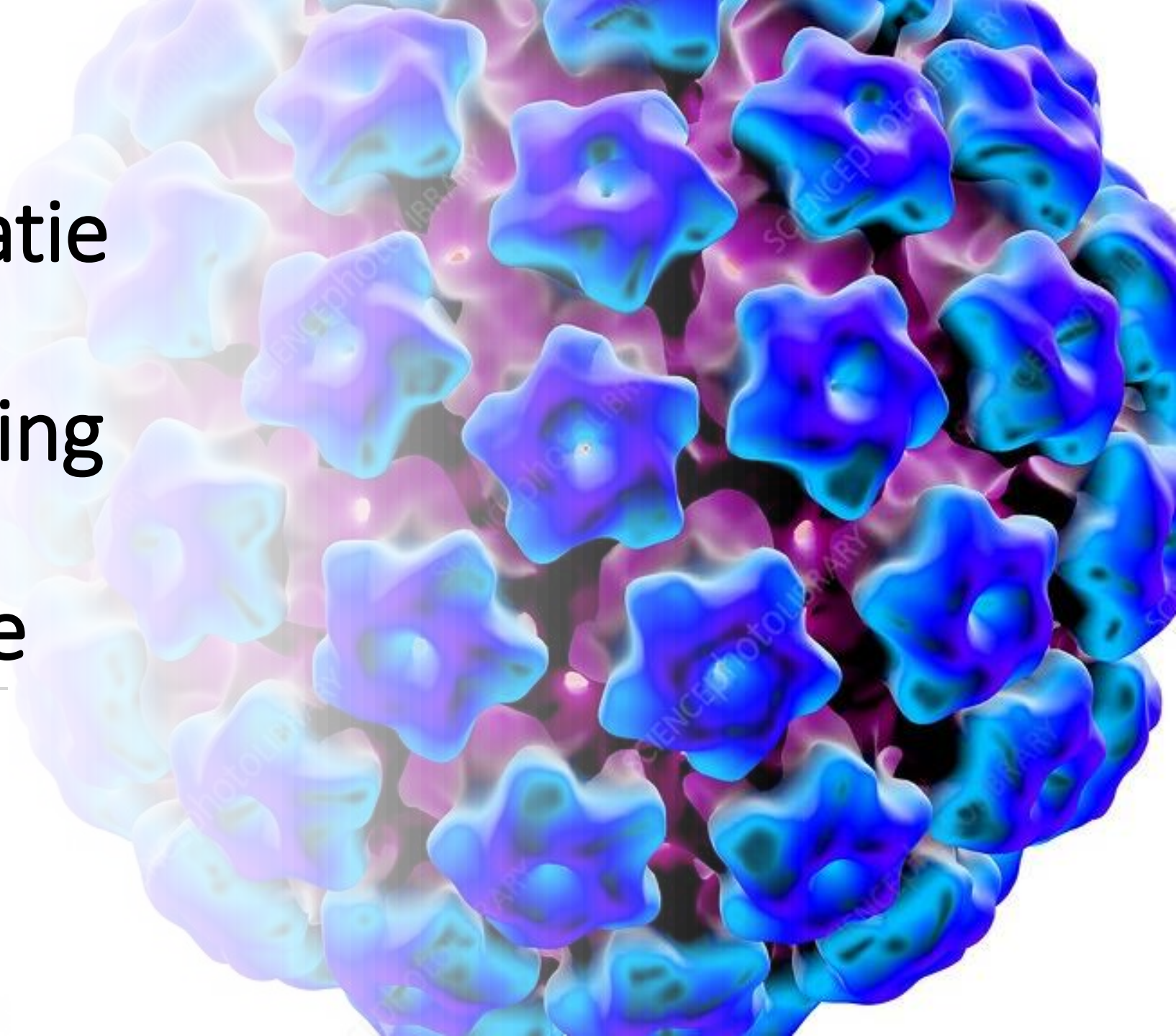
Implementatie primaire HPV screening & Vaccinatie



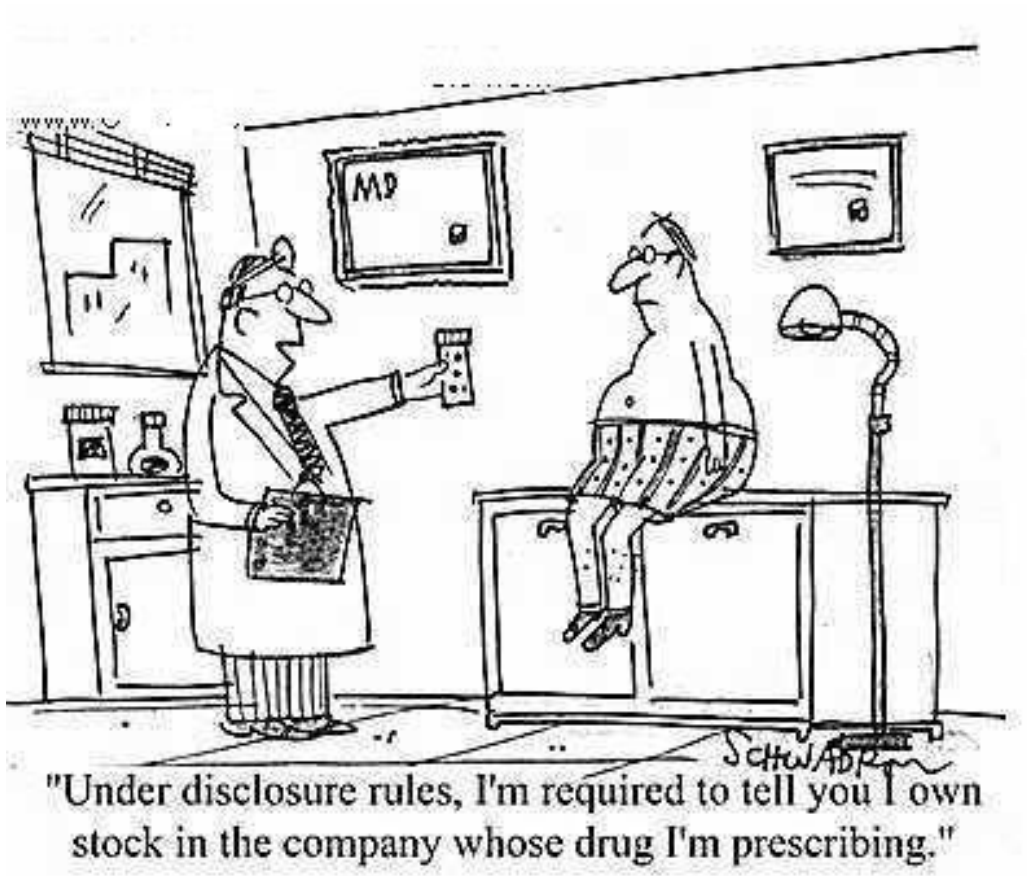
Domus Medica Webinar – 19/11/2024

Kobe Dewilde

Gynaecoloog

DOMUS MEDICA

- **Conflict of interest**
  - Advisory board MSD



https://www.corpgov.net/wp-content/uploads/2012/08/disclosures.jpeg

Klinische insteek

- **Wat is HPV**
- **Waarom HPV**
- **Nieuwe screening**
- **Vaccinatie**

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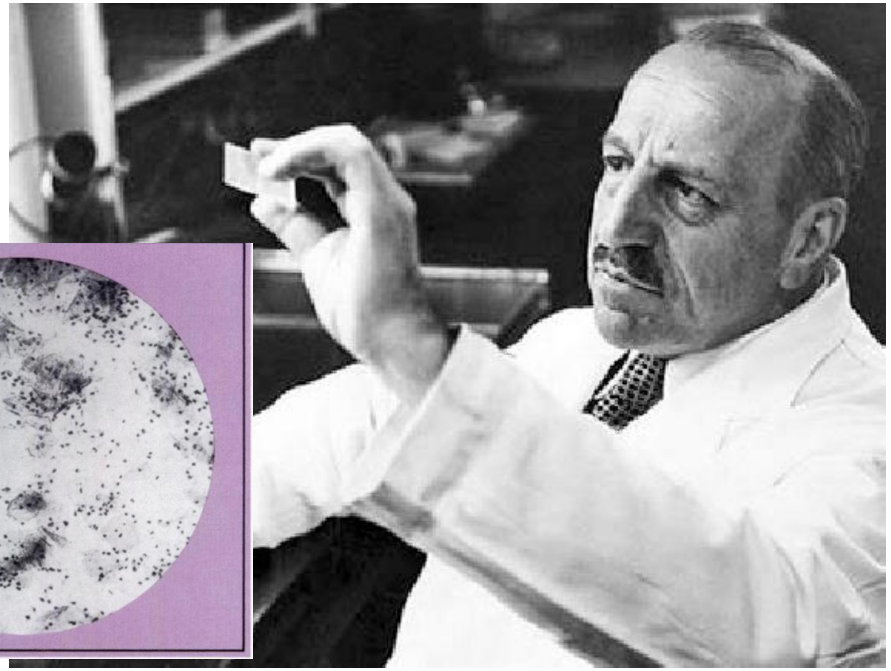


This paper was originally presented at the Third Race Betterment Conference, Battle Creek, Michigan, January 2-6, 1928, and published in the Proceedings of the Conference the same year.

START

1928

UZ LEUVEN

American Journal of Obstetrics and Gynecology

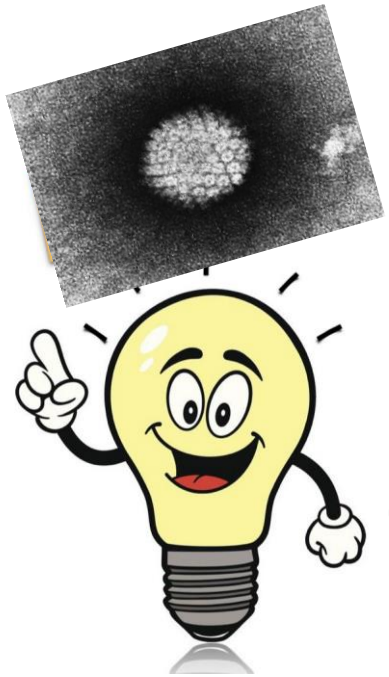
Vol. 42 August, 1941 No. 2

Original Communications

THE DIAGNOSTIC VALUE OF VAGINAL SMEARS IN CARCINOMA OF THE UTERUS*

George N. Papanicolaou, M.D., Ph.D., and Herbert F. Traut, M.D.,
New York, N. Y.

(From the Departments of Anatomy and of Gynecology and Obstetrics of the Cornell University Medical College and the New York Hospital)



Cancer Res. 1976 Feb;36(2 pt 2):794.

Condylomata acuminata and human genital cancer

H zur Hausen

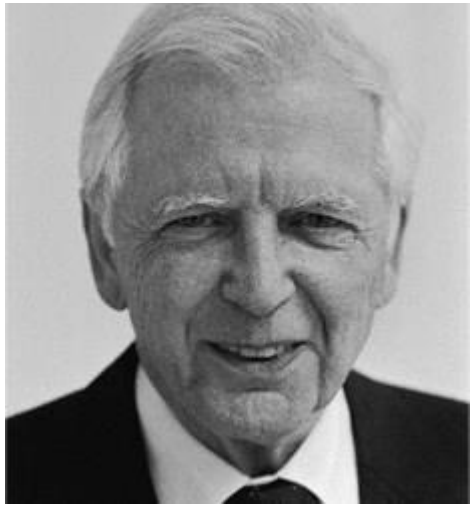


Fig. 1.9 Phylogeny of the alpha human papillomavirus (HPV) types, with species groups and IARC classifications of the branch that contains carcinogenic types

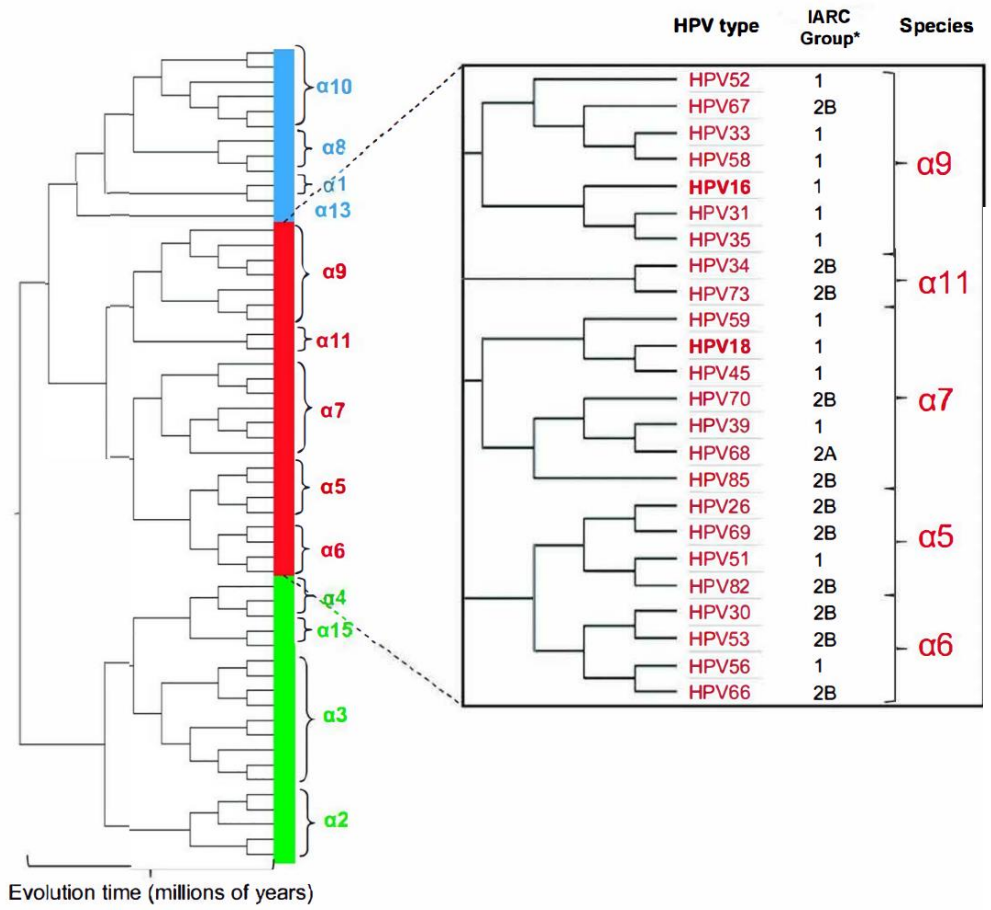


Fig. 1.10 Relative importance of the carcinogenic human papillomavirus (HPV) types

HPV type	HPV species	IARC Group[a]	% HPV type prevalence in cancer	% HPV type prevalence in normal	Odds ratio	% Attributable (etiological) fraction
HPV16	**α-9**	**Group 1**	**55.8**	**2.6**	**47.6**	**62.4**
HPV18	**α-7**	**Group 1**	**14.3**	**1**	**15.7**	**15.3**
HPV45	**α-7**	**Group 1**	**4.8**	**0.6**	**8.3**	**4.8**
HPV33	**α-9**	**Group 1**	**4**	**0.6**	**7.1**	**3.9**
HPV58	**α-9**	**Group 1**	**4**	**0.8**	**5.1**	**3.7**
HPV31	**α-9**	**Group 1**	**3.5**	**1**	**3.7**	**2.9**
HPV52	**α-9**	**Group 1**	**3.2**	**1**	**3.3**	**2.6**
HPV35	**α-9**	**Group 1**	**1.6**	**0.4**	**3.9**	**1.4**
HPV59	**α-7**	**Group 1**	**1.2**	**0.4**	**2.9**	**0.9**
HPV39	**α-7**	**Group 1**	**1.3**	**0.6**	**2.0**	**0.8**
HPV68	**α-7**	**Group 2A**	**0.6**	**0.4**	**1.5**	**0.2**
HPV51	**α-5**	**Group 1**	**1**	**0.9**	**1.2**	**0.2**
HPV56	**α-6**	**Group 1**	**0.8**	**0.6**	**1.3**	**0.2**
HPV73	α-11	Group 2B	0.5	0.3	1.8	0.2
HPV26	α-5	Group 2B	0.2	0.1	4.1	0.2
HPV30	α-6	Group 2B	0.2	0.1	2.6	0.1
HPV69	α-5	Group 2B	0.2	0.1	1.4	0.1
HPV67	α-9	Group 2B	0.3	0.2	1.2	< 0.1
HPV82	α-5	Group 2B	0.2	0.1	1.2	< 0.1
HPV34	α-11	Group 2B	0.1	0.1	1.0	Not attributable
HPV66	**α-6**	**Group 2B**	**0.3**	**0.6**	**0.4**	**Not attributable**
HPV70	α-7	Group 2B	0.2	0.8	0.3	Not attributable
HPV53	α-6	Group 2B	0.5	1.1	0.4	Not attributable

82,5%

14,5%

2,3%

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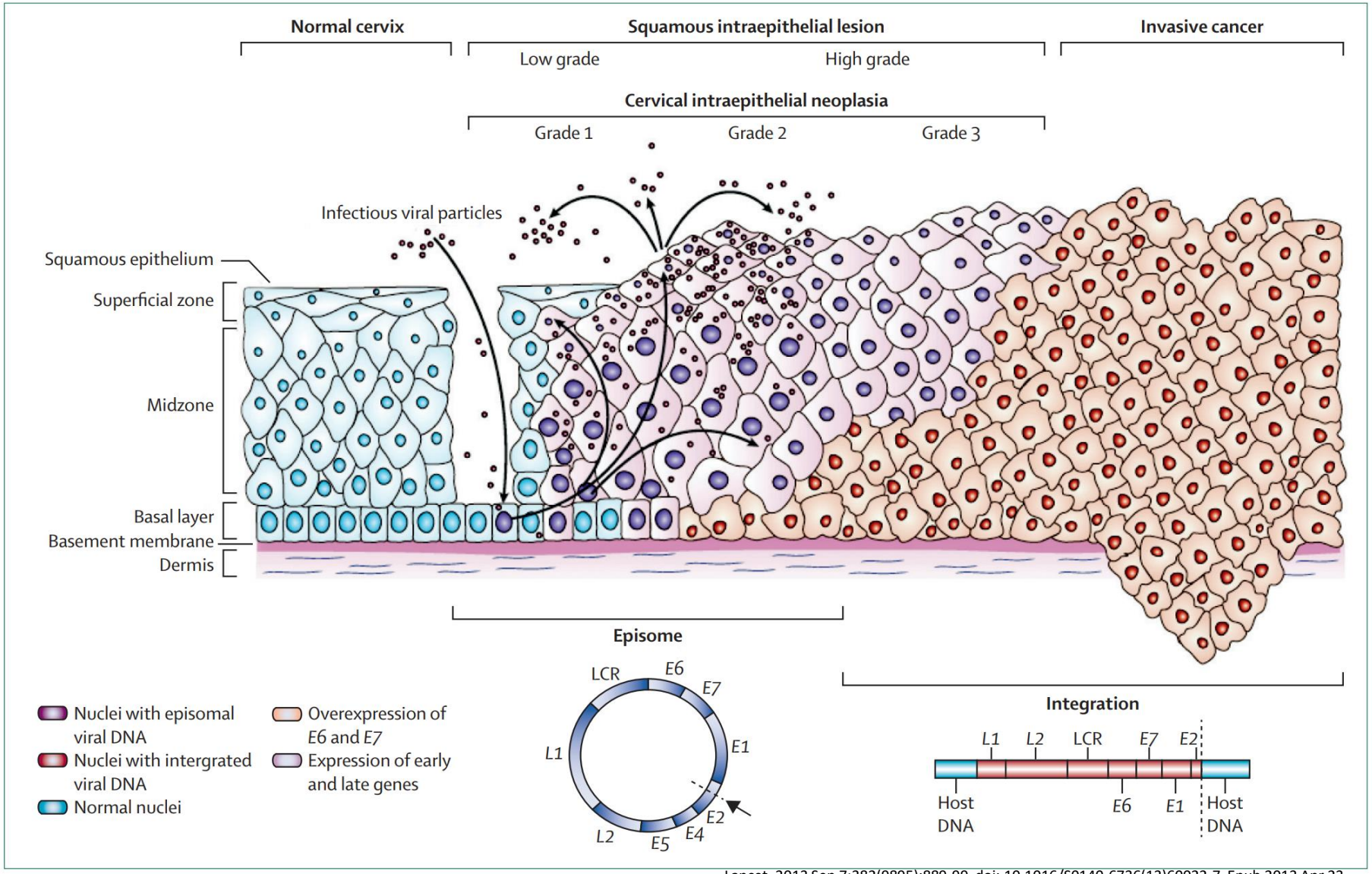
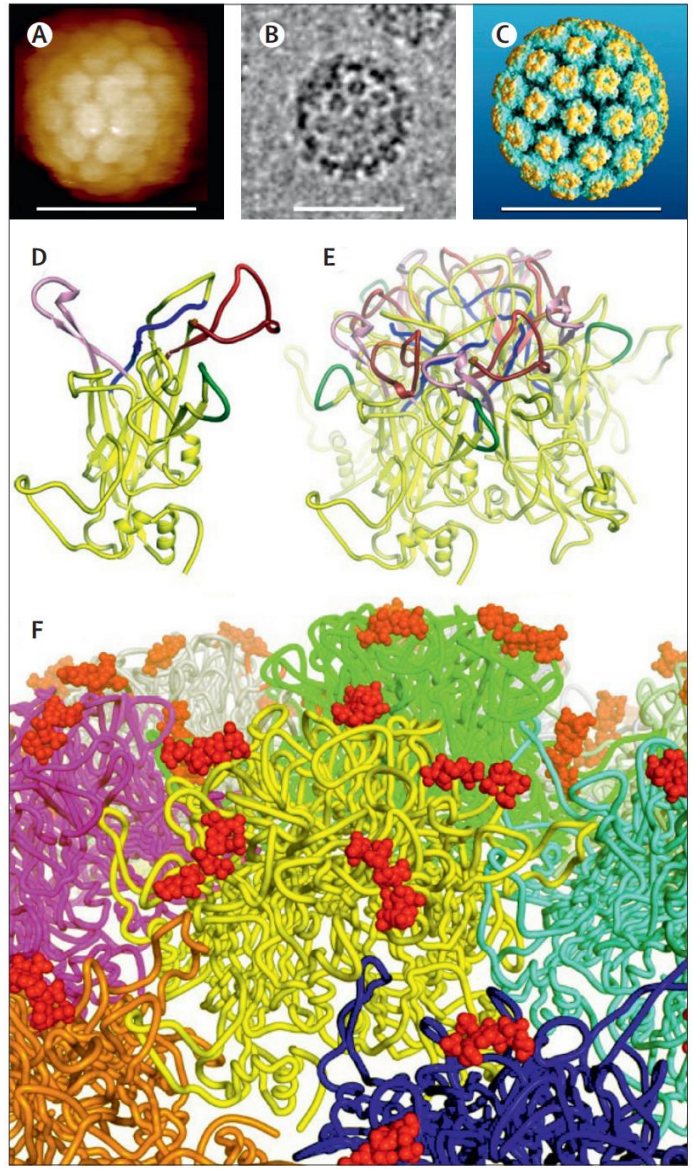
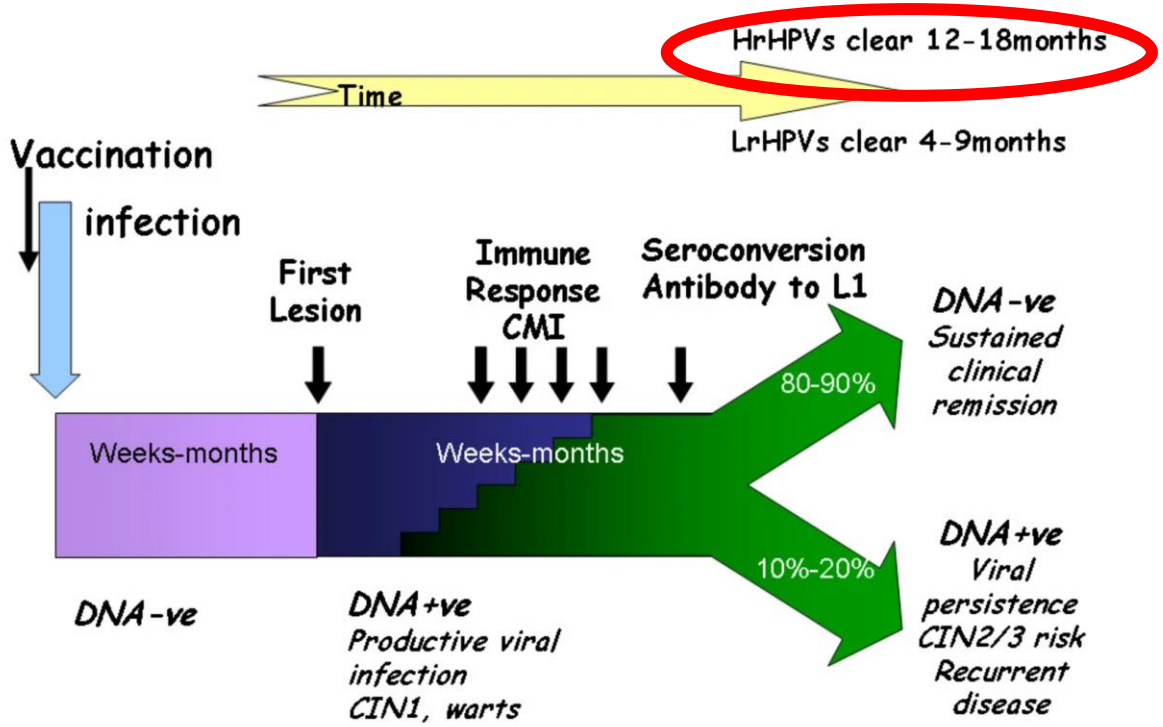




