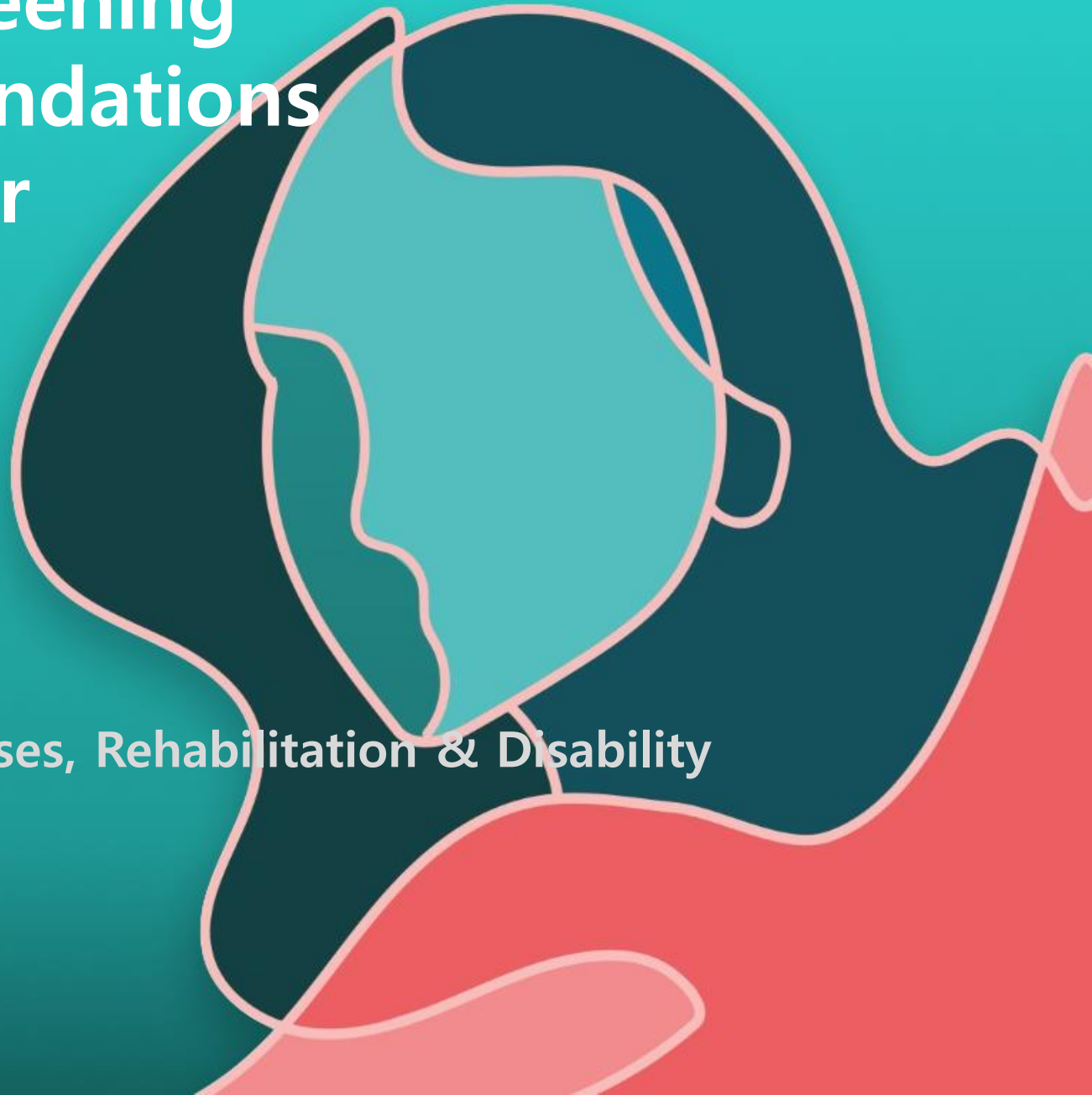
WHO Cervical Cancer Screening and Treatment Recommendations to Prevent Cervical Cancer



