



Cancer Care Ontario

# Colorectal Cancer: Why Prevent It?

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# Vancouver 1946

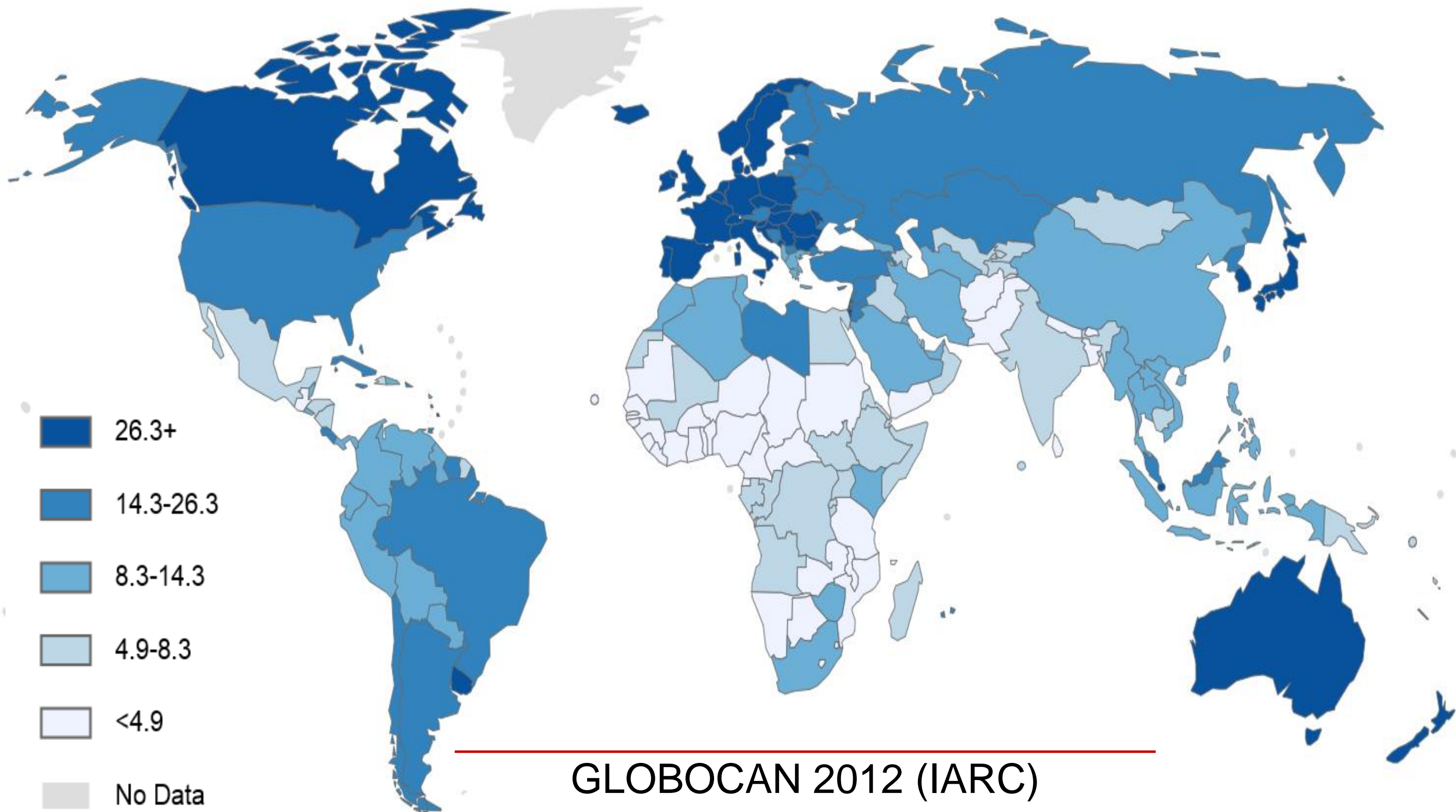
# Outline

- Epidemiology
- Evidence for screening
- Impact of screening programs

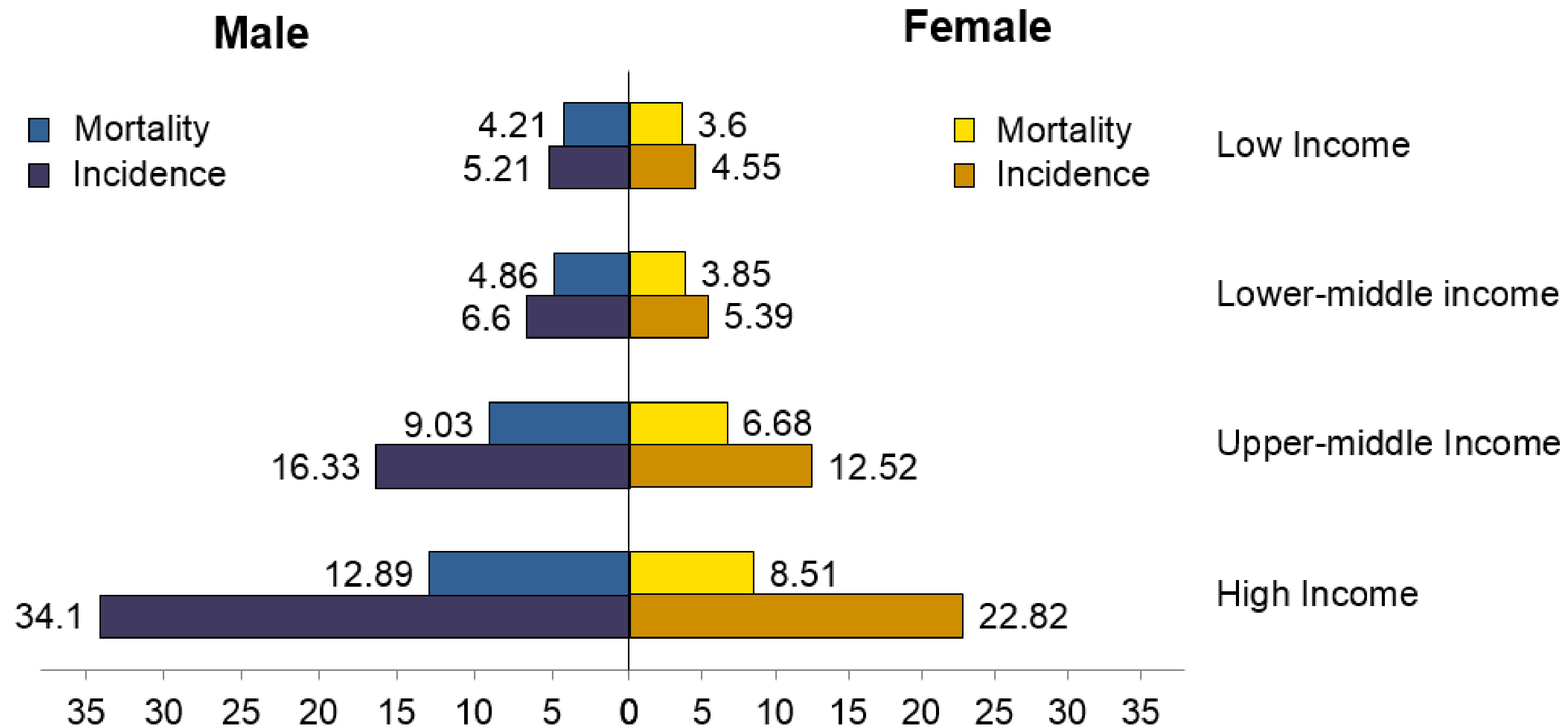
# Global Public Health Issue

- 1.36 M new cases
  - 55% in developed regions
- 694,000 deaths

# Colorectal Cancer Incidence: World (both sexes, per 100,000)



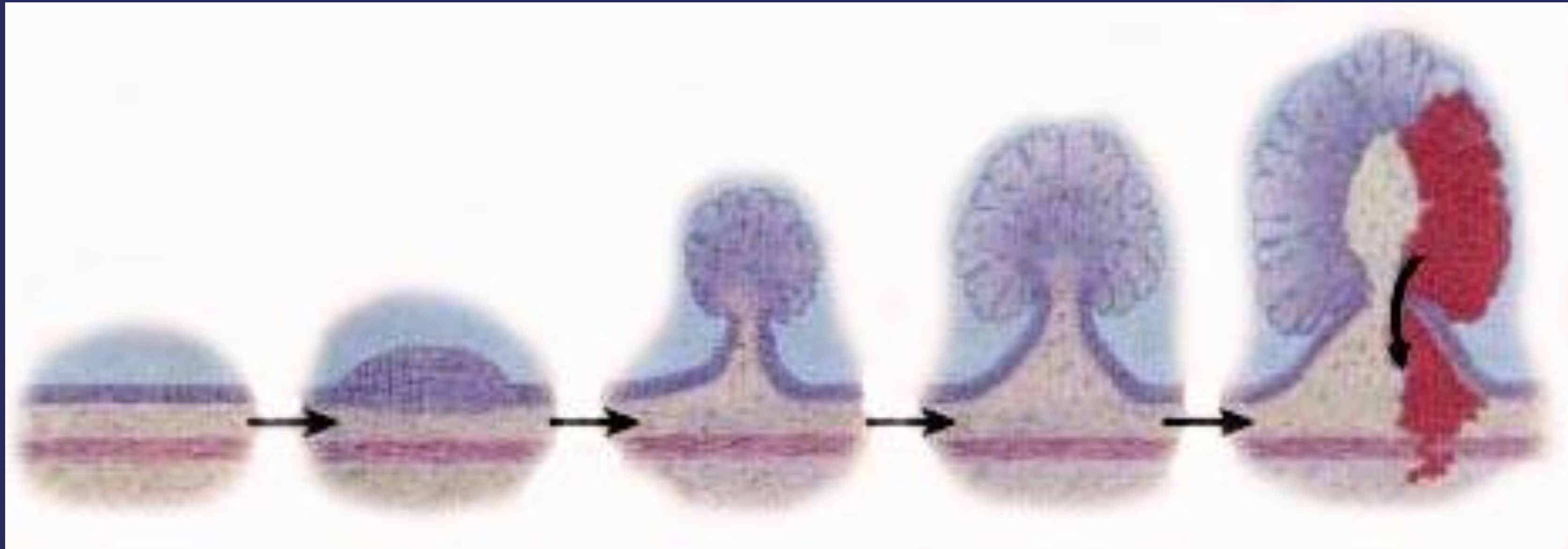
# Age-Standardized CRC Incidence and Mortality Rates (per 100,000)



Rabeneck L et al. DCP-3. 2015;Vol 6:101-19.

# Evidence for Screening

# Adenoma-Carcinoma Sequence





# CRC Screening Tests

- Past 20 yrs - evidence to support CRC screening:
  - Fecal occult blood test ✓ ✓ ✓
  - Sigmoidoscopy ✓ ✓ ✓
  - Colonoscopy ✓ ✓

# Fecal Occult Blood Test (gFOBT)

- In randomized controlled trials, biennial gFOBT reduces CRC mortality 15%

# Moving from gFOBT to FIT



gFOBT



FIT

# gFOBT vs. FIT (N=10,993)

	<b>gFOBT</b>	<b>FIT</b>
Uptake (%)	47	60
FIT+ (%)	2.4	5.5
CRC and Adv Adenoma (%)	0.6	1.4

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Van Rossum LG et al. Gastroenterology 2008;135:82-90.

