



**How to prevent cervical cancer:**

**HPV – we are coming to get you!**

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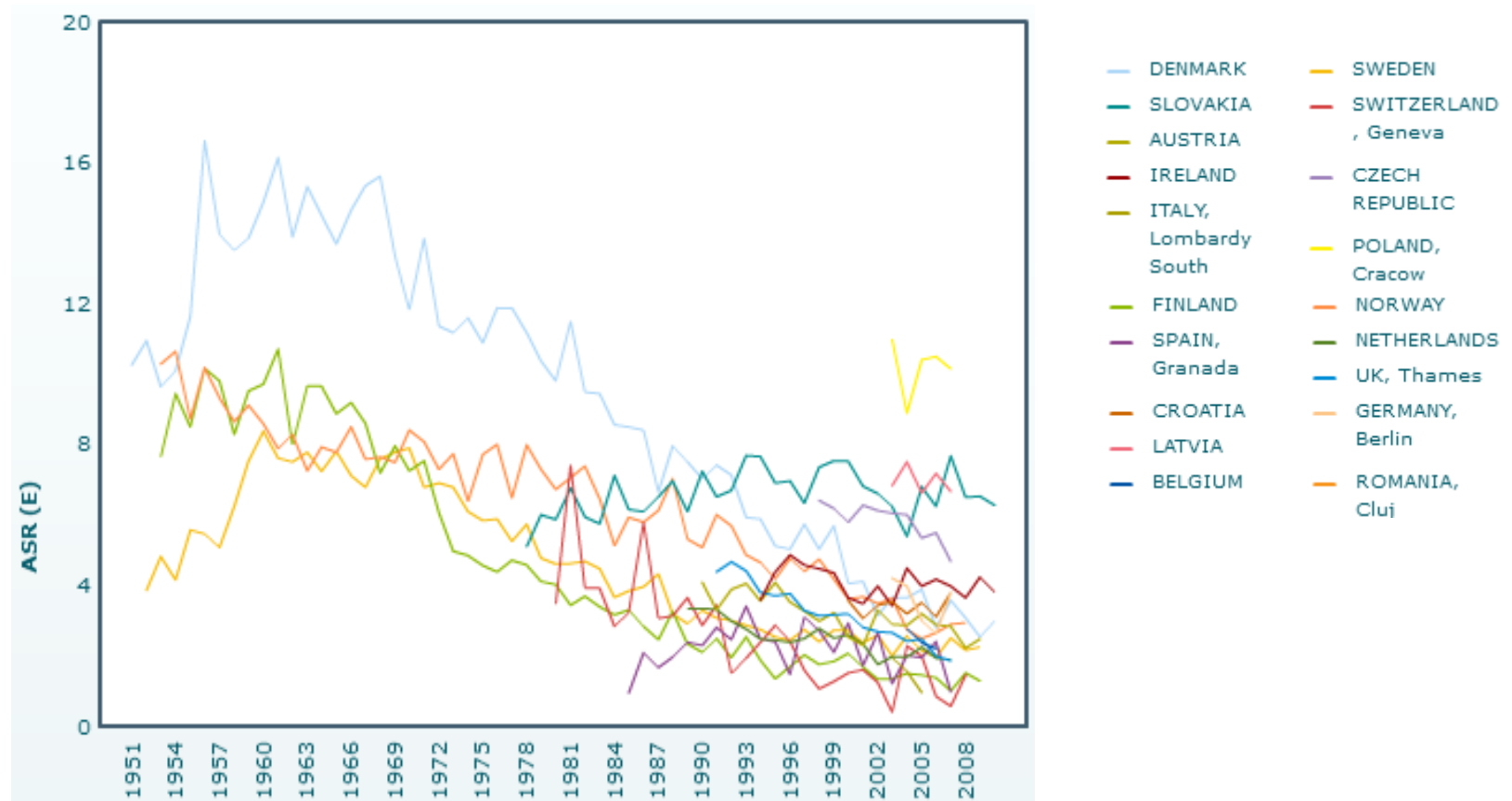
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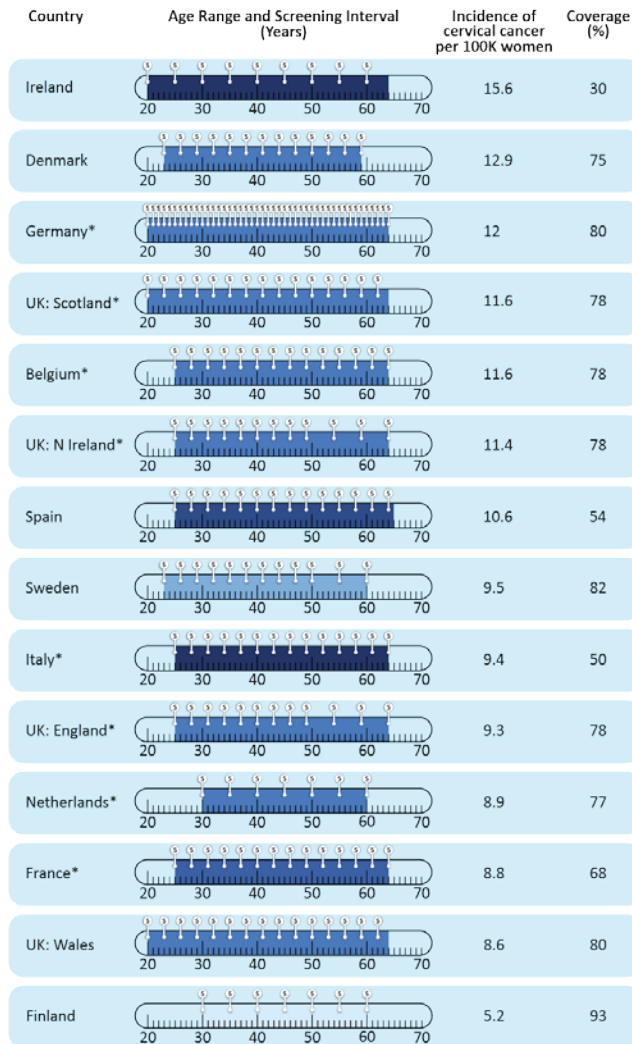
# Aims of the presentation

