

Reducing Diagnostic Reporting Turnaround Times for Serous Fluid Cytopathology Specimens



Serous Fluid Cytopathology Specimens



Western
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AIM Statement: By April 2024, 80% of serous fluid cytopathology reports will be verified within 7 days of collection from a baseline of approximately 65%

PROBLEM DEFINITION

- In some disease states, excess serous fluid accumulates in body cavities; this fluid can be collected and submitted to the Cytopathology Laboratory for diagnosis
- Timely reporting of serous fluid samples is important as the results (benign vs cancer) influence patient management decisions
- Turnaround times (TATs) for serous fluid samples exceed our targets hence necessitating a Quality Improvement initiative to reduce TATs

ROOT CAUSE ANALYSIS

- With input from laboratory stakeholders, Process Maps and Cause & Effect “Fishbone” Diagrams (Figs. 1 & 2) were created to demonstrate all phases of the test cycle (collection→reporting)
- Using these tools, barriers and bottlenecks that prolong TATs were identified
- A PICK chart (Fig. 3) summarizing possible solutions was created and solution implementation was prioritized

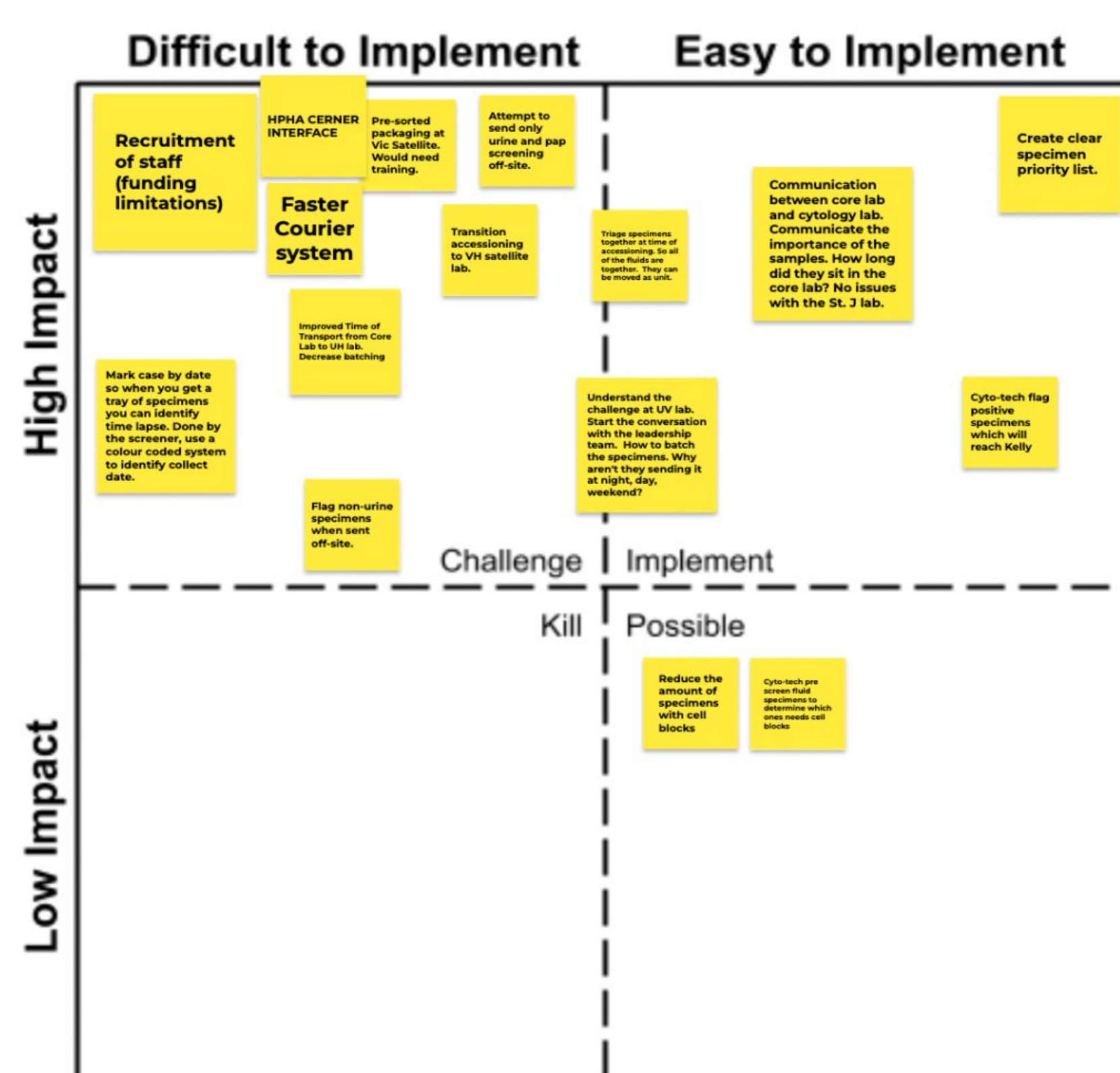


Figure 3: PICK chart

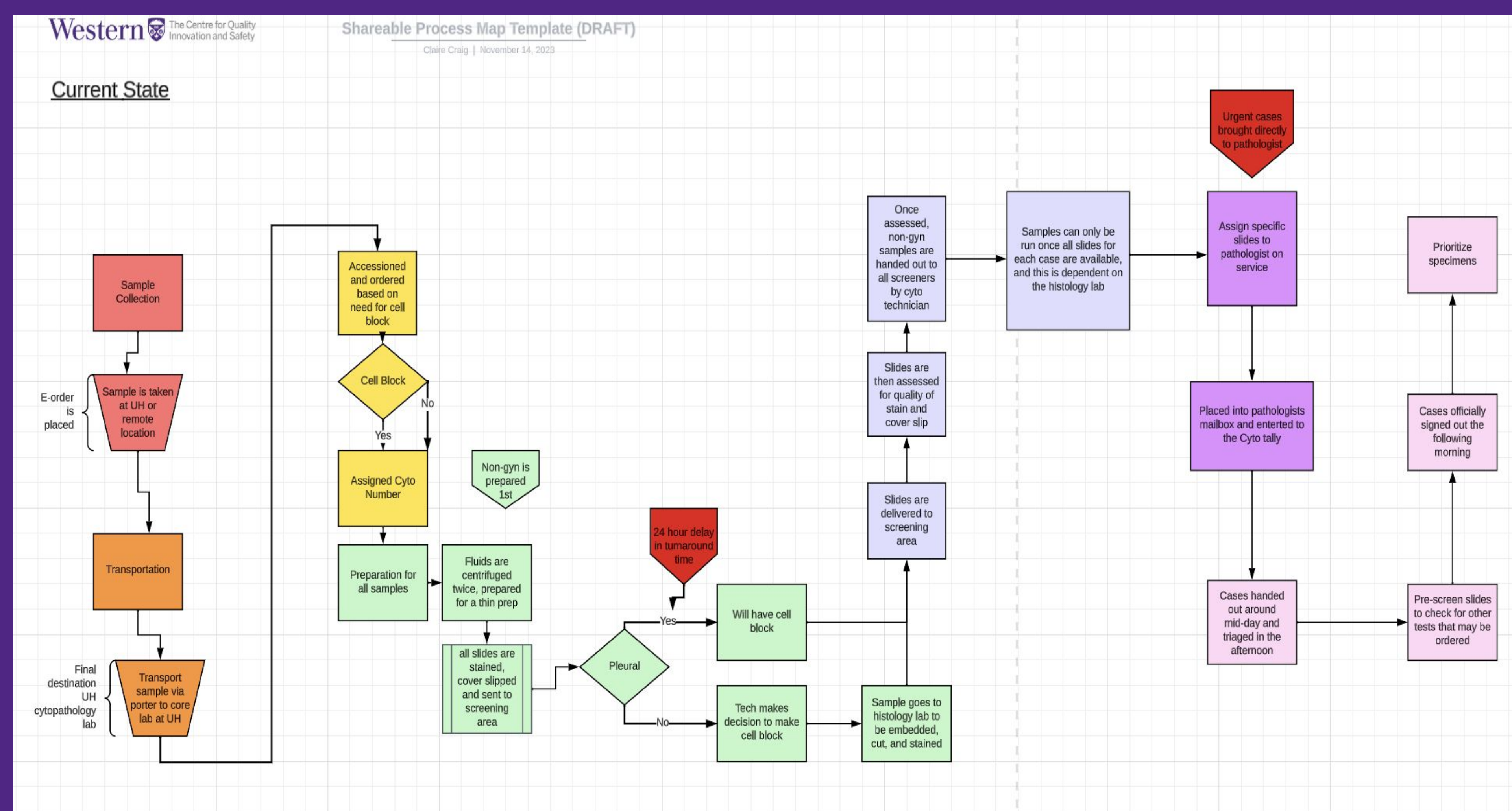


Figure 1: Process Map

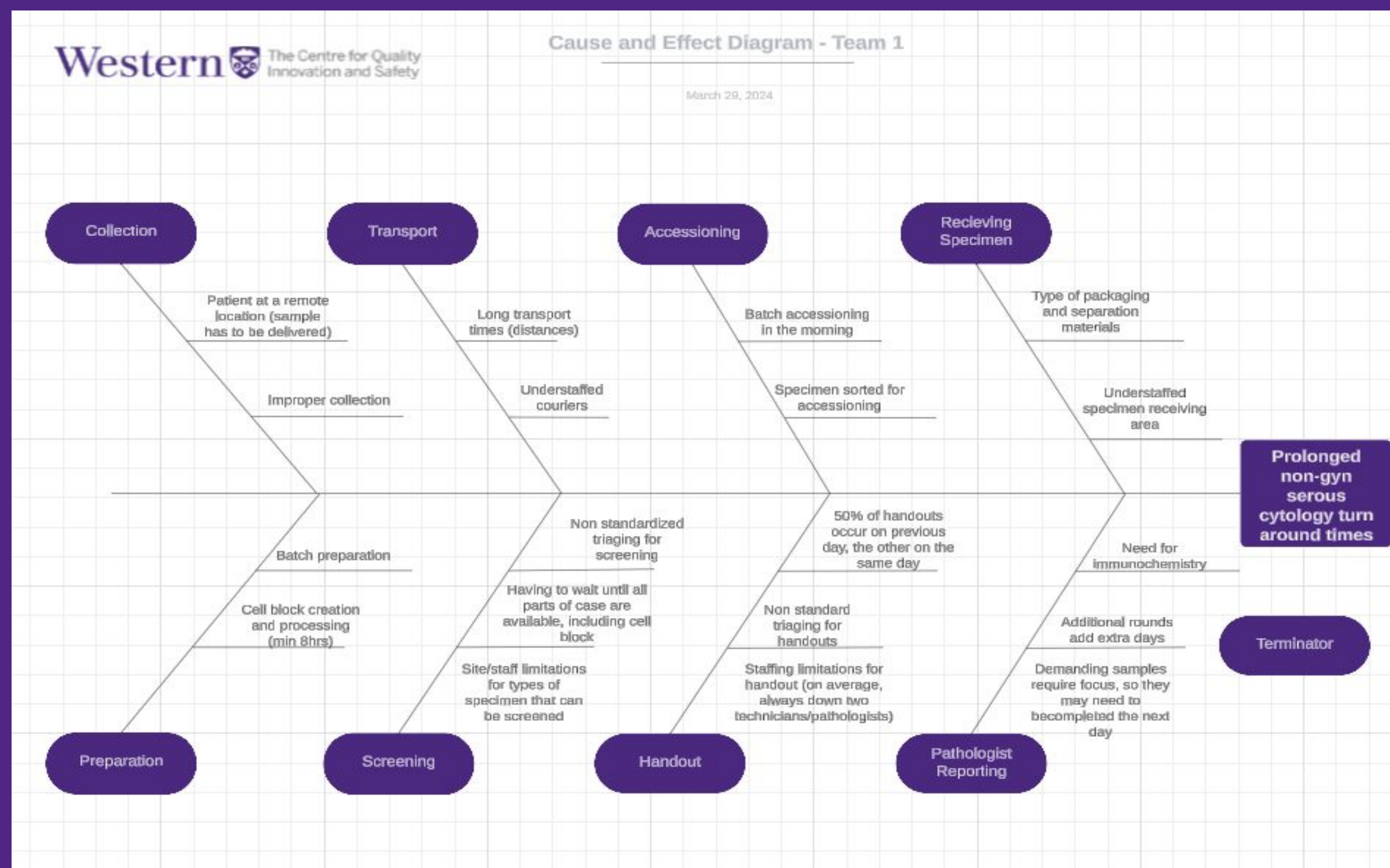


Figure 2: Cause & Effect “Fishbone” Diagram

IMPLEMENTATION

- **PDSA #1:** Improvement of transportation time from Victoria Hospital to University Hospital
- **PDSA #2:** Screening prioritization protocols for Non-Gyn samples

