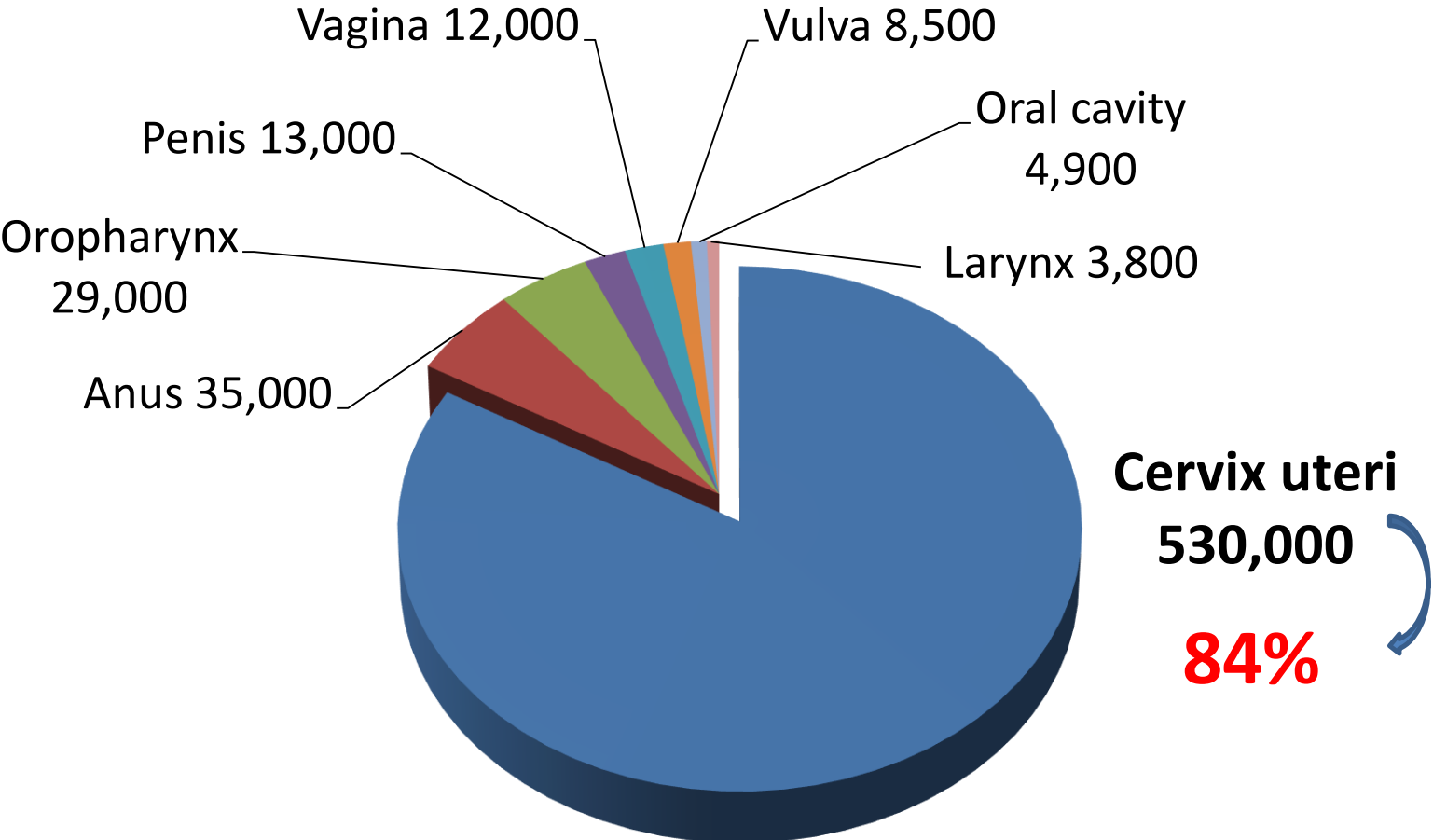


# Global overview of HPV vaccination

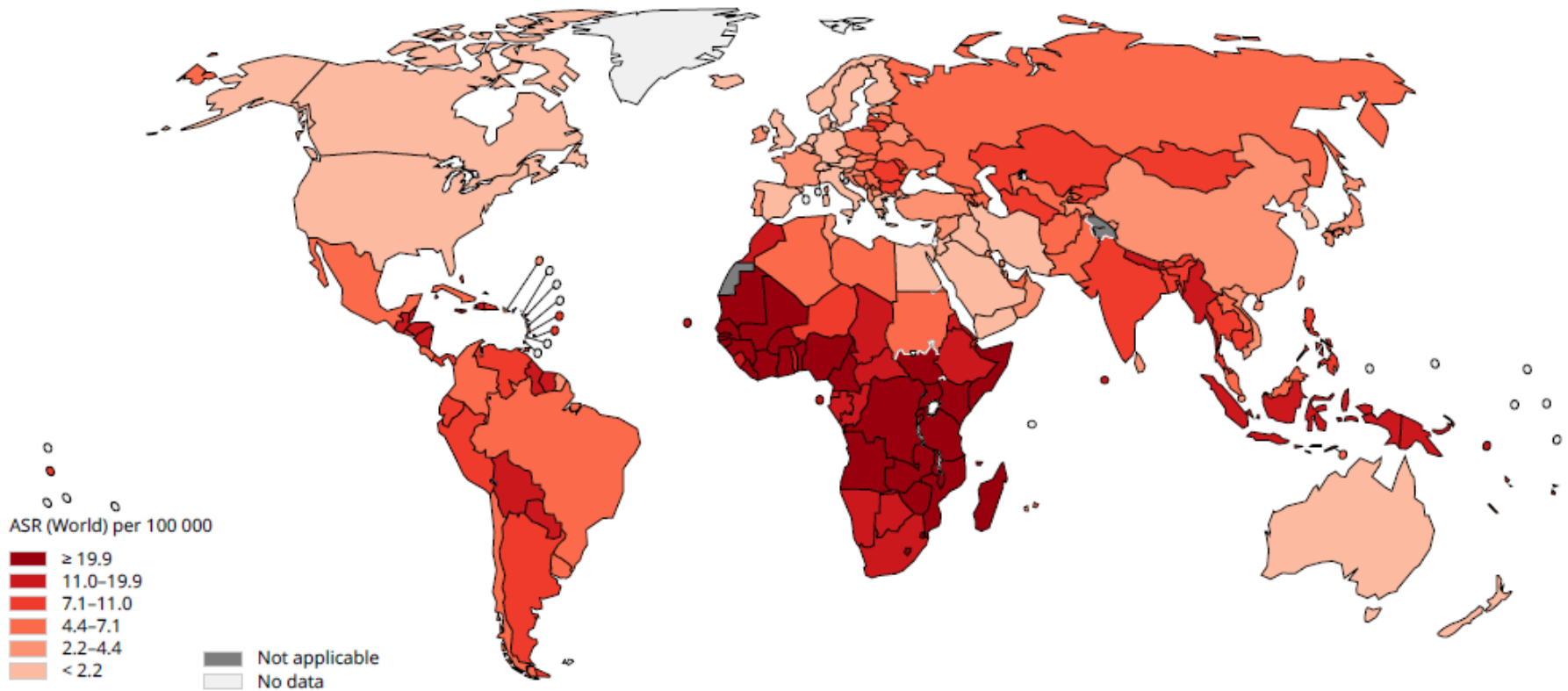
L Mosina, Vaccine-preventable Diseases & Immunization  
WHO Regional Office for Europe



# Estimated cancer cases attributable to