# Main studies carried out in Colombia on cervical cancer and HPV

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#### Disclosure

• I have no actual or past potential conflict of interest in relation to this presentation

- First case-control study that established the causal association between HPV and cervical cancer
- One of the first studies in the male role on cervical cancer through HPV
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- Cohort study in HPV and cervical neoplasia in women from Bogota.

### Former Unit of Field and Intervention Studies at The International Agency for Research on Cancer (IARC), Lyon, France



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**External Collaborators** 



Keerti Shah



Jan Walboomers

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### vical cancer in Cali, Colombia and in Spain **Spain** 9 provinces Cali Cases **Controls** Field study: 1985-1989... 450 400

### IIC International Journal of Cancer





OR: 100+

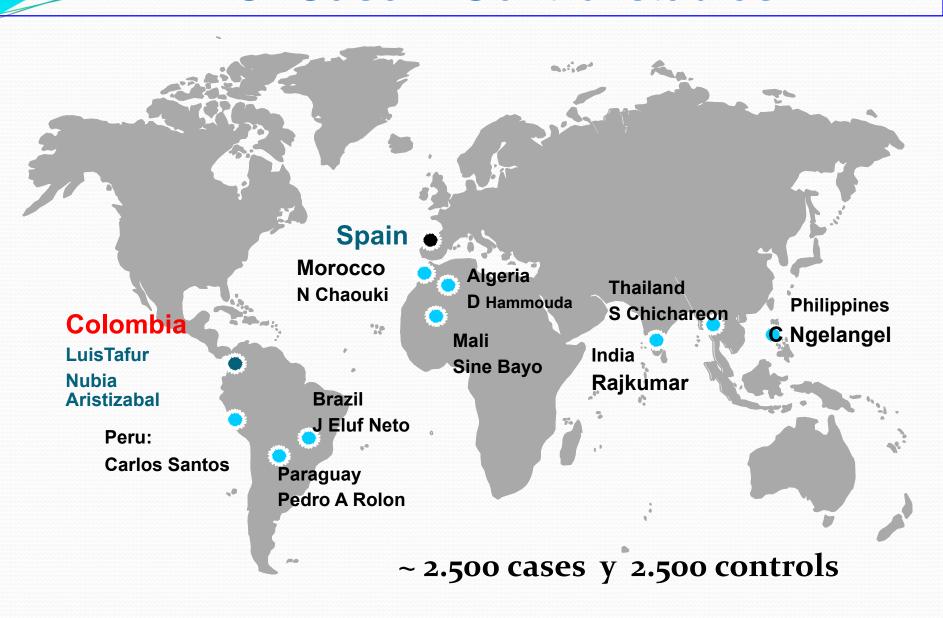
### THE CAUSAL LINK BETWEEN HUMAN PAPILLOMAVIRUS AND INVASIVE CERVICAL CANCER: A POPULATION-BASED CASE-CONTROL STUDY IN COLOMBIA AND SPAIN

N. Muñoz<sup>1,16</sup>, F.X. Bosch<sup>1</sup>, S. de Sanjosé<sup>1</sup>, L. Tafur<sup>2</sup>, I. Izarzugaza<sup>3</sup>, M. Gili<sup>4</sup>, P. Viladiu<sup>5</sup>, C. Navarro<sup>6</sup>, C. Martos<sup>7</sup>, N. Ascunce<sup>8</sup>, L.C. Gonzalez<sup>9</sup>, J.M. Kaldor<sup>10</sup>, E. Guerrero<sup>11</sup>, A. Lörincz<sup>12</sup>, M. Santamaria<sup>13</sup>, P. Alonso de Ruiz<sup>14</sup>, N. Aristizabal<sup>2</sup> and K. Shah<sup>15</sup>

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Int. J. Cancer: 52, 743-749 (1992). IF: 4.926; Citations 476

