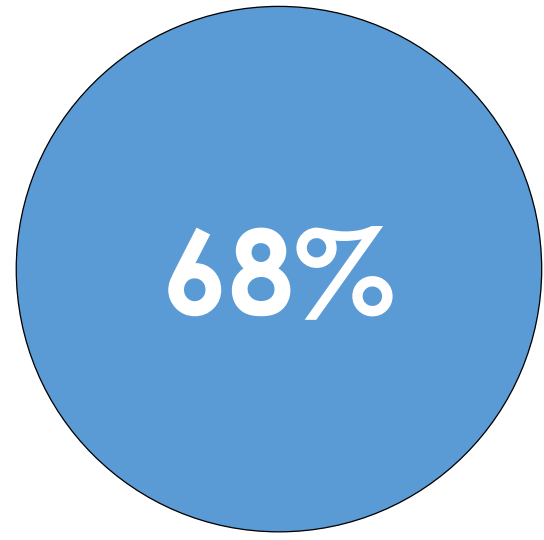


Background

Tufts Medical Center Primary Care – Boston is the front door to Tufts Medical Center

The clinic has 40 doctors, sees 40,000 patients, and generates need for 40,000 test results letters each year

Problem statement



Patients say they get lab test results in a timely manner



It is impossible to track whether test results letters have been generated, approved, or sent to their patients



The process for creating results letters is not standardized across providers

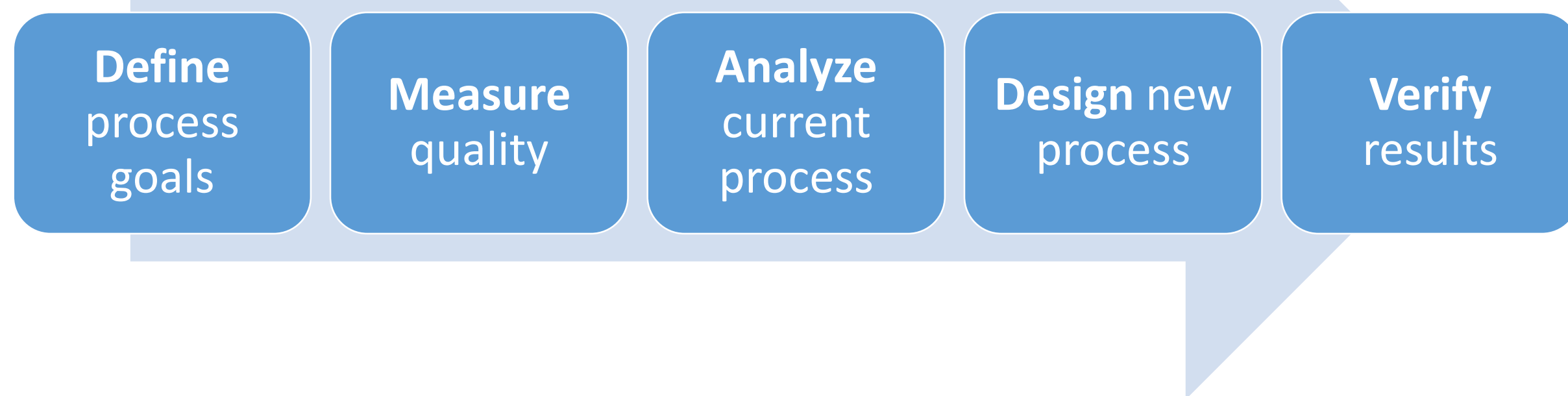


<60% of patients have PIN for online portal. Providers communicate by phone and snail mail

Student Team



Approach: DMADV framework



Data Collection and Analysis

Patient survey and staff interviews

To understand the current process, we conducted interviews with:

