Ontario Transfusion Quality Improvement Plan (OTQIP)

GHEST Symposium

September 22nd, 2018

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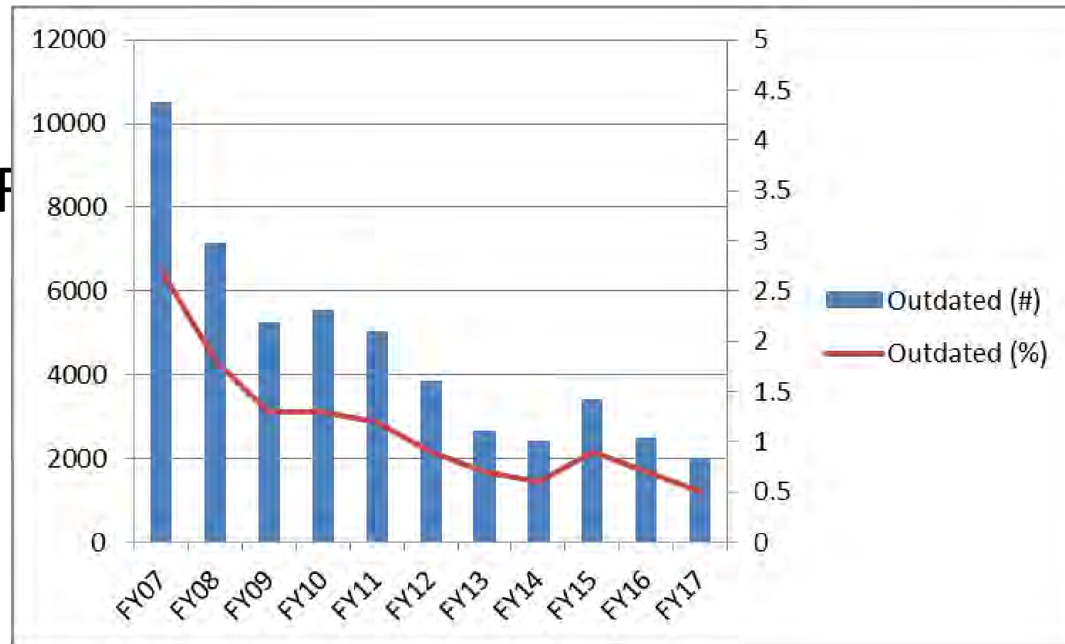
Presentation Objectives

- Implement one change idea from the Ontario Transfusion Quality Improvement Plan
- Perform the OTQIP audit at your institution
- Learn from another hospital’s experience on the successes/challenges of implementing quality initiatives

Ontario RBC Consumption (Wastage/Utilization)