- Decades of efforts of cervical cancer prevention
  - What are we doing now?
  - What's not working?
  - What's left to do?

# Mortality has declined across Europe in most countries since the introduction of cervical screening, but ...



# Women are screened in different ways in each country



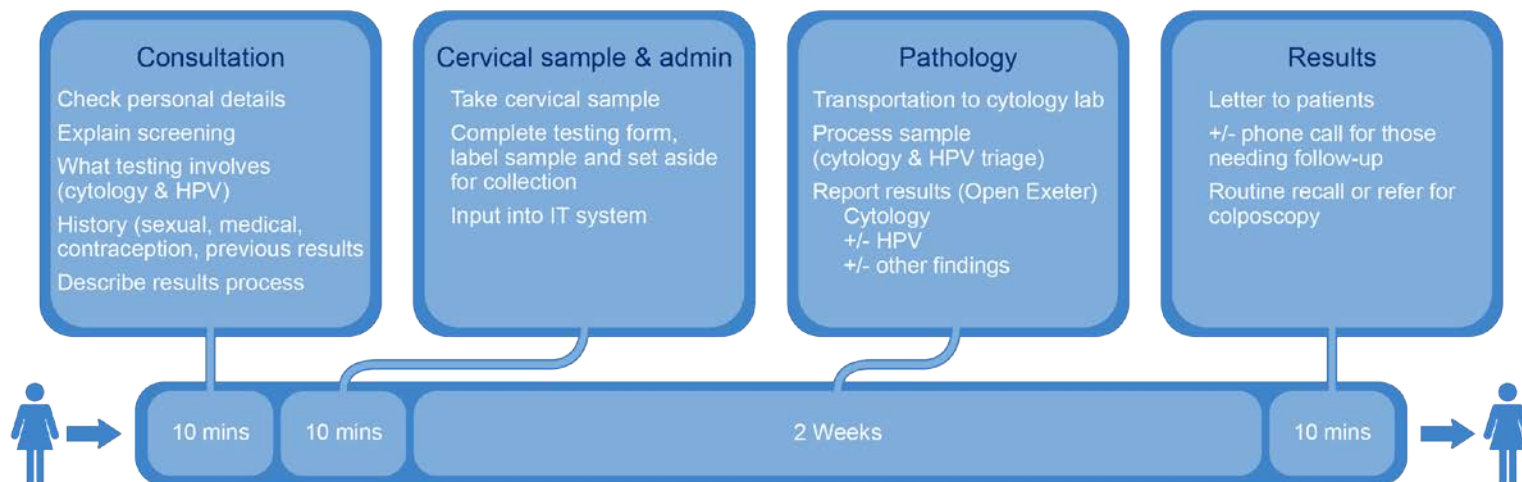
- It is difficult to see the correlation of screening algorithm with the incidence of cervical cancer

