



Preventing Cervical Cancer in Ireland



An tSeirbhís Náisiúnta Scagthástála
National Screening Service



Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Cervical cancer in Ireland-key statistics

Incidence

9th most frequently diagnosed cancer in women (270)

Mortality

12th most common cause of cancer death in women (103)

Trends

Mortality has been increasing since 1978

Comparison to other countries

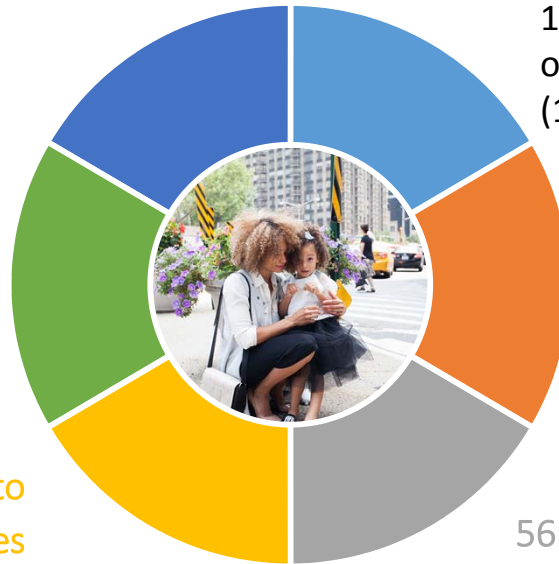
Ireland relatively more cancers

46 years

The average age at diagnosis

56 years

The average age of death



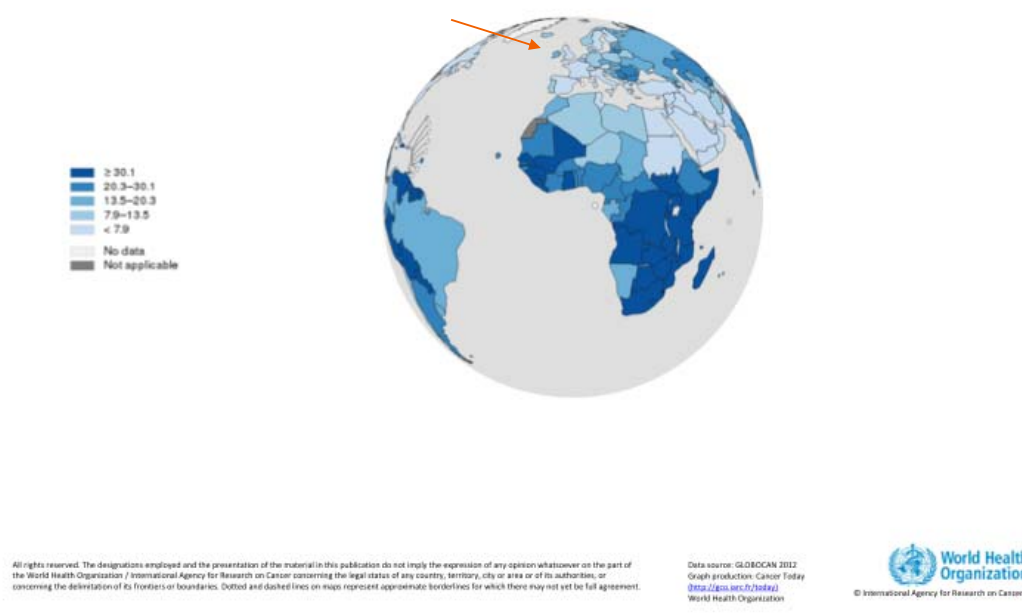
Cervical cancer rates

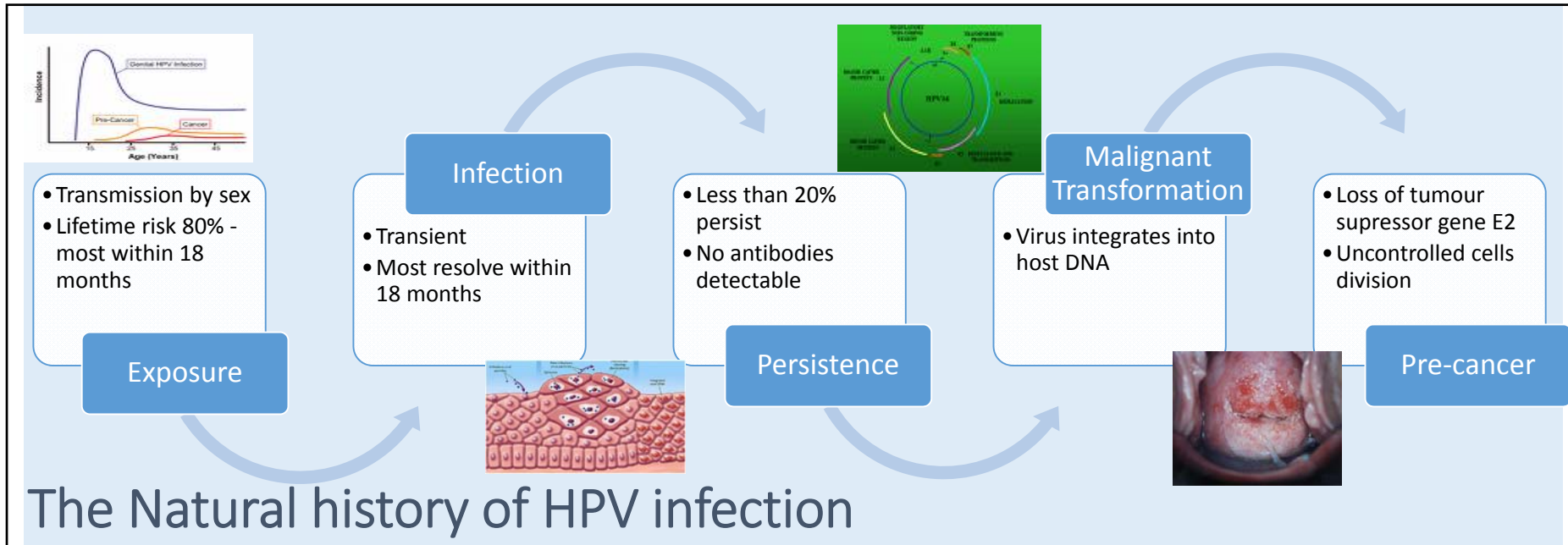
2012

European Comparison

- Ireland had the same cervical cancer incidence rate as Poland
- Higher incidence than most of western Europe

Estimated age-standardized rates (World) of incident cases, cervical cancer, worldwide in 2012





● Infection is very common
Most women are infected within 18 months of becoming sexually active

● Only a minority of infections persist
This is a necessary step in the development of precancer and cancer