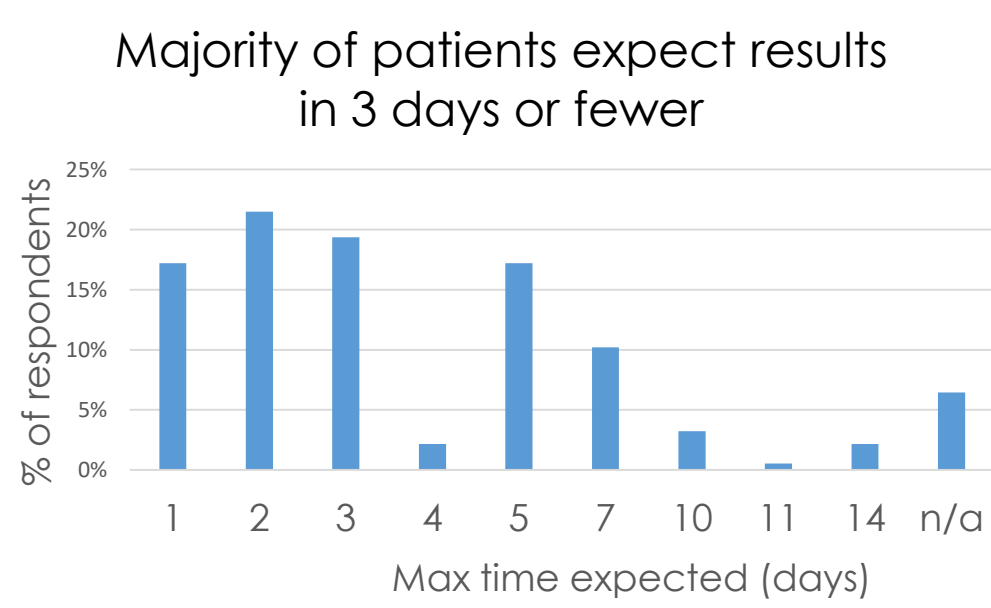
- 5 Medical Doctors, 2 Nurse Practitioners, 1 Physician's Assistant, 1 Medical Resident, 3 Physician Practice Coordinators (PPCs)

Observations:

Process for generating results letters varies with each provider-PPC relationship, often due to:

- provider preferences
- necessity of tailoring language
- fear of letters falling through the cracks

We learned about patients' preferences and expectations through a 3-question paper survey



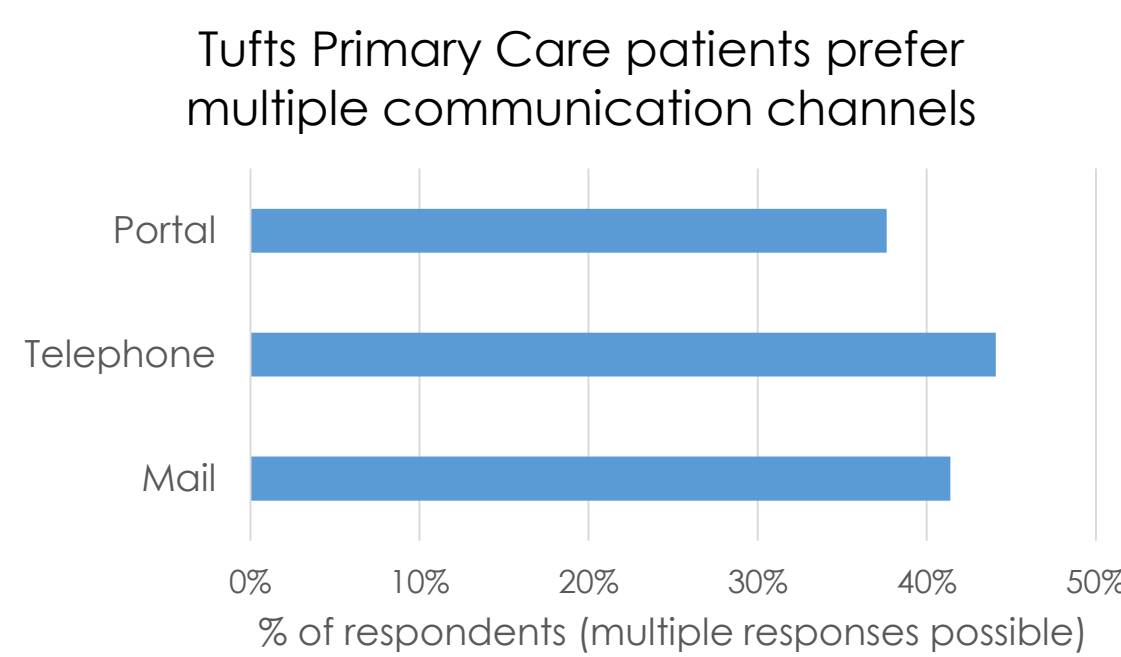
Literature review and benchmarking

We learned inadequate results communication can lead to poor medical outcomes:

- Negative impact on patient safety, clinical decisions, therapeutic options, care experiences and outcomes
- 45% of malpractice claims have a diagnostic error or delay component

Through interviews with other institutions, we learned communicating results through patient portals is the industry standard

And though Tufts Primary Care does not utilize its portal and patients may not know it exists, we learned 38% of patients would like online communications

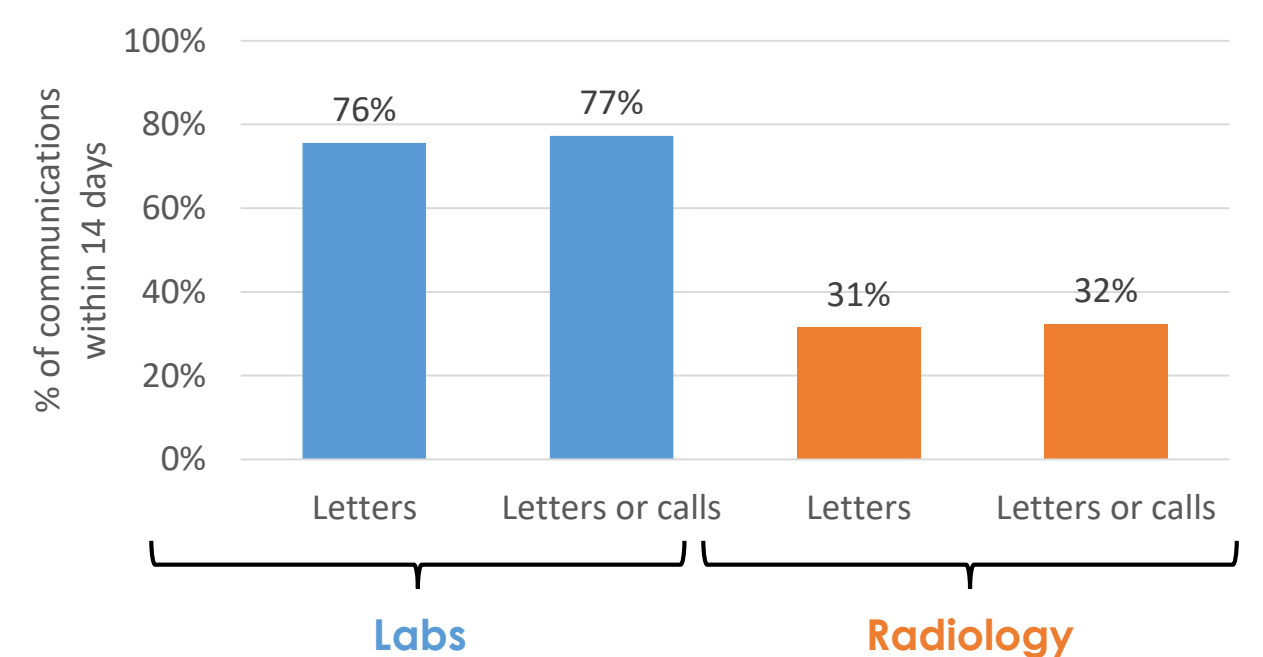


EMR data

Despite significant data linking challenges, we were able to measure past rates of communication:

- Rates of timely communication vary significantly across providers
- Some PPC's start <30 letters per month, while one starts >120
- When letters are generated, 52% are started within 3 days
- 11% of labs are ordered outside of office visits; communication is much less consistent for orders outside of office visits

Communications are generated within 14 days for only 77% of labs and 32% of radiology



Recommendations

Short-term recommendations

- Create a standard process focused on results communication and roll it out across the practice
- Increase use of the online portal for test result communication
- Generate a weekly list to catch missed results communication
- Track results communication on a regular basis through a management dashboard