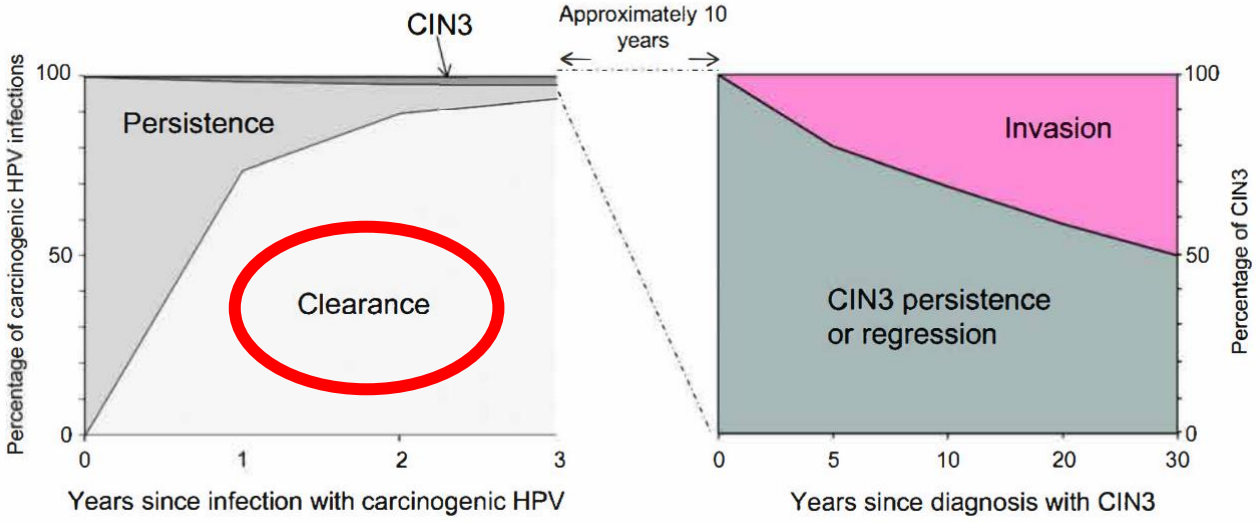
Lancet. 2013 Sep 7;382(9895):889-99. doi: 10.1016/S0140-6736(13)60022-7. Epub 2013 Apr 23.

Natural Course of Genital HPV Infection



Stanley, M. HPV - immune response to infection and vaccination. *Infect Agents Cancer* **5,** 19 (2010).

Fig. 1.14 Average clearance, persistence, and progression of carcinogenic human papillomavirus (HPV) infections



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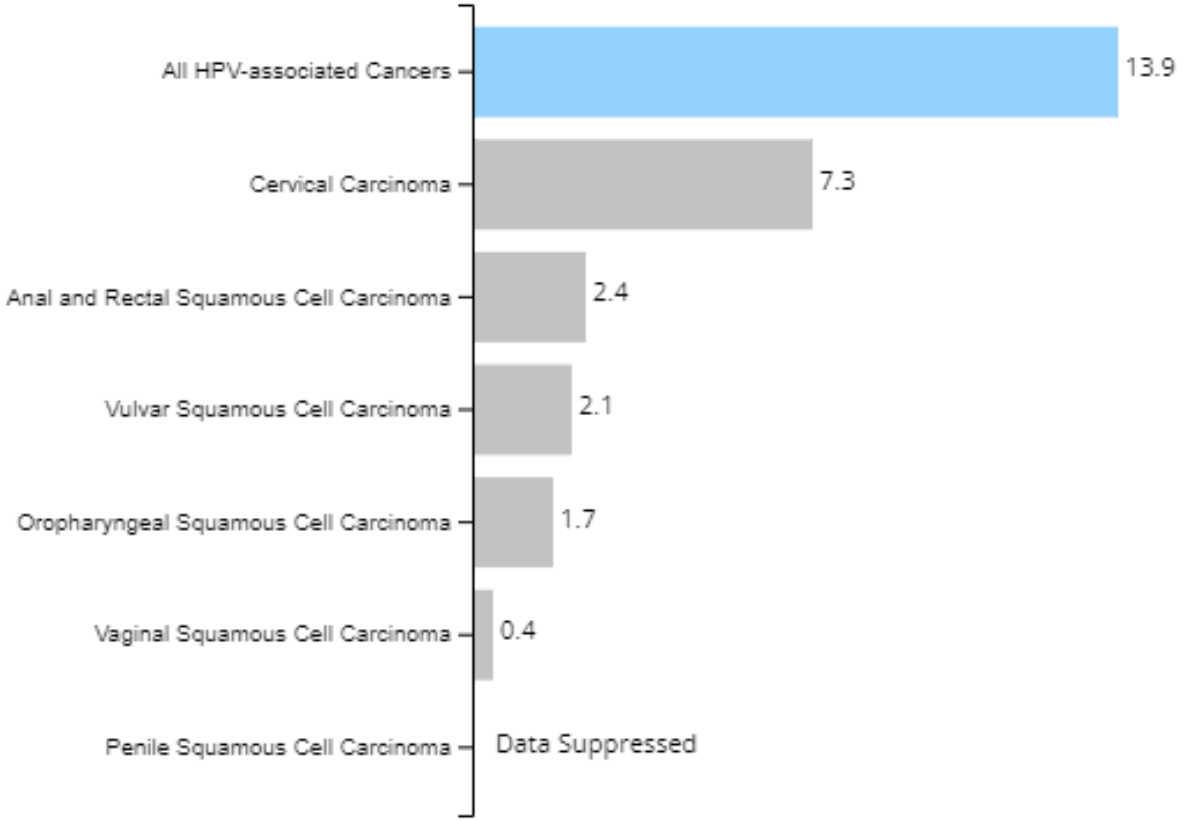
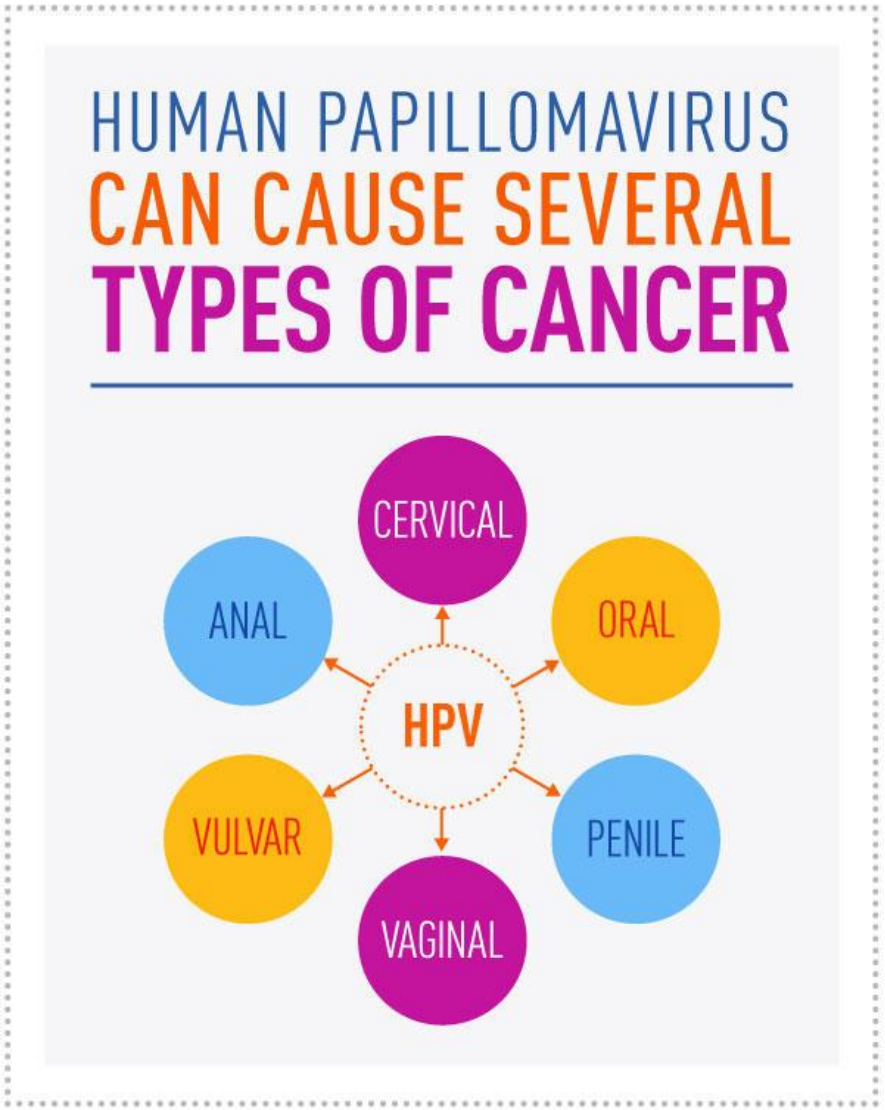
Rate of New HPV-associated Cancers by Cancer Type
All HPV-associated Cancers, Female, United States, 2014-2018



Rate per 100,000 women

Source - U.S. Cancer Statistics Working Group. U.S. Cancer Statistics Data Visualizations Tool, based on 2020 submission data (1999-2018): U.S. Department of Health and Human Services, Centers for Disease Control and Prevention and National Cancer Institute; https://www.cdc.gov/cancer/dataviz, released in June 2021.



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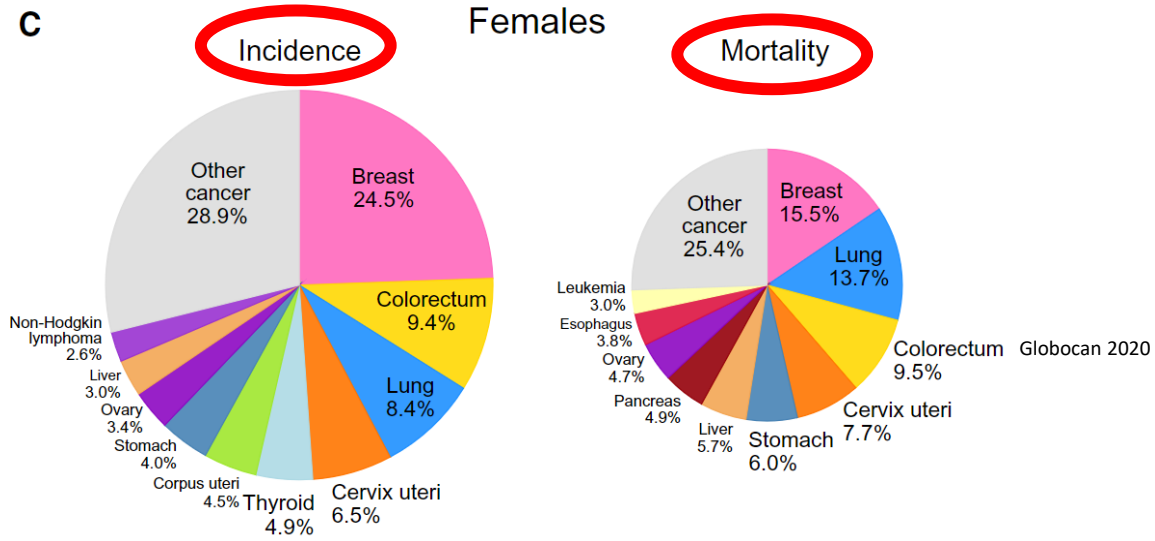
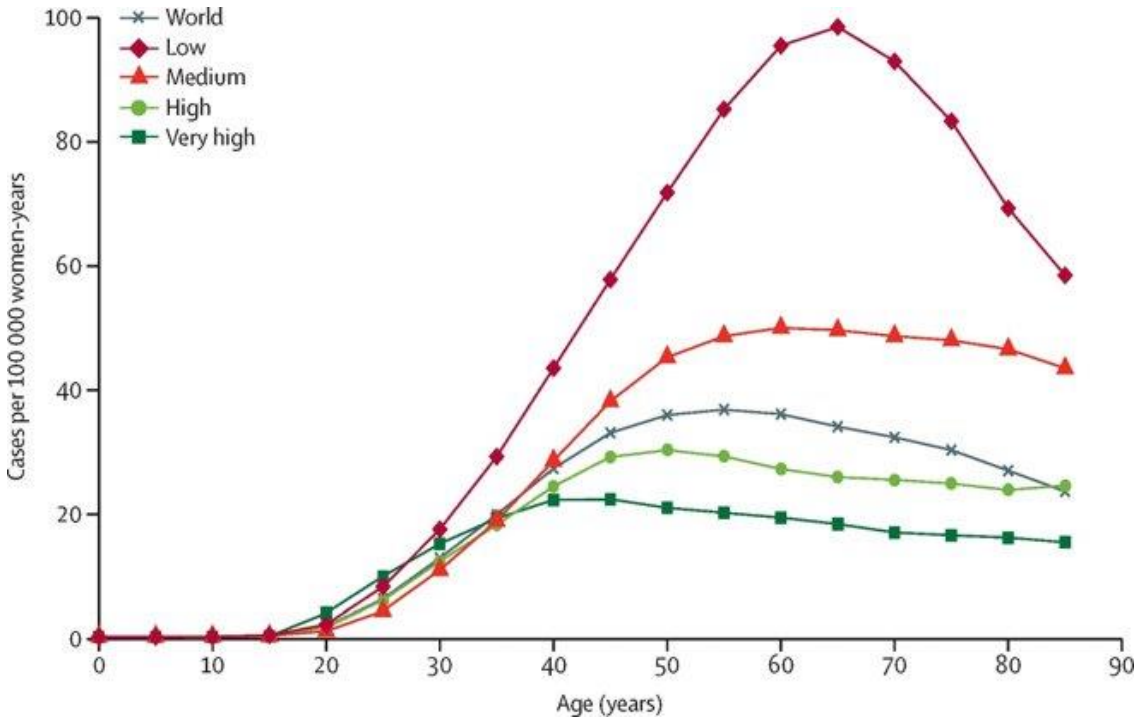


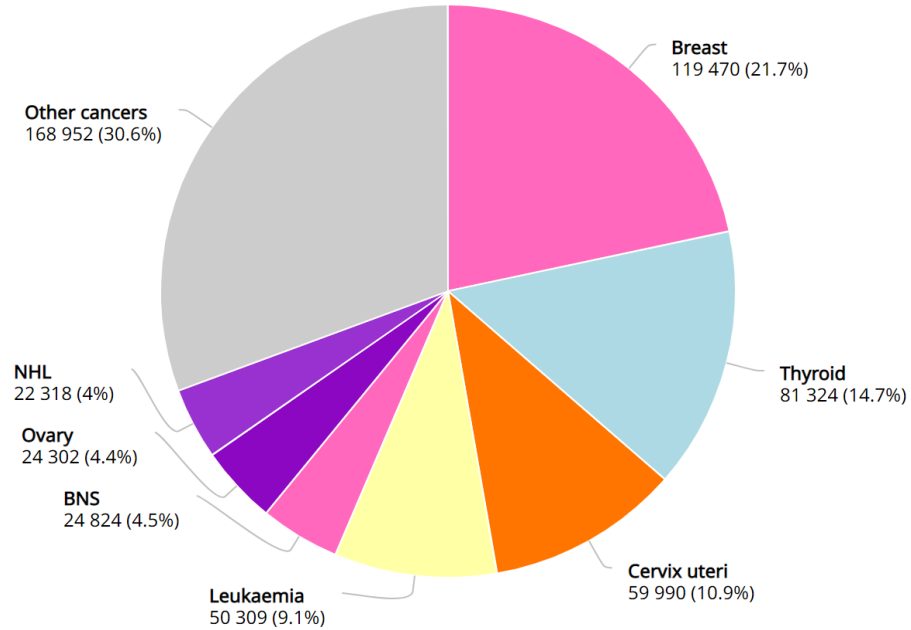
9.2 million new cases

Globocan 2020



Arbyn et al. (2019). Estimates of incidence and mortality of cervical cancer in 2018: a worldwide analysis. The Lancet Global Health. 8

