# IARC HANDBOOKS OF CANCER PREVENTION

- Collana di monografie sulla prevenzione dei tumori
- Diversi metodi di prevenzione primaria: es. Non-steroidal Anti-inflammatory Drugs, Sunscreens, Weight Control and Physical Activity, Fruit and vegetables
- Un volume pubblicato sullo screening del cancro della mammella (No 7) e uno sullo screening del cancro cervicale (in stampa)

- EVALUATION valuta l’efficacia (efficacy) usando gli stessi livelli di evidenza delle monografie sui cancerogeni (sufficient, limited, insufficent).

- RESEARCH RECOMMENDATIONS
- PUBLIC HEALTH RECOMMENDATIONS (riunite)

**Evaluation**

In reaching its evaluation, the Working Group distinguished evidence of two types.

The strongest evidence derives from historical or prospective data on efficacy, currently available only for cervix cancer from observational studies or time trends in populations.
("has reduced incidence and mortality rates")

However, evidence based upon surrogate markers of reduction in cancer incidence was utilized when derived from a comparison with comparable data following screening with a test shown to reduce cancer incidence by the first type of evidence.
("can reduce incidence and mortality rates")

There is *sufficient evidence* that screening by conventional cytology has reduced cervical cancer incidence and mortality rates.

There is *sufficient evidence* that screening by liquid-based cytology can reduce cervical cancer incidence and mortality rates.

There is *sufficient evidence* that screening by automated cytology can reduce cervical cancer incidence and mortality rates.

There is *sufficient evidence* that testing for human papillomavirus infection as the primary screening modality can reduce cervical cancer incidence and mortality rates.

Other forms of cytology screening using a validated system at the same ages and frequency can be expected to be as effective as conventional cytology.

There is *sufficient evidence*, based on surrogate markers, that the efficacy of HPV testing, using a validated system, as the primary screening modality can be expected to be at least as good as that of conventional cytology.

## Recommendations for public health implementation and further research

## A. Introduction

Much of the evidence to be generated on the long-term effectiveness of modified or new screening modalities, in terms of reduction in the incidence of invasive disease, will come from an evaluation of the results of organized population-based programmes.

Modifications of screening modalities in existing screening programmes therefore need to be introduced in a way that will facilitate rigorous evaluation of long-term effectiveness. This is best achieved by incorporating randomization.

## B. General

B2. Once an organized system is in place, opportunistic (or unscheduled) screening should be discouraged.

B5. The adoption of a new screening modality in a population-based screening programme should be matched to the local cost environment, expertise and facilities. These include the capacity both for the primary screening test and for management of screen-detected lesions. Any such implementation should be based on population-based studies.

**D. New developments in cytological screening**

The implementation of liquid-based cytology and automation-assisted screening in organized screening programmes needs to be based on cost and local feasibility.

It is imperative that the introduction of each a new modality is accompanied by long-term evaluation of impact on invasive cancer and continuing quality assurance and monitoring.

The age and screening interval for conventional cytology should also apply here.

New modifications to these modalities are frequently proposed. Each such modification needs rigorous evaluation in short-term ..relative sensitivity and specificity for histologically diagnosed CIN 3 compared to the current standard, as well as economic and logistic

**E. HPV testing**

If a country, on reviewing the available evidence, decides to introduce HPV testing as a primary screening modality, it will need to consider local circumstances, including the acceptability of the test.

Introduction would be facilitated by the availability of low-cost public-domain HPV tests.

Implementation should be preceded by demonstration projects. Large-scale implementation needs to be designed so as to allow rigorous long-term evaluation.

**E. HPV testing**

E1. It is likely that the same reduction in incidence of invasive disease could be achieved with a longer interscreening interval using HPV testing as a screening test than the intervals recommended above for cytological screening.

It is anticipated that evidence supporting a longer interval may emerge from properly designed public health screening programmes in which HPV has been incorporated.

E2. The optimal ages for starting and stopping HPV screening require further research

E3. The management of women who are HPV-positive but negative on cytology is of vital importance to avoid overtreatment, particularly in younger women, in whom transient infections are common.

Research is required to identify secondary biomarkers, whether cellular or viral, which are accurate predictors of either persistence of viral infection and/or progression of cervical lesions

E5. Efficient implementation of HPV-screening requires research into HPV as a viral infection as well as a screening test. (i) ..transmission and susceptibility..; (ii) .. age-specific rates of infection, reinfection, duration...older women..; (iii) .. behavioural and psychosocial impact; (iv) the natural history of HPV infection in males...

E6 Health professionals and the population at large must be educated...

E7 HPV testing systems need to be standardized and specification requirements for test performance need to be defined.

E8 New commercial testing systems need rigorous evaluation and validation before being adopted by the public health system.

# Background 1

- Il test HPV aumenta la sensibilità (ma diminuisce la specificità) nel trovare lesioni intraepiteliali di alto grado
- Non sono tuttora disponibili confronti diretti con la citologia in termini di protezione
- E’ possibile che alcune delle lesioni in eccesso trovate dall’HPV siano regressive

# Background 2

- Lo screening convenzionale è protettivo.
- La semplice aggiunta di un nuovo test agli stessi intervalli potrebbe condurre a rapporti costo-efficacia sfavorevoli.

# Background 3

- I dati suggeriscono che l’infezione da HPV preceda lo sviluppo di lesioni intraepiteliali di alto grado di molto tempo, mentre la citologia è ancora normale.

