

# SANFORD HEALTH INVESTS IN COLORECTAL CANCER SCREENING INFRASTRUCTURE TO IMPROVE ACCESS

## SUMMARY

Sanford Health, the largest rural health system in the U.S. and headquartered in Sioux Falls, SD, sought to create a leading colorectal cancer (CRC) screening program but missed more than 40,000 patients annually from 2018-2022, while advanced and late-stage cancer diagnoses rose by 4% during the same timeframe. Planning for a comprehensive quality improvement initiative was launched in 2023 using evidence-based practices and novel interventions, including gastroenterologists (GI) training primary care (PC) teams, sending letters and kits to 39,000 average-risk patients in the first year, and creating a novel CRC risk prediction model with 75 variables beyond traditional risk factors.

## CHALLENGE

CRC is a leading cause of cancer-related deaths in the U.S. While a colonoscopy is the gold standard for CRC screening, access has been limited due to national gastroenterologist shortages, increased prevalence of gastro disorders, and a lower screening age. Additionally, PC teams were hesitant to order stool-based tests (SBTs) without endorsement from their trusted GI colleagues.

In 2023, Sanford, with a 99.7% rural footprint, performed an average of 3,000 colonoscopies per month. An *additional 5,021 colonoscopies* per month were needed to reach programmatic goals if PC continued current prescribing patterns. In one city alone, colonoscopies were scheduled 18 months out.

Internal data revealed 35,000 patients with a Sanford PCP had never been screened and more than 3,000 patients were due for SBT rescreen, indicating the health system needed infrastructure to stratify patients by risk and then screen accordingly based on regional resources.

## ACTION TAKEN

To build trust in SBTs, provide guidance and enhance best practice adherence, Sanford GIs offered continuing medical education credits to PC teams in March during CRC awareness month.

A mass outreach project to 42,000 overdue patients with a Sanford PCP and no traditional risk factors as identified by the risk model (nearly half residing in the SD market), started with a focus on 1,232 patients who had been waiting over a year for a screening colonoscopy. Patients first received a message followed by a mailed SBT. (Of these patients, 41.2% received a result.) Additionally, nearly 3,000 external results were reconciled to save PC teams' time.

The prospective results of all outreach returns are used to further validate the CRC risk model for future patient stratification and additional PC insights.

## RESULTS

PC training, focused largely on SBTs by internal GIs, received exceptional feedback scores.

By mid-December 2024, 39,000 primer messages were sent, yielding 6,203 viable samples with a 16.8% return rate of mailed kits thus far. Five patients have been diagnosed with cancer, 13 patients with dysplasia identified, and 192 patients' precancerous polyps were removed.

Sanford culled 441 patients from the long colonoscopy queue, reducing wait times by over two months. Additional steps have further decreased delays.

The AI-based prediction model incorporates nontraditional variables, including employment status and psychiatric conditions - factors not previously explored in existing models. This work was presented in Washington, D.C. in May for Digestive Disease Week and published in Gastroenterology (AGA) the same month.

Sanford's November 2024 screening rate of 71.7% exceeds performance a year ago by 6.1% (2023 denominator = 322,062). SD market's rate increased 5.6% from the prior November to 71.7%.

## TESTIMONIAL

*"People in rural areas often face limited access to healthcare, resulting in later-stage cancer diagnoses. Sanford Health is committed to bringing care closer to patients. Innovative initiatives like this ensure all patients can access potentially life-saving screening, no matter where they live."*

*Jeremy Cauwels, MD  
Senior Vice President, Chief Medical Officer  
Sanford Health*

## SUSTAINING/REPLICATING SUCCESS

GI will repeat training to PC teams in 2025. Sanford will continue SBT outreach annually, expanding to patients who do not seek PC within Sanford. The health system will refine processes based on data analysis and patient experience surveys. Replicable/scalable workflows and resources were drafted and can be shared externally, upon request. Preliminary data about patients already scheduled for a colonoscopy was shared with the National CRC Roundtable and at the 2024 ND CRC Roundtable annual meeting. Sanford will also present at the SD CRC Coalition Learning Collaborative in December. SD CRCCP continues to support some of the most rural and least resourced clinics. Gastroenterology fellows and the data analytics department may submit abstracts about the risk model as prospective colonoscopy results and cancer diagnosis further validate and strengthen the logic.

**Jennifer Weiss, Senior Quality Strategist**

Jennifer.Weiss@SanfordHealth.org

(605) 312-6427