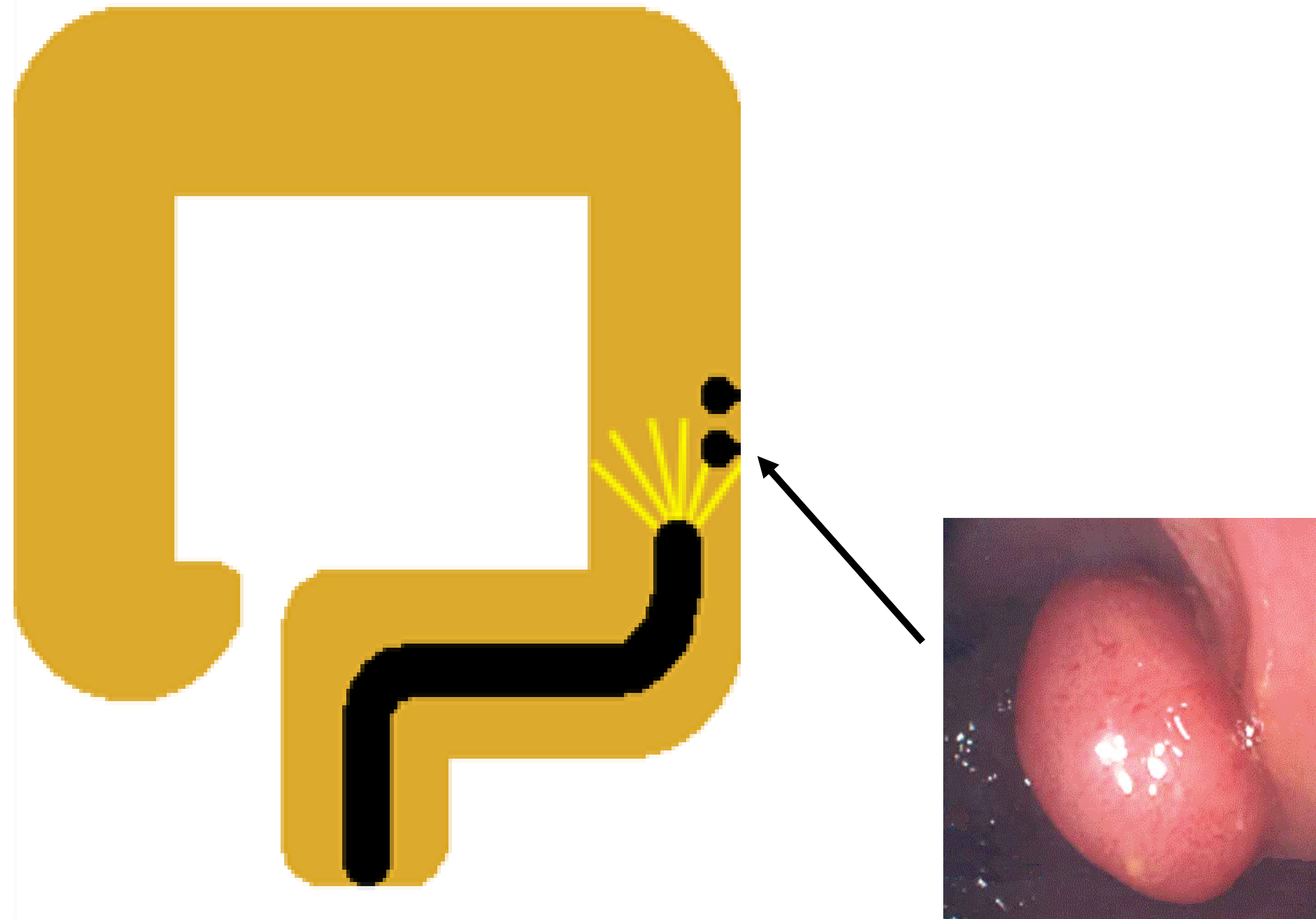
# Colonoscopy vs. FIT (N=53,302)

	<b>Col'y</b>	<b>FIT</b>	<b>OR</b>
Uptake (%)	25	34	0.63*
Adv Adenoma (%)	1.9	0.9	2.30*
CRC (%)	0.1	0.1	0.99

