Improving Telephone Traffic Control: The Transition From a Decentralized Phone Management System to a Centralized Phone Centre

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BACKGROUND

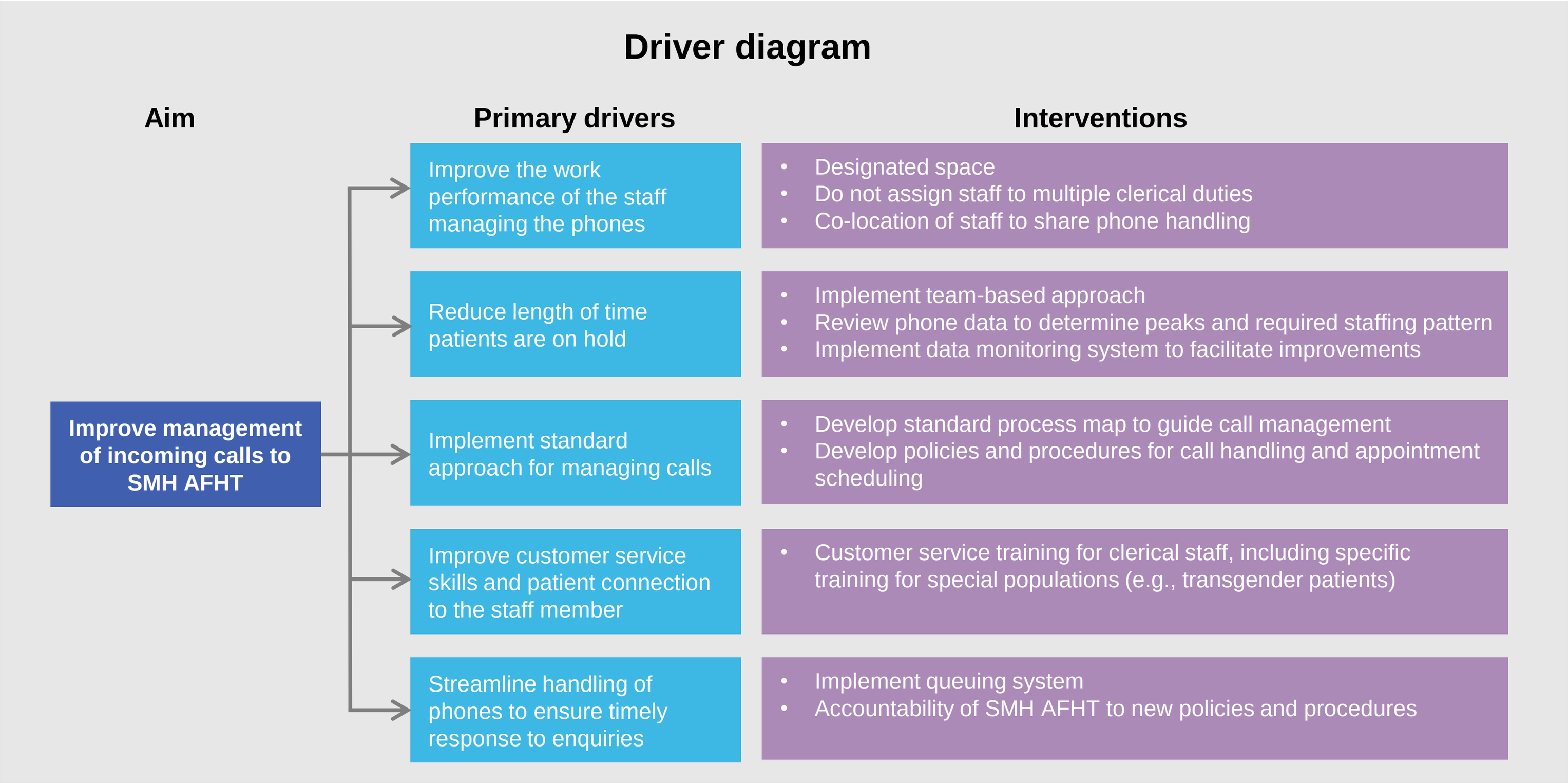
- St. Michael's Academic Family Health Team (SMH AFHT) consists of six family medicine sites that collectively provide care to over 43,000 patients
- Management of the phone lines are decentralized, leading to varied approaches to how calls are managed locally at each clinic
- Patient satisfaction surveys identified that long wait times to call answer is a source of frustration for patients
- Phone data across all sites showed that patients were left on hold on average for over 15 minutes