Outdates

81% reduction in F



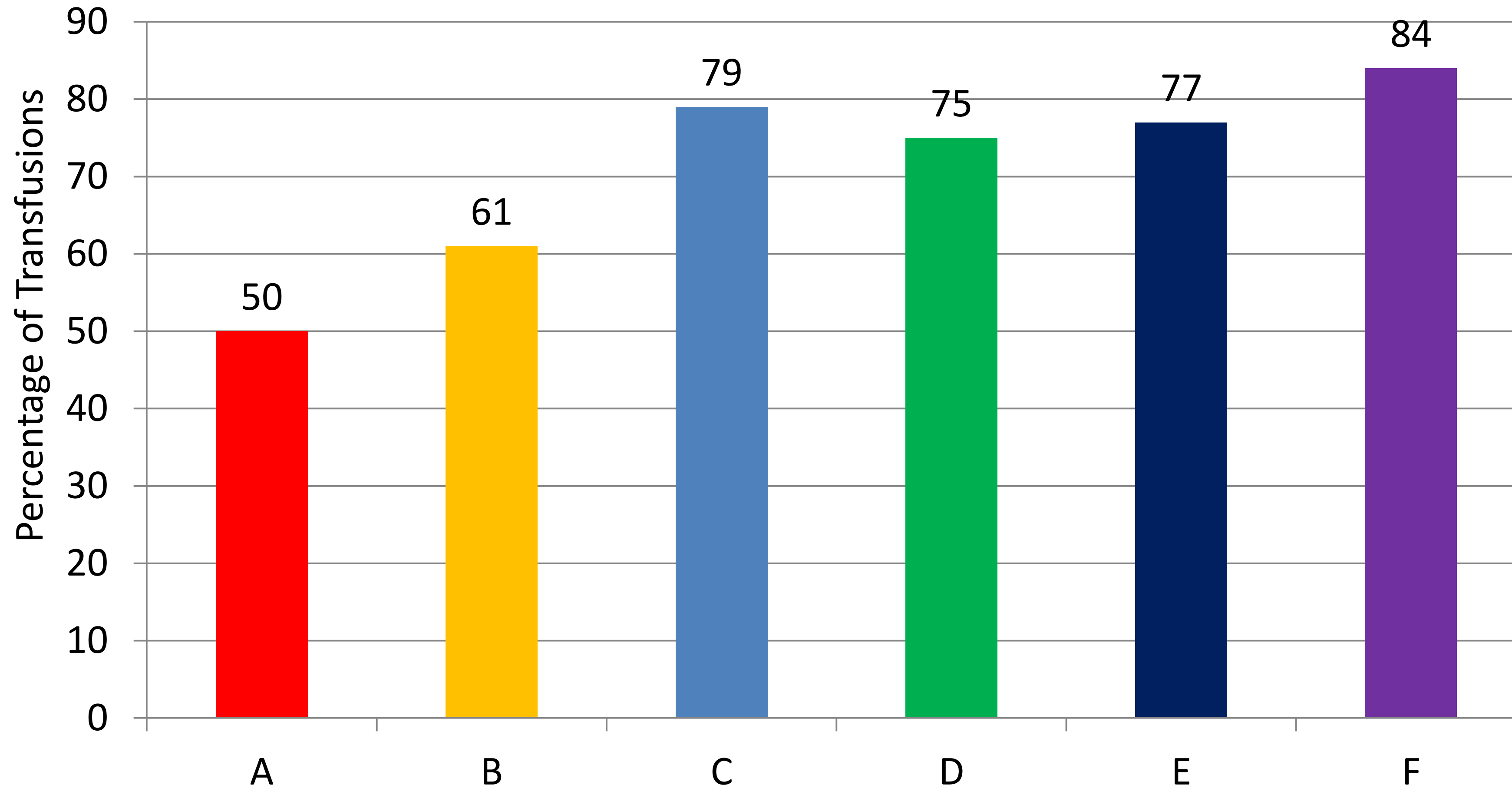
Transfusions

RBC utilization is decreasing but are the RBC transfusions "appropriate"- very difficult to measure

Identify the Problem
What's the issue?

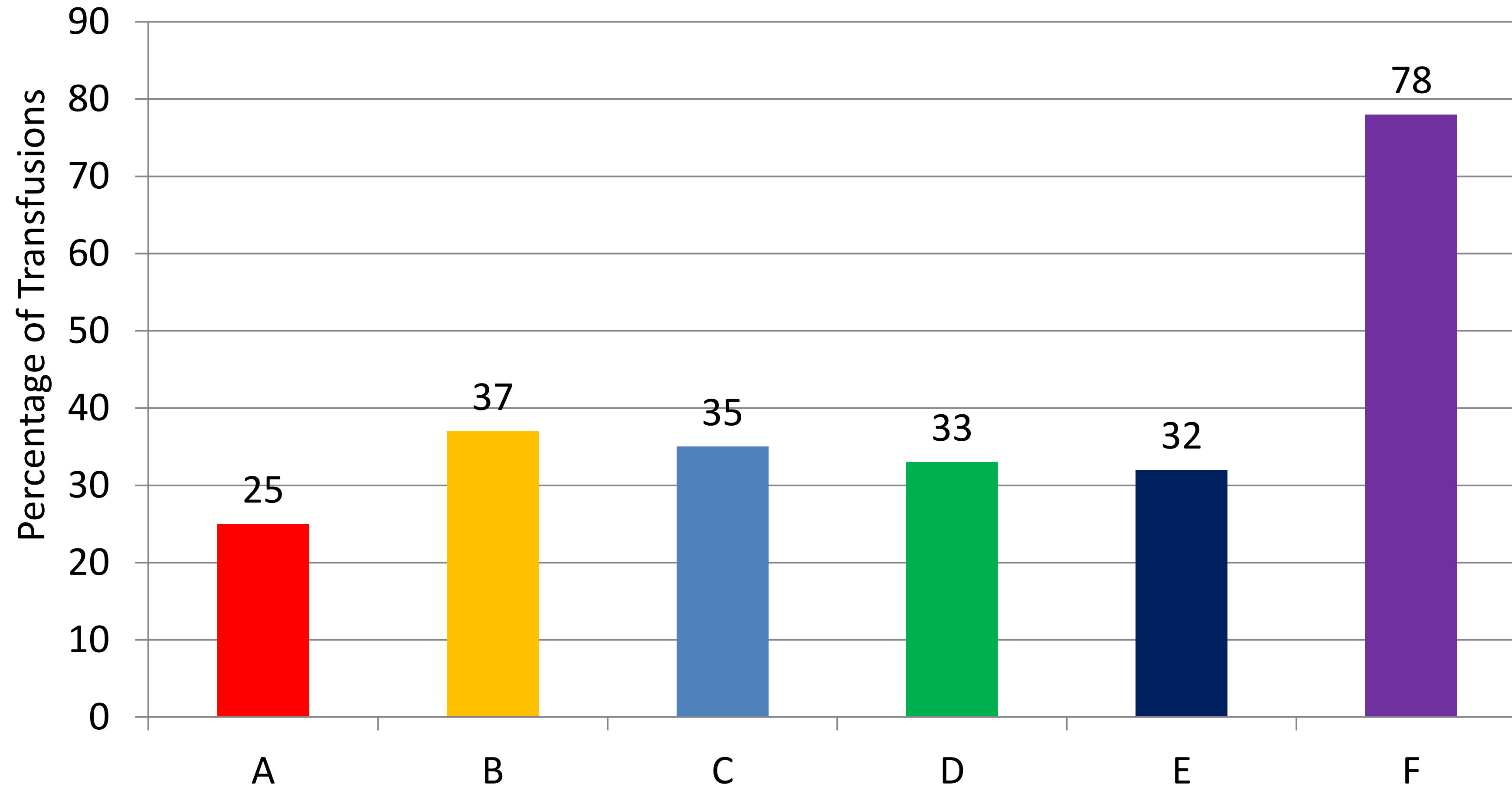
Pre-transfusion Hb < 80 g/L

(excluding outpatients)



Percent Single Unit Transfusions

(excluding outpatients)



