SR TR

SCIENTIFIC REGISTRY OF TRANSPLANT RECIPIENTS

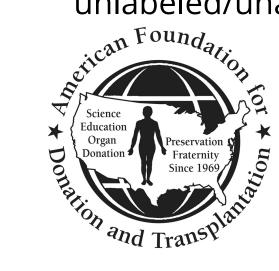
SRTR 5-Tier: Patient Focused Data Presentation

Jon J. Snyder, PhD Director of Transplant Epidemiology Chronic Disease Research Group Hennepin Healthcare Research Institute Minneapolis, MN

Disclosures

I have no financial relationships to disclose within the past 12 months relevant to my presentation. The ACCME defines 'relevant' financial relationships as financial relationships in any amount occurring within the past 12 months that create a conflict of interest.

My presentation does/does not include discussion of off-label or investigational use, and I do/do not intend to reference unlabeled/unapproved uses of drugs or products in my presentation.





Disclosures – SRTR

The views expressed do not necessarily reflect the official policies of the U.S. Department of Health and Human Services nor does mention of trade names, commercial practices, or organizations imply endorsement by the U.S. Government.





The ideal outcome of public reporting:





Use the data to make informed choices about where to seek care Use the data to improve quality of care

Adapted from Werner et al. The Unintended Consequences of Publicly Reporting Quality Information. JAMA. 2005;293:1239-1244



OPTN Final Rule 121.11(b)(iv)



OPTN Final Rule 121.11(b)(iv)



OPTN Final Rule 121.11(b)(iv)



OPTN Final Rule 121.11(b)(iv)



OPTN Final Rule 121.11(b)(iv)



OPTN Final Rule 121.11(b)(iv)



OPTN Final Rule 121.11(b)(iv)



Translating the Final Rule into the SRTR Contract

SRTR Task 3.9.1 The Contractor shall develop PSRs on the performance of transplant programs and Organ Procurement Organizations (OPOs).

- "The Contractor shall disseminate for free over the internet the timely and accurate program-specific information on the performance of transplant programs according to 121.11(b) of the OPTN Final Rule."
- "The transplant program information shall include waitlist data, pre-transplant outcomes, acceptance and utilization of organs, and post-transplant outcomes."
- "Transplant programs and OPOs with better or worse outcome shall be identified."



SR TR

SCIENTIFIC REGISTRY 안 TRANSPLANT RECIPIENTS

Evolution of the SRTR Website

Previous SRTR Website: 3-Tier Outcome Assessment

| | | | | Adult | | Pediatric | | | | | | |
|---|--------------|--|---------------|-------------|---------------------|-------------|----------------------------|-------------|---------------------|-------------|---------------------|-------------|
| | | | | _ | _iving Donor | _ | ceased)onor | _ | iving onor | | eased onor | |
| • | <u>State</u> | <u>Hospital</u> | # of Cands | # of Txs | Patient Survival | # of Txs | Patient Survival | # of Txs | Patient Survival | # of Txs | Patient Survival | View Report |
| | AZ | Banner University Medical Center-Tucson, Tucson, AZ | 175 | 15 | AS EXPECTED | 80 | AS | 0 | N/A | 0 | N/A | Report |
| | AZ | Banner-University Medical Center Phoenix, Phoenix, AZ | 863 | 111 | AS | 183 | AS | 0 | N/A | 1 | N/A | Report |
| | AZ | Mayo Clinic Hospital, Phoenix, AZ | 883 | 153 | AS EXPECTED | 449 | HIGHER THAN EXPECTED | 0 | N/A | 0 | N/A | Report |



AHRQ-funded Survey Findings: Old Website Feedback

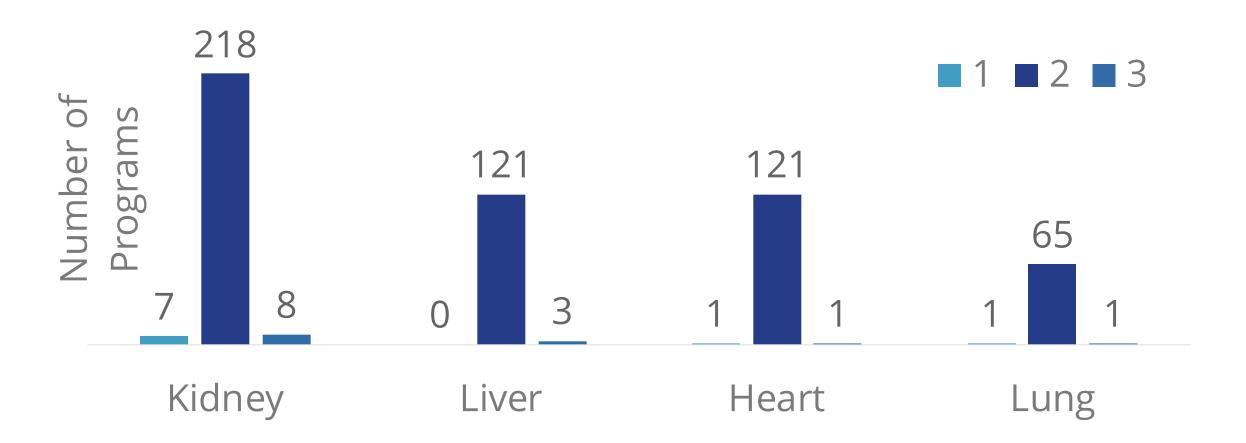
| | | As of 12/31/15 | Living D | | | Deceased | | Living Deceased | | eceased | | | |
|--|--|----------------|-----------------|---------------|-------------|---------------------|-------------|---------------------|-------------|---------------------|-------------|---------------------|-------------|
| | | <u>State</u> | <u>Hospital</u> | # of Cands | # of Txs | Patient Survival | View Report |
| | | MN | Hospital A | 187 | 21 | AS | 31 | AS EXPECTED | 0 | N/A | 0 | N/A | Report |

Survey feedback (survey respondents from the general public):

- "That chart is NOT user friendly"
- "As near as I can make out through the haze of unexplained acronyms and statistics..."
- "I didn't really understand any of the chart."
- "Patient survival saying 'as expected' was important, though almost all of them say that and the numbers seem to vary a lot."