Strategies aimed at preventing deaths from cervical cancer

Primary prevention

Vaccination against the HPV virus



Secondary protection

Screening for precancerous changes of the cervix

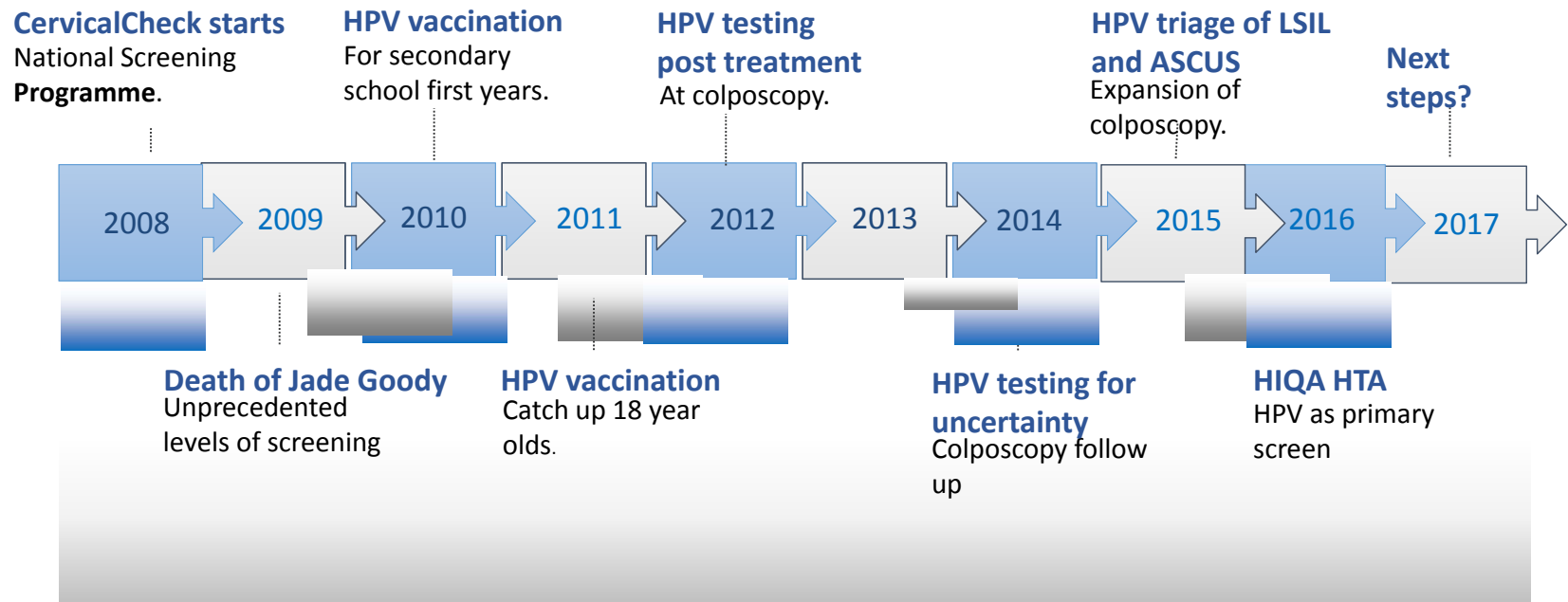


Early detection

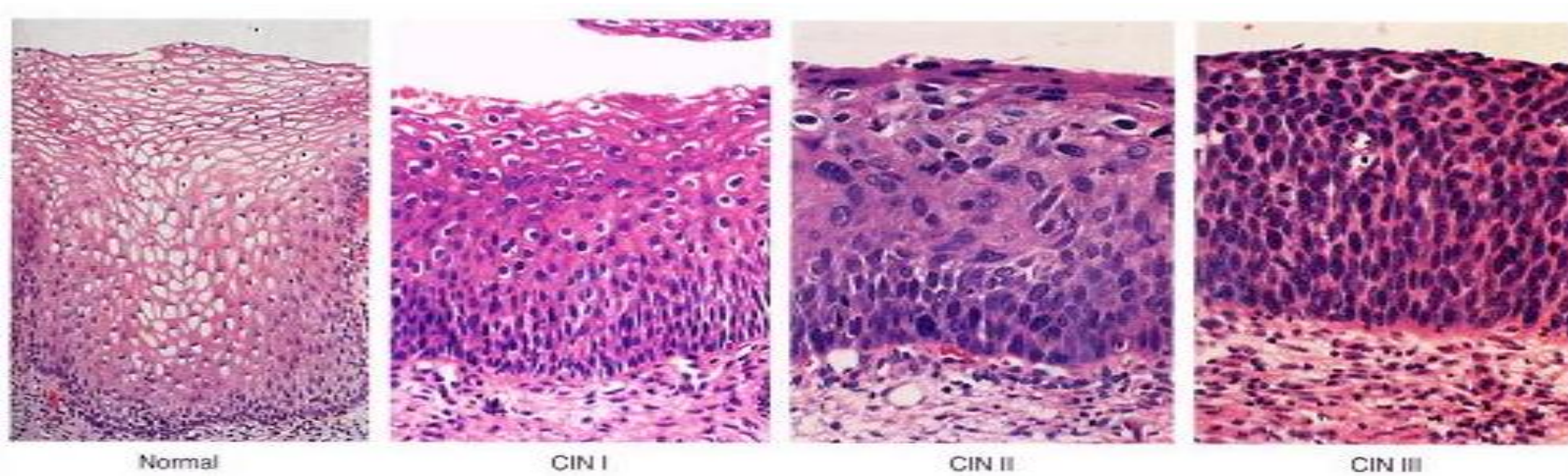
Prompt assesment and referral for women who have symptoms



Cervical cancer control in Ireland – 2008-2017



Rationale for Cervical Screening



▶ Cervical cancer is preceded by precancerous condition called CIN

▶ CIN does not have symptoms and can be present for ten to fifteen years before it turns into cancer

▶ Smear tests take scrapings of cells from the cervix which the pathologist can categorise as normal or not according to the size of the cell's nucleus

Cervical screening programmes aim to

01

Detect and treat precancerous abnormalities



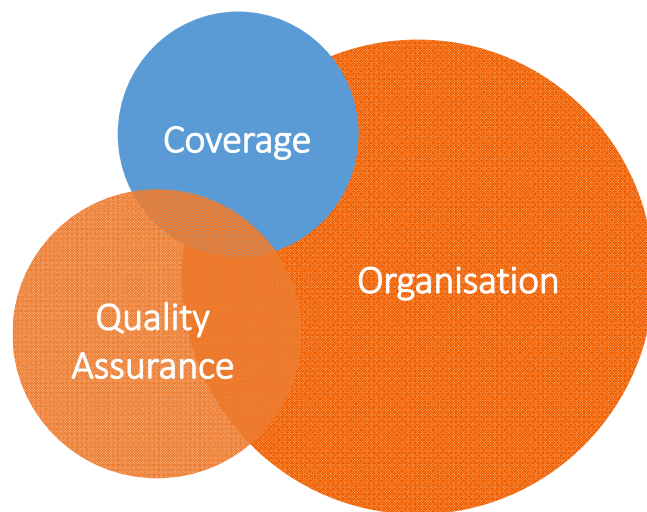
02

Reduce the chance of developing cervical cancer.



Cervical Screening Programmes

Organised cervical screening programmes reduce the incidence and mortality from cervical cancer



Ingredients for success

Population register

Maintaining the register and keeping it up to date

The test

Taking the tests, tracking and analysing

Diagnosis and treatment

Colposcopy and histology.

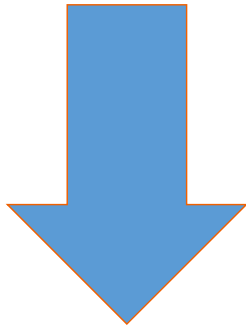
Define the population of women to be screened?

CervicalCheck
AN CLÁR NAISIÚNTA SCAGHÁSTÁLA CEIRBHEACS
THE NATIONAL CERVICAL SCREENING PROGRAMME



Not women >60

- Anatomical Changes
- Prevalance of high grade CIN is low
- Cytology performs poorly



Not Below 25

- Incidence of cancer is low
- Prevalence of transient changes relatively high
- Screening not protective



Exceptions – colposcopy, post transplant, dialysis and HIV



Coverage

Key Messages
Cervical Check

More than **80%** of the population (1.1 million women) should be up to date with their cervical screening

CervicalCheck - Screening Promotion

Research



Develop

Interventions that influence behaviour change

Communication



Distribute

Screening promotion messages

Change behavior



Encourage

Making screening easy and popular

Target



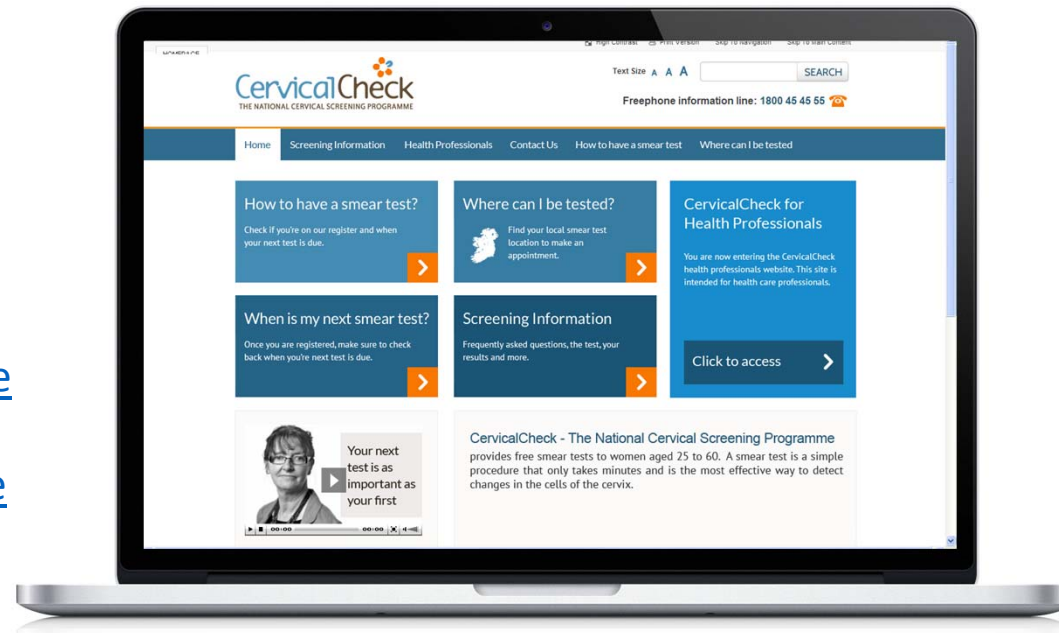
Specific

Populations/areas of low uptake

Improving screening – helping women to remember

Information service

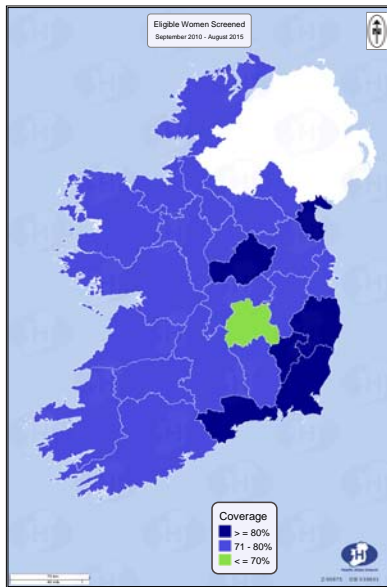
- Freephone 1800 45 45 55
- Freepost
- Email info@cervicalcheck.ie
- Website www.cervicalcheck.ie