RBC Audit- 5 Community Hospitals

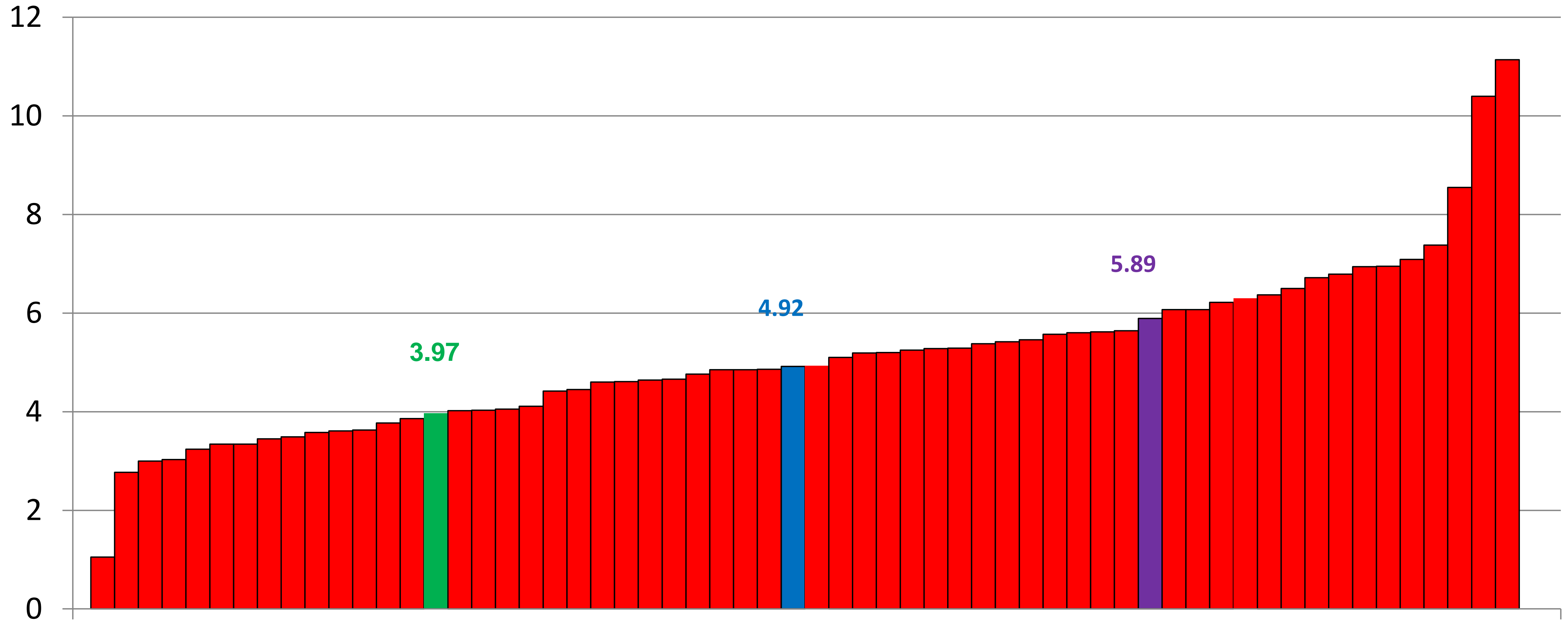
Results

- Low % single unit RBC transfusion orders
- Low % of pre-txn Hb < 80 g/L at some sites

Why? Anecdotal evidence hospital site visits

- Inconsistent adoption of transfusion guidelines and order sets
- Guidelines “sporadically” enforced/not always followed
- Little prospective screening/medical back up

Red Blood Cell Consumption in Units per 100 AAPD for 60 Ontario Community Hospitals for the Fiscal Year 2016-2017. Median and 25th and 75th Percentiles.



Choosing Wisely Canada Campaign

Launched April, 2014

Facts About Unnecessary Tests, Treatments, and Procedures

- Up to 30% of tests, treatments, and procedures in Canada are potentially unnecessary (includes transfusion)

Why?

- Practice habits are traditionally difficult to change, even in the face of new evidence (evidence not translated into practice)
- Lack of time for shared decision-making between clinicians and patients
- Outdated decision-support systems encourage over-ordering
- Defensive medicine and fear of malpractice lawsuits drive over-investigations
- Historically, payment systems reward doing more

CWC Specialty Statements Regarding RBC Transfusion

- Ten Things Physicians and Patients Should Question related to Transfusion Medicine
- Don’t transfuse red blood cells for arbitrary hemoglobin or hematocrit thresholds in the absence of symptoms, active coronary disease, heart failure or stroke. “Suggest that a restrictive approach is associated with improved outcomes”. (Canadian Society of Internal Medicine)
- Don’t transfuse more than one red blood cell unit at a time when transfusion is required in stable, non-bleeding patients. (Canadian Society for Transfusion Medicine)

Why do we need to standardize transfusion practice/improve utilization?

