39	Nemours Alfred I. duPont Hospital for Children	64.9	2.4	3	3	18	3	15	1.8	1	53	5	6	7	6	16	15	8	16	10	15	5	4	
40	University of Michigan C.S. Mott Children's Hospital	63.8	8.0	3	2	20	3	19	3.1	0	45	5	6	7	6	16	15	8	16	10	15	9	4	
41	Le Bonheur Children's Hospital	63.5	8.2	2	1	18	5	14	2.2	0	53	5	6	7	6	16	15	8	16	10	15	8	4	
42	Inova Children's Hospital	63.0	4.3	3	2	17	4	10	2.4	1	48	4	4	6	6	16	14	8	15	10	15	6	4	
43	University of Virginia Children's Hospital	60.9	0.0	2	3	20	5	10	3.0	0	46	4	6	6	6	15	13	7	12	10	15	5	4	
44	Massachusetts General Hospital for Children	59.2	4.2	3	2	19	3	11	3.5	1	41	5	6	7	6	13	13	7	14	10	14	7	4	
45	Monroe Carell Jr. Children's Hospital at Vanderbilt	58.5	6.7	2	1	20	3	17	3.5	1	51	5	6	7	6	16	14	8	16	10	15	8	4	
46	Cleveland Clinic Children's Hospital	58.3	3.3	1	2	18	4	10	2.7	1	54	5	6	7	6	16	15	8	16	10	15	8	4	
47	Children's Hospital of Michigan	58.2	8.2	2	1	21	4	14	2.6	0	51	5	6	7	6	15	14	8	15	10	15	7	4	
48	Holtz Children's Hospital at UM-Jackson Memorial Medical Ctr	57.7	4.1	2	3	16	4	7	2.3	0	53	4	6	7	6	16	14	8	13	7	15	7	4	
49	Mount Sinai Kravis Children's Hospital	56.9	0.0	3	2	20	4	8	2.6	1	49	3	4	7	6	15	15	8	14	10	15	4	2	
50	Children's Hospital of Alabama at UAB	56.8	3.7	2	3	17	3	18	2.8	0	49	5	6	7	6	16	14	8	16	10	15	7	4	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Best Children's Hospitals 2014-15: Nephrology

Rank	Hospital	U.S. News Score	Reputation with specialists	Survival after kidney transplant	Managing dialysis patients	Preventing biopsy complications	Use of infection-preventing measures	Prevention of ICU infections	Prevention of dialysis-related infections	Prevention of pressure ulcers	Patient volume	Catheter procedure volume	Dialysis volume	Kidney biopsy volume	Kidney transplant volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	Transplants to dialysis patients	Advanced clinical services	Clinical support services	Advanced technologies	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Fulltime subspecialists available	Active fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	71.5	22	18	3	45	9	10	3	36	10	12	5	6	3.8	1	29	6	12	9	1	12	7	15	10	8	2	8	
2	Cincinnati Children's Hospital Medical Center	97.3	65.0	22	20	3	46	5	11	2	31	11	15	7	5	4.0	1	29	7	13	9	1	12	7	15	10	8	2	9	
3	Children's Hospital of Philadelphia	92.5	59.5	23	18	3	44	5	8	3	34	13	12	6	5	3.3	1	29	3	11	9	1	12	7	15	10	8	2	9	
4	Texas Children's Hospital	90.2	41.4	23	16	3	46	8	7	2	29	12	15	8	5	3.0	1	30	6	13	9	1	12	7	15	10	8	2	7	Top 5%
5	Seattle Children's Hospital	89.7	64.9	23	18	3	46	3	7	3	25	9	14	9	6	2.4	1	29	4	7	9	1	12	7	15	10	8	2	9	
6	Children's Mercy Hospitals and Clinics	89.6	29.3	24	20	3	46	2	12	3	31	9	13	9	4	4.0	1	30	2	13	9	1	12	7	15	10	8	2	8	
7	Lucile Packard Children's Hospital at Stanford	87.0	43.6	24	16	3	40	7	9	3	30	12	16	8	5	3.4	0	29	4	9	9	1	12	7	15	10	8	2	8	
7	Nationwide Children's Hospital	87.0	23.0	23	17	3	46	8	10	3	23	7	14	4	4	3.6	1	29	4	11	9	1	12	7	15	10	7	2	7	Top 10%
9	Ann and Robert H. Lurie Children's Hospital of Chicago	86.9	17.3	23	20	3	46	7	9	3	29	8	13	6	5	3.5	1	29	7	12	9	1	12	7	15	10	8	2	7	
10	Mattel Children's Hospital UCLA	84.0	31.3	24	15	2	45	8	8	3	14	14	17	7	5	3.0	1	30	2	12	9	1	12	7	10	10	7	2	8	
11	Children's Healthcare of Atlanta	82.0	23.6	23	13	3	41	7	9	3	33	12	17	8	6	3.7	0	28	5	12	9	1	12	7	14	10	8	2	8	
12	Children's Hospital of Wisconsin	78.5	5.6	23	15	3	46	8	10	3	28	7	11	4	3	4.4	1	29	4	13	9	1	12	7	14	10	8	2	5	
13	Children's Medical Center Dallas	77.9	16.2	23	16	3	38	4	9	3	20	14	17	6	5	3.0	1	29	1	12	9	1	12	7	14	10	8	2	6	
14	Children's National Medical Center	77.8	8.0	23	18	3	44	7	8	3	24	13	17	5	3	3.1	1	29	3	11	9	1	12	7	14	10	8	2	5	
15	Johns Hopkins Children's Center	76.9	19.7	23	18	3	46	3	7	3	15	7	10	2	3	3.3	1	28	4	10	9	1	12	7	13	10	7	2	7	
16	Children's Hospital of Pittsburgh of UPMC	75.6	17.0	22	16	3	42	6	6	3	25	3	5	5	2	3.3	1	30	5	11	9	1	12	7	13	10	7	2	4	
17	Children's Hospital Los Angeles	75.5	8.4	24	11	3	40	7	12	3	26	13	14	4	5	2.7	1	28	3	11	9	1	11	7	14	10	8	2	3	