# I test HPV potrebbe essere usato per selezionare:

- Donne (HPV negative) a bassa probabilità di sviluppare lesioni di alto grado per anni (screening a lungo intervallo)
- Donne (HPV positive) a probabilità relativamente alta (follow-up più stretto)

# STUDIO NTCC

- Trial randomizzato multicentrico
- convenzionale vs. sperimentale (due fasi)
  - sperimentale fase 1: HPV+ citologia in fase liquida (LBC)
  - sperimentale fase 2: solo HPV
- In entrambi i bracci (convenzionale e sperimentale) citologia convenzionale dopo 3 anni

# Outcome: Detection Rate (CIN2+) dopo 3 anni

- Se si osserva una riduzione della DR nel braccio sperimentale (vs. convenzionale) questo prova che le lesioni trovate in eccesso al round precedente non erano regressive
- Se la DR è molto bassa nel braccio sperimentale allora usare intervalli prolungati è sicuro
- Se la diagnosi di CIN2+ è complessivamente anticipata nel braccio sperimentale questo suggerisce un aumento della protezione

# Protocollo se HPV+

- **FASE 1**
- Se età > = 35 ⇒ colposcopia
- Se età <35 ⇒ ripete entrambi dopo1 aa se citologia negativa (<ASCUS)
  - se HPV persiste o citologia + ⇒ colposcopia
  - se HPV regredisce ⇒ intervallo standard

- Se HPV+ e **non lesioni** alla colposcopia

follow up (LBC e HPV annuali)

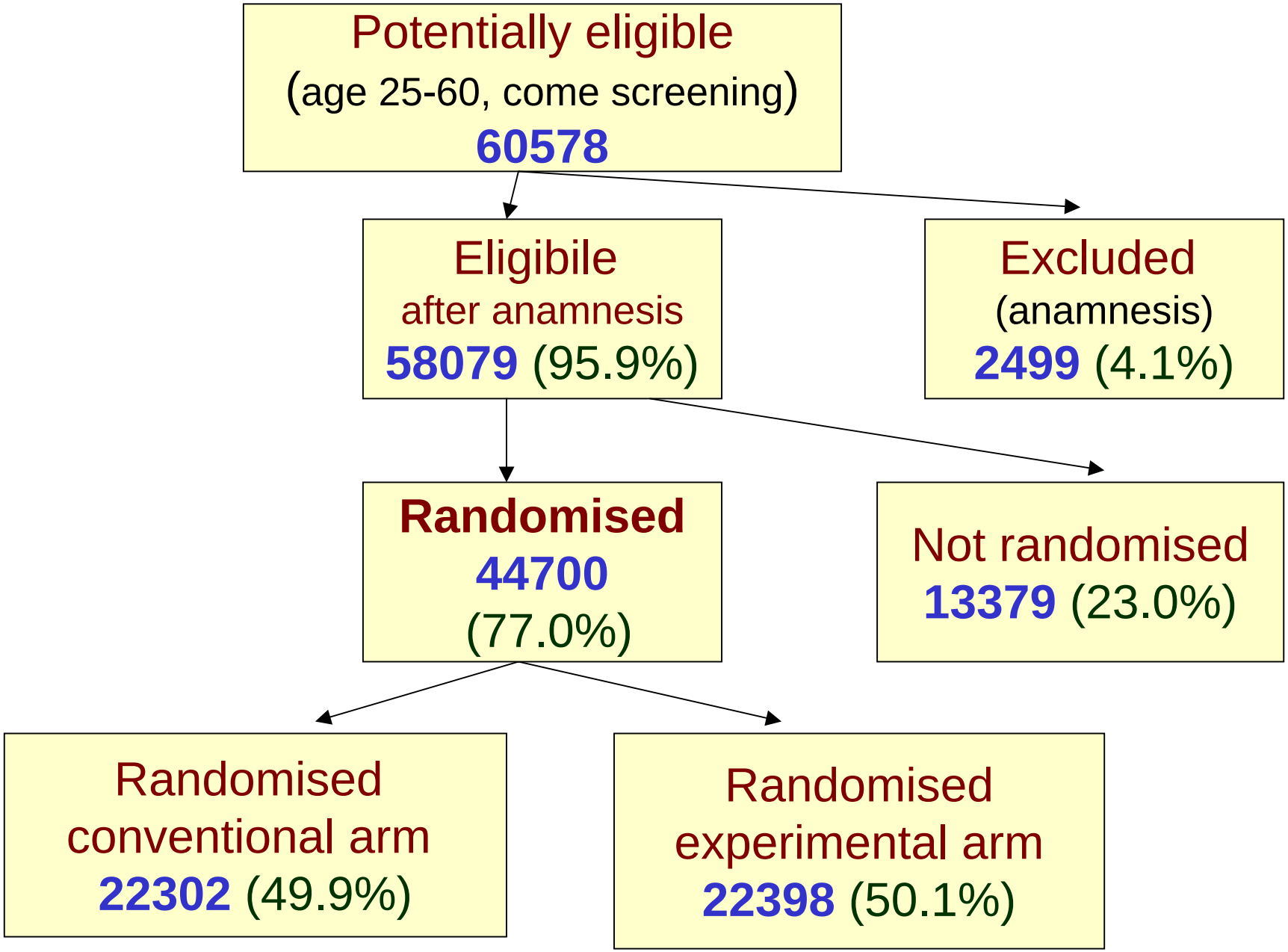
- se LBC+ → colposcopia
- quando entrambi negativi due volte ritorna a intervallo standard

# Centri Partecipanti

## Programmi Organizzati di screening:

- ***Piemonte***: Torino
- ***Trentino***: Trento
- ***Veneto***:
  - Verona e Padova
- ***Emilia Romagna***:
  - Imola, Ravenna, Bologna
- ***Toscana***: Firenze
- ***Lazio***: Viterbo