Estimated number of new cases in 2020, worldwide, females, ages 0-34

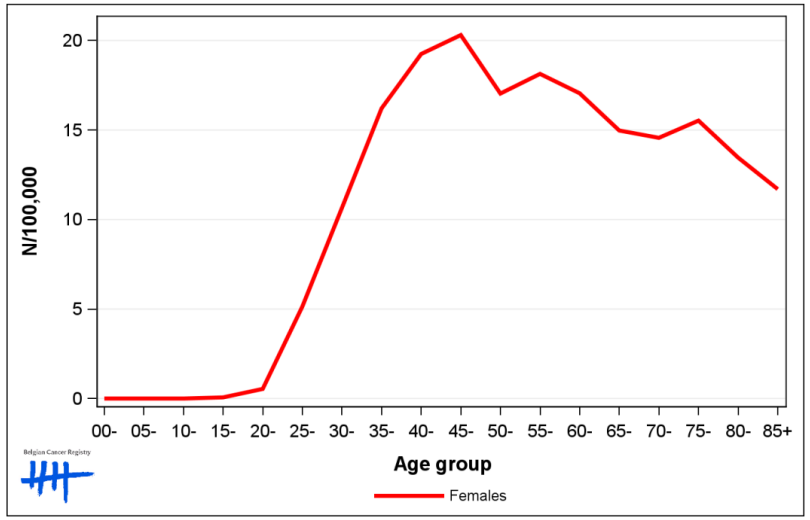


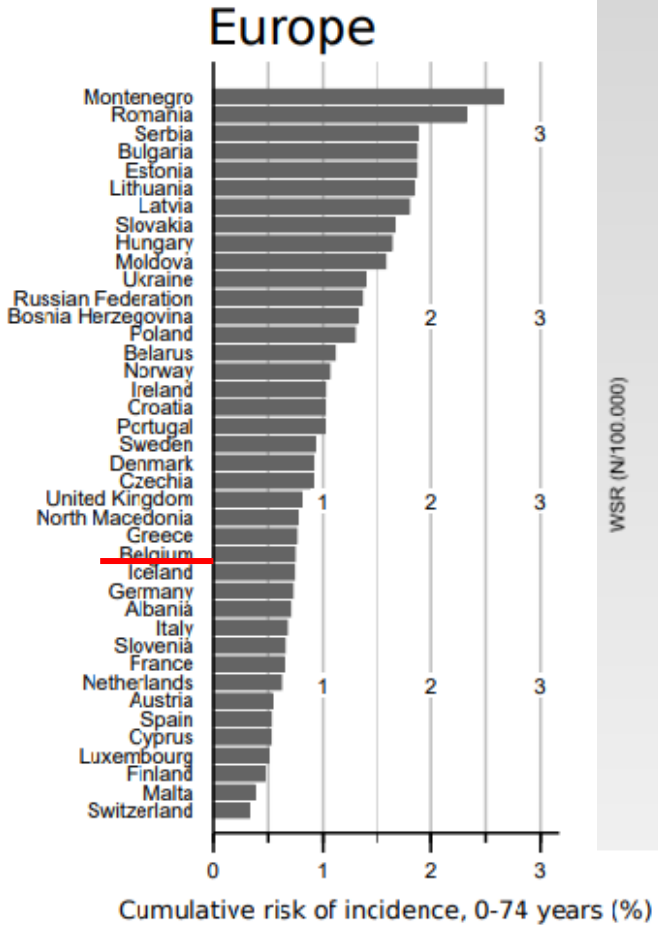
Total : 551 489

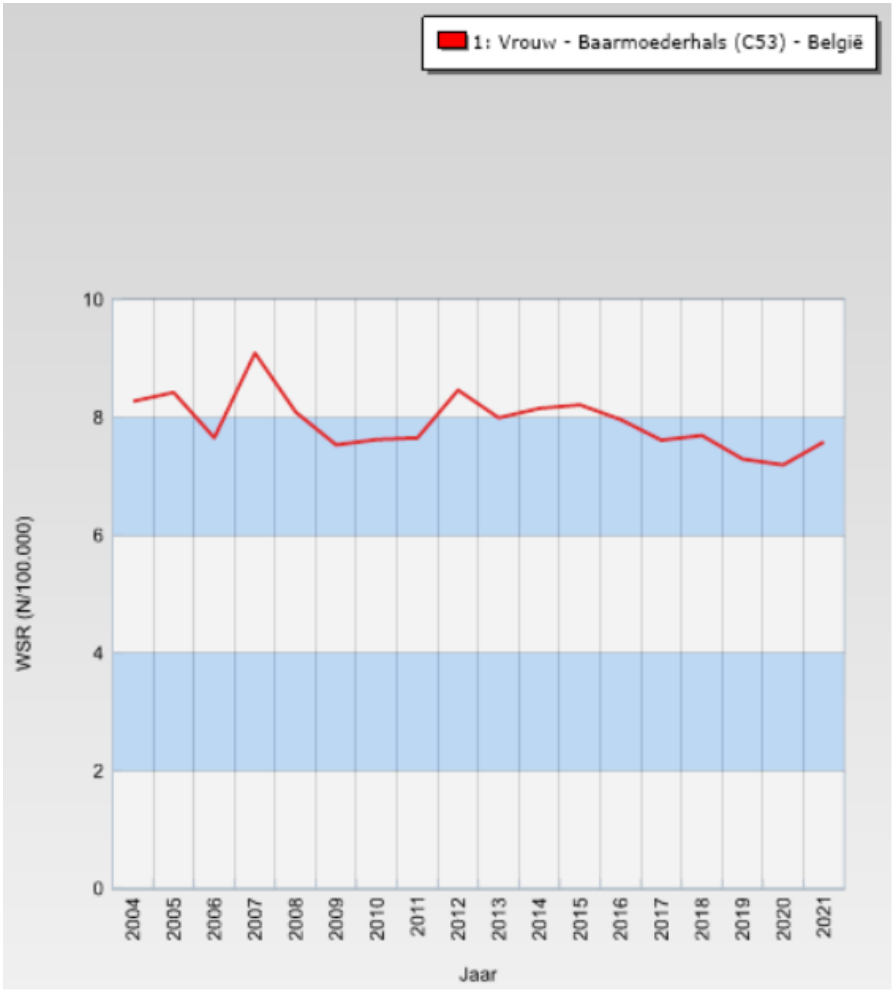
Data source:GLOBOCAN 2020
Graph production: Global Cancer Observatory (http://gco.iarc.fr/)

En in België?

Figure 2: Cervical Cancer: Age-specific incidence rates, 2015-2019







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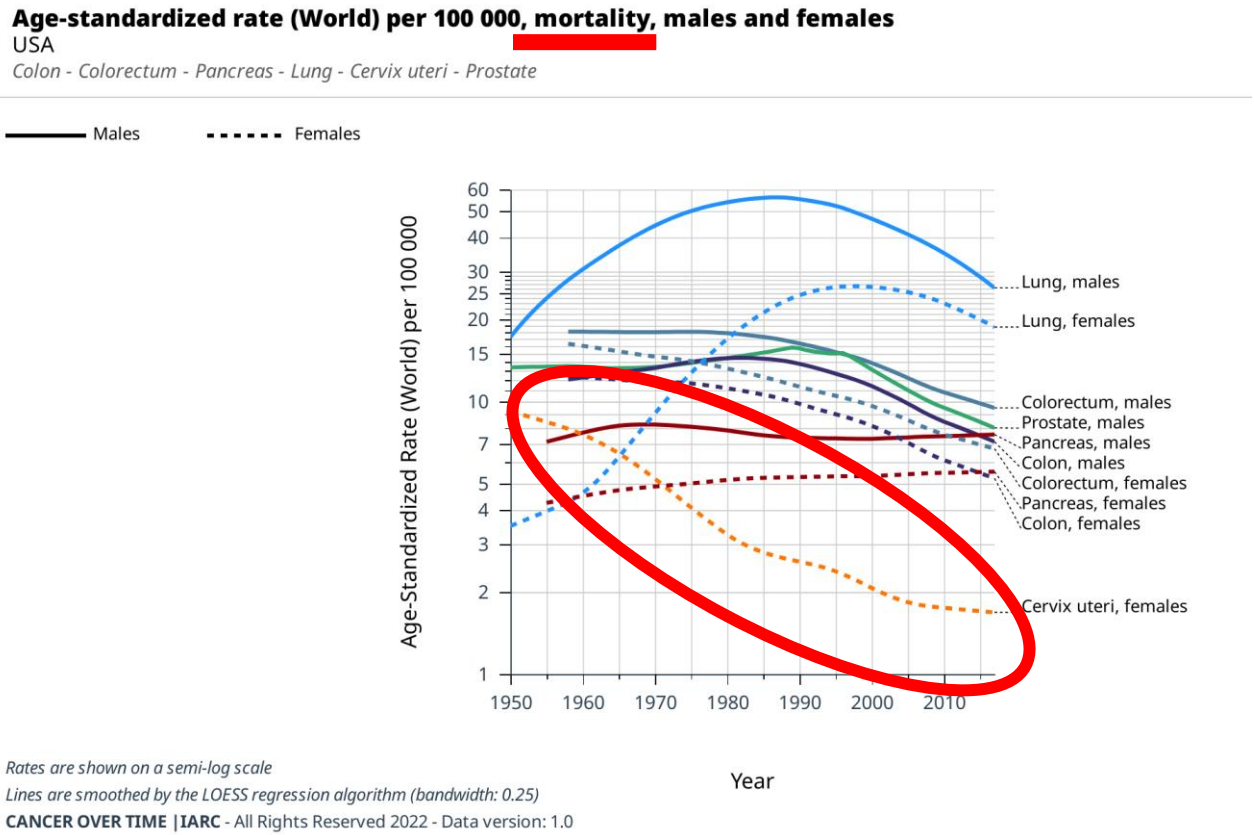
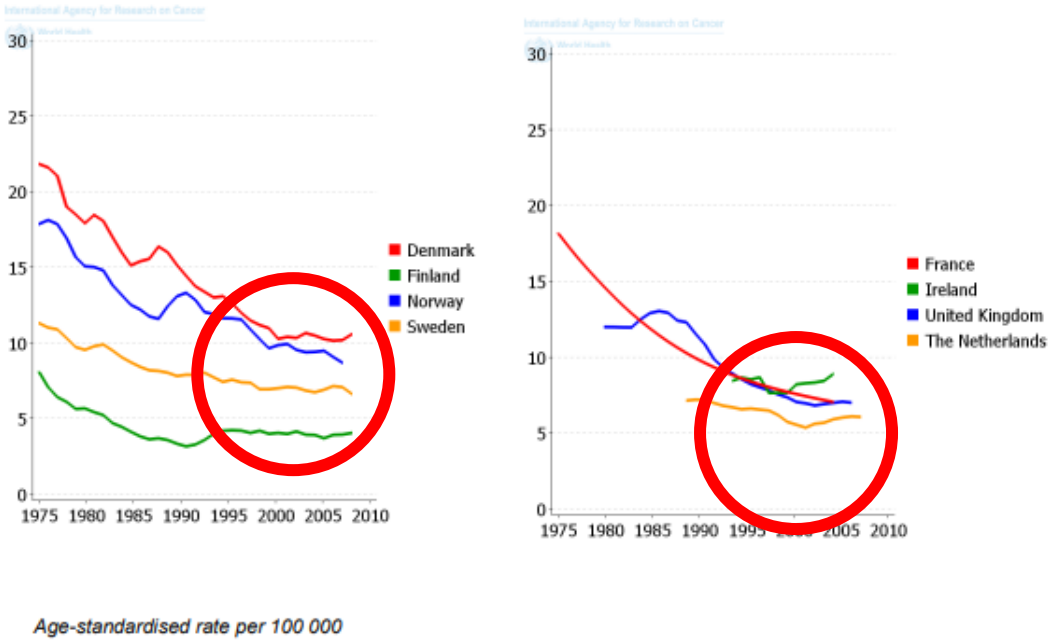
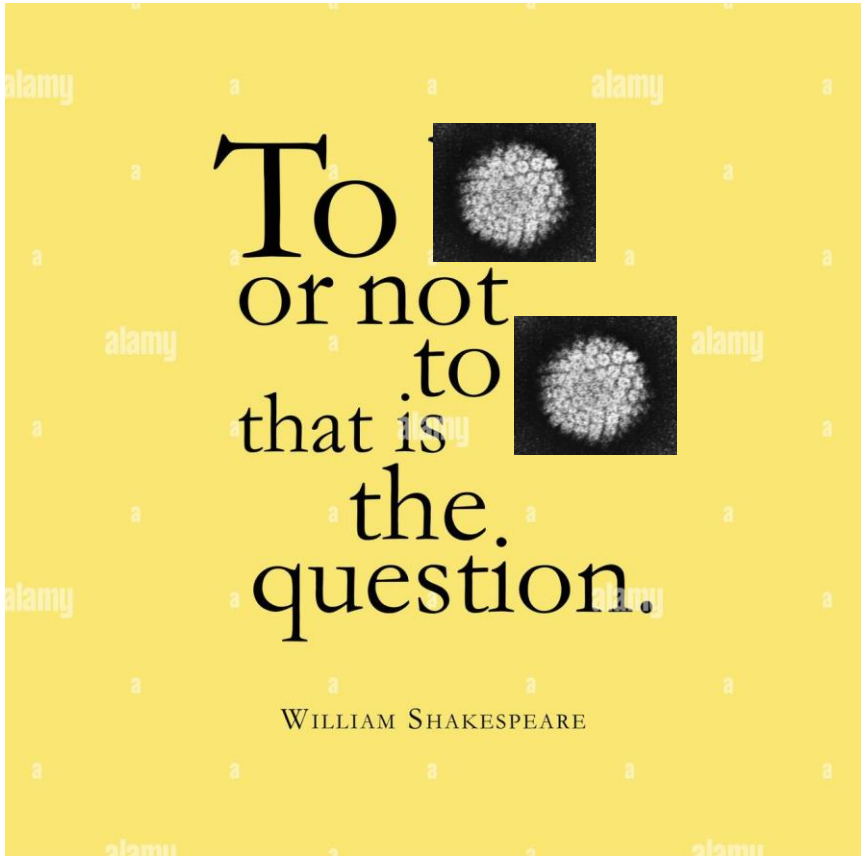
Waarom Screening?



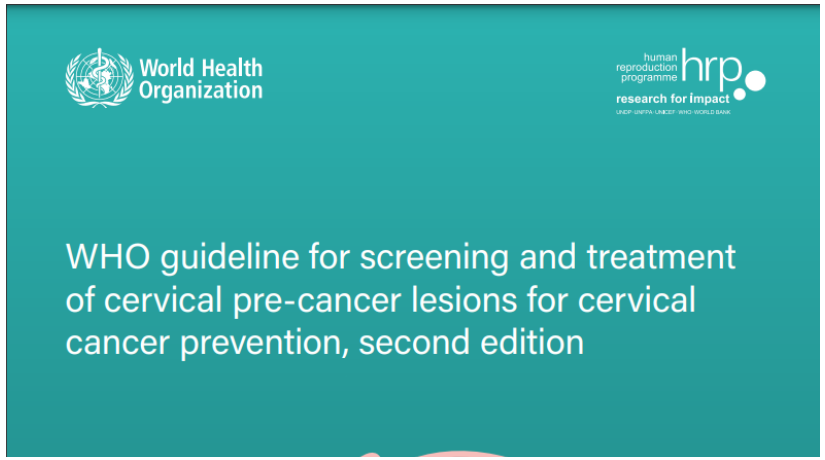


Cervical cancer screening



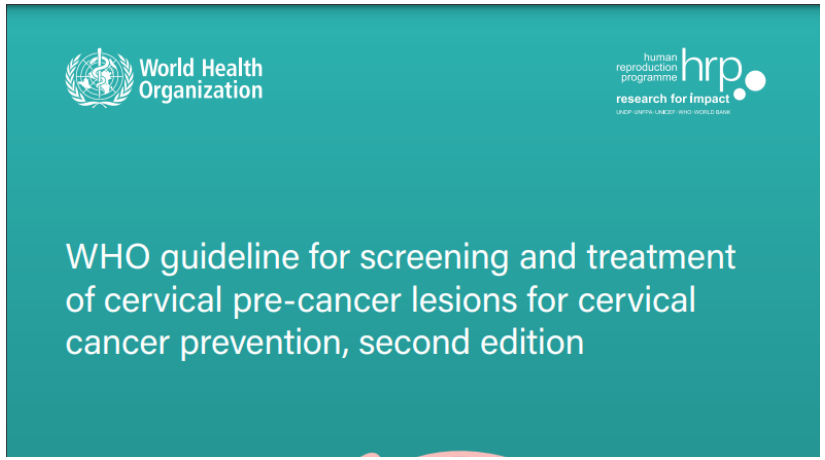
Adapted from Hamlet, by William Shakespeare

WAT moeten we doen?



Recommendations for the general population of women[a]	***Strength of recommendation and level of evidence***
1. WHO recommends using HPV DNA detection as the primary screening test rather than VIA or cytology in screening and treatment approaches among both the general population of women and women living with HIV. *Remarks: Existing programmes with quality-assured cytology as the primary screening test should be continued until HPV DNA testing is operational; existing programmes using VIA as the primary screening test should transition rapidly because of the inherent challenges with quality assurance.*	Strong recommendation, moderate-certainty evidence
2. WHO suggests using an HPV DNA primary screening test either **with triage or without triage** to prevent cervical cancer among the general population of women.	Conditional recommendation, moderate-certainty evidence

WAT moeten we doen?



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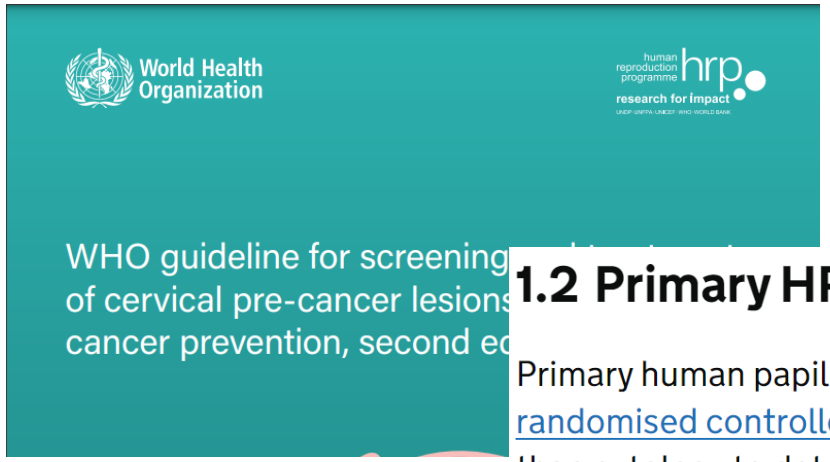
	2020 ACS	2012 ACS	2018 USPSTF
Age 21–24	No screening	Pap test every 3 years	Pap t ears
Age 25–29	HPV test every 5 years (preferred) HPV/Pap cotest every 5 years (acceptable) Pap test every 3 years (acceptable)	Pap test every 3 years	Pap t ears
Age 30–65	HPV test every 5 years (preferred) HPV/Pap cotest every 5 years (acceptable) Pap test every 3 years (acceptable)	HPV/Pap cotest every 3 years (preferred) Pap test every 3 years (acceptable)	Pap t ears, HPV years cotes 5 yea
Age 65 and older	No screening if a series of prior tests were normal	No screening if a series of prior tests were normal	No s ts serie not were at hi cervi

This topic is being updated. Please use the link(s) below to see the latest documents available.
Update in Progress for Cervical Cancer: Screening

WAT moeten we doen?



Recommendations for the general populati women[a]

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2. WHO suggests using an HPV DNA primary screening test either **with triage or without triage** to prevent cervical cancer among the general population of women.	recommendation, moderate-certainty evidence

1.2 Primary HPV screening

Primary human papillomavirus (HPV) screening has been demonstrated within [randomised controlled trials reported in 2009](), [2014]() and [2019]() to be more sensitive than cytology to detect pre-invasive disease of the cervix. Improved sensitivity leads to a reduction in incidence of both adenocarcinomas and squamous carcinomas of the cervix compared to cytology screening alone. The improved sensitivity of high risk HPV (hrHPV) testing and its high negative predictive value also enables longer screening intervals for individuals with normal test results and is the optimum primary screening test for vaccinated individuals. The lower specificity of hrHPV testing requires a reflex triage test to ensure colposcopy clinics are not over burdened with unnecessary referrals and individuals are not inconvenienced.

A national programme of primary HPV screening with triage by cytology results now operates following the evidence from the English primary implementation pilot report. The new pathways can be found in the [flowcharts accompanying this guidance]().

NHS nhs.uk

	2020 ACS	2012 ACS	2018 USPSTF
Age 21–	No screening	Pap test every 3 years	Pap t ears
		very 3 years	Pap t ears
		cotest every referred) very 3 years le)	Pap t HPV years cotes 5 yea ears,
and older	series of prior tests were normal	ing if a series of prior tests were normal	No s serie were at hig cervi ts not

This topic is being updated. Please use the link(s) below to see the latest documents available.
Update in Progress for Cervical Cancer: Screening

SPECIAL REPORT

The IARC Perspective on Cervical Cancer Screening

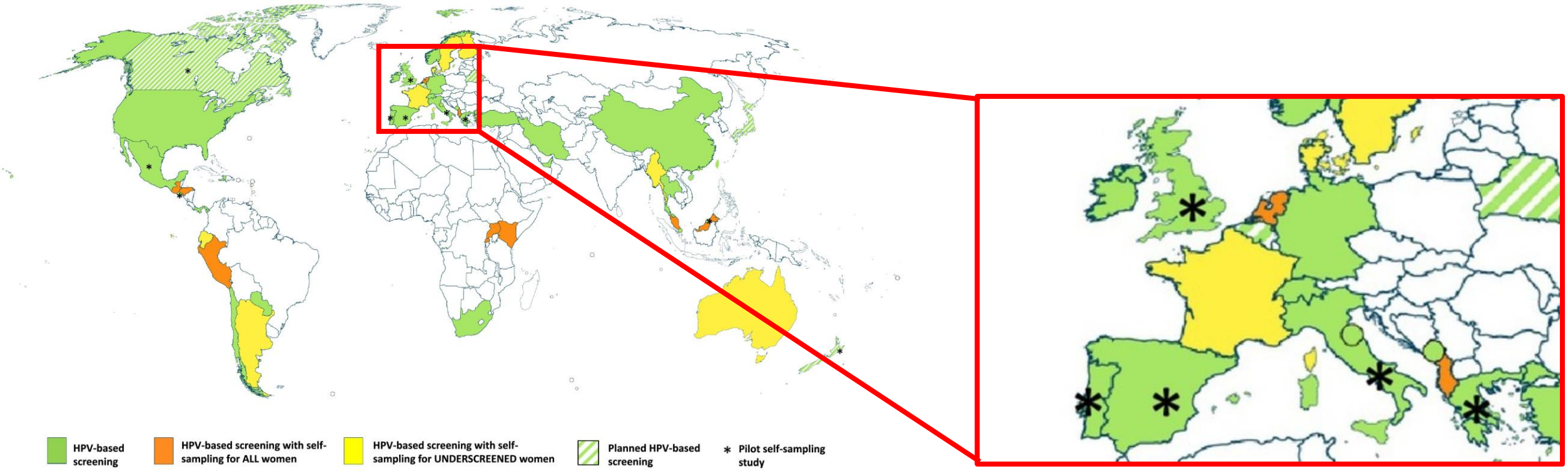
Table 3. Comparative Effectiveness of the Established Cervical Cancer Screening Methods.*

Methods Compared	Comparison of angesBenefit-to-Harm Balances
HPV DNA testing vs. VIA	HPV DNA testing >> VIA
HPV DNA testing vs. cytology	HPV DNA testing > cytology
HPV DNA testing vs. cotesting†	HPV DNA testing ≥ cotesting

* The symbol >> indicates that the benefits of testing clearly outweigh the harms, the symbol > that the benefits outweigh the harms, and the symbol ≥ that the benefits do not outweigh the harms. VIA denotes visual inspection with acetic acid.