#### Coverage Rates (%)

50 and under - ■  
 51 to 60- ■  
 61 to 70- ■  
 71 to 80- ■  
 81 to 90- ■  
 91 to 100- ■

\*countries currently including HPV testing as a part of screening

# There are four main steps in the screening pathway from the patient and clinic perspective



# Population and public health perspective

- Reduced incidence or prevalence of
  - Infection
  - Complications and disease
- Better use of limited resources
- Reducing health inequalities



# Service / provider perspective

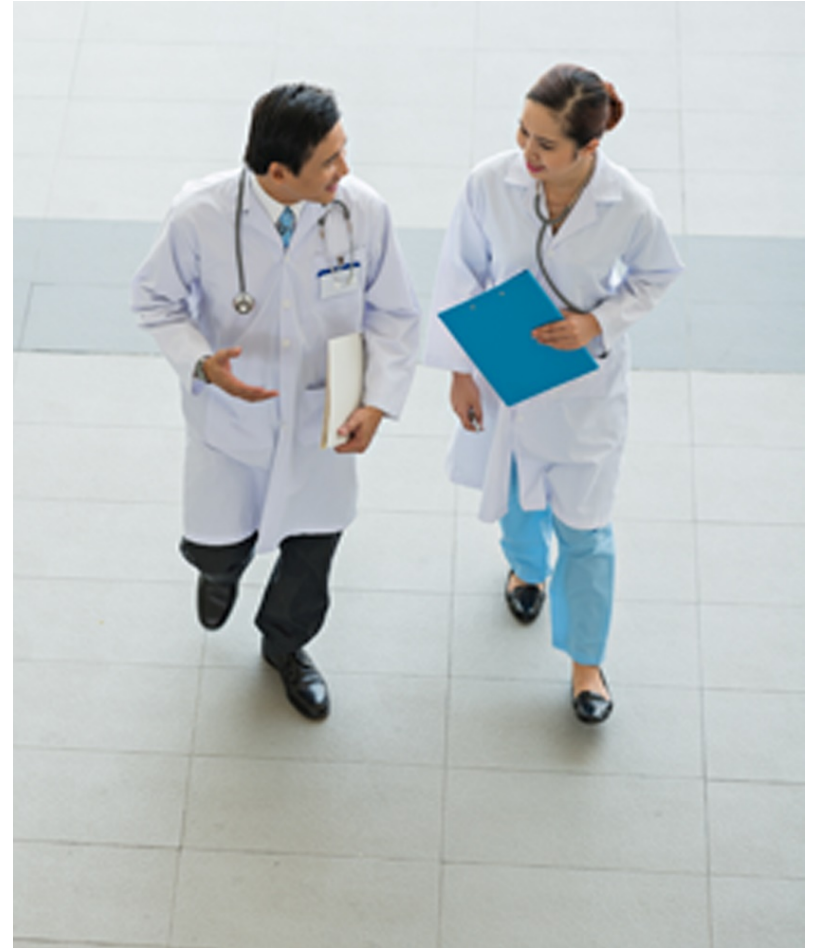
- Improve patient flow
- More efficient services
- Attracting new / different patients
- Reduce
  - Follow-up
  - Admin
  - Errors





# Clinician perspective

- Better
  - Care for patients
  - Patient outcomes
- Greater clinical confidence in diagnosis / treatment



# Patient perspective

- Better experience and communication
  - Less stressful / anxiety
- Better coordination of care and medical information
- Faster results
- More effective treatment
- Faster return to health
- Prevent or reduce risk of short and long term complications



# Imagine you are a patient

You go to your clinic to have a cervical smear and/or HPV swab taken.