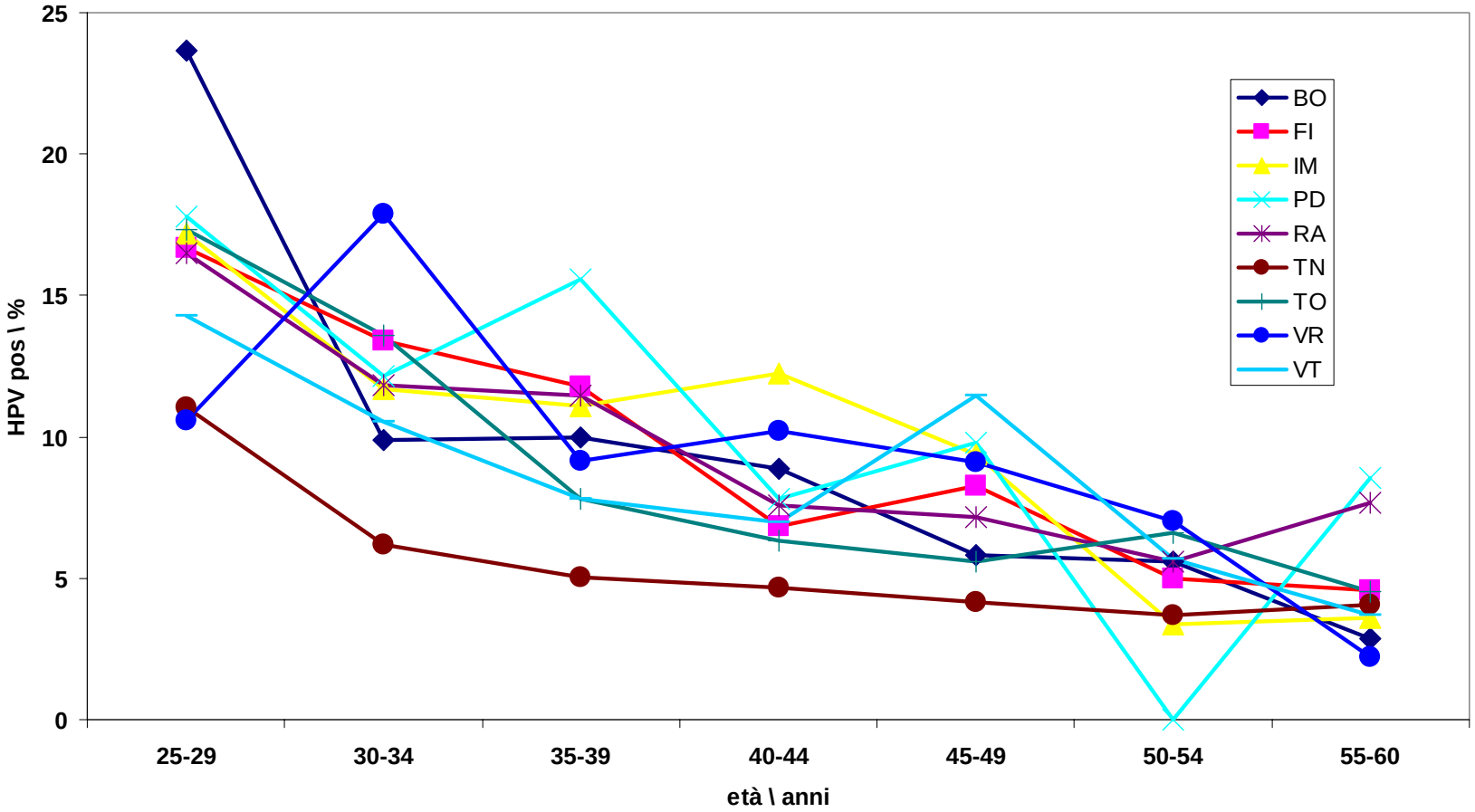
# NTCC STUDY Recruitment phase I



**Percentuale di HPV positive per età e centro**

**Studio NTCC  prima fase**

**Primo test di ogni donna**



## NTCC study - Phase I

# Cytology result by arm.

### All tests before colposcopy. All ages

| Cytology classification | Conventional arm | Experimental arm |
|---|---|---|
| Within normal limits | 18035 (76.96%) | 17641 (76.38%) |
| Benign cellular changes (BCC) | 3599 (15.36%) | 3392 (14.49%) |
| Unsatisfactory obscuring inflammation | 496 (2.12%) | 100 (0.43%) |
| Unsatisfactory other reasons | 480 (2.05%) | 486 (2.10%) |
| ASCUS | 475 (2.03%) | 837 (3.62%) |
| LSIL | 286 (1.22%) | 546 (2.36%) |
| HSIL | 60 (0.26%) | 93 (0.40%) |
| Adeno Ca | 1 | 0 |
| Malignant cells NOS | 1 | 0 |
| Total | 23433 (100%) | 23095 (100%) |

$chi^2_{8df} = 461.45$ $p<0.0001$

## NTCC study - Phase I

# Referral rate to colposcopy

## Women 35+

| | Conventinal arm | Experimental arm | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Cyto + Hpv - | Cyto - Hpv + | Cyto + Hpv + | Other | Tot HPV+ | Tot Cyto+ | Tot Exp |
| No women | 16456 | | | | | | | 16538 |
| Recommended colposcopies | 491 | 583 | 867 | 299 | 10 | 1166 | 887 | 1759 |
| Referral rate | 2,98% | | | 1,81% | | 7,05% | 5,36% | 10,64% |