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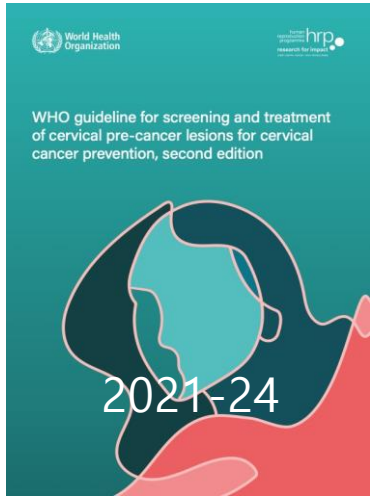
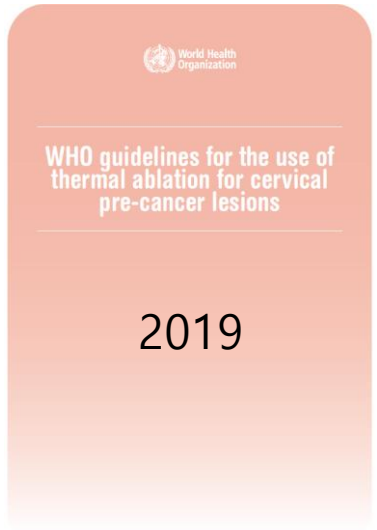
Implementation Scientist
Cancer Team
Department of Non-Communicable Diseases, Rehabilitation & Disability

World Health Organization

2021 Cervical cancer screening and treatment guidelines
HPV testing – (triage) - ablative treatment





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GENERAL FEMALE POPULATION
Screen-and-Treat or Screen, Triage & Treat

Primary screening test
- High-performance HPV DNA Test
  - On provider- or self-collected samples
  - Starting at age 30
  - Every 5 to 10 years
- High-performance mRNA Test
  - Only on provider-collected samples
  - Every 5 years

Triage with HPV16/18, VIA, cytology, colposcopy or dual-stain cytology

Treatment
- Ablative treatment if eligible
- Referral for excision or other

WOMEN LIVING WITH HIV
Screen, Triage & Treat

Primary screening test
- High-performance HPV DNA test
  - On provider- or self-collected samples
  - Starting at age 25
  - Every 3 to 5 years

Triage with HPV16/18, VIA, cytology or colposcopy

Treatment
- Ablative treatment if eligible
- Referral for excision or other

WHO Cervical Cancer Screening and Treatment Guidelines
Further dissemination tools

World Health Organization

HPV16 X found 3 recommendations

In a screen-and-treat approach using HPV DNA detection as the primary screening test, WHO suggests treating women who test positive for HPV DNA among the general population of women. In a screen, triage and treat approach using HPV DNA detection as the primary screening test among the general population of women, WHO suggests using partial genotyping, colposcopy, VIA or cytology to triage women after a positive HPV DNA test.

Certainty of evidence ⊕⊕⊕○ Moderate

Recommendation strength strong

In a screen, triage and treat approach using HPV DNA detection as the primary screening test among women living with HIV, WHO suggests using partial genotyping, colposcopy, VIA or cytology to triage women after a positive HPV DNA test (Annex 4).

Certainty of evidence ⊕⊕⊕○ Moderate

Recommendation strength conditional

3a. **In a screen-and-treat approach** using HPV DNA detection as the primary screening test, WHO suggests treating women who test positive for HPV DNA among the general population of women.

Certainty of evidence ⊕⊕⊕○ Moderate

Recommendation strength conditional

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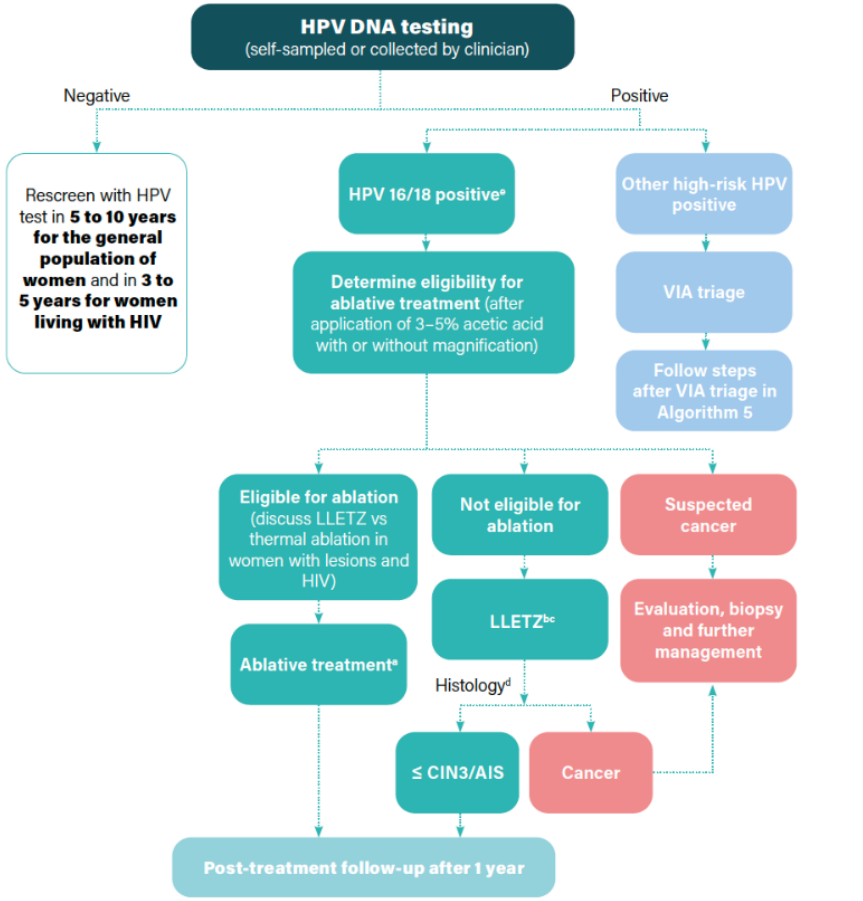
Back