HPV infection globally



# Estimated age standardized cervical cancer mortality rates, 2012



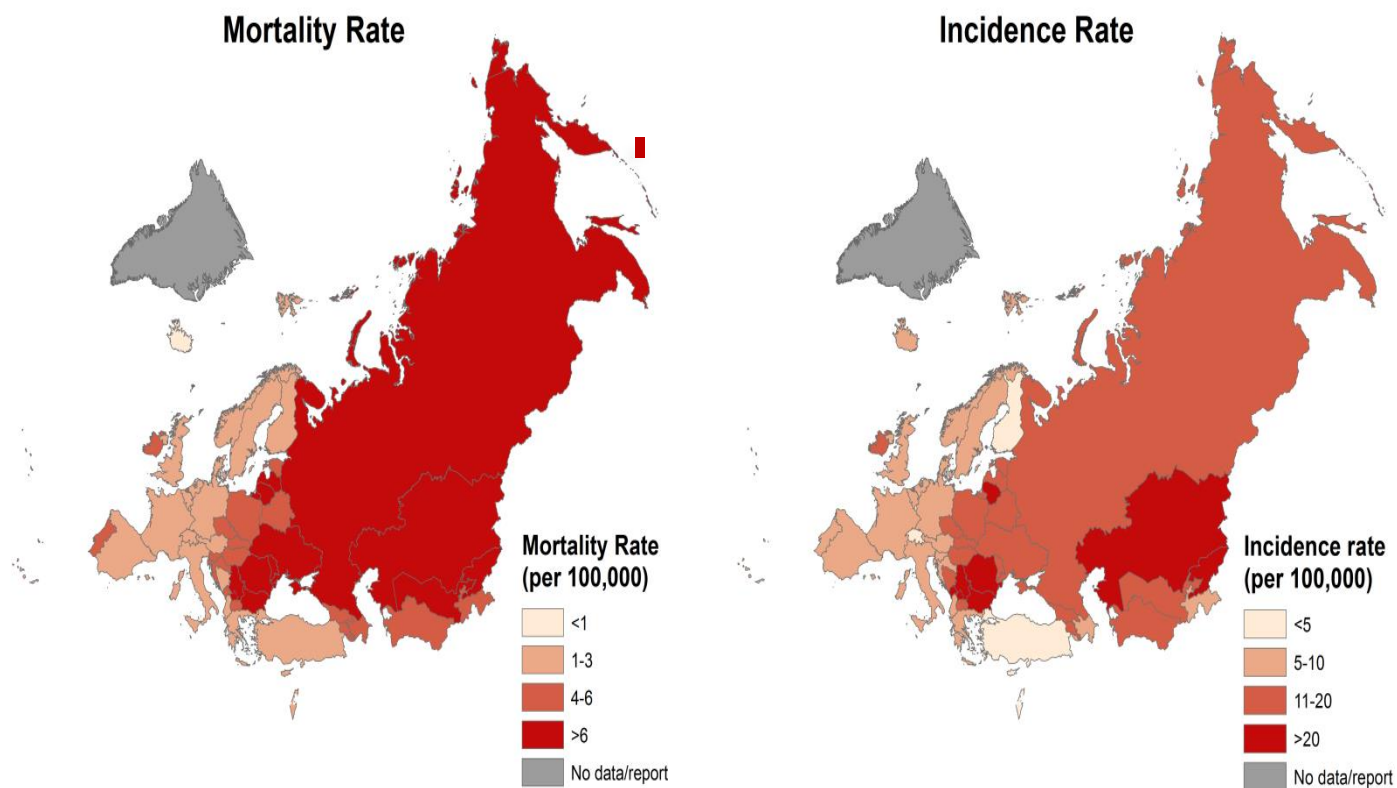
Data source: GLOBOCAN 2018  
 Graph production: IARC (<http://gco.iarc.fr/today>)  
 World Health Organization