18	UCSF Benioff Children's Hospital	74.7	8.1	22	18	2	44	6	9	3	20	7	15	7	4	3.7	1	29	5	9	9	1	12	7	13	10	8	2	5	
19	Levine Children's Hospital	74.5	2.9	21	20	3	41	9	12	3	21	12	15	6	3	2.7	1	27	7	12	9	1	11	7	14	7	8	0	6	
20	University of Iowa Children's Hospital	73.4	10.9	20	17	3	45	2	10	3	25	7	9	3	2	2.9	1	30	7	11	9	1	12	7	12	10	7	1	9	
21	Rady Children's Hospital	72.3	3.7	22	18	3	44	10	9	3	30	10	11	5	3	3.1	0	27	3	11	9	1	12	7	13	10	7	2	5	
22	Riley Hospital for Children at IU Health	71.8	3.6	23	15	3	43	4	10	3	28	9	15	4	4	3.6	1	29	6	12	9	1	12	7	15	10	8	1	4	
23	University of California Davis Children's Hospital	70.7	2.3	24	15	3	44	8	11	3	21	4	7	6	3	3.9	1	26	9	11	8	1	12	7	14	10	7	0	2	
24	University of Michigan C.S. Mott Children's Hospital	70.2	11.3	21	12	3	44	6	7	2	22	13	15	7	5	3.6	0	26	5	9	9	1	12	7	14	10	8	2	7	
25	Mayo Clinic Children's Center	70.0	3.1	23	20	2	34	10	8	3	34	3	6	6	2	3.1	1	29	8	10	9	1	12	7	15	10	7	1	4	
26	Children's Hospital of Alabama at UAB	69.9	2.6	24	17	3	42	7	9	1	31	6	13	9	5	2.7	0	30	10	12	9	1	12	7	14	10	8	1	9	
27	Doernbecher Children's Hospital at OHSU	69.4	1.9	20	20	2	45	9	8	3	35	8	11	9	4	3.2	1	26	8	11	9	1	12	7	13	10	8	0	4	
28	Children's Hospital of Richmond at VCU	69.1	1.8	24	19	3	40	8	11	3	22	7	12	4	2	2.2	1	27	4	11	7	1	12	5	9	10	8	1	6	
29	Mount Sinai Kravis Children's Hospital	68.9	3.6	22	18	3	45	5	6	3	23	5	5	3	4	3.4	1	29	6	8	9	1	12	7	12	10	7	2	4	
30	Cleveland Clinic Children's Hospital	68.4	1.4	18	18	3	43	9	9	3	30	8	7	1	1	2.6	1	27	1	10	9	1	12	7	14	10	8	1	8	
30	Medical University of South Carolina Children's Hospital	68.4	1.7	22	20	3	42	7	12	3	25	13	15	5	3	2.9	0	26	6	12	7	1	9	7	15	10	7	0	7	
32	St. Louis Children's Hospital-Washington University	68.1	2.4	23	11	2	42	8	9	3	19	7	10	4	2	3.5	1	30	0	10	9	1	12	7	14	10	8	2	8	
33	Holtz Children's Hospital at UM-Jackson Memorial Medical Ctr	68.0	3.5	22	17	3	38	10	10	3	15	9	12	2	4	2.3	0	28	5	12	9	1	10	7	11	7	7	2	4	
34	Children's Hospital at Montefiore	67.0	14.4	20	11	2	46	5	7	3	18	5	8	3	3	2.8	0	29	4	13	9	1	12	7	14	10	8	2	8	
35	NY-Presbyterian Morgan Stanley-Komansky Children's Hospital	66.6	2.2	23	17	3	42	5	10	3	17	8	11	4	3	2.3	0	29	4	11	9	1	11	7	14	10	8	2	6	
36	University of Minnesota Children's Hospital	66.1	6.8	22	18	3	39	4	9	3	23	8	15	6	6	2.8	0	29	5	7	8	1	10	7	13	10	8	1	3	
37	Rainbow Babies and Children's Hospital	65.9	3.6	24	15	3	42	5	8	2	20	11	9	3	2	2.8	1	26	1	10	9	1	12	7	14	10	7	2	5	
38	Nemours Alfred I. duPont Hospital for Children	65.2	2.5	20	19	2	43	7	9	3	21	7	14	2	2	3.5	1	27	1	10	9	1	12	7	14	10	8	0	6	
39	St. Christopher's Hospital for Children	64.6	3.1	21	20	3	36	10	11	3	17	6	7	2	2	3.0	1	24	2	9	9	0	11	6	11	10	8	1	0	
40	Monroe Carell Jr. Children's Hospital at Vanderbilt	64.4	1.8	22	14	1	41	7	12	3	24	4	8	3	4	2.9	1	27	4	10	9	1	12	7	14	10	8	2	4	
41	Children's Hospital of Michigan	64.3	4.6	16	17	3	42	9	5	3	21	7	8	3	3	3.1	0	29	2	9	9	1	10	7	13	10	7	2	5	
41	UF Health Shands Children's Hospital	64.3	1.8	22	17	3	39	6	6	3	27	10	10	4	3	2.2	1	30	2	11	9	1	12	7	13	10	7	1	3	
43	Miami Children's Hospital	63.7	4.6	NR	19	3	45	9	8	3	30	14	18	5	0	3.2	1	24	3	11	9	1	11	7	15	10	8	0	3	
44	Le Bonheur Children's Hospital	63.6	3.6	20	15	2	43	9	8	3	18	4	8	4	3	2.5	0	30	2	10	9	1	12	7	14	10	7	2	4	
45	North Carolina Children's Hospital at UNC	63.2	1.3	24	12	3	37	5	11	3	19	7	11	4	2	3.2	1	25	3	11	9	1	11	7	10	10	7	1	6	
46	SSM Cardinal Glennon Children's Medical Center	61.2	1.8	22	16	3	37	8	8	3	21	9	8	4	2	3.0	0	26	8	9	9	1	12	7	14	10	7	0	3	
47	Primary Children's Hospital	60.5	2.3	21	12	3	46	5	4	3	32	8	6	4	4	4.5	0	30	3	9	9	1	11	7	15	10	8	1	3	
48	Penn State Hershey Children's Hospital	60.4	0.0	23	15	3	42	5	11	3	13	7	9	1	3	3.3	1	23	7	9	9	1	10	7	13	10	6	0	1	
49	Cook Children's Medical Center	59.8	3.4	14	13	3	40	7	8	3	21	8	11	3	2	3.8	1	21	6	12	9	1	12	7	14	10	7	0	0	
50	Spectrum Health Helen DeVos Children's Hospital	59.6	1.2	22	9	3	40	6	6	3	28	11	10	6	2	2.8	1	28	4	12	7	1	11	7	14	10	7	0	4	
50	Stony Brook Long Island Children's Hospital	59.6	3.6	23	14	3	39	3	12	3	19	3	8	1	2	2.3	0	25	8	8	8	1	12	7	11	10	7	1	5	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Best Children's Hospitals 2014-15: Neurology & Neurosurgery