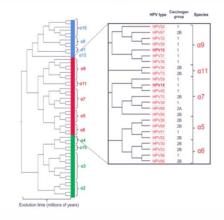
#### IARC Case - Control studies





The NEW ENGLAND JOURNAL of MEDICIN

#### ORIGINAL ARTICLE



#### Epidemiologic Classification of Human Papillomavirus Types Associated with Cervical Cancer

Nubia Muñoz, M.D., F. Xavier Bosch, M.D., Silvia de Sanjosé, M.D., Rolando Herrero, M.D., Xavier Castellsagué, M.D., Keerti V. Shah, Ph.D., Peter J.F. Snijders, Ph.D., and Chris J.L.M. Meijer, M.D., for the International Agency for Research on Cancer Multicenter Cervical Cancer Study Group\*

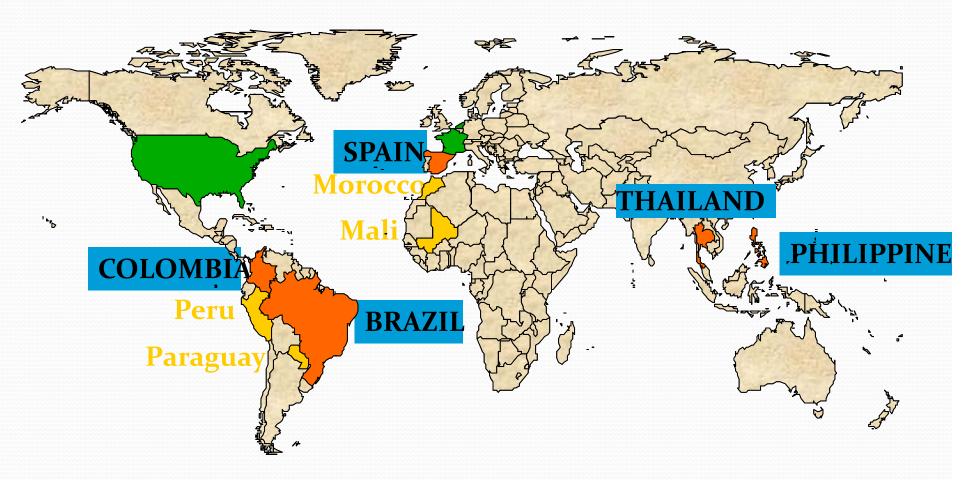
N Engl J Med 2003 Feb 6;348(6):518-27. IF: 53.484. Citations: 2.996

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Male role in transmission of HPV and risk of cervical cancer

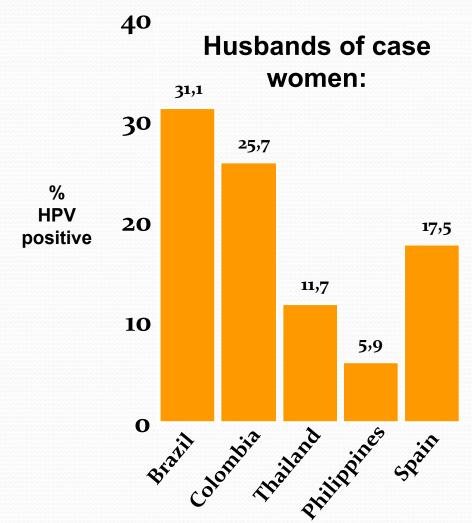
## IARC case-control studies on 66 The male role

