

# Comparison of surveillance in low risk adenomas: Colonoscopy vs. FIT

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# Possible conflicts of interest

- No conflicts of interest



# COLORECTAL CANCER SCREENING IN THE BASQUE COUNTRY

- Population based since 2009. Coverage 100% in 2014
- 50-69 years (632,700 residents)
- FIT: 1 sample biennially - 20 $\mu$ g Hb/gr faeces (cut-off)
- Colonoscopy under sedation in positive cases

<b>BCSP Main Indicators 2009-2016</b>	<b>Invited 1,422,604</b>
<b>Participation rate</b>	<b>69.2%</b>
<b>Positive rate</b>	<b>5.9%</b>
<b>Colonoscopy uptake after positive FIT</b>	<b>92.8%</b>
<b>Adenoma detection rate x 1,000 participants</b>	<b>34.3‰</b>
<b>Advanced Adenoma detection rate x 1,000 participants</b>	<b>21.8‰</b>
<b>CRC detection rate x 1,000 participants</b>	<b>2.9‰</b>
<b>Advanced Neoplasia detection rate x 1,000 participants</b>	<b>24.7‰</b>



*Surveillance of Low Risk Adenoma (LRA)  
colonoscopy in 5 years (2009-2010) vs FIT in 5  
years (2011 - ongoing)*

## **OBJETIVE**

Comparison of surveillance in Low Risk Adenomas:

- 1) Colonoscopy after 5 years (strategy 1)
- 2) FIT after 5 years (strategy 2)