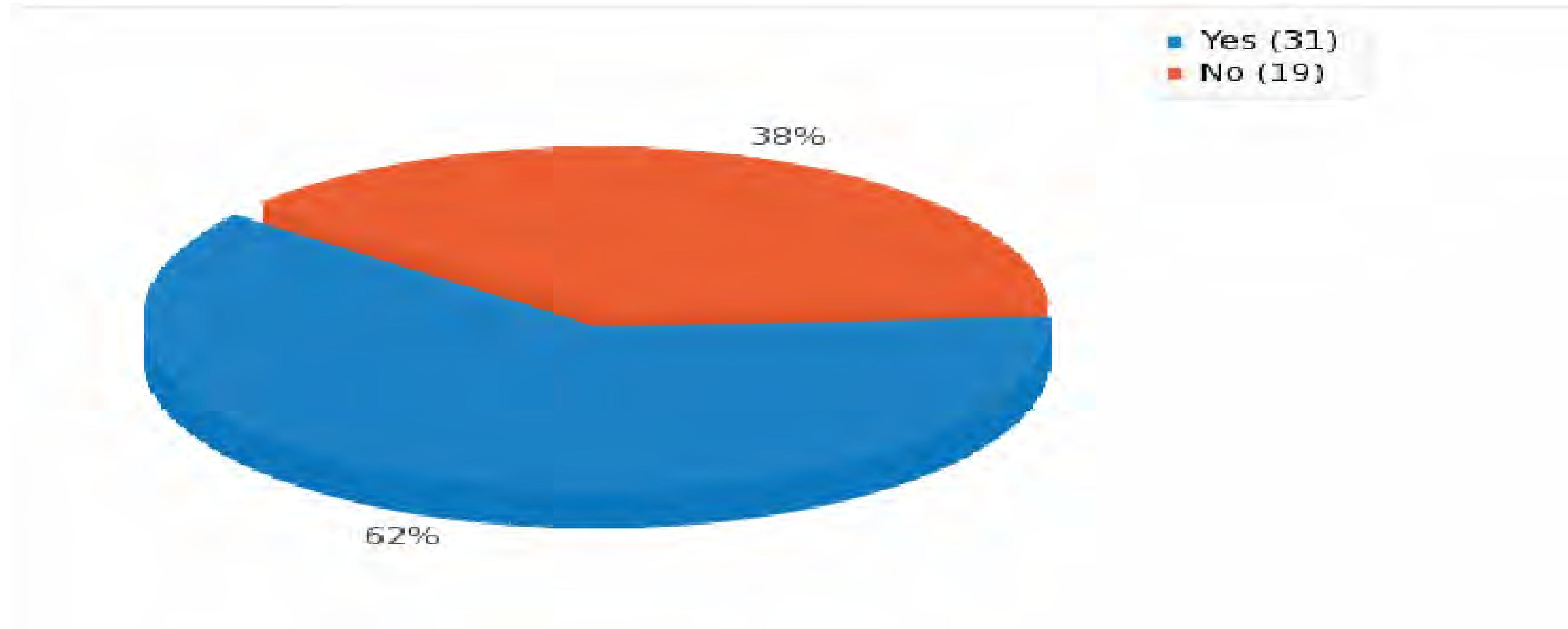
- Not an infinite supply- with an aging population- possibility of increased blood utilization demand with a decreased blood supply
- Reduce unnecessary adverse reactions/events- TACO, TRALI, WBIT resulting in hemolytic txn reaction
- Expensive- cost of a single red cell transfusion- approx $670*