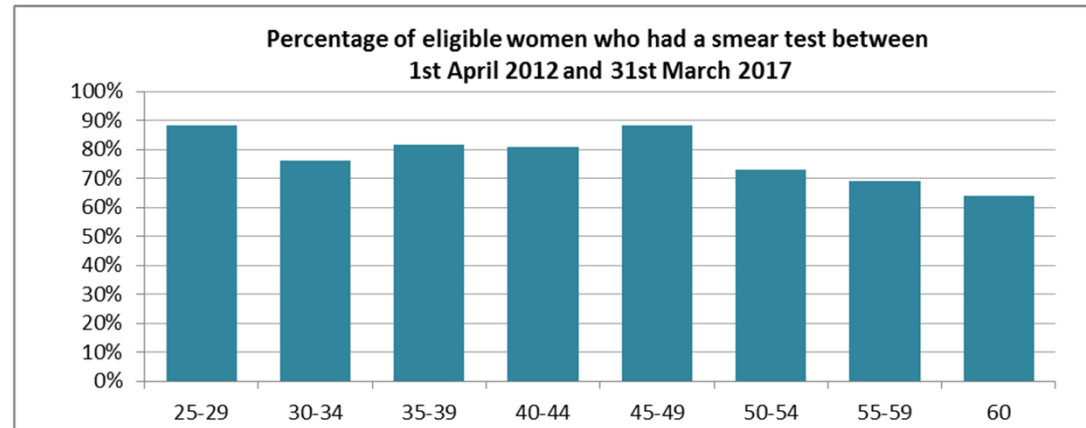
CervicalCheck Coverage



Geographical

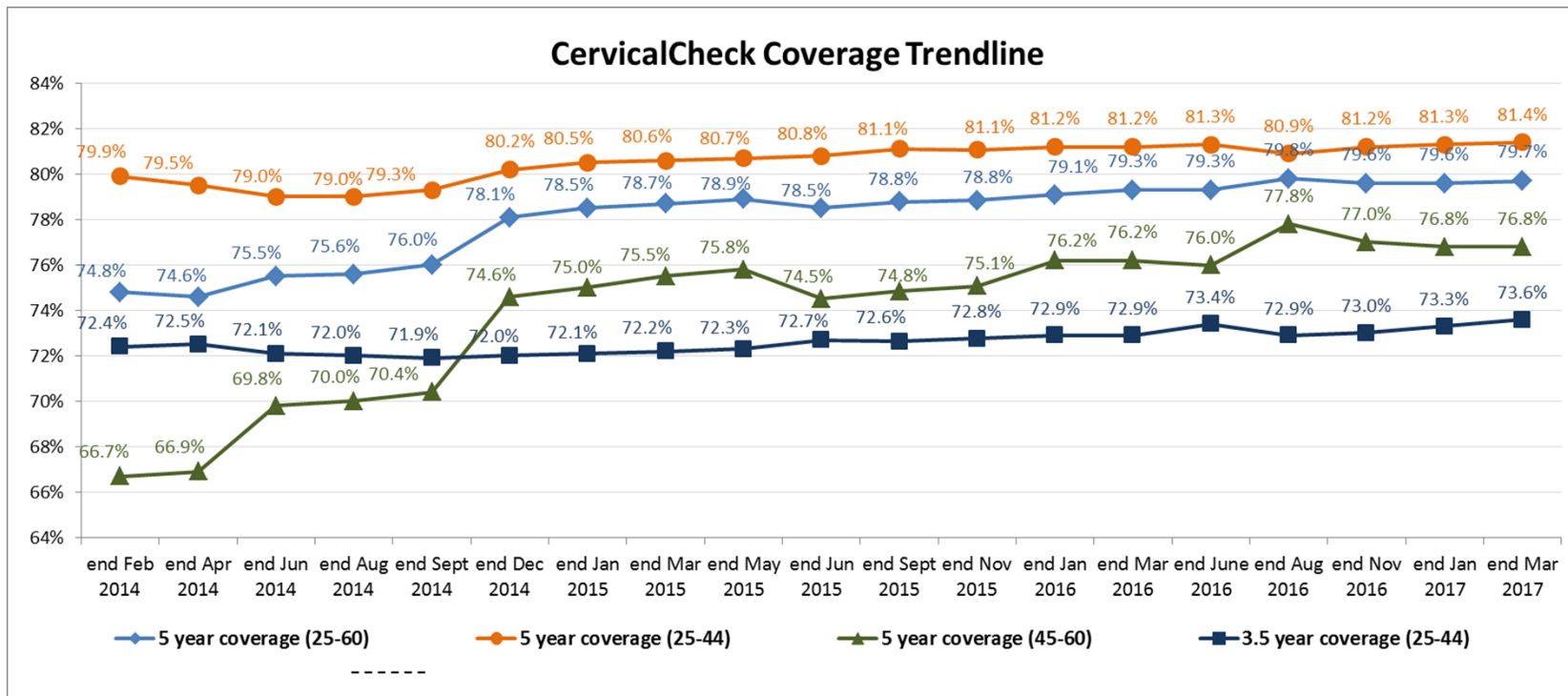


Age groups



Current Coverage – 79.7%

Five year coverage – trends since 2014



Smear takers / Healthcare professionals



41% of women first heard of the programme from health care professional

5000 smartakers contracted to CervicalCheck accessible via website

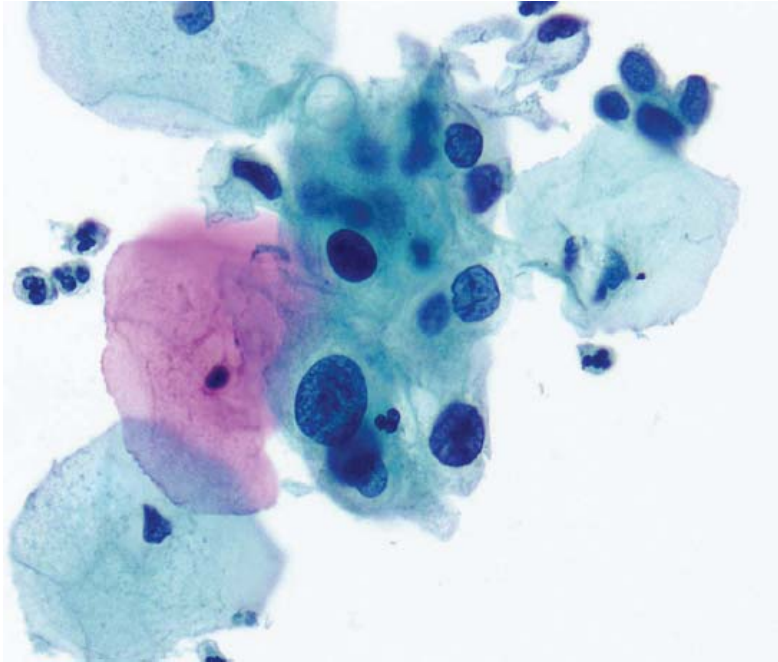
Training programme for nurses and gp trainees

CME for registered smartakers

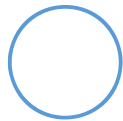
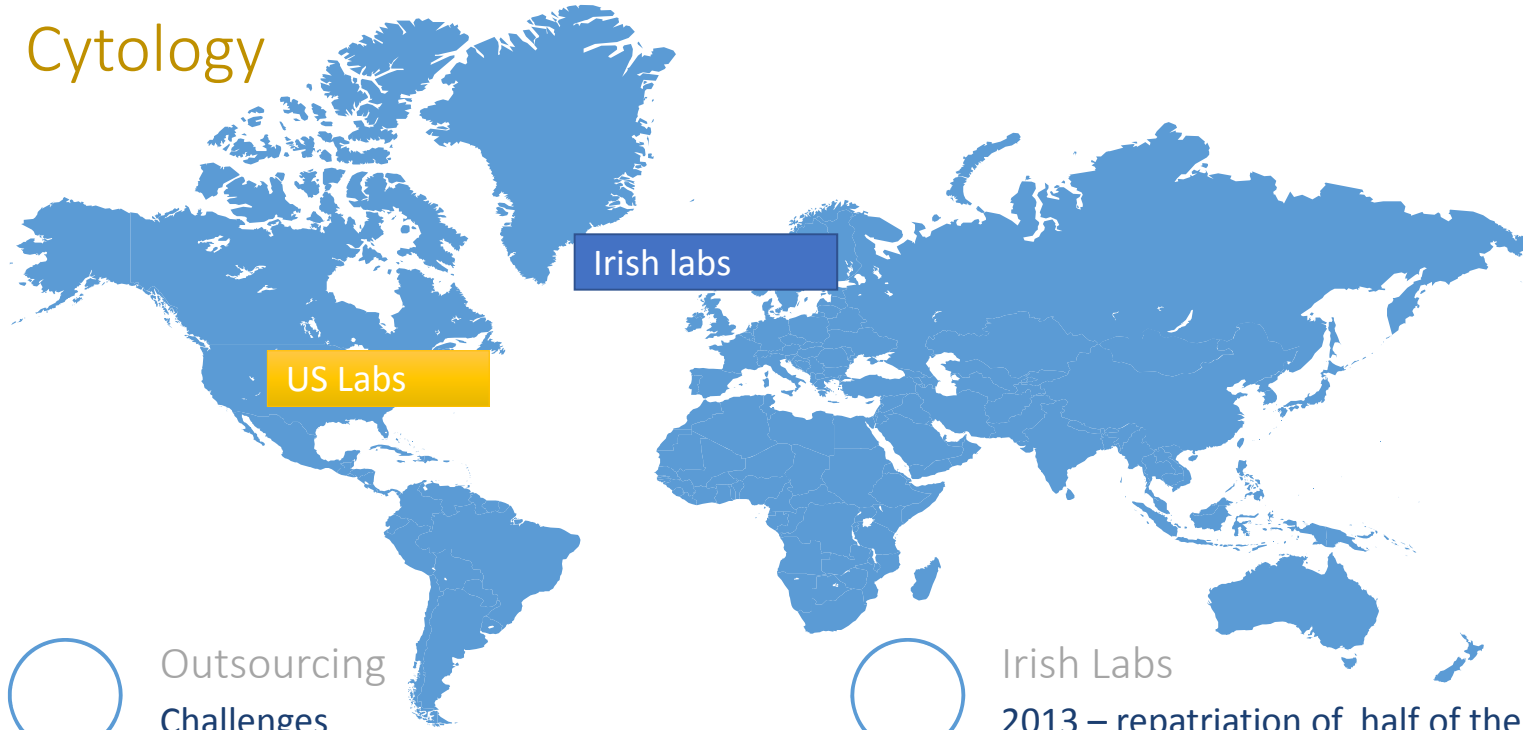
On line training resource

