

The Future of Cancer in Ireland Cancer screening and early diagnosis

Dr Alan Smith 21 September 2023



An tSeirbhís Náisiúnta Scagthástála National Screening Service



# HE Summary

- The past some context
- The future ?????????
- The present how are we doing



Some context.....



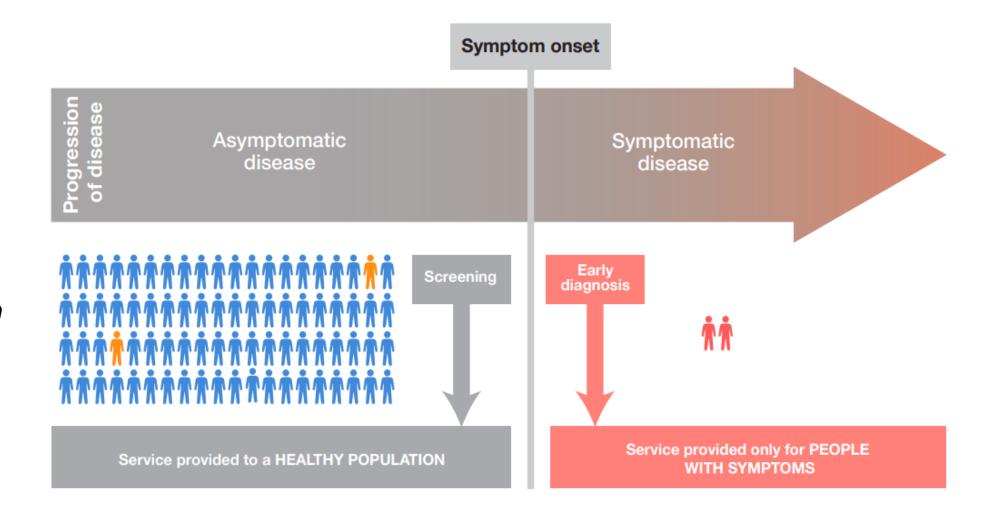
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# Where does screening sit in disease progression.....



"early detection results in cure"





- Endorsed by celebrities
- Politicians use it to get votes
- Promoted by cancer charities & advocacy groups

"A stitch in time saves nine"

"An ounce of prevention is worth a pound of cure"

Three quarters of the US population would choose a total body CT scan over \$1000 gift voucher

Schwartz, JAMA 2004;291:71

# 





Woman forced to wait seven months for smear test results

A WOMAN with a family by Mary Regan history of cervical cancer

## Cancer smear test results delayed up to six months

WOMEN in Louth and Meath are having to wait for un to six months for the

are serious about equality and equity in our society. 'Medical screening in

Nine months of hell

A CORK mother with a previous

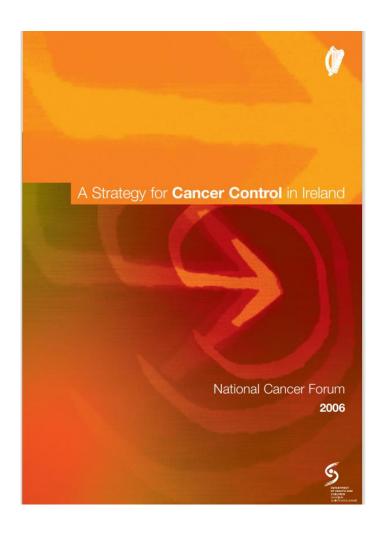
smear tests to the US this month to clear a backlog which it describes as an urgent

delay in smear test results ALISON HEAL Delays in getting results from cervical smear tests have been criti-

cised by the Dáil deputy, and former health minister Mary



# ...you get a policy tipping point (2006)



Breast screening should be extended to include all women aged between 50 and 69.

The national roll-out of the Irish Cervical Screening Programme should be completed as quickly as possible.

