

EEA Financial Mechanism 2014-2021

Project title: “Strengthening at National Level the Capacity of the Romanian Health Sector to Implement Organized Screening for Cancers Amenable To Cost-Effective Early Detection Interventions” – CEDICROM 2

Project promoter: The Oncology Institute "Prof. Dr. Ion Chiricuță" Cluj-Napoca (IOCN), Dr. Florian Nicula

Donor project partner: Oslo UNIVERSITETSSYKEHUS HF / KREFTREGISTERET, Norway, Dr. Mari Nygård

Basic project information

- Programme area: PA 6 European Public Health Challenges
- **Project promoter:** The Oncology Institute "Prof. Dr. Ion Chiricuță" Cluj-Napoca (IOCN), Republicii str., No. 34-36, RO-400015, Cluj-Napoca, Romania
- Main contact: Dr. Florian Nicula, Project Director Mobile: +40744569898, E-mail: nicula@iocn.ro
- **Donor project partner:** Oslo UNIVERSITETSSYKEHUS HF / KREFTREGISTERET, PB 5313 Majorstuen, N-0304 Oslo, Norway,
- Dr. Mari Nygård, , e-mail: mary.nygard@kreftregisteret.no
- Project budget: 1.999.889 € , Project duration: 24 months

IARC Reports on cancer screening programs implementation in EU Member States - 2007 / 2016

-based on IOCN Screening Management Unit work:

1996-2003 phaesability study and regional cervical cancer screening planning

2002-2008 – regional organised cervical cancer screeningprogramme- pilot-

2012 –rollout to National cervical cancer screening programme (**NCCSP**)

Distribution of Cervical Screening Programmes based on Cervical Cytology in the EU in 2007

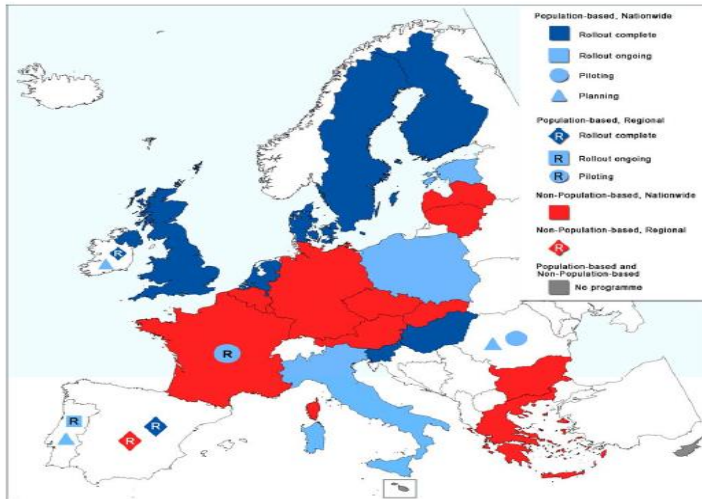
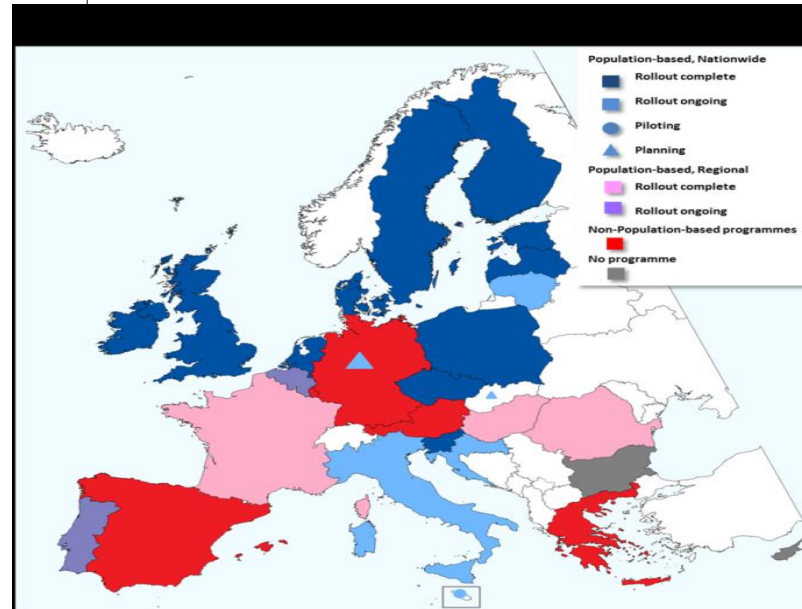
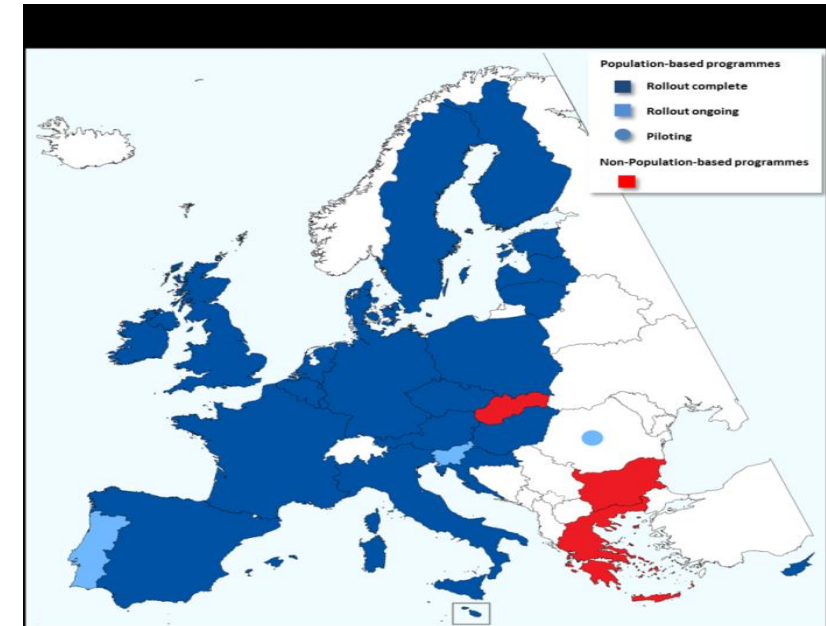


Figure 4 a. Cervical cancer screening programmes in the European Union in 2007, by programme type (population-based; non-population-based; no programme or unknown) and country implementation status (population-based: nationwide or regional, rollout complete or ongoing, piloting and/or planning; non-population-based:

Status of implementation of cervical cancer screening programs in EU Member States in 2016



Status of implementation of breast cancer screening programs in EU Member States in 2016



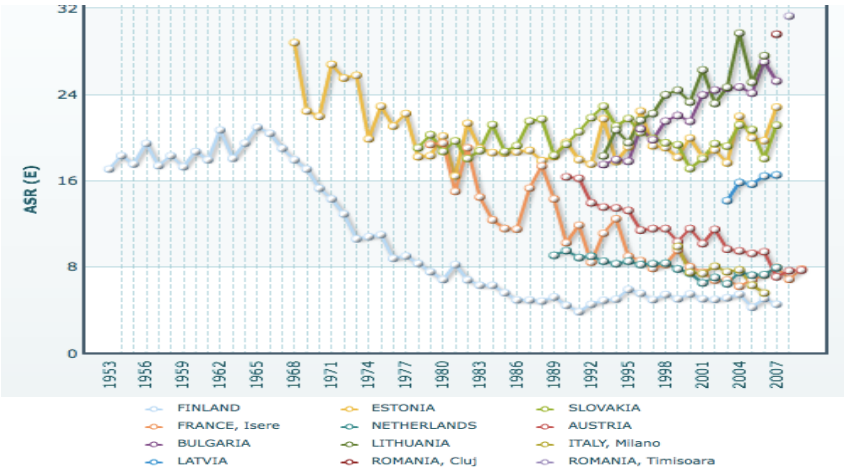
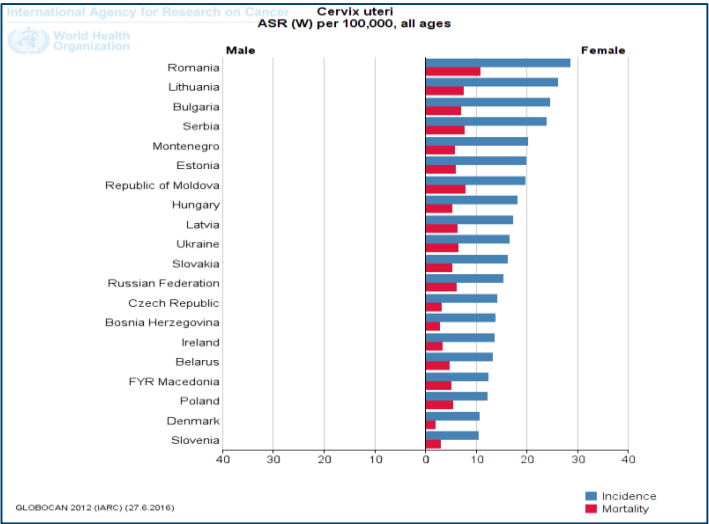
• Introduction – rationale (why CEDICROM 2 ?)

