

Cancer Screening Committee

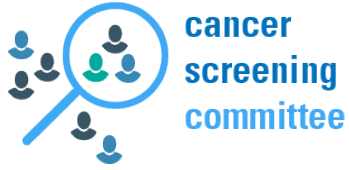
Recommendations on screening strategies for cervical cancer: HPV testing compared to cytology

Prof. Dr. Marcel Zwahlen

Institute for Social and Preventive Medicine, University of Bern, Chairman of the Cancer Screening Committee

President Cancer Screening Committee

SOHC Kongress, 19 November 2021



Cancer Screening Committee

- independent, interdisciplinary committee of experts
- addresses issues related to cancer screening
- prepares scientifically based, balanced recommendations
- established in 2018 as a pilot project within the framework of the nationale strategy against cancer (NSK)
- Trusteeship Council: Oncosuisse, FOPH, GDK/CDS, Public Health Schweiz
- The office is in the Swiss Cancer League

Further Information: <https://cancerscreeningcommittee.ch/>



Composition of the Committee

Epidemiology,
Methodology, Statistics

Prof. Dr. Marcel Zwahlen, ISPM, University of Bern, Chairman of the Committee
Prof. Dr. med. Thomas Agoritsas, Internal Medicine & Clinical Epidemiology, HUG

Medicine
(Clinical Practice and
Prevention)

Prof. Dr. med. Stefan Aebi, Chief physician of medical oncology, Lucerne Cantonal Hospital
Prof. Dr. med. Reto Auer, BIHAM, University of Bern; Unisanté, Lausanne
Dr. med. Reto Guetg, Independent medical advisor, Bern

Screening

Dr. med. Jacques Fracheboud, retired, formerly Erasmus University Medical Center, Rotterdam

Health Economics

Prof. Dr. Matthias Schwenkgenks, Institute of Pharmaceutical Medicine, Basel; EBPI, Zurich

Ethics

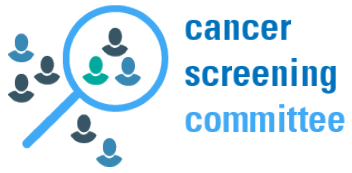
Prof. Dr med. Samia Hurst-Majno, Institute for ethics, history and the humanities, Geneva

Law and Ethics

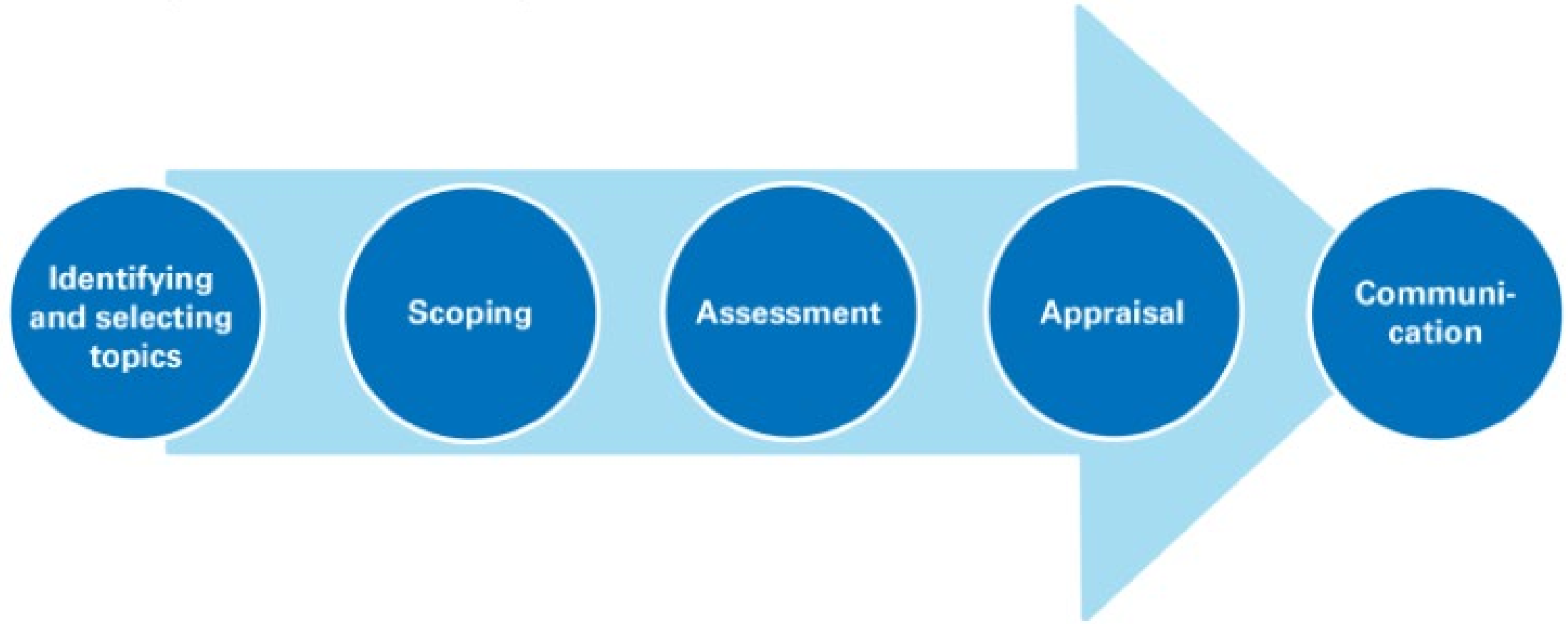
lic. iur. Michelle Salathé, Medicine Ethics Law, Basel