Rank	Hospital	U.S. News Score	Reputation with specialists	Surgical survival	Use of infection-preventing measures	Prevention of surgical complications	Management of epilepsy patients	Clinic patient volume	Surgery volume	Epilepsy workup and care volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Fulltime subspecialist availability	Active fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	73.2	12	37	16	8	54	39	16	3.8	1	20	14	9	7	18	8	7	15	10	11	3	4	
2	Children's Hospital of Philadelphia	95.9	63.4	12	35	19	6	51	31	14	3.3	1	20	13	9	7	18	8	7	15	10	11	3	4	
3	Johns Hopkins Children's Center	94.5	45.4	12	38	19	7	39	30	11	3.3	1	20	14	9	7	18	8	7	13	10	11	3	4	
4	Ann and Robert H. Lurie Children's Hospital of Chicago	90.5	20.3	12	34	19	8	45	36	14	3.5	1	19	14	9	7	18	8	7	15	10	11	3	4	
5	St. Louis Children's Hospital-Washington University	90.1	39.3	12	33	15	8	41	23	13	3.5	1	20	14	9	7	16	8	7	14	10	11	3	4	Top 5%
6	Texas Children's Hospital	89.4	38.2	11	37	16	7	48	30	15	3.0	1	19	14	9	7	18	8	7	15	10	11	3	4	
7	Cincinnati Children's Hospital Medical Center	87.0	39.5	12	35	15	5	47	28	17	4.0	1	19	14	9	7	17	8	7	15	10	11	3	4	
8	Miami Children's Hospital	85.8	17.0	12	37	17	7	46	30	17	3.2	1	20	14	9	7	17	8	7	15	10	11	2	4	
9	Children's Hospital of Pittsburgh of UPMC	85.2	19.7	11	34	17	7	41	34	16	3.3	1	20	13	9	7	18	8	7	13	10	11	3	4	Top 10%
10	Nationwide Children's Hospital	84.2	23.0	12	37	14	6	50	27	13	3.6	1	20	14	9	7	18	8	7	15	10	11	3	4	
11	Cleveland Clinic Children's Hospital	83.9	27.0	11	32	16	6	48	30	18	2.6	1	20	14	9	7	18	8	7	14	10	11	3	4	
12	Primary Children's Hospital	83.2	14.0	12	36	17	8	44	29	12	4.5	0	20	12	9	7	18	8	7	15	10	10	3	4	
13	Children's National Medical Center	83.0	28.7	12	35	15	6	48	27	14	3.1	1	18	13	9	7	18	8	7	14	10	11	2	4	
14	Children's Hospital Colorado	79.8	15.6	11	33	15	7	39	27	16	2.6	1	19	13	9	6	18	8	7	15	10	11	3	4	
14	Children's Hospital of Wisconsin	79.8	3.4	12	37	16	8	47	21	13	4.4	1	19	13	9	6	18	8	7	14	10	11	3	4	
16	Children's Hospital Los Angeles	79.6	13.8	12	36	16	6	41	34	13	2.7	1	18	13	9	6	17	8	7	14	10	11	3	4	
17	Seattle Children's Hospital	79.5	25.2	12	38	13	5	45	28	12	2.4	1	20	9	9	6	18	8	7	15	10	11	3	4	
18	Rady Children's Hospital	78.9	2.8	12	38	19	8	45	38	15	3.1	0	19	13	9	7	18	8	7	13	10	11	3	4	
19	Mayo Clinic Children's Center	78.5	12.6	12	31	13	8	34	26	7	3.1	1	19	14	9	7	18	8	7	15	10	10	3	4	
20	NY-Presbyterian Morgan Stanley-Komansky Children's Hospital	76.7	11.5	10	37	16	8	31	31	10	2.3	0	20	14	9	7	18	8	7	14	10	11	3	4	
21	UCSF Benioff Children's Hospital	76.6	24.8	12	37	9	6	32	17	6	3.7	1	19	13	9	7	17	8	7	13	10	11	3	4	
22	Children's Medical Center Dallas	76.3	4.5	12	24	19	7	34	28	10	3.0	1	20	13	9	6	17	8	7	14	10	11	3	4	
23	University of Michigan C.S. Mott Children's Hospital	75.3	4.9	12	37	19	6	31	20	8	3.6	0	20	13	9	7	17	8	7	14	10	11	3	4	
24	Children's Hospital of Michigan	74.1	2.6	12	33	16	8	34	28	16	3.1	0	20	14	9	7	18	8	7	13	10	10	3	4	
25	Lucile Packard Children's Hospital at Stanford	71.4	11.3	12	37	14	5	33	21	6	3.4	0	20	13	9	6	16	8	7	15	10	10	3	4	
26	University of Iowa Children's Hospital	70.5	1.4	9	37	17	8	26	19	7	2.9	1	19	12	9	6	18	8	7	12	10	10	2	4	
27	Akron Children's Hospital	69.7	1.6	12	37	17	5	41	18	9	3.1	1	20	13	9	7	17	8	7	14	10	11	0	4	
28	Le Bonheur Children's Hospital	69.5	10.3	10	35	16	5	36	24	13	2.5	0	18	14	9	7	17	8	7	14	10	11	3	4	
29	Mount Sinai Kravis Children's Hospital	68.4	2.4	12	34	17	6	13	15	12	3.4	1	19	10	9	7	13	8	7	12	10	10	1	3	
29	Rainbow Babies and Children's Hospital	68.4	8.6	9	31	10	7	29	21	9	2.8	1	20	13	9	7	18	8	7	14	10	11	3	4	
31	Steven and Alexandra Cohen Children's Medical Center	68.3	1.4	11	38	18	5	26	28	13	3.3	0	19	14	9	7	17	8	7	13	10	11	3	3	
32	Children's Hospital at Montefiore	68.2	4.4	12	37	16	5	28	19	9	2.8	0	18	14	9	7	16	8	7	14	10	11	3	4	
32	Penn State Hershey Children's Hospital	68.2	0.5	12	34	15	8	19	18	6	3.3	1	18	14	9	5	11	8	7	13	10	10	1	4	
34	Children's Hospital of Alabama at UAB	67.4	15.4	10	26	14	5	30	28	13	2.7	0	20	12	9	6	16	8	7	14	10	10	3	4	