Cervical cancerburden in Romania:
Still the highest incidence and mortality rates
among EU
(GLOBOCAN2012)

Main cause:
Diagnosis of too many cervical cancers
in advanced stages
Failure of vaccination and screening information
campains;
low NCCSP screening intensity
mainly for rural women in remote areas
with reduced acces to QA/QC screening tests
and follow-up

= Reasons from promoting CEDICROM:

- need of information and acces in remote areas
- =mobile units
- HPV primary screening /self sampling are useful
- ooopportunities for Romania = HPV resources
- need of follow-up QA/QC unknown follow-up
- presumed risk of missing follow-up for
- uninsured women = follow-up resources



Incidence and mortality by cervical cancer, Europe, 2012

	IA (N) %	IB-IIA (N) %	>IIB (N) %	Nec. (N) %	Total (N)
Romania NW Region (2006 – 2009)*	71 5,63	148 11,73	642 50,87 (!)	357 21,70	1262
Finland (2000 – 2009)**	332 21,47	552 35,71	482 31,18	180 11,64	1546

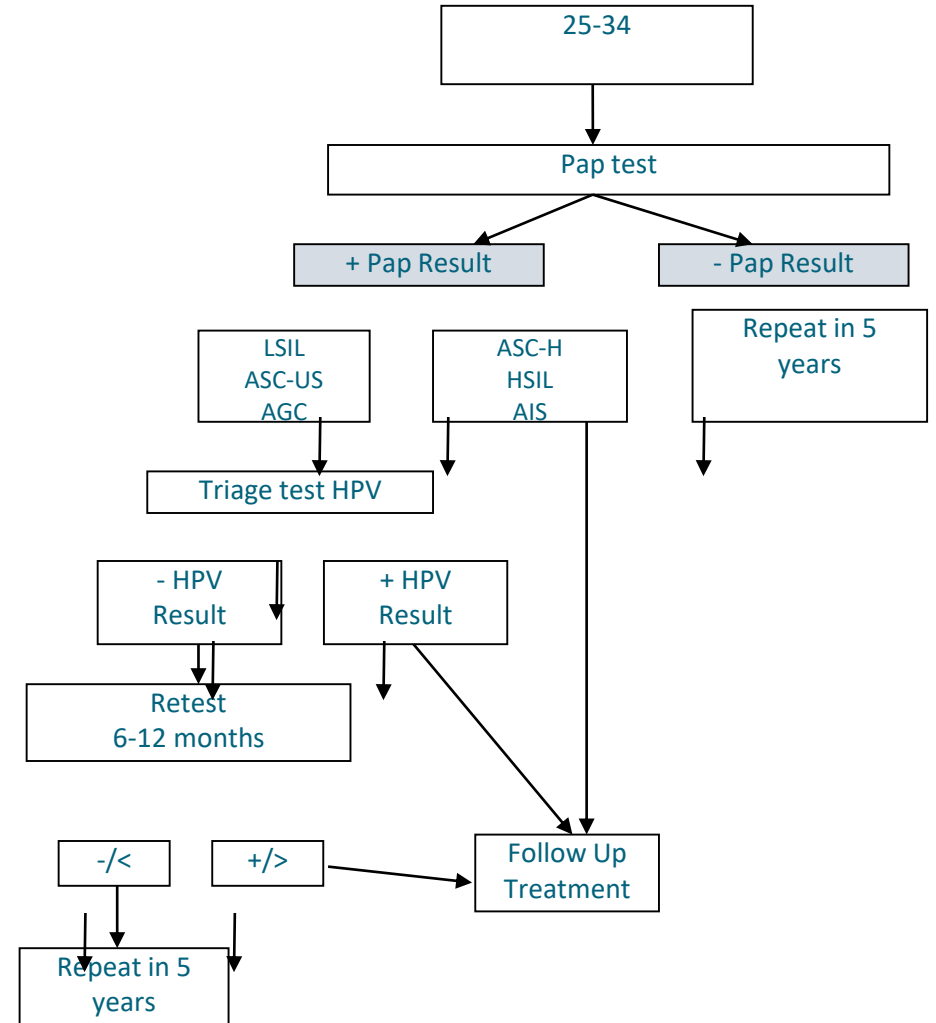
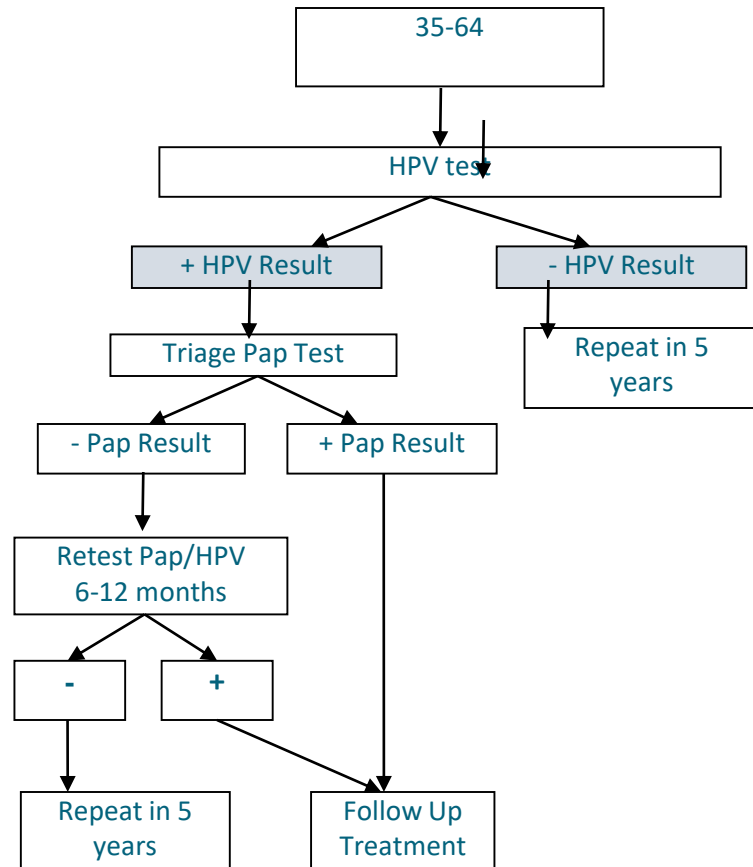
CEDICROM 2 - Specific Objective 1 (SO1): Improving quality assurance of screening intensity in remote areas

- CEDICROM 2 will offer innovative information campaign based on “door to door ” information /invitation / informed consent - piloting the use of local community workers (mediators and nurses) followed by acces to vaccination and QA/QC HPV/BP screening-tests performed into communities on mobile units, in family doctors facilities, in closest gynaecological hospital ambularories or even at women’s homes by selfsampling

**The counties targeted are Arad, Constanța, Dolj, Gorj, Timis, Tulcea, Hunedoara*

CEDICROM 2 - Specific Objective 2 (SO2): Improving QA/QC of follow-up for positives screened women

- CEDICROM 2 aims to check follow-up of each woman previous founded positive as there are reasonable reasons to believe that women living in rural and remote areas ,especially uninsured, remained unevaluated / untreated after former refferal to follow-up
- CEDICROM 2 will offer acces to innovative follow-up resources : Care HPV tests followed by stratification of risk tests/liquidbased citological triage,AVE mobile colposcopy evaluation assisted with artificial intelligence diagnosis based on NCI databases/results/evidences , “see and treat” cold coagulation resources on mobile units and complete resources for QA/QC treatments in closest contracted gynaecological ambulatories



All CEDICROM 2 screening activities QA/QC according to EU recommendations:

- ➡ European guidelines for quality control, Second Edition, 2008
- ➡ European Guidelines HPV 2015



CEDICROM 2 activities – 2019-2021

Phase I - Project activities 1.1. , 1.3. , 2.1. , and 4.1. și 4.2.