Patient partner

David U. Haerry, Chairman Positive Council, European Patients Academy (EUPATI), Zurich



Functioning of the Cancer Screening Committee



Identifying and selecting topics

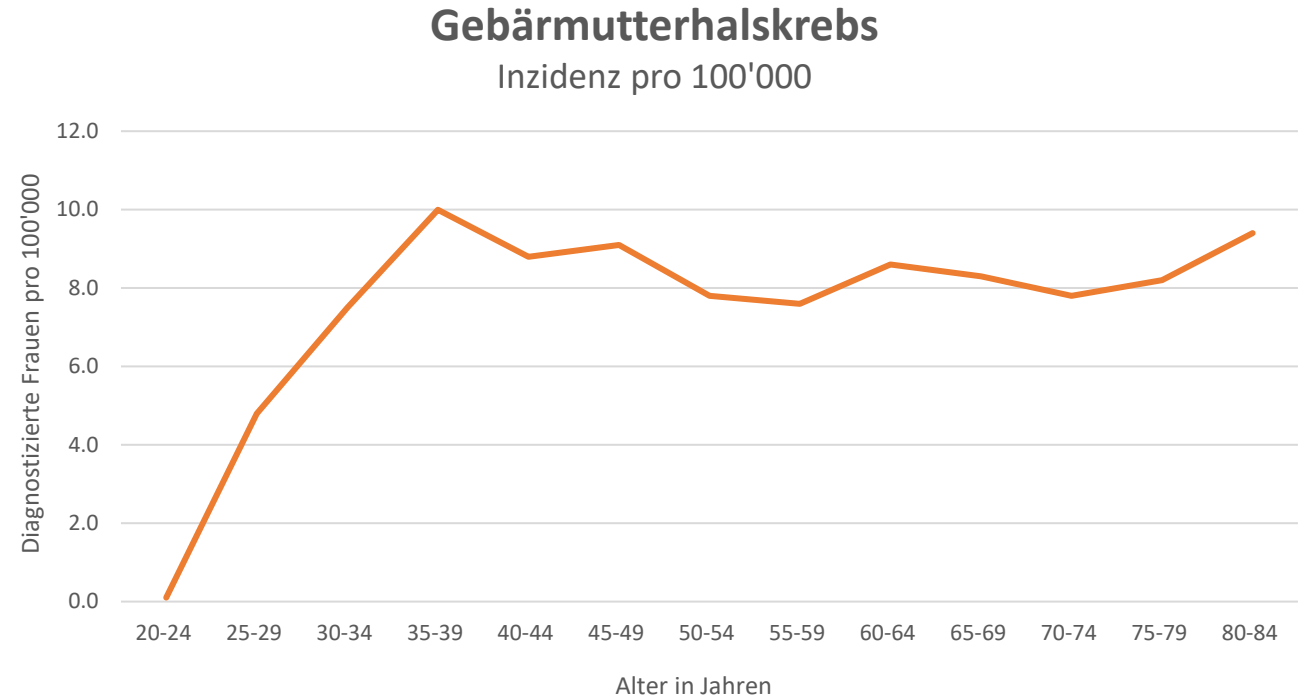
- 2019: trusteeship council selected “test strategy for cervical cancer screening”
- Benefit of cervical cancer screening undisputed
- Switzerland: opportunistic screening, cytological tests, coverage by the statutory health insurance every three years – risk of over- or under-screening?
- Internationally HPV tests increasingly used - 99% of cervix-tumors attributable to persistent infection with specific high risk HPV-types

Epidemiologie von Gebärmutterhalskrebs

- Global vierthäufigstes Karzinom bei Frauen

In der Schweiz:

- Rund 260 Frauen jährlich mit Gebärmutterhalskrebs diagnostiziert



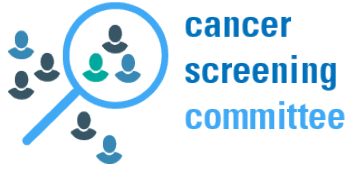
Scoping report – PICO

Population

- Asymptomatic women, 20-70 years

Intervention

- HPV with cytology-based triage (Primary HPV)
- HPV testing in combination with cytology (Co-testing)



Scoping report – PICO

Comparator

- Cytology-based testing without HPV triage
- Cytology-based testing with HPV triage