† Cotesting involves screening and cytologic analysis combined.

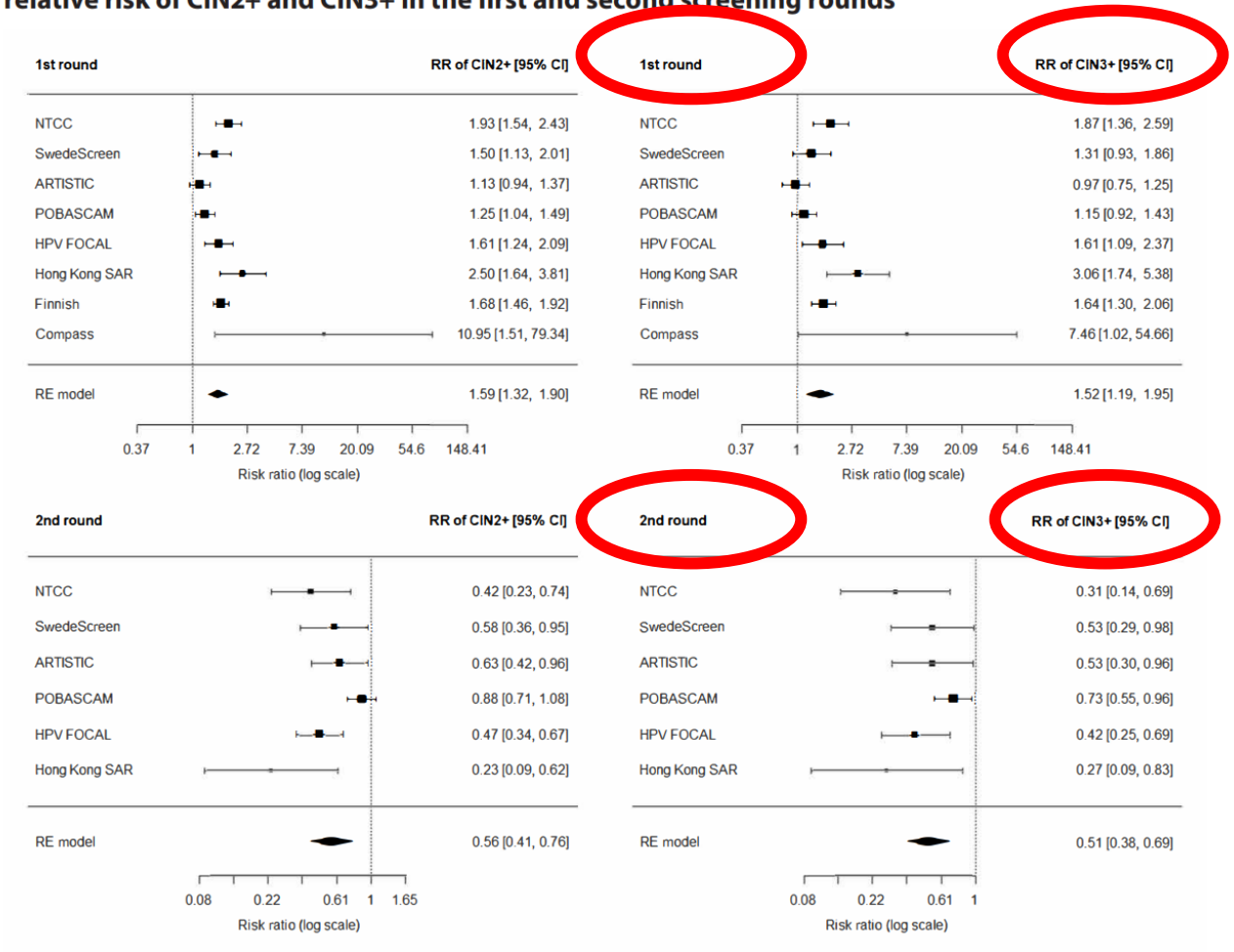
Wie gebruikt HPV?



Serrano et al. Worldwide use of HPV self-sampling for cervical cancer screening, Preventive Medicine,Volume 154, 2022,

Waarom HPV?

Fig. 4.4 Randomized controlled trials comparing HPV-based screening versus cytology screening: relative risk of CIN2+ and CIN3+ in the first and second screening rounds



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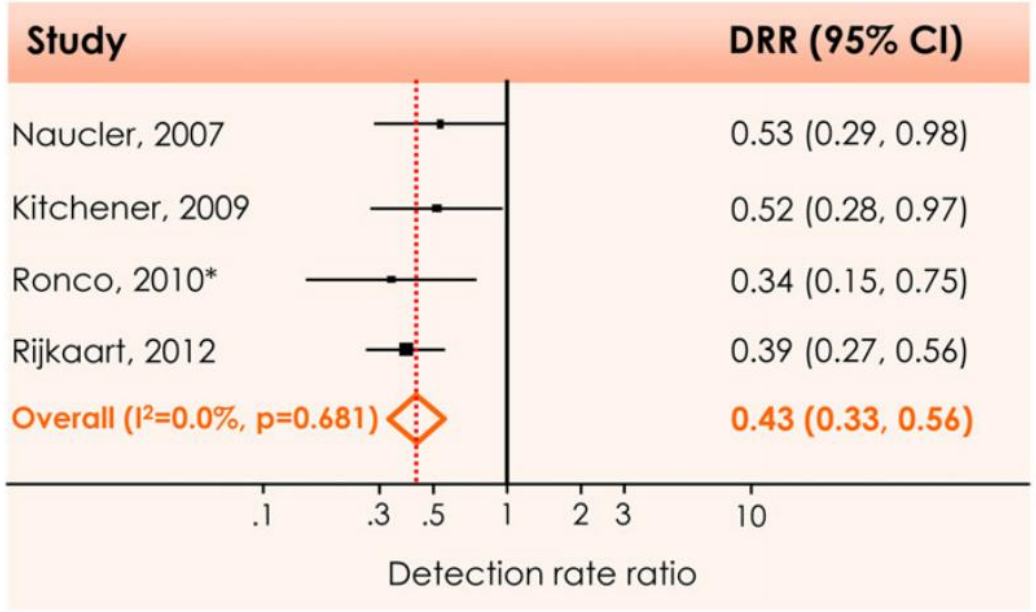
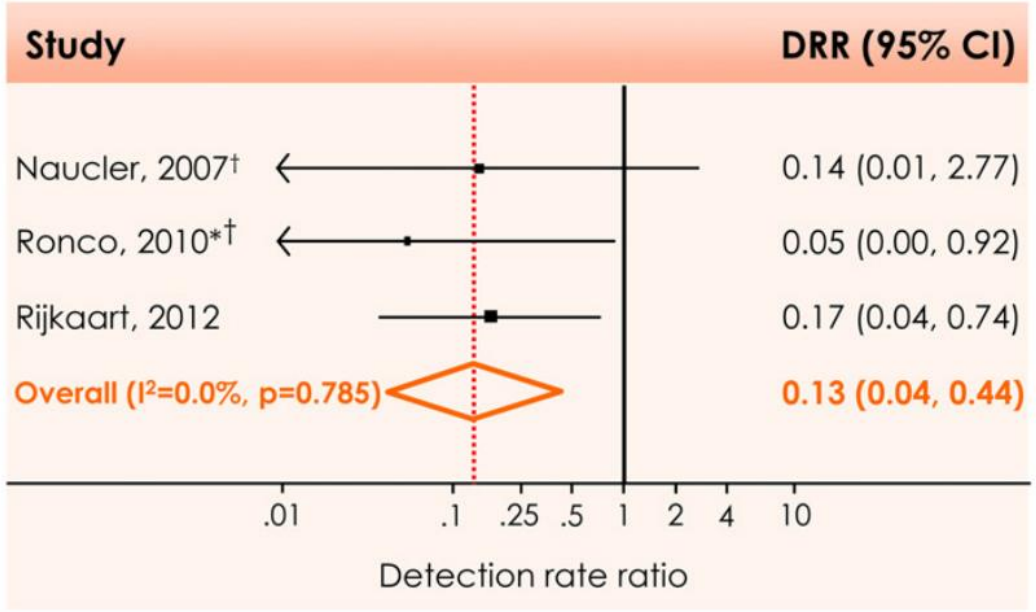
CIN3+



CERVICAL CANCER



* restricted to women of 35 years or older.
† continuity correction (+.5 in each cell because of zero cancer cases among HPV-negative women).

Arbyn et al. (2012). *Evidence Regarding Human Papillomavirus Testing in Secondary Prevention of Cervical Cancer. Vaccine, 30(), F88–F99.*

The HPV FOCAL Randomized Clinical Trial

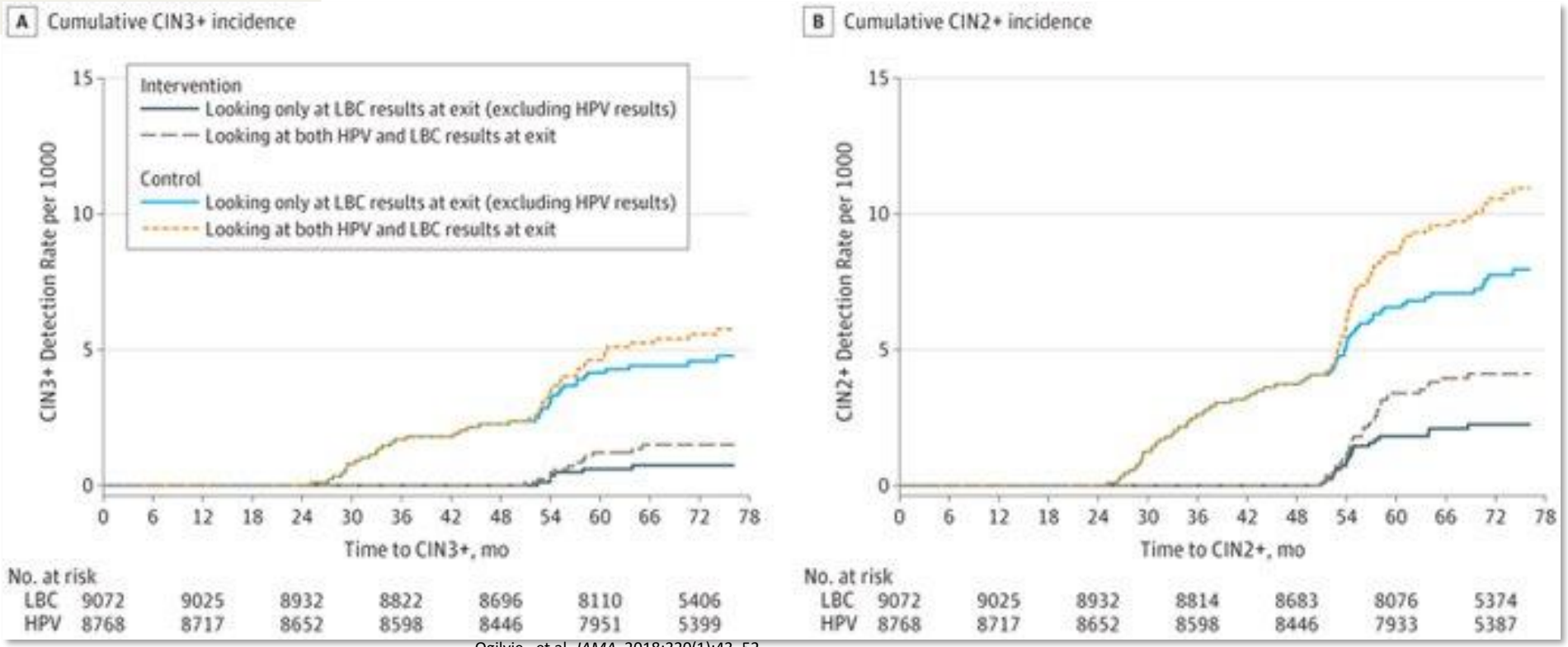
Key Points

Question Does cervical cancer screening using primary cervical human papillomavirus (HPV) testing compared with cytology result in a lower likelihood of cervical intraepithelial neoplasia grade 3 or worse (CIN3+) at 48 months?

Findings In this randomized clinical trial that included 19 009 women, screening with primary HPV testing resulted in significantly lower likelihood of CIN3+ at 48 months compared with cytology (2.3/1000 vs 5.5/1000).

Meaning HPV-based screening resulted in lower likelihood of CIN3+ than cytology after 48 months, but further research is needed to understand long-term clinical outcomes as well as cost-effectiveness.

	All Participants			Baseline Negative Screen	
	Incidence Rate/1000 (95% CI) at 48 mo		Risk Ratio (95% CI)	Incidence Rate/1000 (95% CI) at 48 mo	Risk Ratio (95% CI)
	Intervention Group	Control Group			
CIN3+	2.3 (1.5-3.5)	5.5 (4.2-7.2)	0.42 (0.25-0.69)	1.4 (0.8-2.4)	0.25 (0.13-0.48)
CIN2+	5.0 (3.8-6.7)	10.6 (8.7-12.9)	0.47 (0.34-0.67)		



Ogilvie , et al. *JAMA*. 2018;320(1):43–52.

Wanneer?

Summary recommendation for the general population of women

WHO suggests using either of the following strategies for cervical cancer prevention among the general population of women:

- HPV DNA detection in a screen-and-treat approach starting at the **age of 30 years** with regular screening **every 5 to 10 years**.
- HPV DNA detection in a screen, triage and treat approach starting at the **age of 30 years** with regular screening **every 5 to 10 years**.

CONSENSUS STATEMENT

Cervical screening: ESGO-EFC position paper of the European Society of Gynaecologic Oncology (ESGO) and the European Federation of Colposcopy (EFC)

- **<u>Niet <25 jaar!</u>**
- **<30 HPV versus Cyt = ?**
  - **Lagere specificiteit**
  - **Triage nodig!**

These recommendations differ slightly from those given by ACS in 2012 and by the US Preventive Services Task Force (USPSTF) in 2018 .

	2020 ACS	2012 ACS	2018 USPSTF
Age 21–24	No screening	Pap test every 3 years	Pap
Age 25–29	HPV test every 5 years (preferred) HPV/Pap cotest every 5 years (acceptable) Pap test every 3 years (acceptable)	Pap test every 3 years	Pap
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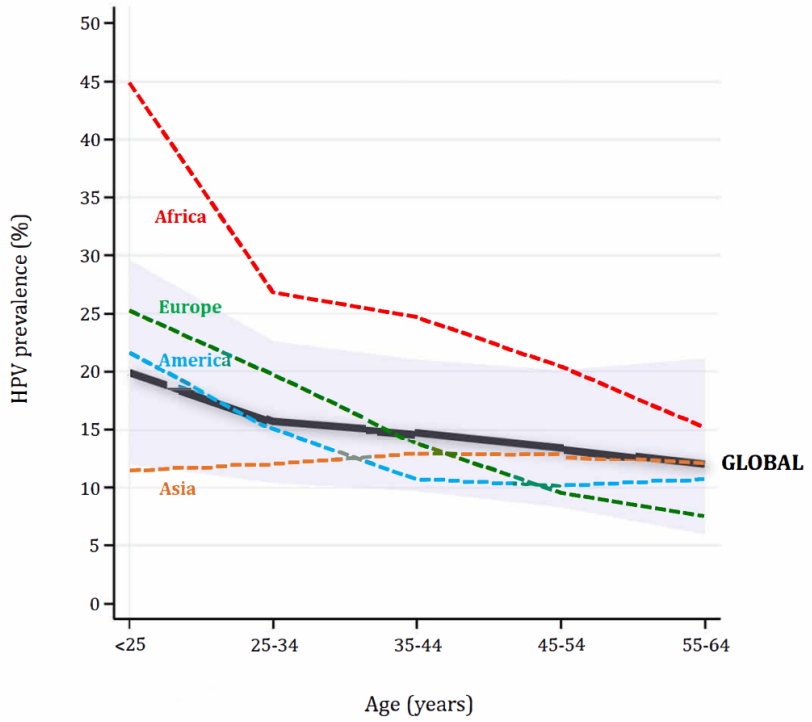
LAST UPDATED: Mar 10, 2022

An Update for This Topic is In Progress

U.S. Preventive Services TASK FORCE

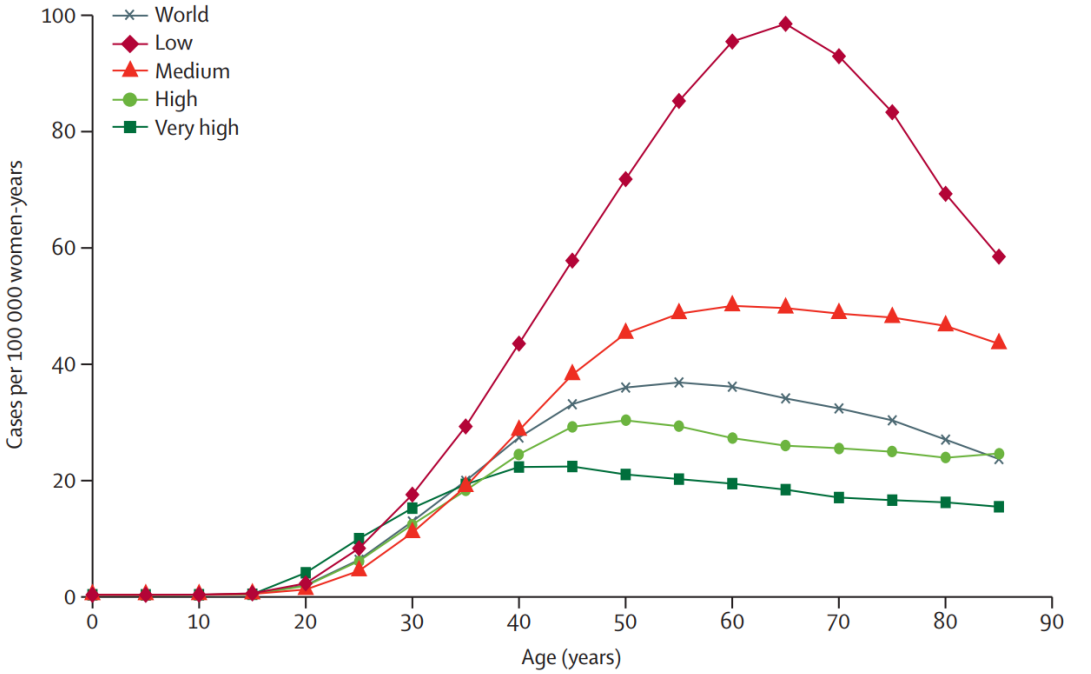
Wanneer?

Fig. 1.8 Age-specific standardized prevalence of human papillomavirus (HPV) infection by world region



The shaded area represents the 95% confidence interval for the global HPV prevalence.
Courtesy of Laia Bruni, Bruni et al. (2016).

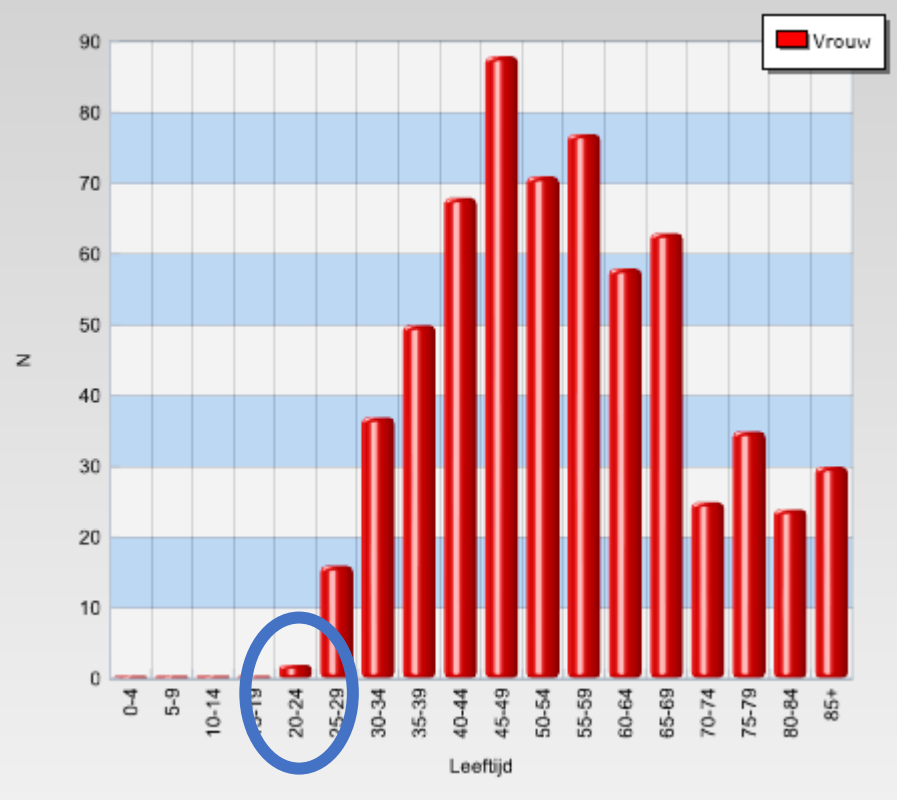
Fig. 1.4 Age-specific incidence of cervical cancer worldwide and in terms of the four-tier Human Development Index (HDI), 2018



The four tiers of HDI are: low (< 0.55), medium (≥ 0.55 to < 0.7), high (≥ 0.7 to < 0.8), and very high (≥ 0.8).
Reproduced from Arbyn et al. (2020).