© International Agency for Research on Cancer 2018



# Estimated cervical cancer incidence and mortality, WHO European Region, 2012



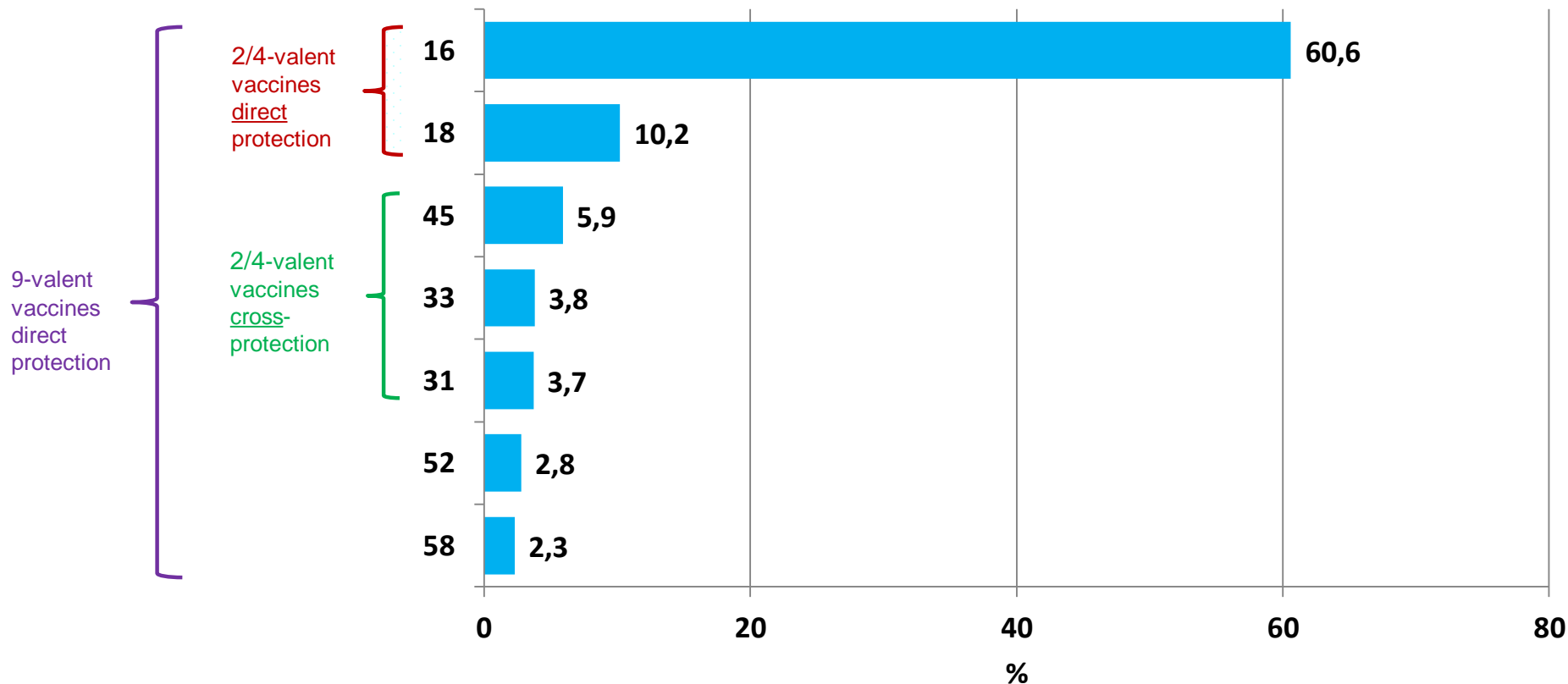
Source: Globocan, 2012

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.  
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Updated on: 22 May 2018  
Map Production: Vaccine-preventable Diseases and Immunization (VPI),  
Division of Health Emergencies and Communicable Diseases (DEC),  
World Health Organization Regional Office for Europe.