Program Differentiation Under the 3-Tier Rating System





Limitations of the 3-Tier System

Never designed to summarize provider performance relative to other providers

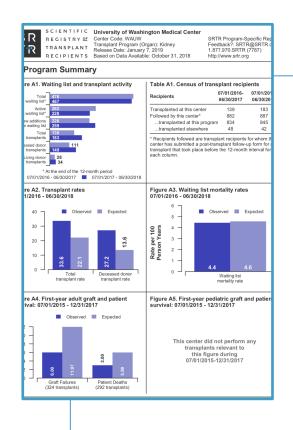
Based on a statistical test that often lacks sufficient information to draw strong conclusions in all but the large transplant programs

The vast majority of programs were in the "As Expected" tier, while graft failure rates varied 4-fold within the "As Expected" tier



Recommendations from the 2012 PSR Consensus Conference

(Kasiske, et. al. American Journal of Transplantation. 2012; 12:1988)



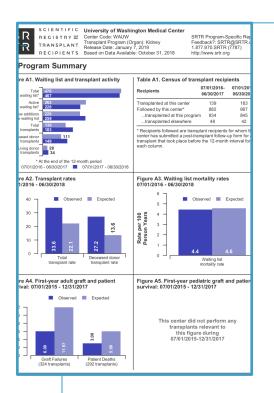
Recommendation: Program-Specific Reporting would benefit from tailoring and education targeted at stakeholders and end users, particularly patients

- Improve understandability of public data reporting
- Different analyses and presentations of the outcomes for different stakeholders



Recommendations from the 2012 PSR Consensus Conference

(Kasiske, et. al. American Journal of Transplantation. 2012; 12:1988)



Recommendation: Program-Specific Reporting would benefit from tailoring and education targeted at stakeholders and end users, particularly patients.

- Use of different level flags for different stakeholders
 - Actual Storm (avoid)
 - Storm Warning
 - Storm Watch
 - Clear Day





"If consumers do not understand information, they are more likely to dismiss it as unimportant."

Hibbard JH, Jewett JJ. Will Quality Report Cards Help Consumers? Health Affairs 1997; 16(3):218-228.





Make it easy for consumers to understand and use the comparative information.

Key AHRQ Recommendations for Public Reporting

¹Hibbard J, Sofaer S, AHRQ Publication No. 10-0082-EF, June 2010



Reduce the cognitive burden by summarizing, interpreting, highlighting meaning, and narrowing options.



Rank order by performance as opposed to alphabetical ordering.



Use symbols instead of numbers.



Provide an overall summary measure.



Include fewer reporting categories (5 vs.



2012

- PSR Consensus Conference made recommendations to improve public reporting.
- Began discussions with the SRTR Visiting Committee (SVC, formerly STAC).

- Developed new 5-tier methodology with SVC.
- Presented to The Alliance's Transplant Center Task Force.
- Presented to OPTN Patient Affairs and MPSC committees.



2014

- Presented to OPTN Transplant Administrators and Transplant Coordinators committees.
- Presented new website concept to senior leadership within HRSA.

- Finalized new 5-tier methodology.
- Initiated new website build.



2016

- Presented to OPTN COIIN leadership; COIIN used the methodology during site selection.
- Presented to Transplant Quality Institute.
- Presented to ACOT.
- Launched new website and 5tier system.

- 5-tier system moved to a "beta" site following feedback HRSA received from the community.
- Ongoing discussions with SVC.
- Further patient engagement through AHRQ initiative.
- Development of Beta version 2.

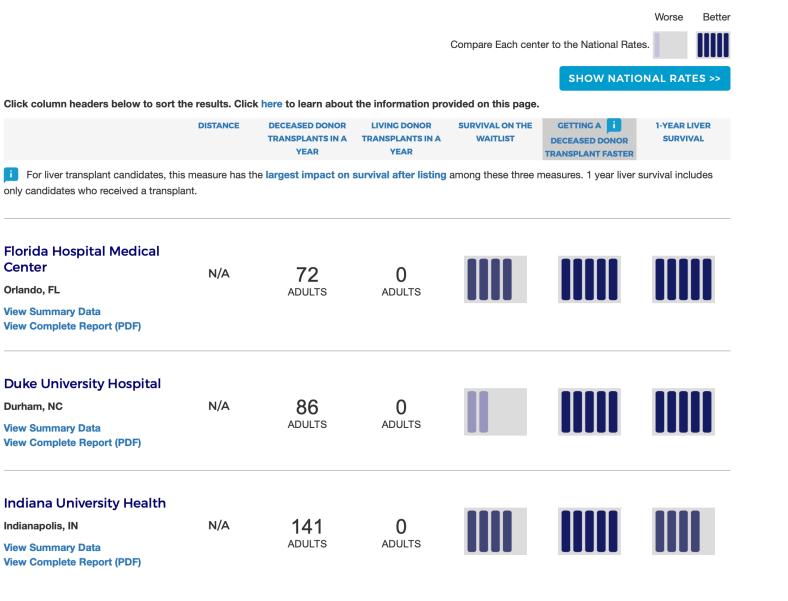


2018

- Released Beta Version 2 for 60-day public comment.
- SVC considered public comment at July and September 2018 meetings, voting to make a few additional modifications and launch the website.

- Continuing to evaluate
- Developing overall summary measure per AHRQ recommendations