*_Lagerquist et al. 2017. ISBT Science Series_

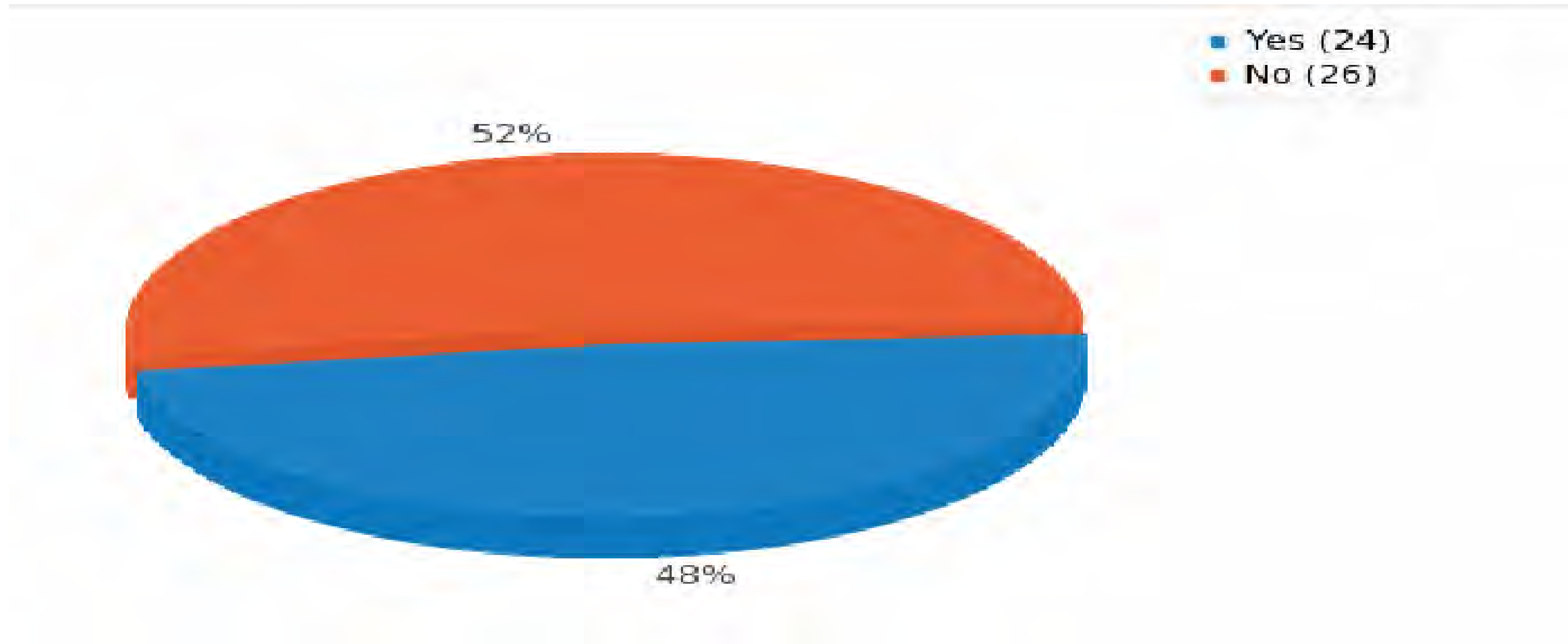
Gather data to identify gaps

Baseline OTQIP Survey Results

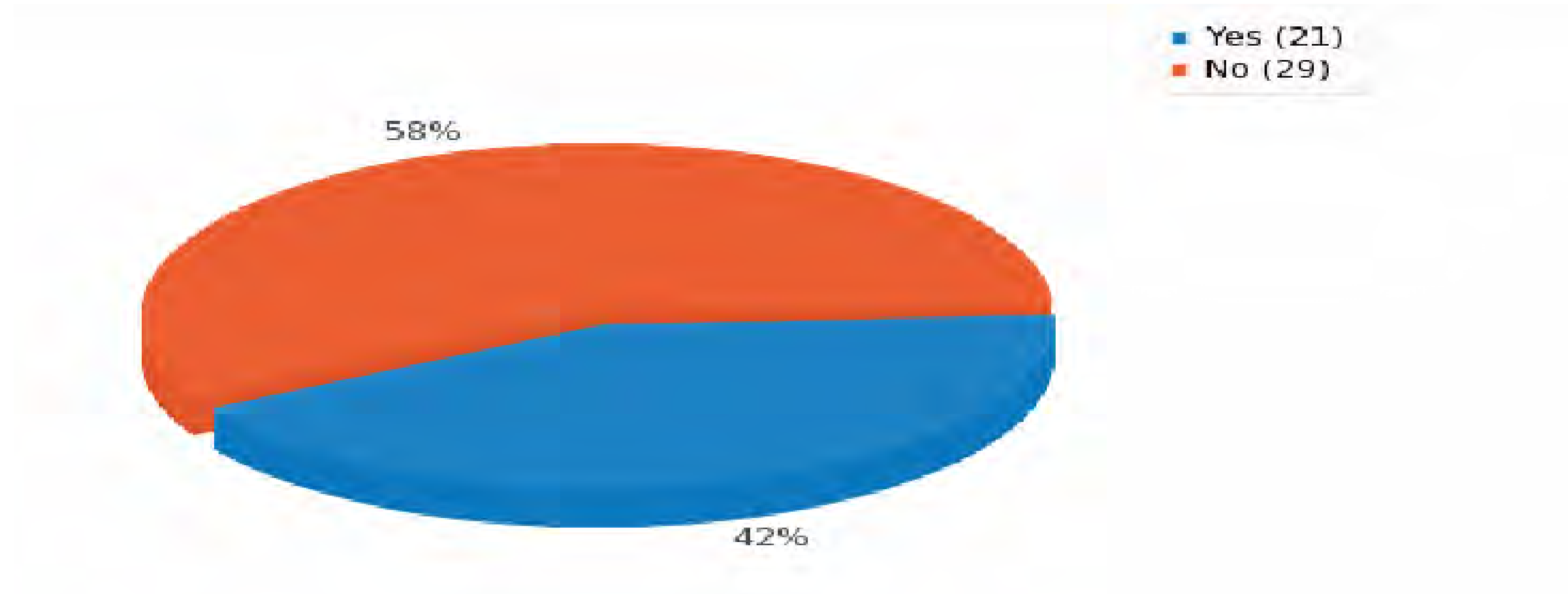
Established/Implemented Transfusion guidelines (n=50)