## NTCC study - Phase I

# Relative sensitivity vs. conventional arm.

## Women 35+

| | Experimental arm | HPV alone (1) | LBC alone (2) |
|---|---|---|---|
| CINI or more severe | 2.16 (1.73-2.71) | 1.70 (1.35-2.15) | 1.34 (1.04-1.71) |
| CINII or CINIII | 1.57 (1.06-2.31) | 1.54 (1.05-2.27) | 1.14 (0.75-1.72) |
| CINIII | 1.53 (0.93-2.51) | 1.49 (0.91-2.45) | 1.12 (0.66-1.89) |

(1)Only lesions in HPV+ women considered
(2)Only lesions in LBC+ women considered

## NTCC study - Phase I

# Sensitivity of HPV testing and of LBC within experimental arm

## Women 35+

| Cutoff | HPV | | LBC | | Relative sensitivity(1) |
|---|---|---|---|---|---|
| | Positive/all detected | senstivity | Positive/all detected | senstivity | |
| CIN I+ | 193/246 | 78.5% | 153/246 | 62.2% | 1.26 |
| CIN II+ | 68/69 | 98.6% | 52/69 | 75.4% | 1.31 |
| CIN III+ | 43/44 | 97.7% | 33/44 | 75.0% | 1.30 |

**No correction for verification bias.**

**(1) HPV vs. LBC**

## NTCC study - Phase I

# PPV for histologically confirmed CIN

## Women 35+

| VPP | convenz tot | Cyto + Hpv + | Cyto - Hpv + | Cyto + Hpv - | sper HPV | sper cito | sper tot |
|---|---|---|---|---|---|---|---|
| CIN1+ | 114 | 100 | 94 | 53 | 194 | 153 | 246 |
| % | 25,11% | 35,97% | 11,55% | 9,65% | 17,77% | 18,41% | 14,88% |
| RR | 1 | 1,43 | 0,46 | 0,38 | 0,71 | 0,73 | 0,59 |
| | | | | | | | |
| CIN NAS+ | 48 | 54 | 18 | 1 | 72 | 55 | 72 |
| % | 10,57% | 19,42% | 2,21% | 0,18% | 6,59% | 6,62% | 4,36% |
| RR | 1,00 | 1,84 | 0,21 | 0,02 | 0,62 | 0,63 | 0,41 |
| | | | | | | | |
| CINII+ | 48 | 51 | 18 | 1 | 69 | 52 | 69 |
| % | 10,57% | 18,35% | 2,21% | 0,18% | 6,32% | 6,26% | 4,17% |
| RR | 1,00 | 1,74 | 0,21 | 0,02 | 0,60 | 0,59 | 0,39 |
| | | | | | | | |
| CINIII+ | 32 | 32 | 11 | 1 | 43 | 33 | 44 |
| % | 7,05% | 11,51% | 1,35% | 0,18% | 3,94% | 3,97% | 2,66% |
| RR | 1,00 | 1,63 | 0,19 | 0,03 | 0,56 | 0,56 | 0,38 |

# NTCC study - Phase I

## Refferal Rate

## Women < 35

| | Conventional arm | Experimental arm | | | | | |
|---|---|---|---|---|---|---|---|
| | | Cyto+ hpv- | Cyto- hpv+ | Cyto+ hpv+ | Tot HPV+ | Tot Cyto+ | Tot Exp |
| No women | 5747 | | | | | | 5956 |
| Recommended colposcopies | 227 | 210 | 169 | 316 | 485 | 526 | 695 |
| Referral rate | 3,95% | 3,53 % | 2,84% | 5,31% | 8,14% | 8,83% | 11,67% |

NTCC study - Phase I

# Relative sensitivity vs. conventional arm.

## Women <35

| | Experimental arm | HPV alone (1) | LBC alone (2) |
|---|---|---|---|
| CINI or more severe | 2.68 (2.03-3.52) | 2.29 (1.73-3.03) | 2.22 (1.68-2.94) |
| CINII or CINIII | 1.53 (0.97-2.40) | 1.47 (0.93-2.31) | 1.34 (0.84-2.13) |
| CINIII | 0.89 (047-1.67) | 0.78 (0.41-1.48) | 0.78 (0.41-1.48) |

(1)Only lesions in HPV+ women considered
(2)Only lesions in LBC+ women considered

## NTCC study - Phase I

# PPV for histologically confirmed CIN

## Women < 35

| VPP | convenz tot | Cyto + Hpv + | Cyto - Hpv + | Cyto + Hpv - | sper HPV | sper cito | sper tot |
|---|---|---|---|---|---|---|---|
| CIN1+ | 71 | 136 | 30 | 25 | 166 | 161 | 193 |
| % | 33,49% | 45,95% | 22,22% | 12,69% | 38,52% | 32,59% | 30,16% |
| RR | 1,00 | 1,37 | 0,66 | 0,38 | 1,15 | 0,97 | 0,90 |
| | | | | | | | |
| CIN NAS+ | 31 | 41 | 6 | 2 | 47 | 43 | 49 |
| % | 14,62% | 13,85% | 4,44% | 1,02% | 10,90% | 8,70% | 7,66% |
| RR | 1,00 | 0,95 | 0,30 | 0,07 | 0,75 | 0,60 | 0,52 |
| | | | | | | | |
| CINII+ | 31 | 41 | 6 | 2 | 47 | 43 | 49 |
| % | 14,62% | 13,85% | 4,44% | 1,02% | 10,90% | 8,70% | 7,66% |
| RR | 1,00 | 0,95 | 0,30 | 0,07 | 0,75 | 0,60 | 0,52 |
| | | | | | | | |
| CINIII+ | 21 | 16 | 1 | 1 | 17 | 17 | 18 |
| % | 9,91% | 5,41% | 0,74% | 0,51% | 3,94% | 3,44% | 2,81% |
| RR | 1,00 | 0,55 | 0,07 | 0,05 | 0,40 | 0,35 | 0,28 |