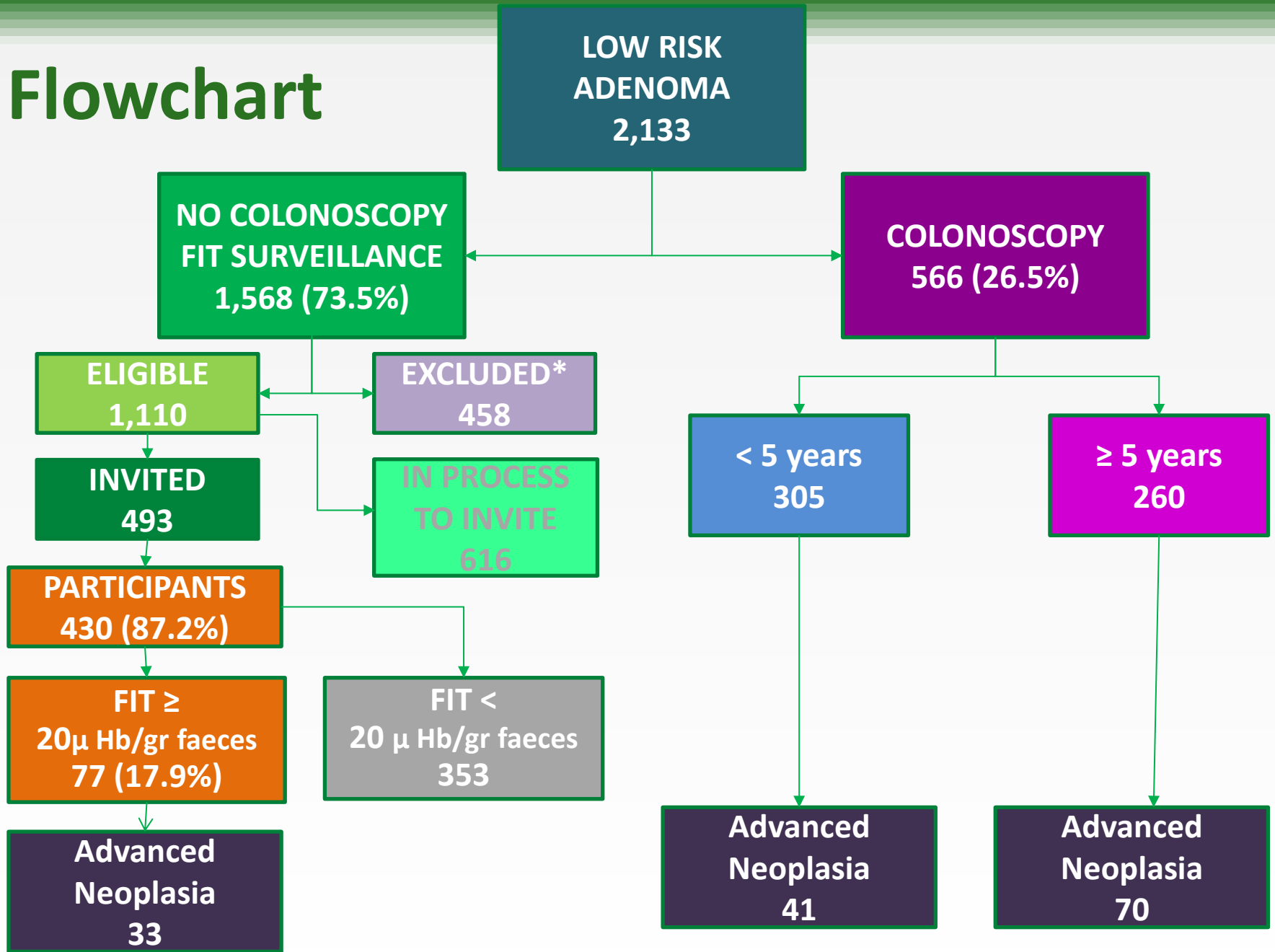


# METHODOLOGY

- Observational retrospective study
- All cases detected and coded as LRA (*1-2 tubular adenomas/ < 10 mm/ low degree of dysplasia*) by the Programme between 2009 and 2012
- Colonoscopies performed after the basal LRA detected
- Invitations with FIT performed from 2015 to first trimester 2017
- Linking procedures, hospital discharges and cancer registries 2009-2017
- Review of medical records