A colorectal cancer programme should be established



# Ireland's National Cancer Screening Programmes









# Screening....sure what's the harm?

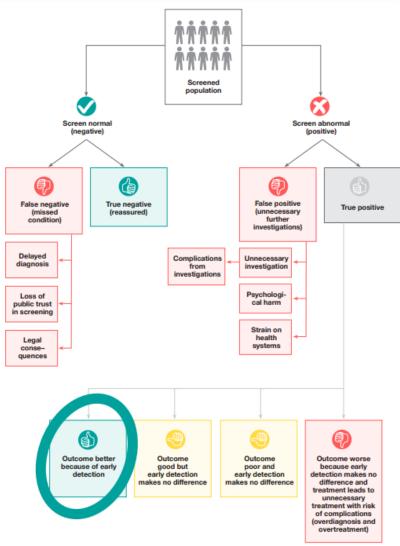




# Medicine has become the art of managing extreme complexity

(Atul Gawande)







The future.....



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# From 'one size fits all' to 'precision cancer prevention'

- Understanding the population and risk-based associations with cancer
  - behaviour, socioeconomic, epidemiology
- Understanding the mechanisms of tumorigenesis
  - genetics, epigenetics, signalling, tumour microenvironment,
    immune factors
- Leveraging Artificial Intelligence



# Creating a high-performance culture in screening

- A team sport
- Past events are reviewed, and changes implemented
- Collect, analyse and report on performance
- Top managers/leaders create a reporting culture
- Top managers/leaders create a safe environment
- Top management/leadership is proactive
  - Seeks out error
  - Eliminates error producing factors
  - Empowers and devolves responsibility
- And when the ball is dropped......
  - Acknowledge what happened
  - Apologise for what happened
  - Learn the lesson





# The elephant in the room

- The level of litigation in screening in Ireland is unprecedented with no equivalent anywhere else in the world.
- The **legal framework in Ireland is simply not fit for purpose** when it comes to addressing legal liability for errors in cancer screening programmes.
- "....it should be possible to make a claim for negligence with respect to cervical screening, but the standards applied by courts in assessing such claims should accommodate and reflect the reality of cervical screening.......the determination of whether the particular screening error was serious enough to be categorized as negligent and/or serious enough to entitle the participant to compensation needs to consider the inherent limitations of cervical screening (IARC 2023)".
- The adverse impact on patients, their families and healthcare staff can be significant and prolonged
  - We need to acknowledge and speak about the impact on healthcare staff



## How to eat the elephant....one bite at a time

## 1. Pre-action protocols

## 2. Case management rules

- would bring considerable benefit and relief to participants
- early resolution of the dispute and the preservation of the therapeutic doctor patient relationship.
- The commencement of the new Part 2A of the Civil Liability and Courts Act, 2004 is long overdue



# The present....how are we doing



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## Ireland's National Cancer Screening Programmes









Every two years, we invite **584,000** 

We aim to screen of the eligible

women

BreastCheck units with 287 staff consisting of nursing, medical, health and care and admin personnel

24 mobile units



We aim to screen of the eligible

population

Colposcopy

Histopathology



Every two years, we invite **521,000** men and women aged 60-69 for screening

We aim to screen

of the eligible population

screening lab providing FIT kit analysis

participating endoscopy units providing colonoscopies

histopathology labs

**National Cancer** providing surgery



# LC NCRI key findings: cervical cancer



NATIONAL TRENDS FOR CANCERS WITH POPULATION-BASED SCREENING PROGRAMMES IN IRELAND 1994-2019

**KEY FINDINGS: CERVICAL CANCER** 

Women aged 25 - 65 are eligible for free cervical screening tests via CervicalCheck

### INCIDENCE

The overall incidence rate of cervical cancer has shown a statistically significant decrease



Overall incidence rate

↓ 2.8% per year since 2009

The incidence rate in the screening age group (25-60) has fluctuated (as would be expected) since screening was introduced.