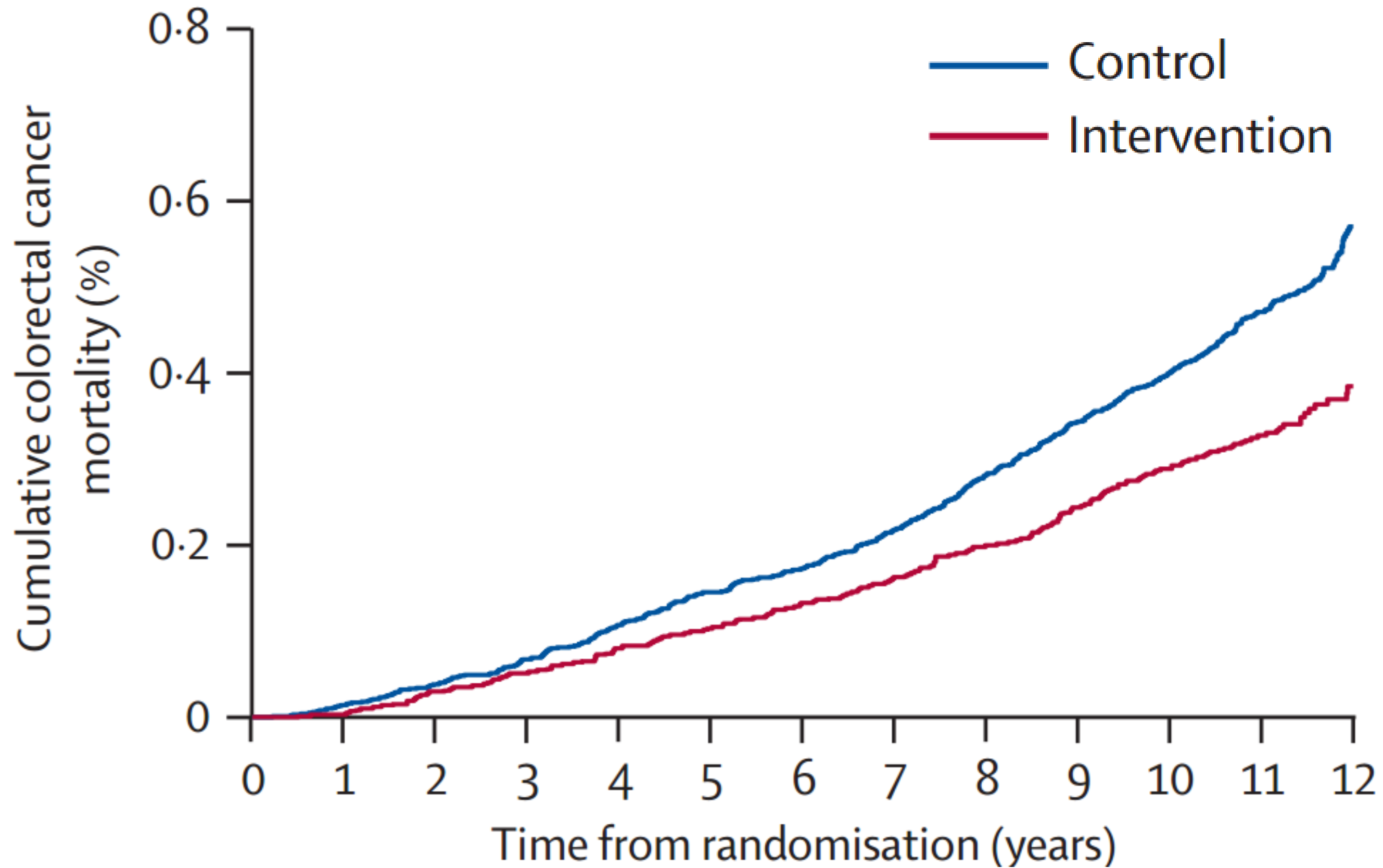
# Characteristics of FIT

- Single test
- Higher participation rate
- Quantitative/automated
- Select cut off to define FIT+
- Higher positivity rate
- Better neoplasia detection