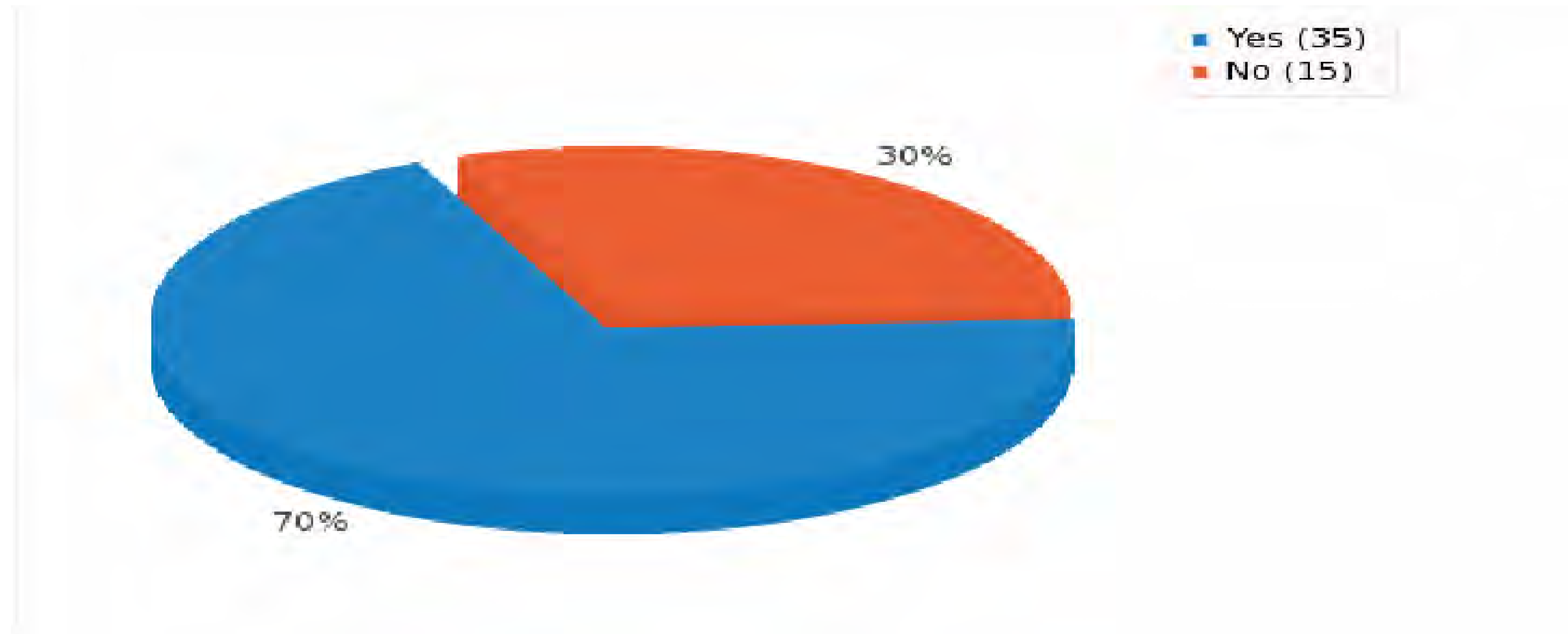
Transfusion order sets



Prospective screening process



Measuring Quality indicators



What do we know about better performing sites

- Transfusion Guidelines in place, adopted by the Medical Advisory Committee
  - Recommend 1 unit at a time and restrictive hemoglobin triggers
- +/- Pre-printed transfusion orders
- Prospective transfusion order screening by Medical Laboratory Technologist (MLT)
- Transfusion Medicine MD back-up and education
- Lakeridge implemented this approach- saw a 31% reduction in red cell utilization YOY

OTQIP Committee/Toolkit Creation

What did we do?

- Hosted Quality Focus Day: fact finding
- Established OTQIP Committee
- RBC utilization identified as first quality improvement initiative
- Developed toolkit based on HQO model
- Contains 5 year QIP
- Worked in collaboration with CWC

What are the aims of the OTQIP?

- **For patients**
  - Effective: Strong evidence base and guidelines to support restrictive RBC transfusion
  - Safe: Decrease unnecessary RBC transfusion to minimize the risks of transfusion (estimated 1/5 RBC transfusions inappropriate for hospitalized patients)

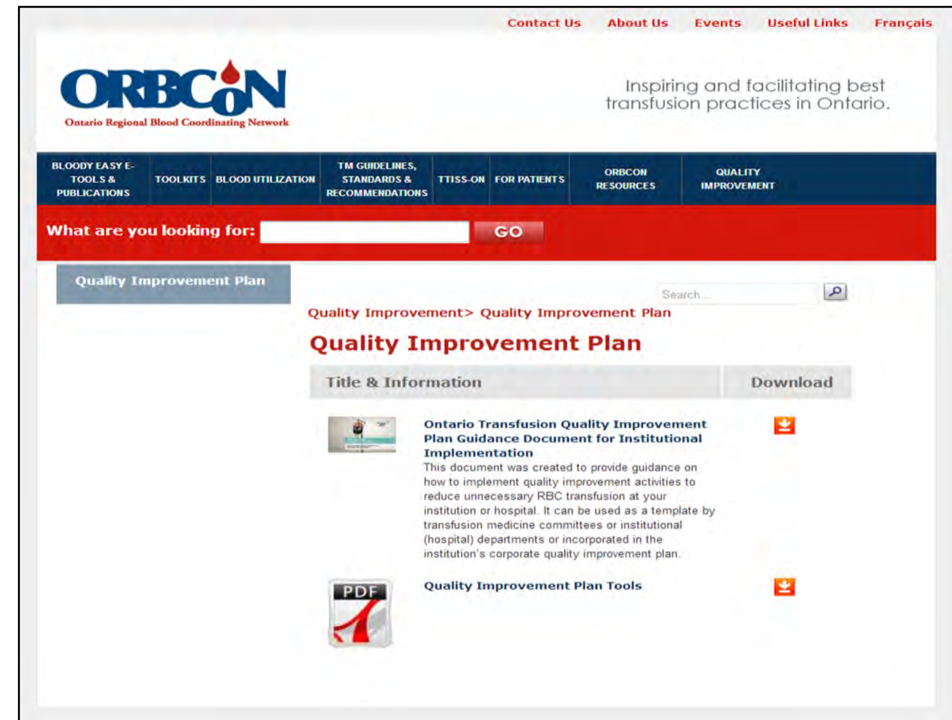
- **For the health care system**
  - Efficient: Decrease unnecessary RBC transfusions to minimize costs of transfusion
  - Ensure sustainability of the blood

Ontario Transfusion QIP

Choosing Wisely Canada website

http://www.choosingwiselycanada.org/in-action/toolkits/why-give-two-when-one-will-do/

Transfusion Ontario website



www.transfusionontario.org

OTQIP Content/Change ideas

- Narrative document- highlights the importance of the QIP in relation to patient-centred , patient safety and effectiveness
- Document is written in QI language and can be added to a hospital’s corporate QI plan
- Spreadsheet outlining the QI plan
- Clinical practice recommendations for RBC, FP and Plts
- Transfusion Order set for RBC, FP and Plts
- MLT prospective screening learning tool, SOPs and algorithm
- Baseline data collection & on-going measurement via an e-tracker tool

Prospective Transfusion Order Screening Module

- Narrated application
- Overview of the prospective screening process
- Primarily for MLTs but can also be used by Physicians, Nurses as a tool
- Multiple choice quiz upon completion