Updating recommendations - Systematic reviews

Emerging considerations when carrying recommendations & systematic reviews process

When is there sufficient evidence to consider formulating or updating a recommendation?

Are other technical products needed to support the guideline process and public health needs?

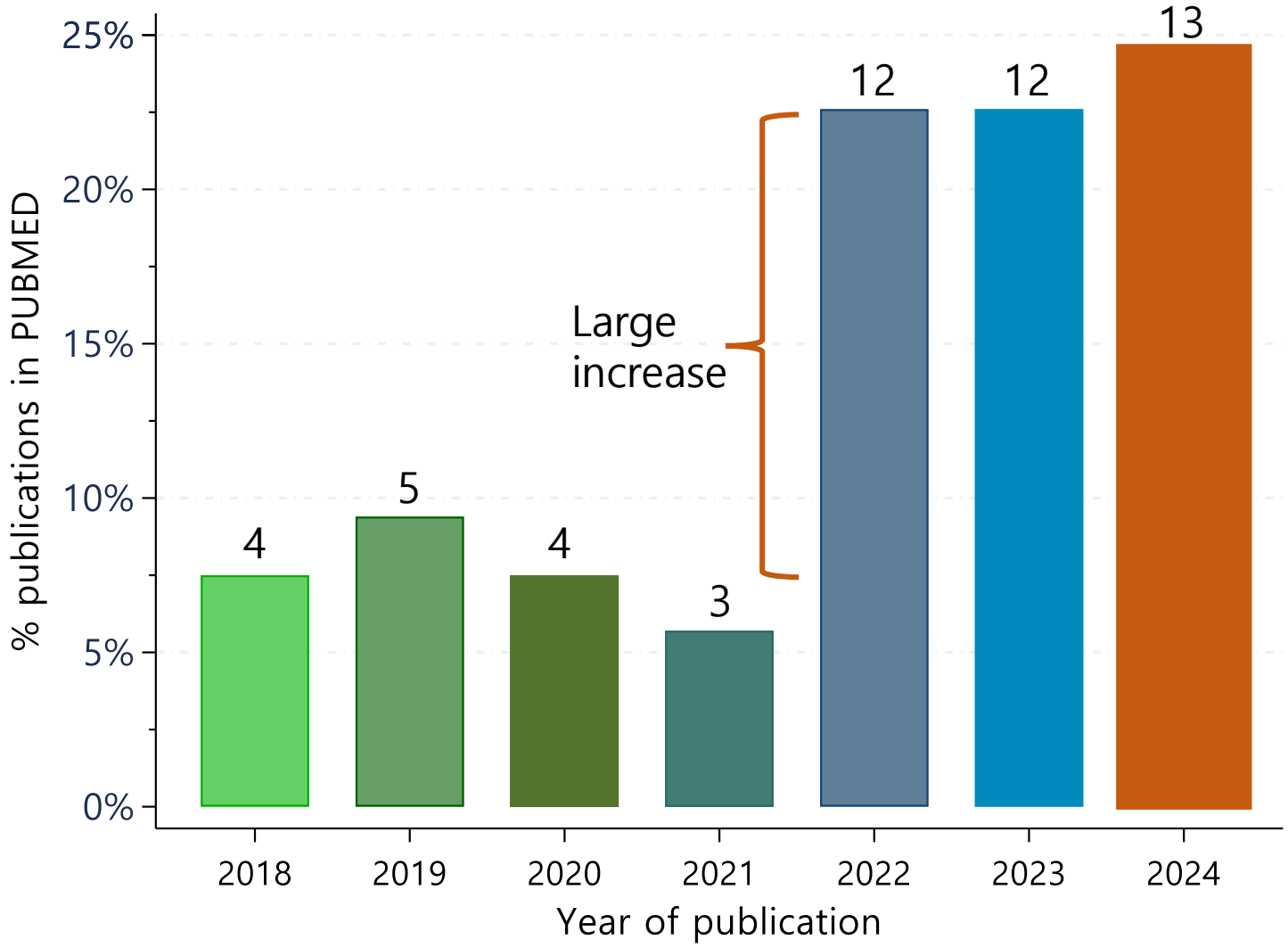
Do we know the metrics to use in the performance evaluation of novel technologies?