# Flexible Sigmoidoscopy (FS)



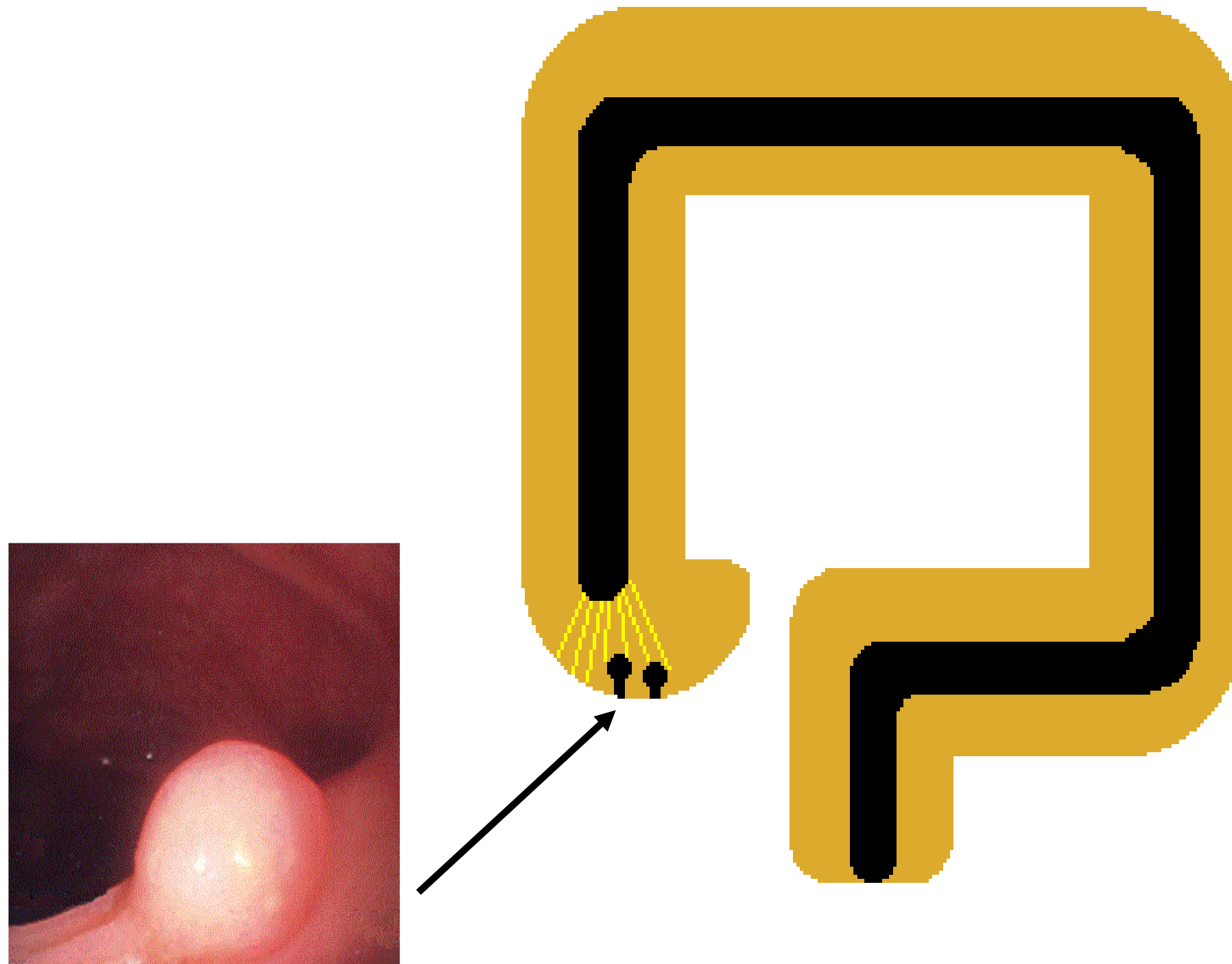
# UK FS Trial: CRC Mortality



Atkin WS et al. Lancet 2010;375:1624-33.



# Colonoscopy



# Quality