# Human papillomavirus type distribution in invasive cervical cancer




# WHO Position paper on HPV vaccine

(WER May, 2017)

([www.who.int/immunization/documents/positionpapers/en/](http://www.who.int/immunization/documents/positionpapers/en/))

2017, 92, 241-268

No 19

 **World Health Organization**  
Organisation mondiale de la Santé

**Weekly epidemiological record**  
**Relevé épidémiologique hebdomadaire**

12 MAI 2017, 92<sup>e</sup> YEAR / 12 MAI 2017, 92<sup>e</sup> ANNÉE  
No 19, 2017, 92, 241-268  
<http://www.who.int/wer>

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**Introduction**

In accordance with its mandate to provide guidance to Member States on health policy matters, WHO issues a series of regularly updated position papers on vaccines and vaccine combinations against diseases that have an international public health impact. These papers are concerned primarily with the use of vaccines in large-scale immunization programmes. They summarize essential background information on the respective diseases and vaccines, and conclude with the current WHO position concerning their use in the global context.

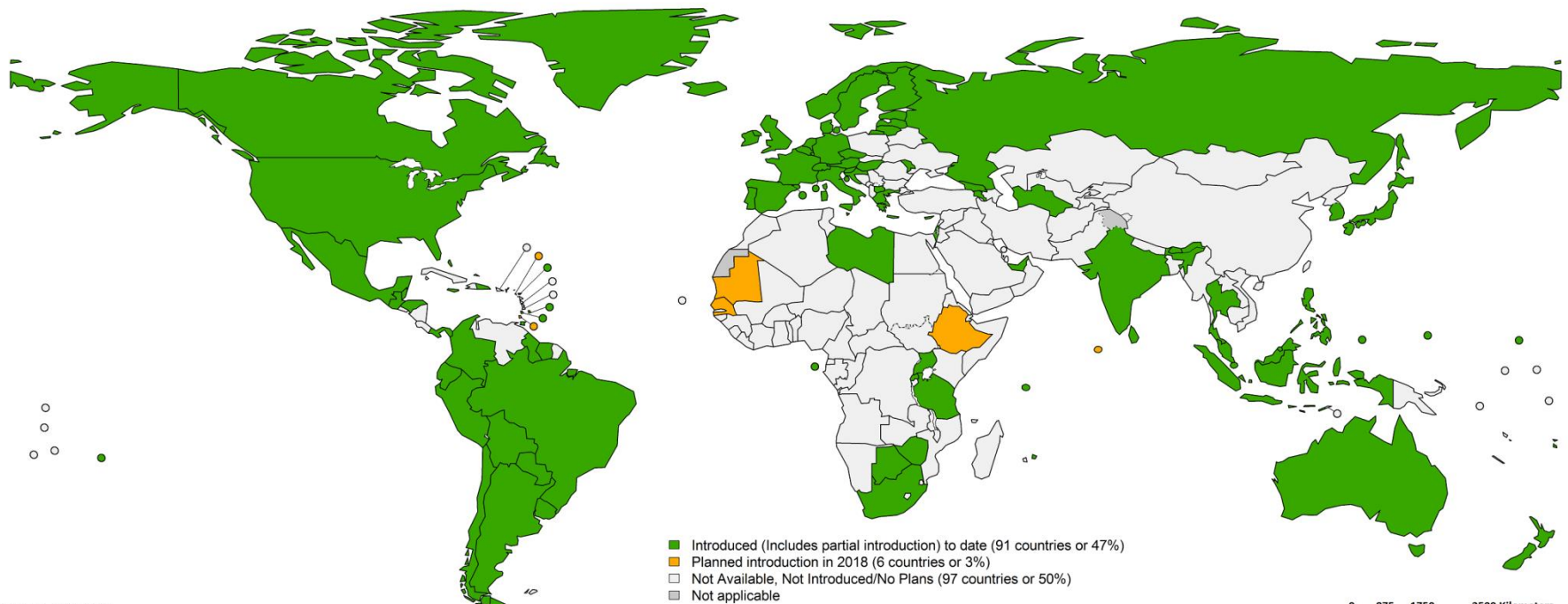
The papers are reviewed by external experts and WHO staff, and reviewed and

- ❑ Target population : females 9–14 years, prior to becoming sexually active
- ❑ 2-dose schedule with minimum interval of 6 months between doses for females <15 years
- ❑ No maximum recommended interval between doses (<12-15 months is suggested)
- ❑ 3-dose schedule (0, 2, 6 months) is recommended for females ≥15 years/immunocompromised/ HIV-infected
- ❑ Both HPV vaccines can be co-administered with other live and non-live vaccines