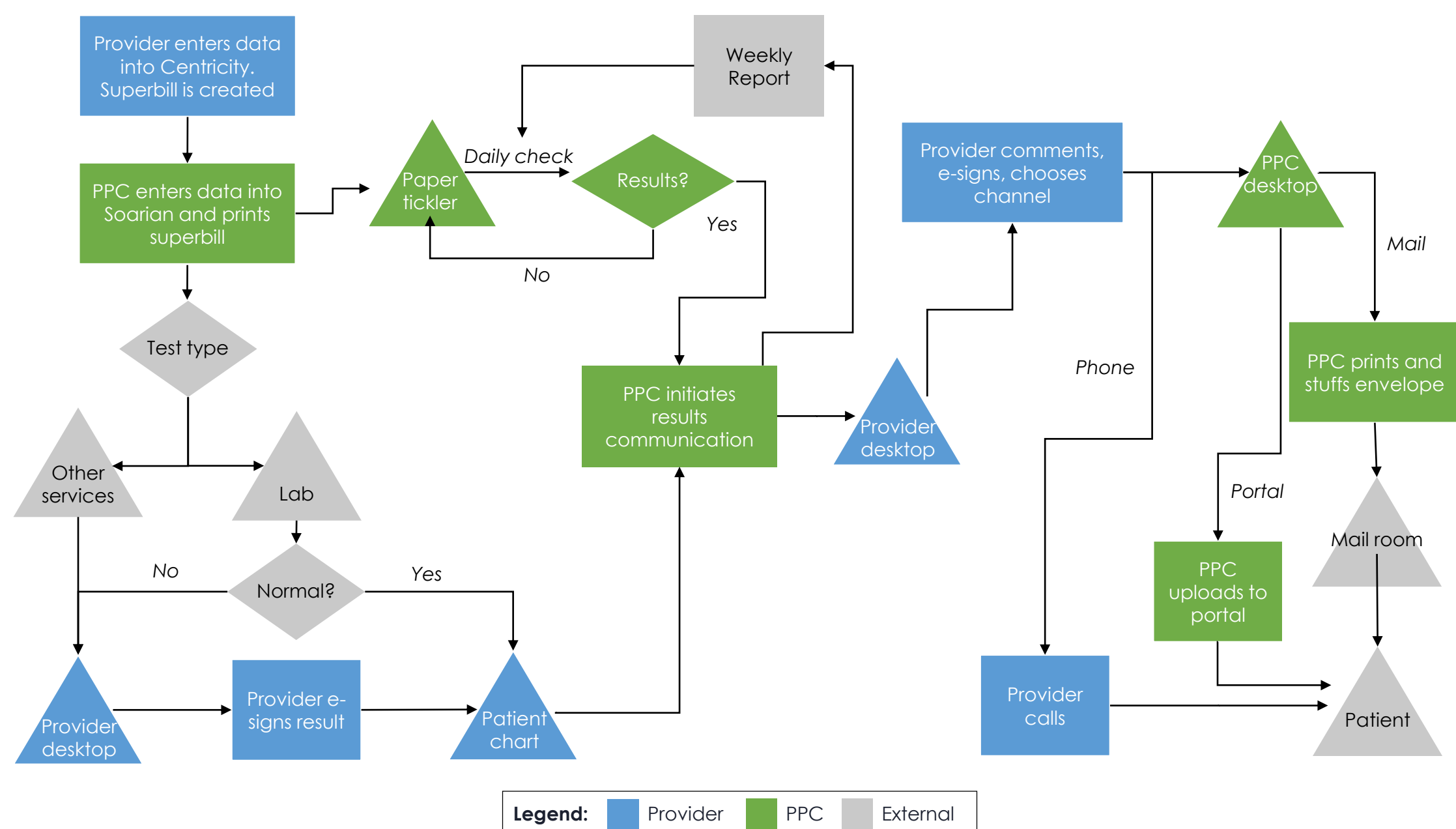
Sample weekly report of missed communications

PPC Name	Provider	Patient Name	MRN	OrdDate	# labs ordered	# results	Days elapsed
PPCName	ProviderName	PatientName	MRN	11/5/2018	1	1	6

Sample biweekly management dashboard

PPC name	Provider name	# orders	% within 3 days	% created overall	% created by PPC
PPC1	Provider1	69	78%	86%	28%
PPC1	Provider2	59	47%	54%	25%
PPC2	Provider3	50	64%	78%	83%
PPC2	Provider4	15	67%	67%	93%

New results communication process flow



Longer-term goals

- Adapt and refine results communication process for radiology tests
- Automate a report of results arriving from the lab each day
- Support use of the portal with additional IT resources