The test - cytology

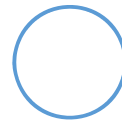
CervicalCheck
AN CLÁR NAISIÚNTA SCAGHÁSTÁLA CEIRBHEACS
THE NATIONAL CERVICAL SCREENING PROGRAMME



Cytology



Outsourcing
Challenges
Bethesda terminology
Geographical challenge for MDT
Disruption of training in Cytology



Irish Labs
2013 – repatriation of half of the
cytology testing to Ireland to two
laboratories

Cytology

Normal

Most results show no abnormality

High grade

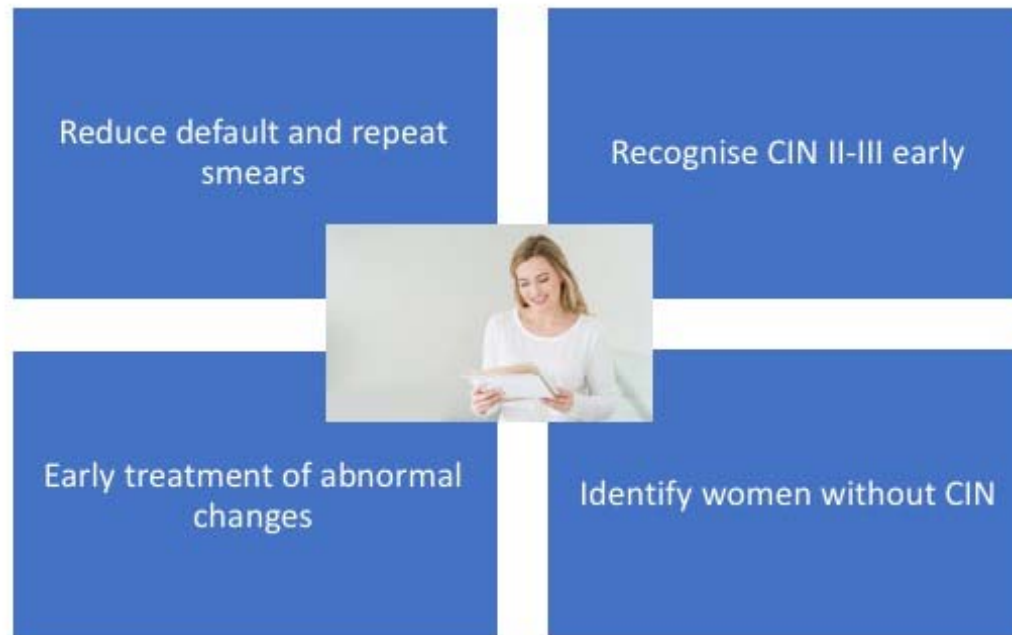
These abnormalities need further investigation

Low grade

Some of these abnormalities will need further investigation

Cytology results	N	%
NAD (no abnormality detected)	260,748	90.06%
Low Grade		
ASCUS	11,582	4.00%
AGC (borderline glandular)	366	0.13%
LSIL	11,806	4.08%
High Grade		
ASC-H	1,290	0.45%
HSIL (moderate)	1,813	0.63%
HSIL (severe)	1,780	0.61%
Query invasive squamous carcinoma	39	0.01%
AGC favour neoplasia	54	0.02%
Query glandular neoplasia / (AIS) / adenocarcinoma	49	0.02%
Total	289,527	100.00%

Advantage of HPV testing as a second line or triage test



The first year of HPV triage



Data

Information on this new strategy was collated from the twelve months from June 2015 to 2016.



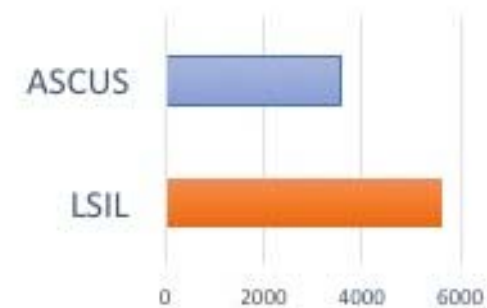
The Women

9190 women with HPV 16/18 positive and a low grade cytological abnormality.



The Cytology

3574 women (39%) had ASCUS and 5616 (61%) had LSIL



The first year of triage - histology

01

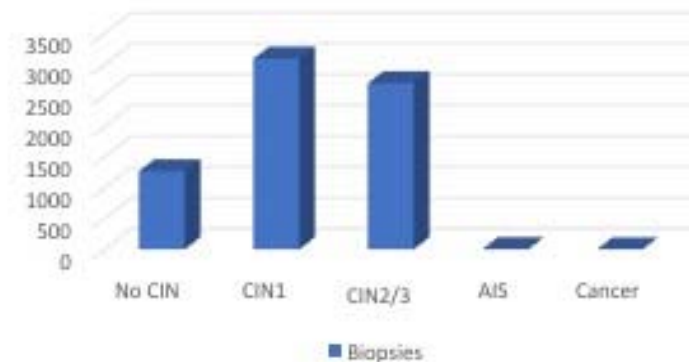
A biopsy result is available for 7017 women. This included a diagnostic punch biopsy in 6871 (98%) women and a LLETZ in 136 women (2%).

02

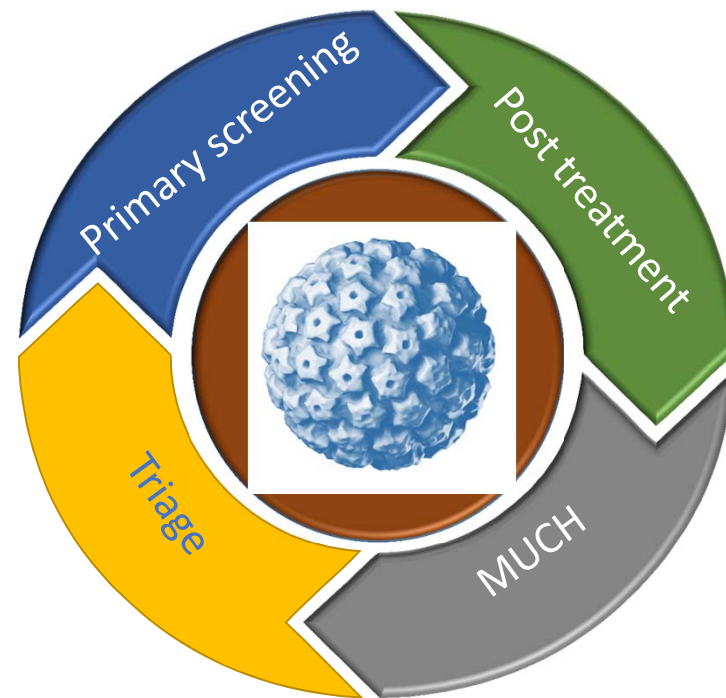
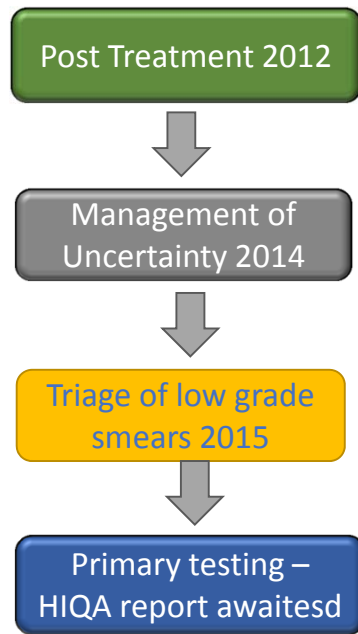
Four cases of adenocarcinoma in situ were identified and one woman had a microinvasive cancer.



Biopsies



HPV testing and CervicalCheck



Cervical Screening – reality check

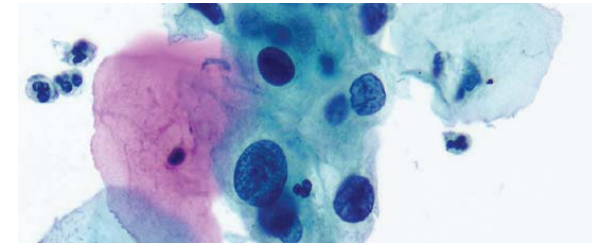
CervicalCheck
AN CLÁR NAISIÚNTA SCAGHÁSTÁLA CEIRBHEACS
THE NATIONAL CERVICAL SCREENING PROGRAMME

Screening aims to detect asymptomatic disease

Screening doesn't always prevent cancer

Screening tests are not 100% accurate; abnormalities may be missed or wrongly identified.