1. When is there sufficient evidence to consider formulating or updating a recommendation?

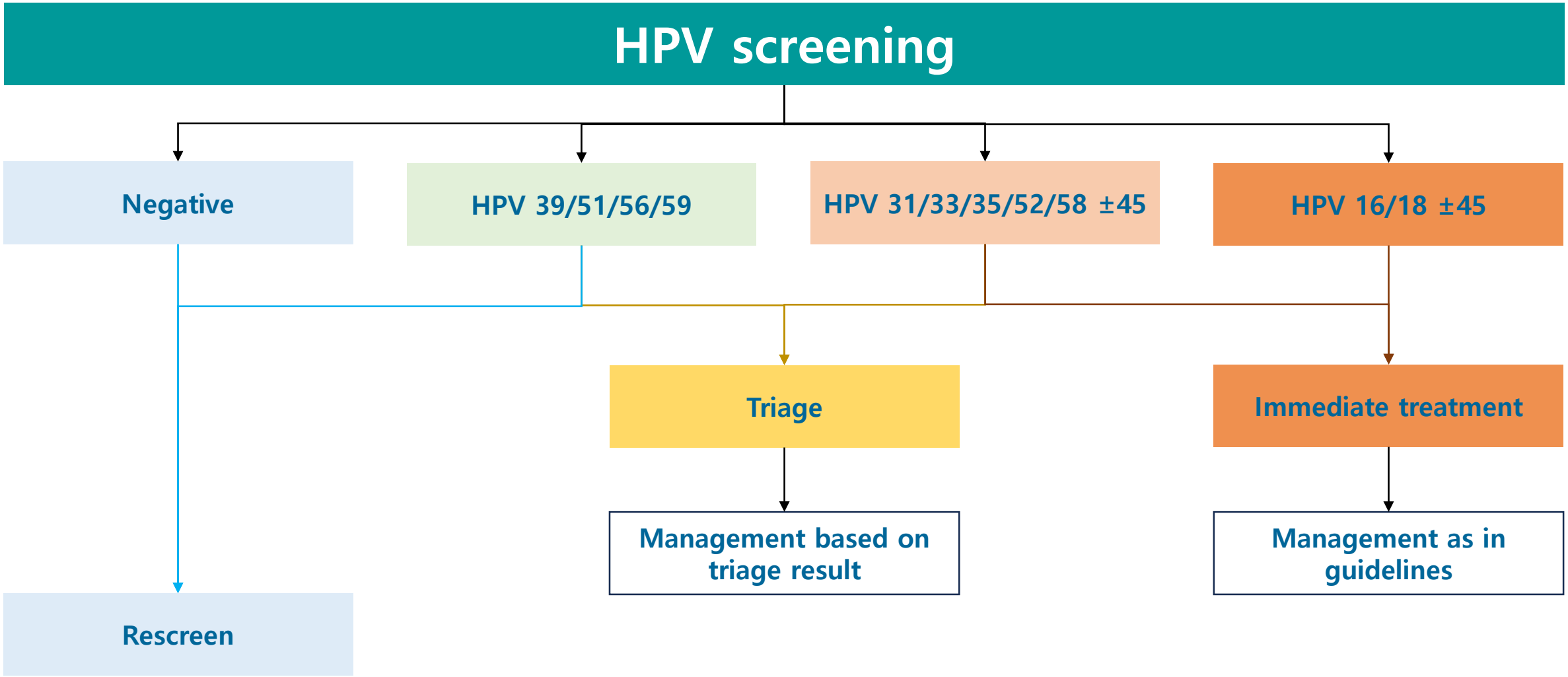
- Monitoring through regular systematic reviews