Indicators: Adenoma Detection Rate

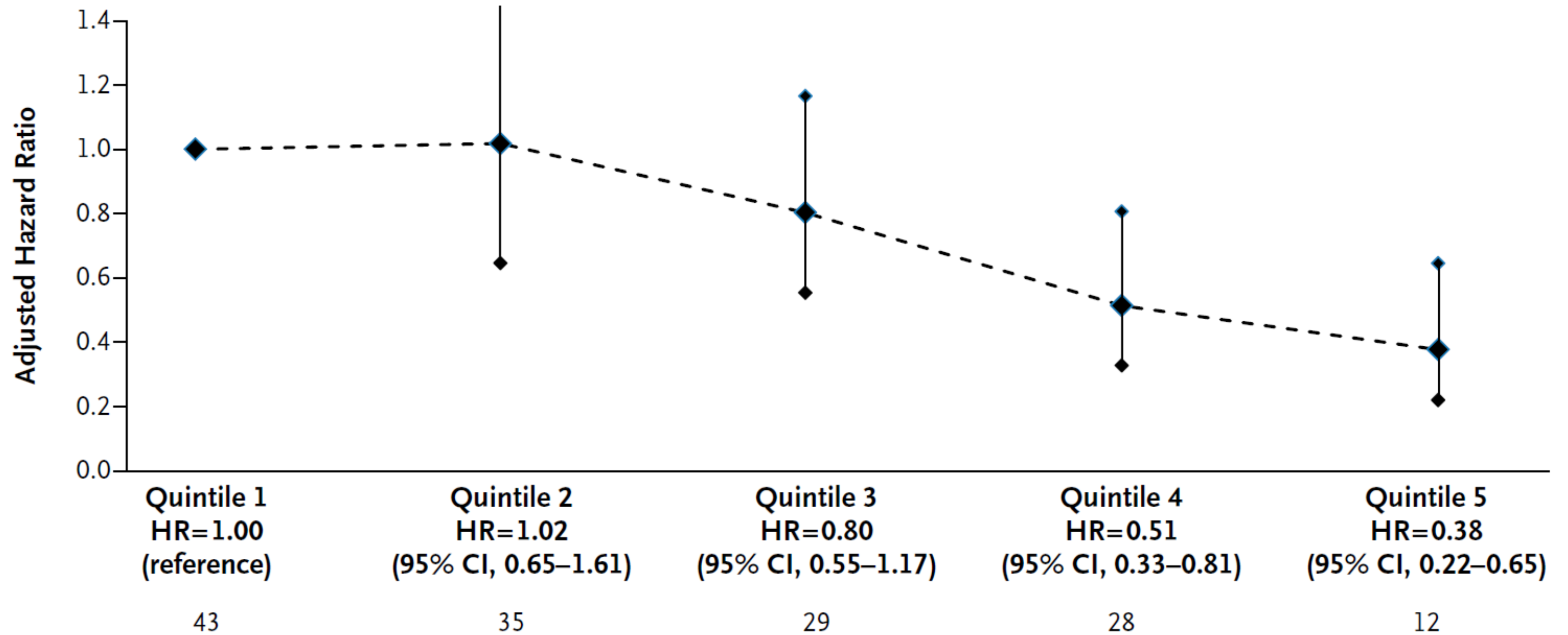
- 314,872 colonoscopies
- 136 GI endoscopists
- 712 new/missed cancers
- ADR quintiles (median: 17–39%)