MEASUREMENT & RESULTS

- **Measurement:** TAT intervals were measured and compared as a percentage of total samples (Fig. 4)
- **Results:** After both PDSA cycles, **96%** of samples were verified within seven days of collection representing a **31% improvement** from baseline
- **Limitations:** Small sample size

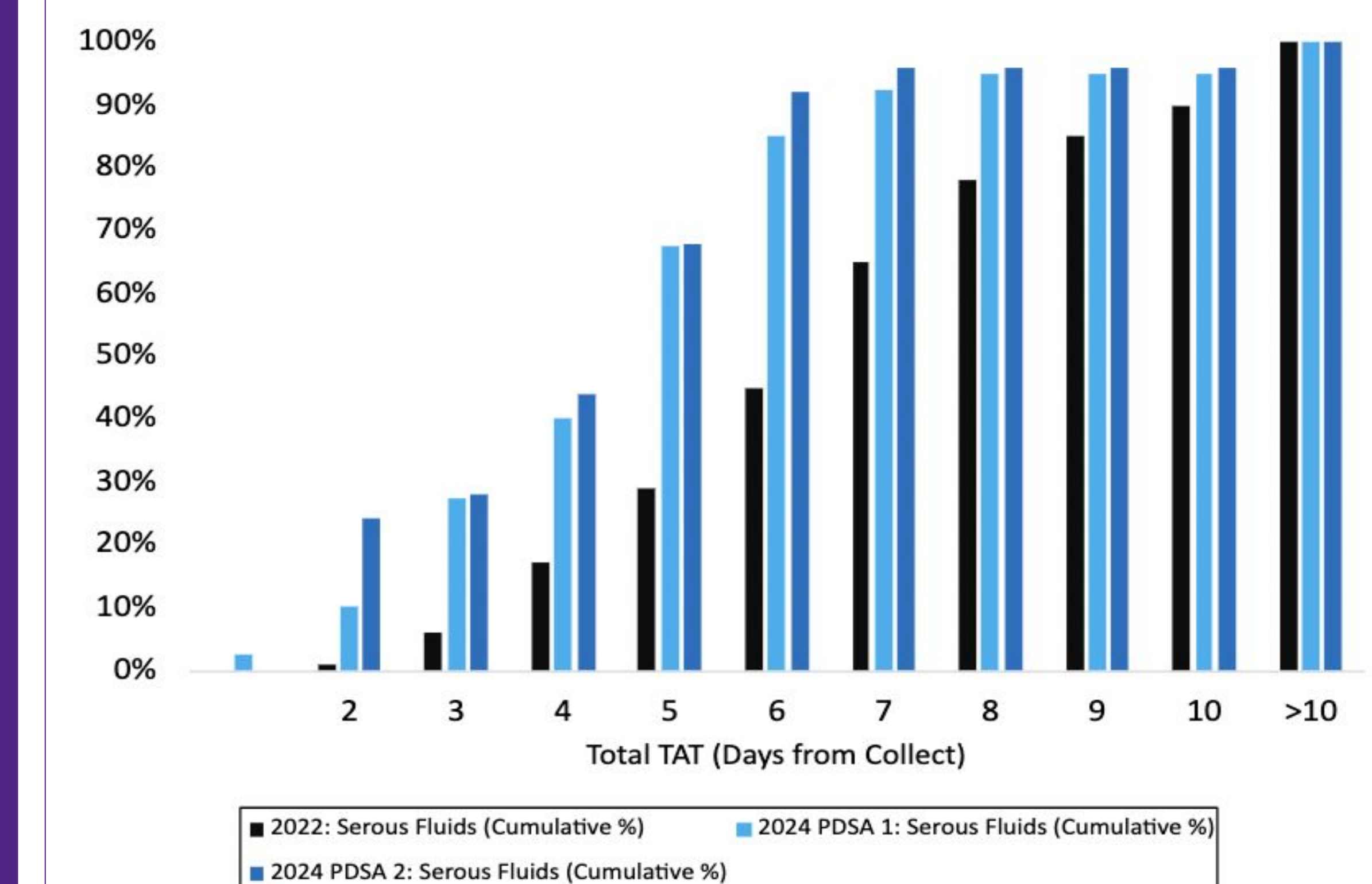


Figure 4: Baseline & PDSA cycle results

SUSTAINABILITY

- **Process owner:** Section Head, Sr. MLT
- **Documentation:** Update screening priority SOP
- **Monitoring plan:** Support for monitoring and future improvements is required from the PaLM Data Analyst and Quality Teams