Practice Guidelines for MLT Practicing in Transfusion Medicine

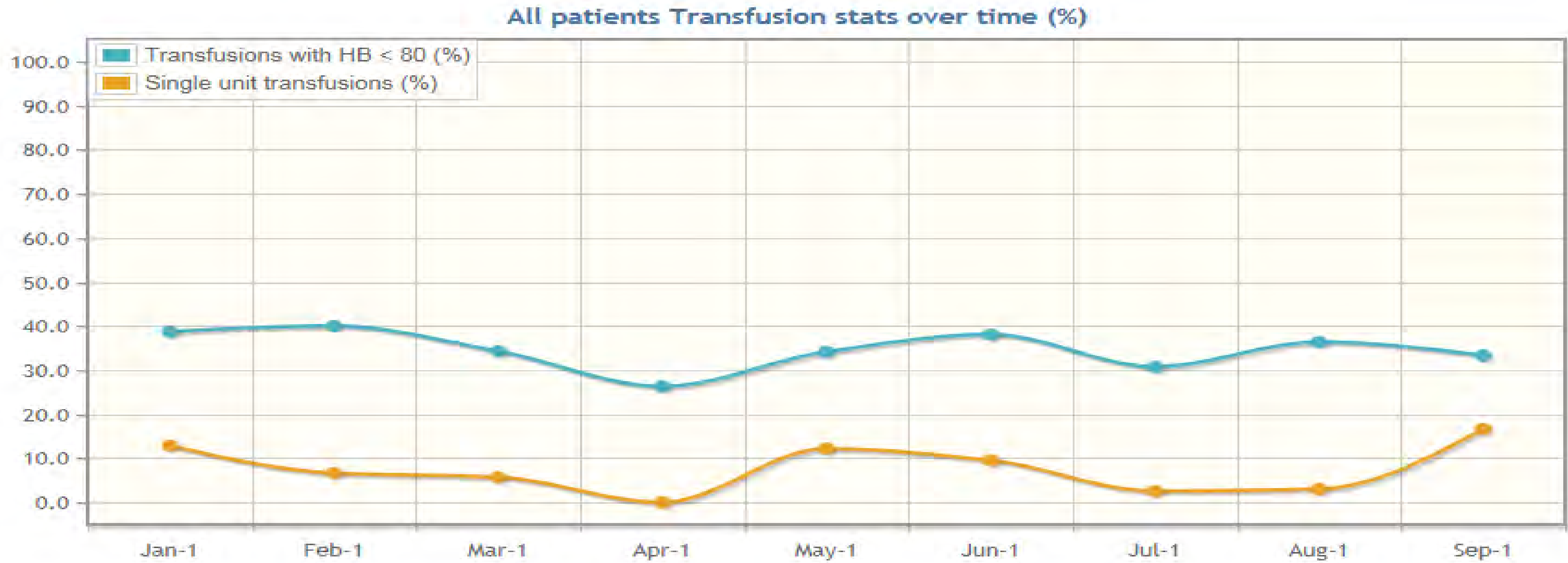
Knowledge- MLT applies current theory and practice of inventory management, storage, transportation, testing, **administration**, record management of blood and blood products

Skill- Follow established SOPs in the:

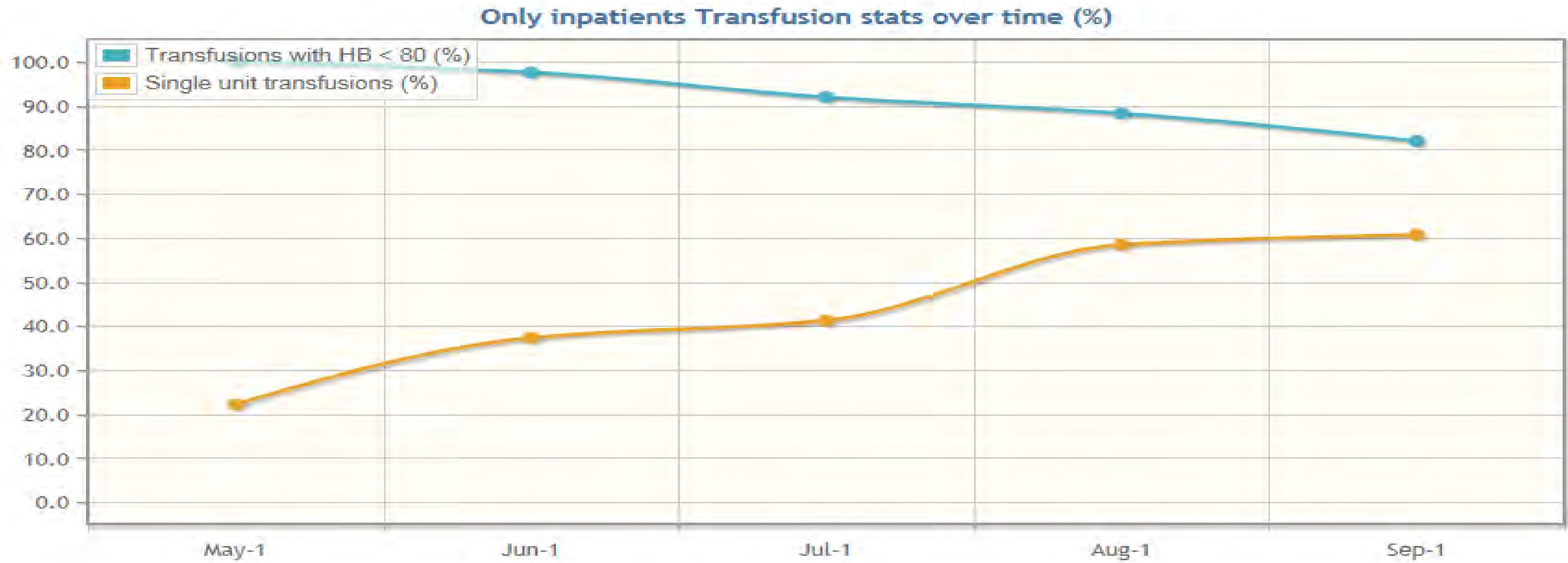
Assessment of the suitability of the blood product required for the clinical indications provided