The nurse says you have a choice:

Standard test – get results in 2 weeks

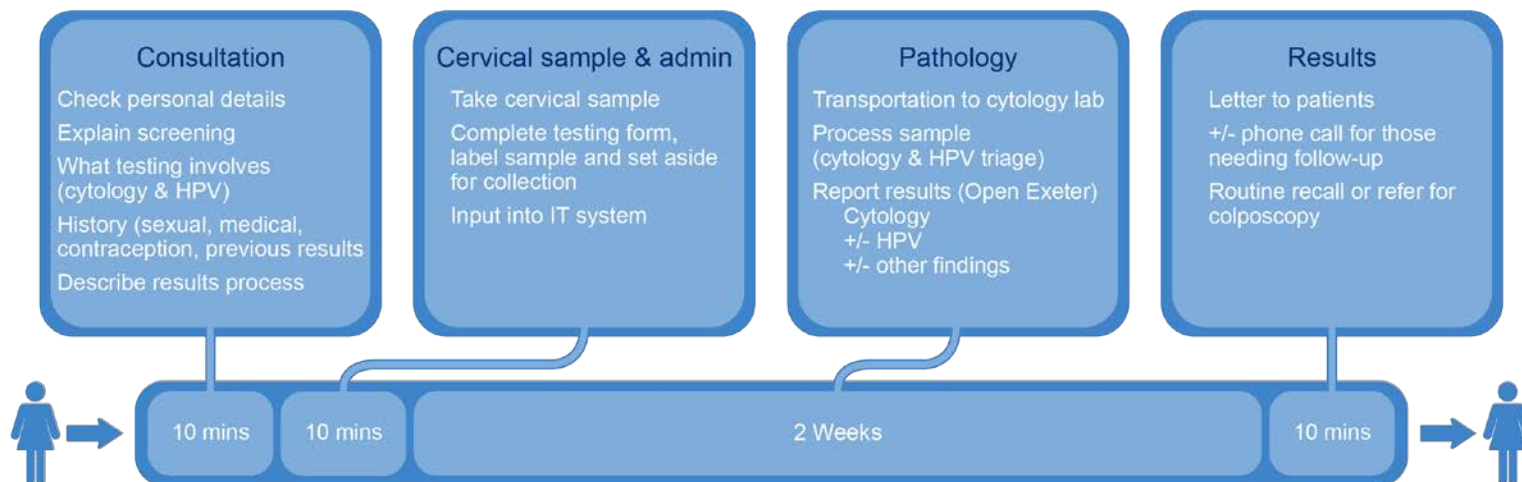
Point of care test – get results in 2 hours

**As a patient, what would you choose?**

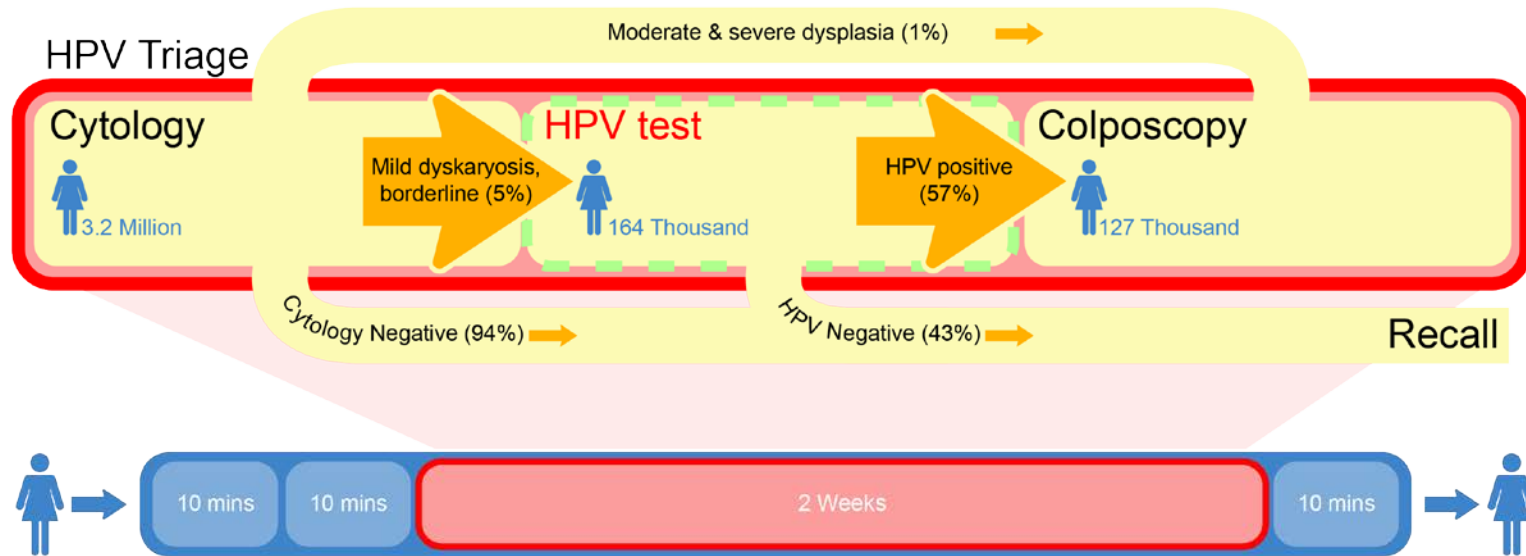
# What do we need to do to understand the **benefits**, **costs** and **value** of a new rapid test?