35	Yale-New Haven Children's Hospital	66.7	1.9	10	36	16	6	13	17	7	2.4	1	20	14	8	7	12	8	7	14	10	10	2	4	
36	Mattel Children's Hospital UCLA	66.6	9.0	12	37	11	5	19	14	9	3.0	1	16	13	9	6	14	8	7	10	10	11	3	4	
37	Cook Children's Medical Center	66.5	3.7	12	25	18	3	32	23	14	3.8	1	20	13	9	7	17	8	7	14	10	11	0	4	
38	Children's Healthcare of Atlanta	66.3	2.6	12	36	16	3	35	34	12	3.7	0	19	14	9	7	15	8	7	14	10	11	3	4	
38	Children's Mercy Hospitals and Clinics	66.3	3.0	11	37	13	3	33	30	12	4.0	1	18	14	9	6	18	8	7	15	10	11	3	4	
40	Riley Hospital for Children at IU Health	65.9	1.3	12	32	13	4	37	34	12	3.6	1	19	13	9	7	17	8	7	15	10	11	2	4	
41	Nemours Alfred I. duPont Hospital for Children	65.2	2.0	12	35	18	3	29	13	12	3.5	1	18	14	9	6	18	8	7	14	10	11	1	2	
42	Monroe Carell Jr. Children's Hospital at Vanderbilt	64.4	5.7	12	32	11	5	28	18	12	2.9	1	18	13	9	6	0	8	7	14	10	11	3	4	
43	Wolfson Children's Hospital	64.2	1.1	12	32	14	5	23	14	9	2.7	1	18	10	8	7	18	8	7	13	10	10	3	4	
44	Joseph M. Sanzari Children's Hospital at Hackensack University Medical Ctr	63.8	0.5	11	17	18	7	22	20	8	3.0	1	17	14	8	6	18	7	6	12	10	11	2	4	
45	Duke Children's Hospital and Health Center	63.6	4.2	11	35	17	2	23	25	7	2.4	1	18	14	9	7	13	8	7	14	10	11	2	4	
46	Phoenix Children's Hospital	63.3	5.0	11	32	16	2	41	31	14	3.1	0	19	13	9	7	17	8	7	13	10	11	3	4	
47	Arnold Palmer Medical Center	63.1	0.7	12	31	16	4	15	23	8	3.1	1	19	14	9	7	12	8	7	13	10	10	2	3	
47	Children's Hospital of Orange County	63.1	2.0	10	36	12	6	27	27	16	3.2	1	16	10	9	6	15	8	7	14	10	10	2	3	
49	Massachusetts General Hospital for Children	62.4	5.1	10	33	14	4	29	17	7	2.9	1	18	14	9	7	16	8	7	13	10	10	1	4	
50	Doernbecher Children's Hospital at OHSU	61.4	2.0	12	36	13	2	29	23	9	3.2	1	20	14	9	7	17	8	7	13	10	10	1	4	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Best Children's Hospitals 2014-15: Orthopedics

Rank	Hospital	U.S. News Score	Reputation with specialists	Speed and success with complex fractures	Preventing surgical complications	Use of infection-preventing measures	Patient volume	Procedure volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Fulltime subspecialists available	Active fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	79.1	5	11	26	33	45	3.8	1	35	9	9	3	9	8	7	15	10	18	2	1	
2	Children's Hospital Los Angeles	98.2	44.9	6	12	26	29	42	2.7	1	33	9	9	3	9	8	7	14	10	18	2	1	
3	Rady Children's Hospital	95.6	65.6	6	11	26	24	36	3.1	0	35	9	9	3	9	8	7	13	10	18	2	1	
4	Children's Hospital of Philadelphia	94.2	74.8	4	11	26	32	44	3.3	1	33	9	9	3	9	8	7	15	10	18	2	1	Top 5%
5	Children's Medical Center-Texas Scottish Rite Hospital for Children	90.9	69.9	4	11	24	25	39	3.0	1	32	9	9	3	9	8	7	14	10	18	2	1	
6	Nemours Alfred I. duPont Hospital for Children	89.9	35.5	5	12	23	27	25	3.5	1	35	9	9	3	9	8	7	14	10	17	1	1	
7	Children's Hospital Colorado	88.5	26.9	5	12	23	29	36	2.6	1	32	9	9	3	9	8	7	15	10	18	2	1	
8	Cincinnati Children's Hospital Medical Center	86.6	44.0	3	12	26	23	33	4.0	1	31	9	9	3	9	8	7	15	10	18	2	1	
9	Rainbow Babies and Children's Hospital	85.8	15.1	6	12	22	19	30	2.8	1	33	9	9	3	9	8	7	14	10	18	1	1	Top 10%
10	St. Louis Children's-Washington University-Shriners Hospital	84.6	30.3	4	12	22	22	33	3.5	1	31	9	9	3	8	8	7	14	10	18	2	1	
11	Children's Hospital of Wisconsin	83.4	3.1	6	12	26	26	38	4.4	1	32	9	9	3	9	8	7	14	10	17	1	1	
12	Children's Healthcare of Atlanta	83.3	27.2	4	12	25	30	43	3.7	0	32	9	9	3	9	8	7	14	10	18	2	1	
12	Primary Children's Hospital	83.3	9.9	6	12	26	22	34	4.5	0	28	9	9	3	8	8	7	15	10	18	2	1	
14	Children's Mercy Hospitals and Clinics	82.6	1.9	6	12	26	22	33	4.0	1	29	9	9	3	9	8	7	15	10	16	2	1	
15	Cleveland Clinic Children's Hospital	81.6	3.4	6	12	23	26	23	2.6	1	33	9	9	3	9	8	7	14	10	18	2	1	
16	Children's Hospital of Pittsburgh of UPMC	81.4	4.1	6	11	26	28	30	3.3	1	29	9	9	3	9	8	7	13	10	18	2	1	
17	Arnold Palmer Medical Center	79.6	8.1	6	11	22	11	30	3.1	1	29	9	9	3	7	8	7	13	10	17	2	1	
18	Miami Children's Hospital	79.5	1.6	6	12	25	23	32	3.2	1	30	8	9	3	9	8	7	15	10	18	1	1	
19	Ann and Robert H. Lurie Children's Hospital of Chicago	79.1	9.7	4	12	25	22	28	3.5	1	31	9	9	3	9	8	7	15	10	17	2	1	