First 6 month innovative comprehensive” door to door” information campaign including dissemination of European Code Against Cancer, focused on HPV vaccination and testing for cervical cancer screening

- previous demographical analysis of chosen remote areas: mostly roma, hungarians, ukrainians, lipovan russians, slovaks, turkish;**
- sanitary mediators and nurses chosed from communities, trained and contracted will visit at home preferable families with women at cervical cancer risk and eligible girls for vaccination, informing with flyers and verbal in their languages and asking for informed consent, preparing lists for programation to testing/vaccination**
- IOCN Screening Management Unit Database- lists of women previous founded positives to be checked regarding follow-up**

Phase II - Activities1.2. și 2.1., continued 1.1., 1.3., 4.1. and started 1.4.

Next 16 months visits of mobile units with innovative field vaccination/Care HPV testing/AVE/follow/up

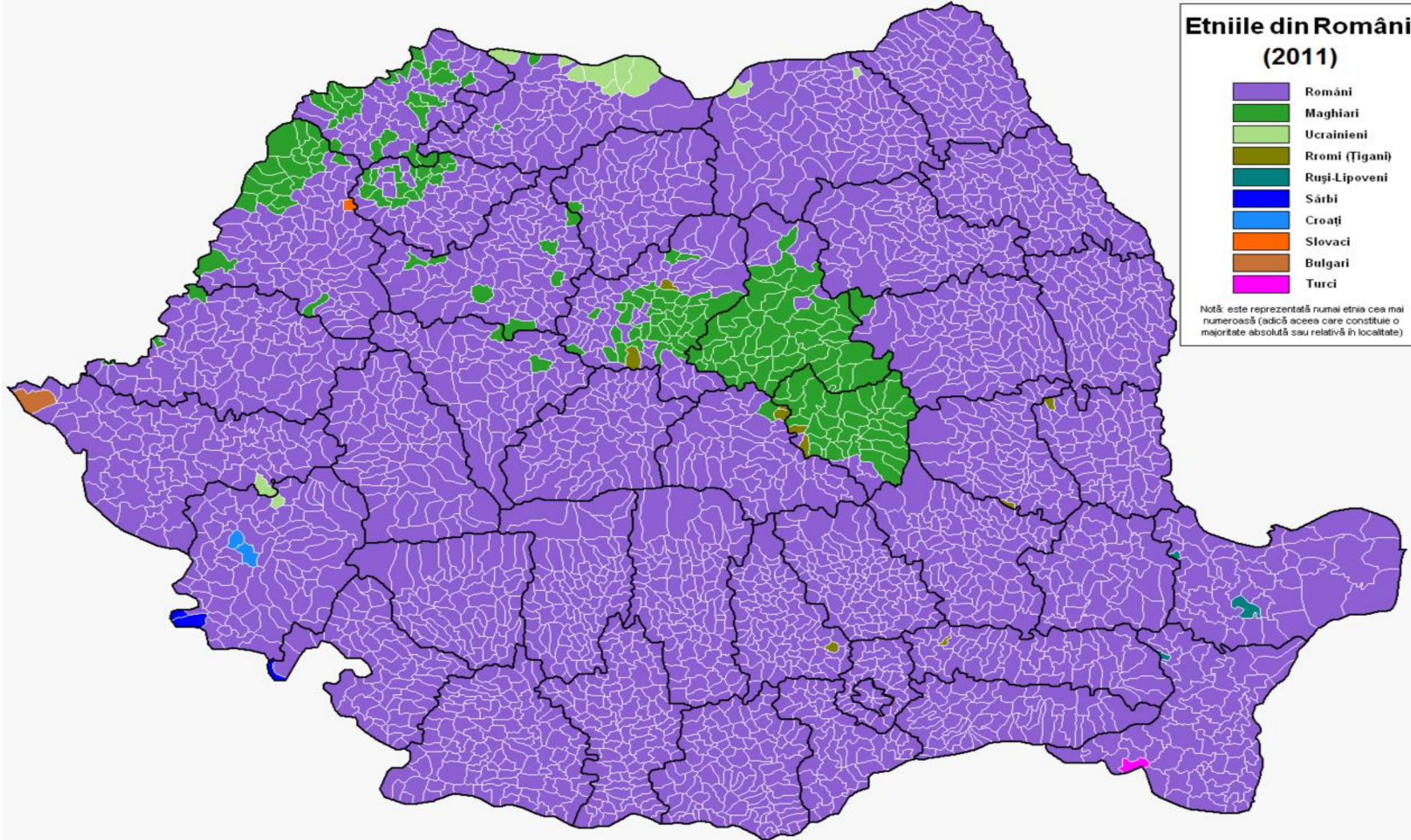
Phase III - Activities 1.3. ,1.4. , 4.1.

Analysing data, preparing indicators for reports, final reports, deliverables, Policy Paper

Etniile din România (2011)



Notă: este reprezentată numai etnia cea mai numeroasă (adică aceea care constituie o majoritate absolută sau relativă în localitate)



DOBROGEA
la 1900



Legendă:

- Graniță de stat
- Graniță de județ
- Graniță de plășă
- Oraș
- Comună
- Sat
- Reședință de județ
- Reședință de plășă

Nationalități:

Români

Bulgari

Tutari

Turci

Rusi

Lipoveni

Găguzi

Țigani

Germani

Greci

Eyrei

Armeni

Italiani

Unguri

Albanezi

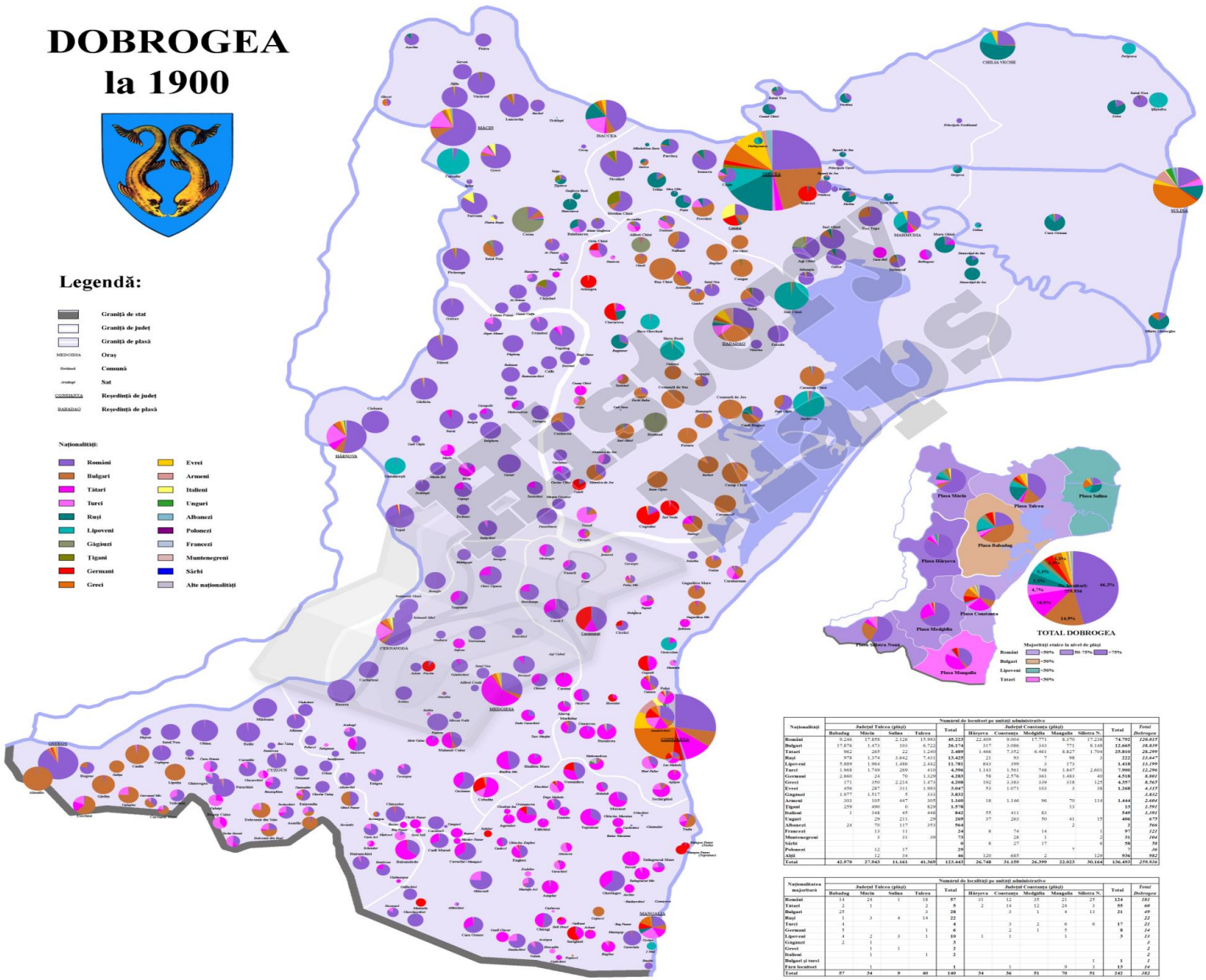
Polonezi

Francezi

Munteșegri

Sârbi

Ale naționalități



Naționalitatea	Județul Tulcea (plăși)					Numărul de locuitori pe unități administrative					Total	Pondere
	Bulgarilor	Maghi	Sârbi	Țigani	Alții	Maghi	Ucraineni	Albanezi	Alte naționalități	Sârbi %		
Bulgarilor	17.876	1.876	1.126	1.126	44.226	17.876	1.876	1.126	1.126	17.236	74.764	226.827
Maghi	982	267	22	1.240	2.489	1.466	7.352	6.441	8.827	1.704	25.838	26.299
Tutari	978	2.776	2.642	7.441	13.441	21	92	1	96	9	22.241	23.441
Unguri	5.889	1.964	1.888	2.442	11.781	843	399	2	173	1.418	11.199	11.199
Țigani	1.888	1.704	269	688	4.269	1.143	1.841	748	1.847	2.689	7.368	7.368
Albanezi	2.840	24	70	1.224	4.208	78	2.576	341	1.418	34	4.918	4.918
Polonezi	173	1.841	2.114	1.418	4.269	182	1.143	1.841	1.143	1.143	4.269	4.269
Francezi	476	267	311	1.096	1.847	31	1.071	103	1	10	1.208	1.208
Germani	1.847	1.847	1	1.847	3.694						3.694	3.694
Țigani	103	103	447	103	1.656	18	1.146	96	70	114	1.444	1.444
Alte naționalități	239	490	0	606	1.335						1.335	1.335
Bulgarilor	1	144	48	448	641	55	411	83	41	14	849	1.194
Țigani	239	239	211	29	606	249	27	243	76	14	606	6.719
Albanezi	24	70	111	371	544						544	544
Polonezi	14	14	14	14	46	8	74	14	2	1	87	122
Munteșegri			3	31	34						34	34
Sârbi						46	27	17			90	90
Francezi						29					29	29
Germani	12	12			24	120	684	2			816	816
Alte naționalități												
Total	42.976	27.944	11.441	41.341	123.641	26.748	34.189	26.349	12.623	30.146	136.483	236.827

Naționalitatea	Județul Tulcea (plăși)					Numărul de locuitori pe unități administrative					Total	Pondere
	Bulgarilor	Maghi	Sârbi	Țigani	Alții	Maghi	Ucraineni	Albanezi	Alte naționalități	Sârbi %		
Bulgarilor	14	14	1	2	17	14	14	12	14	14	54	54
Maghi	2	1			3	2	14	12	14	3	44	44
Tutari	24	1			26	2	1		1	1	24	24
Unguri	1	3	4	14	22						17	17
Țigani	4	2	3	1	10	3	2	6	6	6	14	14
Albanezi	3				3						3	3
Polonezi	2	1			3						3	3
Francezi	1				1						1	1
Germani												
Alte naționalități												
Total	57	14	9	49	129	34	36	31	31	31	236	236











High performance
equipment in IOCN
reference screening
dedicated ambulatory
(CEDICROM)



- On line data base- web based application, with acces of data base of GP, gynecologists and labs

<http://oncologic.netlogiq.eu>

- 95 items
- Structured on:
 - Suppliers:
 - Information unit
 - Smear takers
 - Cytology laboratories
 - Users
- Most variables- pop-up list

CEDICROM Todescu Alex Setari Testare

Sumar **Rețete** **Furnizori** **Femei** **Istoric cazuri** **Cazuri** **Borderouri** **Utilizatori**

Detalii caz ✓ Salveaza ✗ Salveaza si inchide ✗ Inchide

CNP: 2641214182778 Nume: FLEANCU Prenume: GABRIELA MIHAELA Judet: Gorj Localitate: Slobozia Nr. caz (Serie formular): 03196

Modifică date

Medic de familie **Centru de recoltare** **Laborator analize medicale**

Laborator **Citire** **Lama**

Laborator: INSTITUTUL ONCOLOGIC "PR..." + Alege laboratorul nostru

Medic anatomie patologica: Medic laborator: Pais Rodica Biolog: Nr. lama: 4271 / 2016 Data primirii lamei: 30.06.2016 Test Aut

Calitate frotiu

☒ Satisfactor pentru evaluarea celulelor endocervicale ☐ Nesatisfactor pentru evaluare

☐ Prezente ☐ Absente

☐ lama neidentificata ☐ lama cu fixare deficitara ☐ lama cu etalare defectuoasa ☐ altele:

Protolu cu ☐ exces de hematii ☐ exces de leucocite ☐ alte substante straine ☐ altele:

Rezultat final **Recomandari** **Certificare rezultatele pozitive**

☒ Negativ pentru leziuni intraepiteliale sau maligne ☐ Pozitiv, tipul leziunii:

☐ Nesatisfactor

Data interpretarii: Test Aut

Data eliberare rezultat: Test Aut

Asistentă:

Recomandari

☐ repetare in 3-6 luni ☐ repetare:

☐ deficiență de recoltare ☐ după tratament antiinfecțios ☐ conform protocolului în cazul rezultatului pozitiv

☐ biopsie ☐ colposcopie ☐ chiuretaj endocervical ☐ chiuretaj endometrial ☐ testare HPV ☐ repetare de rutină dacă leziunea este negativă

Certificare rezultatele pozitive

Medic de specialitate anatomie patologica:

Observatii

Completare

☒ Laboratorul confirma ca a finalizat completarea acestui formular

✓ Salveaza ✗ Salveaza si inchide ✗ Inchide

The form used
in the project
to collect data
for each
woman tested

Formular screening pentru cancer de col uterin - Proiect CEDICROM

Secțiunea 1 (se completează la nivelul cabinetului de medicină de familie sau la nivelul centrului de recoltare)

Serie formular **01151** CNP

Nume Prenume

Adresa: județ localitate strada, nr. tel.

Cabinet medical (nume, adresa, telefon) medic de familie

☐ Urban ☐ Rural Etnia: ☐ romă ☐ ucraineană ☐ alte

Antecedente personale (bifați în căsuțele corespunzătoare)

Histerectomie subtotală pentru: ☐ afecțiune benignă ☐ afecțiune malignă

Secțiunea 2 (se completează la nivelul centrului de recoltare)

Centru recoltare Medic recoltor

Data recoltării / / Data ultimei menstruații / /

Status hormonal ☐ Ciclică ☐ Sarcină ☐ Menopauză ☐ Lăuzie (12 săptăm.) ☐ Alăptare

Aspectul colului ☐ cu leziuni vizibile ☐ fără leziuni vizibile

Status postterapeutic pentru alt cancer decât cel cervical: ☐ postradioterapie ☐ postchimioterapie

Purtătoare de DIU ☐ Leucoree ☐ Sângerări: ☐ la contact ☐ spontane

În antecedente: ☐ cauterizări ale colului ☐ biopsii de col (diagnostic/descriere)

Secțiunea 3 (se completează la nivelul laboratorului de analize medicale)

Citologie ☐ convențională ☐ în mediul lichid

Laborator

Personalul medical care efectuează citirea: medic de specialitate: anatomie-patologică

(semnătura, parafa)

Medic laborator biolog

Medic de specialitate anatomie-patologică care certifică rezultatele pozitive

(semnătura, parafa)