GAP ANALYSIS

- A review of phone data across the SMH AFHT highlighted that patients were left on hold for long periods of time
- Brainstorming sessions were held with the clerical staff managing the phone calls for the SMH AFHT to determine reasons for the poor management of phones:

- Inadequate staff to call volume ratio
- Frequent interruption of clerical, leading to poor productivity on all tasks
- No standardization of phone management
- No ability to triage or redirect calls
- No ability to match number of staff to peaks and valleys of call volume
- Lack of customer service training

- Primary drivers were identified with associated improvement ideas. Work performance of staff managing the phone was identified as the primary driver affecting the management of incoming calls
- Co-location of dedicated phone staff led to the change idea to implement a ***centralized phone centre*** to improve the performance of staff managing SMH AFHT incoming calls
- This poster presentation will detail the quality improvement process undertaken by the SMH AFHT to transition from a decentralized phone management system to a centralized phone centre.



PROJECT OBJECTIVES

- Implement an streamline approach to managing incoming calls to the SMH AFHT
- Achieve an economy of scale for managing the phones that would promote effective use of human resources
- Standardize the SMH AFHT approach to managing incoming calls (bookings, urgent triage, messaging)
- Reduce patient wait times on hold
- Improve patient satisfaction with phone service

METHOD

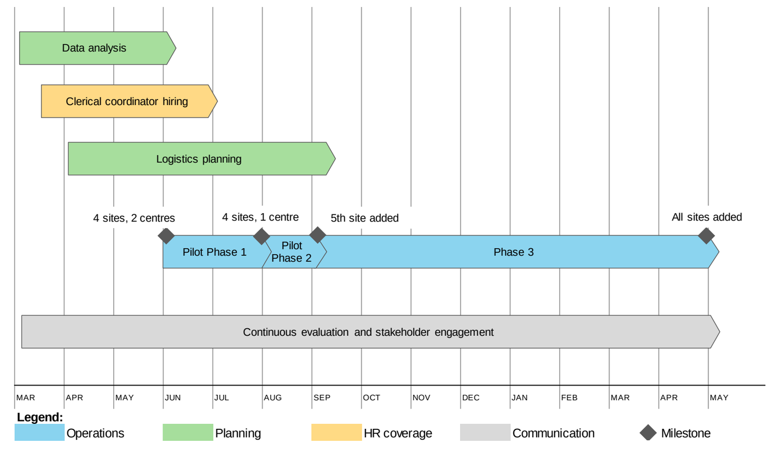


Fig. 1: Implementation project plan

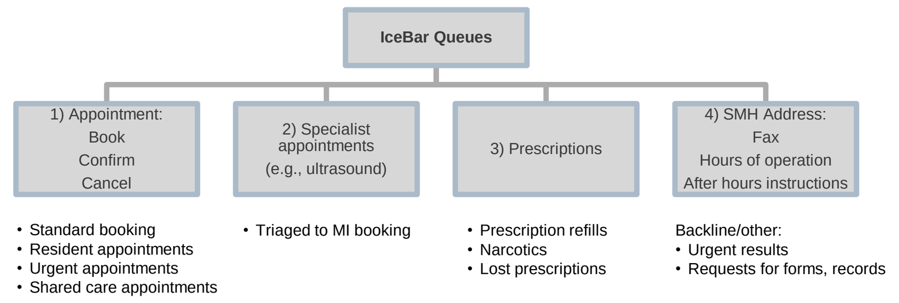


Fig. 2: High-level breakdown of required process maps

PLAN

- Analyzed phone data to determine number of call agents
- Consulted with key stakeholders to develop process maps for managing incoming calls
- Extensive training and support provided to call agents
- Communication plan to staff about change-implementation plan
- Determine location for phone centre and IT support

DO

- Isolated and co-locating three call agents to manage the incoming calls for one site
- Test pilot call handling process maps

STUDY

- Analysis of phone data (length of time on hold, call volumes, drop calls, peak volumes) to determine adjustments that needed to be made to staffing ratio, break times, staff start and end times.
- Immediate feedback from staff (patients, MDs/NPs, RNs and other interdisciplinary team members) helped to inform changes to the phone triage process map