## NTCC study - Phase I

# HPV Clearance

## Women age<35

| | NO HPV | Neg | Pos | tot pres | %regressed | 95%c.i. | |
|---|---|---|---|---|---|---|---|
| 0-6 m | 10 | 1 | 0 | 1 | | | |
| 6m-1yr | 4 | 56 | 55 | 111 | 50,45% | 41,15% | 59,75% |
| 1yr-1yr6m | 7 | 110 | 76 | 186 | 59,14% | 52,08% | 66,20% |
| >1aa6m | 0 | 10 | 5 | 15 | 66,67% | 42,81% | 90,52% |
| total | 21 | 177 | 136 | 313 | 56,55% | 51,06% | 62,04% |
| 6m-1yr6m | 11 | 166 | 131 | 297 | 55,89% | 50,25% | 61,54% |

## NTCC study - Phase I

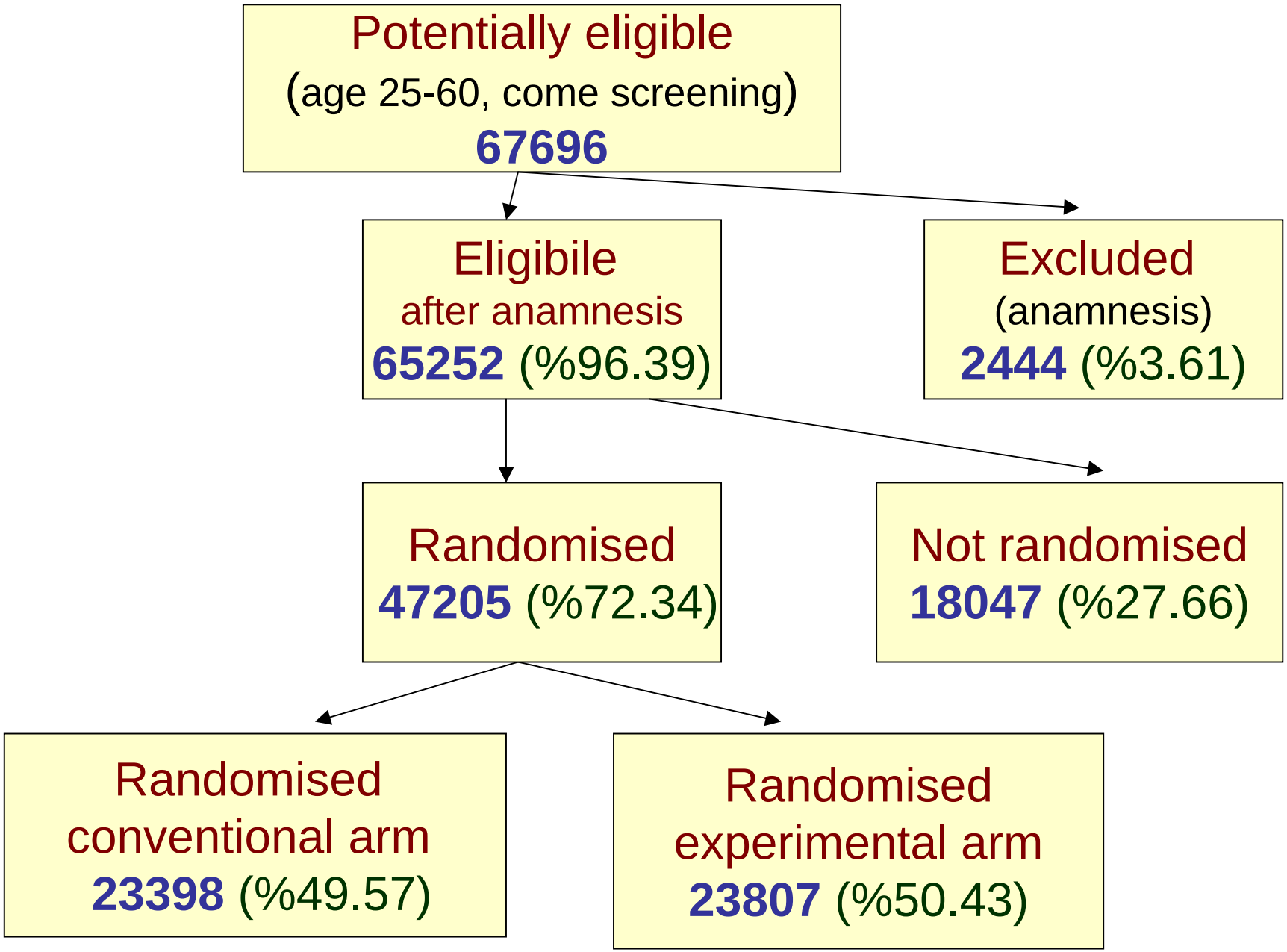
# Cytology at repeat in women previoously HPV+cyto-

## Women < 35

| Cytology | HPV | | | |
|---|---|---|---|---|
| | Neg | Pos | Missing | Total |
| Normal | 127 | 61 | 12 | 200 |
| | 71.75% | 45.52% | 57.14% | |
| Unsatisf tecn | 3 | 2 | 0 | 5 |
| | 1.69% | 1.49% | 0,00% | |
| Unsatisf inflam | 0 | 1 | 1 | 2 |
| | 0,00% | 0.75% | 4.76% | |
| BCC | 28 | 14 | 5 | 47 |
| | 15.82% | 10.45% | 23.81% | |
| ASCUS/AGUS | 8 | 22 | 0 | 30 |
| | 4.52% | 16.42% | 0,00% | |
| LSIL | 11 | 30 | 3 | 44 |
| | 6.21% | 22.39% | 14.29% | |
| HSIL | 0 | 4 | 0 | 4 |
| | 0,00% | 2.99% | 0,00% | |
| Total | 177 | 134 | 21 | 332 |

