



## CareCalls pilot results:

- **55% Return on Investment**
- **82% Workforce Productivity Gain**
- **27% Opportunity Cost Saving**

## Background

Each year, more than **900,000 colonoscopies** are performed in Australia to detect and remove pre-cancerous lesions, helping to reduce colorectal cancer morbidity and mortality. The success of these procedures depends heavily on **patient attendance and bowel preparation quality**.

However, around **10% of colonoscopy appointments are missed**, and **15–33%** are conducted with suboptimal bowel preparation, reducing diagnostic accuracy and efficiency.

In 2023–2024, **Western Sydney Local Health District (WSLHD)** performed over **7,900 colonoscopies**, achieving an average bowel preparation adequacy of **93.3%**, but with variation across sites (89.7–94.9%).

**Supporting patients to prepare for colonoscopy with voice AI-enabled phone calls.**

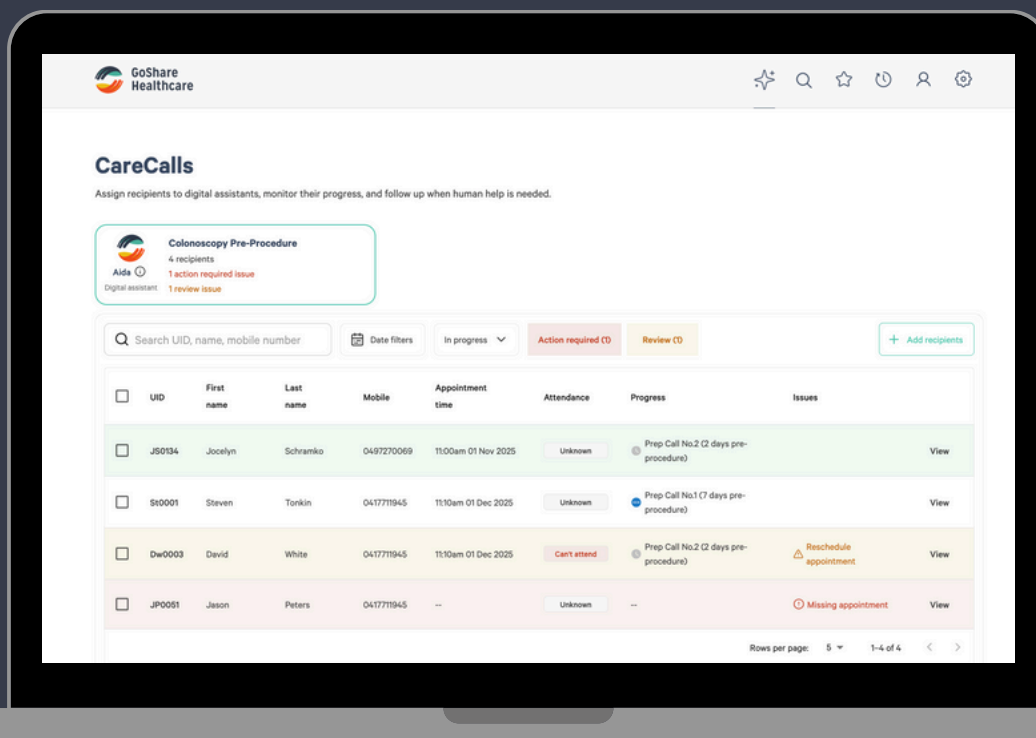
Inadequate preparation and no-shows lead to incomplete or repeated procedures, longer operating times, and increased system costs, estimated to raise direct costs by 12–22% per colonoscopy. With each procedure costing around **\$2000**, the financial and operational impact nationally is substantial, representing millions in avoidable expenditure annually.

**Westmead FOBT Clinic (WSLHD)** partnered with **Healthily** to pilot **CareCalls**, to assess the economic impact and feasibility of voice AI calls for colonoscopy preparation.

## Objectives

**The pilot objectives were to assess:**

- Cost-effectiveness of implementing Care Calls for colonoscopy pre-procedure preparation.
- Patient satisfaction and outcomes to gauge the feasibility and acceptability of CareCalls.
- Impact on healthcare staff administrative workload



## Protocol:

- 20 patients scheduled for colonoscopy were recruited to the pilot, and randomly allocated to receive nurse-led calls or Voice AI calls, 7-days and 2-days prior to their procedure.
- Calls were timed around key preparation milestones (diet changes, fasting, preparation, transport planning).
- Patients in both groups could confirm attendance, ask questions and call the AI assistant or nurses back if required.
- Nurse administration time, engagement data, feedback, bowel prep quality and attendance outcomes were recorded for both groups.

## Results:

### 27% Opportunity Cost Saving:

This enables nurse time to be redirected to higher-value clinical tasks as CareCalls is scaled.

### 55% Return on Investment:

For every \$1 invested, WSLHD will achieve a \$1.55 return.

### 82% Workforce Productivity Gain:

Nurse time spent per patient equated to 4.3 patients per hour for the Voice AI group compared with 2.3 patients per hour for the nurse-led group.

### Patient Satisfaction:

Patients rated their experience of CareCalls 4.1/5.

This study received ethical approval from WSLHD HREC on 3 September 2025: Reference number 2025/ETH01155

## Economic Benefits

- 82% workforce productivity gain
- Nurse time freed is equivalent to .77 FTE (40.2 weeks per 7,900 patients).
- 55% Return on Investment (ROI)
- 27% opportunity cost saving
- 45% of nurse time saved

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