REGIONAL OFFICE FOR Europe

BUREAU REGIONAL DE L'Europe

# Countries with HPV vaccine in the national immunization programme, October 2018



**Date of slide:** 2018-10-04

**Map production:** Immunization, Vaccines and Biologicals (IVB), World Health Organization(WHO)

**Data source:** IVB database as at 4th October 2018

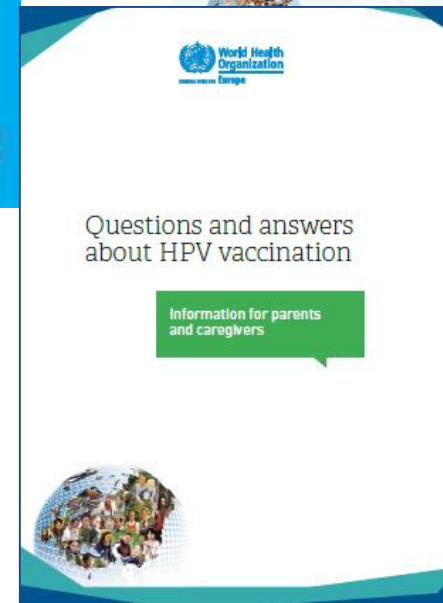
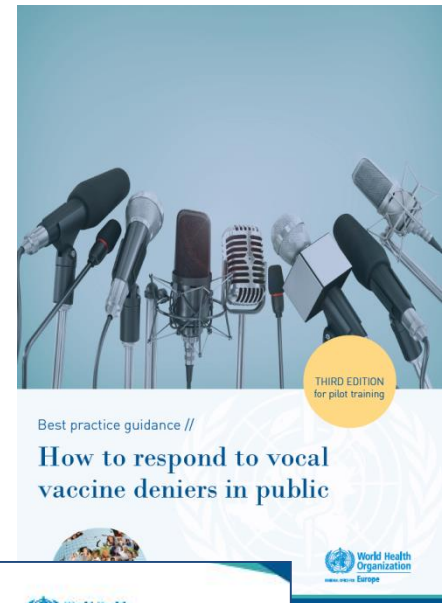
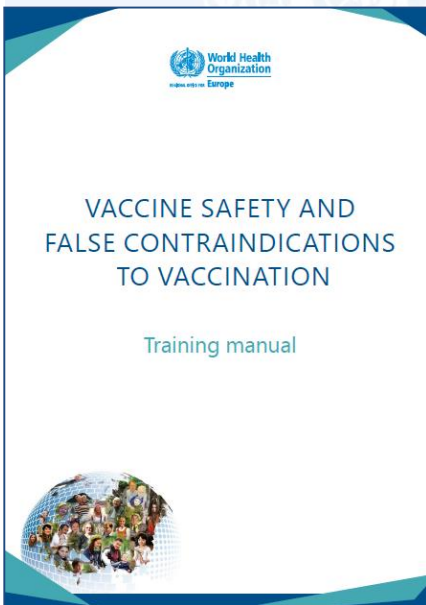
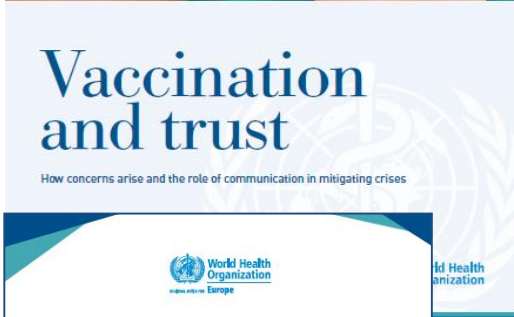
**Disclaimer:**

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area nor of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

World Health Organization, WHO, 2018. All rights reserved



# WHO guidance and support to HPV vaccination



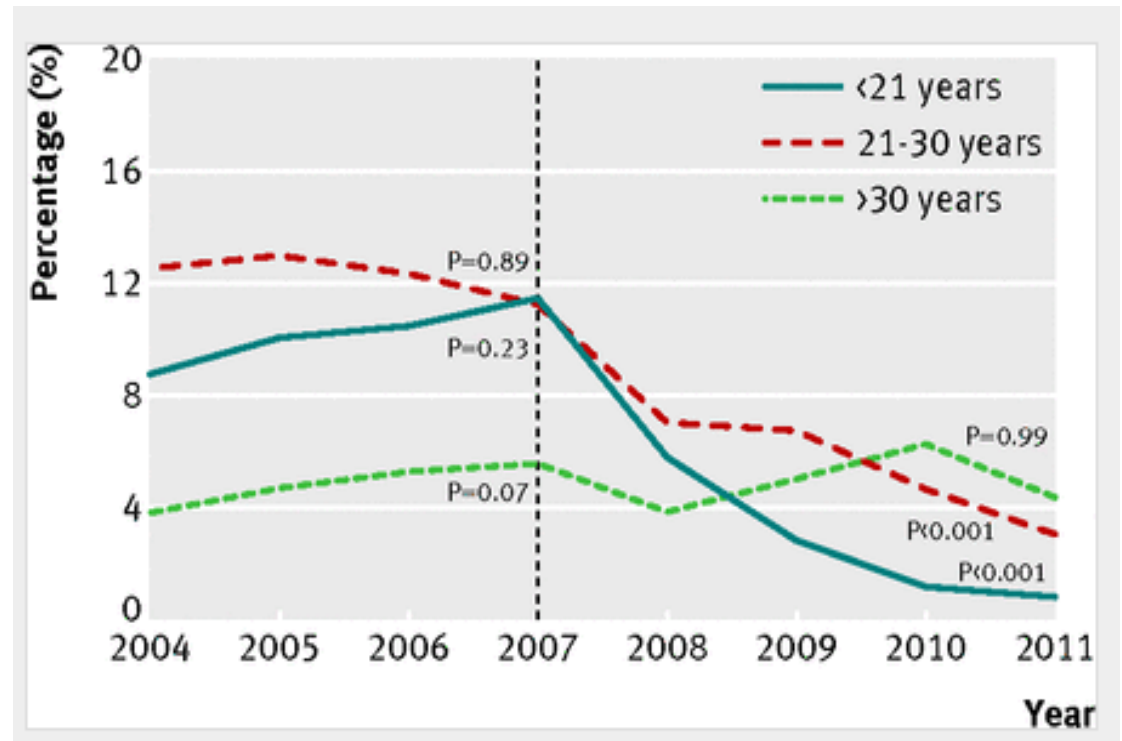
# The vaccines are very effective: in the real world