# NTCC Study phase II

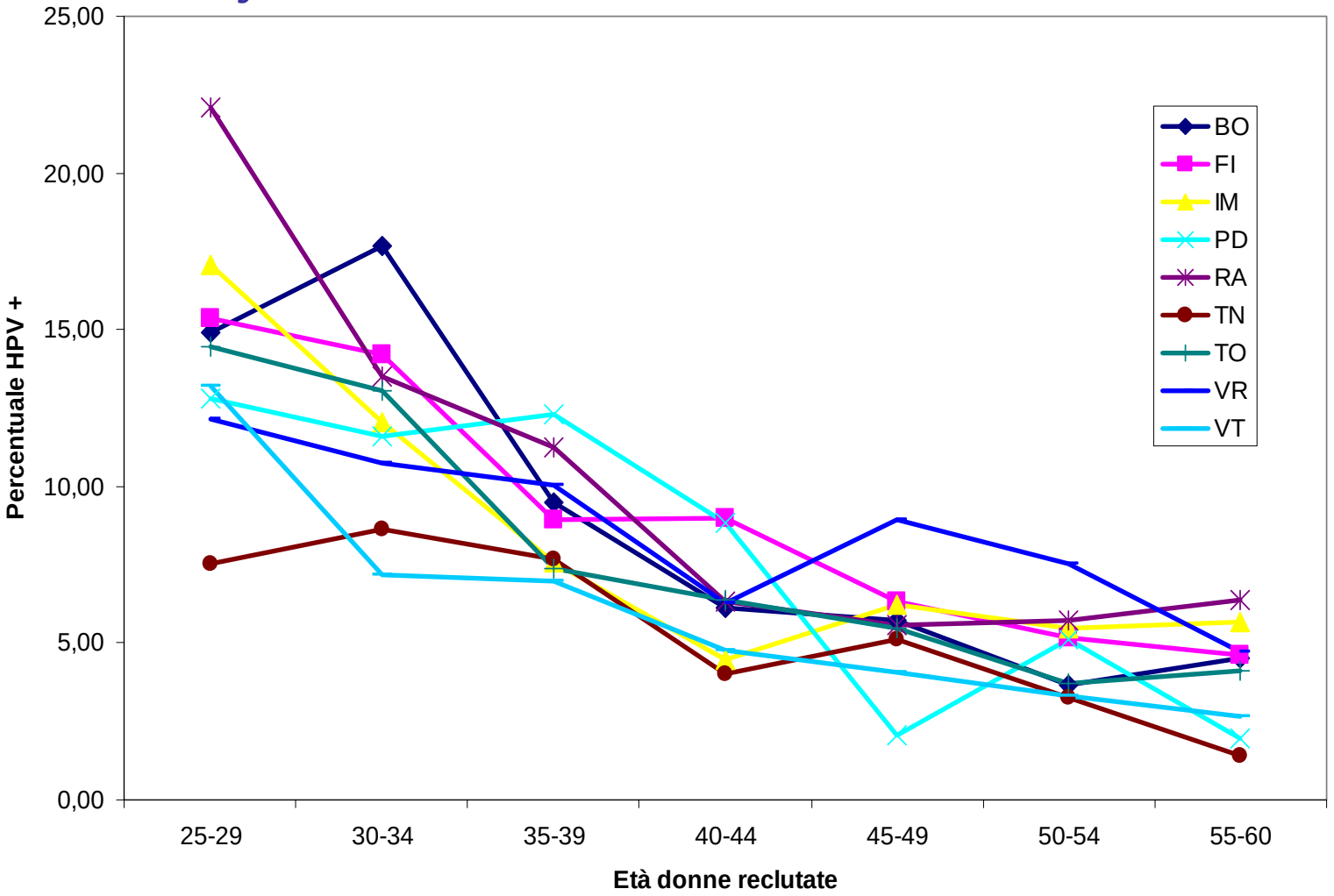
# NTCC STUDY Recruitment phase II



# NTCC STUDY PHASE II

## Proportion of HPV positive women in the experimental arm

## By centre



# Referral Rate by age group

| | Conventional | Experimental | Ratio |
|---|---|---|---|
| **25-34** | 216/5840 (3.7%) | 805/6176 (13.1%) | 3.53 |
| **35-60** | 361/14507 (2.5%) | 908/15027 (6.0%) | 2.43 |
| | | | |
| **All** | 577/ 20347 (2.8%) | 1713/21203 (8.1%) | 2.85 |

# Detection Rate of CIN2+ by arm and age

| | Conventional | Experimental | Ratio |
|---|---|---|---|
| 25-34 | 12/5840 (0.21%) | 38/6176 (0.62%) | 2.95 |
| 35-60 | 17/14507 (0.12%) | 22/15027 (0.15%) | 1.25 |
| | | | |
| All | 29/20343 (0.14%) | 60/21203 (0.28%) | 2.00 |

# PPV for histologically confirmed CIN by arm.

## (denominator: women with colposcopy -only complete colposcopies included)

| Histology | Conventional arm | Experimental arm |
|---|---|---|
| **All ages** | | |
| CIN 1+ | 22.00% (88/400 ) | 19,26% (214/1111) |
| CIN 2+ | 7.25% (29/400) | 5.40% (60/1111) |
| **Age 25-34** | | |
| CIN 1+ | 16.55% (24/145) | 25.10% (127/506) |
| CIN 2+ | 8.28% (12/145) | 7.51% (38/506) |
| **Age 35-60** | | |
| CIN 1+ | 20.78% (53/255) | 14.38% (87/605) |
| CIN 2+ | 6.67% (15/255) | 3.64% (22/605) |
| | | |
| | | |
| | | |

