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CERVICAL CANCER SCREENING PROGRAM

ANNUAL REPORT ON SCREENING IN 2022

	2020	2021	2022
Invited	276,408	283,436	304,592
Participated	193,194	205,584	218,791
Participation rate	69.9%	72.5%	71.8%
Proportion of HPV tests	61.8%	68.4%	74.9%
Number of follow-up examinations in age group screening	1,691 (0.9%)	2,146 (1.1%)	2,176 (1.0%)
Number of follow-up examinations in risk group screening	386 (14.6%)	3,151 (31.5%)	3,659 (36.2%)
Precancers and cancers detected	924 (0.5%)	1,656 (0.8%)	1,733 (0.8%)

FIGURE 1. **Screening program process in age group screening (30–65 years) in 2022**

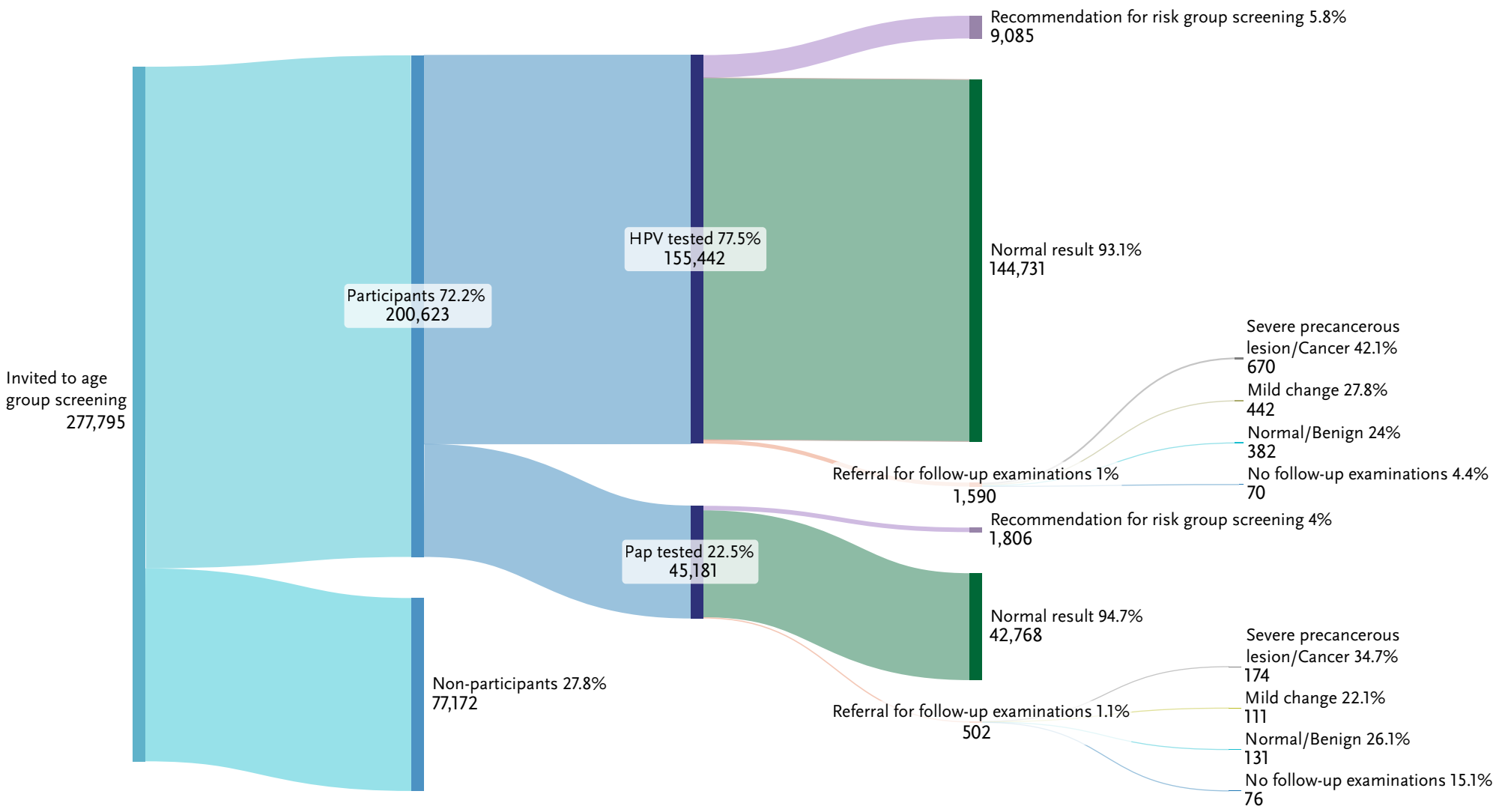
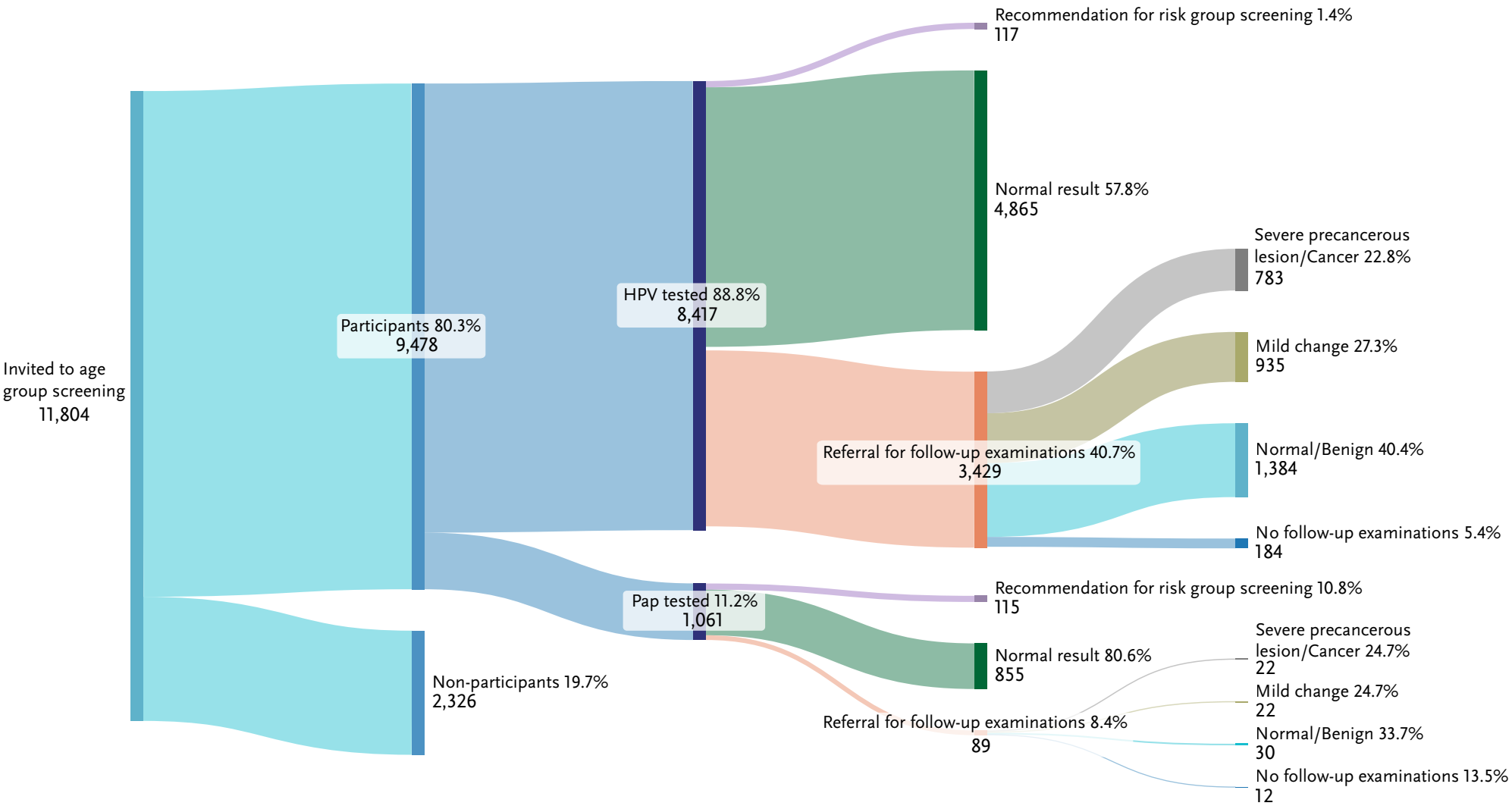


FIGURE 2. **Screening program process in risk group screening (30–69 years) in 2022**