The false-negative rate of smears was found to be 18 percent in a New Zealand audit (2004)



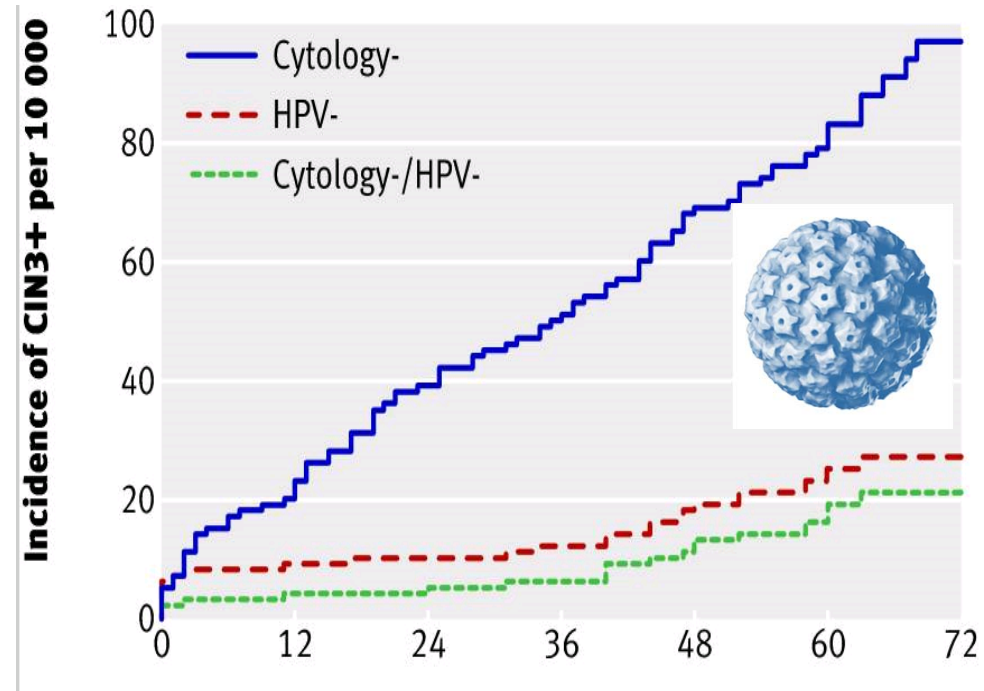
Predictive value of cytology versus HPV testing

Cytology – problems with sensitivity – Needs to be repeated at regular intervals

HPV testing improves the CIN3 negative prediction

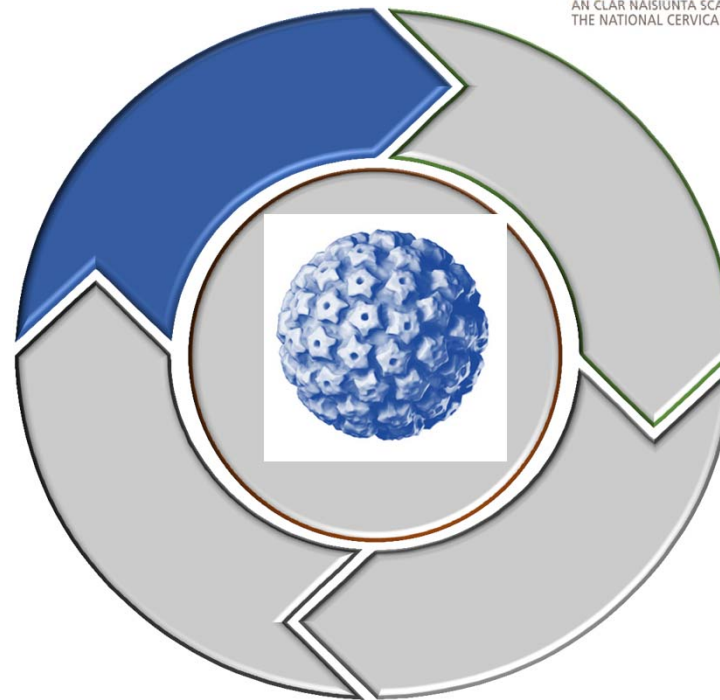
Challenge – how to manage HPV positive women

Dillner BMJ 2008

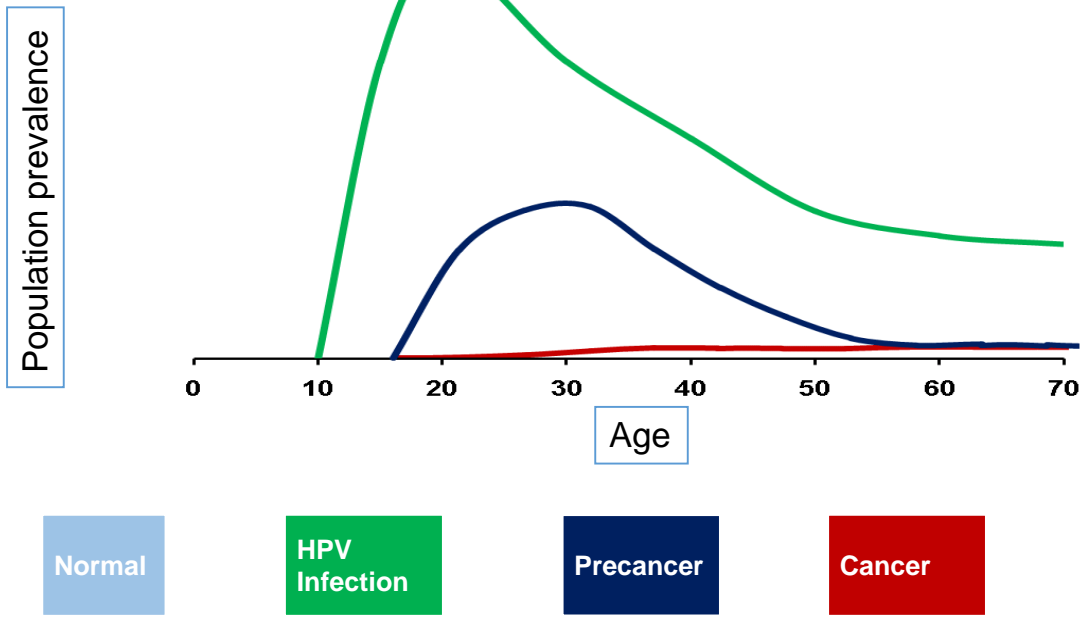


Primary HPV testing

- HPV testing more sensitive
- Especially in women over 30
- HPV vaccinated cohort is now aged 23 years.
- HTA due to be published by HIQA in 2017



Relative risk HPV, CIN and cancer



Schiffman, Wentzensen et

Diagnosis and treatment for women - quality assured colposcopy

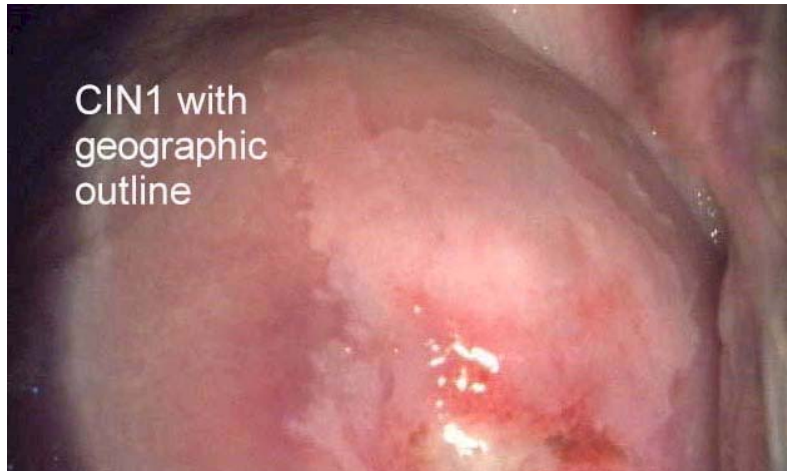
CervicalCheck
AN CLÁR NAISIÚNTA SCAGHÁSTÁLA CEIRBHEACS
THE NATIONAL CERVICAL SCREENING PROGRAMME