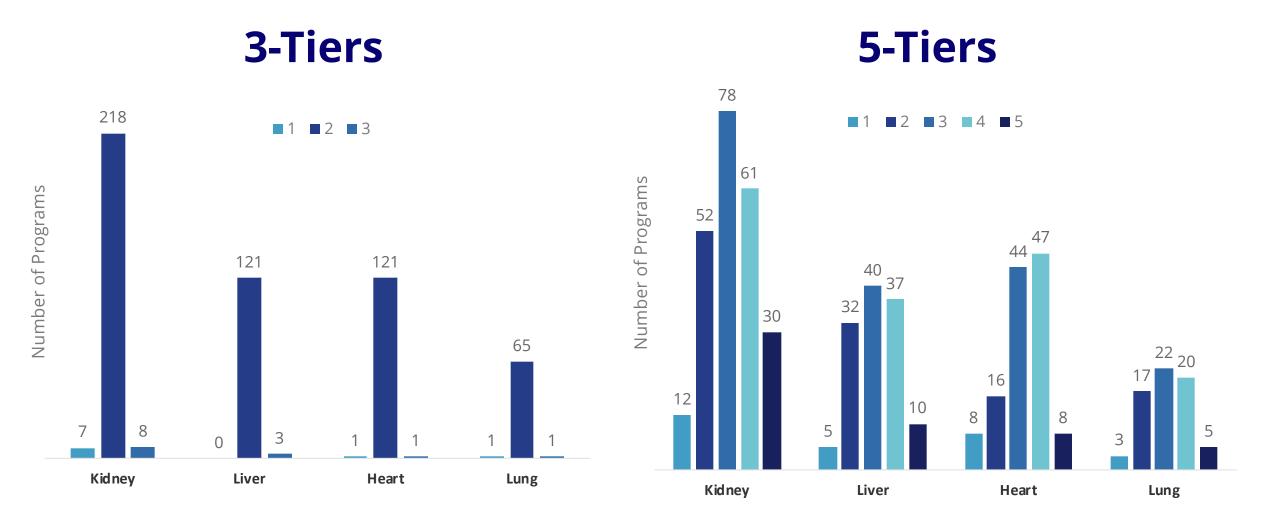




www.SRTR.org

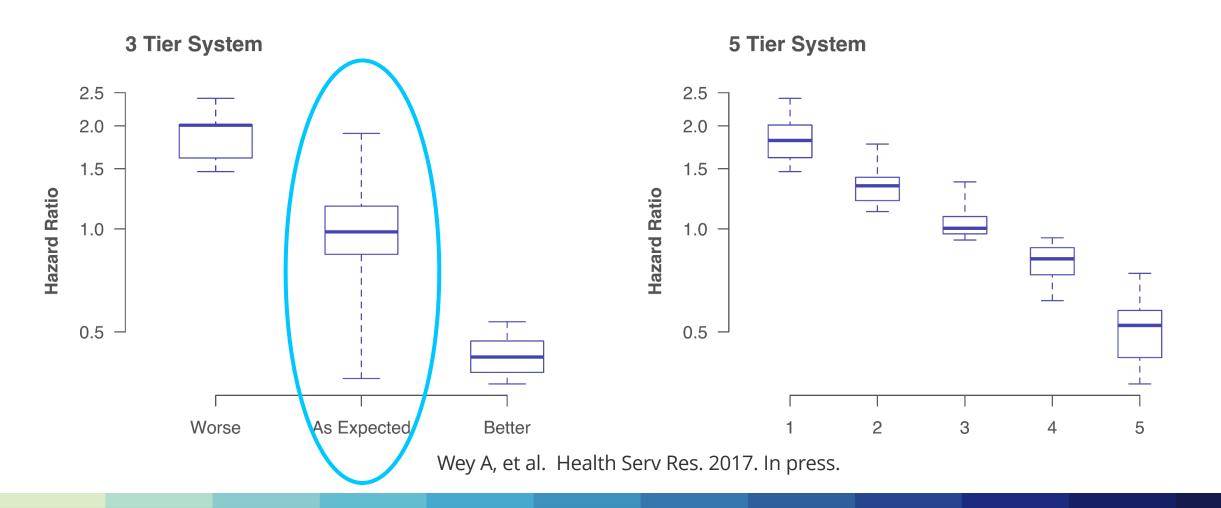


Program Differentiation — 3-Tier Versus 5-Tier Systems





Variation in Program HRs 3-Tiers Versus 5-Tiers





Initial Version Launched December 2016

Moved to a beta website in response to feedback and to explore additional improvements Showing 7 results for kidney transplant centers, adult patients , within 50 miles of 60608

| | NAME | DISTANCE | TRANSPLANT VOLUME | TRANSPLANT RATE | OUTCOME ASSESSMENT |
|--|------|----------|-------------------|-----------------|--------------------|
|--|------|----------|-------------------|-----------------|--------------------|

OUTCOME ASSESSMENT

The outcome assessment is a risk-adjusted assessment evaluating how often patients are alive with a functioning transplanted organ 1 year after transplant. Assessments range from 1 (worst) to 5 (best). The assessment is assigned after case-mix adjustment for the types of recipients who undergo transplant at the program and the donors used by the program. The program's outcomes are compared with outcomes for other programs in the country that perform similar types of transplants. Search results are sorted by adult outcome assessments by default, so programs with the best assessments appear at the top of the list. You can choose to view assessments for pediatric recipients from the Recipient drop-down list above; however, SRTR may not evaluate outcomes for pediatric recipients if too few transplants are performed. Click here for more information.

| Rush University Medical Center Chicago, IL <u>View Summary Data</u> <u>View Complete Report (PDF)</u> Also transplants Heart, Kidney- Pancreas, Liver, Pancreas | 2.5 miles | 108 ADULTS | 22.2 PER 100 PEOPLE PER YEAR | 5 BETTER THAN EXPECTED |
|--|------------|---------------|--|---------------------------------------|
| University of Chicago Medical Center Chicago, IL <u>View Summary Data</u> <u>View Complete Report (PDF)</u> Also transplants Heart, Intestine, Kidney-Pancreas, Liver, Lung, Pancreas | 5.9 miles | 64 ADULTS | 10.7 PER 100 PEOPLE PER YEAR | 5 BETTER THAN EXPECTED |
| Advocate Christ Medical Center Oak Lawn, IL <u>View Summary Data</u> <u>View Complete Report (PDF)</u> Also transplants Heart, Lung | 10.5 miles | 12 ADULTS | 7.0 PER 100 PEOPLE PER YEAR | 4 SOMEWHAT BETTER THAN EXPECTED |



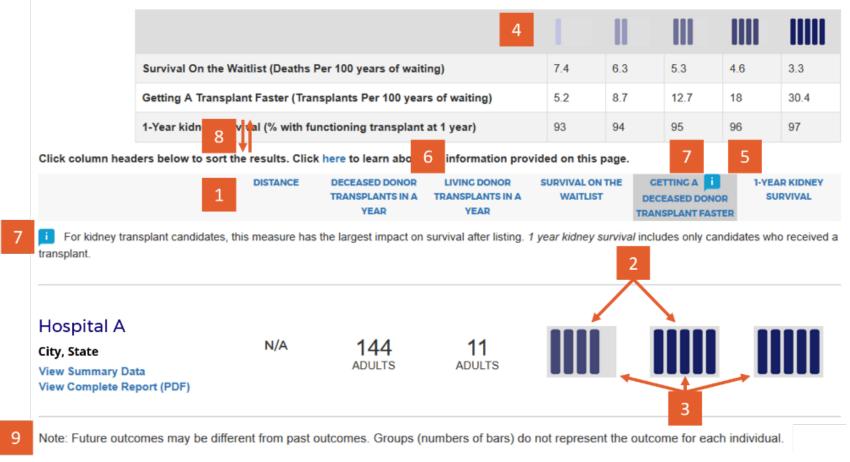
Worse Better

Compare Each center to the National Rates.



HIDE NATIONAL RATES >>

The table shows expected outcomes for an average patient at a typical program within the tier. Learn more.