Risk group screening



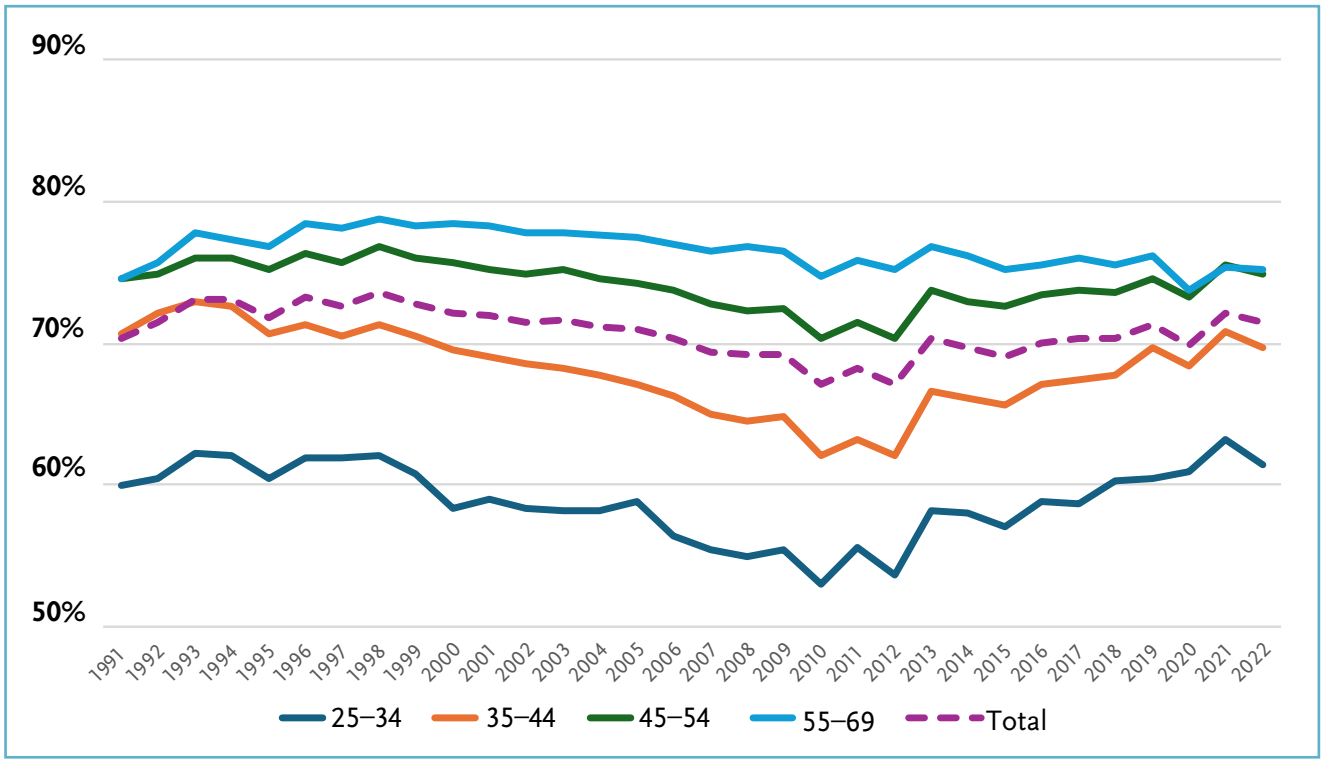
SECTION 1. PARTICIPATION IN THE SCREENING PROGRAM

TABLE 1: Target population for cervical cancer screening and invited and participating women in 2022

Target group	Target population	Invited (of the target population)		Participated (of those invited)	
	N	N	%	N	%
Age group screening (30–65)	277,795	277,639	99.9	200,623	72.3
Age group screening (25–65)	308,716	291,961	94.6	208,685	71.5
Risk group screening (25–69)	–	12,631	–	10,106	80.0
Total	–	304,592	–	218,791	71.8