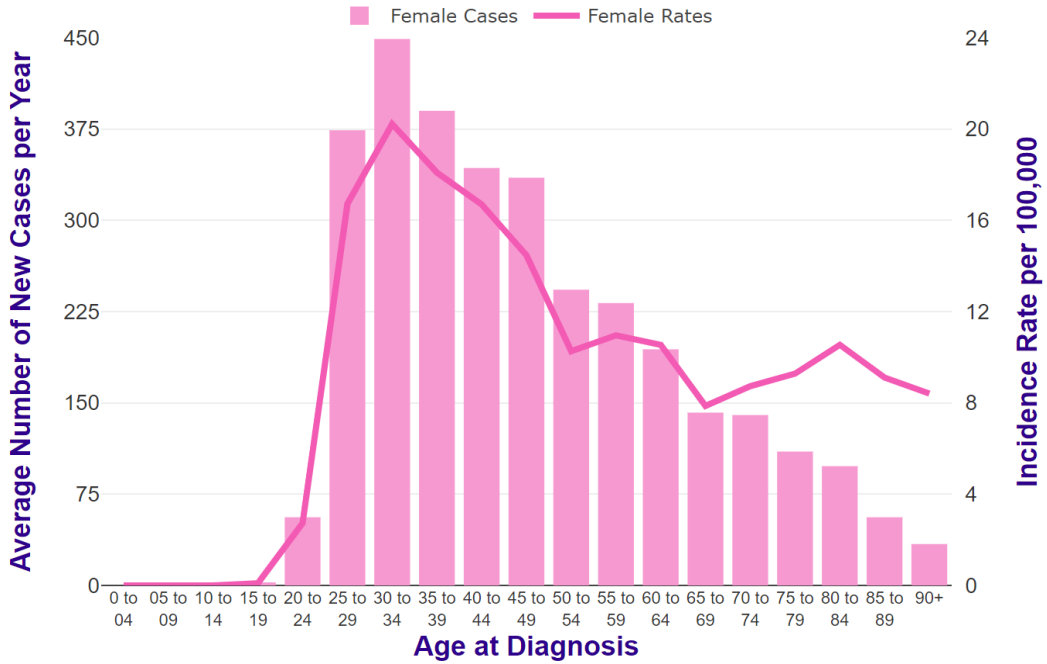
Wanneer?

België 2018



Kankerregister.org

Cervical cancer (C53), Average Number of New Cases per Year and Age-Specific Incidence Rates per 100,000 Female Population, UK, 2016-2018



Cancerresearchuk.org

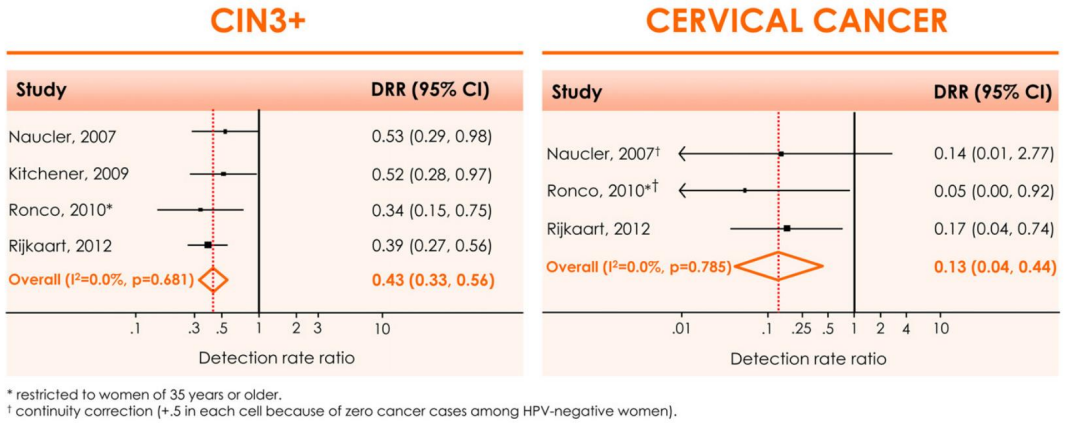

'T IS GEBEURD!


JA.....
MAAR

Wat met HPV negatieve kanker?

Wat met HPV negatieve kanker?

NON-ISSUE



* restricted to women of 35 years or older.
† continuity correction (+.5 in each cell because of zero cancer cases among HPV-negative women).

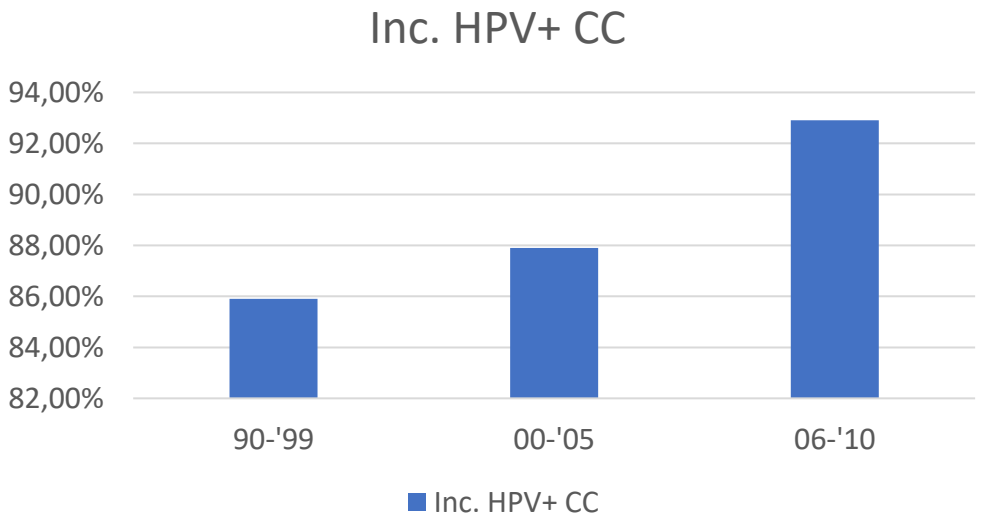
ADENOCARCINOMA! HPV neg??

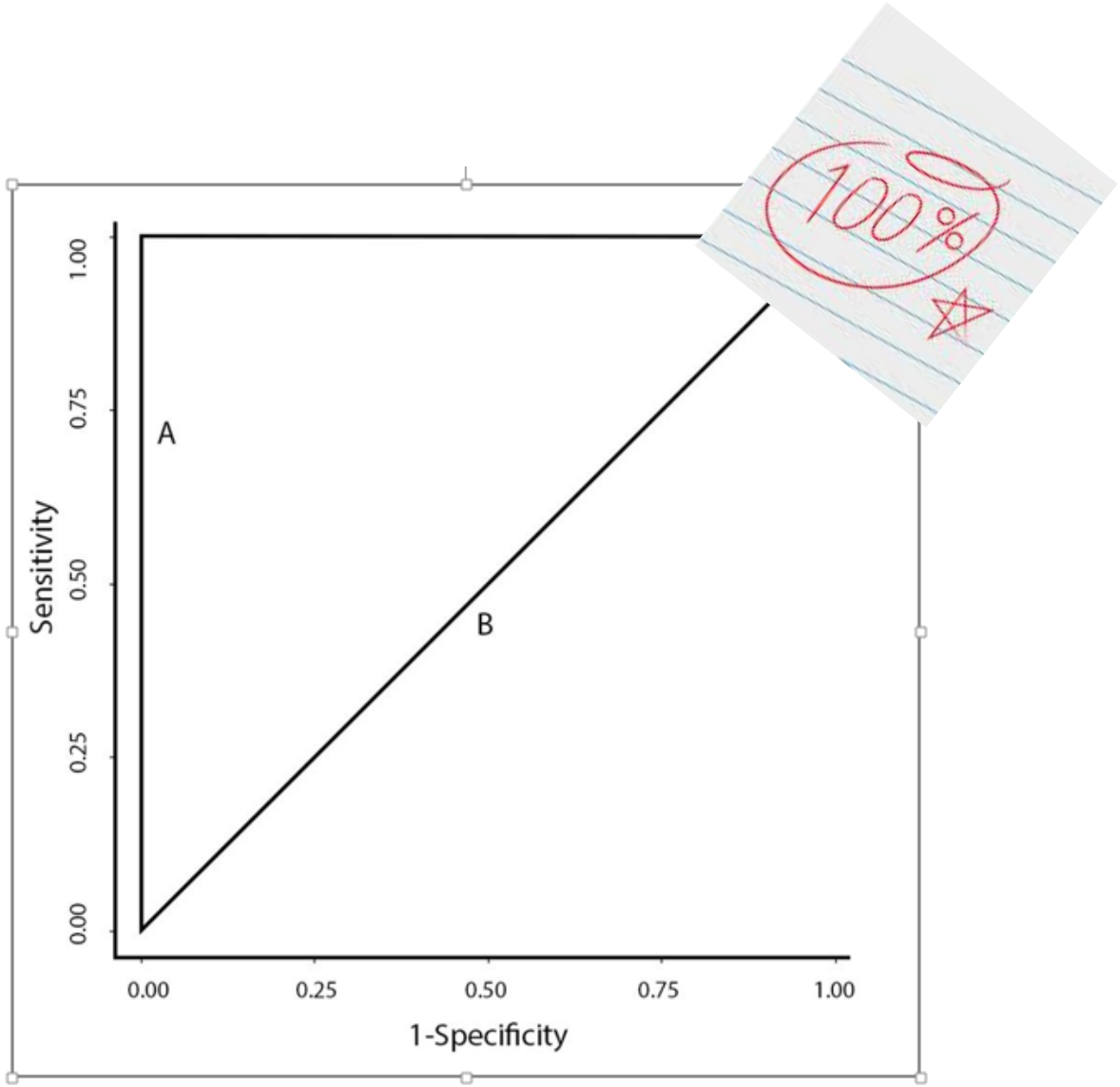
TABLE 2 | Pathological types of cervical adenocarcinoma and its human papillomavirus (HPV)-positive rate.

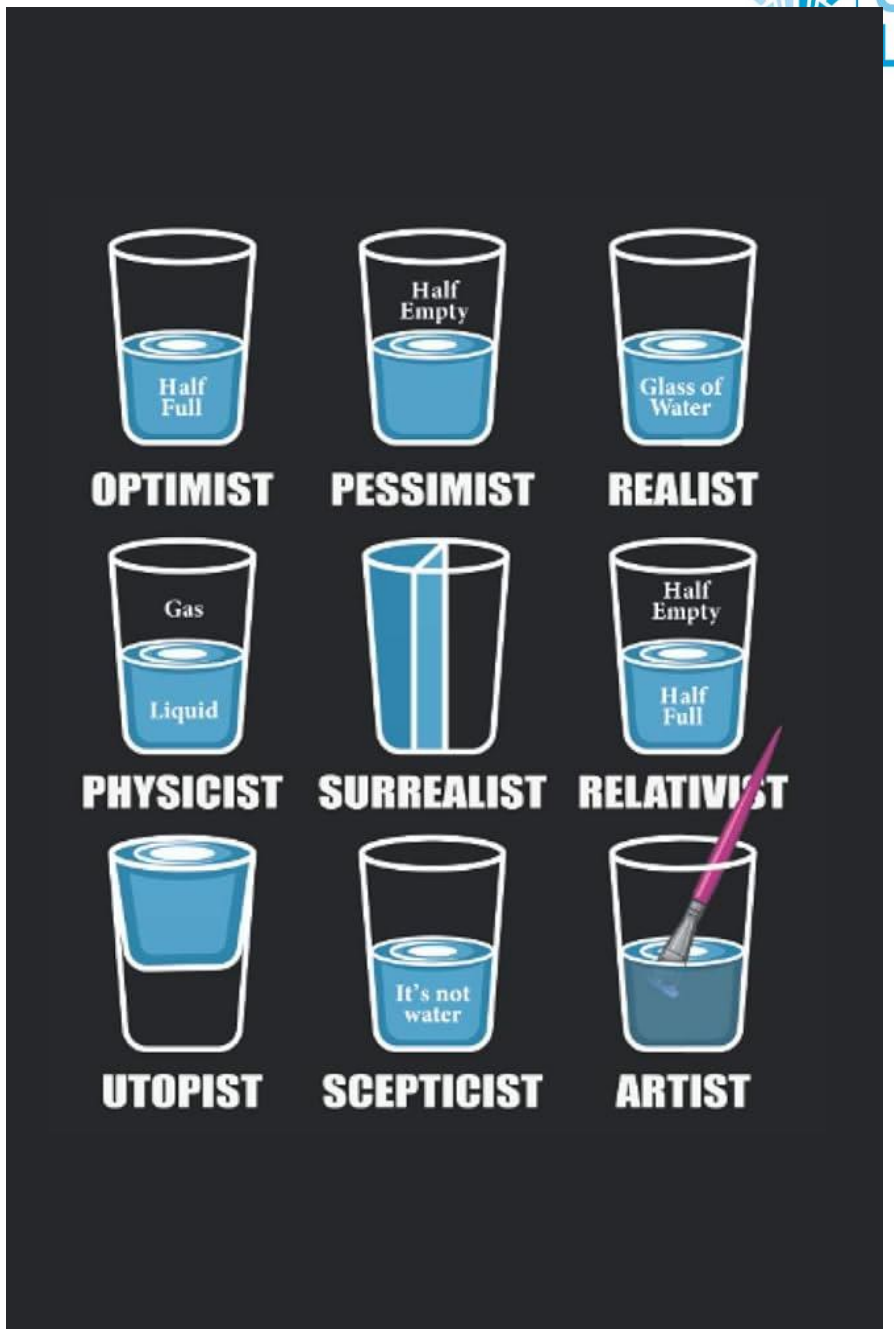
Pathological types (Reference)	Percentage of cervical adenocarcinoma, %		HPV-positive rate, % (17)
Endocervical (usual) type (15, 18)	73–79	**85%**	80–100
Intestinal (15)	3–8		83–100
Villoglandular (15)	0.8–6		100
Signet-ring cell (15)	0.3		100
Endometrioid (13, 15)	1.1–1.6		27.3
-From squamous columnar junction zone	—		100
-From upper endocervix and lower uterine segment	—		0
Gastric (15, 18)	1.5–10		0
Clear cell (13, 18)	4.4–6.3		20–27.6
Serous (13, 15)	0.5–3.5		25–30.4
Mesonephric (15)	0.3		0

Xing et al. (2021). Front. Oncol. 10:606335. doi: 10.3389/fonc.2020.606335

- Metastase? Andere origine (endometrium?)
- Sensitiviteit van de gebruikte test?
- Verlies van HPV DNA fragmenten? (ex. L1 test)
- Welk staal (necrose?)




100%
A
B
Sensitivity
1-Specificity
0.00
0.25
0.50
0.75
1.00


Half Full
OPTIMIST
Half Empty
PESSIMIST
Glass of Water
REALIST
Gas
Liquid
PHYSICIST
SURREALIST
Half Empty
Half Full
RELATIVIST
UTOPIST
It's not water
SCEPTICIST
ARTIST

Nu Echt


Voor elke oplossing
is wel een probleem.
Spreuktegeltje.nl

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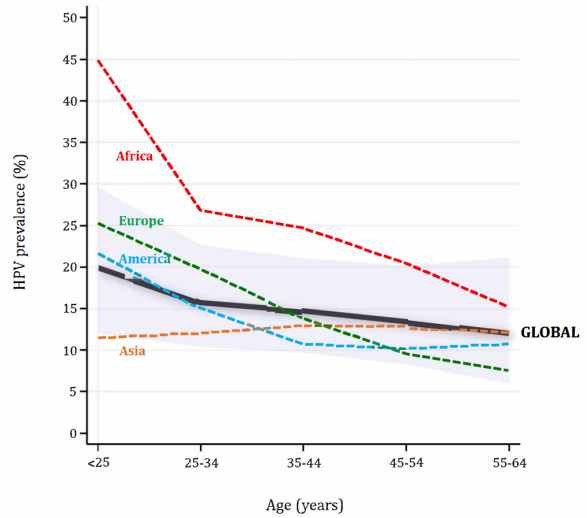
Noodzaak aan TRIAGE

- Genotypering + cytologie (ASCCP / Australian)
- Cytologie: meeste richtlijnen

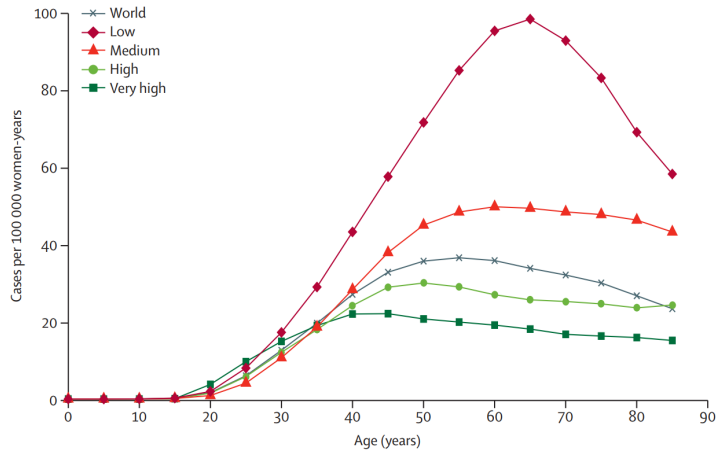
- P16/Ki67 ‘dubbele kleuring’
- Methylatie testen

Fig. 1.8 Age-specific standardized prevalence of human papillomavirus (HPV) infection by world region



The shaded area represents the 95% confidence interval for the global HPV prevalence.
Courtesy of Laia Bruni, Bruni et al. (2016).

Fig. 1.4 Age-specific incidence of cervical cancer worldwide and in terms of the four-tier Human Development Index (HDI), 2018



The four tiers of HDI are: low (< 0.55), medium (≥ 0.55 to < 0.7), high (≥ 0.7 to < 0.8), and very high (≥ 0.8).
Reproduced from Arbyn et al. (2020).

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KCE REPORT 238

ANNO2015

KCE

Federaal Kenniscentrum voor de Gezondheidszorg
Centre Fédéral d'Expertise des Soins de Santé
Belgian Health Care Knowledge Centre

CERVICAL CANCER SCREENING PROGRAM AND HUMAN PAPILLOMAVIRUS (HPV) TESTING, PART II: UPDATE ON HPV PRIMARY SCREENING

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CvKO
CENTRUM VOOR KANKEROPSPORING

1 AUG 2023 – 18 SEP 2023

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sciensano

Belgian Cancer Registry

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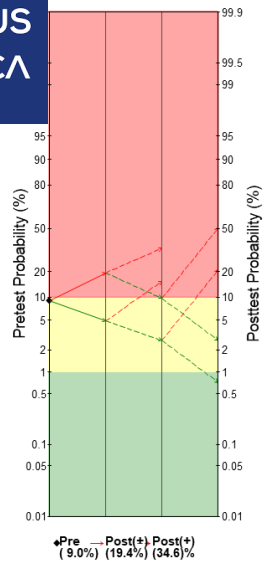
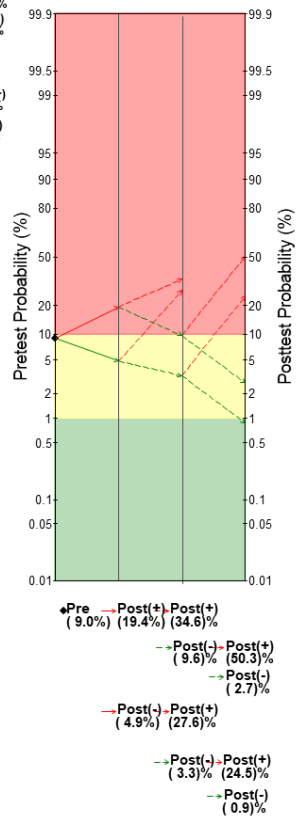
UZ LEUVEN