Beta Version 2

Incorporates 9 major improvements in response to feedback

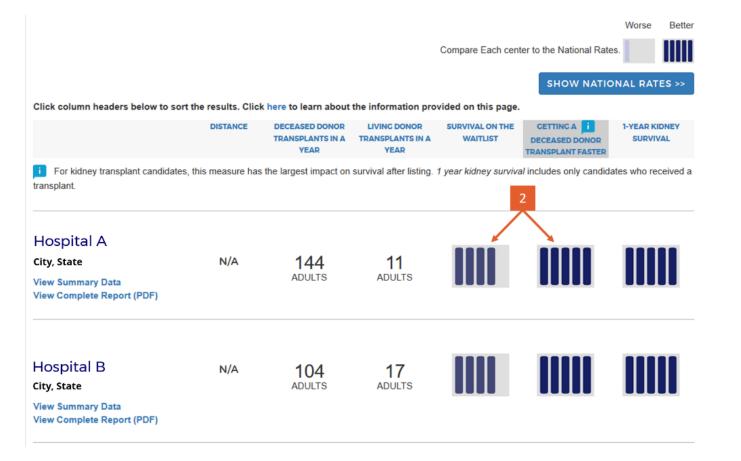


1. Column headings more patient-friendly per patient feedback.

| | | | | Compare Each cent | ter to the National Rate | Worse Better s |
|--|-----------------------|---|-------------------------|-----------------------|-------------------------------------|---------------------------|
| Click column headers below to so | rt the results. Click | bere to learn about DECEASED DONOR TRANSPLANTS IN A | the information pro | SURVIVAL ON THE | CETTINC A | 1-YEAR KIDNEY SURVIVAL |
| 1 | | YEAR | YEAR | WAITLIST | DECEASED DONOR TRANSPLANT FASTER | SURVIVAL |
| For kidney transplant candidate transplant. | s, this measure has | the largest impact on | survival after listing. | 1 year kidney surviva | al includes only candida | ates who received a |
| Hospital A City, State | N/A | 144 | 11 | | | |
| View Summary Data View Complete Report (PDF) | | ADULTS | ADULTS | | | |
| Hospital B | N/A | 104 | 17 | | | |
| City, State View Summary Data View Complete Report (PDF) | | ADULTS | ADULTS | | | |

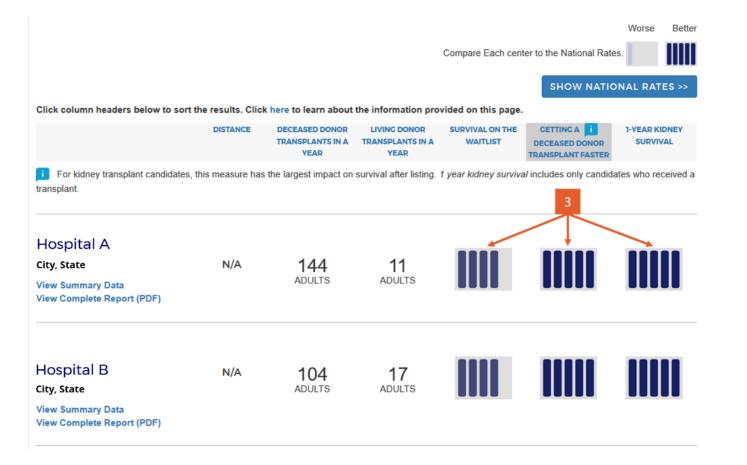


2. Added 5-tier assessments for pretransplant metrics.





3. Condensed icons & removed interpretive text.





4. Added description of icon meaning & actual expected numbers.

Worse Better



Compare Each center to the National Rates.

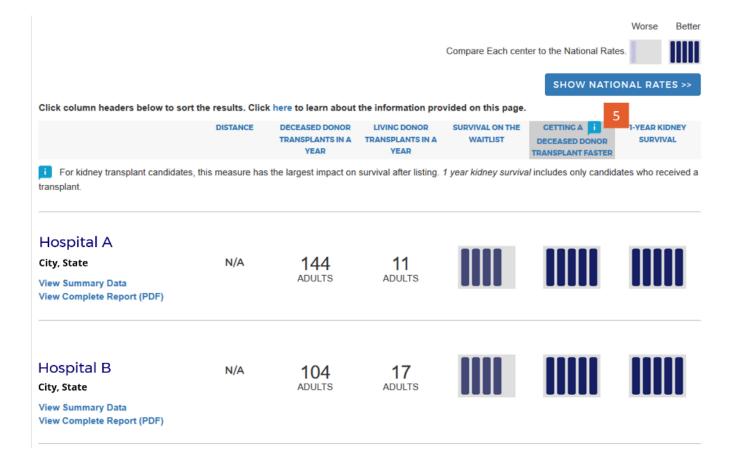
HIDE NATIONAL RATES >>

The table shows expected outcomes for an average patient at a typical program within the tier. Learn more.

| 4 | | | | | |
|--|-----|-----|------|-----|------|
| Survival On the Waitlist (Deaths Per 100 years of waiting) | 7.4 | 6.3 | 5.3 | 4.6 | 3.3 |
| Getting A Transplant Faster (Transplants Per 100 years of waiting) | 5.2 | 8.7 | 12.7 | 18 | 30.4 |
| 1-Year kidney Survival (% with functioning transplant at 1 year) | 93 | 94 | 95 | 96 | 97 |