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Corley DA et al. NEJM 2014;370:1298-306.

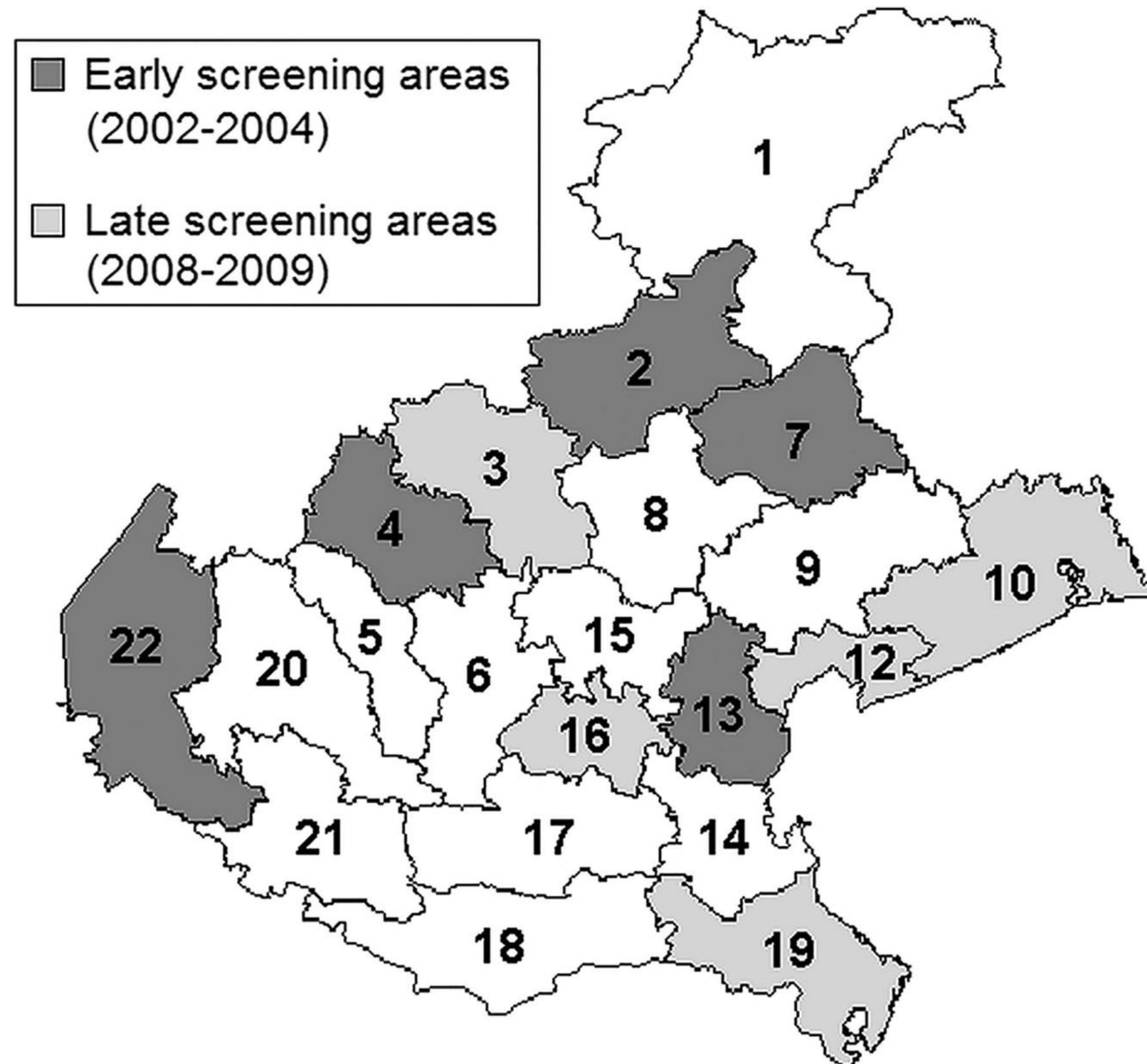
# Adenoma Detection Rate and Risk of Fatal CRC