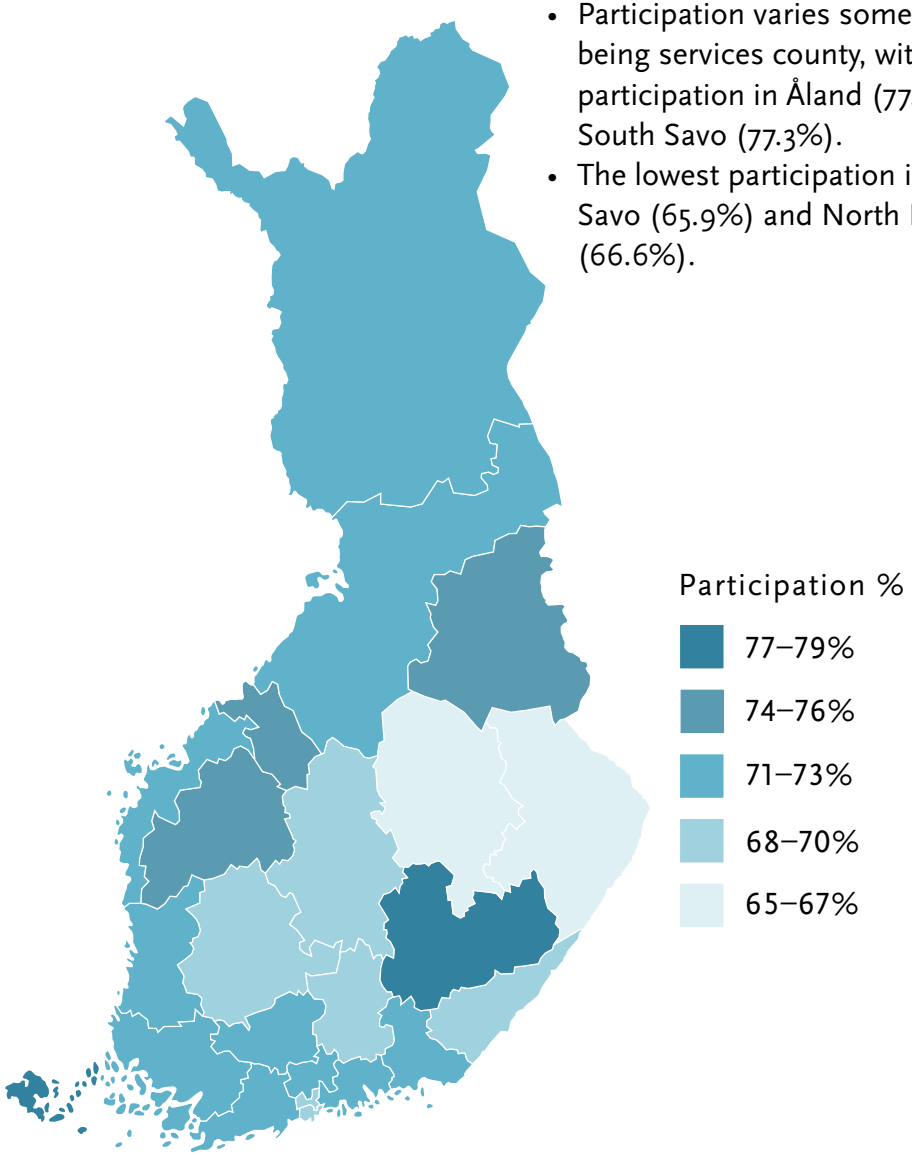
- 71.5% of all invited participated in the screening, with a slightly higher participation rate of 80.0% in risk group screening. The invitation rate for the target population was 99.9% in the 30–65 age group.
- Only part of the country invited 25-year-olds, resulting in a 46.3% invitation rate for this age group.

FIGURE 3: Participation in cervical cancer screening (%) by age group 1991–2022



- Participation increased in the 2010s but slightly decreased in 2022 compared to the previous year. Participation varies by age group, with younger age groups participating less. 61.4% of 25–34-year-olds participated in screening, compared to 75.1% of 55–69-year-olds.y age group, with younger age groups participating less. 61.4% of 25–34-year-olds participated in screening, compared to 75.1% of 55–69-year-olds.

FIGURE 4: Participation rate by wellbeing services county



- Participation varies somewhat by well-being services county, with the highest participation in Åland (77.7%) and South Savo (77.3%).
- The lowest participation is in North Savo (65.9%) and North Karelia (66.6%).

