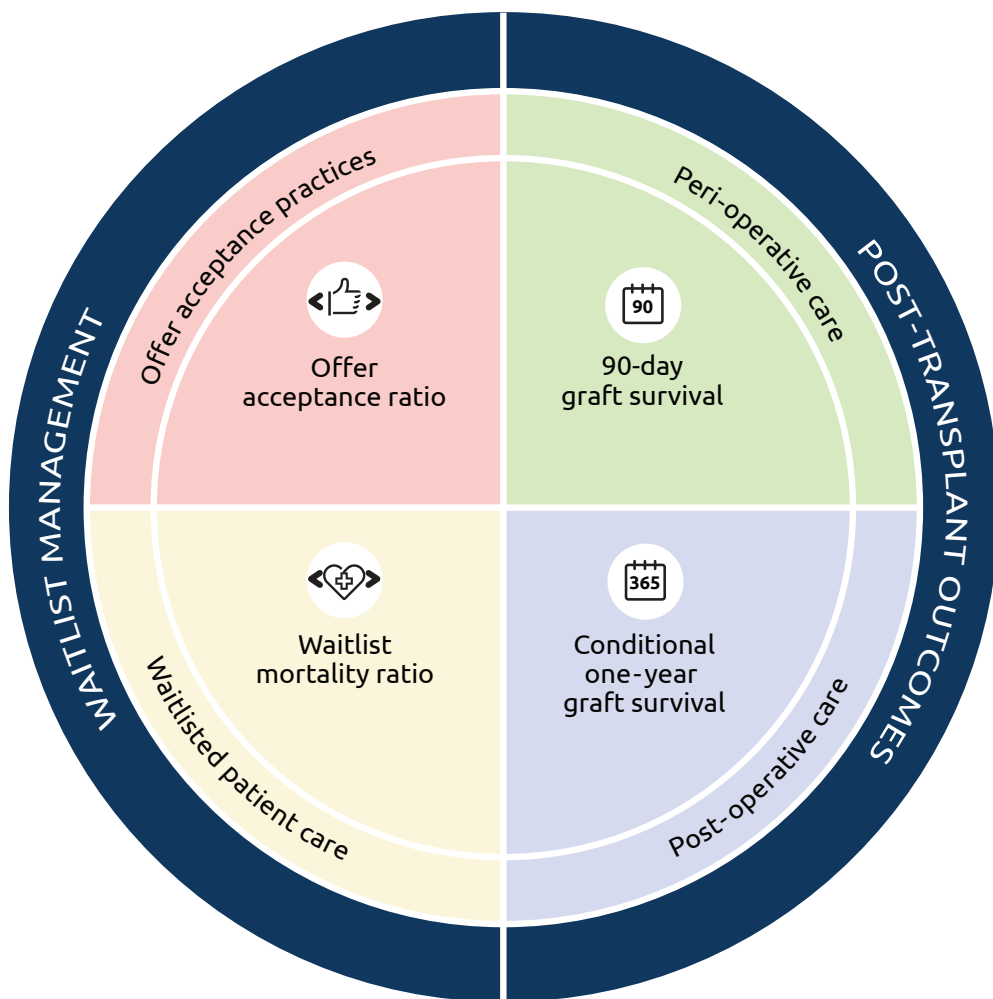




MPSC Proposed Performance Metrics



Using existing SRTR metrics, the MPSC is working to improve the way programs are evaluated.

The committee is working toward a more holistic approach to the evaluation of transplant program performance, by incorporating multiple phases of transplant care (waitlist management and post-transplant outcomes).

How will this affect transplant?

Identify real-time patient safety issues and opportunities for improvement

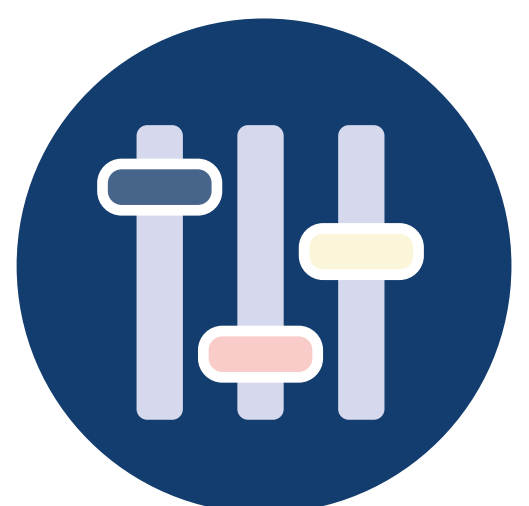
Incorporate measures from additional aspects of the patient experience

Improve efficiency and help transplant candidates faster

Are these metrics risk-adjusted?