ACT

- Adjusted phone triage process maps
- Adjusted message queuing system (removed voicemail, reduced the number of prompts, reduce on-hold messages)
- Added other clinics and call agents to centralized service in stages. Followed the above PDSA cycle with each iteration

CONTINUOUS IMPROVEMENT

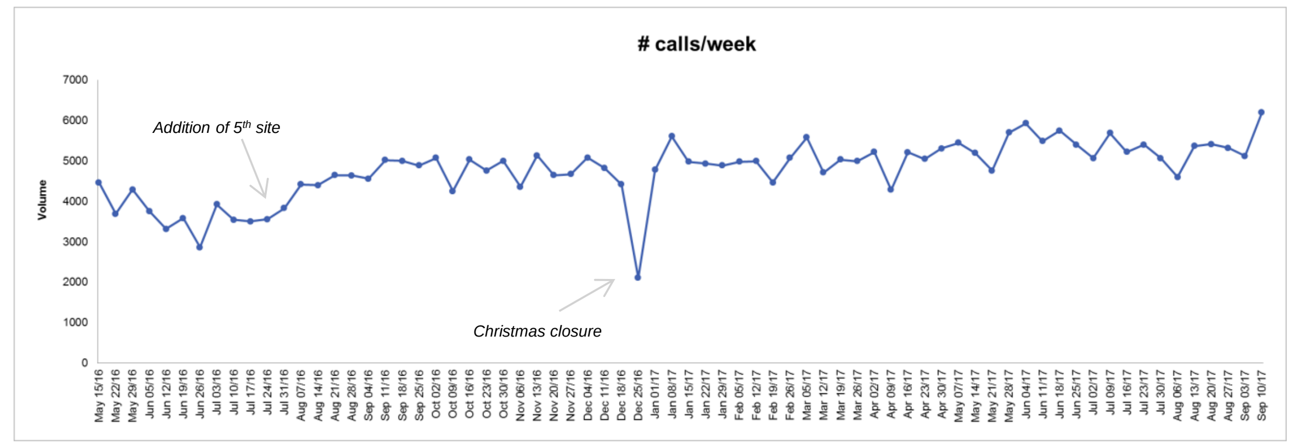
- A weekly scorecard summarizing data from the phone system was disseminated and discussed with the phone centre team regularly. Note, baseline data was not captured, as the "iceBAR "phone system had not been in place for a long period of time before implementation

Week Starting	Contacts Offered – Amt	Contacts Offered – Queue Time Avg	Contacts Offered – Queue Time Lngst	Handled This Q – Amt	Handled This Q – Queue Time Avg	Handled This Q – Queue Time Lngst
Queue 6096 - St. Jamestown						
Q Sub-total:	636	00:57	11:22	576	00:52	11:22
Queue 6321 - Sumac Creek Booking						
Q Sub-total:	898	02:10	13:24	729	02:07	12:54
Queue 6426 - FPU						
Q Sub-total:	1,389	02:41	13:15	1,099	02:42	12:43
Queue 6728 - 410 Sherbourne FPU						
Q Sub-total:	1,538	02:31	13:19	1,191	02:14	13:07
Grand Total:	4,461	02:17	13:24	3,595	02:08	13:07

Operations	May 15/16	May 22/16	May 29/16
Total number of calls	4461	3687	4289
Number of calls answered	3595	2962	3457
→ Answer rate	81%	80%	81%
Dropped calls	807	663	706
→ Dropped call rate	18.1%	18.0%	16.5%
Number of calls to voicemail	59	62	126
Average time to answer (mm:ss)	02:08	02:13	01:46
% of calls picked up within 45 sec	35.60%	36.00%	42.40%

Fig. 3 and 4: Example of weekly phone data report and weekly scorecard.

- The scorecard visualized whether the phone wait times were improving and provided assistance in understanding call volume and phone handling trends
- Spikes in patient hold times, for example, helped the PDSA process in understanding how processes could be further improved.
- Total call volume steadily increased with the expansion of SMH's sixth FHT site, Sumac Creek Health Centre. This resulted in a spike in average wait times; further data analysis helped refine the staff schedule to ensure adequate staff-to-call volume.