Diagnosis – a balanced view

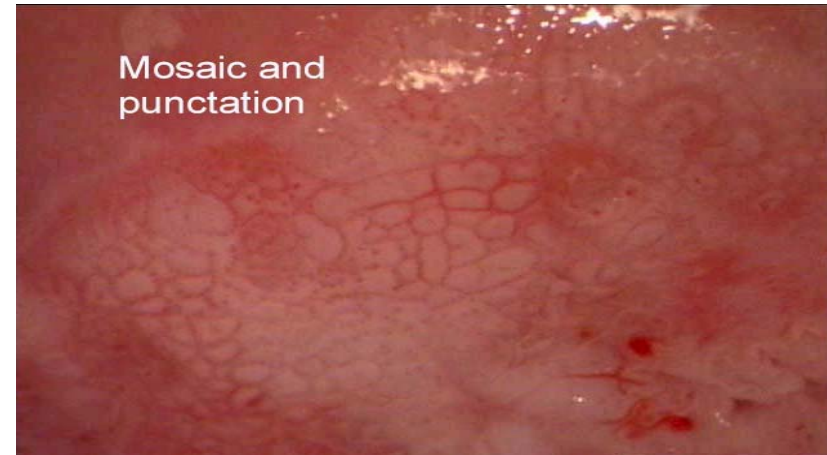
01

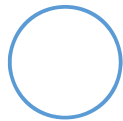
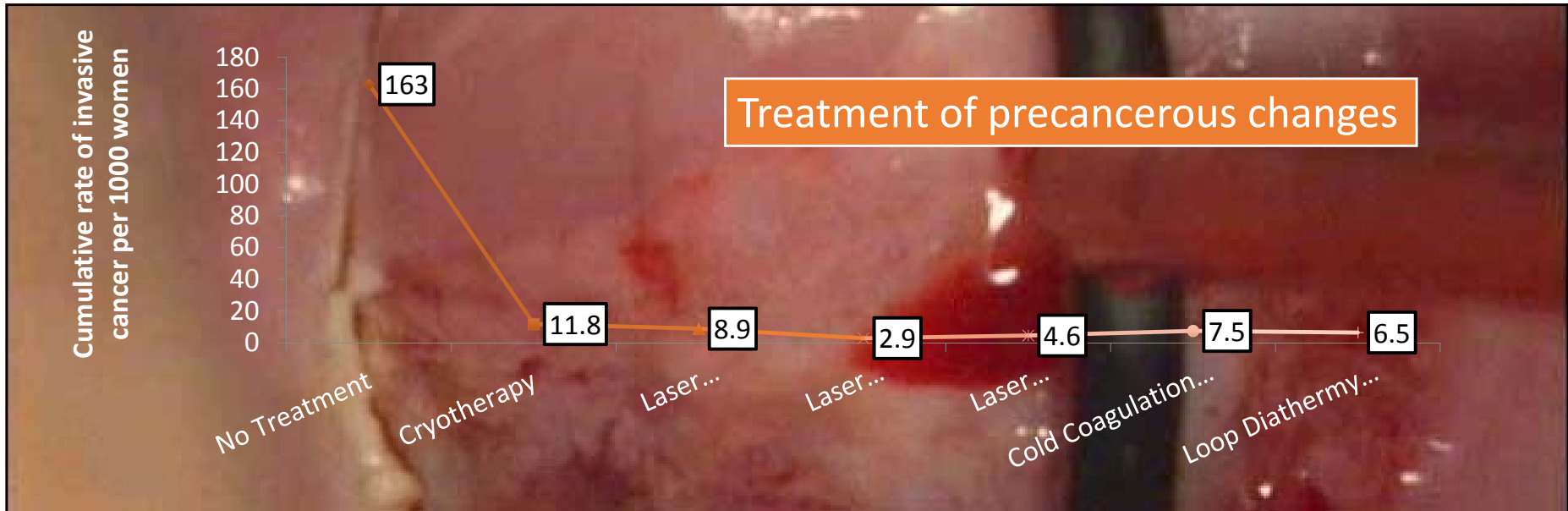
- Low grade CIN - the majority will resolve - Emphasis is on reassurance and follow up



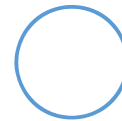
02

- High grade CIN – Likely to persist and some will develop cancer
- Emphasis is on treatment





Treatment works
Treatment of CIN reduces the risk of cervical cancer by 90%
Most are done in OPD under local anaesthetic



Follow up
After treatment – women are still at risk and need close follow up

Long term considerations – effect of Excision on Pregnancy

CervicalCheck
AN CLÁR NAISIÚNTA SCAGHÁSTÁLA CEIRBHEACS
THE NATIONAL CERVICAL SCREENING PROGRAMME

Meta- analysis
suggested increased risk
preterm delivery and
midtrimester
miscarraige

Related to the depth of
excision

More common if
multiple treatment

Recent evidence –
depth of excision less
than 1 cm no increased
risk



CervicalCheck colposcopy services



Colposcopy services provided at

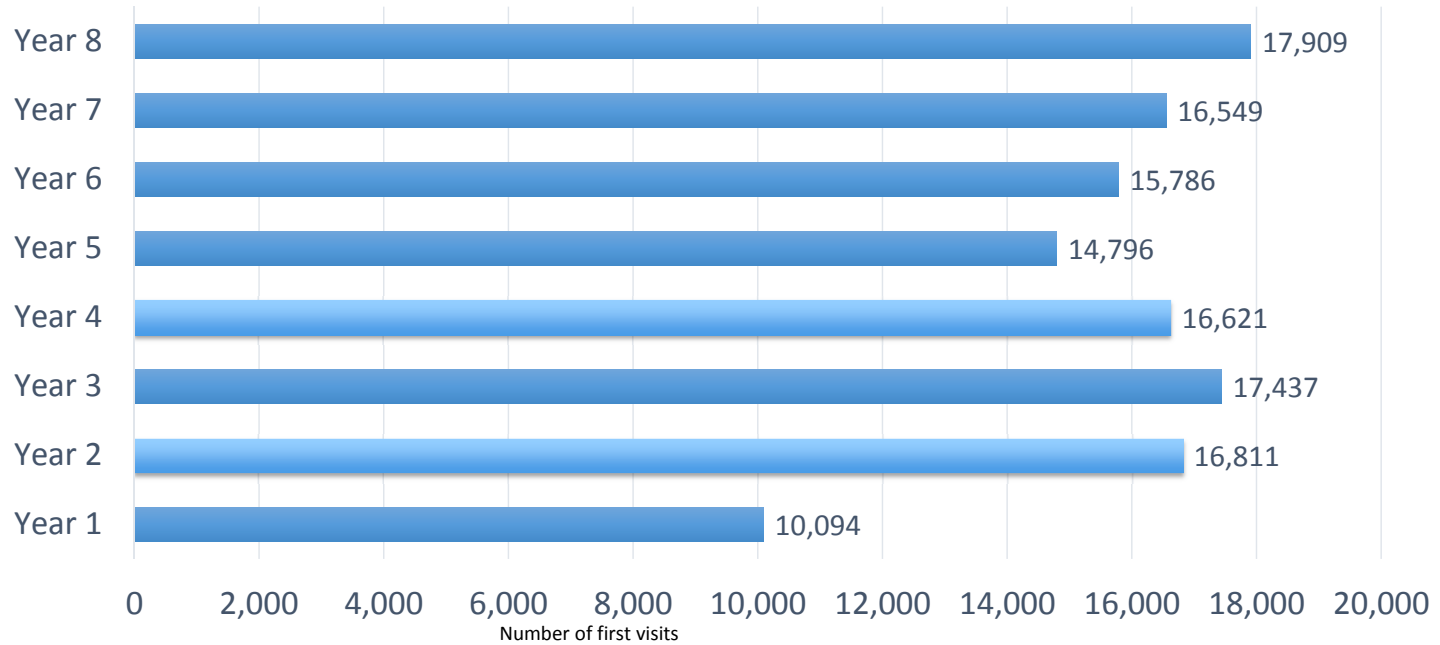


In 2007 – 7000 new patient appointment opportunities

2008- new patient capacity increased to 16,500

2015 – capacity increased to 19,500 to accommodate HPV triage of low grade abnormalities

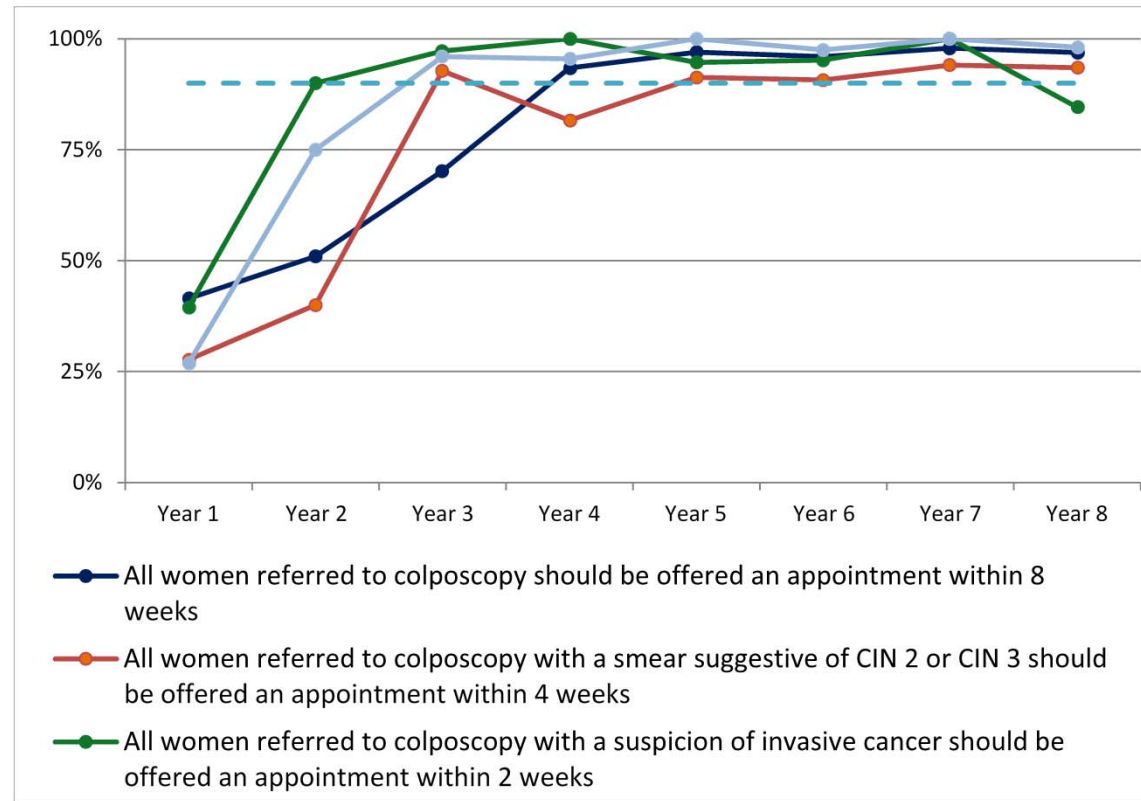
CervicalCheck growth in annual new patient attendances