Slide 3

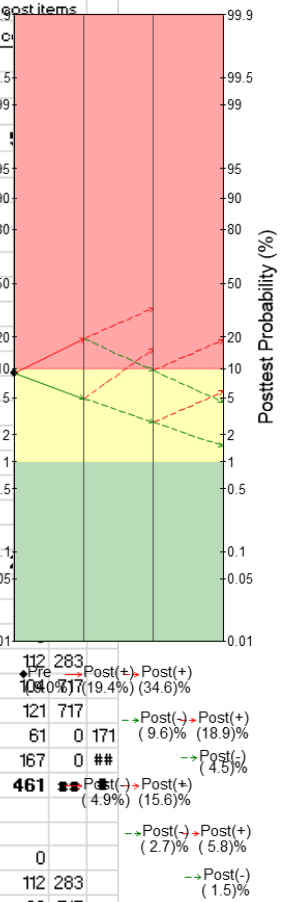


Slide 4

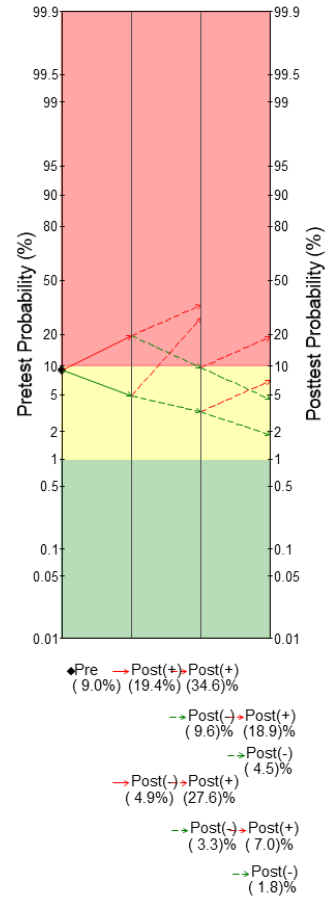


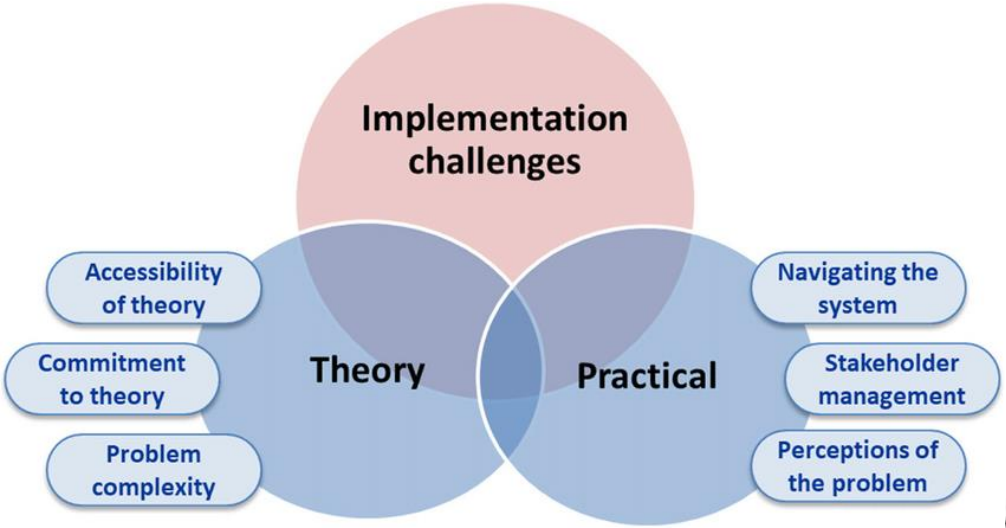
	A	B	C	D	E	F	G	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
1	slide 1				TirageMeeting1aug2023.pp		Nb				Useful referral	Missed	Unneces s refs	True re-assuranc								post items		
2	Num		T1		T2	triage2	studies	sens	spec	prev	TP	FN	FP	TN	total	PPV	1/PPV	NPV	cNPV	%T+	ok			
3	24		H1618				15	0,61	0,75	####	55	35	228	683	###	##	5,15	0,95	###	###	yn			
4					oth:ASC-US+		7	0,6	0,7	####	20	15	184	499	718	##	10,20	0,97	###	###	yn			
5					oth,NILM: hr+		calc	0,8	0,9	####	11	4	42	457	514	##	4,82	0,99	###	0,10	yy			
6			**overall procedure**					**1**	###		**86**	**4**	**454**	**457**	##	**0**	6,28	**1**	###	**1**	**yy**			
12	slide 3																							
13	24		H1618				15	0,61	0,75	####	55	35	228	683	###	0,19	5,15	0,95	###	###	yn			
14		refla			H1618+>ASCUS+		11	0,70	0,68	####	39	16	73	155	283	##	2,87	0,91	###	###	yn			
15		reflb			oth>LSIL+		2	0,43	0,87	####	15	20	89	593	717	0,14	6,93	0,97	###	0,15	yn			
16						alternative	5	0,54	0,85	####	19	16	102	580	717	0,16	6,37	0,97	###	0,17	yn			
17	12m after	refla			H1618+>NILM>		calc	0,76	0,92	####	12	4	13	142	171	##	2,08	0,97	###	0,15	yn			
18	12m after	reflb			oth ASCUS+		calc	0,76	0,92	####	12	4	49	531	596	##	5,08	0,99	###	0,10	yy			
19			**overall procedure**								**82**	**8**	**237**	**673**	##	##	**3,89**	###	###	##	**yn**			
20																								
21	slide 4																							
22	24		H1618				15	0,61	0,75	####	55	35	228	683	###	0,19	5,15	0,95	###	###	yn			
23		refla			H1618+>ASCUS+		11	0,70	0,68	####	39	16	73	155	283	##	2,87	0,91	###	###	yn			
24		reflb			oth>HSIL+		2	0,17	0,98	####	6	29	14	668	717	0,30	3,33	0,96	###	###	yn			
25						alternative	5	0,37	0,95	####	13	22	34	648	717	0,28	3,62	0,97	###	###	yn			
26	12m after	refla			H1618+>NILM>		calc	0,76	0,92	####	12	4	13	142	171	##	2,08	0,97	###	0,15	yn			
27	12m after	reflb			oth>LSIL->hr		calc	0,76	0,92	####	17	5	55	593	670	##	4,24	0,99	###	0,11	yy			
28			**overall procedure**								**81**	**9**	**175**	**735**	##	##	**3,16**	###	###	##	**yn**			
29																								
30	slide 5																							
31	24		H1618				15	0,61	0,75	####	55	35	228	683	###	0,19	5,15	0,95	###	###	yn			
32		refla			H1618+>ASCUS+		11	0,70	0,68	####	39	16	73	155	283	##	2,87	0,91	###	###	yn	112	283	
33		reflb			oth>LSIL+		2	0,43	0,87	####	15	20	89	593	717	0,14	6,93	0,97	###	0,15	yn	104	717	
34						alternative	5	0,54	0,85	####	19	16	102	580	717	0,16	6,37	0,97	###	0,17	yn	121	717	
35	12m after	refla			H1618+>NILM>ASC+		assu	0,70	0,68	####	11	5	50	105	171	##	5,55	0,95	###	###	yn	61	0	171
36	12m after	reflb			oth ASC->ASC+		assu	0,60	0,7	####	10	6	157	423	596	##	16,70	0,99	###	###	nn	167	0	##
37			**overall procedure**								**79**	**11**	**382**	**528**	##	##	**5,84**	###	###	##	**yn**	**461**	##	#
38																								
39	slide 6																							
40	24		H1618				15	0,61	0,75	####	55	35	228	683	###	0,19	5,15	0,95	###	###	yn	0		
41		refla			H1618+>ASCUS+		11	0,70	0,68	####	39	16	73	155	283	##	2,87	0,91	###	###	yn	112	283	
42		reflb			oth>HSIL+		2	0,17	0,98	####	6	29	14	668	717	0,30	3,33	0,96	###	###	yn	20	717	
43						alternative	5	0,37	0,95	####	13	22	34	648	717	0,28	3,62	0,97	###	###	yn	47	717	
44	12m after	refla			H1618+>NILM>ASC+		calc	0,70	0,68	####	11	5	50	105	171	##	5,55	0,95	###	###	yn	61	0	171
45	12m after	reflb			oth ASC+		calc	0,60	0,73	####	13	9	175	473	670	##	14,46	0,98	###	###	yn	188	0	##
46			**overall procedure**								**76**	**14**	**332**	**578**	##	##	**5,37**	###	###	##	**yn**	**408**	##	#

Slide 5



Slide 6




Implementation challenges
Accessibility of theory
Commitment to theory
Problem complexity
Theory
Practical
Navigating the system
Stakeholder management
Perceptions of the problem


consens us


MEDIUM
LOW
HIGH
RISK?

Implementatie HPV Screening

01 01 2025

We're almost there !

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Praktijk

sciensano

KANKERCENTRUM

INTRODUCTIE VAN DE HPV-TEST IN BAARMOEDERHALSKANKER SCREENING IN BELGIË

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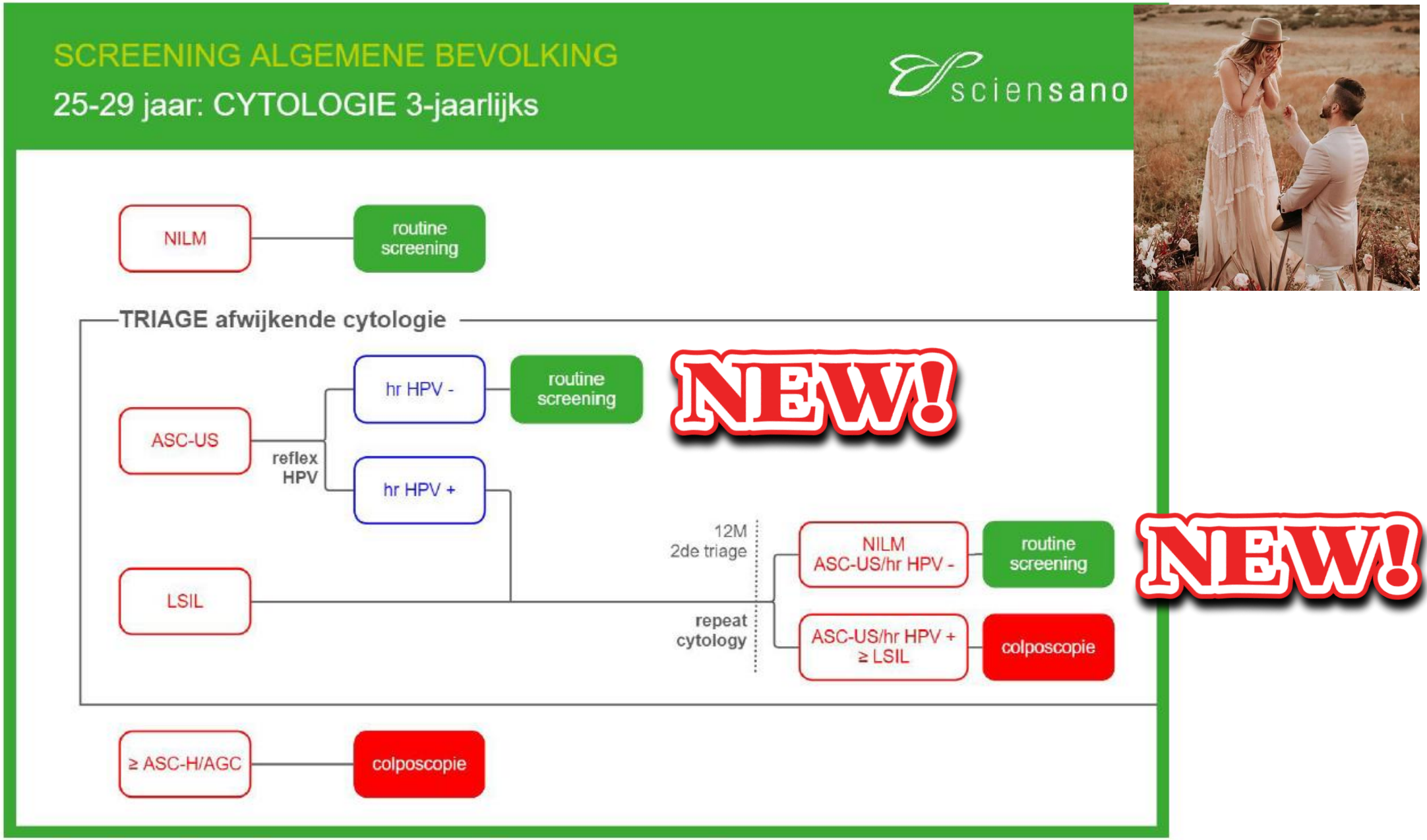
FIGUUR 1: SCREENINGSALGORITME VOOR 25 TOT 29-JARIGEN IN DE ALGEMENE BEVOLKING (versie 1 – d.d. 20241015)



≥ASC-H/AGC = ASC-H/AGC of een hooggradigere afwijking (HSIL, SCC, AIS, AC)

Opgelet: Een ASC-US resultaat wordt altijd gevolgd door een reflex HPV-test (zowel bij de primaire screening als bij de 2de triage na 12 maanden)

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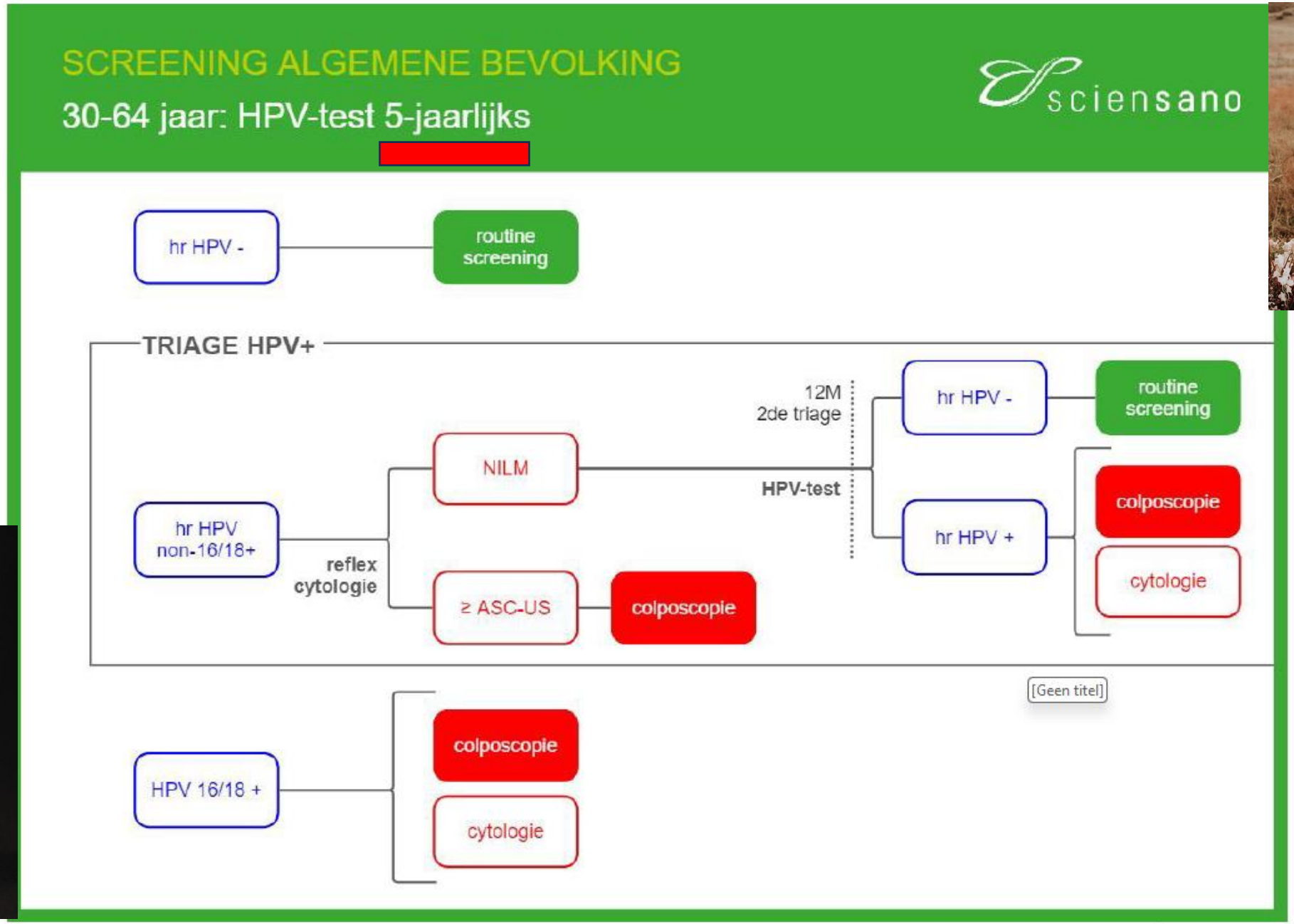
FIGUUR 2: SCREENINGSALGORITME VOOR 30 TOT 64-JARIGEN IN DE ALGEMENE BEVOLKING (versie 1 - d.d. 20241015)



Opgelet: Een positief hrHPV-resultaat wordt altijd gevolgd door een reflex cytologie (zowel bij de primaire screening als bij de 2de triage na 12 maanden)

Praktijk

	NOMENCLATUURCODES: NEMEN VAN EEN CERVICOVAGINAAL UITSTRIJKPREPARAAT	Huisarts	Gynaecoloog
1	Screening	114030-114041	149612-149623
2	Opvolging: diagnostisch/therapeutisch	114170-114181	149634-149645
3	**NIEUW: klinisch/diagnostisch + hoogrisicogroepen**	**114192-114203**	**149656-149660**

Klinisch Diagnostisch:

- Postmenopauzaal bloedverlies
- Abnormaal therapieresistent vaginaal bloedverlies
- Onverklaard post-coïtaal bloedverlies

Hoog risico

HOOGRISICOGROEPEN			
Andere[5] (met immuundeficiëntie)	HPV-test of cytologie, afhankelijk van de leeftijd	Geen beperking Aanbeveling: Driejaarlijkse HPV-test of jaarlijkse cytologie, afhankelijk van de leeftijd[◊]	Notificatie met terugbetaling van de vereiste testen

[5] BIJGEWERKTE DEFINITIE vs. nomenclatuur: bij alle patiënten met immuunsuppressie (hiv-positieve patiënten (CD4 <350/µl of HIV RNA > 200 cp/ml), na orgaantransplantatie, na allogene stamceltransplantatie, systemische lupus erythematosus, congenitale primaire immuundeficiëntie, of patiënten die langdurig aanhoudende immuunsuppressiva krijgen) is frequentere screening vereist zolang de immuunsuppressieve behandeling voortduurt

https://www.sciensano.be/en/cervical-cancer-screening

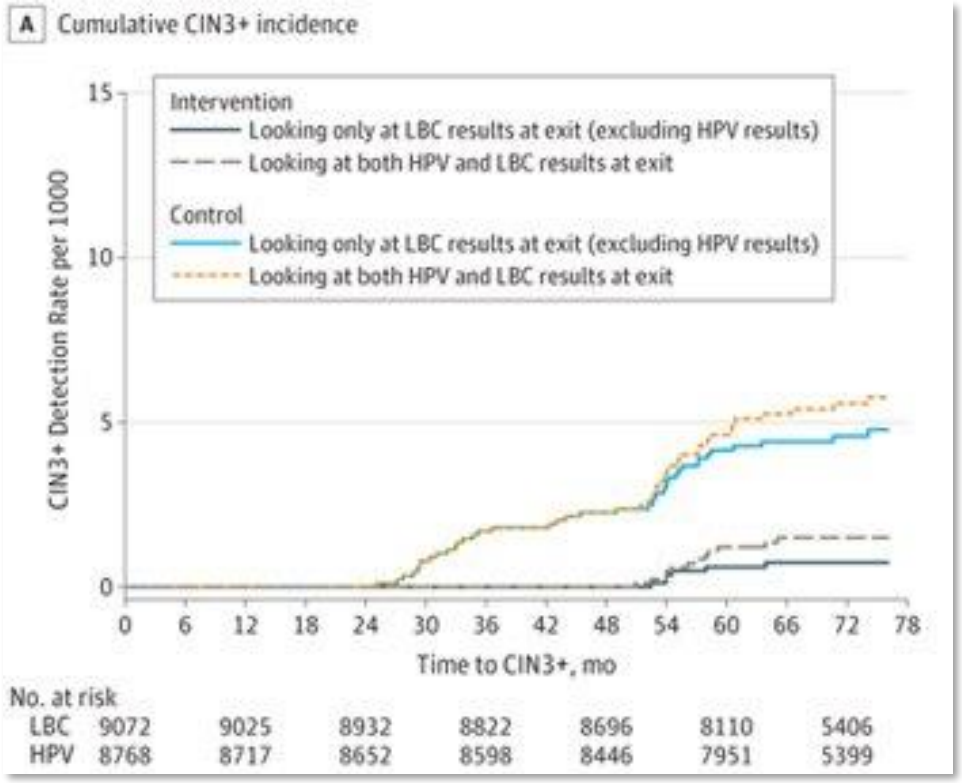
CD4 ≥350/µl

&

HIV-RNA <200 cp/ml

Praktijk: Overgangsperiode

- 30j = Kalenderjaar waarin ‘doelgroep’ 30 wordt
- Nieuwe screenings test:
  - 3 jaar na negatieve cytologie
  - 5 jaar na negatieve HPV test



