Virtual Cancer Screening and Support Program: Effective Management of Positive Cancer Screen Results A Model for Improving Cancer Care Through Integrated Screening, Diagnosis, Treatment, and Survivorship Anjali D. Zimmer, Cynthia L. Neben, Kelly Tangney, Hannah Hoban, Hau-Ling Poon, Suzette Puente Pimentel, Rebecca Miksad, <u>Scott Topper</u> Color Health, Burlingame, CA

Introduction

Cancer care in the United States is often fragmented, with patients experiencing challenges in accessing timely and coordinated screening, diagnostic, and follow-up services. **Studies show that only as few as 20% of patients with abnormal cancer screening results receive appropriate follow-up care**, contributing to missed or delayed diagnoses and poorer outcomes.¹

Here, we describe our experience managing positive cancer screen results first identified in participants in an employer healthcare sponsored Virtual Cancer Clinic (VCC). The VCC is a fully-supported, virtual-first program that integrates personal and family cancer risk assessment, at-home biomarker testing, in-person screening, and medical and care navigation support, for patients nationwide. This study considers five common cancers with standard population-wide screening protocols (breast, colorectal, cervical, lung, and prostate).

Figure 1. Program process



Table 1. Participant demographics

Enrolled between 6/1/	All n (%)	Any Positive Screen		
То	5,724	56		
	Female	3,185 (55.6%)	27 (48.2%)	
Sex assigned at birth	Male	2,539 (44.4%)	29 (51.8%)	
	18-29	711 (12.4)	5 (8.9%)	
	30-39	1,644 (28.7%)	4 (7.1%) 24 (42.9%)	
	40-49	1,479 (25.8%)		
	50-59	1,293 (22.6%)	13 (23.2%)	
Age	60+	597 (10.4%)	10 (17.9%)	
	Asian	585 (10.2%)	3 (5.4%)	
	Black	309 (5.4%)	4 (7.1%)	
	Hispanic	679 (11.9%)	7 (8.9%)	
	Multiethnic	151 (2.6%)	2 (3.6%)	
	AI/AN	9 (0.2%)	0 (0.0%)	
	ΑΑΡΙ	8 (0.1%)	0 (0.0%)	
	Unknown		1 (1.8%)	
Race/Ethnicity (self-reported) White		3,440 (60.1%)	41 (73.2%)	

Figure 2. Case Study: 35 year old Latina woman in TX



Figure 3. Simplified Positive Result Follow-up Protocols



100% positive results released, with clear guidance, within 2 days



Figure 5. Nationwide reach



50 state medical group supports patients nationwide. In this study, patients were located in 49 states, the District of Columbia, and Puerto Rico, with the highest concentration in California and Pennsylvania.



of patients engaged in the recommended follow-up

Figure 4. Follow-up Results by Cancer and Screen

CANCER	TEST	RESULT	Total Screened	Positive Rate	Positve Results	complete as of 5/1/2025	Follow-up will complete before 6/30/2025	pursuing follow-up with PCP	% addressed in this time period
Cervical	HPV	Positive	265	7.2%	19	13	0	1	74%
Prostate	PSA	Elevated	268	6.0%	9 7	7	2	0	100% 86%
Coloractal	FIT	Positive	235	6.4%	15	5	2	4	73%
Colorectal	Colonoscopy	Abnormal	26	7.7%	2	0	1	0	50%
Breast	Mammogram	Positive	95	1.1%	1	1	0	0	100%
	MRI	Abnormal			1	1	0	0	100%
Lung	LDCT	Suspicious	19	10.5%	2	1	0	0	50%

Methods

- Participants were provided access to a Virtual Cancer Clinic through their employer-provided health benefits program. The service was provided by Color Health.
- Participants provided basic health and screening histories through an online questionnaire at enrollment. Patients were evaluated against standard screen guidelines as established by the American Cancer Society. Individuals due for screening were identified based on sex, age, and screening history. Patients were also interrogated for personal or family history that would indicate elevated risk for particular cancers, and in those cases risk adjusted screening protocols were applied.
- Biomarker testing was performed through at-home sample collection modalities where possible. These included testing of PSA levels in self-collected capillary blood for prostate cancer screening, fecal occult blood testing (FIT) for colorectal cancer screening, and testing for HPV in self-collected first void urine for cervical cancer screening. In-person screens for breast cancer included mammograms and breast MRIs, and for colorectal cancer included colonoscopies. Lung cancer screening was performed through low-dose CT scans.
- Test results were made available immediately through an online platform, and participant interaction with those results was closely monitored. Positive screen results immediately triggered an outreach and follow-up cascade that included re-engaging the participant, recommending and scheduling follow-up evaluations, and consultations with physicians to support education and informed decision making. Care advocates provided active support for scheduling follow up tests and appointments, and regular reminders were provided until specific goals were scheduled or actively declined.
- The following participants were included in this analysis: accessed the program through their employer-provider health benefits, enrolled in the program between 6/1/2024 and 1/31/2025, and had test results returned between 8/1/2024 and 3/31/2025.
- A detailed chart review was performed for all positive screen results and clearly documented events were coded against the aim-completion rubric.

Conclusions

The **true value of screening program is only realized with effective management of positive results**, but only if screening, result delivery, and follow-up care are seamlessly integrated, and positive results are actively managed with minimal burden on the patient.

Within this short time period, 5724 individuals were onboarded, screening care gaps were identified and closed in 947 (16.5%). 56 positive screen results were identified, all reviewed and released to patients, with clear guidance, within 48 hours. 79% of patients engaged in the protocol-recommended next step, . This is a dramatic improvement (3-4x) over published positive case management rates.

Of the 10 remaining participants with outstanding goals: 8 have been unresponsive to outreach attempts to date, although efforts continue; and 2 chose to not pursue follow-up due to cost of care / coverage.

This pilot study demonstrates that a fully integrated, virtual-first model can be highly effective for maximizing the value of a screening program through the effective management of positive results.

Questions? Scott Topper: scott@color.com

References

1. Atlass SJ et. al. A Multilevel Primary Care Intervention to Improve Follow-Up of Overdue Abnormal Cancer Screening Test Results. JAMA. 2023;330(14):1348-1358.