Proportion of Australian born women diagnosed as having genital warts at first visit

## Against Genital Warts

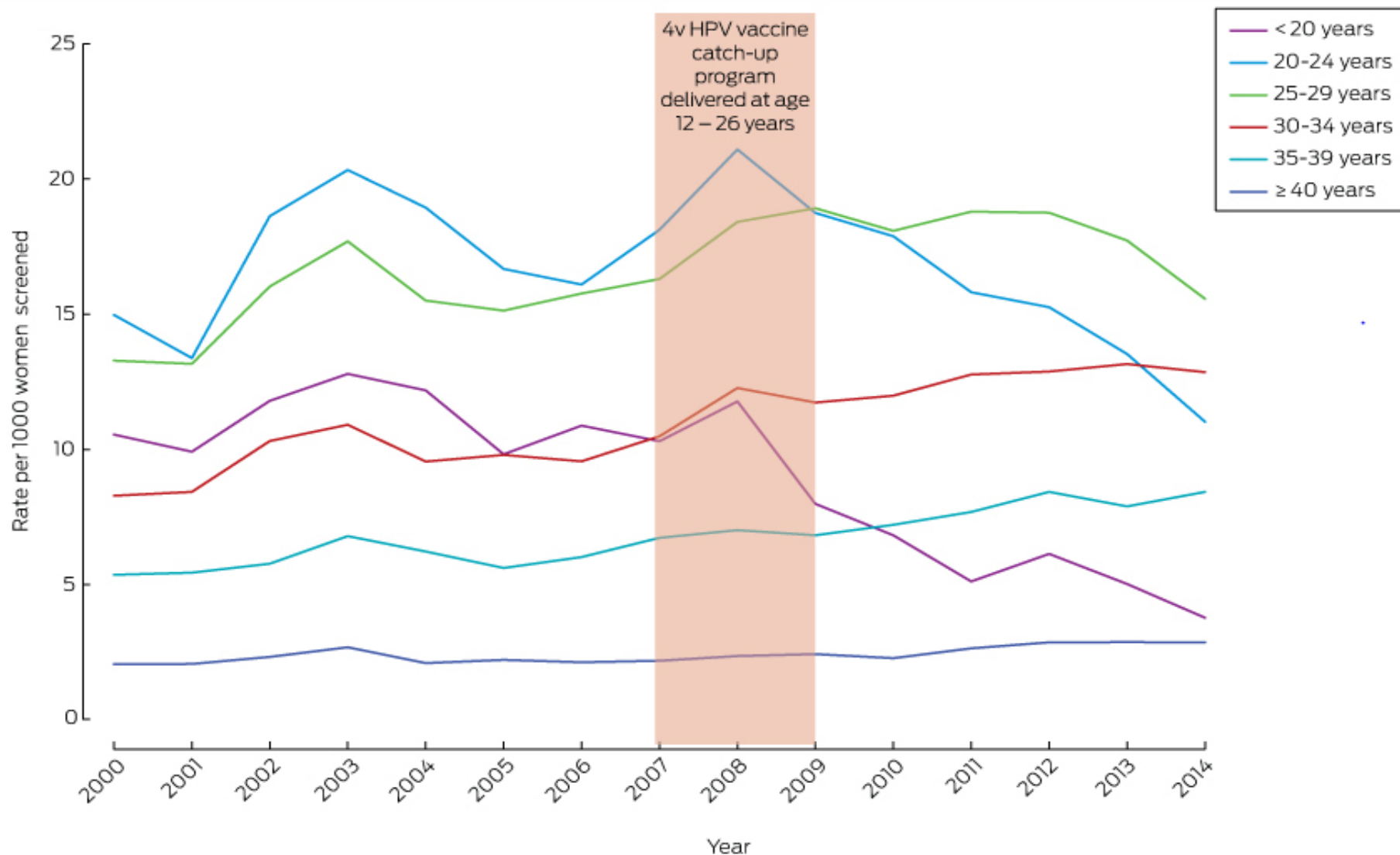
See also

- Bauer et al *Am J Pub Health* 2012
- Leval et al *JID* 2012
- Smith et al *JID* 2014
- Baandrup et al *STD* 2013
- Chow et al *STI* 2014
- Howell-Jones et al *JID* 2013
- Drolet et al *Lancet Infect Dis*, 2015