# Where would a rapid test fit into the current screening pathway?



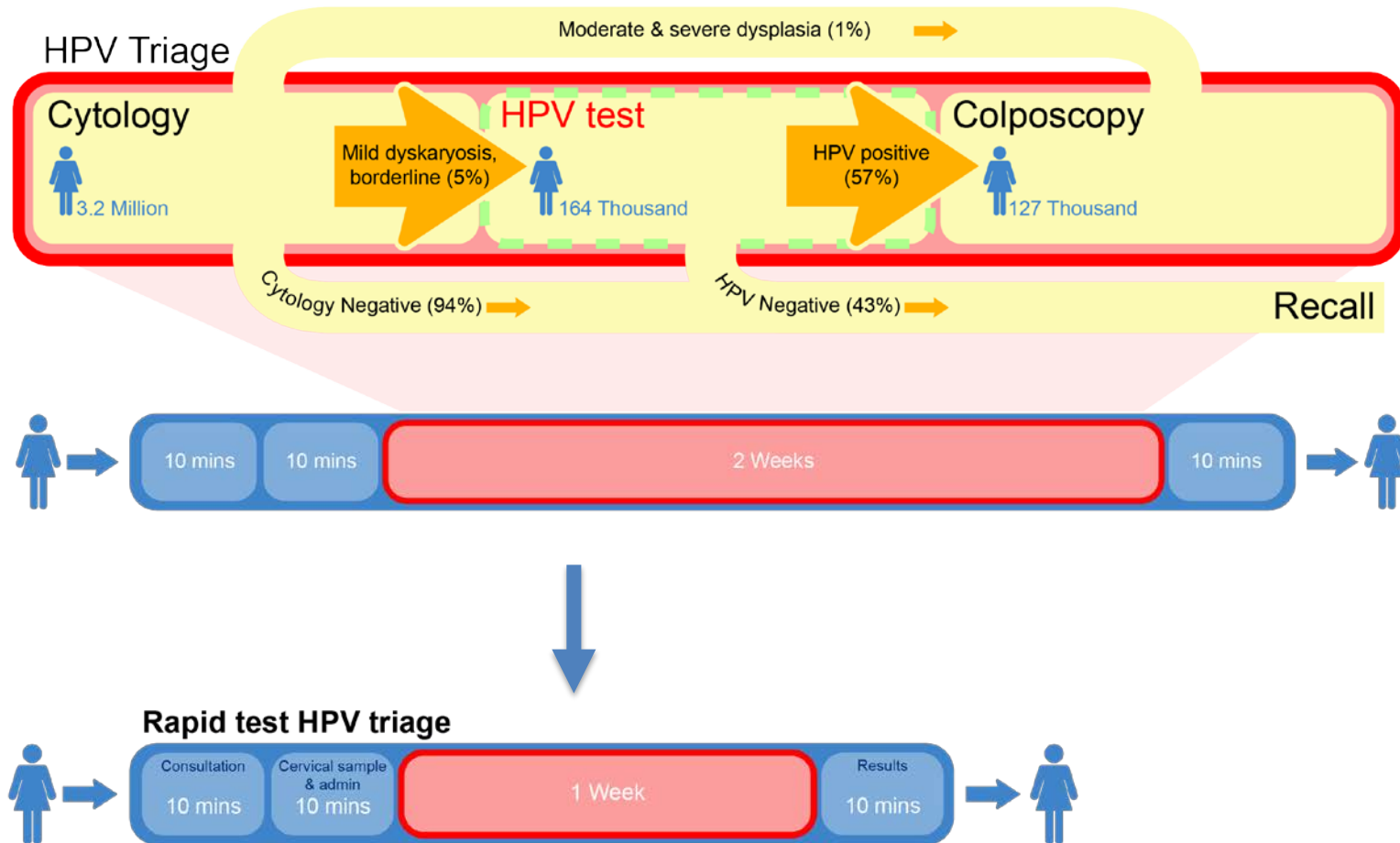
# Using a rapid HPV test for triage testing