19	Riley Hospital for Children at IU Health	79.1	3.2	6	12	24	21	25	3.6	1	32	9	9	3	8	8	7	15	10	17	0	1	
21	Seattle Children's Hospital	79.0	17.2	5	10	26	20	29	2.4	1	28	5	9	3	9	8	7	15	10	18	2	1	
22	UC Davis Children's Hospital-Shriners Hospitals for Children	78.1	2.5	5	12	25	22	31	3.9	1	34	9	8	3	9	8	7	14	10	18	1	1	
23	Gillette Children's Specialty Healthcare	77.6	7.1	6	10	25	26	31	4.7	0	34	8	9	3	9	8	7	14	10	17	1	1	
24	Children's National Medical Center	77.2	4.5	5	11	25	29	34	3.1	1	28	9	9	3	9	8	7	14	10	18	2	1	
25	University of Michigan C.S. Mott Children's Hospital	76.9	6.3	5	12	25	22	34	3.6	0	29	9	9	3	9	8	7	14	10	18	2	1	
26	Duke Children's Hospital and Health Center	76.8	1.0	6	12	25	15	20	2.4	1	28	8	9	3	8	8	7	14	10	16	2	1	
27	Mattel Children's Hospital UCLA	76.1	4.6	5	12	25	13	25	3.0	1	30	9	9	3	6	8	7	10	10	18	2	1	
28	UCSF Benioff Children's Hospital	75.5	0.0	6	12	25	12	16	3.7	1	30	9	9	3	6	8	7	13	10	16	1	1	
29	Children's Hospital and Medical Center	75.1	2.4	6	12	23	13	17	3.0	1	28	9	8	3	7	8	7	12	10	17	1	1	
30	Doernbecher Children's Hospital at OHSU	74.4	1.7	6	12	26	14	19	3.2	1	27	8	9	3	8	8	7	13	10	14	0	1	
30	Johns Hopkins Children's Center	74.4	9.9	4	9	26	20	36	3.3	1	34	9	9	3	9	8	7	13	10	18	2	1	
32	University of Iowa Children's Hospital	74.2	5.0	5	12	25	15	19	2.9	1	31	9	9	3	9	8	7	12	10	16	0	1	
33	St. Christopher's Hospital for Children	74.0	2.0	6	11	26	13	18	3.0	1	28	7	9	2	9	7	6	11	10	16	2	1	
34	Le Bonheur Children's Hospital	73.4	4.7	5	12	23	21	30	2.5	0	31	9	9	3	8	8	7	14	10	18	2	1	
34	Texas Children's Hospital	73.4	7.1	4	11	26	17	26	3.0	1	27	8	9	3	9	8	7	15	10	18	2	1	
36	Penn State Hershey Children's Hospital	73.3	1.4	6	12	22	13	11	3.3	1	32	9	9	3	5	8	7	13	10	16	0	1	
37	All Children's Hospital	72.9	2.1	6	12	23	13	24	3.1	0	33	8	9	3	6	8	7	12	10	17	1	1	
38	NY-Presbyterian Morgan Stanley-Komansky Children's Hospital	72.8	11.2	4	11	26	15	41	2.3	0	31	9	9	3	9	8	7	14	10	18	2	1	
39	Brenner Children's Hospital	72.5	2.3	6	12	21	8	18	2.4	1	30	9	8	3	7	8	7	14	10	17	0	1	
39	North Carolina Children's Hospital at UNC	72.5	0.0	6	12	23	13	22	3.2	1	30	9	9	3	9	7	7	10	10	17	0	1	
41	American Family Children's Hospital	72.4	1.0	6	10	20	13	19	4.3	1	33	9	8	3	8	8	7	13	10	18	1	1	
42	Children's Hospital of Orange County	72.1	3.0	6	11	24	13	20	3.2	1	27	4	9	3	8	8	7	14	10	17	0	1	
43	Phoenix Children's Hospital	71.1	1.2	6	11	23	17	33	3.1	0	30	9	9	3	8	8	7	13	10	17	1	1	
44	University of Rochester-Golisano Children's Hospital	70.7	0.9	6	12	16	14	27	2.7	1	32	5	8	3	9	5	7	13	9	17	1	1	
45	Akron Children's Hospital	70.6	2.6	4	12	25	22	24	3.1	1	32	9	9	3	9	8	7	14	10	17	0	1	
46	Mayo Clinic Children's Center	69.0	5.0	6	6	24	14	25	3.1	1	31	9	9	3	9	8	7	15	10	17	1	1	
47	Levine Children's Hospital	68.6	2.2	5	12	21	11	22	2.7	1	30	8	9	3	7	8	7	14	7	17	0	1	
48	Yale-New Haven Children's Hospital	67.9	0.0	5	12	26	8	17	2.4	1	25	8	8	3	6	8	7	14	10	15	1	1	
49	Nationwide Children's Hospital	67.6	6.2	4	6	26	31	37	3.6	1	32	9	9	3	9	8	7	15	10	18	2	1	
50	Children's Hospital at OU Medical Center	66.6	2.1	6	12	20	14	20	3.3	0	29	8	8	3	8	7	4	10	10	17	0	1	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Best Children's Hospitals 2014-15: Pulmonology

Rank	Hospital	U.S. News Score	Reputation with specialists	Success with asthma inpatients	Management of asthma patients	Management of cystic fibrosis patients	Management of lung disease of prematurity	Management of neuromuscular weakness	Ventilator patient survival	Prevention of ICU infections	Use of infection-preventing measures	Prevention of pressure ulcers	Patient volume	Nonsurgical procedure volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	Lung transplant program	Advanced clinical services	Clinical support services	Advanced technologies	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Fulltime subspecialists available	Active fellowship program	Commitment to clinical research	
1	Children's Hospital of Philadelphia	100.0	74.4	5	12	10	5	6	6	5	38	3	24	12	3.3	1	20	5	18	9	1	8	7	15	10	10	2	3	
