Co-funded by the European Union

EU CanScreen
European Joint Action on Cancer Screening

ROBERT KOCH INSTITUT

Joint Action EUCanScreen
What we may learn from Europe

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Centre for Cancer Registry Data at the Robert Koch-Institute

German Cancer Congress 20.02.2026

Outline

- Joint-Action EUCanScreen
- Organized Cervical Cancer screening in germeny and the Netherlands
  - programmes
  - evaluation
  - expenditures
  - results/outcome
  - discussion

Key Facts JA EUCanScreen

- **Duration:** June 2024 - May 2028 (48 months)
- **Project coordination:** University of Latvia
- **Participation:** 25 EU member states + Ukraine, Moldova, Norway and Iceland
- **Funding amount** of the project: EUR 38,749,935
- **Funding code:** 101162959
- https://eucanscreen.eu/

German Cancer Congress

Participating institutions from Germany

- Robert Koch-Institute (RKI, Competent Authority)
- German Cancer Society (DKG)
- German Cancer Research Center (DKFZ)
- The Leibniz Institute for Prevention Research and Epidemiology - BIPS
- MSB Medical School Berlin

Aims of the Joint Action

- Implementation and further development of evidence-based, high-quality screening programs for breast, cervical, and colorectal cancer
- Research into the assessment and implementation of new screening programs for lung, prostate, and stomach cancer
- Ensuring better quality, more up-to-date, and more comparable data collection and monitoring of screening programs, as well as improving knowledge exchange between European countries
- Reducing the overall burden of cancer and increasing equal access to screening programs
- Informal goal: exchange of information, to learn from each other

Cervical cancer screening: comparison of programmes

The Netherlands (NL)

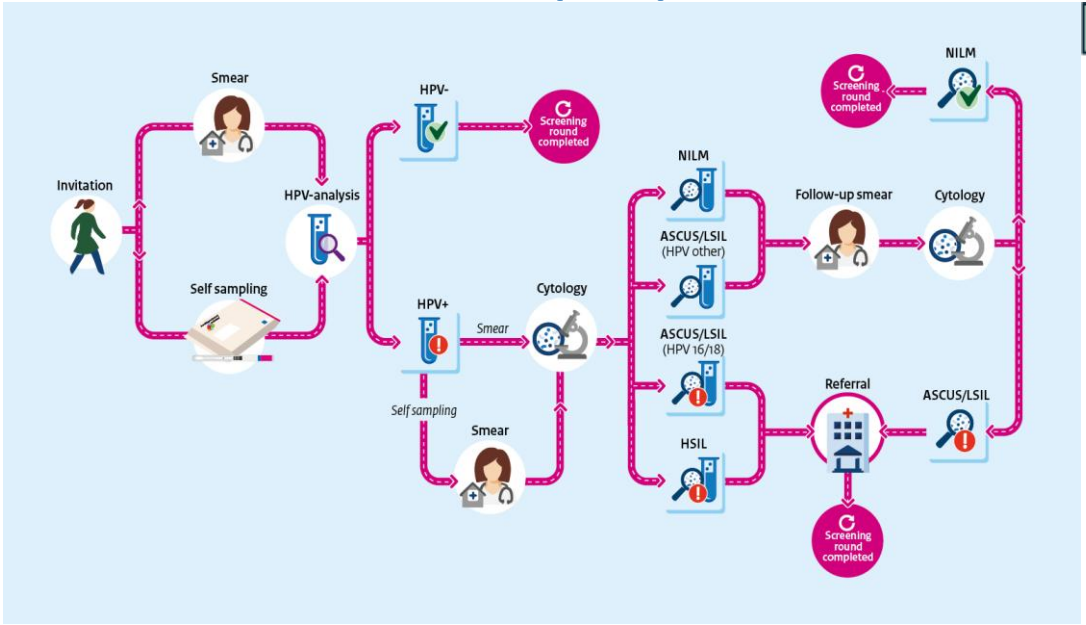
- Adapted in 2017
- Primary HPV-test via self-sampling kit (since 2022) or GP (trained assistants)
- HPV based
  - Cytology, only if HPV positive
  - Algorithm based referral to colposcopy
- Further assessment by gynacologists
- 5 lifetime screening rounds if HPV neg. (invitation at 30, 35, 40, 50, 60 years)

