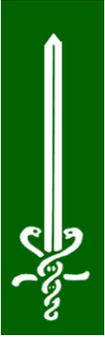


# Colorectal Cancer Screening

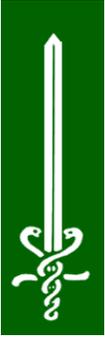
Implementation of a public health  
programme

An Expert Group on Colorectal Cancer Screening  
Cancer Society of Finland,  
Finnish Cancer Registry, Mass Screening Registry



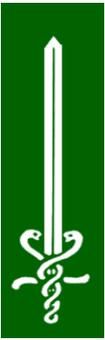
# Aims of colorectal cancer screening

- **The main aim is to reduce mortality from colorectal cancer**
- Reduction about 15-20 % is expected based on randomised screening trials
- Means: detecting cancer at an early stage
  - survival of patients
  - quality of life of patients
  - savings in treatment
- Collecting data of missing information (feasibility, compliance, test results)



# What is the current situation in Finland?

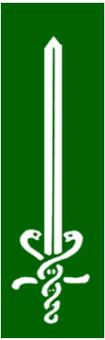
- A population based screening programme was launched in September 2004
  - testing feasibility in Finland
  - gradual implementation in the target population
  - gradual expansion over regions
  - colonoscopy possible using existing resources
  - evaluation of the programme
- The programme is running for the third year
  - expansion over regions successful so far
  - colonoscopy resources have been found
  - population attitudes positive and encouraging



# Target population

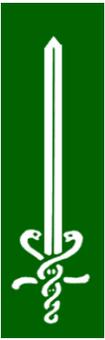
- Age 60-69-years
- Men and women
- Gradual start among 50% of target population
- Randomisation into screening or control arms at individual level
- Eventually, implementation to all 60-69-year olds
- Repeated screening every second year





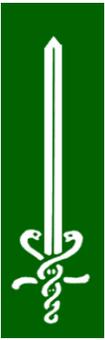
# Implementation

		2012	2013	2014	2015	2016
Birth year	Age 2006					
1943	69 v					
1944	68 v	ReS+50%				
1945	67 v		ReS+50%			
1946	66 v	Re-Screen		ReS+50%		
1947	65 v		Re-Screen		ReS+50%	
1948	64 v	Re-Screen		ReS+50%		100 %
1949	63 v		Re-Screen		ReS+50%	
1950	62 v	Re-Screen		Re-Screen		ReS+50%
1951	61 v		Re-Screen		ReS+50%	
1952	60 v	100 %		100 %		100 %
1953			100 %		100 %	
1954				100 %		100 %
1955					100 %	
1956						100 %



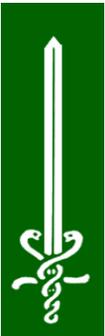
# Evaluation

- Randomised design allows unbiased comparison between the screening and control arms
- Cancers and deaths followed through national registries
- Both screened and the control population can be followed through register linkage
- Colonoscopy use: those screened (active data collection); controls (hospital discharge registry)
- First years: performance, compliance, positivity rate, colonoscopies
- After six years randomisation will gradually cease

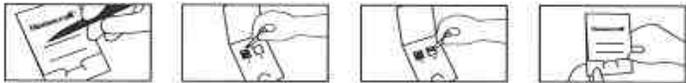


# Procedure of screening

- Mail invitation
- Three day specimen collection (faecal cards)
- Guaiac based test, no rehydration
- Any positive test window is regarded as a positive test result
- Those being positive are sent to their local contact person (nurses) for colonoscopy referral
- Further surveillance and treatment according to usual care



# FOB-test



A B

**i** Read Patient Instructions before performing test. • Patientenanleitung vor Durchführung des Tests durchlesen. • Lire les instructions destinées aux patients avant d'effectuer le test. • Prima di eseguire l'analisi, leggere le Istruzioni per il paziente. • Lees de instructies voor de patiënt voordat u de test uitvoert. • Lea las instrucciones de uso para el paciente antes de hacer la prueba. • Læs patientvejledningen, før testen udføres. • Läs patientanvisningarna innan provtagningen utföres.

IVD 

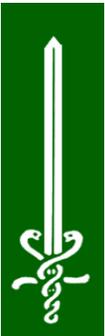


## Hemoccult<sup>®</sup> BRAND

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IVD 



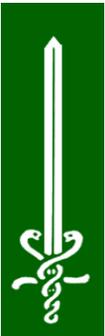
# Launch in September 2004

- In 22 municipalities (out of 444)
- Only one screening centre for the entire country (5,3 million people)
- Totally 4539 invited in 2004
- Compliance 75,3% (no reminder so far)
- Positivity rate 1,8%
- Renewals 3.9% (missing specimens, too old, wrong side)



# Colonoscopies in 2004

- 63 test positive persons in 2004
  - 54 colonoscopies done
  - no finding in 5 people
- No colonoscopy for 9 people because:
  - 4 did not want to, 3 had been colonoscoped recently and 2 were in surveillance
- No sedatives were used, no in-hospital treatments for primary colonoscopy
  - one was admitted to surgery directly after second (immediate) colonoscopy and big polyp removal
- Primary colonoscopy completed in 2 months for most (50/54)



# Findings

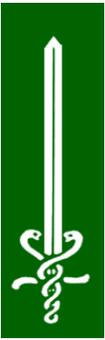
Colonoscopy		Final histology				
Neoplasia	No further examination	Mild dysplasia	Severe dysplasia	Carcinoma	Unknown	Total
Adenoma, mild dysplasia	8	9	-	-	2	19
Adenoma, severe dysplasia	1	-	-	2	-	3
Carcinoma			-	3	-	3
<b>TOTAL</b>	<b>9</b>	<b>9</b>	<b>-</b>	<b>5</b>	<b>2</b>	<b>25</b>
Non-neoplastic						
Hyperplastic polyps	4					
Diverticulosis	13					
Hemorrhoides	4					
Anal irritation	3					
No findings	5					
No colonoscopy	9					



# First results

(September 2004–February 2006)

	<b>Men</b>	<b>Prop.</b>	<b>Women</b>	<b>Prop.</b>	<b>Together</b>	<b>Prop.</b>
<b>Invited</b>	15146		15610		30756	
Negative	9290	61,3 %	11836	75,8 %	21126	68,7 %
Positive	263	1,7 %	156	1,0 %	419	1,4 %
New spec	257	1,7 %	282	1,8 %	539	1,8 %
<b>Complied</b>	<b>9810</b>	<b>64,8 %</b>	<b>12274</b>	<b>78,6 %</b>	<b>22084</b>	<b>71,8 %</b>



# Test results

- Overall compliance good, 72%, in males 65% and in women 79%
- Positive tests among those who were screened: 1.9% total; males 2.7%, females 1.3%
- Compliance to colonoscopy has been high, 90%
  - 4% decline, 6% have been in surveillance
  - in colonoscopy, 10% cancers, 30% adenomas (data collected from 268 colonoscopies so far)
- New test kits to 2.3%, males 2.6% and females 2.4% of those screened



# How do we proceed in Finland

- By January 2006 up to 160 municipalities, still recruiting more
- Total number of invitations around 35 000 in 2006
- First preliminary "evaluation" in 2007
  - first participants with re-invitation to screening
- Data collection of primary screening online, colonoscopy results have to be asked for from hospitals and introduces some delay in reporting
- Publication draft to be sent for review in fall