Cervical cancer screening program in Finland

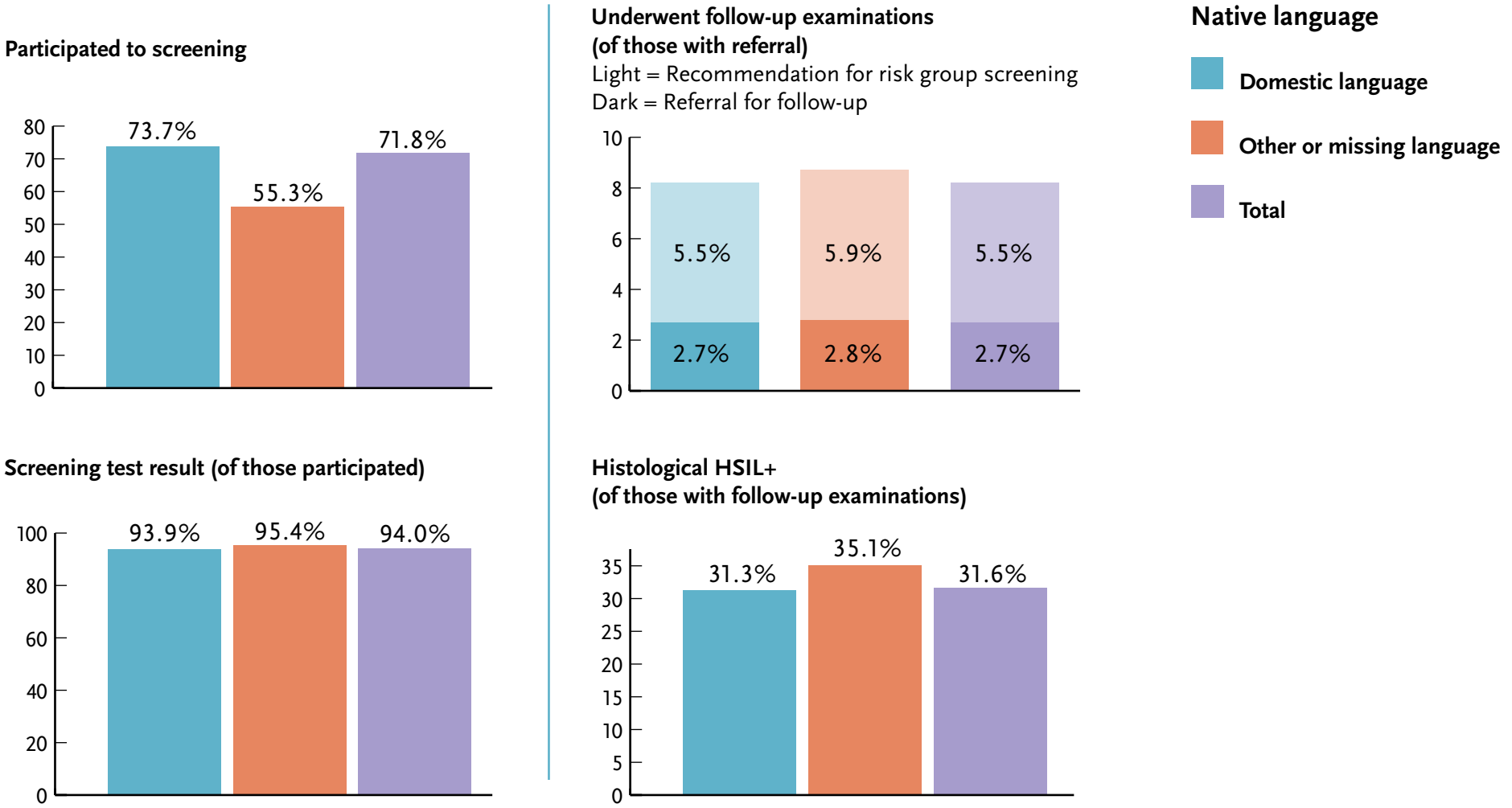
- Cervical cancer screening began in Finland in 1963 and expanded to a national program in the early 1970s.
- The goal of the screening program is to reduce the incidence and mortality of cervical cancer by detecting precancerous lesions so they can be treated before developing into cancer.
- Municipalities were responsible for organizing the screening program until the end of 2022, after which the responsibility has been with the wellbeing services counties and the city of Helsinki. In the region of Åland, screening is organized regionally.
- According to the Government decree on screening in 2022, women aged 30–65 were invited to screening every five years. Some municipalities also invited 25-year-old women.
- The screening test used depends on the region and can be either an HPV test or a Pap test.
- The screening test is free for the target population, but specialized healthcare charged a fee determined by the hospital district.
- According to the screening algorithm, those with mild cell changes (ASC-US, LSIL in women under 30) or only HPV test positivity were recommended for risk group screening. Risk group screening was conducted 12–24 months after the previous screening invitation.
- Those with more severe results were referred for colposcopy and biopsy. A referral could also be made based on 2–3 repeated mild changes.
- Follow-up examinations, necessary surgical procedures, and treatments for cervical cancer and its precursors were carried out in specialized healthcare.
- In addition to the screening program, extensive testing occurs outside the program in Finland. This testing is not currently registered nationally.

SECTION 2. RESULTS OF THE SCREENING PROGRAM

TABLE 2: Invitations, participation, and main findings in women aged 30–65 in 2022 by wellbeing services county (age group screening)