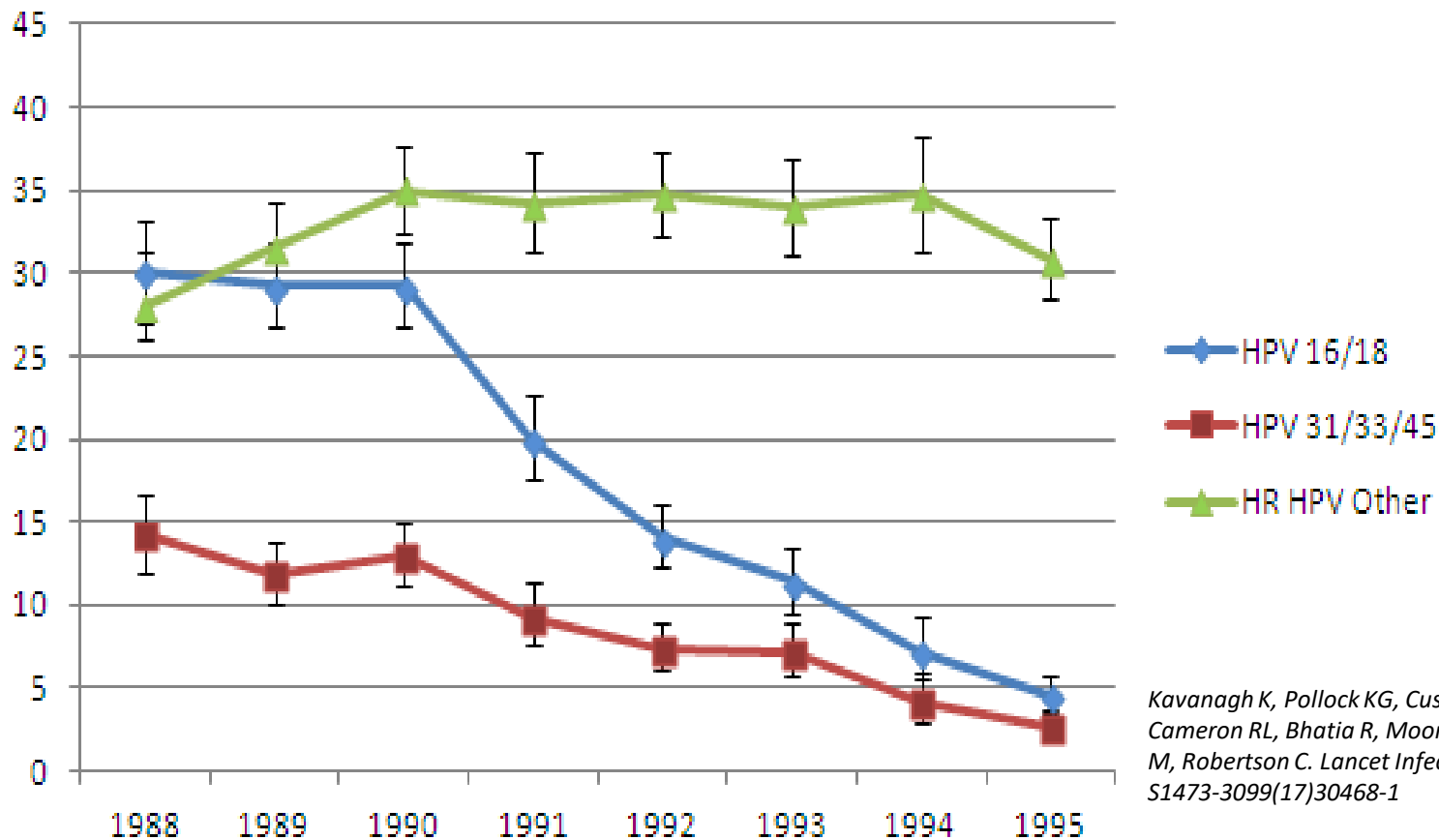


Females <21 years 92.6% decline post vaccination  
Females 21-30 yrs 72.6% decline post vaccination

# Trends in rates of histologically-confirmed high-grade cervical abnormalities by age, Victoria, Australia, 2000-2014

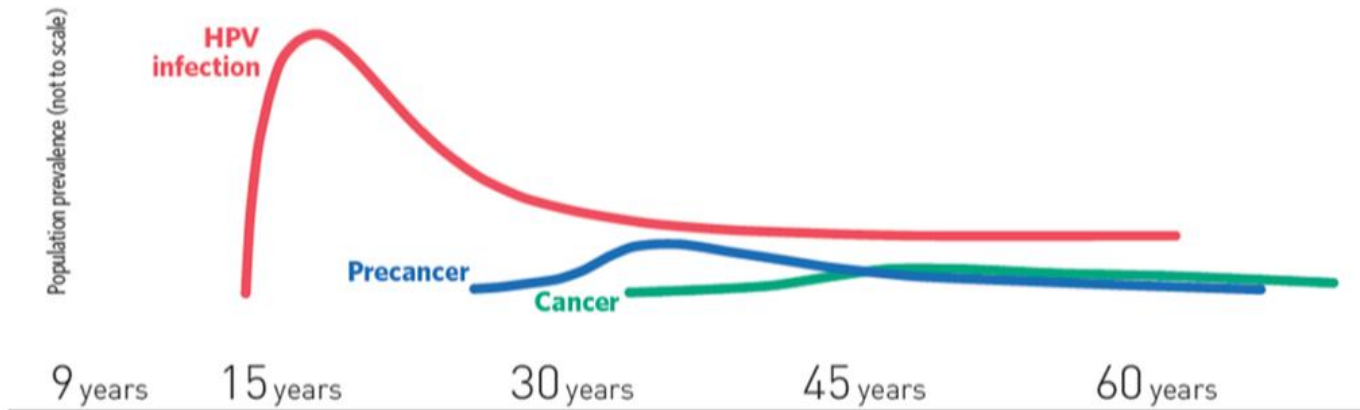


# HPV prevalence pre and post vaccination, Scotland



Kavanagh K, Pollock KG, Cuschieri K, Palmer T, Cameron RL, Bhatia R, Moore C, Cubie H, Cruickshank M, Robertson C. *Lancet Infect Dis.* 2017 Sep 28. pii: S1473-3099(17)30468-1