Germany (GER)

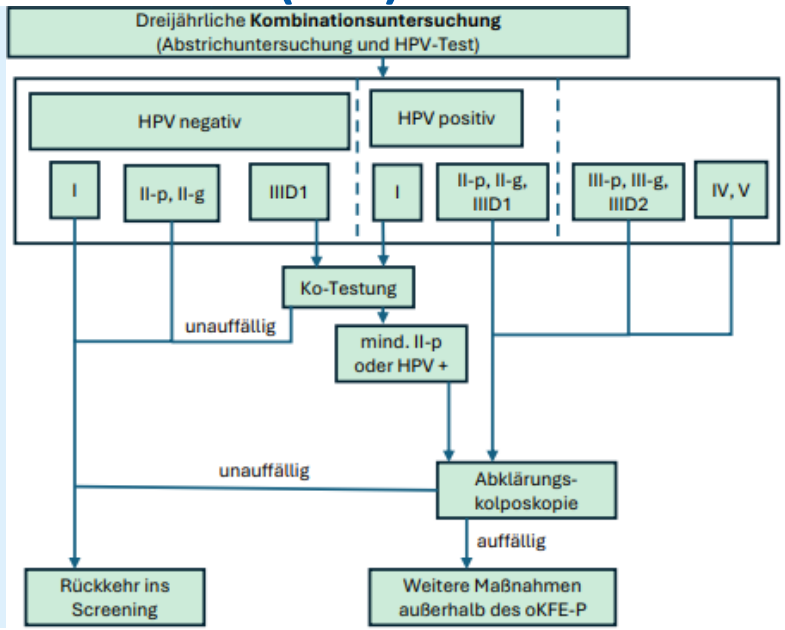
- Adapted in 2019
- Information letter every 5 years
- Annual cytology for age 20 to 34y
- Co-Testing (HPV+cytology) every 3 years for age 35+
- All screening steps performed by gynacologists
- Up to 30+ lifetime screening rounds independent of previous results

Algorithms for further assessment for women 30+/35+ years of age

NL (30+)



GER (35+)

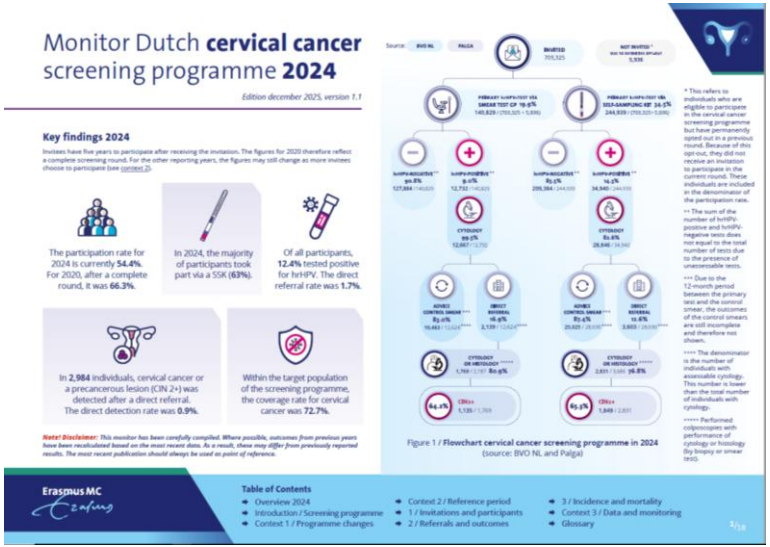


Evaluation of cervical cancer screening programs

	NL	DE
constitutient	National Institute for Public Health/Environment	Federal Joint Committee
contractor	Erasmus Universität Rotterdam Department for Public Health	Leipziger Gesundheitsforen (private company)
format	Annual monitor, Extended evaluation 2017-2020 (incl. cost/benefit modelling)	Biannual evaluation report Extended evaluation planned after 6 years