Numărul lamei Data primirii lamei / / Data interpretării / /

Calitatea frotiului: ☐ satisfăcător ☐ nesatisfăcător pentru evaluare:

celule endocervicale/celule metaplazice: ☐ prezente ☐ absente

frotiu cu: ☐ exces de hematii ☐ exces de leucocite ☐ alte substanțe străine ☐ altele

Descrierea frotiului: ☐ Infecții ☐ Trichomonas ☐ Candida ☐ Gardnerella vaginalis ☐ Actinomyces ☐ Virusuri herpes simplex ☐ altele

☐ Anomalii ale celulelor epiteliale scuamoase ☐ Anomalii ale celulelor epiteliale glandulare

☐ ASC-US ☐ ASC-H ☐ LSIL ☐ LSIL cu atipii HPV ☐ HSIL ☐ HSIL cu suspiciune de invazie ☐ carcinom scuamos

☐ AGC endocervicale NOS ☐ AGC endometriale NOS ☐ AGC NOS ☐ AGC endocervicale în favoarea neoplaziei ☐ AGC glandulare în favoarea neoplaziei ☐ Adenocarcinom *in situ* ☐ Adenocarcinom ☐ endocervical ☐ NOS ☐ endometrial ☐ extrauterin

☐ Alte neoplazii

☐ Negativ pentru leziuni intraepiteliale sau maligne

Recomandări: ☐ repetare: ☐ deficiență de recoltare ☐ după tratament antiinfecțios / antiinflamator

☐ repetare de rutină dacă rezultatul este negativ

☐ conform protocolului în cazul rezultatului pozitiv

☐ biopsie ☐ chiuretaj endometrial ☐ testare HPV

☐ colposcopie ☐ chiuretaj endocervical

Observații

Data eliberării rezultatului / /

Secțiunea 4 (se completează la nivelul Centrului de finalizare)

☐ Colposcopie cod 35614-00; data / /

☐ Biopsie cod 35608-02; data / /

☐ Chiuretaj endocervical cod 35608-02; data / /

☐ Chiuretaj endometrial cod 35640-00; data / /

☐ Conizație cod 35618-00; data / /

☐ Histerectomie totală cod 35653-01; data / /

Distrucție: ☐ Cauterizare cod 35608-00 ☐ Diatermocoagulare cod 35646-00 ☐ Distrucție cu laser cod 35539-02

data / /

☐ Criocauterizare cod 35608-01

Semnătura, parafa ginecolog

Rezultat biopsie

Semnătura, parafa medic anatomopatolog

Rezultat HP piesa operatorie

Semnătura, parafa medic anatomopatolog

Expected results for SO 1:

Attendance to vaccination and HPV/ BP tests

- Visits in 100 communities piloting “door to door” information campaign using 20 local community experts (mediators and nurses)
- Completed media campaign : 30.000 informative leaflets and other promotional materials, shirts – 30 units, cancer prevention pins-10.000 units, pens -300 units, notebooks - 50 units) , dissemination of information in general population , local community experts (nurses, mediators), doctors and specialists in the field of oncology, Health Ministry - as part of the national interest, general audience, scientific community
- 1000 HPV vaccinations for young girls and catch-up for girls aged 12 – 24 years old, as well as 7.000 HPV and BP tests for women aged 25-64 years old women performed on mobile units, in family doctors facilities, in gynaecological ambulatories or at women homes by self-sampling

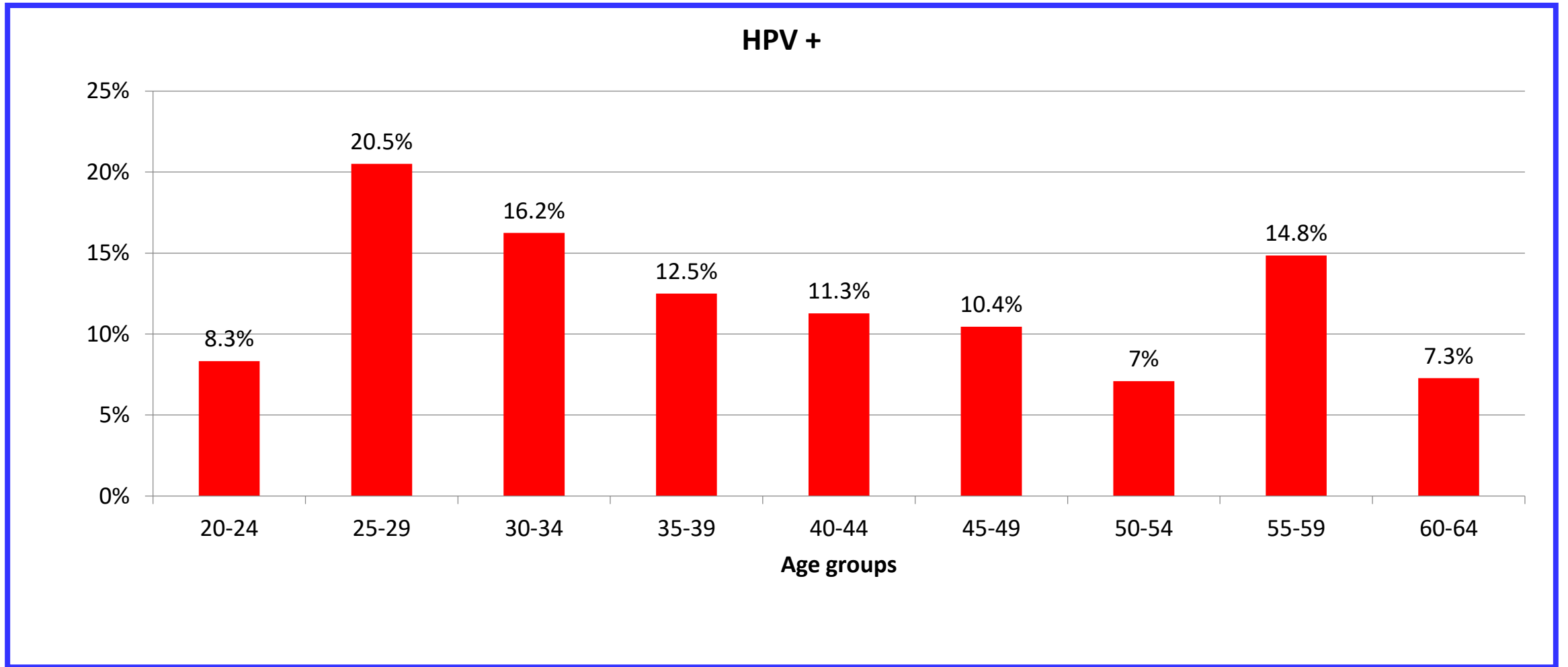
Expected results for SO 2: CEDICROM 2 follow-up component

- 1.000 CEDICROM 2 positives women checked in the field
- Estimated at least 200 CEDICROM 2 cases needed to be treated
- At least 500 cases from CEDICROM 2 positives expected to receive follow-up, after at least 1.500 women ambulatory evaluations
- CEDICROM 2 follow-up will focus mainly on uninsured women, roma and other disabled groups of women at risk from remote areas with respect to women addressability and mandatory informed consent
- Follow-up on mobile units will be possible as CEDICROM 2 due to completion of resources with mobile Care HPV and AVE colposcopy, coldcoagulation units

CEDICROM added value to NCCSP

- Modern oncological epidemiology trends promotes research in cancer prevention and early detection = “ a second revolution in cancer research ”
- Professor Bert Vogelstein from Johns Hopkins Kimmel Comp. Cancer Center emphasised : “ only when the same levels of creativity, effort and investment that until now were specific to research for personalised treatment improvement in case of advanced cases will be dedicated to research for cancer prevention and early detection full levels of cancer research revolution will be attended”
- CEDICROM 2 stays on the line of advanced innovative research producing evidences on improved screening and vaccination attendance after new ways of information and acces, self sampling trial, new evidences on HPV + rates of prevalence and BP predicted lesions rates, new data on new follow-up resources and strategies : Care HPV + followed by stratification risk versus BP triage tests , colposcopy/biopsy referrals rates using AVE resources, single visit see and treat versus multiple steps follow-up.