# Experimental arm. Histology by cytology performed at colposcopy

## All ages

| Cytology | No CIN | CIN I | CIN NOS | CIN 2 | CIN 3 | Ca Sq inv | Total |
|---|---|---|---|---|---|---|---|
| <ASCUS | 449 (89.44%) | 44 (8.76%) | 1 (0.20%) | 4 (0.80%) | 4 (0.80%) | 0 | 502 |
| ASCUS+ | 374 (75.25%) | 80 (16.10%) | 1 (0.20%) | 29 (5.83%) | 13 (2.62%) | 0 | 497 (50%) |
| Tot | 823 | 124 | 2 | 33 | 17 | 0 | 999 |

## Age 25-34

| Cytology | No CIN | CIN I | CIN NOS | CIN 2 | CIN 3 | Ca Sq inv | Total |
|---|---|---|---|---|---|---|---|
| <ASCUS | 165 (84.18%) | 27 (13.78%) | 0 | 2 (5.56%) | 2 | 0 | 196 |
| ASCUS+ | 193 (70.44%) | 48 (17.52%) | 1 | 25 (9.12%) | 7 (2.55%) | 0 | 274 (58%) |
| Tot | 358 | 75 | 1 | 27 | 7 | 0 | 470 |

## Age 35-44

| Cytology | No CIN | CIN I | CIN NOS | CIN 2 | CIN 3 | Ca Sq inv | Total |
|---|---|---|---|---|---|---|---|
| <ASCUS | 128 (90.14%) | 11 (7.75%) | 1 (0.70%) | 1 (0.70%) | 1 (0.70%) | 0 | 142 |
| ASCUS+ | 94 (74.60%) | 23 (18.25%) | 0 | 4 (3.17%) | 5 (3.97%) | 0 | 126 (47%) |
| Tot | 222 | 34 | 1 | 5 | 6 | 0 | 268 |

## Age 45-60

| Cytology | No CIN | CIN I | CIN NOS | CIN 2 | CIN 3 | Ca Sq inv | Total |
|---|---|---|---|---|---|---|---|
| <ASCUS | 156 (95.12%) | 6 (3.66%) | 0 | 1 (0.61%) | 1 (0.61%) | 0 | 164 |
| ASCUS+ | 87 (89.69%) | 9 (9.28%) | 0 | 0 | 1 (1.03%) | 0 | 97 (37%) |
| Tot | 243 | 15 | 0 | 1 | 2 | 0 | 261 |

STUDIO NTCC SECONDA FASE

% di positive a P16$^{ink4}$ per istologia tra le donne HPV +

DATI PRELIMINARI

| ISTOLOGIA | P16 + | TOT |
|---|---|---|
| CIN2+ | 75 (94.9%) | 79 |
| CIN 1 | 86 (48.8%) | 176 |
| NO CIN | 246 (33.4%) | 735 |

**Table 5.** Triage test performance of HC 2 and cytology at different thresholds for detection of histologically confirmed CIN3+ and CIN2+, in the combined human papillomavirus (HPV) triage and immediate colposcopy arms*

| | % sensitivity | % referral† | Positive predictive value‡ | Negative predictive value§ |
|---|---|---|---|---|
| CIN3+ | | | | |
| HC 2‖ | 96.3 | 56.1 | 10.0 | 99.5 |
| HSIL+ cytology | 44.1 | 6.9 | 37.5 | 96.5 |
| LSIL+ cytology | 64.0 | 26.2 | 14.3 | 97.1 |
| ASCUS+ cytology | 85.3 | 58.6 | 8.5 | 97.9 |
| CIN2+ | | | | |
| HC 2‖ | 95.9 | 56.1 | 19.6 | 98.9 |
| HSIL+ cytology | 34.8 | 6.9 | 58.1 | 92.0 |
| LSIL+ cytology | 59.2 | 26.2 | 25.9 | 93.6 |
| ASCUS+ cytology | 85.0 | 58.6 | 16.7 | 95.8 |

*HC 2 = Hybrid Capture 2™; CIN = cervical intraepithelial neoplasia; HSIL+ = high-grade squamous intraepithelial lesion or above; LSIL+ = low-grade squamous intraepithelial lesion or above; ASCUS+ = atypical squamous cells of undetermined significance or above.

†Percent of the study population that would have been referred to colposcopy, with the use of a particular triage test threshold.

‡For positive test results, the percent of time disease was present.

§For negative test results, the percent of time disease was absent.

‖HC 2 at a positive test threshold of 1.0 pg of HPV DNA/mL.

**Solomon et al., 2001**

# Turin HPV triage study

- Overall 260 women (24.7%) of study subjects were estimated to either have HSIL cytology or to be positive for High Risk HPV
- If such a criterion was adopted for referral to colposcopy, then 98.2% of histologically confirmed CIN2+ cases (60/61) were expected to be identified
- With such a strategy the estimated PPV for CIN2+ was 23% against 6.3% with the current protocol

Ronco G, Voglino GR, Volante R, Carozzi F, Segnan N, Cuzick J. Proc 18th Papillomaivrus Conference

Studio NTCC prima fase

%DI DONNE HPV+ TRA QUELLE CON CITOLOGIA ASCUS+
(citologia in strato sottile – donne di età 35+)

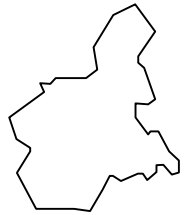
| Citologia | HPV+ | | HPV- | | TOT |
|---|---|---|---|---|---|
| SIL | 167 | (48.41%) | 178 | (51.59%) | 345 |
| ASCUS | 135 | (24.77%) | 410 | (75.23%) | 545 |

REGIONE PIEMONTE

PREVENZIONE SERENA

Programma di prevenzione dei tumori femminili
togliti il pensiero, fai il controllo.