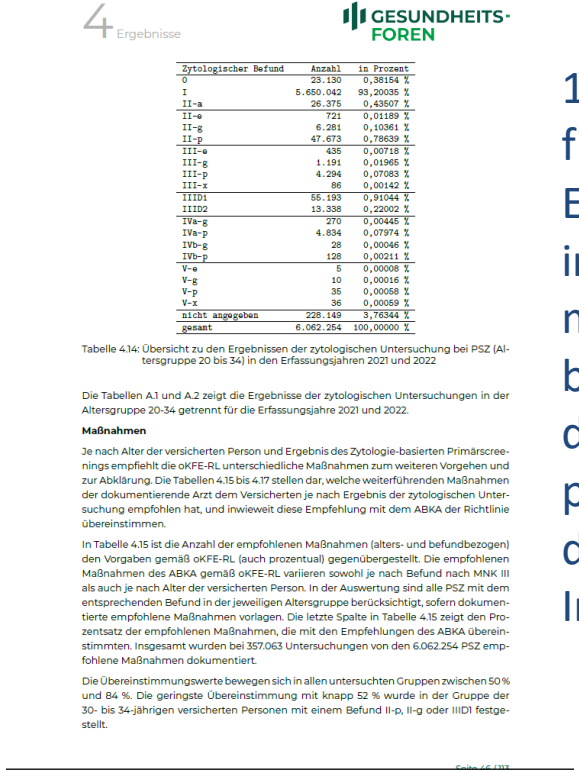
Comparis of evaluation/monitoring report (partly subjective)

NL (2024)



23 pages, 15 figures, 12 tables, comprehensible presentation of essential indicators , in English

DE (2021-2022)


4 Ergebnisse

GESUNDHEITS-FOREN

Zytologischer Befund	Anzahl	in Prozent
0	23.130	0,38154 %
I	5.650.042	93,20035 %
II-a	26.375	0,43507 %
II-e	721	0,01189 %
II-g	6.281	0,10361 %
II-p	47.673	0,78639 %
III-e	435	0,00718 %
III-g	1.191	0,01965 %
III-p	4.294	0,07083 %
III-x	86	0,00142 %
IIID1	55.193	0,91044 %
IIID2	13.338	0,22002 %
IVa-g	270	0,00445 %
IVa-p	4.834	0,07974 %
IVb-g	28	0,00046 %
IVb-p	128	0,00211 %
V-e	5	0,00008 %
V-g	10	0,00016 %
V-p	35	0,00058 %
V-x	36	0,00059 %
nicht angegeben	228.149	3,76344 %
gesamt	6.062.254	100,00000 %

Tabelle 4.14: Übersicht zu den Ergebnissen der zytologischen Untersuchung bei PSZ (Altersgruppe 20 bis 34) in den Erfassungsjahren 2021 und 2022

Die Tabellen A.1 und A.2 zeigt die Ergebnisse der zytologischen Untersuchungen in der Altersgruppe 20-34 getrennt für die Erfassungsjahre 2021 und 2022.

Maßnahmen

Je nach Alter der versicherten Person und Ergebnis des Zytologie-basierten Primärscreenings empfiehlt die oKFE-RL unterschiedliche Maßnahmen zum weiteren Vorgehen und zur Abklärung. Die Tabellen 4.15 bis 4.17 stellen dar, welche weiterführenden Maßnahmen der dokumentierende Arzt dem Versicherten je nach Ergebnis der zytologischen Untersuchung empfohlen hat, und inwieweit diese Empfehlung mit dem ABKA der Richtlinie übereinstimmen.