The prevalence rates of HPV infection by age groups :

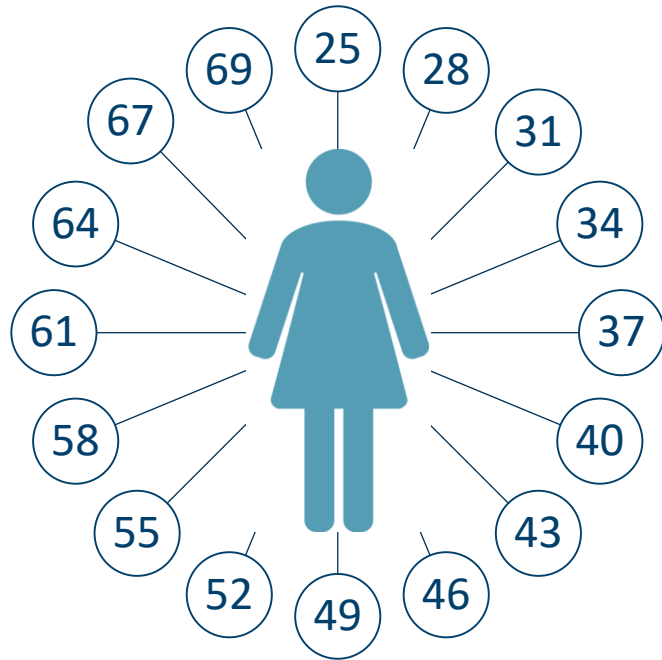


Management of cervical cancer screening: an operational system

1. Population perspective 2. Screening perspective 3. Clinical perspective

25-69 years of age

Screening interval 3 years



Collection
Processing
Diagnostics



Colposcopy
Biopsy
Treatment
Pathology

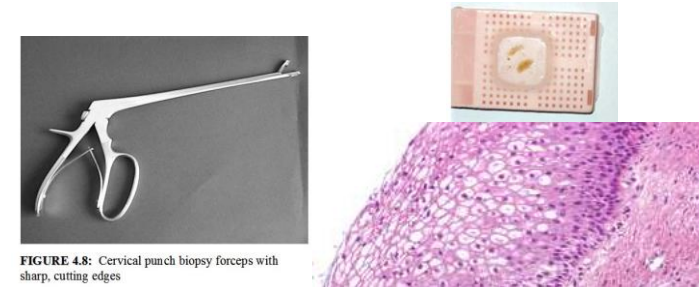


FIGURE 4.8: Cervical punch biopsy forceps with sharp, cutting edges

Expert group deciding guidelines for screening
and for disease detection and treatment

An operational system for cancer screening management

Legislation



Collect information for each
cytology
histology
HPV test
cervical cancer patient

Population perspective

overview over the program coverage

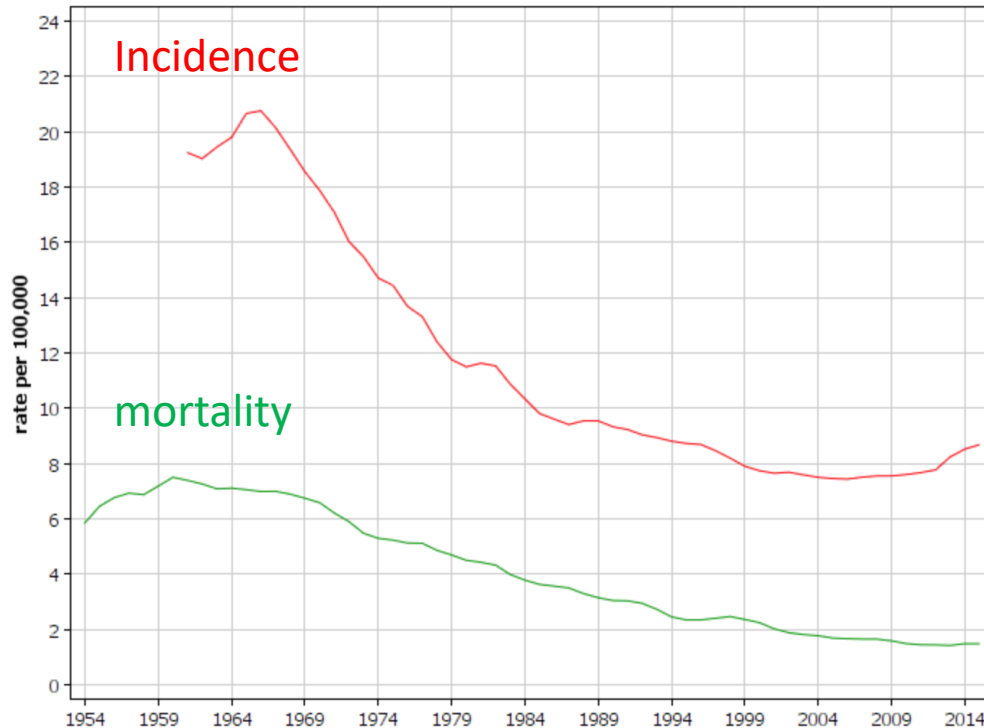
Screening and clinical perspective

monitoring resource usage

monitoring of screening performance

Key Performance Indicators

Incidence of and mortality from Cervical cancer in Nordic countries, 1954-2016



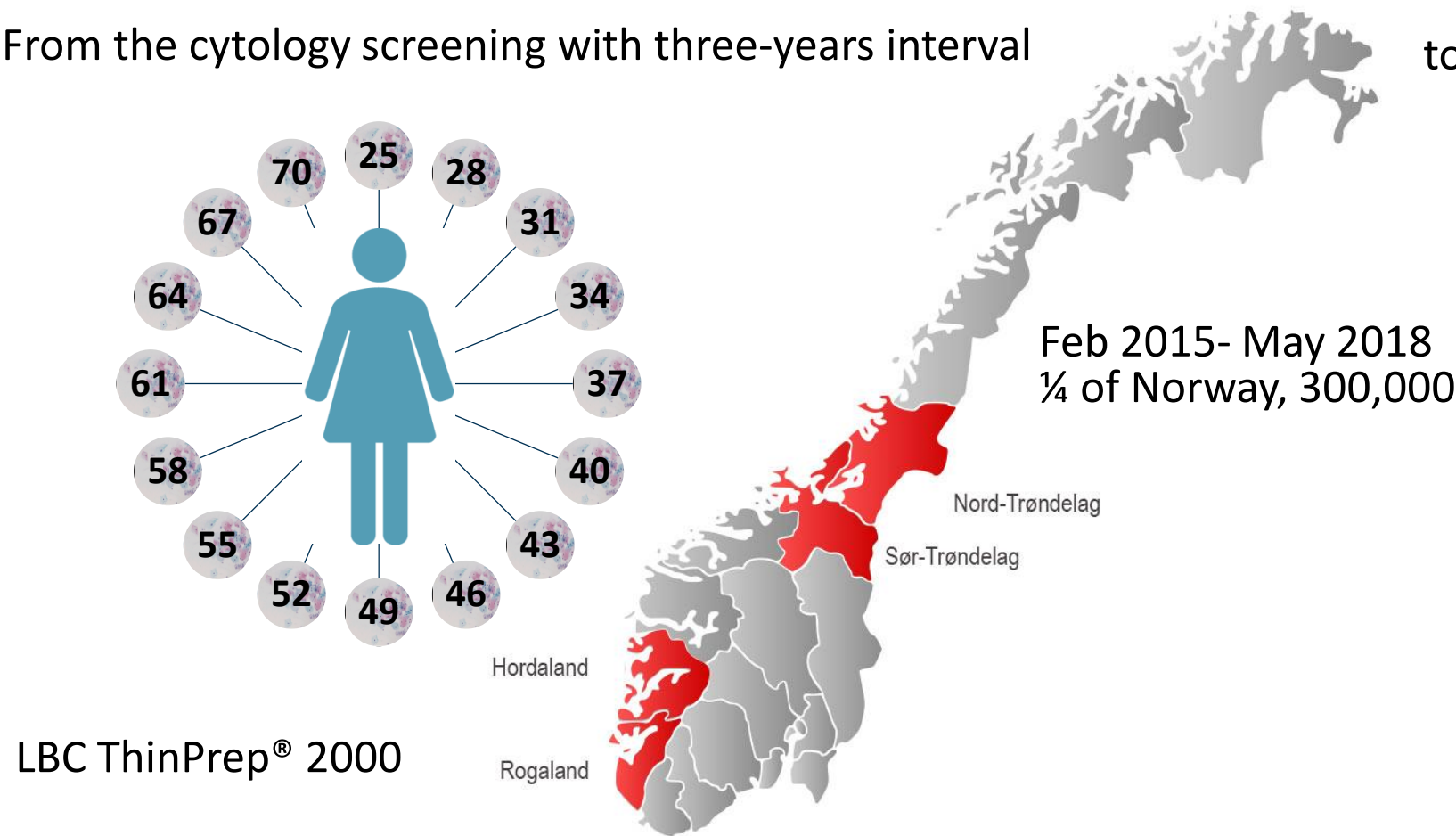
Initial success is followed by stagnation