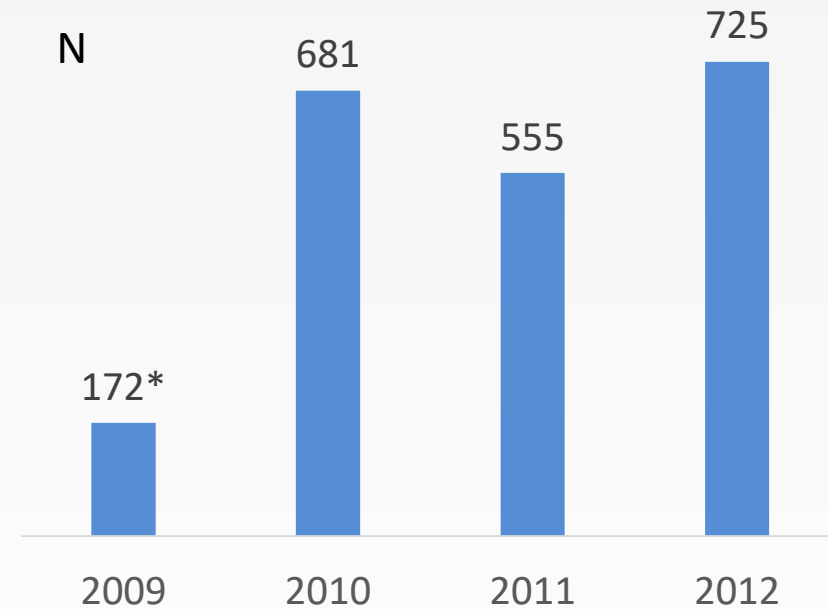
# Flowchart



\* Age out of the programme, Interval Cancer (5), dead



## Number of LRA detected by year



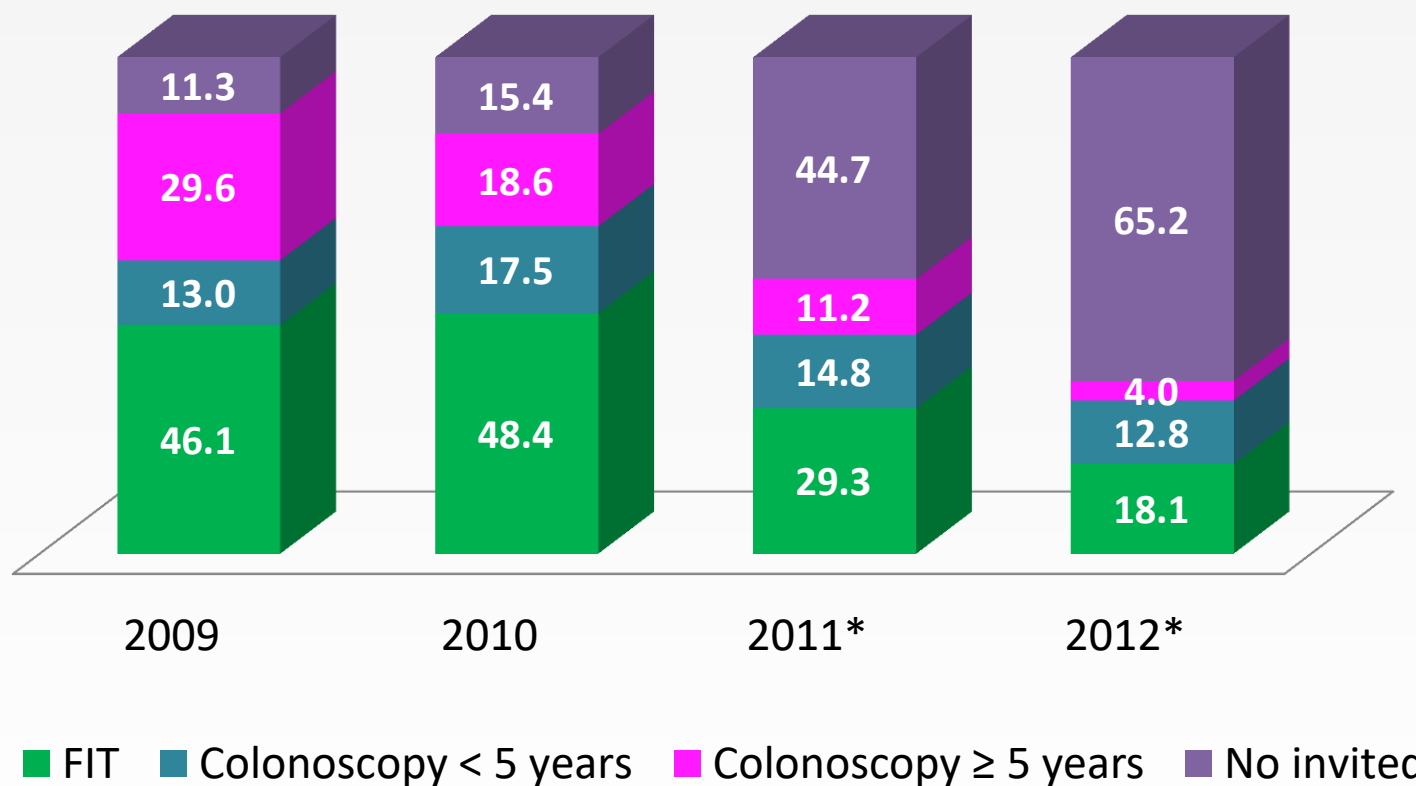
N= 2,133

\*2009 Pilot programme

## Colonoscopies of surveillance by year of basal LRA



# Elegibles (LRA + < 64 years)



*\*FIT pending invitations*





## Findings at surveillance by range of time (excluded FIT cases)

Range of time	No adenoma; n (%)	Low risk adenoma; n (%)	Advanced adenoma (IR+HR); n (%)	CRC detected; n (%)	Others; n (%)	Total; n (%)	Interval CRC; n
< 3 years	54 (62.8)	21 (24.4)	9 (10.5)	0	2 (2.3)	86 (100)	2
3-5 years	121 (55.3)	62 (28.3)	31 (14.2)	1 (0.5)	4 (1.8)	219 (100)	1
≥ 5 years	114 (43.8)	73 (28.1)	65 (25.0)	4 (1.5)	4 (1.5)	260 (100)	2

p= 0.036



# Description of cases by different scenarios

	COLONOSCOPY < 5 YEARS n = 305	COLONOSCOPY ≥ 5 YEARS n = 260	FIT (-) 353 FIT (+) 77 n (colonoscopy) = 68
Sex (Men); n (%)	199 (65.3)	166 (63.8)	279 (64.9)
Age; Mean (SD)	60.2 (5.7)	60.3 (5.7)	57.7 (4.2)
FIT $\mu$ g - previous (Median/IQR); n (%)	259 (495)	216.5 (348)	245 (362)
No adenoma; n (%)	175 (57.4)	114 (43.8)	12 (17.6)
Low Risk; n (%)	83 (27.2)	73 (28.1)	19 (27.9)
Intermediate Risk; n (%)	32 (10.5)	44 (16.9)	18 (26.5)
High Risk; n (%)	8 (2.6)	21 (8.1)	11 (16.2)
CRC; n (%)	1 (0.3)	4 (1.5)	4 (5.9)
Others; n (%)	6 (1.9)	4 (1.5)	4 (5.9)
<b>Interval Cancer; n</b>	<b>3</b>	<b>2</b>	<b>0</b>