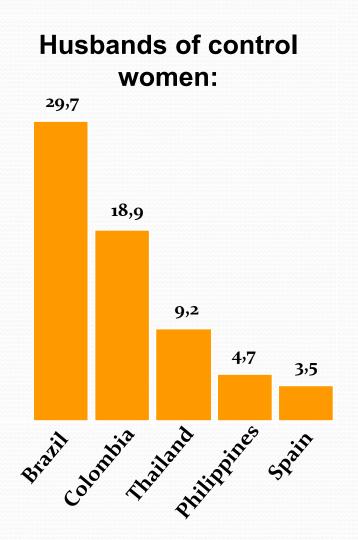


Total Recruitment: 1,921 couples



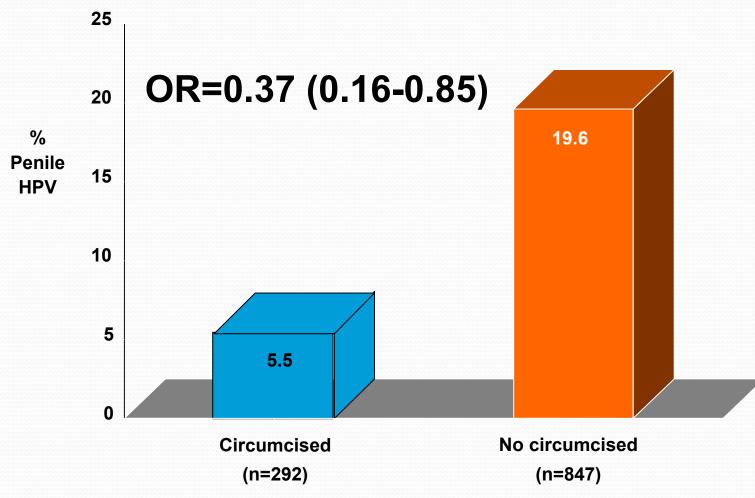
### Penile HPV prevalence in husbands of women with and without cervical cancer







## Penile HPV prevalence by circumcision status



# The New England Journal of Medicine



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VOLUME 346 APRIL 11, 2002 NUMBER 15



#### MALE CIRCUMCISION, PENILE HUMAN PAPILLOMAVIRUS INFECTION, AND CERVICAL CANCER IN FEMALE PARTNERS

XAVIER CASTELLSAGUÉ, M.D., F. XAVIER BOSCH, M.D., NUBIA MUÑOZ, M.D., CHRIS J.L.M. MEIJER, PH.D., KEERTI V. SHAH, DR.P.H., SILVIA DE SANJOSÉ, M.D., JOSÉ ELUF-NETO, M.D., CORAZON A. NGELANGEL, M.D., SAIBUA CHICHAREON, M.D., JENNIFER S. SMITH, PH.D., ROLANDO HERRERO, M.D., AND SILVIA FRANCESCHI, M.D., FOR THE INTERNATIONAL AGENCY FOR RESEARCH ON CANCER MULTICENTER CERVICAL CANCER STUDY GROUP

N Engl J Med 2002 Apr 11;346(15):1105-12. IF: 53.484 Citacions: 396

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## IARC International Prevalence Survey of HPV types in invasive Cervical Cancer in 22 countries



Pathology Pathology



Cancer Cervical: 99.7% HPV+

#### HUMAN PAPILLOMAVIRUS IS A NECESSARY CAUSE OF INVASIVE CERVICAL CANCER WORLDWIDE

JAN M. M. WALBOOMERS $^1*$ , MARCEL V. JACOBS $^1$ , M. MICHELE MANOS $^2$ , F. XAVIER BOSCH $^3$ , J. ALAIN KUMMER $^1$ , KEERTI V. SHAH $^2$ , PETER J. F. SNIJDERS $^1$ , JULIAN PETO $^4$ , CHRIS J. L. M. MEIJER $^1$  AND NUBIA MUÑOZ $^5$ 

