

# Digital nudging for adherence to colonoscopy screening: a study based on the MINDSPACE framework

<b>Submission date</b> 15/01/2026	<b>Recruitment status</b> Not yet recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
<b>Registration date</b> 04/02/2026	<b>Overall study status</b> Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
<b>Last Edited</b> 19/01/2026	<b>Condition category</b> Cancer	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

**Plain English summary of protocol**  
Not provided at time of registration

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## **Additional identifiers**

## **Study information**

### **Scientific Title**

Design and effectiveness evaluation of a digital nudging tool for improving colorectal cancer screening adherence among community residents: a case study of Shanghai, China

### **Study objectives**

### **Ethics approval required**

Ethics approval required

### **Ethics approval(s)**

approved 13/01/2026, Ethics Committee of the School of Public Health (Fudan University, Shanghai, 200032, China; +86 (0)21 5423 7148; gwkyb@fudan.edu.cn), ref: H2026009

### **Primary study design**

Interventional

### **Allocation**

Randomized controlled trial

### **Masking**

Blinded (masking used)

### **Control**

Placebo

### **Assignment**

Cluster

### **Purpose**

Diagnostic, Health services research

### **Study type(s)**

### **Health condition(s) or problem(s) studied**

Colorectal cancer

### **Interventions**

Study sites were randomly assigned to either a digital decision aid intervention group or a usual care control group. The intervention consisted of two components:

1. Training for Healthcare Providers: Medical staff in the intervention group received a 4–5 hour training session on using the decision aid and related clinician-patient communication skills prior to implementation.

2. Digital Decision Aid Implementation: The digital tool was used during outpatient colorectal cancer screening consultations to support the pre-colonoscopy decision-making process. Its primary content involved educating residents about colorectal cancer and colonoscopy screening.

## **Intervention Type**

Behavioural

## **Primary outcome(s)**

1. Decision whether to undergo colonoscopy screening measured using telephone follow-up survey at 3 months post-intervention

## **Key secondary outcome(s)**

1. Residents' knowledge and cognitive level, using a question-and-answer scale designed by the research team at baseline, immediately post-intervention, and 3 months post-intervention. Residents need to judge whether 10 descriptions about colorectal cancer and cancer screening diagnosis are correct, and their knowledge level will be determined based on the accuracy rate.
2. Decision conflict level, measured using the Chinese version of the Decisional Conflict Scale at baseline, immediately post-intervention, and 3 months post-intervention
3. Decision self-confidence, measured using the Chinese version of the Decision Self-Efficacy scale at baseline, immediately post-intervention, and 3 months post-intervention
4. Decision regret degree, measured using the Chinese version of the Decision Regret Scale at at 3 months post-intervention
5. Residents' satisfaction with the intervention tools, measured using the Chinese version of the Decision Preparation scale at 3 months post-intervention
6. Diagnostic preference, measured using a self-designed scale at baseline, immediately post-intervention, and 3 months post-intervention
7. Residents' expectations regarding shared decision-making measured using the Chinese version of the shared decision-making scale 9-item Shared Decision Making Questionnaire (SDM-Q-9) at baseline and 3 months post-intervention

## **Completion date**

31/12/2026

# **Eligibility**

## **Key inclusion criteria**

1. Permanent residents of Shanghai (including individuals with local household registration and non-local residents who have lived in Shanghai for over 6 months).
2. Individuals eligible according to the Shanghai Community Colorectal Cancer Screening Implementation Plan.
3. Individuals enrolled in any of Shanghai's basic medical insurance or healthcare security schemes.

## **Healthy volunteers allowed**

Yes

## **Age group**

Mixed

## **Lower age limit**

50 years

**Upper age limit**

100 years

**Sex**

All

**Total final enrolment**

0

**Key exclusion criteria**

1. Individuals who have previously undergone colonoscopy and were confirmed to be at no risk for colorectal cancer.
2. Individuals whose health status is unsuitable for colonoscopy.
3. Individuals with cognitive impairment that prevents participation in follow-up and questionnaire surveys.
4. Individuals with a confirmed diagnosis of colorectal cancer.
5. Individuals with a confirmed diagnosis of other high-risk diseases where the mortality risk is too high for them to be suitable for colonoscopy screening.

**Date of first enrolment**

01/03/2026

**Date of final enrolment**

31/08/2026

## **Locations**

**Countries of recruitment**

China

## **Sponsor information**

**Organisation**

National Health Commission of the People's Republic of China

## **Funder(s)**

**Funder type**

**Funder Name**

National Health Commission of the People's Republic of China

**Alternative Name(s)**

National Health Commission of the PRC, National Health Commission, , , , NHC

**Funding Body Type**

Government organisation

**Funding Body Subtype**

National government

**Location**

China

## **Results and Publications**

**Individual participant data (IPD) sharing plan**

**IPD sharing plan summary**

Not expected to be made available