

PopSim Effectiveness and Cost Estimates by Intervention

MAILED FIT

Intervention Effectiveness:

Intervention	Relative Risk	Lower Bound	Upper Bound	Population, Setting and Study Information for Data Sources	Sources
<p>Mailed FIT: Patients receive a notification mailed to their house to alert them that they are due for CRC screening and will be receiving a fecal immunochemical test (FIT) kit in the mail that they can complete at home and return to the clinic via mail (or they can contact the clinic to schedule a colonoscopy). Shortly after, patients receive a package by mail that includes: a low literacy information sheet about CRC and why screening is important, a FIT, directions for how to complete the FIT, and a pre-addressed envelope with a stamp to return the FIT for processing. Patients also receive up to two automated phone calls to remind them to complete the FIT if they have not yet mailed it back.</p>	2.17	2.10	2.25	<p>Jean-Jacques et al., 2012:</p> <ul style="list-style-type: none"> • <u>Population:</u> 202 patients aged 50-80 and due for CRC screening; 62% female; 27% White, 27% Black, 20% Hispanic; 68% uninsured; 39% English-speaking, 18% Spanish-speaking, 42% prefer a language other than English or Spanish • <u>Setting:</u> Federally qualified health center in Chicago, IL • <u>Study period:</u> July 2008-December 2009 • <u>Study type:</u> Randomized controlled trial at the patient level comparing a mailed fecal occult blood test (FOBT) intervention (included letter from provider, fact sheet, FOBT kit and instructions, and telephone outreach if the kit was not returned) vs. usual care <p>Dougherty et al., 2018:</p> <ul style="list-style-type: none"> • <u>Study type:</u> Systematic review and meta-analysis of randomized controlled trials of interventions to increase CRC screening in average-risk populations and conducted in U.S. clinical settings • <u>Number of studies:</u> 73 total studies, of which 13 studies included mailed fecal test outreach and had a low risk of bias • <u>Effectiveness:</u> Relative risk compared to usual care was 2.26 (95% CI: 1.81-2.81) 	Dougherty et al., 2018; Jean-Jacques et al., 2012

Intervention Implementation Cost:

Intervention components	Cost per patient	Lower Bound	Upper Bound	Setting and Population Where Costs Were Collected	Sources
FIT kit, excluding the cost of processing a completed FIT kit	\$3.27	-	-	<p>Smith et al., 2019:</p> <ul style="list-style-type: none"> ● <u>Setting:</u> Health maintenance organization (Kaiser Permanente Northwest) in southern Washington and northern Oregon ● <u>Population:</u> 3,081 patients aged 50-75, average-risk for CRC screening, and had requested a FIT kit be mailed to them at the end of an automated patient reminder call. Patients were randomized to receive a one-sample FIT kit vs. a two-sample FIT kit in a prior randomized controlled trial (Mosen et al., 2014) ● <u>Notes:</u> Cost of FIT kit was obtained through internal communication with the study team from the trial (Mosen et al., 2014). Estimate for the one-sample FIT kit is included here 	Smith et al., 2019; Mosen et al., 2014
Mailing costs: postage, stamps, envelopes, paper, and materials (letter from provider, fact sheet, instructions for FIT use)	\$1.35	-	-	<p>Smith et al., 2019:</p> <ul style="list-style-type: none"> ● <u>Setting:</u> Health maintenance organization (Kaiser Permanente Northwest) in southern Washington and northern Oregon ● <u>Population:</u> 3,081 patients aged 50-75, average-risk for CRC screening, and had requested a FIT kit be mailed to them at the end of an automated patient reminder call. Patients were randomized to receive a one-sample FIT kit vs. a two-sample FIT kit in a prior randomized controlled trial (Mosen et al., 2014) ● <u>Notes:</u> Cost of FIT kit mailing was obtained through internal communication with the study team from the trial (Mosen et al., 2014). This cost includes the initial mailing and the return mailing 	Smith et al., 2019; Mosen et al., 2014
Project management staff to fill envelopes, manage the project, etc.	\$0.50	-	-	<p>Smith et al., 2012:</p> <ul style="list-style-type: none"> ● <u>Setting:</u> Health maintenance organization (Kaiser Permanente Northwest) in southern Washington and northern Oregon ● <u>Population:</u> 5,905 patients aged 51-80, average-risk, due for CRC screening, and who were randomized to 	Smith et al., 2012

				<p>automated telephone outreach (included up to 3 one-minute automated phone calls) vs. usual care in a prior randomized controlled trial (Mosen et al., 2010)</p> <ul style="list-style-type: none"> ● <u>Notes:</u> Staff costs were estimated using the clinical trial records and time estimates from study staff. Salary costs were assigned using wage estimates from the Bureau of Labor Statistics to increase generalizability. A fringe benefit rate of 30% and overhead rate of 20% were assumed 	
<p>Technical staff to manage automatic calls, maintain the electronic health records, track patients, etc.</p>	\$0.79	-	-	<p>Smith et al., 2012:</p> <ul style="list-style-type: none"> ● <u>Setting:</u> Health maintenance organization (Kaiser Permanente Northwest) in southern Washington and northern Oregon ● <u>Population:</u> 5,905 patients aged 51-80, average-risk, due for CRC screening, and who were randomized to automated telephone outreach (included up to 3 one-minute automated phone calls) vs. usual care in a prior randomized controlled trial (Mosen et al., 2010) ● <u>Notes:</u> Staff costs were estimated using the clinical trial records and time estimates from study staff. Salary costs were assigned using wage estimates from the Bureau of Labor Statistics to increase generalizability. A fringe benefit rate of 30% and overhead rate of 20% were assumed 	Smith et al., 2012
<p>Automated phone reminder to complete FIT, including the cost of developing the automated message</p>	\$0.64	-	-	<p>Smith et al., 2012:</p> <ul style="list-style-type: none"> ● <u>Setting:</u> Health maintenance organization (Kaiser Permanente Northwest) in southern Washington and northern Oregon ● <u>Population:</u> 5,905 patients aged 51-80, average-risk, due for CRC screening, and who were randomized to automated telephone outreach (included up to 3 one-minute automated phone calls) vs. usual care in a prior randomized controlled trial (Mosen et al., 2010) ● <u>Notes:</u> Cost estimate is based on pricing from the in-house vendor of phone messaging services 	Smith et al., 2012
Total cost per patient:	\$6.55				

References

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