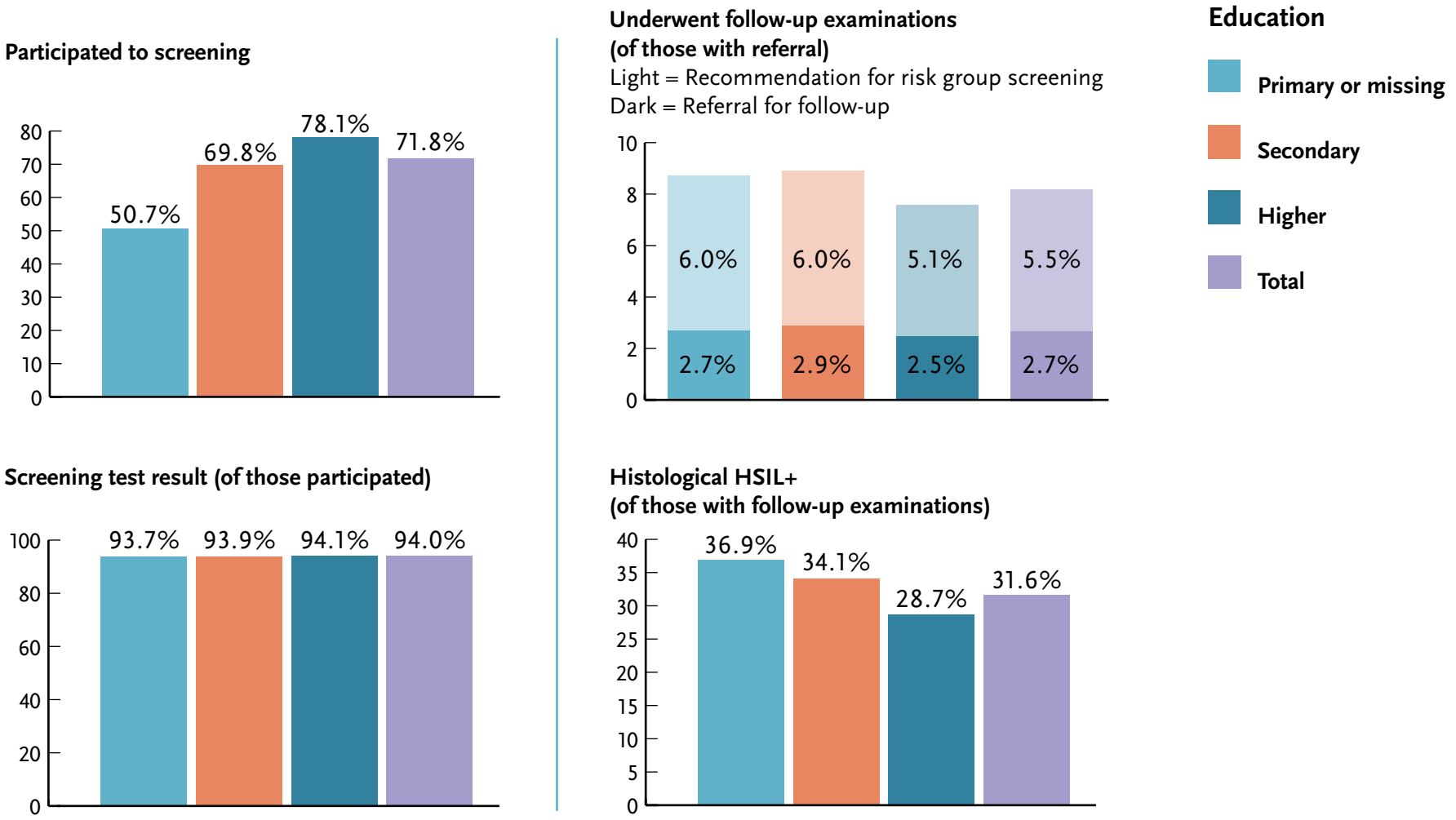
Wellbeing services county	Invited	Participated		Recommendation for risk group screening		Referral for follow-up examinations		Histological HSIL+	
	n	n	%	n	%	n	%	n	%
Central Finland	12,946	9,245	71.4	576	6.2	74	0.8	27	0.3
Central Ostrobothnia	3,187	2,388	74.9	69	2.9	19	0.8	7	0.3
Central Uusimaa	11,277	8,246	73.1	419	5.1	81	1.0	38	0.5
East Uusimaa	5,467	3,987	72.9	197	4.9	31	0.8	13	0.3
Helsinki	42,819	29,600	69.1	2,201	7.4	358	1.2	149	0.5
Kainuu	3,329	2,487	74.7	71	2.9	17	0.7	7	0.3
Kanta-Häme	8,415	6,056	72.0	316	5.2	47	0.8	20	0.3
Kymenlaakso	8,563	6,306	73.6	411	6.5	71	1.1	23	0.4
Lapland	8,667	6,269	72.3	228	3.6	62	1.0	22	0.4
North Karelia	7,684	5,121	66.6	309	6.0	69	1.3	28	0.5
North Ostrobothnia	19,628	14,415	73.4	508	3.5	161	1.1	60	0.4
North Savo	13,146	8,669	65.9	534	6.2	82	0.9	31	0.4
Ostrobothnia	8,412	6,181	73.5	270	4.4	63	1.0	29	0.5
Pirkanmaa	26,282	18,814	71.6	1,095	5.8	182	1.0	93	0.5
Päijät-Häme	10,045	7,136	71.0	413	5.8	72	1.0	48	0.7
Satakunta	11,150	8,064	72.3	450	5.6	86	1.1	40	0.5
South Karelia	6,566	4,646	70.8	284	6.1	17	0.4	2	0.0
South Ostrobothnia	8,852	6,737	76.1	345	5.1	54	0.8	22	0.3
South Savo	6,201	4,791	77.3	285	5.9	47	1.0	16	0.3
Southwest Finland	24,060	17,723	73.7	924	5.2	265	1.5	92	0.5
Vantaa-Kerava	16,165	10,987	68.0	769	7.0	144	1.3	60	0.5
West Uusimaa	27,489	19,565	71.2	1,149	5.9	148	0.8	64	0.3
Åland	1,611	1,252	77.7	46	3.7	26	2.1	5	0.4
Total	**291,961**	**208,685**	**71.5**	**11,869**	**5.7**	**2,176**	**1.0**	**896**	**0.4**