RBC Audit Tool/eTracker Tool

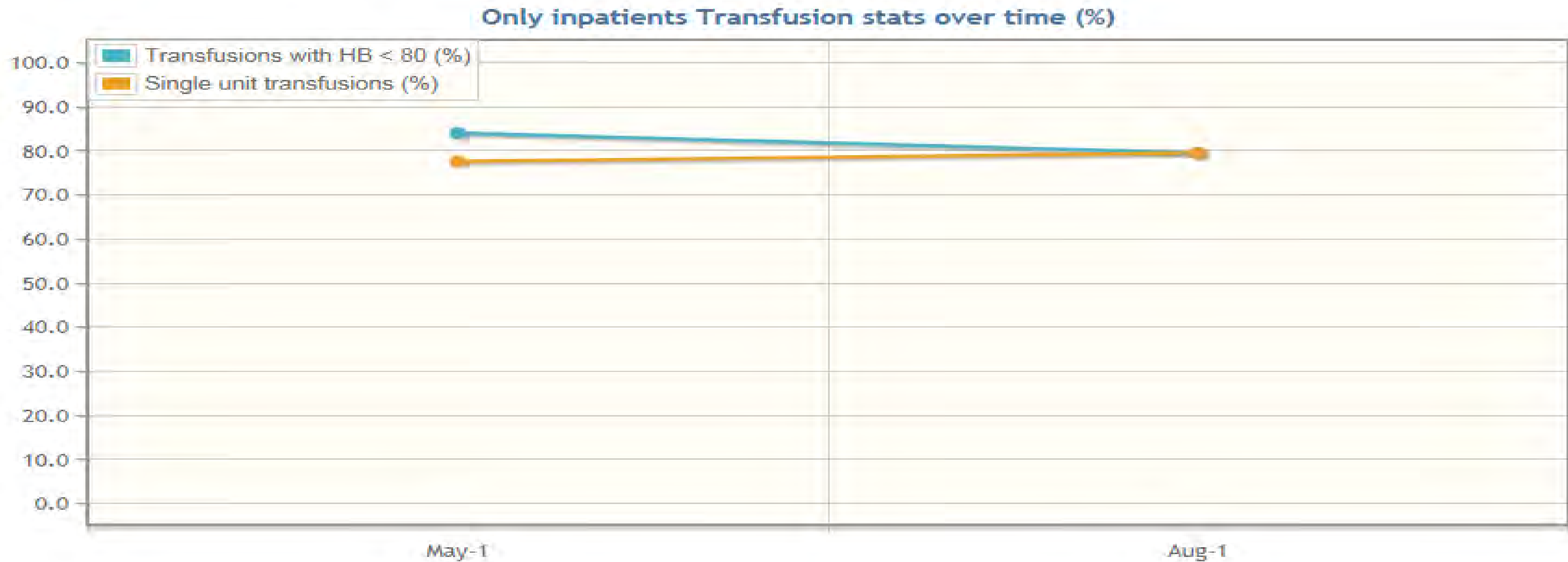
Site Specific Data- Site A



Site Specific Data- Site B



Site Specific Data- Sunnybrook



eTracker Tool- Captures OTQIP Measures

How do we know change is improvement?

Data entry

# of RBC transfusions audited during audit period

# of transfusions with a pre-txn Hb <80 g/L

# of single unit RBC transfusions

Tool calculates % of pre-txn Hb <80 g/L and % of single unit transfusions

Plots audit entries over time

Where are we now?

RBC eTracker Statistics

- 21 hospital sites currently entering data
- Baseline audits-88
- Repeat audits-74

Type of Audit	Pre-txn Hb<80 g/L	Single unit transfusions
Baseline	64%	28%
Repeat	80%	52%

Challenges

- Manual data collection is time consuming
- Support at the local institution and identifying champions

  -Blood is considered "free" so not really an incentive to change practice (no monetary gain)
- Blood Bank / Transfusion physician to educate and back up technologists and guidelines
- Encouraging e-tool tracker uptake

Next steps

- Encourage metric data collection (maybe eventually electronically- Provincial data strategy)
- Keep the momentum going in hospitals (many competing priorities)
- Assist in “coaching” and supporting sites using the transfusion QIP
- Continue to collaborate with HQO, CWC, OHA to promote QIP

  -mandatory reporting of metrics?
- START study results
- Exploring Choosing Wisely Canada Technologist statements

What Can You/Your hospital do?

- Collect baseline data on QIP data metrics (perform quick audit)

- Pre-txn Hb <80g/L
- Single unit transfusions

- Adopt single/multiple change measures (adoption of guidelines, order sets, prospective screening process)

“CONTINUOUS IMPROVEMENT IS BETTER THAN DELAYED PERFECTION”

Thank you!

OTQIP

- Jennifer Bawden, MLT
- Donna Berta, RN
- Chris Campbell, MLT
- Craig Ivany, CEO
- Yulia Lin, MD
- Menaka Pai, MD
- Robert Romans, CBS
- Lisa Ruston, Quality
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- Sophie Yang, MOH
- Sandra Fazari, MLT

- Denise Evanovitch, MLT
- Allison Collins, MD
- Wendy Owens, MLT
- Troy Thompson, MLT
- Stephanie Cope, MLT
- Emma Greening

- John Freedman, MD
- Alanna Howell, RN

Recommendations WG

- Allison Collins, MD
- Michelle Zeller, MD
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- Elianna Saidenberg, MD
- Yulia Lin, MD

Technologist Screening WG

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- Barb Silveri, MLT
- Melanie Tokessy, MLT
- Sandra Baker, MLT
- Krista Walkers, MLT

Health Quality Ontario **Choosing Wisely Canada**