GDG decision

PUBMED publications "referring" HPV extended genotyping 2018-24

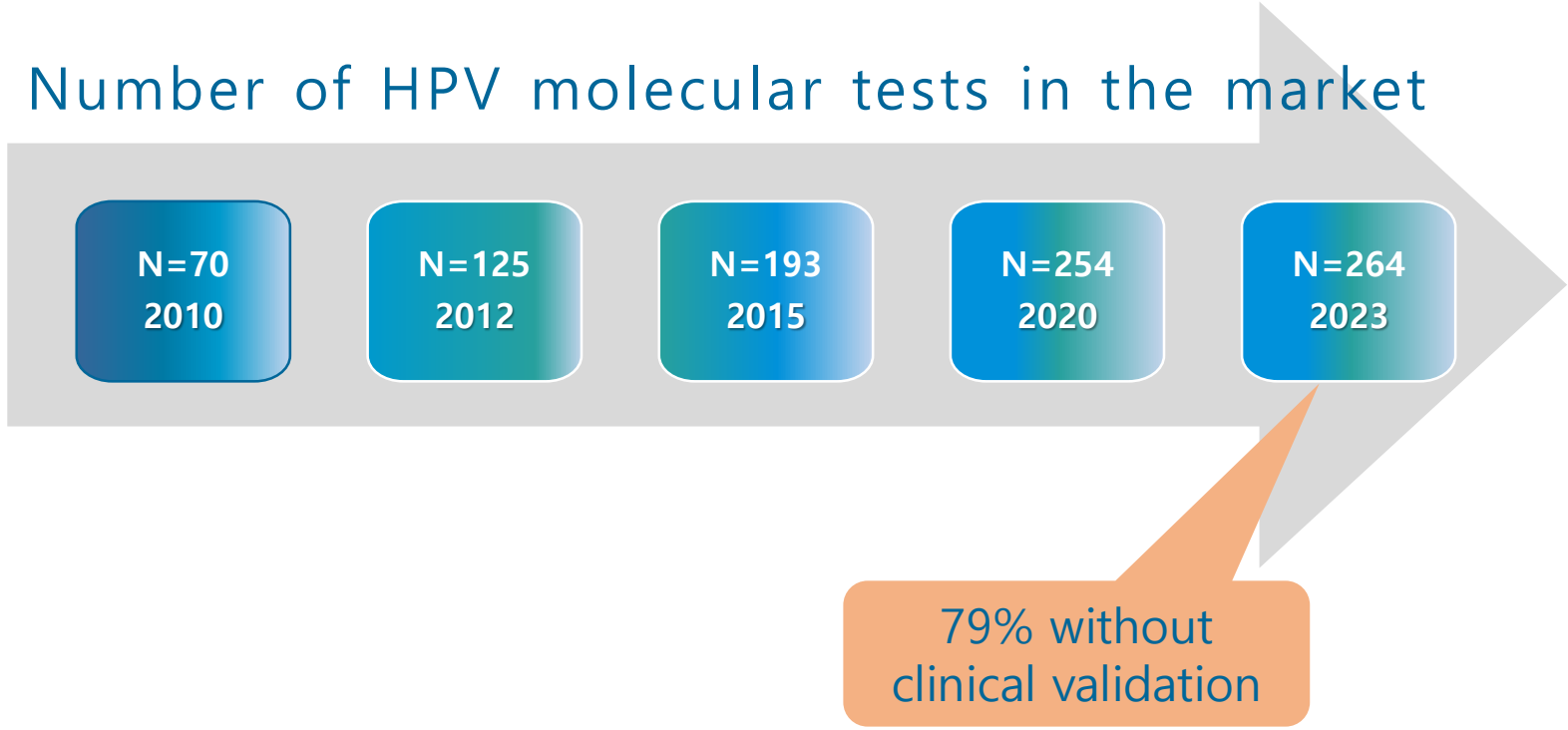


Possible extended genotyping–based management algorithms



Do other technical products need to be developed to support the living process and public health needs?