FIGURE 5: Participation to screening and main findings by native language in 2022 (age and risk group screening)



- Screening participation was lower among those whose native language was other than Finnish or Swedish or missing (55.3%). However, screening results were mostly similar to the rest of the population, although histological HSIL+ findings were slightly higher (35.1%) than among those with Finnish or Swedish as their native language.

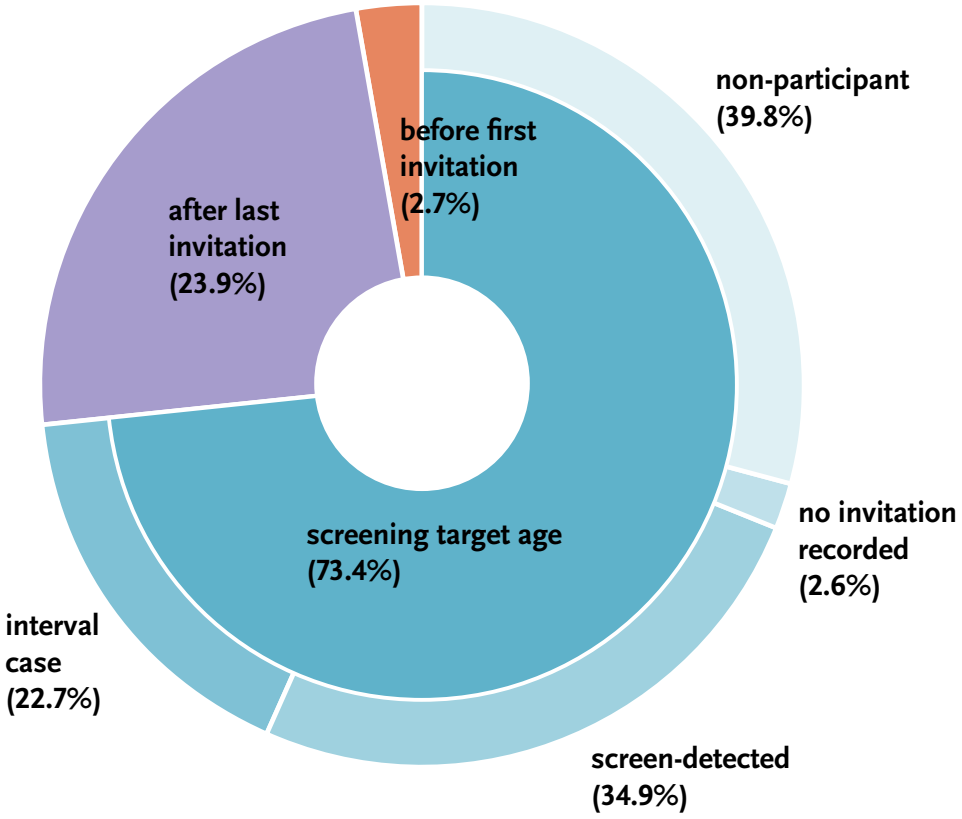
FIGURE 6: Participation to screening and main findings by education level in 2022 (age and risk group screening)



- Higher-educated individuals participated in screening more often than those with lower education levels, and they had slightly fewer severe precancers or cancers detected in follow-up examinations.