# Opportunities for a rapid HPV test under HPV triage

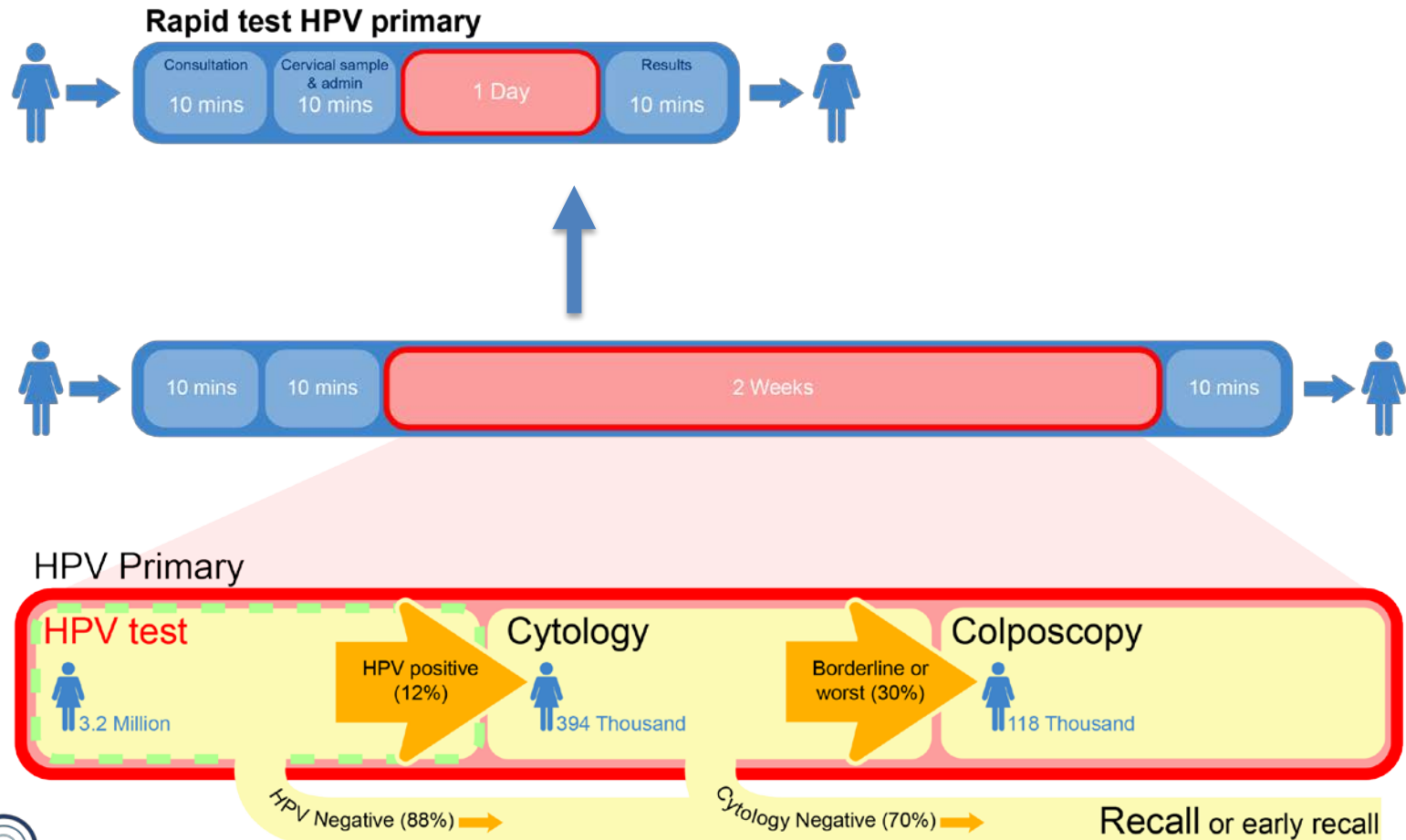
- Random access rapid test – quicker results and reporting
- Faster turnaround time = patient benefit
  - Reduce transport from cytology to HPV lab
- HPV triage volumes ideal for random access platform
- Cytologists want more involvement in patient management