264 HPV tests but availability of affordable high-performance HPV tests remains limited!



Poljak, J Clin Virology 2024

WHO Target Product Profiles for HPV screening tests to detect cervical pre-cancer and cancer

- WHO TPPs guide and coordinate development of new health products with clear product characteristics, considering populations, access and equity from the outset

- WHO TPPs for HPV screening tests aim to direct tests developers & manufacturers to prioritize technologies that can contribute to countries' efforts to reach 70% screening coverage elimination target

- HPV TPPs Technical Development Group (TDG) composed of 39 members
  - ✓ Multiple expertise, stakeholders and women's representatives
  - ✓ Representation balanced by WHO region

- TPPs outline desired profile of a product, with two characteristics per parameter:
  - ✓ minimal (lowest acceptable)
  - ✓ preferred (ideal)

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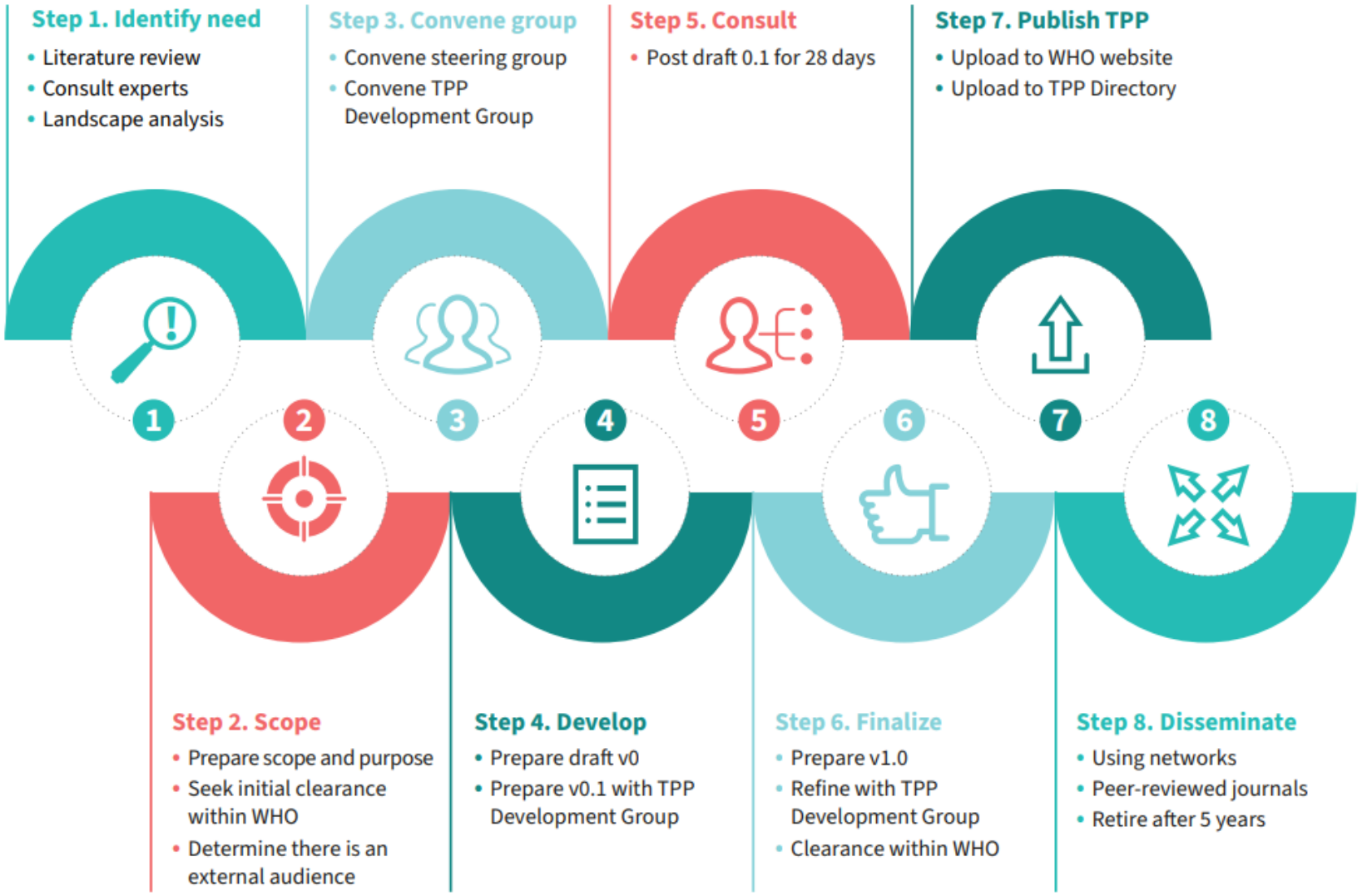
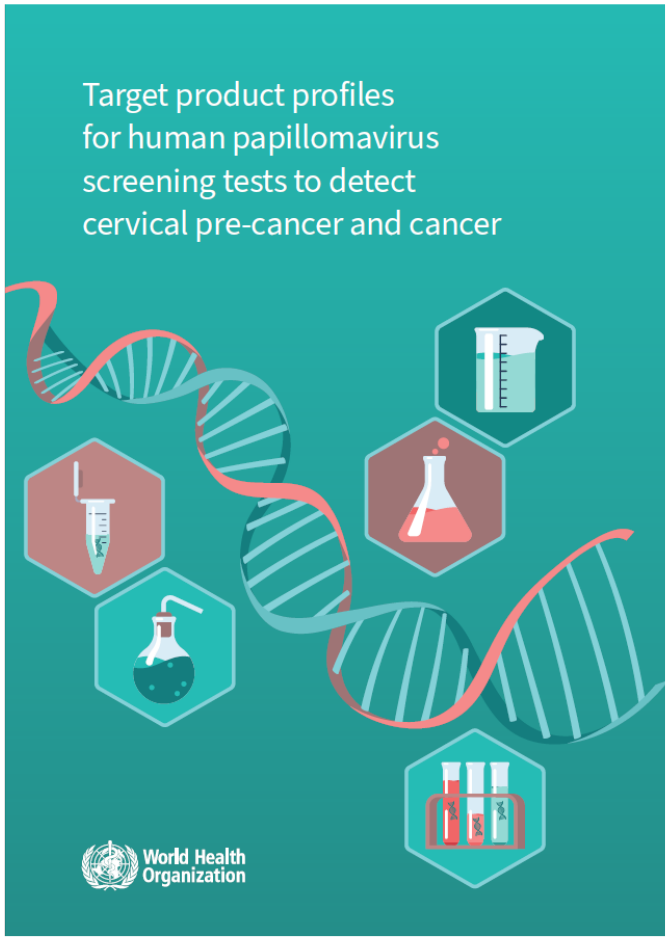
Target Product Profiles for HPV screening tests to detect cervical pre-cancer and cancer