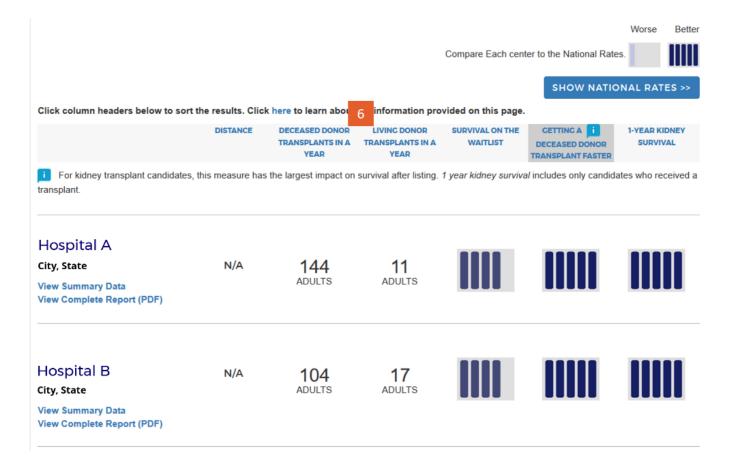


5. Changed transplant rate to a deceased-donor-only rate.



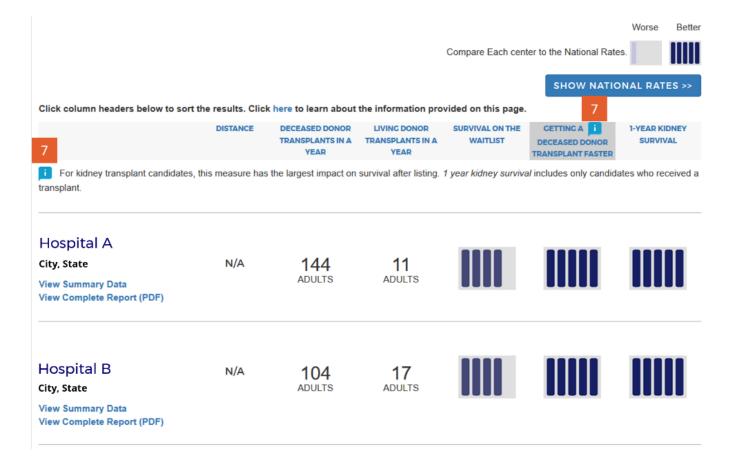


6. Divided transplant volume into deceased and living donor.



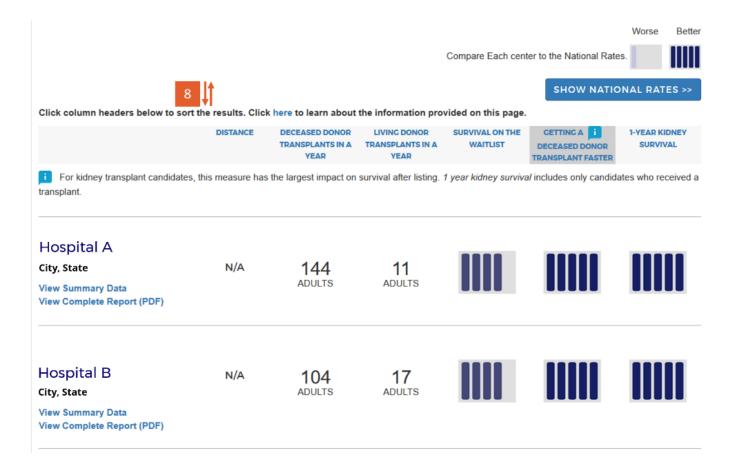


7. Indicated evaluation most important to patient survival after listing.



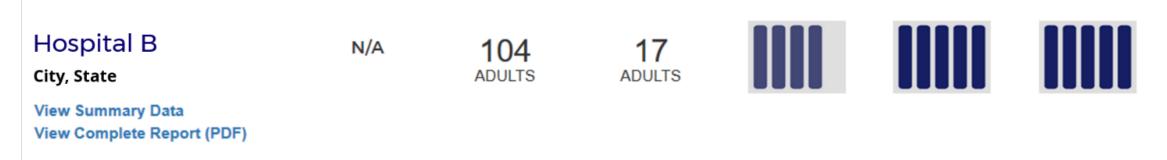


8. Changed default sort order to column most importance to patient survival after listing.





9. Disclaimer added below search results table.



Note: Future outcomes may be different from past outcomes. Groups (numbers of bars) do not represent the outcome for each individual.

9



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What we learned through focus groups and website trials

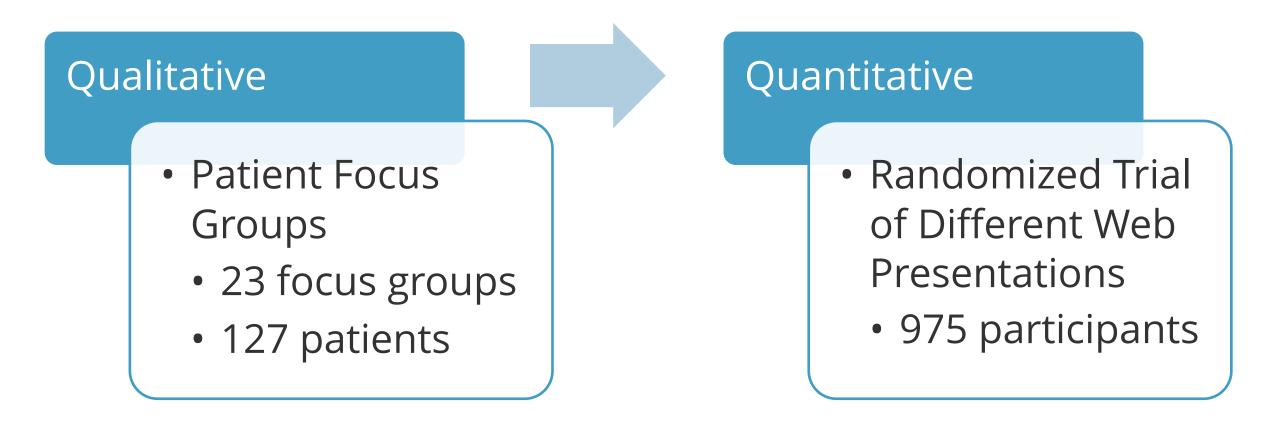
Dr. Israni and Schaffhausen's AHRQ-Funded Work

Co-investigators:

- Cory Schaffhausen
- Jon Snyder
- Ajay Israni
- Arthur Matas
- Sauman Chu
- Jack Lack
- Marilyn Bruin
- Ray Kim
- Judith Hibbard
- Scott Biggins



Schaffhausen CR, Bruin MJ, Chu S, et al. **Comparing Pretransplant and Posttransplant Outcomes When Choosing a Transplant Center: Focus Groups and a Randomized Survey.** Transplantation 2019.





3 Main Themes From Qualitative Focus Groups



- 1) Outcome metrics have uncertainty relative to individual experiences.
- 2) Patients, in particular candidates, describe a focus on post-transplant outcomes.
- 3) Individual circumstances factor into decisions.

Schaffhausen CR, Bruin MJ, Chu S, et al. Comparing Pretransplant and Posttransplant Outcomes When Choosing a Transplant Center: Focus Groups and a Randomized Survey. Transplantation 2019, in press.





This is based on a calculated rate of how quickly patients undergo transplant at the program. Calculations include total transplants and the time spent waiting. Click here for more information.

| Lake Hospital | 15 MILES | 32 ADULTS | | |
|-----------------|-------------|--------------|--|--|
| Alpine Hospital | 40 MILES | 17 ADULTS | | |
| Meadow Hospital | 62 MILES | 23 ADULTS | | |

Schaffhausen CR, Bruin MJ, Chu S, et al. Comparing Pretransplant and Posttransplant Outcomes When Choosing a Transplant Center: Focus Groups and a Randomized Survey. Transplantation 2019, in press.

Quantitative Trials: Trying to Shift Focus to Pre-Transplant Metrics

The impact statement graphical element resulted in a 50% higher probability of selecting Lake Hospital, depicted as the highest transplant rate, compared to Meadow Hospital, depicted as the highest 1 year organ survival (RR, $_{1.16}$ 1.50 $_{1.95}$).

- 37% of Controls chose Lake
- 51% chose Lake with the Impact Statement



Testing Numeric vs. Tiered Transplant Rate

Transplant Center Search Results Transplant Center Search Results Centers may vary in rates of complications and wait times. Learn Centers may vary in rates of complications and wait times. Lear Distance Transplant Rate Outcome Assessment Distance Transplant Rate Outcome Assessment The outcome assessment tells you if the program's 1-year survival after transplant is better, worse, or about The outcome assessment tells you if the program's 1-year survival after transplant is better, worse, or about the same as what is expected for that program. This is determined by comparing the survival for patients at the same as what is expected for that program. This is determined by comparing the survival for patients at each center with similar patients nationally. each center with similar patients nationally. 13.4 Meadow Hospital Meadow Hospital 92 miles 92 miles PER 100 PEOPLE GOOD (AS EXPECTED) SOMEWHAT BETTER THAN SOMEWHAT BETTER THAN PER YEAR EXPECTED EXPECTED 8.5 Forest Hospital Forest Hospital 120 miles 120 miles PER 100 PEOPLE SOMEWHAT BETTER THAN SOMEWHAT WORSE THAN SOMEWHAT BETTER THAN PER YEAR EXPECTED EXPECTED EXPECTED 32.3 Lake Hospital Lake Hospital 15 miles 5 15 miles PER 100 PEOPLE BETTER THAN EXPECTED GOOD (AS EXPECTED) PFR YFAR GOOD (AS EXPECTED) 12.6 River Hospital 4 miles River Hospital 4 miles PER 100 PEOPLE PER YEAR GOOD (AS EXPECTED) GOOD (AS EXPECTED) GOOD (AS EXPECTED) 15.7 Alpine Hospital Alpine Hospital 40 miles 40 miles PER 100 PEOPLE SOMEWHAT WORSE THAN SOMEWHAT WORSE THAN SOMEWHAT BETTER THAN PER YEAR EXPECTED EXPECTED EXPECTED