- issues related to cytology screening
 - performance
 - limited sensitivity
- suboptimal coverage of the program
- Increase in HPV exposure

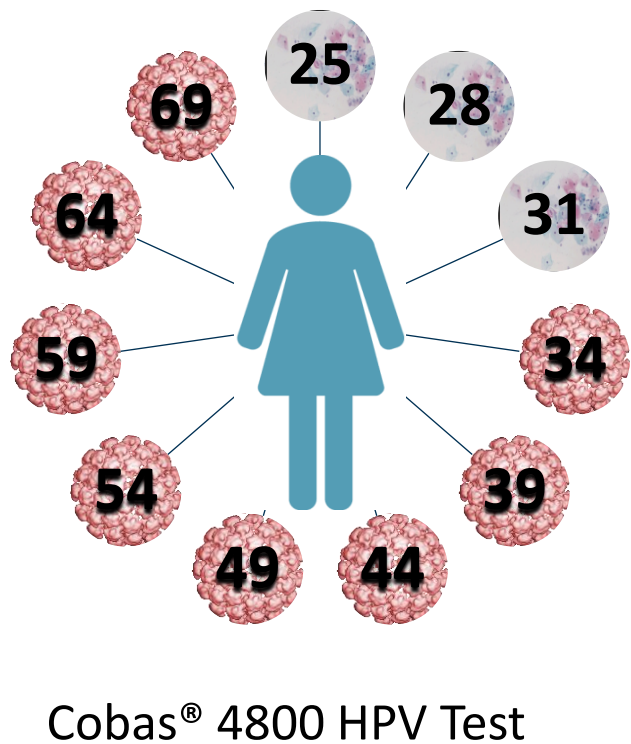
HPV-based screening
Self-sampling
Health education

From cytology to HPV screening: for 34-69 years of age

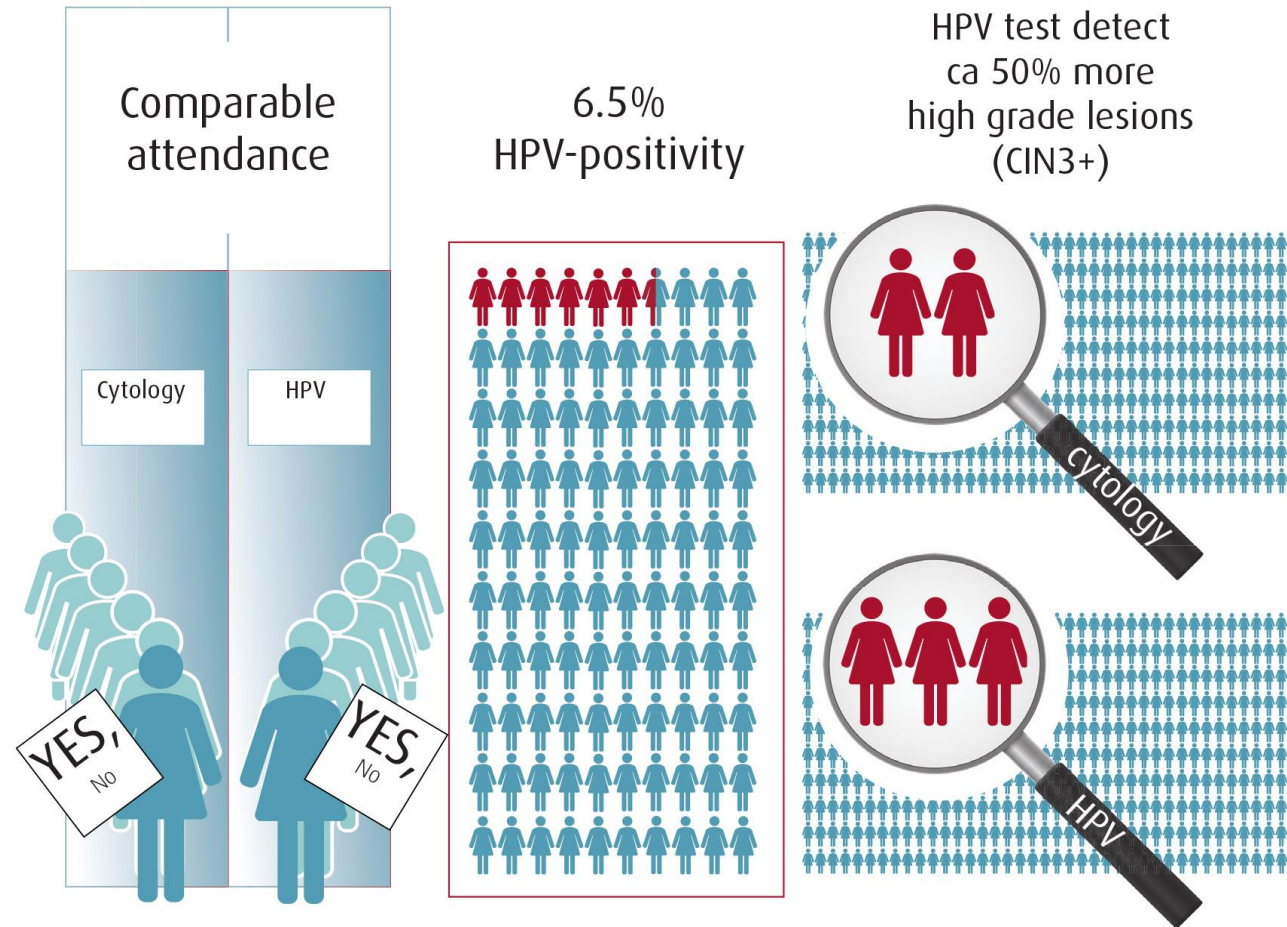
From the cytology screening with three-years interval



to HPV-screening with five-years interval



Randomized implementation of HPV primary screening: Results after 3-years period



Research on Increasing participation

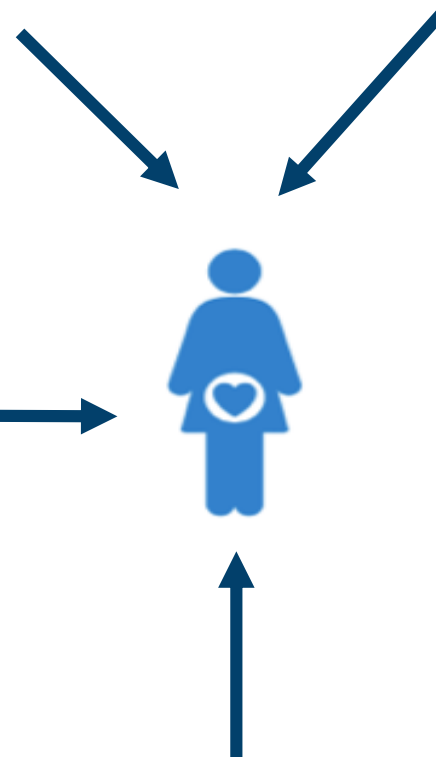
Identifying screening barriers

- Smear taker GP
- Socio-economic factors
- Physical distance
- Knowledge/Language
- Culture/Immigrants

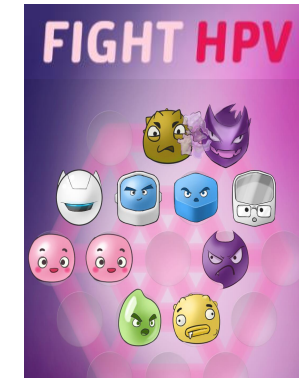
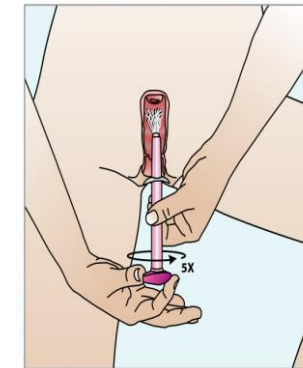
Studies to increase participation