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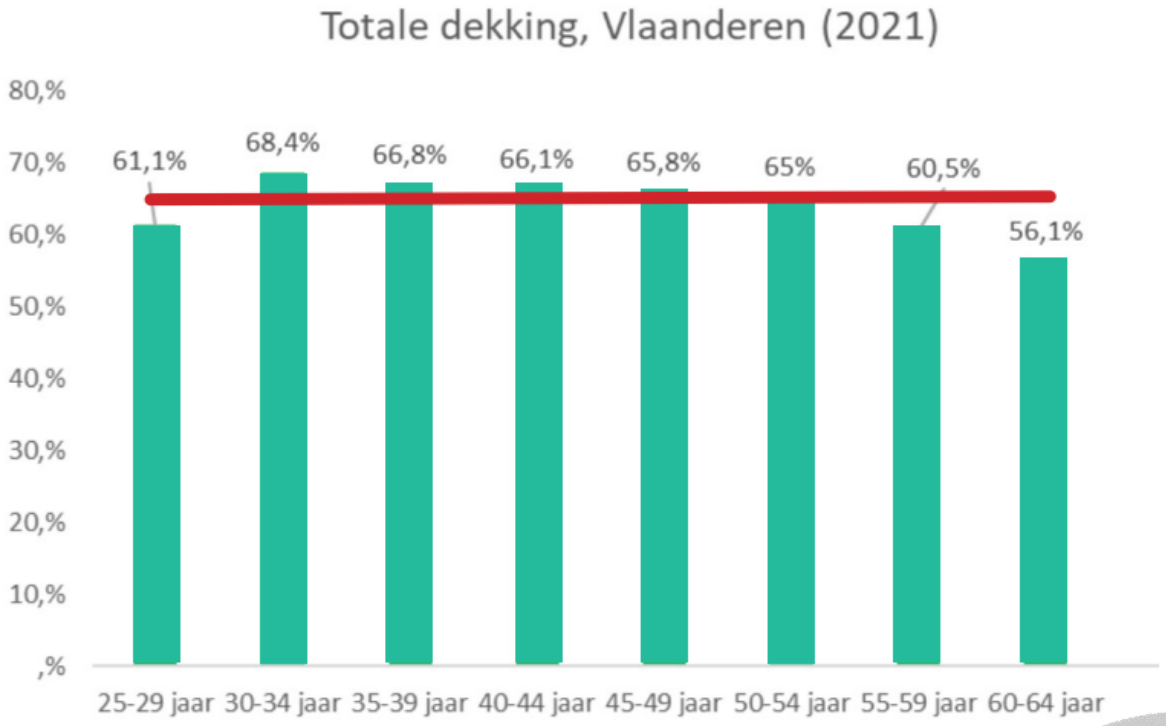
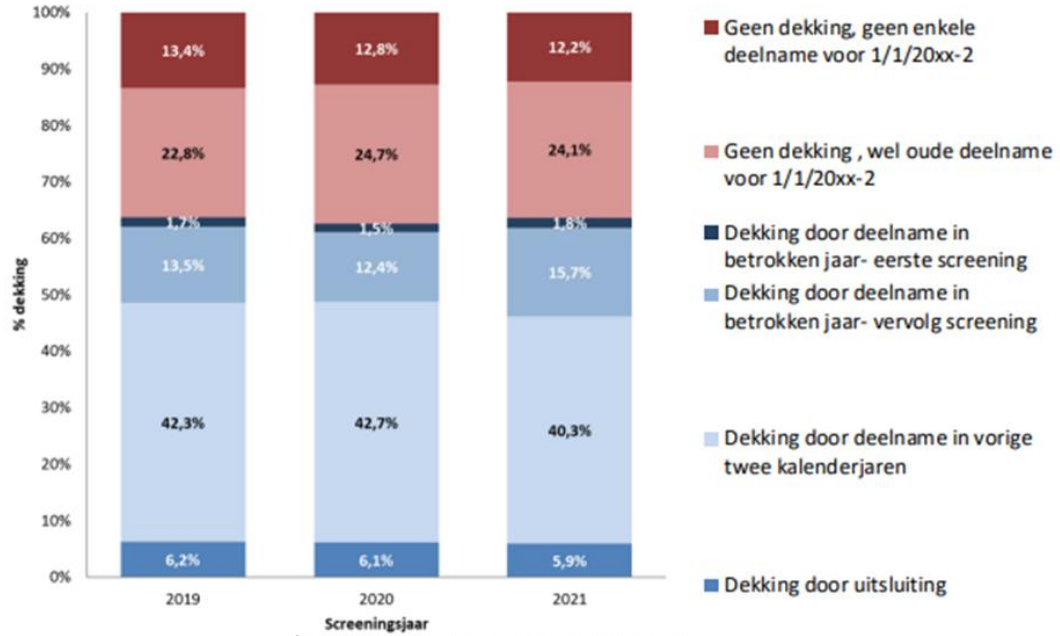
Opportuniteiten zelftest



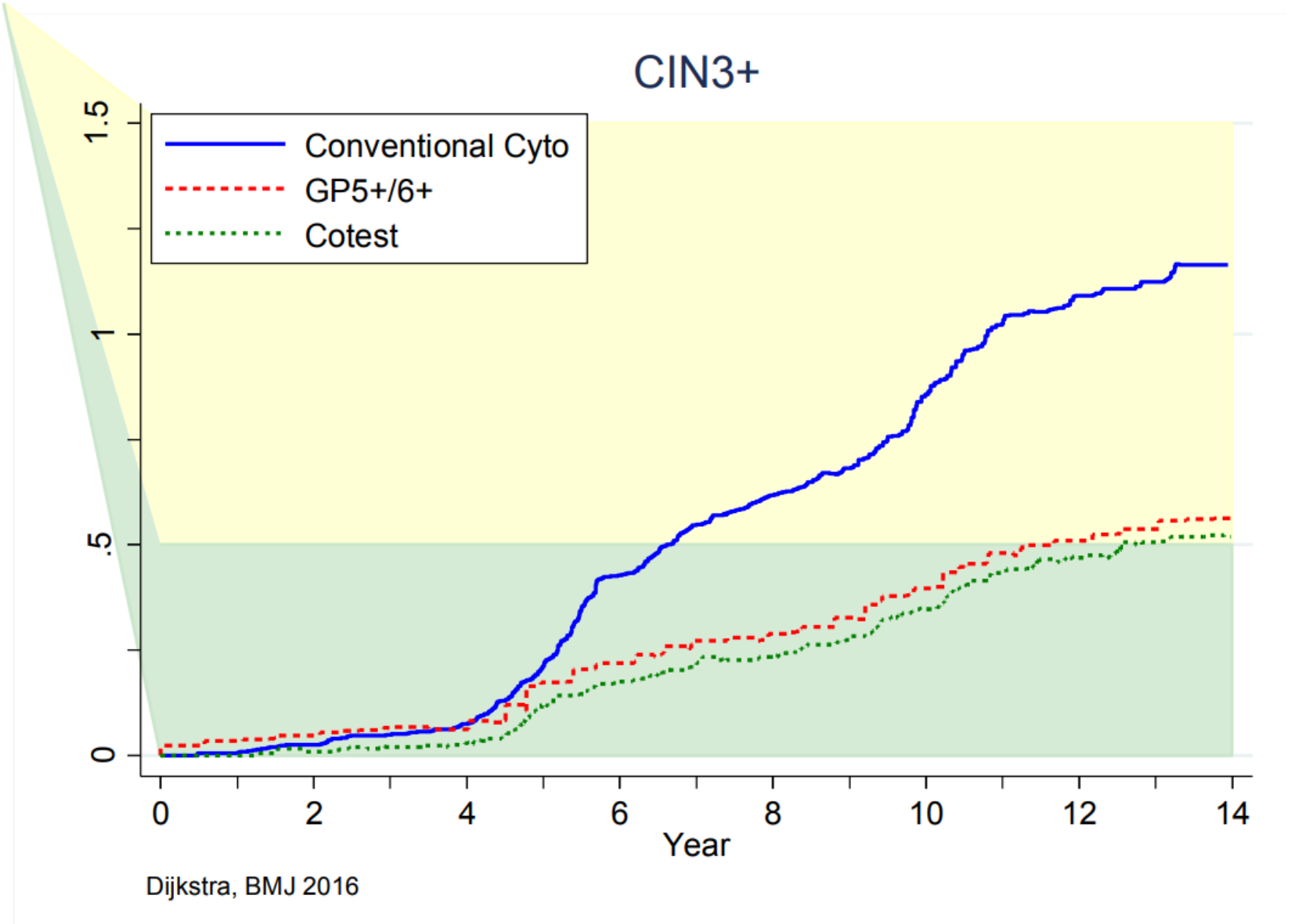
Figuur 1: Evolutie van de totale dekking met opsplitsing op basis van de meest recente deelname.



JAARRAPPORT BEVOLKINGSONDERZOEK.BE

Praktijk

KLINISCH/DIAGNOSTISCH			
Klinische testen (bij symptomen) [2]	Cotesting (cytologie + HPV)	Geen beperking	Notificatie met terugbetaling van één diagnostische co-test
HOOGRISICOGROEPEN			
DES[3] **AIS**[4]	Cotesting (cytologie + HPV)	Geen beperking Aanbeveling: jaarlijks	Notificatie met terugbetaling van de vereiste testen
Andere[5] **(met immuundeficiëntie)**	HPV-test of cytologie, afhankelijk van de leeftijd	Geen beperking Aanbeveling: Driejaarlijkse HPV-test of jaarlijkse cytologie, afhankelijk van de leeftijd[◊]	Notificatie met terugbetaling van de vereiste testen



Dijkstra, BMJ 2016

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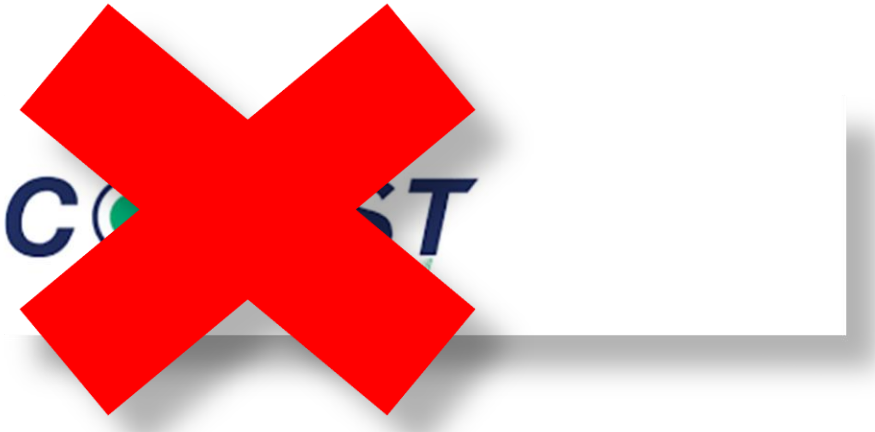
UZ LEUVEN

VVOG
VLAAMSE VERENIGING VOOR OBSTETRIE EN GYNAECOLOGIE vzw

CRG LB



efc European Federation for Colposcopy and Pathology of the Lower Genital Tract

sciensano

IARC

Praktijk: communicatie

- Patiënten communicatie CvKO: **DECEMBER**

CvKO CENTRUM VOOR KANKEROPSPORING
ANTWERPEN . BRUGGE . BRUSSEL . GENT . LEUVEN

- RIZIV nomenclatuur: **Publicatie KB in November**
  - Wettelijk gaat dit in 1ste dag van de 2e maand volgend op publicatie

RIZIV

Vaccinatie


HPV
vaccine
single-dose: 0,5ml
for injection only
0,5
0,4
0,3
0,2
0,1

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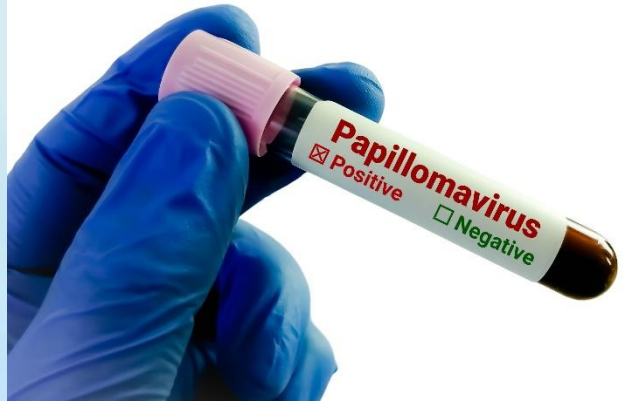
UZ LEUVEN

Primair

‘catch-up’

secundair



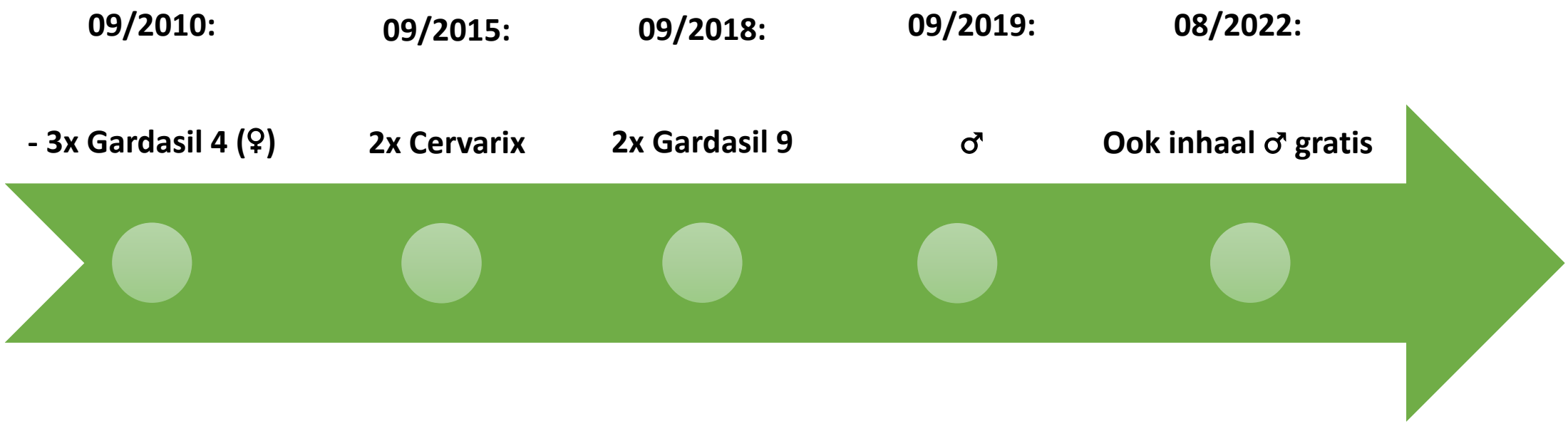
Tabel 1.1: Basisvaccinatieschema toegepast in Vlaanderen, 2016-2021

Leeftijd	Vaccinaties
8 weken	IPV-DTaP-Hib-HBV-1 + Pnc-1 + rota-1[a]
12 weken	IPV-DTaP-Hib-HBV-2 + rota-2[a]
16 weken	IPV-DTaP-Hib-HBV-3 + Pnc-2 (+ rota-3[a])
12 maand	MBR-1 + Pnc-3
15 maand	IPV-DTaP-Hib-HBV-4 + MenC
6 jaar	IPV-DTPa
10 jaar	MBR-2
12 jaar	HPV[b] en HBV[c]
14 jaar	dTap

[a] aanbevolen door de HGR maar niet gratis beschikbaar in Vlaanderen.
[b] sinds september 2019 voor meisjes en jongens; voordien enkel voor meisjes.
[c] voor wie nog niet eerder gevaccineerd werd tegen HBV, 2 dosissen van het vaccin voor volwassenen.

Studie van de vaccinatiegraad in Vlaanderen 2020, prof. Dr. Maertens

Vaccinatie in België: Historiek



Vaccinatie in België: dekking

Tabel 3.14: Vaccinatiegraad bij adolescenten in Vlaanderen, per vaccin en per dosis, uitgedrukt in procenten (met 95% betrouwbaarheidsinterval) (n=955), Vlaanderen 2020

	1e dosis	2e dosis
DTPa-IPV[a]	92,6 (90,6-94,5)	
MBR[b]	91,6 (89,5-93,7)	93,8 (92,1-95,6)
HPV[c]	89,4 (86,8-92,1)	80,7 (77,6-83,8)

[a] Herhalingsinenting met het tetravalente DTPa-IPV vaccin aanbevolen op de leeftijd van zes jaar (eerste leerjaar), inclusief afzonderlijk (maar volledig) toegediende DTPa én Polio vaccins en inhaalschema's op later leeftijd (o.m. nieuwkomers)

[b] De eerste dosis MBR verwijst naar een vaccinatie toegediend op zuigelingenleeftijd (behoudens enkele uitzonderingen met een inhaalvaccinatie); de tweede dosis verwijst naar een vaccinatie toegediend op de leeftijd van 10 jaar. Vijf jongeren (0,5%) kreeg nog een derde keer het MBR vaccin toegediend. Zie **§ 3.2.2** voor details.

[c] Voor jongeren uit geboortejaar 2007 kan een schema van 2 dosissen als volledig worden beschouwd. Acht jongeren kregen wel nog een derde dosis. Zie **§ 3.2.2** voor details.

Studie van de vaccinatiegraad in Vlaanderen 2020, prof. Dr. Maertens

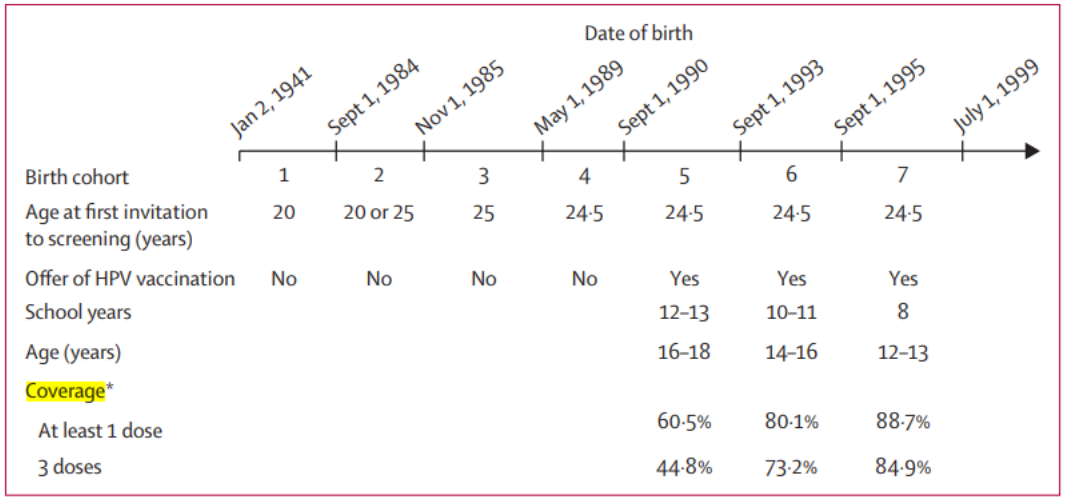
Tableau 4 : *Statut vaccinal (%) pour la 1ère dose du vaccin HPV chez les élèves de 2ème secondaire par province/région, par genre et par type de vaccinateur en 2019-2020*

		Bruxelles-Capitale (n=709)	Brabant Wallon (n=858)	Hainaut (n=903)	Liège (n=864)	Luxem-bourg (n=769)	Namur (n=768)	FWB (n=4870)
Médecin scolaire	F	45,7	35,5	33	49,5	44,9	54,5	43,2
	G	41,4	46,3	41,1	53,9	47,5	56,9	48
	T	43,3	41,1	37,1	51,8	46,3	55,9	45,7
Autres vaccinateurs	F	4,4	15,1	13	16,6	20	16	14,2
	G	0,8	1,8	0,7	3,4	8,7	3,4	2,8
	T	2,4	8,2	6,8	9,7	14	8,9	8,2
Sous-total vaccinés	F	50,2	50,6	46	66,1	64,9	70,5	57,5
	G	42,1	48,1	41,8	57,3	56,2	60,3	50,8
	T	**45,7**	**49,3**	**43,9**	**61,5**	**60,3**	**64,7**	**54**
Refus	F	7	14,8	4	2,2	4,7	6,3	6,5%
	G	6,3	12,8	3,3	4,5	5,2	6,7	6
	T	6,6	13,8	3,7	3,4	4,9	6,5	6,5
Demande médecin traitant	F	4,	12,9	4,9	9,6	9,9	9	8,8
	G	4,3	9,8	3,9	7,6	12,6	8,3	7,9
	T	4,5	11,3	4,4	8,6	11,3	8,6	8,3
Sous-total non vaccinés	F	11,7	27,7	9	11,8	14,5	15,4	15,3
	G	10,7	22,6	7,2	12,1	17,8	14,9	14,3
	T	**11,1**	**25,1**	**8,1**	**11,9**	**16,3**	**15,1**	**14,8**
Sous-total statut vaccinal inconnu	F	38,1	21,7	45,1	22,1	20,5	14,2	27,2
	G	47,2	29,3	51	30,6	26	24,8	34,8
	T	**43,2**	**25,6**	**48,1**	**26,5**	**23,4**	**20,2**	**31,2**

La vaccination contre le papillomavirus humain (HPV) chez les élèves de 2ème secondaire dans l'enseignement de la Fédération Wallonie-Bruxelles. F. PANICHELLI, K. SARR, C. BRASSEUR.

The effects of the national HPV vaccination programme in England, UK, on cervical cancer and grade 3 cervical intraepithelial neoplasia incidence: a register-based observational study

Milena Falcaro, Alejandra Castañon, Busani Ndlela, Marta Checchi, Kate Soldan, Jamie Lopez-Bernal, Lucy Elliss-Brookes, Peter Sasieni



Birth cohort	1	2	3	4	5	6	7
Age at first invitation to screening (years)	20	20 or 25	25	24·5	24·5	24·5	24·5
Offer of HPV vaccination	No	No	No	No	Yes	Yes	Yes
School years					12–13	10–11	8
Age (years)					16–18	14–16	12–13
Coverage*							
At least 1 dose					60·5%	80·1%	88·7%
3 doses					44·8%	73·2%	84·9%

Figure 1: **Schematic representation of the birth cohorts**
*Vaccine coverages include (when data are available) mop-up vaccinations (ie, when females are vaccinated in a later year than the one in which they were first offered vaccination).