26% choose Lake with numerical rate vs. 45% with tiers (p < .001)



Peer-Reviewed Publications Resulting from the website development process

- 1. The importance of transplant program measures: Surveys of 3 national patient advocacy groups. Schaffhausen CR, Bruin MJ, Chu S, Wey A, Snyder JJ, Kasiske BL, Israni AK. Clin Transplant. 2018 Oct 16:e13426. doi: 10.1111/ctr.13426. [Epub ahead of print]
- 2. Five-tier utility: A start on the path to better reporting, in response to Schold and Buccini. Wey A, Salkowski N, Kasiske BL, Skeans M, Schaffhausen CR, Gustafson SK, Israni AK, Snyder JJ. Am J Transplant. 2018 Sep 19. doi: 10.1111/ajt.15120. [Epub ahead of print]
- **3.** Seeking new answers to old questions about public reporting of transplant program performance in the United States. Kasiske BL, Wey A, Salkowski N, Zaun D, Schaffhausen CR, Israni AK, Snyder JJ. Am J Transplant. 2018 Aug 3. doi: 10.1111/ajt.15051. [Epub ahead of print]
- 4. Comparing Scientific Registry of Transplant Recipients posttransplant program-specific outcome ratings at listing with subsequent recipient outcomes after transplant. Wey A, Salkowski N, Kasiske BL, Skeans M, Schaffhausen CR, Gustafson SK, Israni AK, Snyder JJ. Am J Transplant. 2018 Jul 27. doi: 10.1111/ajt.15038. [Epub ahead of print]
- 5. Association of pretransplant and posttransplant program ratings with candidate mortality after listing. Wey A, Gustafson SK, Salkowski N, Kasiske BL, Skeans M, Schaffhausen CR, Israni AK, Snyder JJ. Am J Transplant. 2018 Jul 24. doi: 10.1111/ajt.15032. [Epub ahead of print]
- 6. Program-specific transplant rate ratios: Association with allocation priority at listing and posttransplant outcomes. Wey A, Gustafson SK, Salkowski N, Pyke J, Kasiske BL, Israni AK, Snyder JJ. Am J Transplant. 2018 Jun;18(6):1360-1369. doi: 10.1111/ajt.14684. Epub 2018 Mar 3.
- 7. What patients and members of their support networks ask about transplant program data. Schaffhausen CR, Bruin MJ, Chesley D, McBride M, Snyder JJ, Kasiske BL, Israni AK. Clin Transplant. 2017 Dec;31(12). doi: 10.1111/ctr.13125. Epub 2017 Oct 23.
- 8. A Five-Tier System for Improving the Categorization of Transplant Program Performance. Wey A, Salkowski N, Kasiske BL, Israni AK, Snyder JJ. Health Serv Res. 2018 Jun;53(3):1979-1991. doi: 10.1111/1475-6773.12726. Epub 2017 Jun 13.



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Controversy of Public Reporting

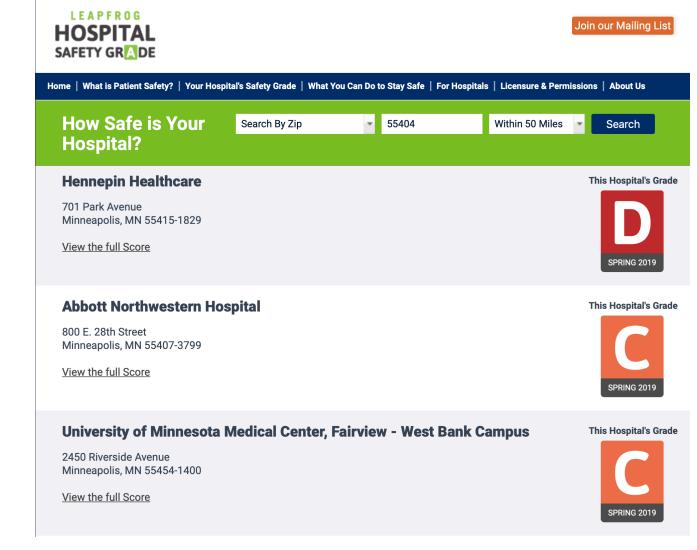


Low-rated US hospitals are deadlier due to mistakes, botched surgery, infections

Jayne O'Donnell • Updated 1:42 p.m. ET May 16, 2019



www.hospitalsafetygrade.org







Low-rated US hospitals are deadlier due to mistakes, botched surgery, infections

Jayne O'Donnell • Updated 1:42 p.m. ET May 16, 2019

"Hospitals that scored poorly also have claimed that the rankings are skewed because they treat sicker patients, whereas higher-graded hospitals have a healthier, more affluent clientele and are therefore less likely to have complications.

But Leapfrog, which has been grading hospitals since 2012, counters that some of their measurements, such as hospital infections, are risk adjusted to reflect sickness levels of patients."





Johns Hopkins' Armstrong Institute to Aid the Leapfrog Group in Grading the Safety and Quality of U.S. Hospitals

Release Date: December 12, 2012

"Patients should have access to the most accurate and current data on hospital safety and quality when making important decisions on where they and their loved ones should receive care," says Peter Pronovost, M.D., Ph.D., senior vice president of quality and safety at Johns Hopkins Medicine.

https://www.hopkinsmedicine.org/news/media/releases/johns_hopkins_armstrong_institute_to_aid_the_leapfrog_group_in_grading_the_safety_and_quality_of_us_hospitals



4 Steps Necessary For Patients to Benefit

Report cards must exist

Patients must know about them and be able to access them

Patients must be able to understand the quality rankings and believe them

Patients must act upon the information

Adapted from Werner et al. The Unintended Consequences of Publicly Reporting Quality Information. JAMA. 2005;293:1239-1244





FIND & COMPARE TRANSPLANT PROGRAMS



Search by Postal Code or Program Name (optional)

SEARCH

ABOUT SRTR Y ABOUT THE DATA Y REPORTS & TOOLS Y NEWS & MEDIA Y REQUESTING SRTR DATA Y FAQS Y CONTACT US

Almost 20,000 transplants have been performed so far this

year.

Upcoming PSR/OSR Changes and Model Previews





FIND & COMPARE TRANSPLANT PROGRAMS

Select Organ 🔷

Search by Postal Code or Program Name (optional)

SEARCH

ABOUT SRTR 🗸

ABOUT THE DATA \checkmark REPORTS & TOOLS \checkmark

NEWS & MEDIA V

Almost 20,000 tran have been perform

year.