2	Cincinnati Children's Hospital Medical Center	99.4	68.5	5	14	11	6	5	6	5	38	2	21	12	4.0	1	21	1	18	9	1	8	7	15	10	10	2	4	
3	Boston Children's Hospital	96.8	66.7	4	14	8	6	5	6	9	35	3	20	8	3.8	1	21	4	18	9	1	8	7	15	10	10	2	4	
4	Texas Children's Hospital	95.1	55.9	5	10	10	2	5	6	8	38	2	22	9	3.0	1	21	4	18	9	1	8	7	15	10	10	2	3	Top 5%
5	Children's Hospital Colorado	93.3	60.5	5	11	9	6	4	6	8	33	3	20	11	2.6	1	19	NA	18	9	1	8	7	15	10	10	2	4	
6	Children's Hospital of Pittsburgh of UPMC	92.7	39.6	5	7	10	4	6	6	6	35	3	21	9	3.3	1	21	5	17	9	1	8	7	13	10	10	2	4	
7	Nationwide Children's Hospital	89.5	14.9	5	16	9	6	6	6	8	38	3	23	12	3.6	1	21	4	18	9	1	8	7	15	10	10	2	3	
8	St. Louis Children's Hospital-Washington University	88.8	35.5	5	17	8	6	3	5	8	33	3	17	9	3.5	1	20	4	16	9	1	8	7	14	10	10	2	4	Top 10%
9	Johns Hopkins Children's Center	87.4	36.6	5	14	8	5	6	6	3	37	3	19	11	3.3	1	21	1	17	9	1	8	7	13	10	10	2	4	
10	Lucile Packard Children's Hospital at Stanford	85.7	19.5	5	9	10	6	6	6	7	37	3	18	10	3.4	0	21	4	18	9	1	8	7	15	10	10	2	3	
11	Rainbow Babies and Children's Hospital	82.7	25.4	5	12	9	6	6	6	5	34	2	20	6	2.8	1	21	NA	18	9	1	8	7	14	10	10	2	3	
12	Ann and Robert H. Lurie Children's Hospital of Chicago	80.3	13.3	5	7	11	1	1	6	7	36	3	18	11	3.5	1	19	NA	17	9	1	8	7	15	10	10	2	4	
13	Children's Hospital Los Angeles	79.7	17.2	5	13	8	1	4	6	7	38	3	17	10	2.7	1	21	NA	15	9	1	8	7	14	10	10	2	3	
14	Miami Children's Hospital	79.2	3.7	5	17	12	6	6	6	9	37	3	20	5	3.2	1	21	NA	17	9	1	8	7	15	10	10	0	2	
15	North Carolina Children's Hospital at UNC	77.9	26.0	5	10	8	4	6	6	5	34	3	12	6	3.2	1	21	3	14	9	1	7	7	10	10	8	1	2	
16	Children's Hospital of Wisconsin	77.7	1.6	5	11	11	3	6	6	8	37	3	19	9	4.4	1	21	NA	18	9	1	8	7	14	10	10	2	2	
17	Riley Hospital for Children at IU Health	77.3	13.1	5	16	8	6	6	6	4	36	3	19	10	3.6	1	21	NA	14	9	1	8	7	15	10	10	1	2	
18	Cleveland Clinic Children's Hospital	77.1	2.9	5	17	10	6	6	6	9	35	3	14	10	2.6	1	20	1	17	9	1	8	7	14	10	10	1	3	
19	NY-Presbyterian Morgan Stanley-Komansky Children's Hospital	76.9	10.5	5	11	10	5	4	6	5	37	3	18	9	2.3	0	20	5	17	9	1	8	7	14	10	10	2	3	
20	Children's Healthcare of Atlanta	75.6	3.7	5	14	11	6	6	5	7	33	3	20	8	3.7	0	21	NA	18	9	1	8	7	14	10	10	2	4	
21	Seattle Children's Hospital	75.3	39.2	5	7	9	0	1	4	3	33	3	14	7	2.4	1	21	NA	14	9	1	8	7	15	10	10	2	3	
22	Rady Children's Hospital	74.8	1.8	5	17	10	4	6	6	10	37	3	17	8	3.1	0	21	NA	15	9	1	8	7	13	10	9	2	3	
23	Winthrop-University Hospital Children's Medical Center	74.6	1.7	5	13	12	6	6	6	10	38	3	10	4	4.3	0	21	NA	17	9	1	8	7	14	10	9	1	1	
24	Children's Hospital of Orange County	73.1	0.0	5	14	12	6	6	6	10	35	3	17	6	3.2	1	20	NA	13	9	1	8	7	14	10	10	0	1	
25	Monroe Carell Jr. Children's Hospital at Vanderbilt	72.4	3.1	4	9	10	6	6	6	7	35	3	15	6	2.9	1	20	NA	18	9	1	8	7	14	10	9	2	3	
26	Arnold Palmer Medical Center	71.3	0.0	5	17	8	6	6	6	9	34	3	12	4	3.1	1	21	NA	17	9	1	8	7	13	10	10	1	4	
27	Maria Fareri Children's Hospital at Westchester Medical Center	70.5	2.4	5	16	11	6	6	6	6	34	3	19	9	2.9	0	20	NA	18	9	1	8	7	10	10	9	1	3	
28	Cook Children's Medical Center	70.2	1.7	5	13	9	5	3	6	7	38	3	19	6	3.8	1	21	NA	18	9	1	8	7	14	10	10	0	2	
29	Children's National Medical Center	70.1	2.1	5	12	9	3	5	6	7	33	3	19	6	3.1	1	19	NA	18	9	1	8	7	14	10	10	2	2	
30	Mount Sinai Kravis Children's Hospital	69.9	0.0	5	15	11	6	6	6	5	37	3	8	4	3.4	1	21	NA	14	9	1	8	7	12	10	9	1	2	
31	Mayo Clinic Children's Center	69.3	2.2	5	14	11	1	0	6	10	30	3	10	7	3.1	1	21	1	14	9	1	8	7	15	10	9	1	1	
32	Children's Hospital of Michigan	68.4	0.0	5	17	10	6	6	6	9	31	3	16	6	3.1	0	21	NA	16	9	1	8	7	13	10	10	1	2	
32	University of Michigan C.S. Mott Children's Hospital	68.4	5.2	3	10	11	4	6	6	6	36	2	17	7	3.6	0	21	NA	18	9	1	8	7	14	10	9	2	3	
34	Children's Hospital of Alabama at UAB	67.1	3.5	5	13	10	6	5	6	7	31	1	18	12	2.7	0	18	NA	18	9	1	8	7	14	10	10	2	2	
35	Duke Children's Hospital and Health Center	66.8	5.3	4	7	8	2	6	6	9	37	1	14	4	2.4	1	20	4	15	9	1	8	7	14	10	10	1	2	
35	UF Health Shands Children's Hospital	66.8	2.2	5	17	7	1	6	6	6	36	3	9	6	2.2	1	21	3	18	9	1	8	7	13	10	10	1	2	
37	Le Bonheur Children's Hospital	66.7	2.1	5	14	7	3	6	6	9	33	3	17	7	2.5	0	21	NA	18	9	1	8	7	14	10	9	2	2	