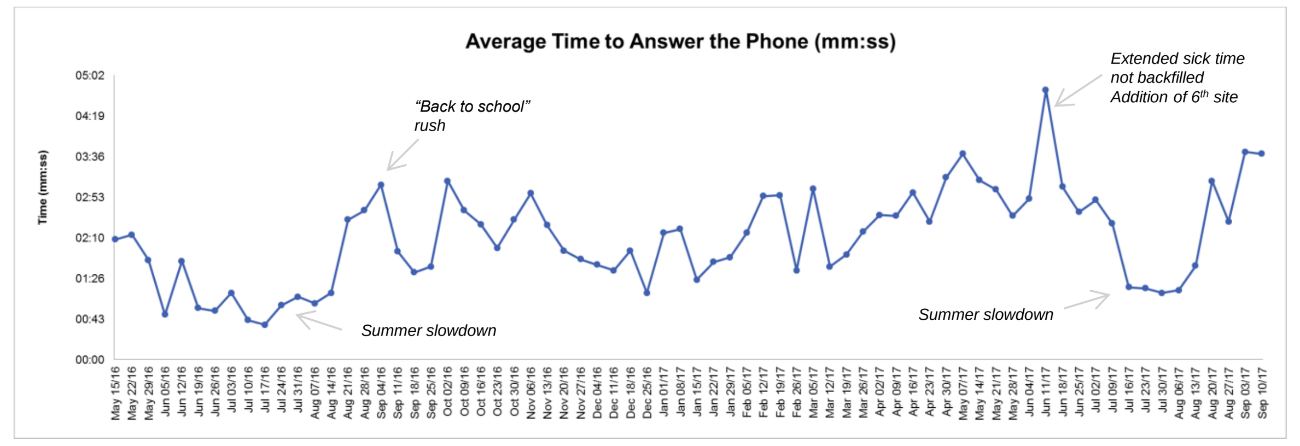


Fig. 5 and 6: Automated graphs from phones scorecard and sample root cause analysis comments

Examples of changes to the phone centre that was influenced by data include:

- Staffing up on Mondays or first day post stat holiday in anticipation of higher-than-normal call volumes.
- Improving on coverage plans for short- and long-term staff absences, such as backfill training requirements.
- Staggering lunches in anticipation of a spike in patient phone calls over noon.
- Changing triaging of "back line calls" (e.g., calls from SMH administration) to more appropriate designate.

PATIENT FEEDBACK

- On – hold wait times remain an issue even though patients have noted an improvement
- On-hold recordings of clinic information is a source of frustration
- More compliments to local registration staff was noted
- Change ideas, such as online appointment booking, for future consideration.

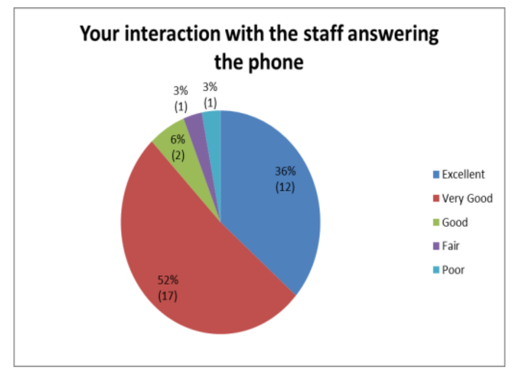


Fig. 7: Post-implementation phones survey

All feedback, such as customer service and triage challenges, are regularly relayed to the phone centre staff to continuously improve service. For example, patient feedback about staff not being personable when handling calls has led to customer service training.

LESSONS LEARNED

- Arriving at the appropriate staff-to-call volume ratio and schedule requires time and constant review of phone data.
- The staffing model of a phone centre must support short-term absences to ensure an adequate number of agents on hand to manage call volumes.
- Given the scope of this project the implementing plan requires widespread engagement and support of all stakeholders
- A designated site lead such as a project coordinator was a key enabler
- Phasing in each of the six sites was a more methodical approach to continuously improving processes and gathering feedback
- Standardization of processes (e.g., scheduling, handling phone triage, implementation of systems to support rapid turnaround of calls) was difficult but crucial in providing streamlined service to patients.

NEXT STEPS

- The SMH AFHT team continues to review data on a weekly basis and discuss further improvements
- Further refinements to the phone handling process maps, such as troubleshooting patients' complex clinical questions and directing to the appropriate individual, continue to progress.

ACKNOWLEDGEMENTS

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