- Self-sampling
- Time and place
- Novel mobile technology

Social media



Improved invitation letters/ Digital invitations

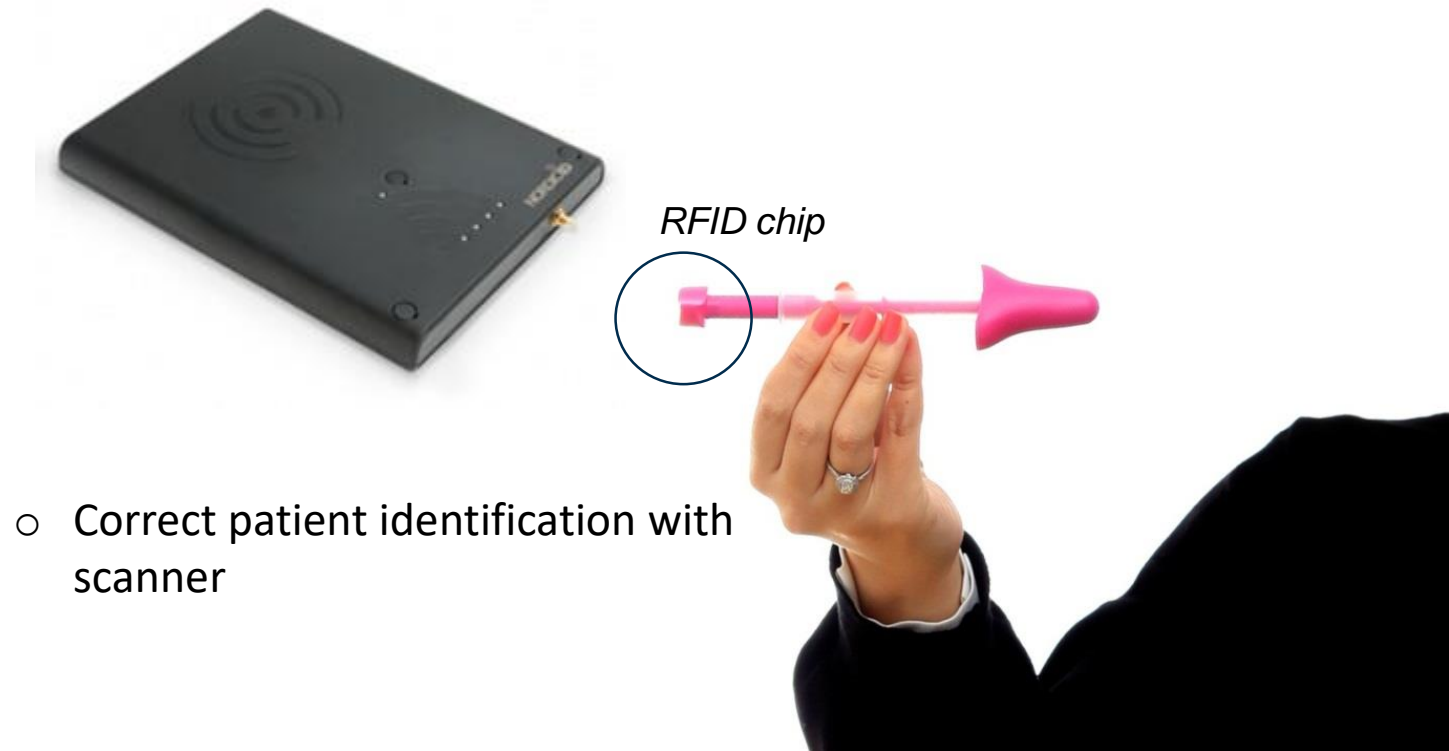


Self-sampling for sub-optimally screened populations

Evalyn® Brush
(Rovers, Oss, Netherlands)

Special design
RFID chip in the handle

- Dry brush
 - Avoid liquid distribution to private homes
- Convenience: No identification paper fill outs
- Avoid human errors when registering brushes



Pre-packaged brush shipment letter



In Denmark: Full roll out of self-sampling to screening non-attenders Dec 2017

In Norway: randomized implementation from April 2019

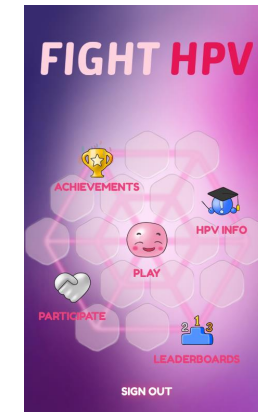
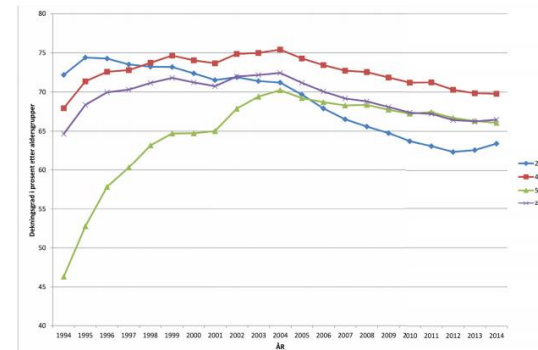
Price per envelope kit excl. brush : 1.2 €

Price per brush : 3.9 €

Role of the health personell

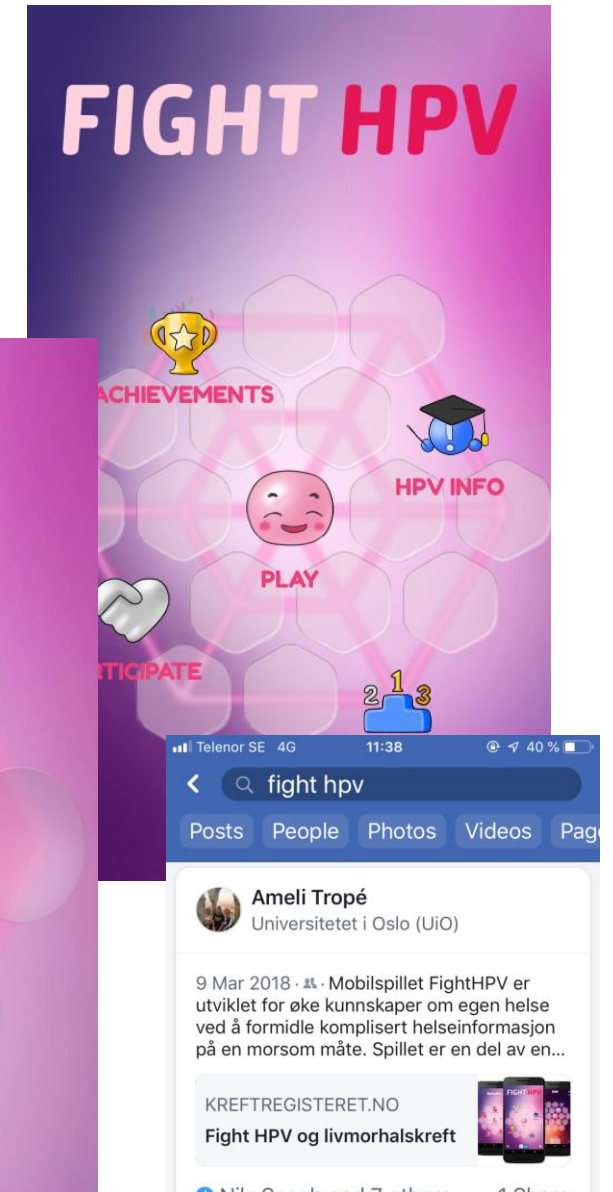
- Presenting statistics
- Checking facts
- Contributing to campaigns
- Working w many volunteer organizations

Dekningsgrad (3,5 år) etter aldersgrupper, 1994-2014.



Teaching in new ways

- Be innovative
- Do parallell research



Mobile Game to Raise Awareness About Human Papillomavirus and Nudge People to Take Action Against Cervical Cancer

Hello, I am Epithel!



FIGHT HPV

Free download: Appstore,
Google play

- easy to access and use
- increased awareness about HPV infection and prevention
- Mobile game is a suitable educational tool