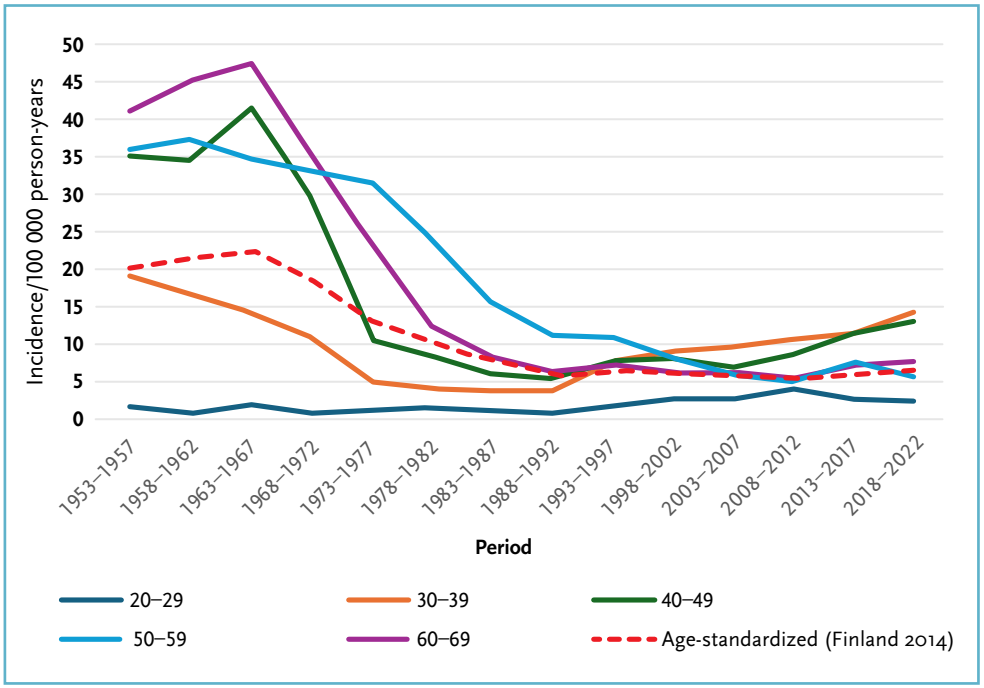
SECTION 3: DETECTION MODE AND INCIDENCE OF CANCER

FIGURE 7: Cervical cancer detection mode in 2018–2022



- During 2018–2022, 73.4% of diagnosed cancers were detected in screening age, and 23.9% after screening age. Among those in screening age, 34.9% of cervical cancers were found in screening, 22.7% between screening rounds, and 39.8% in non-participants.

FIGURE 8: Age-standardized and age-specific incidence of cervical cancer in women in Finland from 1953 to 2022



- The incidence of cervical cancer significantly decreased from the 1970s when the national screening program began.
- However, the incidence among screening-age women, particularly in the 30–49 age group, has significantly increased since the 1990s.

GLOSSARY

Age group screening
In age group screening, women aged 30–65 are invited to screening every five years based on age. Some welfare regions also invite 25-year-olds.

Colposcopy
Cervical endoscopy.

Histological sample
Tissue sample.

HPV
Human Papilloma Virus.

HPV test
An HPV test approved for screening detects high-risk HPV virus types from a gynaecological smear sample. Sample taking is done in the same way as in the Pap test. If the HPV test is positive, a Pap test is also performed on the same sample.

Incidence
The number of new cancer cases per population at risk, or per person-time of the population at risk, during a given period.

Pap test
Gynaecological cytology test to detect cell changes.

Risk group screening
Those with a follow-up result requiring monitoring are invited after one or two years between age group screenings.

Screening Results

ASC-US
Atypical squamous cells of undetermined significance.

AGC-NOS
Atypical glandular cells not otherwise specified.

LSIL
Low-grade squamous intraepithelial lesion.

HSIL
High-grade squamous intraepithelial lesion.

AIS
Adenocarcinoma in situ.

HSIL+:
Includes HSIL and more severe changes (HSIL, AIS, cancer). Precursors of cervical cancer include histological HSIL and histological AIS.

DATA SOURCE AND DEFINITIONS

This annual report is based on screening data reported to the Finnish Cancer Registry by October 18, 2024. The classification of findings uses only data from the screening registry, meaning the figures do not include tests taken outside the screening program or cancers and their precursors registered in the cancer registry. Statistics production utilized identifiable data on education provided by Statistics Finland under permit TK/2743/07.03.00/2023.

Education categories were created by combining the categories of pre-primary, lower primary, and upper primary education into the primary education category, combining secondary education and special vocational qualifications into the secondary education category, and combining lower and upper tertiary education and doctoral education into the tertiary education category. Unknown and missing data were combined with the primary education category. The education data is from the year preceding the screening year (2021).

Native language is based on data from the Digital and Population Data Services Agency.

FURTHER INFORMATION

Cervical cancer screening:
https://cancerregistry.fi/screening/cervical-cancer-screening/

Annual statistics on cervical cancer screening:
https://stats.cancerregistry.fi/joukkistilastot/cervix.html