# Using a rapid HPV test for triage testing





# Integrating HPV primary screening with cytology triage



# Advantages and concerns of implementing a rapid HPV test in clinics

## Advantages

- Women want a faster result
- Could reduce anxiety
- A new test/testing paradigm might encourage women to be screened
- ↓ Time to results for negatives
- ↓ Transportation
- Rural patients and practices
- ↓ Reporting errors

## Concerns

- ↑ Workload for practice staff
- Impact on screening uptake?
- Commissioning/funding systems
- False positives (increase anxiety)
- Benefits across disease management pathway?
- Quality control issues

# Experts' views on a rapid HPV test

*"A point of care test for HPV [in primary HPV screening] may not be good for a service but could be good for patients"*

**– GP consultant**

*"My first thoughts are that it sounds good on paper, and might be good in certain situations, but it's likely to be more work and more expensive, so I'm not sure"*

**– GP nurse**

*"We need to collect data on patient views about a rapid result and about the anxiety of waiting for a result"*

**– Commissioner**

*"How would we quality control a rapid testing platform in the community?"*

**– Policy maker**

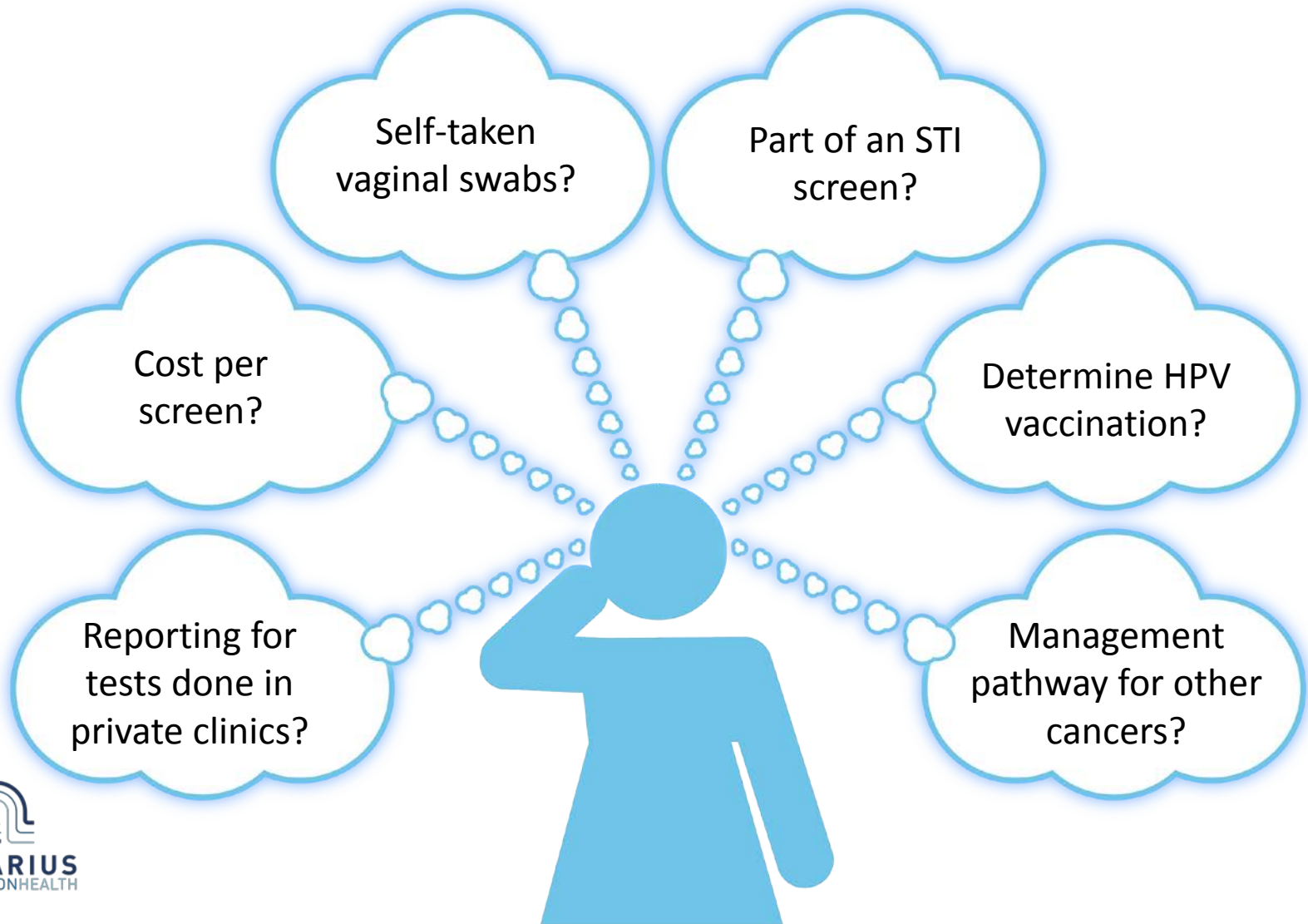
*"A good model might be for local primary care networks to have one clinic that processes the rapid tests, like a localised 'hub and spoke' model"*