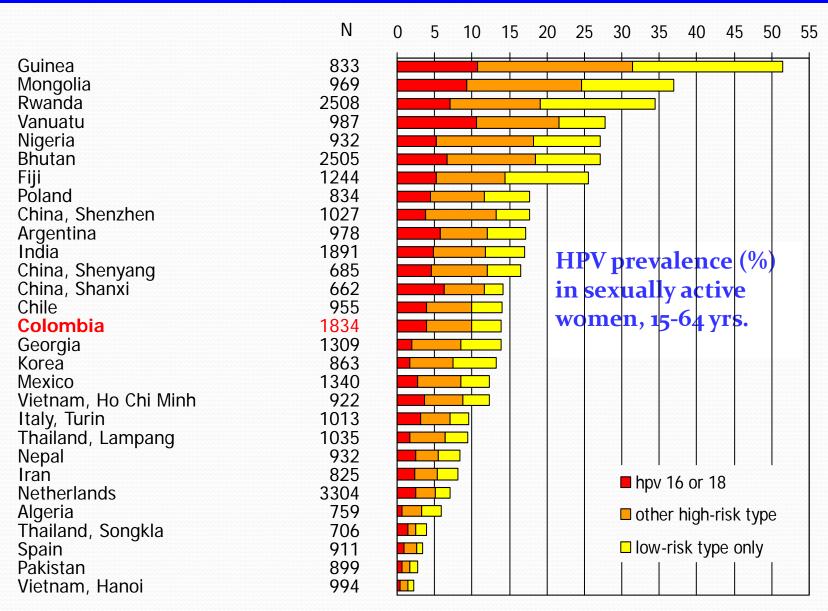
<sup>1</sup>Department of Pathology, University Hospital Vrije Universiteit, Amsterdam, The Netherlands
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<sup>5</sup>Unit of Field and Intervention Studies, IARC, Lyon, France

J Pathology. 1999 Sep;189(1):12-9. IF: 7.274. Citaciones: 4.889



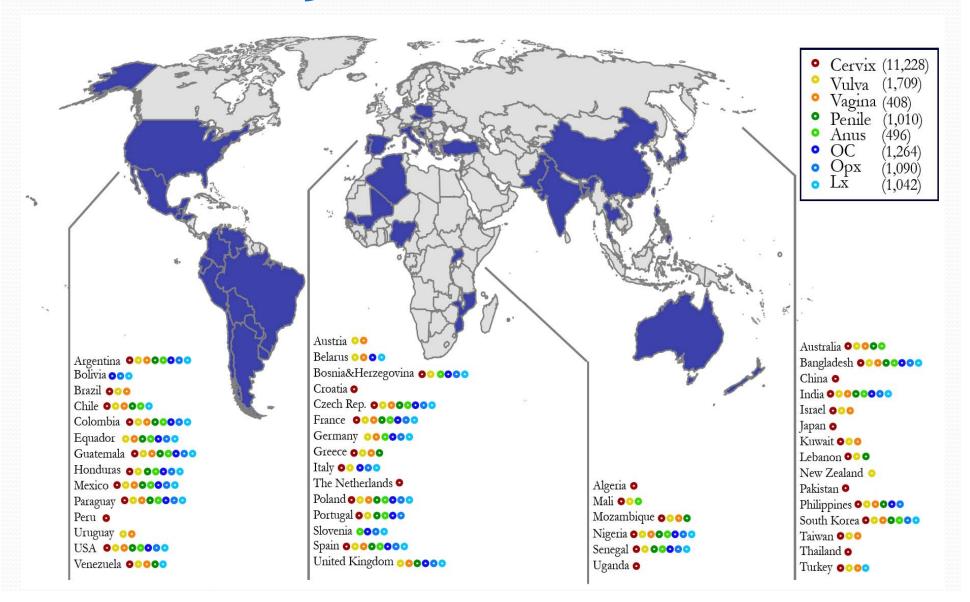
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### Strong worldwide variation in cervical HPV prevalence IARC Multi-centre HPV Prevalence Surveys, 1995-2016

