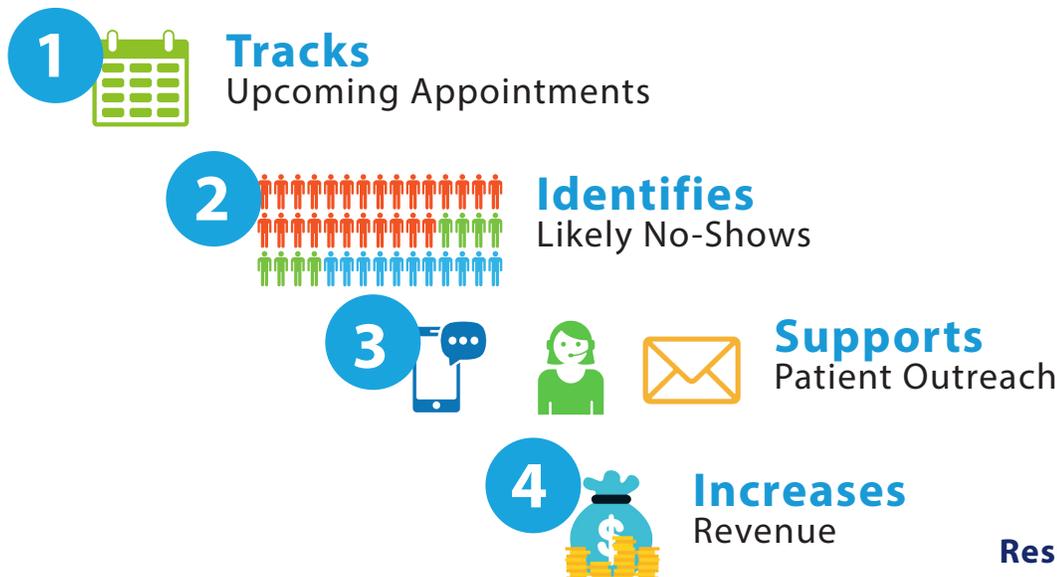


Improve outpatient clinics No-Show rate by identifying at-risk patients ahead of time

## How it works



**Results in 4-6 weeks**

\*Estimated based on ROI at MGH Primary Care pilot study  
High Risk of No-Show >15%. Calls to 20% of appointments

## Why us ?

### Pop Health IT Is What We Do:

TopCare™ originally developed by the Massachusetts General Hospital's Laboratory of Computer Science (MGH LCS) to support the ACO needs of Partners Healthcare and population-based clinical trials at MGH and Brigham and Women's Hospital (BWH). We have more than 12 years of population health research and development with proven success in ACO's and value-based care. Email us for our list of Peer-Reviewed publications.

### Future-Proof Your Pop Health Capabilities:

Research-driven tools enable us to remain at the frontier of population health technology. We develop many IT tools used by MGH and BWH, and translate our lessons learned into solutions for community health centers.



## What you get ?

- Off-the-shelf "actionable" No-Show Roster that predicts which patients are at-risk to not show up to their clinic appointments
- Ability to automatically pull data from your scheduling system
- Provider- and patient-facing interface to power your messaging or notification systems
- Ongoing 2nd-Tier support. Continuous version updates based on ongoing development

## Use Case

**Background:** We developed a predictive model to identify patients at high-risk of not showing up to an outpatient clinic appointment. The model was tested by implementing an outreach process targeting high-risk patients at 6 clinics affiliated to MGH (see Table 1).

**Method:** Clinic ancillary staff used the TopCare No-Show roster to identify high-risk patients. The patients contacted were assigned to the intervention group. Those not contacted were assigned to the control group.

**Results:** No-Show rates decreased in the intervention groups [compared to control arm] at all clinics. The magnitude of the decrease varied significantly depending on the length of the study and resources allocated to making phone calls (Table 1). ROI of this intervention is dependent on staff resources and cost, and on the opportunity cost if a patient misses an appointment. Analysis revealed the tipping point to a positive ROI starts with targeting an increase of >10 visits per week (see Table 2).

**Conclusion:** This intervention demonstrated a positive ROI approximately after 1 week of use targeting an increase of more than 10 visits per week. The exact ROI may vary depending on factors including staff wages, average visit revenue, efficiency of staff, and patient population characteristics.

**Table 1.** Comparing high-risk patients

Clinic Type	Arm	Total Patients	Appointment Period	No Show Observed
1. ADULT MED. CLINIC	Control	2,367	04/01/16 – 08/18/16	29.5%
	Intervention	212	04/12/16 – 08/19/16	16.5%
2. ALLERGY CLINIC	Control	1,346	03/01/16 – 08/19/16	15.6%
	Intervention	763	03/02/16 – 08/08/16	10.2%
3. DIABETES CLINIC	Control	412	07/15/16 – 08/19/16	18.9%
	Intervention	362	07/15/16 – 08/19/16	13.8%
4. INFECT. DIS. CLINIC	Control	150	03/01/16 – 08/16/16	30.7%
	Intervention	1,583	03/03/16 – 08/19/16	23.6%
5. WEIGHT CENTER	Control	1,750	03/01/16 – 08/18/16	15.9%
	Intervention	54	03/17/16 – 06/06/16	7.4%
6. PODIATRY CLINIC	Control	621	03/03/16 – 08/16/16	16.7%
	Intervention	15	03/24/16 – 03/25/16	6.7%

## ROI

**Table 2.** ROI projections

SCENARIO	Target Increase (Visits/Week)	#Calls needed (calls/wk)	Staff Time (hrs/wk)	Staff Wage (\$/hr)	Staff Wage (\$/week)	TopCare Cost (\$/week)	Average Clinic Revenue (\$/Visit)	Increased Revenue (\$/week)	Profit	ROI
A	5	60	2	\$25	\$50	\$250	\$50	\$150	(\$50)	NEG
B	10	120	4	\$25	\$100	\$250	\$50	\$500	\$150	0.43
C	20	240	8	\$25	\$200	\$250	\$50	\$1000	\$750	1.50
D	40	480	16	\$25	\$400	\$250	\$50	\$2000	\$1350	2.8
E	100	1200	40	\$25	\$600	\$250	\$50	\$5000	\$3750	3.00
F	200	2400	80	\$25	\$1200	\$250	\$50	\$10,000	\$7750	3.44

**Assumptions:** This was not a randomized controlled study (assumes the characteristics of patients contacted are similar to those not contacted). Assumes phone calls to approximately 12 high-risk for No-Show patients to result in one arrival. Each staff member is able to contact ~30 patients per hour using the TopCare roster. Staff wage calculated at \$25/hr.