## STAGE



Women in the screening age group (25 - 60) diagnosed with cervical cancer via screening had a higher proportion of cancers detected at an earlier stage

88% v's 52%



## SURVIVAL



Five-year survival for cervical cancer has increased

5 year overall survival rate

57% between 1994-1998 65% between 2014-2018



This improvement in survival was greatest in the screening age group (25-60 years)

5 year survival rate screening age group

66% between 1994-1998 79% between 2014-2018

## **MORTALITY**



The overall mortality rate of cervical cancer has shown a statistically significant decrease

Mortality rate

↓ 1.1% per year since 1994



A larger decrease in mortality rates has been seen in those of screening age (25-59 years) over the same period

Mortality rate screening age group

↓ 1.5% per year since 1994



# LC NCRI key findings: colorectal cancer



NATIONAL TRENDS FOR CANCERS WITH POPULATION-BASED SCREENING PROGRAMMES IN IRELAND 1994-2019

**KEY FINDINGS: COLORECTAL CANCER** 

Women and men aged 60-69 are eligible for screening as part of BowelScreen every two years

# INCIDENCE

The overall incidence rates of colorectal cancer in males and females has shown a statistically significant decrease



Overall incidence rate males ↓ 2.5% per year since 2012

Overall incidence rate females ↓ 0.3% per year since 1994

Incidence rates in the screening agegroup (60-69 years) have decreased significantly for males

↓ 0.6% per year since 2009

No significant trend in females of screening age (60-69 years) were identified.

## STAGE



Patients in the screening age group (60 – 69) diagnosed with colorectal cancer via screening had a higher proportion of cancers detected at an earlier stage

62-64% v's 37-39%



### SURVIVAL



Five-year survival for colorectal cancer has increased

Five-year overall survival rate

50% between 1994-1998 66% between 2014-2018



This improvement in survival was greatest in the screening age group (60-69 years)

Five-year survival rate screening age group

52% between 1994-1998 72% between 2014-2018

### **MORTALITY**



The overall mortality rate of colorectal cancer has shown a statistically significant decrease for both males and females

Overall mortality rate

↓ 2% per year since 1994



A larger decrease in mortality rates has been seen in those of screening age (60 - 69 years) over the same period

Mortality rate screening age group

↓ 3.2% per year since 1994 (males)

↓ 2.2% per year since 1994



# LC NCRI key findings: breast cancer



NATIONAL TRENDS FOR CANCERS WITH POPULATION-BASED SCREENING PROGRAMMES IN IRELAND 1994-2019

**KEY FINDINGS: BREAST CANCER** 

BreastCheck invites women aged 50-69 for breast screening every two years

The proportion of breast cancers diagnosed at the earliest stage has significantly increased in all age groups (screening and pre and post screening age groups)



This increase was greatest in the screening population



Women in the screening age group diagnosed with breast cancer via screening had a higher proportion of cancers detected at a stage 1

93% v's 74%

## SURVIVAL



Five-year survival for breast cancer has increased

5 year survival overall

72% in 1994-1998 88% in 2014-2018



This improvement in survival was greatest in the screening age group (50-69 years)

5 year survival screening age group

74% in 1994-1998 94% in 2014-2018

### MORTALITY



The overall mortality rate of female breast cancer has shown a statistically significant decrease

Mortality Rate

↓ 1.8% per year since 1994



A significant decrease in mortality rates has been seen in those of screening age (50-69 years) and the pre-screening group (<50 years) over the same period

Mortality rate screening age group ↓ 2.8% per year since 1994

Mortality rate pre-screening age ↓ 2.7% per year since 1994



## And the final word.....our programme participants

National Screening Service is implementing a digital Patient Report Experience
 Measures (PREMs) Programme across our cancer screening programmes



- Response rate was 42% 49%
- Eighty-nine percent (89%) of respondents rated BowelScreen as 'Good' or 'very good'
- BowelScreen participants reported high levels of satisfaction with the programme
  - -achieving a **net promoter score (NPS)** of 75%



### **World leaders**

- Netflix's NPS is 68, well above their competition;
- Starbucks' NPS is a decent 77;
- Amazon's NPS is a pretty high one at 62;
- Airbnb's NPS is quite strong at 74;
- Tesla's NPS is an astounding 96.