Outcomes

- Patient-relevant outcomes in terms of benefits and harms (as mortality, incidence of precursor lesions and cervical cancer, psychological harms, adverse treatment effects)

Clinical evidence from the HTA

Table 3. Evidence from randomised controlled trials comparing HPV-based screening with cytology-based screening by screening strategy and screening round

Outcome	Overall certainty (GRADE)	Relative risk (95% CI)	Risk with cytology	Risk difference HPV-cytology (95% CI)
Primary HPV, 1st round			per 1.000 women	
CIN2+	moderate	1.81 (1.22-2.68)	4	4 more (1-7 more)
CIN3+	moderate	1.78 (1.15-2.75)	2	1 more (0-3 more)
Cervical Cancer	low	0.89 (0.55-1.44)	0	0 (0-0)
Colposcopy referrals	low	1.36 (0.93-2.00)	8	3 more (1 fewer – 8 more)
Treatment referrals	moderate	3.59 (1.52-8.49)	3	7 more (1-21 more)
Primary HPV, 2nd round				
CIN2+	moderate	0.35 (0.18-0.67)	1	1 fewer (1 fewer -0)
CIN3+	moderate	0.25 (0.10-0.68)	1	1 fewer (1 fewer -0)
Cervical Cancer	low	0.15 (0.01-2.81)	0	0 fewer (0-0)
Treatment referrals	moderate	0.35 (0.18-0.67)	1	1 fewer (1 fewer -0)

Health economic assessment from the HTA

- Study pool heterogeneous in terms of screening strategies, screening population and discount rates
- Evidence consistent: HPV-based screening is cost-effective in comparison with cytology-based screening
- No conclusions about the optimal screening interval and women's age

ICER (incremental cost-effectiveness ratio)

Difference in cost between two possible interventions
divided by the

Difference in their effect

represents average incremental cost associated with 1 additional unit of the measure of effect.

$$\rightarrow ICER = (C_1 - C_0) / (E_1 - E_0)$$

C₁ and E₁ are cost and effect in the intervention group; C₀ and E₀ are the cost and effect in the control care group

Here: the ratio of the difference in costs and the difference in QALYs.

Input Stakeholders (HTA)

- Arguments for HPV-testing as primary test: robustness HPV test, possibility self-sampling
- Importance of good communication/information and good patient management
- Costs for HPV-test very high in Switzerland - would probably fall as demand increases

International comparison prices HPV-tests

- Switzerland (HTA-report): average costs of CHF 179.50 per test
- Neighbouring countries: EUR 35 – 95 (CHF 38-105, different online sources)
- HPV Test Kit for self-sampling at home: GBP 48

Aspects considered in the appraisal

- Quality of evidence
- Values and preferences
- Balance benefit/harms
- Resource use
- Equity
- Acceptability
- Feasibility

According to GRADE Evidence to Decision Framework
Partly in the presence of external clinicians

Recommendations

- published on August 11, 2021

- Target groups:

Women

Non-binary persons and transgender men with a cervix

Aged between 21 and 70 years

Recommendations on screening strategies for cervical cancer: HPV testing compared to cytology

Appraisal report

August 2021



Recommendations of the Committee- Method

For persons aged 30 to 70 years:

- 1) Cervical smear and HPV test followed by cytological examination where required**
(GRADE weak recommendation)

Primary HPV test is more effective than a cytological examination and cost-effective.

No clear data on the preferred screening method in the target groups.

For persons aged 21 to 29 years:

- 2) Cervical smear and cytological examination**
(GRADE strong recommendation)

In this age group, HPV infections are very frequent and in most cases clear up on their own.



Recommendations of the Committee- Screening interval

3) **Screening interval of three years instead of one year**

(GRADE strong recommendation)

No indications of an advantage of annual screening

Longer intervals reduce the inconvenience of screening and are more cost-effective

4) **Screening interval of five years instead of three years**

(GRADE weak recommendation)

The available data shows no substantial differences between three- and five-year intervals.

Preferences of target groups unclear, today often still annual screening



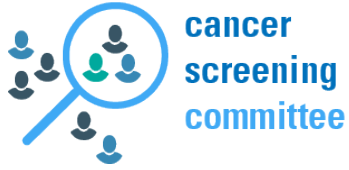
Recommendation of the Committee- Reimbursement

5) **Reimbursement of the HPV test as a screening test by the statutory health insurance**

(GRADE strong recommendation)

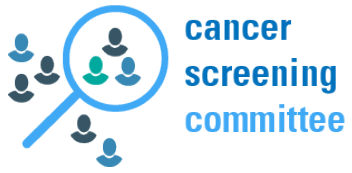
Coverage of the cost is a pre-requisite to guarantee access to screening for equity of access

HPV test today at 180 francs significantly more expensive than in neighboring countries



Ethical, legal, social, and implementation considerations

- Information and reachability of the target groups
- Shared decision-making
- Test costs
- Organized screening program
- Self sampling



www.cancerscreeningcommittee.ch

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