Upcoming PSR/OSR Changes and Model Previews

4,500 Users Per Week
Top 5 pages

- Liver waitlist
 - Liver waitiis calculator
 - Liver search
 - Kidney search
 - PSRs
 - OPTN/SRTR Annual Data Report



Some Patient Feedback...

"Just a word of thanks for compiling and presenting this data. My [son] recently had a successful kidney transplant at [program X]. We chose [Program X] over [Program Y] with confidence based on the data. And we know, definitively, that my son got a better outcome as a result."



Some Patient Feedback...

"I just explored the Beta Site Changes and I had to write to say thank you and bravo. When I learned of my sister's need for a transplant, I wanted data about centers because I knew nothing. I spent a lot of time getting there. And when I did my confidence level increased significantly. At the same time I remember feeling guilty thinking about how many patients probably couldn't do the same. So thank you from a patient on behalf of other patients."



Some Patient Feedback...

"Families are so thankful for the amazing reporting you provide."



Pros and Cons of Public Reporting



Pros

Transparency

Informed Consumers

Drives improvement

Focuses Attention



Cons

Unintended Consequences! Reduce patient access to care

Potential for gaming



Goodhart's Law

"Any observed statistical regularity will tend to collapse once pressure is placed upon it for control purposes."

-Goodhart, Charles (1981). "Problems of Monetary Management: The U.K. Experience". In Courakis, Anthony S. (ed.). *Inflation, Depression, and Economic Policy in the West*. pp. 111–146.



Marilyn Strathern

"When a measure becomes a target, it ceases to be a good measure."

-Strathern, Marilyn. Improving Ratings. *Audit in the British University System European Review 5*: 305–321.



The conundrum

"Luis Garicano at the London School of Economics calls it the Heisenberg Principle of incentive design, after the defining uncertainty of quantum physics:

A performance metric is only useful as a performance metric as long as it isn't used as a performance metric."

- Porter E. Grading Teachers by the Test. NY Times. March 24, 2015.





Better-ranked [programs] got better [patients].

Other studies found [programs'] scores jump around a lot from year to year, putting their value into question.

[Programs] argue there is no way they could isolate the impact of [the program] itself from other factors affecting [outcomes], particularly such things as the family background of the [patients], the impact of poverty, [race], even [local healthcare systems].



Not from our field... Quotes are from a debate about performance metrics for teachers.

"Better-ranked teachers got better students."

"Other studies found teachers' scores jump around a lot from year to year, putting their value into question."

"Teachers argue there is no way they could isolate the impact of teaching itself from other factors affecting children's learning, particularly such things as the family background of the students, the impact of poverty, racial segregation, even class size."

- Porter E. Grading Teachers by the Test. NY Times. March 24, 2015.



The conundrum continued...

"Anytime you perform an evaluation you must worry about unintended side effects," said Joel Klein, former chancellor of New York City schools, who famously battled the teachers' union. "But the absence of evaluation is totally unacceptable."

- Porter E. Grading Teachers by the Test. NY Times. March 24, 2015.



Unintended Consequences Raised

- 1. Too many centers identified as underperforming
- 2. Not a clinically meaningful difference in outcomes vs. expected.
- 3. Adverse effects on growth and innovation
- 4. Unadjusted confounding
- 5. Data are often above the health literacy / numeracy level of most patients
- 6. Tiers are not associated with prospective candidate survival
- 7. Pretransplant metrics are also subject to unintended consequences of not wanting to list patients
- 8. Discards have increased and flagged centers have higher turndown rates

Schold et. al. Quality Metrics in Kidney Transplantation: Current Landscape, Trials and Tribulations, Lessons Learned, and a Call for Reform. Am J Kidney Dis 2019; article in press.



Tiers Predict Risk of Death after Listing

| | % Reduction in Prospective Risk of Death Following Listing | | | | | | |
|---------------------------------------|--|----------------------|----------------------|----------------------|--|--|--|
| | 1-Tier Difference | 2-Tier Difference | 3-Tier Difference | 4-Tier Difference | | | |
| Kidney (Tx Rate Tier) | 5% | 10% | 14% | 19% | | | |
| Liver (Tx Rate Tier) | 10% | 19% | 27% | 34% | | | |
| Lung (Post-Tx Graft Survival Tier) | 5% | 10% | 14% | 19% | | | |
| Heart (Tx Rate Tier) | 4% | 8% | 12% | 15% | | | |



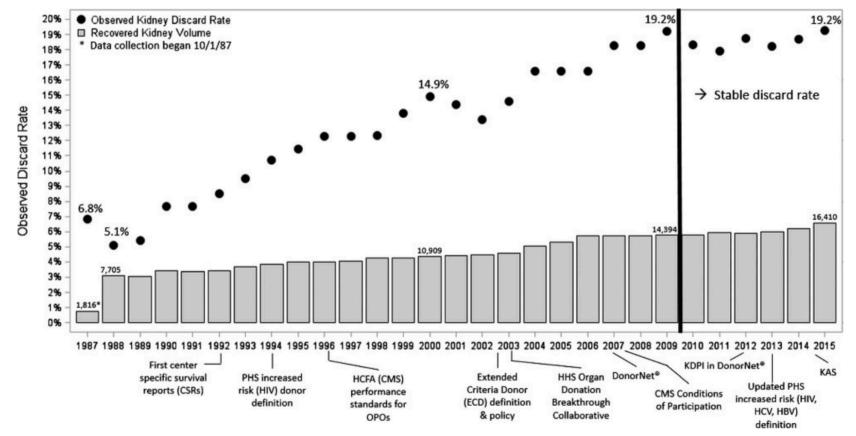
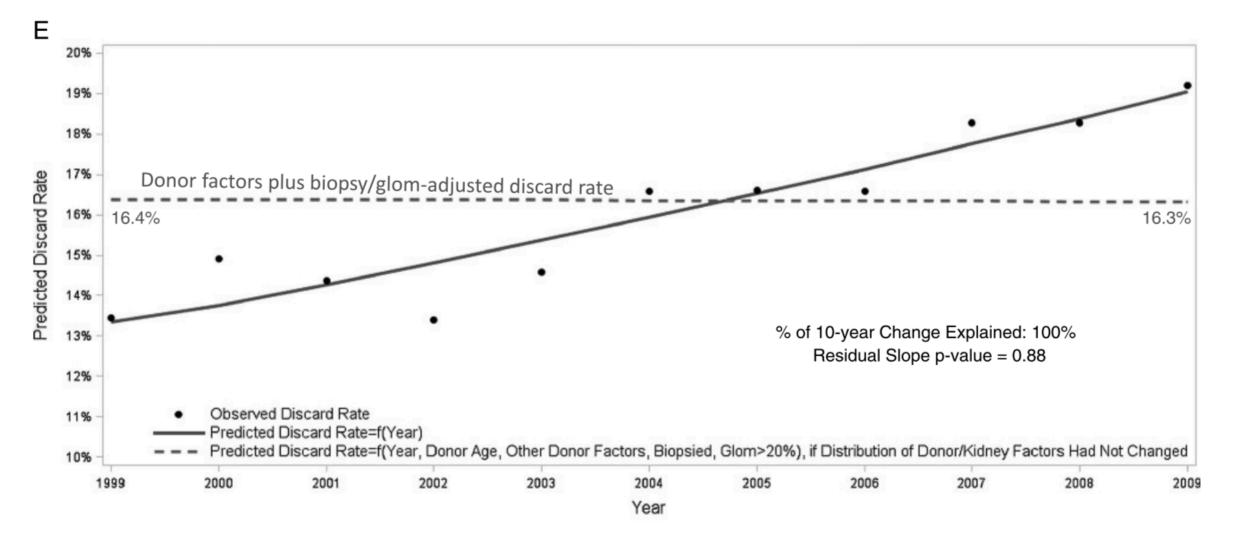