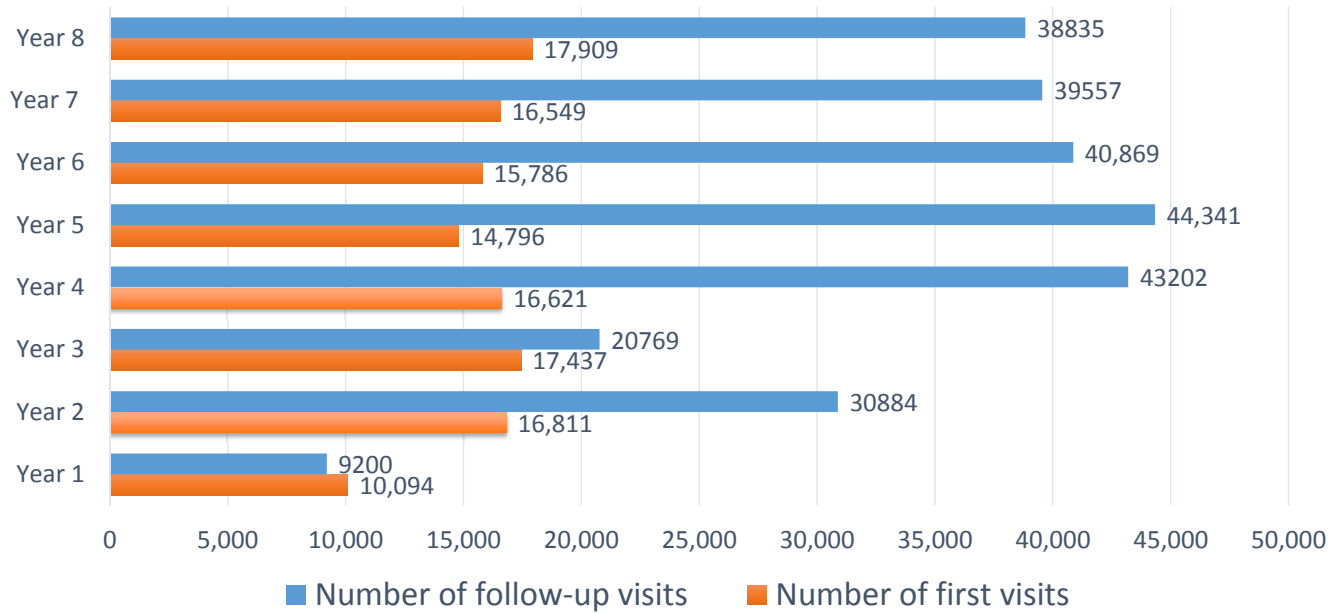
Improving access to colposcopy – reducing waiting times



Target



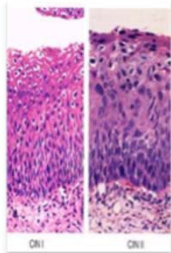
Improving access to colposcopy – Impact on follow up attendances



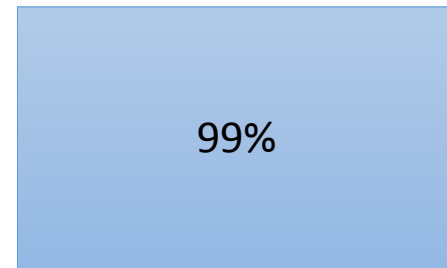
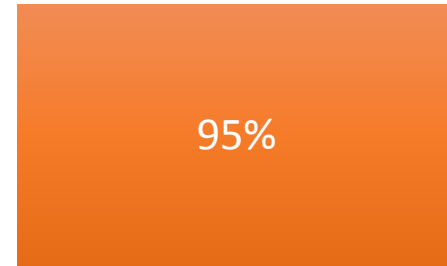
Improving Diagnosis – Biopsy Rate – Year eight results



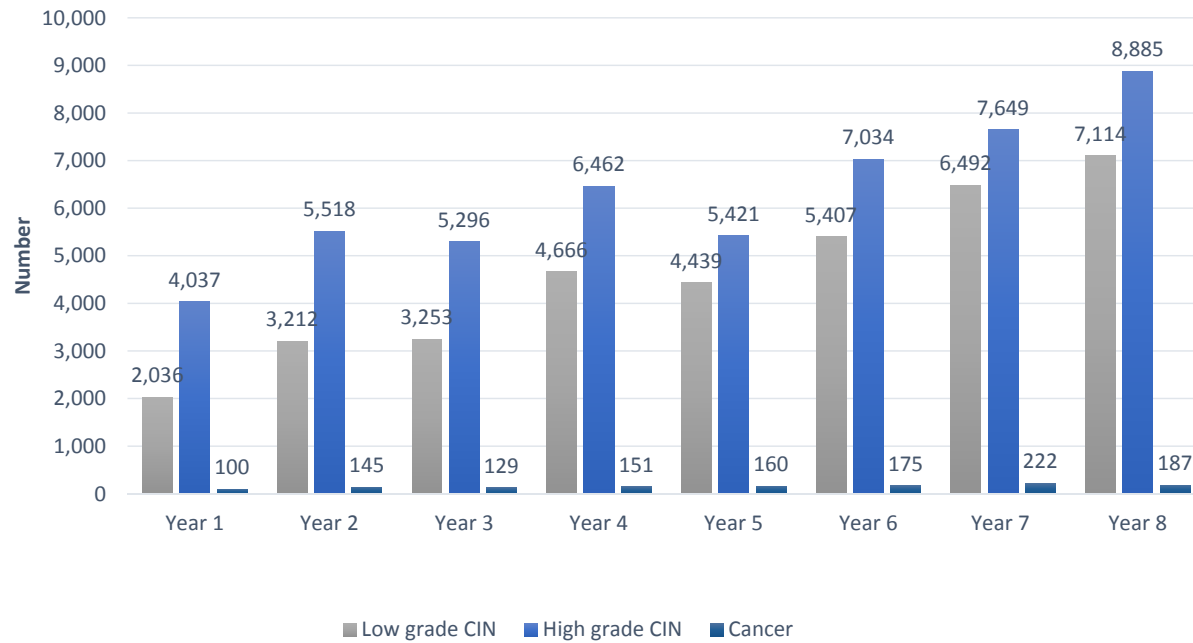
It is good practice to perform a biopsy in the presence of an atypical Transformation Zone to confirm the diagnosis. Target >90%



The biopsy should be suitable for analysis more than 95% of the time



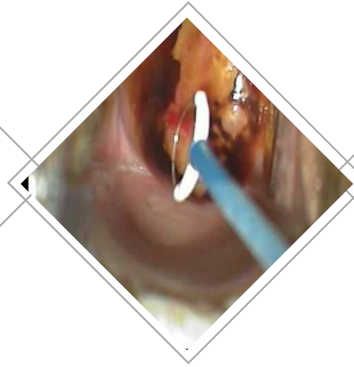
CervicalCheck -Detection of high grade abnormalities – the first seven years



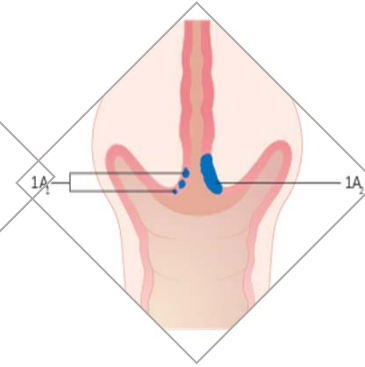
Achievements to date



1,000,000 +
Number of women screened. Five year coverage is now 79.5%



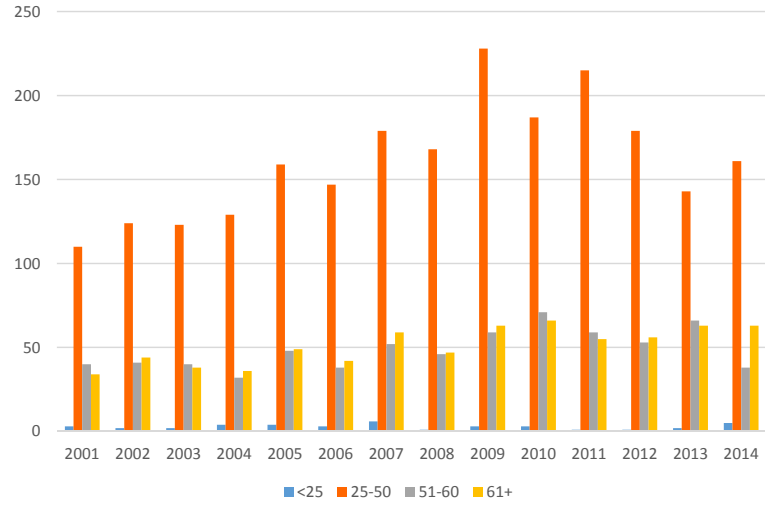
50,000 +
Number of women have been treated for high grade precancer



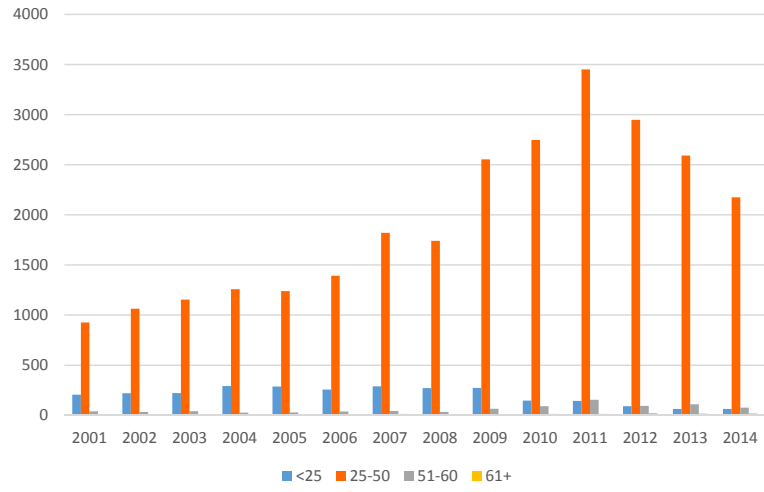
1,200 +
Number of cancers detected.