WHO Target Product Profiles for HPV screening tests



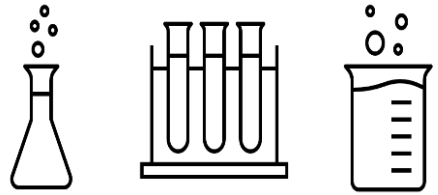
In person meeting in Costa Rica

November 2023

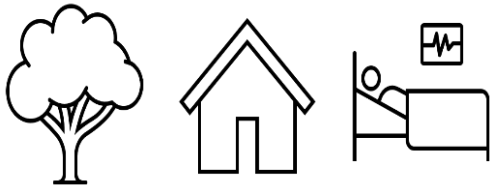
https://www.who.int/publications/i/item/9789240100275

2 Target Product Profiles for HPV screening tests

✓ For laboratory use



✓ For point-of-care use



We need to scale up!

Minimal and Preferred Characteristics 41 Parameters across Eight Domains

- Scope
- Technical specifications
- Performance
- Design and operation
- Conditions
- Quality and standards
- Connectivity
- Cost

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Genotype Spectrum and result output

Subgroup	Carcinogenic HPV types included
Group 1a	HPV16
Group 1b	HPV18, HPV45
Group 1c	HPV31, HPV33, HPV35, HPV52 and HPV58
Group 1d	HPV39, HPV51, HPV56 and HPV59

LABORATORY

- ✓ Minimal:
  8 cHPV, Groups 1a, 1b and 1c
  at least TWO signals:
  - 16 individual or grouped with 18/45
  - 31, 33, 35, 52, 58 pooled

- ✓ Preferred:
  12 cHPV, Groups 1a, 1b, 1c and 1d
  at least FOUR signals:
  - 16
  - 18, 45 individual or pooled
  - 31, 33, 35, 52, 58 pooled
  - 39, 51, 56, 59 pooled

POINT-OF-CARE

- ✓ Minimal:
  8 cHPV, Groups 1a, 1b and 1c
  ONE pooled signal (P/N):
  - 16, 18, 45, 33, 58, 31, 52, 35

- ✓ Preferred:
  12 cHPV, Groups 1a, 1b, 1c and 1d
  at least TWO signals:
  - 16 individual or grouped with 18/45
  - 31, 33, 35, 52, 58, 39, 51, 56, 59 pooled

3. Do we know the metrics to use in the performance evaluation of novel technologies?

Artificial intelligence for cervical cancer screening and treatment

Centralised image repository?