38	Children's Mercy Hospitals and Clinics	66.2	1.5	5	6	8	5	6	6	2	34	3	20	10	4.0	1	21	NA	18	9	1	8	7	15	10	10	1	2	
39	Doernbecher Children's Hospital at OHSU	66.1	0.0	5	11	8	5	6	6	9	36	3	11	5	3.2	1	20	NA	15	9	1	8	7	13	10	9	0	2	
40	Nemours Alfred I. duPont Hospital for Children	65.6	1.6	3	17	8	6	4	6	7	35	3	20	6	3.5	1	21	NA	18	9	1	8	7	14	10	10	1	2	
41	Akron Children's Hospital	65.4	1.5	5	9	10	6	6	5	8	34	2	16	4	3.1	1	18	NA	17	9	1	8	7	14	10	9	0	2	
41	Children's Hospital and Medical Center	65.4	0.0	5	11	8	6	2	6	4	32	3	13	8	3.0	1	21	NA	17	8	1	8	7	12	10	10	2	4	
43	Steven and Alexandra Cohen Children's Medical Center	65.2	1.2	4	17	9	6	3	6	6	38	3	14	4	3.3	0	21	NA	16	9	1	8	7	13	10	9	2	2	
44	Massachusetts General Hospital for Children	65.0	2.4	5	7	8	6	6	6	3	33	3	11	4	2.9	1	20	NA	17	9	1	8	7	13	10	8	1	4	
45	UCSF Benioff Children's Hospital	64.5	2.5	4	17	7	6	3	6	6	36	3	9	4	3.7	1	18	NA	15	9	1	8	7	13	10	9	2	2	
46	University of Iowa Children's Hospital	63.9	1.5	5	14	8	6	2	6	2	37	3	11	4	2.9	1	20	NA	18	9	1	8	7	12	10	8	1	4	
47	Holtz Children's Hospital at UM-Jackson Memorial Medical Ctr	63.5	2.2	5	6	7	6	6	6	10	29	3	9	5	2.3	0	20	NA	15	9	1	7	7	11	7	10	2	3	
47	Yale-New Haven Children's Hospital	63.5	1.8	4	11	11	6	6	3	4	37	3	9	6	2.4	1	19	NA	15	8	1	8	7	14	10	9	2	2	
49	American Family Children's Hospital	62.2	2.6	5	6	8	4	4	6	3	26	3	12	4	4.3	1	19	NA	15	8	1	8	7	13	10	10	2	3	
49	Children's Hospitals and Clinics of Minnesota	62.2	2.2	5	13	10	4	2	6	7	25	3	14	6	3.3	0	20	NA	11	9	1	8	7	14	10	10	1	2	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Best Children's Hospitals 2014-15: Urology

Rank	Hospital	U.S. News Score	Reputation with specialists	Prevention of surgical complications	Prevention of urinary tract infections	Use of infection-preventing measures	Patient volume	Surgery volume	Minimally invasive procedure volume	Nursing intensity	Nurse Magnet recognition	Commitment to best practices	Advanced clinical services	Clinical support services	Advanced technologies	Specialized clinics and programs	Patient and family services	Steps to engage families	Commitment to quality improvement	Adoption of health information technology	Full time subspecialists available	Active fellowship program	Commitment to clinical research	
1	Boston Children's Hospital	100.0	87.2	12	5	21	21	19	11	3.8	1	10	6	9	3	6	8	7	15	10	10	2	3	
2	Riley Hospital for Children at IU Health	91.4	66.0	15	3	19	21	18	10	3.6	1	10	6	9	3	6	8	7	15	10	10	1	3	
3	Children's Hospital of Philadelphia	90.8	83.2	12	3	21	24	16	10	3.3	1	10	6	9	3	6	8	7	15	10	10	2	3	
4	Cincinnati Children's Hospital Medical Center	88.7	53.7	17	1	21	19	17	10	4.0	1	10	6	9	3	6	8	7	15	10	10	2	3	Top 5%
5	Ann and Robert H. Lurie Children's Hospital of Chicago	87.2	37.7	10	5	21	23	13	11	3.5	1	10	6	9	3	6	8	7	15	10	10	2	3	
6	Monroe Carell Jr. Children's Hospital at Vanderbilt	86.3	49.2	13	3	20	23	15	12	2.9	1	10	6	9	3	6	8	7	14	10	10	2	3	
7	Texas Children's Hospital	85.0	40.9	11	4	21	20	14	11	3.0	1	10	6	9	3	6	8	7	15	10	10	2	3	
8	Nationwide Children's Hospital	83.9	15.6	12	5	21	22	14	10	3.6	1	10	6	9	3	6	8	7	15	10	10	2	3	Top 10%
9	Seattle Children's Hospital	80.7	39.6	15	2	21	14	15	11	2.4	1	10	4	9	3	6	8	7	15	10	10	2	2	
10	Children's Medical Center Dallas	77.6	24.9	12	3	19	21	15	11	3.0	1	10	6	9	3	6	8	7	14	10	10	2	3	
11	Mayo Clinic Children's Center	77.3	3.8	15	5	19	17	11	7	3.1	1	10	6	9	3	6	8	7	15	10	10	1	3	
12	UCSF Benioff Children's Hospital	76.8	12.9	14	4	20	12	8	4	3.7	1	9	6	9	3	6	8	7	13	10	10	2	3	
13	Cleveland Clinic Children's Hospital	75.4	1.2	18	5	18	12	8	8	2.6	1	10	6	9	3	6	8	7	14	10	10	1	1	
14	Children's Hospital of Pittsburgh of UPMC	75.2	12.2	11	4	21	16	17	9	3.3	1	10	6	9	3	6	8	7	13	10	10	2	3	
15	Children's Healthcare of Atlanta	74.6	15.5	12	4	20	19	15	9	3.7	0	10	6	9	3	6	8	7	14	10	10	2	3	
15	Children's National Medical Center	74.6	21.2	12	3	20	17	12	10	3.1	1	9	6	9	3	6	8	7	14	10	10	2	3	
17	St. Louis Children's Hospital-Washington University	73.7	6.4	14	4	17	12	12	7	3.5	1	10	6	9	3	6	8	7	14	10	10	2	3	
18	Children's Hospital of Wisconsin	72.7	2.6	10	5	21	21	17	9	4.4	1	10	6	9	3	6	8	7	14	10	10	2	3	