Yes. For all included metrics the risk is calculated within the expected number, which is specific to your program.

Your performance is compared to the national performance for patients or offers with similar characteristics.





Waitlist mortality

- > **Waitlist mortality rate:** how likely a candidate is to die while waiting for a transplant
- > **Waitlist mortality rate ratio:** a program’s waitlist mortality rate relative to national expectations

$$\frac{2 + \text{Observed mortality rate}}{2 + \text{Expected mortality rate}}$$

If the ratio is > 1
Candidates at the program experience greater risk of death than expected

If the ratio is < 1
Candidates at the program experience less risk of death than expected

- > **Expected mortality rate:** death rate expected at this program based on the mortality rate experienced by similar patients across the nation, which are determined by risk adjusting each candidate with SRTTR risk adjustment models

$$\frac{\text{\# expected deaths at the program}}{\text{person years}} = \text{Expected mortality rate}$$

- > **Observed mortality rate:**
$$\frac{\text{\# deaths at the program}}{\text{person years}} = \text{Observed mortality rate}$$

** as of July 6, 2021 the SRTTR refers to **waitlist mortality** as **pre-transplant mortality***

How are person years calculated?

Person years considers the total number of candidates and the total number of days that each candidate is observed on a waiting list during the 2-year evaluation interval or cohort. The number of days for each candidate is converted to fractional years (# of days/365.25) because not all candidates are on the waiting list for the entire year. The total person years is the sum of each fractional year for all candidates on the waiting list.

Example:

Two candidates observed on the waiting list at the program



Person 1
182 days on waiting list $\frac{182}{365.25} = .498$



Person 2
300 days on waiting list $\frac{300}{365.25} = .821$

$$\begin{array}{r} .498 \text{ fractional years} \\ + .821 \text{ fractional years} \\ \hline 1.319 \text{ person years} \end{array}$$

What patients are included or excluded from the calculations?

Inclusions

Patients listed at program before end of evaluation interval

Patients alive at the beginning of the evaluation interval

Exclusions

None



Offer acceptance

- > **Offer acceptance rate:** how likely a program will accept an offer for a given candidate; offer acceptance is best used for assessing the acceptance and utilization of organs
- > **Offer acceptance rate ratio:** indicates whether the program was more or less likely to accept offers than expected

$$\frac{2 + \# \text{ acceptances}}{2 + \# \text{ expected acceptances}}$$

If the ratio is > 1
The program tends to accept more offers than expected

If the ratio is < 1
The program tends to accept fewer offers than expected

- > **Expected acceptances:** the risk-adjusted number of transplants predicted at the program from the offers received

What are the key ways this metric is risk-adjusted?

- Accounts for local availability
- Adjusts for donor quality and recipient characteristics (risk adjusted)
- Adjusts for the number of previous offers (highly predictive of acceptance)
- Not confounded by waitlist size or number of programs within the local DSA

What kinds of offers are included or excluded from the calculations?

Inclusions

- Offers for organs that are eventually accepted and transplanted
- Offers to candidates on a single waitlist

Exclusions

- Missing or bypassed response
- Match run had no acceptances
- Offer occurred after last acceptance in a match run
- Multiple match runs from same donor combined and duplicate offers excluded
- Offers to multi-organ candidates excluded (except K/P candidates that are also listed for kidney alone)



90-day graft survival and one-year conditional graft survival



What’s different from the metric we currently use?



To calculate these metrics, the current one-year graft survival metric is being split into two metrics. Each one reflects a unique aspect of post-transplant care.

90-day graft survival

Immediately post-transplant to the patient being released to long-term post-transplant care

One-year conditional on 90-day graft survival

Looks at the time period after being released to long-term post-transplant care, but only for recipients whose grafts survive past 90 days

What is the definition of a failed graft?

A graft is counted as failed if there has been graft failure, a retransplant, or death

What transplants are included or excluded from the calculations?

Inclusions

Single organ transplants occurring during the measurement period

Exclusions

- Living donor transplants for any organ other than kidney and liver
- Multi-organ transplants