# WHO life course approach to cervical cancer control



INTEGRATION

**PRIMARY PREVENTION**  
**Girls 9-13 years**

- HPV vaccination

**Girls and boys, as appropriate**

- Health information and warnings about tobacco use\*
- Sexuality education tailored to age & culture
- Condom promotion/provision for those engaged in sexual activity
- Male circumcision

**SECONDARY PREVENTION**  
**Women >30 years of age**  
**Screening and treatment as needed**

- "Screen and treat" with low cost technology VIA followed by cryotherapy
- HPV testing for high risk HPV types (e.g. types 16, 18 and others)

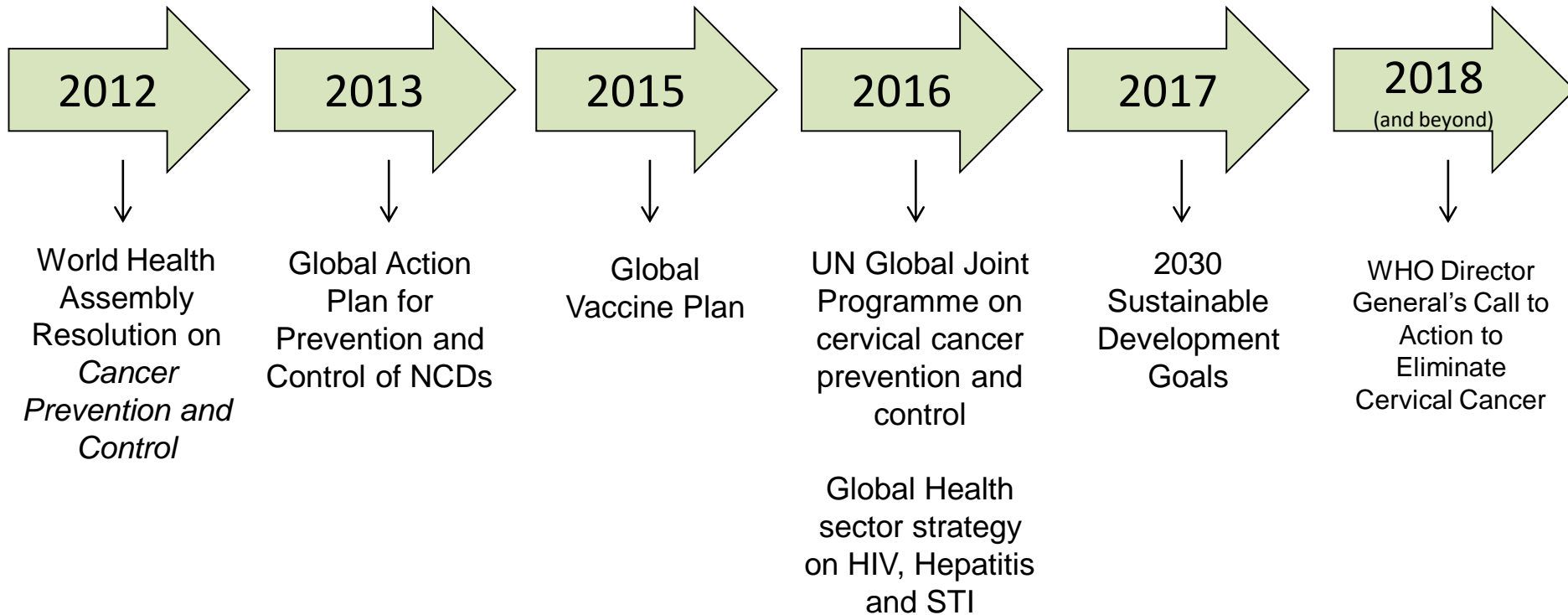
**TERTIARY PREVENTION**  
**All women as needed**  
**Treatment of invasive cancer at any age**

- Ablative surgery
- Radiotherapy
- Chemotherapy

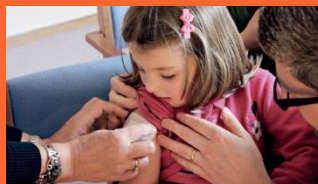
\* Tobacco use is an additional risk factor for cervical cancer.

INTEGRATION

# Cervical cancer is recognized as a global public health problem



- ✓ HPV vaccination
- ✓ Screening and treatment of pre-cancerous lesions
- ✓ Treatment for cancer and palliative care



# May 2018: WHO Director General's Call to Action to Eliminate Cervical Cancer



"Elimination of cervical cancer as a global health issue is within reach for all countries. We know what works, and we know how to prevent and control this disease".

**Dr Princess Nono Simelela, Assistant Director-General for Family, Women's and Children's Health, WHO.**

# Accelerating Cervical Cancer Elimination

- Political will
- Global coordination and accelerators for elimination
- Financing and return on investment
- Monitoring and evaluation and a global accountability framework
- Research and innovation