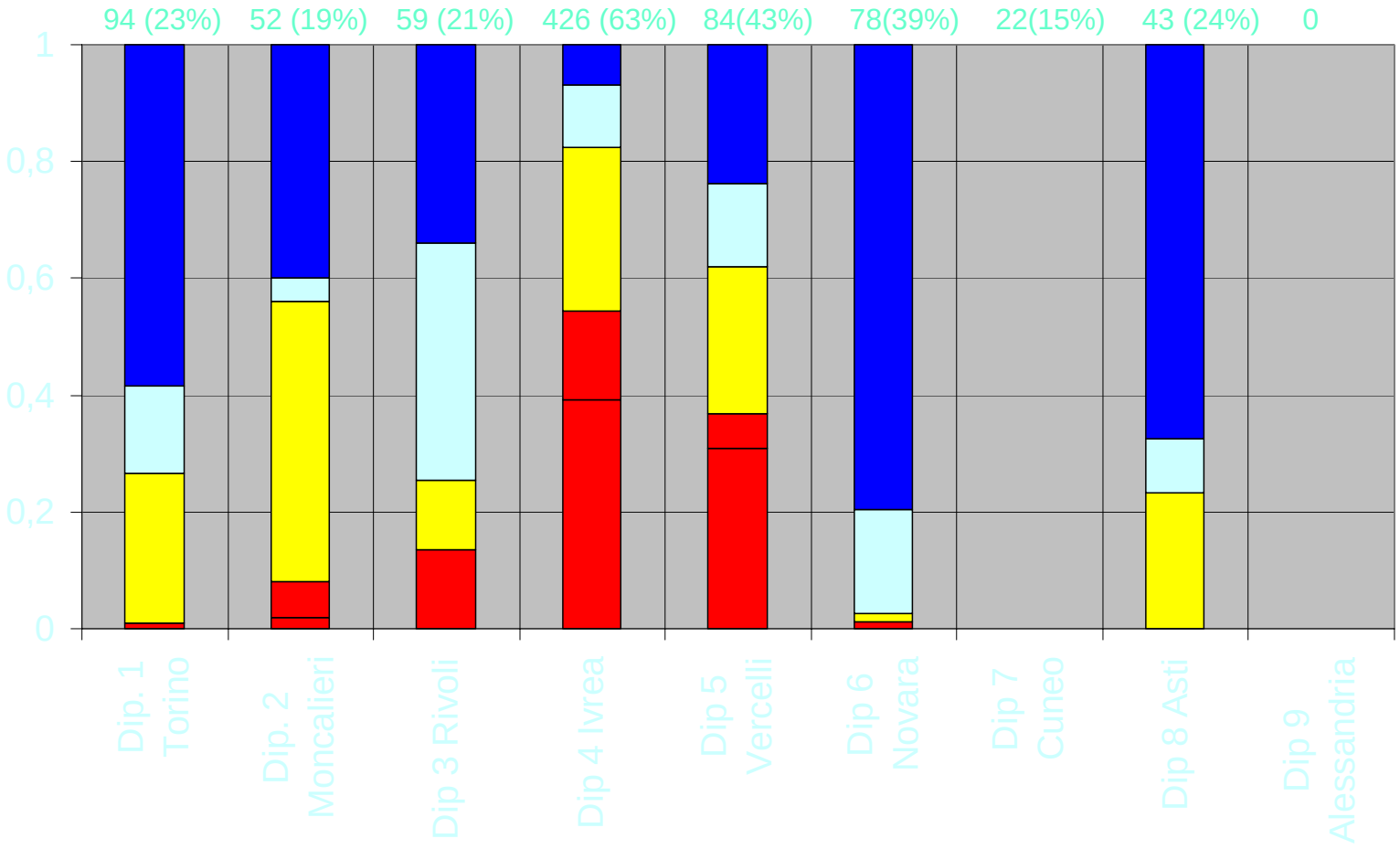
# Inviti in colposcopia per diagnosi citologiche - Anno 2003



**Standard Regionali**
Accettabile: <= 5%
Ottimale: <= 3.5%

| | Ca INV | HSIL | LSIL | ASCUS/AGUS | ALTRO | TOTALE | Aderenti | RR |
|---|---|---|---|---|---|---|---|---|
| Dip 01 | 4 | 23 | 160 | 148 | 94 | 429 | 25149 | 1,71% |
| Dip 02 | 2 | 13 | 78 | 117 | 52 | 262 | 9890 | 2,65% |
| Dip 03 | 0 | 11 | 33 | 174 | 59 | 277 | 9004 | 3,08% |
| Dip 04 | 1 | 16 | 168 | 65 | 426 | 676 | 18413 | 3,67% |
| Dip 05 | 1 | 8 | 60 | 43 | 84 | 196 | 8462 | 2,32% |
| Dip 06 | 1 | 23 | 49 | 47 | 78 | 198 | 11005 | 1,80% |
| Dip 07 | 0 | 16 | 41 | 70 | 22 | 149 | 18111 | 0,82% |
| Dip 08 | 1 | 13 | 59 | 62 | 43 | 178 | 10087 | 1,76% |
| Dip 09 | 0 | 15 | 19 | 74 | 0 | 108 | 10926 | 0,99% |
| Regione Piemonte | 10 | 138 | 666 | 800 | 858 | 2472 | 121047 | 2,04% |

# Invii in colposcopia per “Altro” (2003)



# Valore Predittivo della Citologia sull' Istologia (CIN2+). Per Dipartimento. Anno 2003.