In Tabelle 4.15 ist die Anzahl der empfohlenen Maßnahmen (alters- und befundbezogen) den Vorgaben gemäß oKFE-RL (auch prozentual) gegenübergestellt. Die empfohlenen Maßnahmen des ABKA gemäß oKFE-RL variieren sowohl je nach Befund nach MNK III als auch je nach Alter der versicherten Person. In der Auswertung sind alle PSZ mit dem entsprechenden Befund in der jeweiligen Altersgruppe berücksichtigt, sofern dokumentierte empfohlene Maßnahmen vorlagen. Die letzte Spalte in Tabelle 4.15 zeigt den Prozentsatz der empfohlenen Maßnahmen, die mit den Empfehlungen des ABKA übereinstimmten. Insgesamt wurden bei 357.063 Untersuchungen von den 6.062.254 PSZ empfohlene Maßnahmen dokumentiert.

Die Übereinstimmungswerte bewegen sich in allen untersuchten Gruppen zwischen 50 % und 84 %. Die geringste Übereinstimmung mit knapp 52 % wurde in der Gruppe der 30- bis 34-jährigen versicherten Personen mit einem Befund II-p, II-g oder IIID1 festgestellt.

113 pages, 5 figures, 84 tables
Essentiell indicators mostly missing but could be computed from different tables presumably some data gaps
In German only

Important finding from each programs

- NL: self test kits well accepted, with higher HPV prevalence but similar detection rate (a bit more precancers and less cancers)

- GER: HPV-negative participants (>90%) contribute very little to screening detected cases age 35+
  - 2% of CIN2+, 8% of carcinoma (higher share of adeno-ca/other cancers)
  - Detection rate without cytology for HPV-negatives would slightly be reduced from 1.3% to 1.2%
  - Relative risk for HPV+ vs. HPV- für
    - CIN 2+: ca. 550 (CIN2: 443; CIN3: 680)
    - Carcinoma: 98 (SCC: 156; Ad-Ca. 71; other cancers: 34)

Results (1): Selected indicators for HPV-based Screening in NL and GER

* 35-59 years

	NL 2024 (30-64 years)	DE 2021/2022 (35+ years)
Participation rate	54% (up to 15 mon.) +12% up to 51 mon.(2021)	*55%?* *(*estimated *from more recent data)*
HPV-positivity	12,4%	9,6%*
Referral rate (colposcopy)	2,9% (2023)	5,3%
PPV for colposcopy (CIN2+)	55% (2023)	25%
Detection rate (CIN2+)	1,2% (2023)	1,3%
Interval cancers	0,02% (2017/18) 13% of all incident Ca. (30-64y)	No data yet

results (2): expenditures and outcomes on population level

per 100.000 women/year (20+)	NL	DE (GKV)
HPV-tests	5.356	6.769
Cytology tests	981	16.329
Colposcopies	154	361
CIN 2/3 (screening detected)	28/34	50/52
Carcinomas (screening detected)	2,9	1,4
per 100.000 women/year **2021-23** **age standardised (ESP 1976)**	**NL**	**DE**
Incidence (ICD-10: C53)	9,9	9,1
mortality (C53)	1,7	2,3

Summary

- In NL, self test kits well accepted (yielding identical detection rates)
- In GER, HPV-negative participants contribute very little to screening detected cases
- Thus, for HPV-negative women the screening intervals in GER might be prolonged
- The evaluation of the program seems to be more stringently and professionally done in NL, taylored data are used for re-adjustement of screening program using cost/benefit modelling
- In the Netherlands, comparable outcomes are achieved with much less expenditures compared to Germany

Discussion – Do we want to learn from Europe/our neighbours?

- … how to write meaningful and readable evaluation reports?
- … how to effectively use screening data to improve the program?
- … how to organize cost effective screening programs?

(There is certainly something in between the Dutch and German approach)