Numbers of cervical cancers according to age



Carcinoma in Situ (CIN3/AIS) according to age

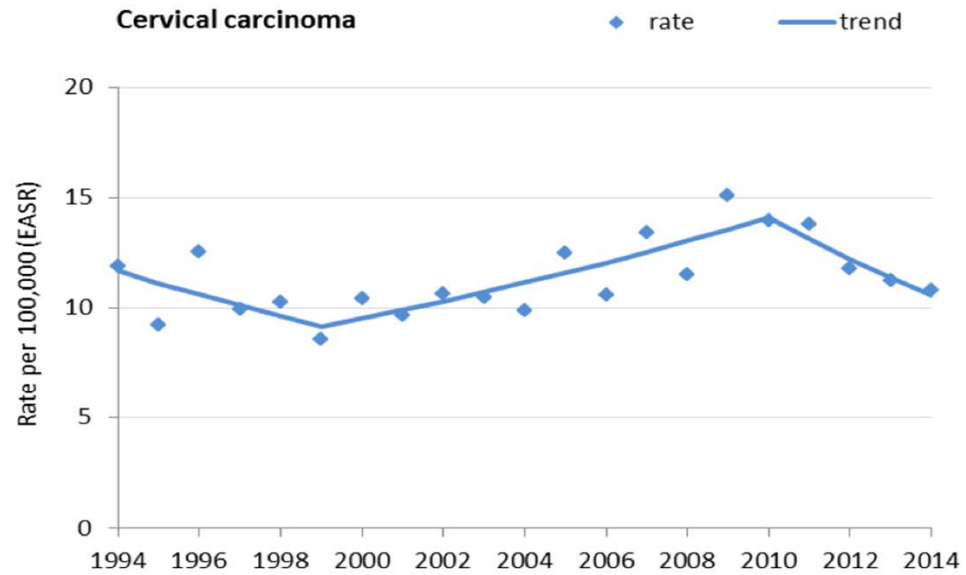


Cervical cancer rates

Figures to 2014

NCRI, 2017

Incidence dropped by 7% between 2010 and 2014



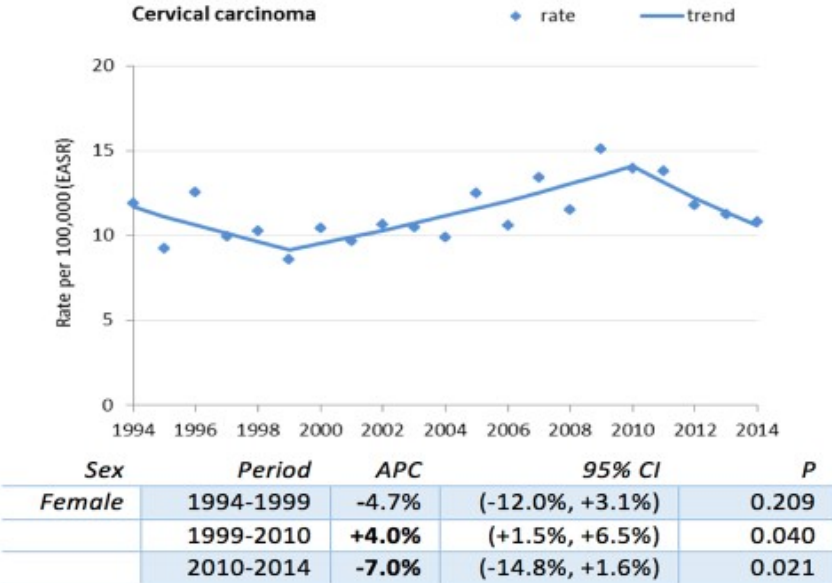
Sex	Period	APC	95% CI	P
Female	1994-1999	-4.7%	(-12.0%, +3.1%)	0.209
	1999-2010	+4.0%	(+1.5%, +6.5%)	0.040
	2010-2014	-7.0%	(-14.8%, +1.6%)	0.021

Cervical cancer rates

Figures to 2014

NCRI, 2017

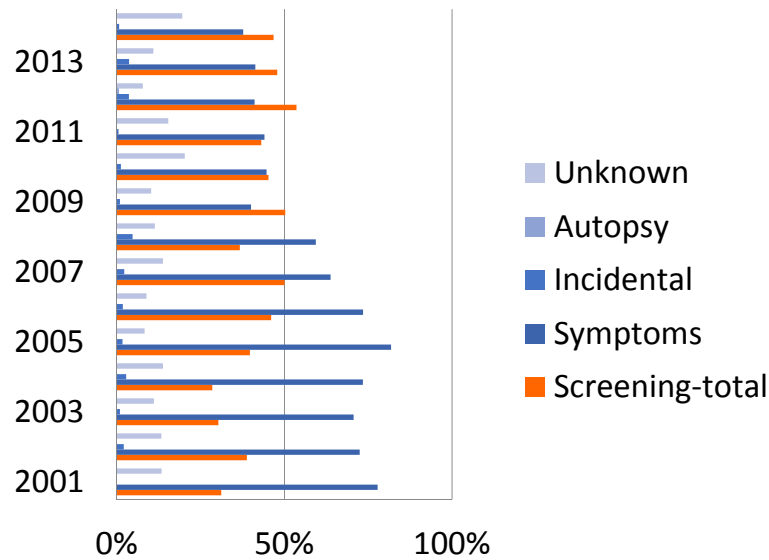
Incidence dropped by 7% between 2010 and 2014



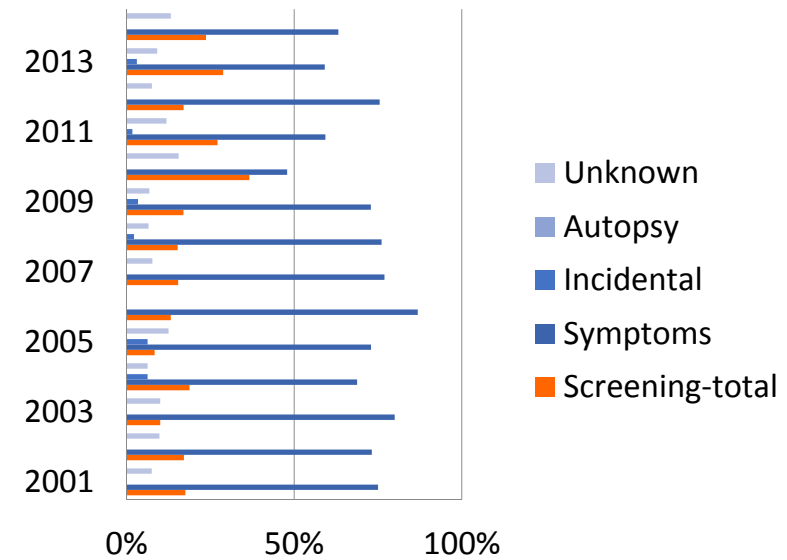
Trends in presentation of Cervical Cancer in Ireland according to age group



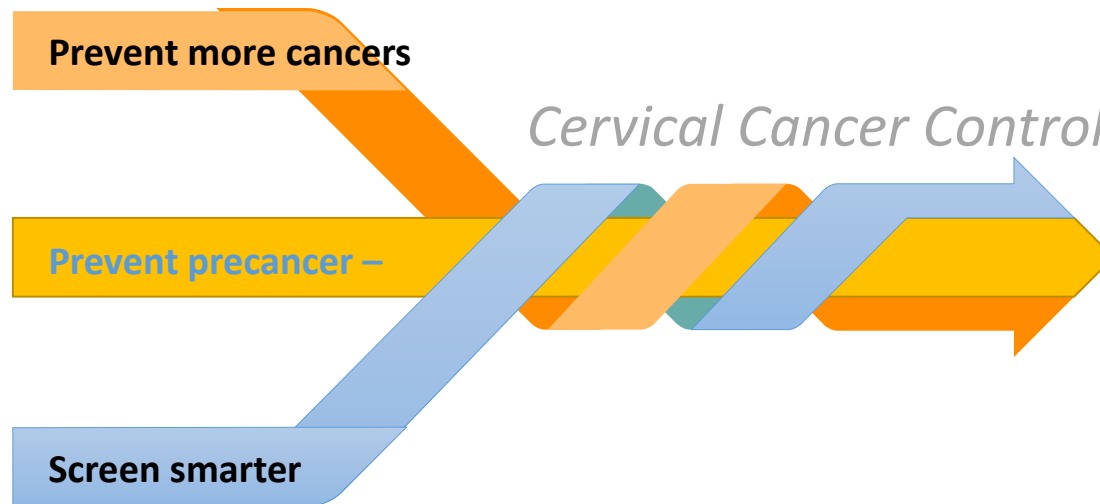
Presentation of cancers Age 25-50



Presentation of Cancers age 51-60



The future why high uptake of HPV vaccination is important to CervicalCheck



- Vaccination prevents against glandular cancers
- Reduce need for treatment which can effect pregnancy outcome
- Allow us to use smarter screening tools

nowledgements

