



# Success of Mailed FIT in the United States

WEO FIT for Screening Expert Working Group  
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# Context

- Most screening in the US is opportunistic, relying on primary care visits to offer screening
  - Does not optimize screening rates
    - Relies on clinic visit
    - Often only colonoscopy is offered
- Mailed gFOBT and FIT have been studied and implemented to complement usual primary care, and optimize screening rates



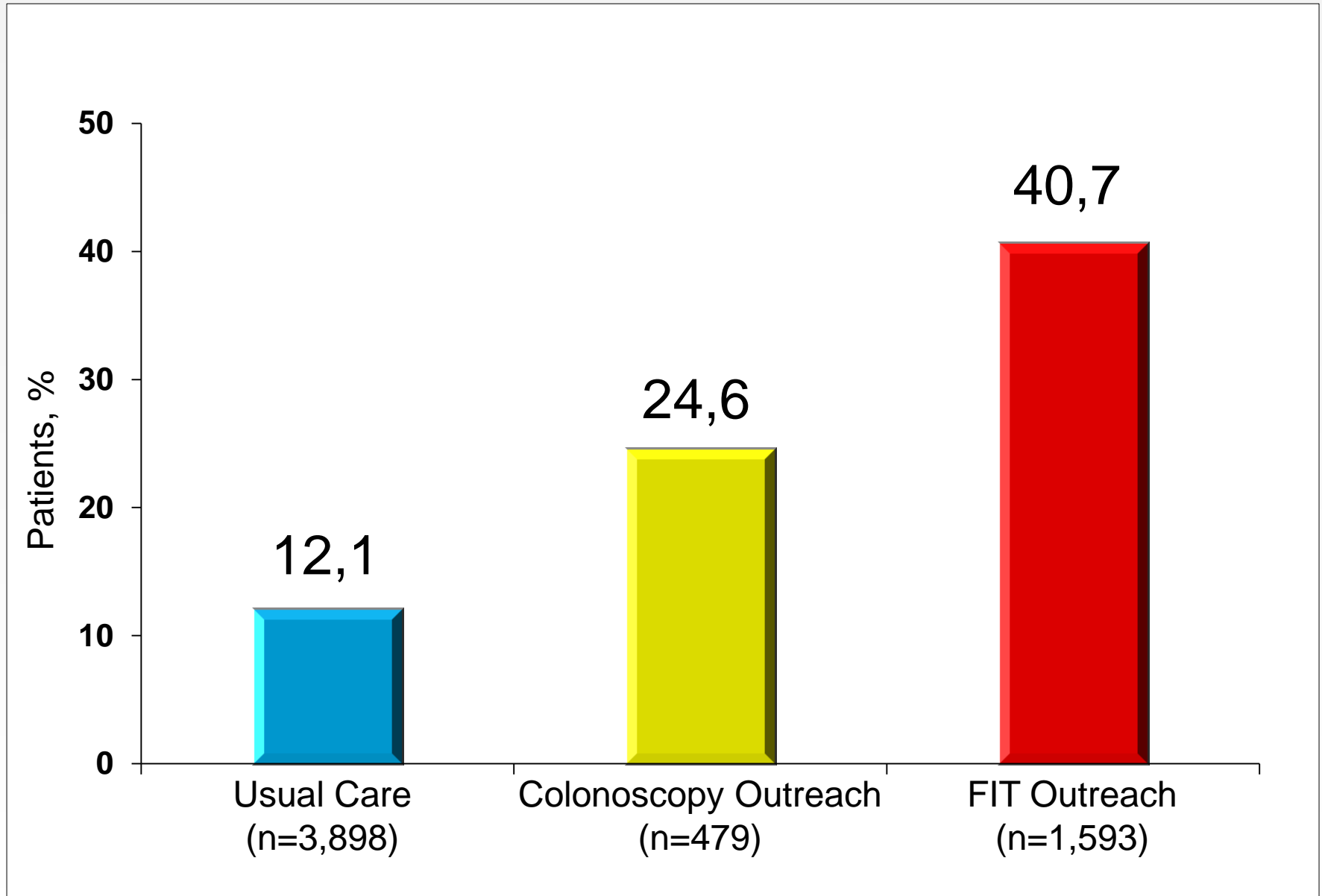
# Example randomized controlled trial

- Setting: Fort Worth, Texas
- Included patients 50 to 64, not up-to-date
  - Mean age 59, 60-65% Female, 23-27% Black, 25-29% Hispanic
  - Uninsured
- Interventions:
  - Usual care (n=3,898)
  - Mailed colonoscopy outreach (479)
  - Mailed FIT outreach (n=1,593)
    - FIT and colonoscopy outreach included telephone reminders, and processes to promote screening completion and follow up for responders
- Primary Outcome: any screening completion within 1 year

Gupta S, Halm EA, Rockey DC, Hammons M, Koch M, Carter E, Valdez L, Tong L, Ahn C, Kashner M, Argenbright K, Tiro J, Geng Z, Pruitt S, Skinner CS. JAMA Intern Med. 2013 Oct 14;173(18):1725-32.



# Results: Screening Completion



$p < 0.0001$  for all comparisons

Gupta S JAMA Intern Med. 2013 Oct 14;173(18):1725-32.



# Mailed FIT gives consistent results

- Similar study performed in Dallas Safety Net
  - Absolute increase over usual care associated with FIT outreach identical: 29%

**Singal AG, Gupta S, Tiro JA, Skinner CS, McCallister K, Sanders JM, Bishop WP, Agrawal D, Mayorga CA, Ahn C, Loewen AC, Santini NO, Halm EA.** Cancer. 2016 Feb 1;122(3):456-63.

- Meta-analysis of RCTs implementing mailed gFOBT or FIT outreach done last year
  - Included papers with usual care opportunistic screening in control arm

Marquez E, Singh S, Gupta S. Gastroenterology, Vol. 150, Issue 4, S450; DDW 2016



# Meta-Analysis of gFOBT or FIT outreach vs. usual care (n=11 studies)



# Examples of implementation are expanding

- Kaiser Permanente Northern California
  - Levin TR Gastrointest Endosc. 2016 Mar;83(3):552-4.
  - Over 500,000 FITs mailed annually, with >60% returned
  - Major contributor to achieving screening rate over 85%
- 3-year roll out of mailed FIT in Forth Worth
  - 25,184 kits mailed, 9,748 completed
  - 12 cancers, 364 with  $\geq 1$  adenoma removed



# Achilles heels

- Repeat FIT
  - Not much data in US
  - Kaiser reported 75 to 85% FIT participation over 4 rounds Jensen CD Ann Intern Med. 2016 Apr 5;164(7):456-63.
  - Need data from safety-net populations
- Colonoscopy after abnormal FIT
  - In Fort Worth program, just 53% (642/1202) with abnormal FIT completed colonoscopy
  - But completion as high as 78% in Kaiser program





# Summary

- Compelling evidence that mailed FIT improves CRC screening compared to usual care in the US
  - Might be the most consistent and powerful of all RCT strategies studied
  - Number needed to mail to achieve screening as low as 3
- Needs:
  - Widespread implementation
    - Resources/\$\$\$
  - Research and interventions to address repeat testing and abnormal FIT follow up



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