18	Duke Children's Hospital and Health Center	72.7	3.1	16	5	20	12	8	8	2.4	1	8	6	9	3	5	8	7	14	10	10	1	2	
20	Children's Hospital Los Angeles	71.8	9.2	10	4	21	16	17	12	2.7	1	10	6	9	3	6	8	7	14	10	10	2	3	
21	Rady Children's Hospital	71.7	5.7	14	5	21	17	9	4	3.1	0	10	6	9	2	6	8	7	13	10	10	2	2	
22	Children's Hospital Colorado	70.5	6.1	13	4	18	16	13	7	2.6	1	9	6	9	3	6	8	7	15	10	10	2	3	
23	Steven and Alexandra Cohen Children's Medical Center	69.5	7.5	17	1	21	21	19	12	3.3	0	10	6	9	3	6	8	7	13	10	10	2	3	
24	Lucile Packard Children's Hospital at Stanford	69.0	8.1	11	5	20	12	9	3	3.4	0	10	6	9	3	5	8	7	15	10	10	2	3	
25	Doernbecher Children's Hospital at OHSU	68.4	2.0	13	5	21	9	9	7	3.2	1	10	6	9	3	3	8	7	13	10	10	0	3	
26	Primary Children's Hospital	67.8	6.8	14	2	21	21	17	9	4.5	0	10	6	9	3	6	8	7	15	10	10	2	3	
27	Arnold Palmer Medical Center	67.1	0.9	16	5	17	6	10	8	3.1	1	10	5	9	3	3	8	7	13	10	9	1	0	
28	Akron Children's Hospital	66.9	1.2	14	4	20	17	7	6	3.1	1	10	6	9	3	6	8	7	14	10	10	0	3	
28	Rainbow Babies and Children's Hospital	66.9	2.8	16	4	17	9	10	5	2.8	1	10	6	9	2	6	8	7	14	10	9	1	1	
30	Johns Hopkins Children's Center	66.7	29.8	11	1	21	12	11	6	3.3	1	10	6	9	2	6	8	7	13	10	9	2	3	
31	Children's Hospital of Orange County	66.1	1.8	12	5	19	13	14	9	3.2	1	9	4	9	3	6	8	7	14	10	10	0	3	
32	Miami Children's Hospital	65.5	3.7	10	5	20	14	12	5	3.2	1	10	5	9	3	5	8	7	15	10	10	1	2	
33	Spectrum Health Helen DeVos Children's Hospital	64.1	0.8	17	3	18	13	11	6	2.8	1	10	6	7	3	6	7	7	14	10	9	0	2	
34	Children's Hospital of Michigan	63.8	5.2	9	5	21	13	13	9	3.1	0	10	6	9	3	6	8	7	13	10	10	1	3	
35	Le Bonheur Children's Hospital	63.2	2.2	14	4	18	15	10	5	2.5	0	10	5	9	3	6	8	7	14	10	10	2	2	
36	University of Michigan C.S. Mott Children's Hospital	63.1	9.9	10	3	20	14	16	9	3.6	0	10	6	9	3	5	8	7	14	10	10	2	3	
37	Penn State Hershey Children's Hospital	62.7	2.0	14	4	17	8	8	6	3.3	1	10	6	9	3	5	8	7	13	10	9	0	2	
37	University of Virginia Children's Hospital	62.7	0.9	14	5	20	8	11	7	2.7	0	10	6	7	3	3	8	7	11	10	10	0	3	
39	Bristol-Myers Squibb Children's Hospital at RWJ Univ. Hosp.	62.6	1.7	16	4	13	13	12	7	2.7	1	9	6	9	3	6	8	6	9	7	10	0	3	
40	Children's Mercy Hospitals and Clinics	61.2	2.0	13	1	21	17	13	8	4.0	1	10	6	9	3	6	8	7	15	10	10	2	3	
41	Children's Hospital of Illinois	60.9	0.0	16	5	20	5	9	8	10.6	1	8	6	7	2	1	8	7	7	10	9	0	0	
42	Children's Hospital at OU Medical Center	60.5	9.4	14	3	15	19	14	12	3.3	0	8	6	8	3	6	7	4	10	10	10	1	3	
43	Nemours Alfred I. duPont Hospital for Children	60.3	1.8	13	2	18	14	13	10	3.5	1	10	6	9	3	6	8	7	14	10	10	1	3	
44	Connecticut Children's Medical Center	59.0	2.7	18	1	15	18	13	11	2.3	0	10	6	7	3	6	7	7	15	10	10	1	3	
45	Holtz Children's Hospital at UM-Jackson Memorial Medical Ctr	58.4	0.8	15	5	16	3	7	2	2.3	0	10	5	9	2	2	7	7	11	7	9	2	2	
46	Joe DiMaggio Children's Hospital at Memorial Regional Hospital	58.3	0.0	14	5	19	3	8	5	2.7	0	10	6	8	2	1	7	7	13	10	9	1	2	
47	UC Davis Children's Hospital-Shriners Hospitals for Children	58.0	1.2	12	3	20	11	9	7	3.9	1	10	6	8	3	5	8	7	14	10	10	0	2	
48	North Carolina Children's Hospital at UNC	57.6	3.0	12	4	18	8	9	5	3.2	1	10	6	9	3	5	7	7	10	10	9	0	1	
49	Dell Children's Medical Center of Central Texas	56.4	1.2	15	3	20	10	9	6	2.9	1	10	6	8	2	3	8	7	12	9	10	0	0	
50	Mount Sinai Kravis Children's Hospital	56.1	0.9	11	4	20	8	6	4	3.4	1	8	4	9	3	4	8	7	12	10	9	1	3	

Rankings are based on all of the above measures. NA: not applicable. NR: not reported.

Appendix D

2014-15 Best Children's Hospitals Honor Roll

2014-15 Best Children's Hospitals Honor Roll

Rank	Hospital	Points	Specialties
1	Boston Children's Hospital	20	10
1	Children's Hospital of Philadelphia	20	10
3	Cincinnati Children's Hospital Medical Center	15	9
4	Texas Children's Hospital, Houston	14	9
5	Children's Hospital Los Angeles	8	6
6	Children's Hospital Colorado, Aurora	7	5
7	Nationwide Children's Hospital, Columbus, Ohio	6	6
8	Ann and Robert H. Lurie Children's Hospital of Chicago	6	4
9	Children's Hospital of Pittsburgh of UPMC	5	5
10	Johns Hopkins Children's Center, Baltimore	4	3