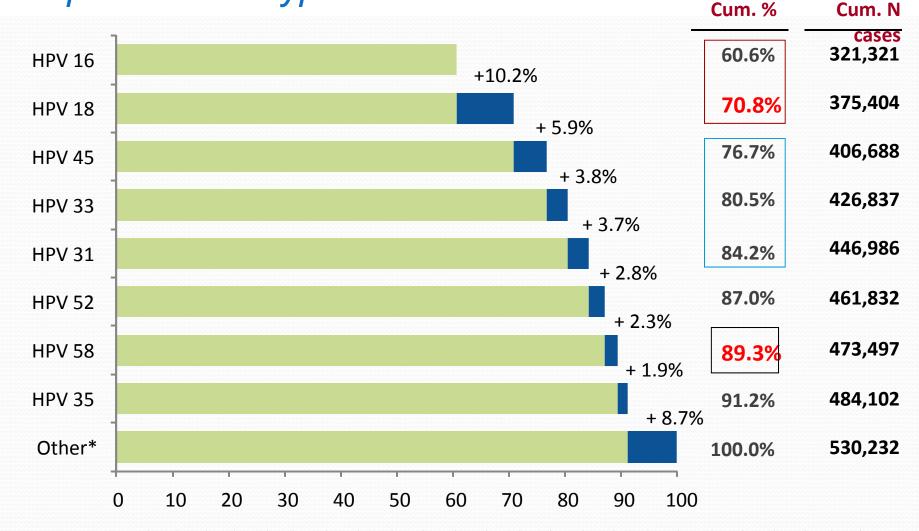


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# ICO International survey of cancers caused by VPH (18.000 cases in 50 countries)



Cumulative number of cervical cancer cases attributed to specific HPV types



<sup>\*</sup> Other include: 39 (1.6%), 51 (1.3%), 59 (1.1%), 56 (0.8%), 68 (0.7%), 73 (0.5%), 26 (0.3%), 30 (0.3%), 68 (0.3%), 67 (0.3%), 53 (0.3%), 6 (0.1%), 70 (0.1%), 60 (0.1%),

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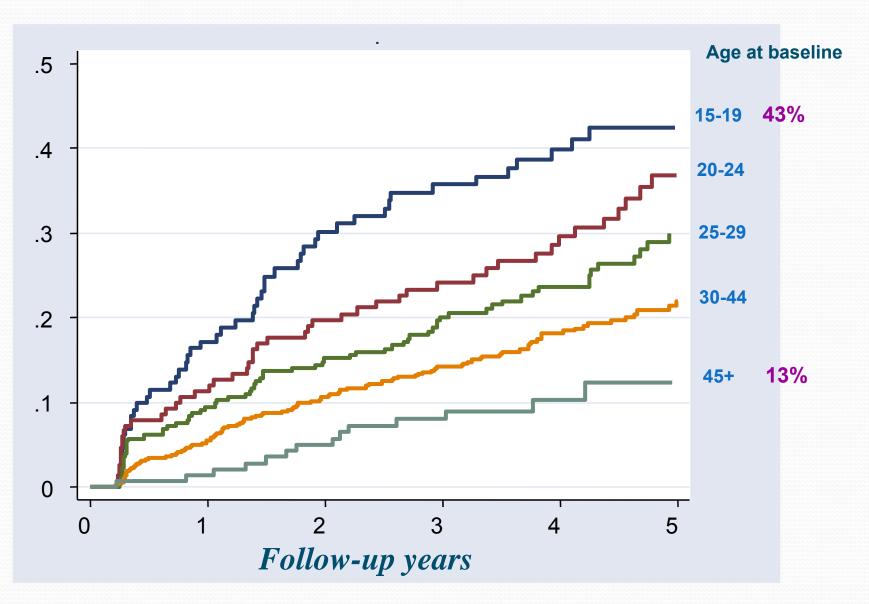
### Nacional de Cancerologia- Bogota, Colombia 1995- Study Team



~2.000 women 15 – 80 years old, followed up every 6 months during ~10 years . **Results:** Prevalence and incidence of type-specific infection with HPV in women with normal cytology and women with cervical neoplasia: ( 2 PhDs and > 20 papers in International journals

#### tions in a cohort of women with

#### normal cytology from Bogota, Colombia Muñoz N, et al. JID 2004



#### Conclusiones

- In Colombia we have made very important contributions toward the knowledge of HPV as cause of cervical cancer
- The above was a key element in the decision to establish a National Program of HPV vaccination that was very good until 2014, when rumors and misinformation have damaged it
- We need the help of physicians, public health personal, general population and media to re-activate this essential program for the prevention cervical cancer



Thank you Muchas gracias