**– GP consultant**

*"I think a rapid test might encourage women to attend who don't usually go for screening"*

**– Gynaecologist**

# Questions to consider for the future about HPV testing



# We need new ways to identify and access patients who don't engage current services

- Reasons for not accessing services
  - Convenience / accessibility
  - Stigma
  - Anxiety / embarrassment
  - Education
  - Cultural issues
  - Special needs
  - Private vs public
  - Cost

*Szarewski et al., 2011; Blomberg et al., 2008; Neilson and Jones, 1998; Orbell, 1996; Oscarsson et al., 2008; Waller et al., 2009*

# New opportunities using self-taken samples for HPV testing

- Increasing evidence is available about the performance of self-collected samples vs clinician collected
- Several important points
  - Recruitment determines effectiveness; letter vs direct sampling kit(*see also Verdoodt, Euro J Cancer 2015*)
  - Performance and acceptability of the sampling device
  - Clinical performance of the test
  - Managing hrHPV results (loss to follow-up)

*Arbyn and Castle, Cancer Epidemiology, Biomarkers & Prevention 2015 (Commentary to Rozemeijer K, Kok IMCM, Naber SK, et al, Cancer Epidemiology, Biomarkers & Prevention 2014)*

# Opportunities in LMIC

- Toliman et al, JCM, online first April 13, 2016
  - Papua New Guinea, women asked to provide self-collected vaginal swab and clinician collected cervical sample
  - Women with positive findings offered cryotherapy same day—transforming care to a ‘test and treat’ model
  - Found good agreement between both samples
- Kuhn et al, National Cancer Institute meeting, 2016
  - Compared self-take swabs to clinician collected swabs in South Africa for test and treat
  - Patient sampling acceptable; test needs to have good performance on both samples

# Potential impact of a rapid test

- For low-resource areas with less clinical support, self-collected samples and rapid testing could make a big difference to care (*Catarino, WJCO, 2015*)
  - Trained staff not needed to collect sample
  - Simple, rapid tests now a possibility
  - Same day treatment – more targeted approach
- Possibilities of using urine and/or self-taken vaginal swab
  - Impact of rapid testing for other STIs and test & treat models
  - *Piyathilake Cancer 2016; Senkomago J Clin Virol. 2016; Ducancelle, J Infection, 2015*
- Increase uptake of screening (or facilitate screening)
- Can transform current pathways



# Questions please!



# **AQUARIUS**

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