FIGURE 1. Trends in deceased donor kidneys recovered for transplant and the kidney discard rate, 1987 to 2015. The percentage of kidneys recovered for transplant but discarded rose from 5.1% in 1988, the first full year available, to 19.2% in 2009 and remained around 18% to 19% through 2015. The number of kidneys recovered for transplantation has more than doubled. Historical events potentially related to kidney recovery and discard, such as policy, system, or oversight changes, are annotated for reference.

Stewart Et. Al. Diagnosing the Decades-Long Rise in the Deceased Donor Kidney Discard Rate in the United States. Transplantation 2017;101:575-587.





Stewart Et. Al. Diagnosing the Decades-Long Rise in the Deceased Donor Kidney Discard Rate in the United States. Transplantation 2017;101:575-587.



Mitigating Unintended Consequences

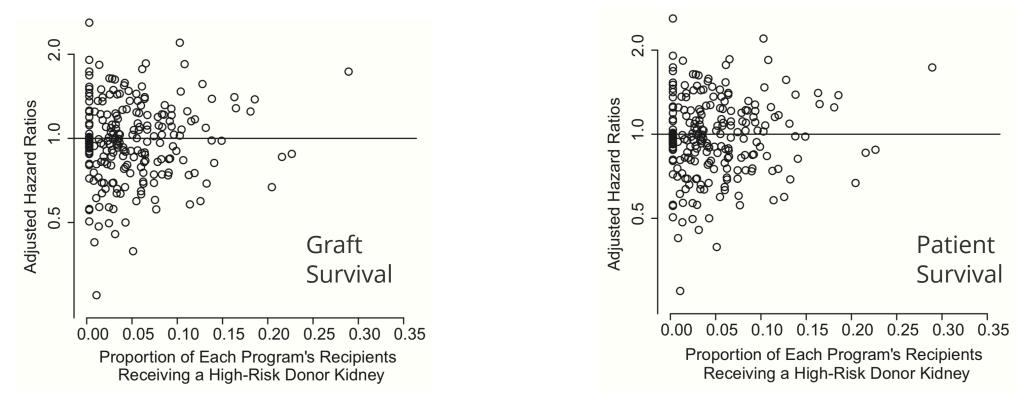
"With outcomes-based report cards, the incentive to avoid patients at high risk for adverse outcomes is best addressed through detailed and credible risk adjustment."

"However, detailed risk adjustment does little to mitigate physicians' incentive to migrate toward healthy patients for whom treatment may provide fewer benefits. One way to decrease this unintended consequence of public reporting is to include measures of the appropriateness of care."

- Werner RM, Asch DA. The Unintended Consequences of Publicly Reporting Quality Information. JAMA. 2005;293:1239-1244.



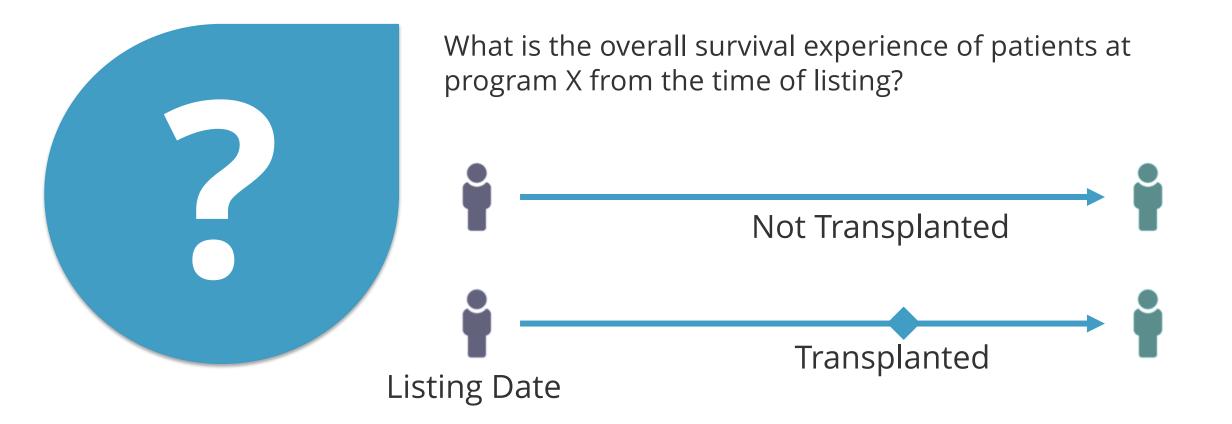
Measured Donor Risk is Not Associated with Worse Kidney Program Evaluations



Snyder Et. Al. Effects of High-Risk Kidneys on Scientific Registry of Transplant Recipients Program Quality Reports. Am J Transplant 2016;16:2646-2653.



Survival From Listing Metric





Why survival from listing?

Most similar to an intent-to-treat analysis for the candidate experience after listing

Integrates the pretransplant and posttransplant patient experience

SRTR contract and the OPTN Final Rule state that the PSRs shall include survival from listing



To make public reporting work

Measures must be promoted widely, understandably, and credibly.

Should decrease incentives for providers to select patients to improve rankings.

Participation must be mandatory and quality measurement and reporting must be universally adopted.

- Werner RM, Asch DA. The Unintended Consequences of Publicly Reporting Quality Information. JAMA. 2005;293:1239-1244.



The Bottom Line...

"Keeping quality information private may appear conspiratorial, reduce patient trust, damage the profession's credibility, and hinder future efforts at quality improvement. The Institute of Medicine has suggested that what is really needed to improve quality is a culture that encourages sharing rather than hiding errors."

- Werner RM, Asch DA. The Unintended Consequences of Publicly Reporting Quality Information. JAMA. 2005;293:1239-1244.
- Institute of Medicine. Patient Safety: Achieving a New Standard of Care. Washington, DC: National Academy Press; 2003.





Transplantation

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