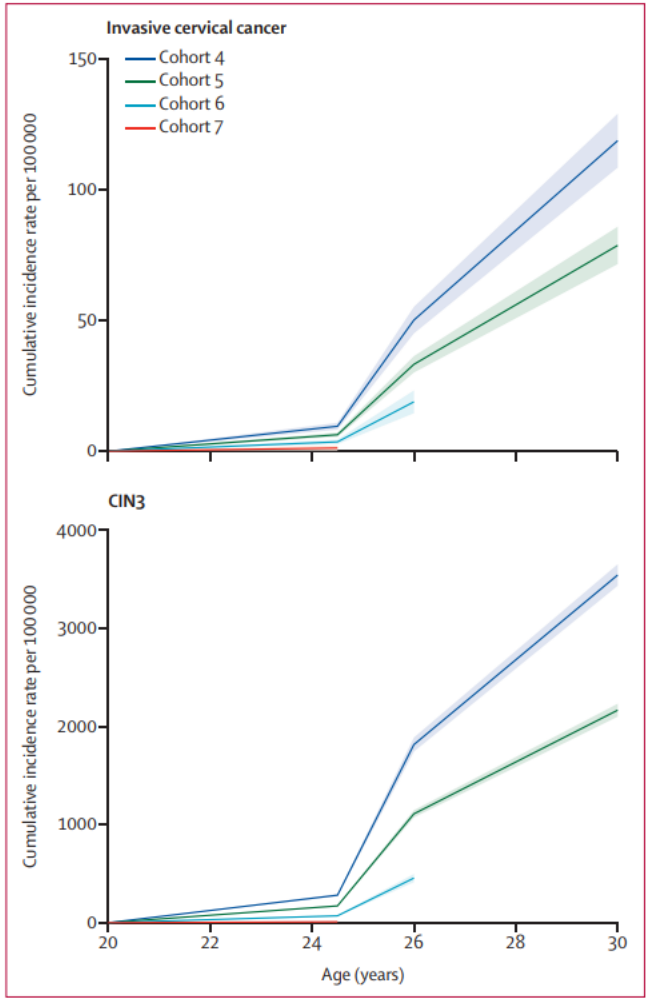
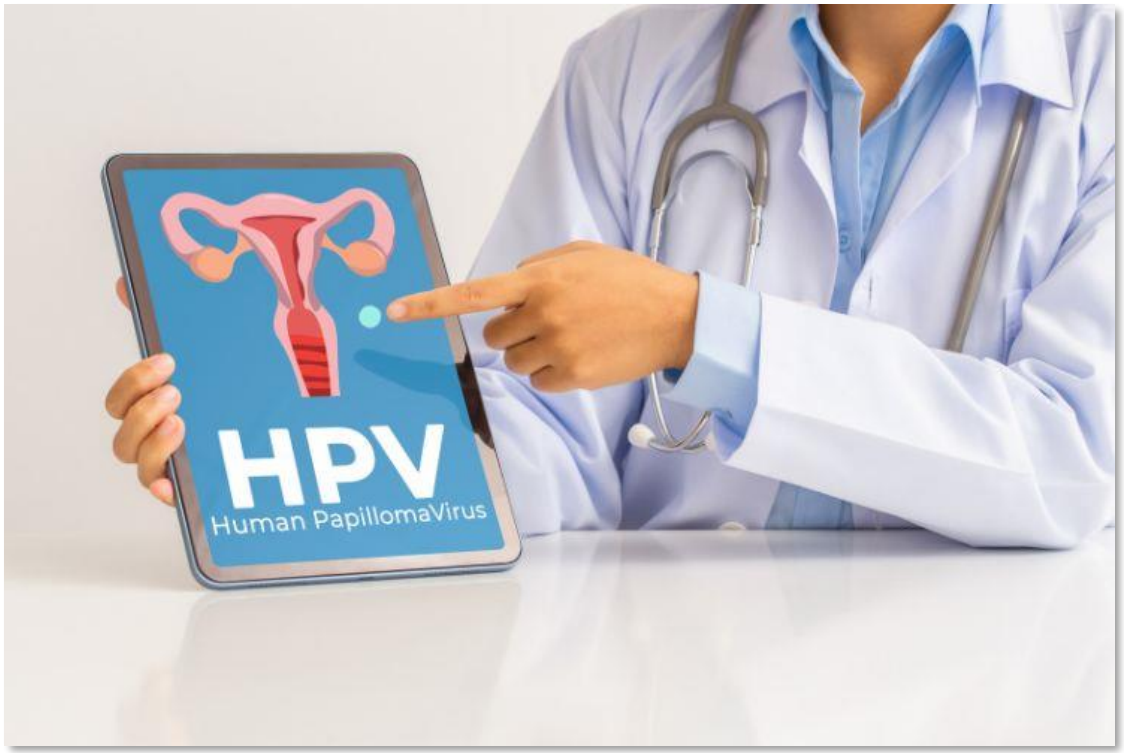


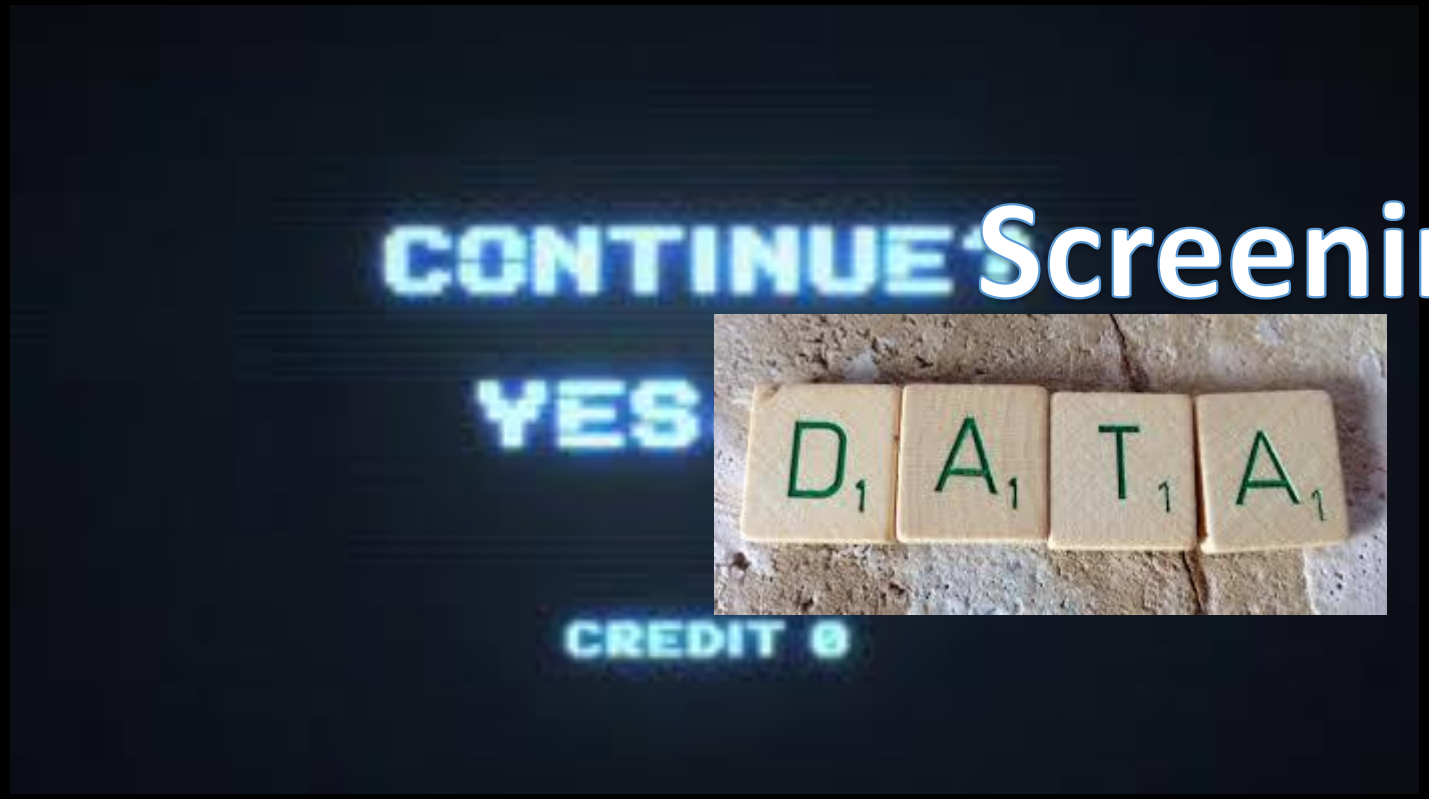
Figure 2: **Cumulative incidence rates of cervical cancer and CIN3 by birth cohort**
The shaded area indicates 95% CI. CIN=cervical intraepithelial neoplasia. Estimates from Model 3 with all other covariates fixed at their reference values.


HPV
Human PapillomaVirus


IK ZOEK
WERK

Screening

Screening



DOMUS MEDICA

‘Catch-up’

Aanbeveling HGR - HGR 9181 (2017)

Algemene vaccinatie

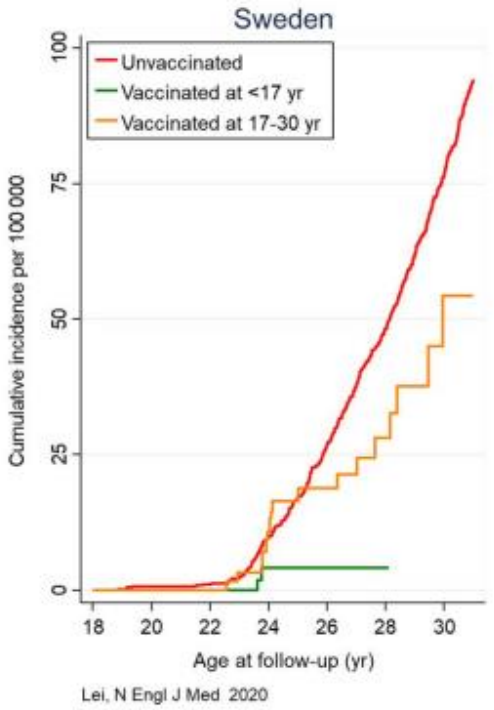
Meisjes en jongens: 9 - 14 jaar

2 dosissen, 6 maanden interval, bij voorkeur via het schoolprogramma

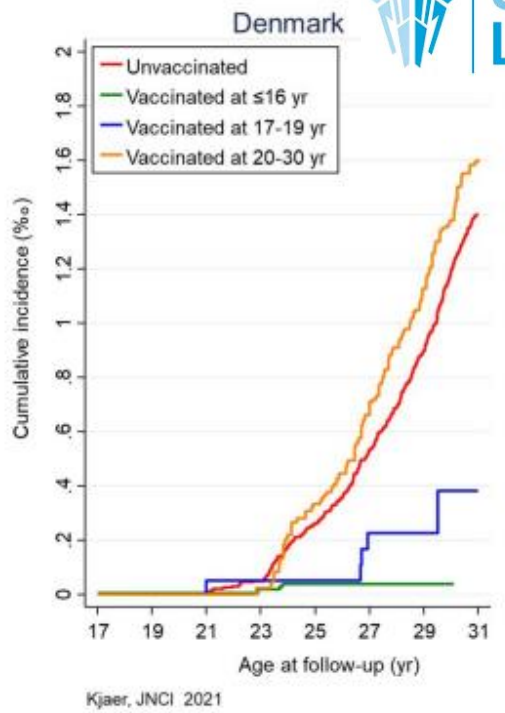
Inhaalvaccinatie

Jonge vrouwen en mannen: 15 – 26 jaar

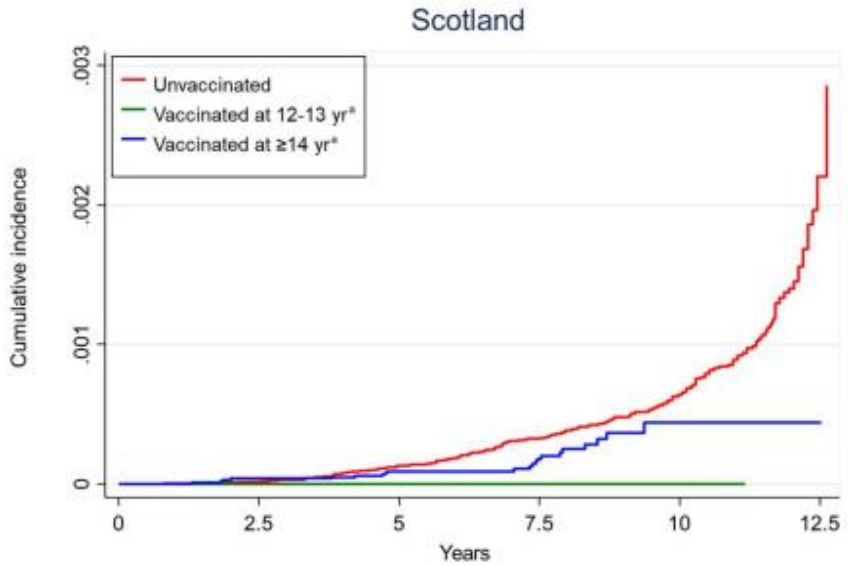
3 dosissen, 0, 1 en 6 maanden, op individuele basis



Lei, N Engl J Med 2020



Kjaer, JNCI 2021



Palmer, JNCI 2024


Beoefen wat je predikt

Inhaalvaccinatie

Jonge vrouwen en mannen: 15 – 26 jaar

3 dosissen, 0, 1 en 6 maanden, op individuele basis

Huidige access in België

Algemene vaccinatie

Vlaanderen: jongens en **meisjes** in het **eerste jaar** secundair onderwijs
Wallonië: jongens en meisjes in het tweede jaar secundair onderwijs

Inhaalvaccinatie

Federale terugbetaling jongens en meisjes tussen 12 en 18 jaar

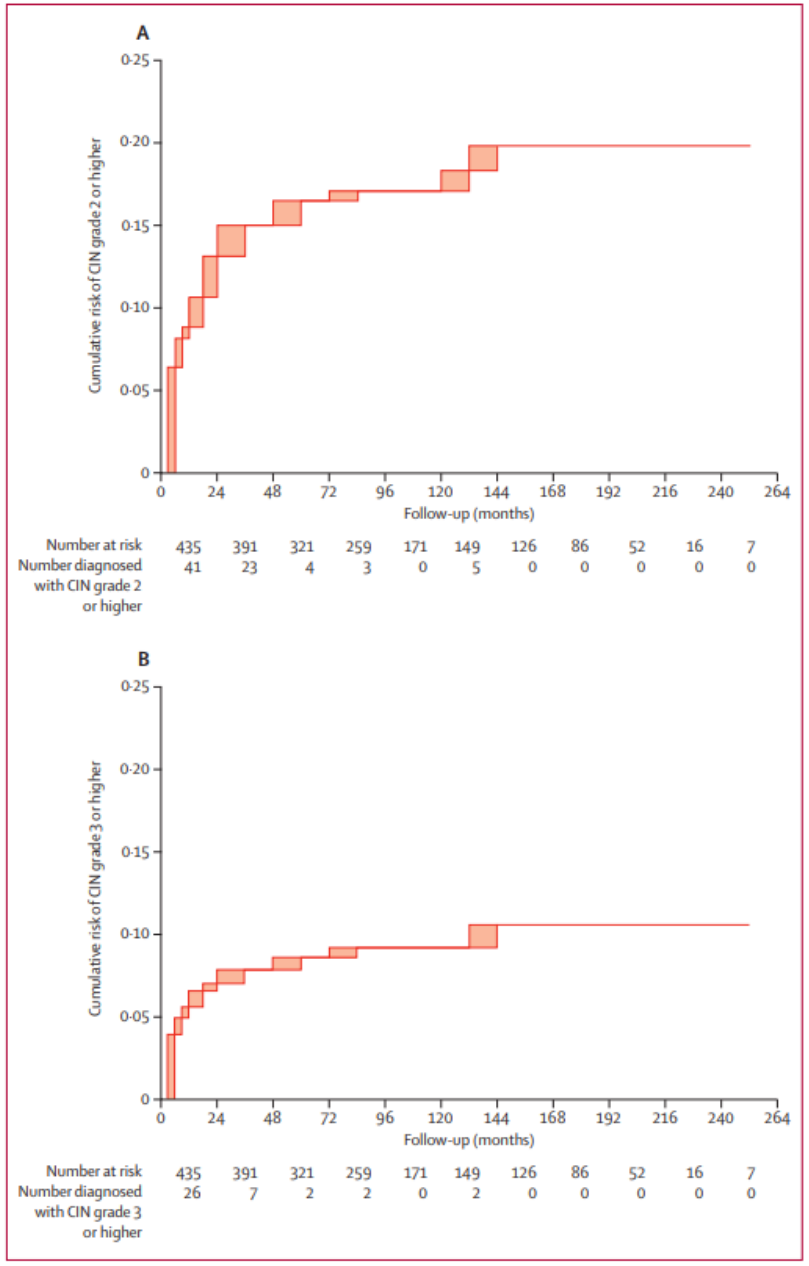
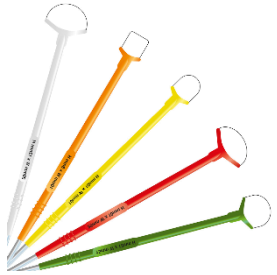


Figure 1: **Cumulative risk curves of post-treatment CIN grade 2 or higher and CIN grade 3 or higher**
Cumulative risk curves of (A) post-treatment CIN grade 2 or higher and (B) post-treatment CIN grade 3 or higher.



Study or Subgroup	Vaccinated Events	Vaccinated Total	Unvaccinated Events	Unvaccinated Total	Weight	Odds Ratio M-H, Random, 95% CI
1.11.1 Prospective studies						
Del Pino 2020	5	153	12	112	9.0%	0.28 [0.10, 0.82]
Ghelardi 2018	2	172	11	172	6.2%	0.17 [0.04, 0.79]
Karimi 2020	23	93	41	69	12.6%	0.22 [0.11, 0.44]
Pieralli 2018	0	89	4	89	2.3%	0.11 [0.01, 2.00]
Sand 2019	82	2074	777	15054	16.3%	0.76 [0.60, 0.95]
Subtotal (95% CI)		**2581**		**15496**	**46.3%**	**0.31 [0.14, 0.72]**
Total events	112		845			
Heterogeneity: $Tau^2 = 0.56$; $Chi^2 = 17.77$, df = 4 (P = 0.001); $I^2 = 77\%$						
Test for overall effect: Z = 2.74 (P = 0.006)						
1.11.2 Retrospective studies						
Bogani 2020	0	100	9	200	2.4%	0.10 [0.01, 1.74]
Garland 2016	1	190	9	264	4.0%	0.15 [0.02, 1.19]
Hildesheim 2016	3	142	2	169	4.9%	1.80 [0.30, 10.94]
Joura 2012	8	474	26	592	11.4%	0.37 [0.17, 0.83]
Kang 2013	9	360	27	377	11.7%	0.33 [0.15, 0.72]
Ortega 2018	5	103	22	139	9.6%	0.27 [0.10, 0.74]
Petrillo 2020	6	182	14	103	9.7%	0.22 [0.08, 0.58]
Subtotal (95% CI)		**1551**		**1844**	**53.7%**	**0.32 [0.21, 0.48]**
Total events	32		109			
Heterogeneity: $Tau^2 = 0.00$; $Chi^2 = 5.55$, df = 6 (P = 0.48); $I^2 = 0\%$						
Test for overall effect: Z = 5.47 (P < 0.00001)						
Total (95% CI)		**4132**		**17340**	**100.0%**	**0.33 [0.20, 0.52]**
Total events	144		954			
Heterogeneity: $Tau^2 = 0.34$; $Chi^2 = 31.35$, df = 11 (P = 0.0010); $I^2 = 65\%$						
Test for overall effect: Z = 4.65 (P < 0.00001)						
Test for subgroup differences: $Chi^2 = 0.00$, df = 1 (P = 0.98), $I^2 = 0\%$						

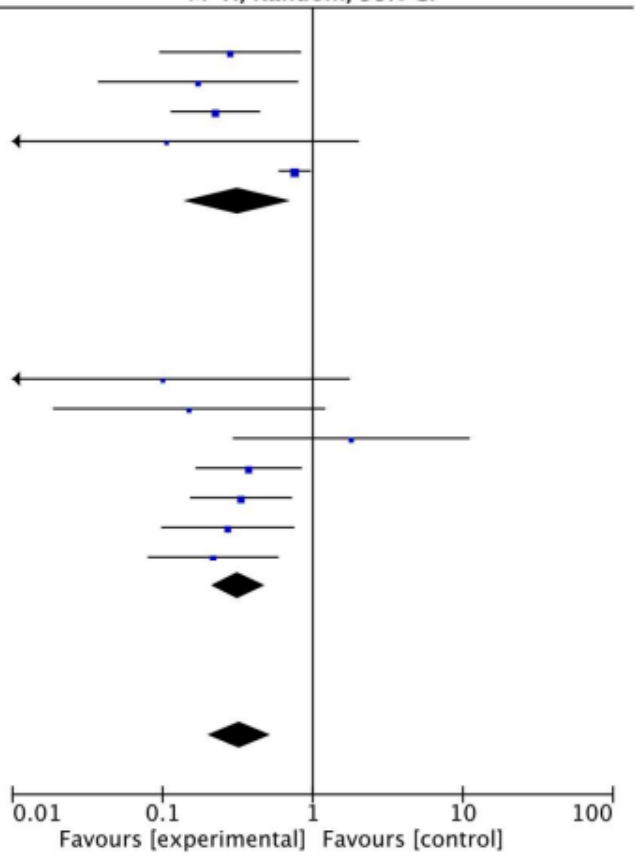


Figure 4. Forest plot of comparison: subgroup analysis related to the study design for CIN 2+ recurrence.

Kocken et al. Lancet Oncol 2011; 12: 441–50

Belgian Post-Colposcopy Follow-Up Algorithm

4.2. Vaccination

- Secondary vaccination with treatment of high grade lesions.
  - Suggestion of reduced recurrence of CIN2+
  - Current ongoing RCT's to provide more evidence.
  - recommendation on individual bases. Stronger recommendation if younger.
  - Only data available for a 3-dose scheme

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UZ LEUVEN

TAKE HOME

- **Onveranderde** afname
- <25j **GEEN** screening
- 25-29 = **Cytologie** (+/- HPV)
- 30-64 = **HPV** (+/- cytologie)
- Screen verder in **gevaccineerde cohorte**
- **GEEN** co-testing in screening!
- Gebruik de terugbetaling voor **inhaalvaccinatie** (<18j)


Geef jij antwoord?
NEE!
A
B