C Risk of Fatal CRC

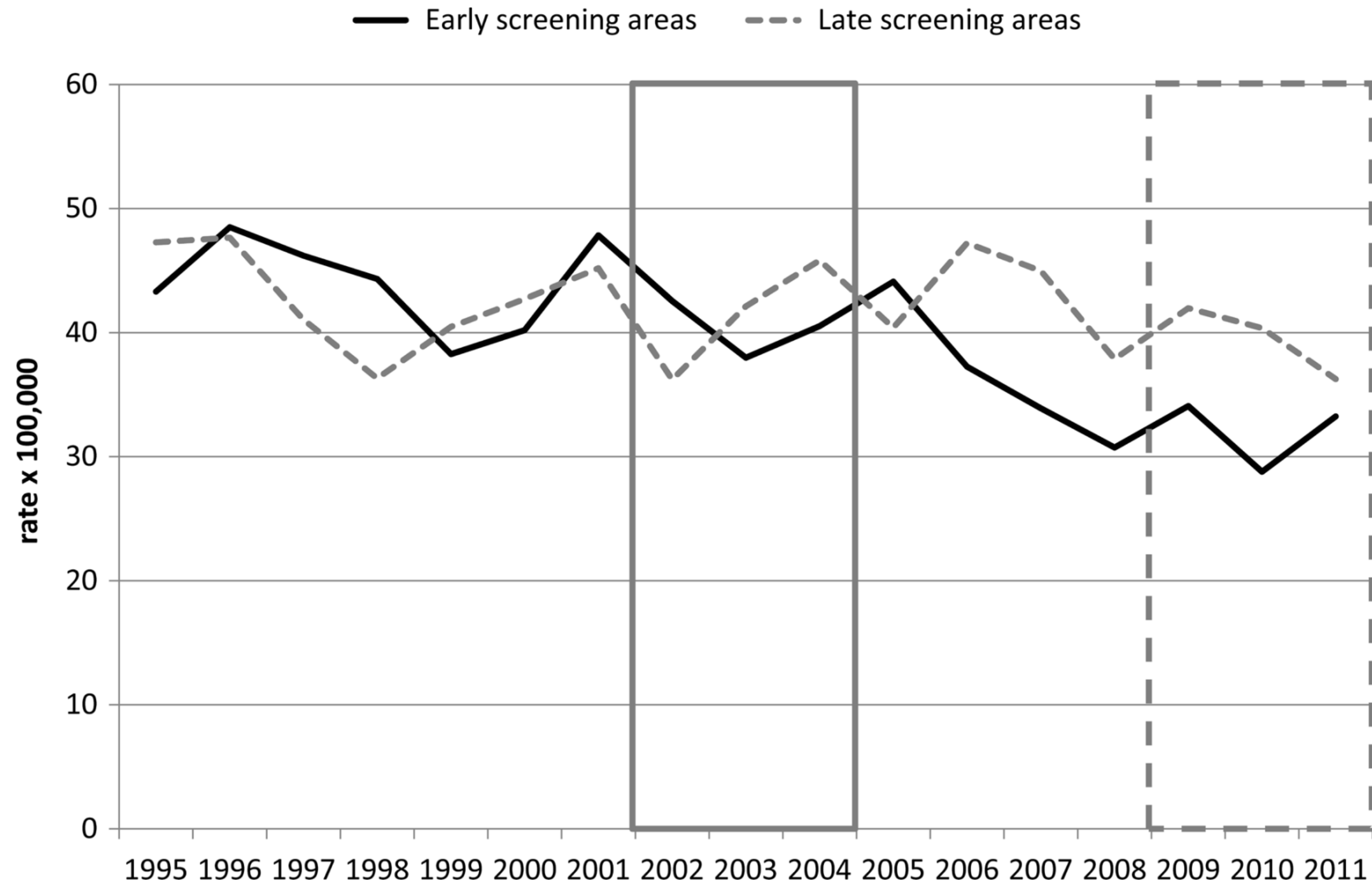


# Impact of Screening Programs

# FIT Cohort Study: Veneto



# FIT in Veneto: CRC Mortality Rate



# Summary

- Global public health issue
- Evidence for screening
- Impact of screening programs



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