Images

Ownership

Use

Time of storage

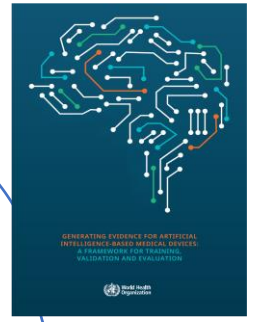
Ethics

Algorithms

Development

Training & Validation

Implementing & Monitoring



Role in screening?

Triage

Treatment eligibility

Other

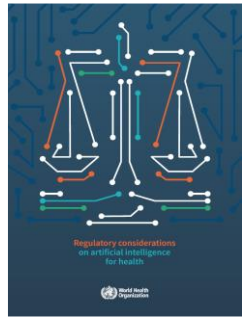
Devices?

Mobile phones

Portable colposcopes

Dedicated devices

Regulatory Mechanism



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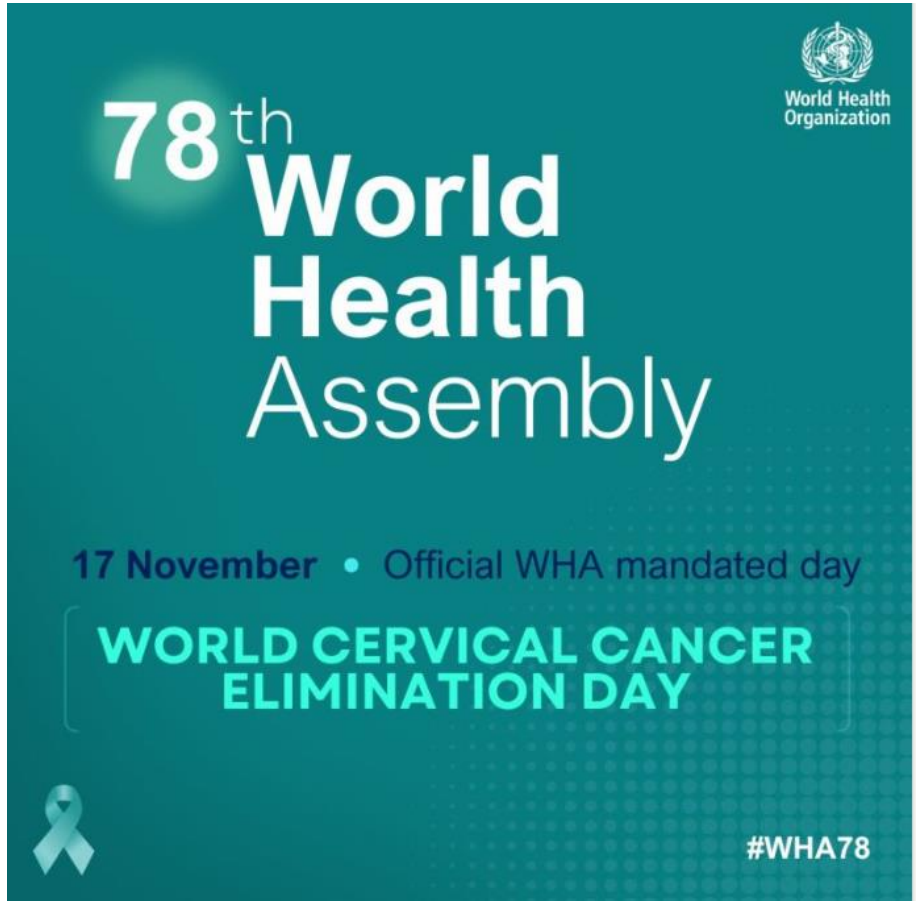
In summary

- Technology is evolving fast, a process for updating recommendations is essential
- Recommendations should be based on evidence on performance and feasibility to facilitate countries to make informed decision when adoption emerging technologies
- Other workstreams will require attention, such as the WHO Target Product Profiles for HPV screening tests, having dialogues with the private sector and WHO Prequalification IVDs
- Validation criteria appropriate for some novel technologies such as AI needs to be carefully defined and agreed upon by experts and stakeholders



Elimination of cervical cancer is commitment we make to all women and girls – to spare millions from the harms of a preventable cancer

No one left behind

Developing guidelines is hard work but it is worth it

Many thanks to the GDG, WHO Secretariat, stakeholders and multiple collaborators