# Comparison of surveillance: colonoscopy vs FIT $\geq 5$ years after LRA

	1 $\geq 5$ years colonoscopy 260 participants	2 FIT (-) 353 FIT (+) 77 430 participants	p
Sex = Men	63.7%	64.9%	ns
Age; Mean (SD)	60.3 (5.7)	57.7 (4.1)	<0.001
PPV for detection of LRA	28.1%	28.8%	ns
PPV for detection of AA	25.0%	43.9%	0.004
PPV for detection of CRC	1.5%	6.1%	0.033
Advanced Neoplasia detection rate (x 1,000 participants)	265.4‰	76.7‰	<0.001
Number of colonoscopies needed to detect an Advanced Neoplasia	3.8	2.3	ns



# CRC detected and missed

	Tumor stage I-II	Tumor stage III-IV
Colonoscopy surveillance in 5 years; n (%)	4 (80)	1* (20)
FIT in 5 years; n (%)	4 (100)	0
Interval CRC; n (%)	2 (40)	3** (60)

*\*Time to colonoscopy:  
6.1 years*

*\*\*Time to colonoscopy:*

- IIIB: 4.9 and 5.9 years*
- IVB: 5.7 years*

	Proximal location	Distal location
Colonoscopy surveillance in 5 years; n (%)	4 (80)	1 (20)
FIT in 5 years; n (%)	1 (25)	3 (25)
Interval CRC; n (%)	2 (40)	3 (60)



# FIT $\mu\text{g}$ Hb/gram faeces – previous and lesions detected after basal LRA

Stage	Median	IQR
I-II	259	363
III-IV	146.5	395

*p = 0.374*

Lesion detected	Median	IQR
Low risk adenoma	230	379
Advanced adenoma	275	561
Colorectal cancer	233	395

*p = 0.287*



# Conclusions and recommendations

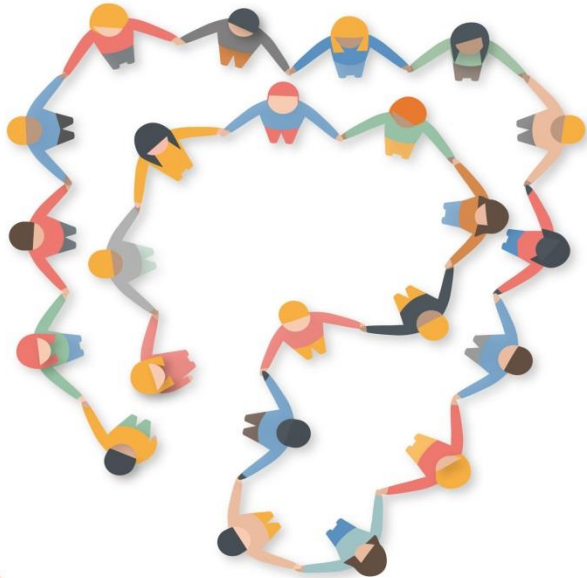
- Participation in colonoscopy surveillance is variable along the years and low.
- The pattern of colonoscopy surveillance is variable but most lesions are detected after 5 years.
- 87% of people invited by FIT participated with a positive rate of 17.9%.
- FIT previous does not predict the lesions found after surveillance
- Even the detection rate is higher in colonoscopy surveillance, the strategy of FIT surveillance could be more accepted by the population, decreasing the number of colonoscopies.
- The Programme should be continue to implement the new strategy in order to evaluate the results to medium and long term.



La prevención es el mejor tratamiento

**PROGRAMA**

## DE DETECCIÓN PRECOZ DE CÁNCER DE COLON Y RECTO



*El programa está dirigido a personas de entre 50 y 69 años y se realiza cada 2 años.*

Si usted pertenece a ese grupo de edad, recibirá en su domicilio una carta informativa y el material necesario para la realización de la prueba.

Información:

[www.osakidetza.euskadi.eus](http://www.osakidetza.euskadi.eus)

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**Thank you  
for your  
attention**

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