Ending Cervical Cancer in Asia:
Building on Advances Throughout the Region

Cervical Cancer Action “Champions” Webinar — March 27, 2012

• Mr. Scott Wittet, PATH (Moderator)
• Dr. Neerja Bhatla, All India Institute of Medical Sciences
• Dr. Usha Poli, MNJ Institute of Oncology and Regional Cancer Centre
• Dr. Kimberley Fox, WHO/WPRO
• Ms. Tania Cernuschi, GAVI Alliance
• Dr. Julie Torode, Union for International Cancer Control
Please note that everyone but our speakers are on global mute until the discussion portion of the webinar—thanks for helping us keep the line clear.

During the call, please send questions to Sarah@CervicalCancerAction.org or through the chat on your ReadyTalk screen.
Cervical Cancer in Asia: Regional Burden of Disease

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530,000 new cases
275,000 deaths

85% in developing countries
159,800 deaths in Asia

World age-standardized incidence rates of cervical cancer

ASR, age-standardized incidence rate; Rates per 100,000 women per year.
World age-standardized incidence rates of cervical cancer by region

ASR, age-standardized incidence rate; Rates per 100,000 women per year.
Cervical cancer rates vary even within a country

- India accounts for $\frac{1}{4}^{th}$ of the global burden
- Epidemiological correlates of different rates in different regions not fully understood
- Infrastructure and services need to be provided accordingly
  - Cytology, VIA,
  - Cryotherapy, LEEP

Estimated ASIRs of Cervical Cancer by District in India, 2001-2002
## Cervical Cancer Burden
### World vs India

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>• 5th most common cause of cancer death</td>
<td>• 2nd largest cause of cancer mortality in India</td>
</tr>
<tr>
<td>• 489,000 new cases</td>
<td>• 132,000 new cases</td>
</tr>
<tr>
<td>• ASIR 16/100,000 women in 2002</td>
<td>• ASIR 30.7/ 100,000 women in 2002</td>
</tr>
<tr>
<td>• 1-year prevalence of 381,033, 5-year prevalence of 1.41 million</td>
<td>• 1-year prevalence of 101,583, and 5-year prevalence of 370,243</td>
</tr>
<tr>
<td>• 268,000 deaths (3.6% out of 7.4 million cancer deaths)</td>
<td>• 72,600 deaths (nearly 10% out of 729,600 cancer deaths)</td>
</tr>
<tr>
<td>• 9.0 age-standardized deaths per 100,000</td>
<td>• 9.5 age-standardized deaths per 100,000</td>
</tr>
<tr>
<td>• 3,719,000 DALYs (disability adjusted life-years)</td>
<td>• 987,000 DALYs</td>
</tr>
<tr>
<td></td>
<td>88 DALYs/ 100,000</td>
</tr>
<tr>
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<td>113 age-adjusted DALYs /100,000</td>
</tr>
</tbody>
</table>

(WHO, 2009b; GLOBOCAN 2002 database, IARC)
Age specific incidence of cervical cancer in regions: Asia as compared to World

- Worldwide, and across all regions of Asia, the highest incidence of cervical cancer is seen in women in their late 40s and 50s
- This is a very productive phase of life, thus a very preventable tragedy which impacts their families as well

ASR, age-standardized incidence rate; Rates per 100,000 women per year.
Years of Life Lost (YLL)

- Cervical cancer is responsible for 2.7 million (age-weighted) YLL worldwide in 2000.
- It is 4.8 times as common and causes 7 times as many YLL in developing countries than in developed countries.

Cytology based cervical cancer screening in the Asia Pacific region

**Organised cytology-based screening programs**
- Australia, New Zealand, Taiwan, Hong Kong

**National screening guidelines with good coverage**
- Singapore, South Korea, Japan

**Some attempts at screening with variable coverage**
- China, India, Thailand, Indonesia, the Philippines, Vietnam, Malaysia

**Alternate methods**
- Bangladesh (VIA)
Time trends in ASRs of Cervical Cancer in 11 populations of the Asia Pacific region

- Declining trends give a false sense of security
- Some decline with lifestyle changes & opportunistic screening programs
- Significant declines that impact life expectancy only possible with effective screening strategies

Estimated number of new cases of Cervical Cancer in the Asia Pacific region by age group, in 2002 and projected in 2025

*Projected burden, assuming that current incidence rates will apply in the future, and incorporating population forecasts for the region.*

Future efforts to control Cervical Cancer in Asia

✓ Each country needs to implement a comprehensive cancer control program for prevention, early detection, treatment and palliative care

✓ Adequate tools for monitoring and evaluating impact are essential

THANK YOU FOR LISTENING!
Saving lives now: breakthroughs in screening options for women

Dr. Usha Rani Poli
MNJ Institute of Oncology and Regional Cancer Centre
Andhra Pradesh, India

Ending Cervical Cancer in Asia: Building on Advances Throughout the Region
March 27, 2012
New paradigms

- Cytology (Pap) has worked in wealthier countries, but not in low-resource settings

- Need proven alternatives to Pap that offer
  - Lower cost
  - More rapid results
  - Field-friendly formats (no laboratory required)
  - Reduced frequency of screening
  - Reduced number of visits for screening and treatment
Screening for Cervical Cancer

Conventional pap smear

Hybrid Capture® 2 DNA test

Visual inspection with acetic acid (VIA)

CareHPV™ rapid DNA test
Characteristics of VIA

- Evidence is clear: VIA impacts pre-cancer incidence
- Low cost and low tech (speculum and vinegar)
- Doctors, nurses, and paramedics can be trained
- More sensitive than Pap
- Immediate findings
- In many cases can treat immediately

- Subjective test—sensitivity linked to quality of training and supervision
- Not as sensitive as HPV DNA testing
INTRODUCTION OF VISUAL INSPECTION (VIA) FOR CERVICAL CANCER SCREENING

STATUS: JULY 2011

The information represented here has been collected through interviews with individuals and organizations involved with the countries represented and has not been verified with individual Ministries of Health. Any oversights or inaccuracies are unintentional.
## VIA in Asia and the Pacific

### NATIONAL PROGRAMS
- Bangladesh
- Cambodia
- China
- Indonesia
- Philippines
- Thailand
- Vietnam

### PILOT PROGRAMS
- India
- Myanmar
- Nepal
- Vanuatu

Source: Cervical Cancer Action
Characteristics of HPV DNA

- Studies show HPV testing reduces cervical cancer incidence and mortality
- More objective than VIA or Pap
- Much more sensitive than VIA or Pap
- Negative test indicates no risk of cancer in 5 - 8 yrs.
- Most useful after age 30 or 35
- Laboratory is needed
- Currently expensive, but new version coming
- Rapid test with VIA triage, can treat immediately
**careHPV™ Test - Field Assessment**

- Comparison of *careHPV* performance in the field vs. Pap and VIA.
- Comparison of *careHPV* cervical sampling vs. vaginal self-sampling.
- ~20,000 women enrolled across four sites: India (Delhi & Hyderabad), Nicaragua, and Uganda
## Preliminary Results: Sensitivity and Specificity (Nicaragua and Hyderabad)

<table>
<thead>
<tr>
<th>Screening method</th>
<th>Sensitivity (95% CI)</th>
<th>Specificity (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>V-careHPV™ Test</td>
<td>73.2% (64.9, 87.1)</td>
<td>91.6% (90.7, 92.3)</td>
</tr>
<tr>
<td>C-careHPV™ Test</td>
<td>85.9% (77.0, 92.3)</td>
<td>93.2% (92.4, 93.9)</td>
</tr>
<tr>
<td>VIA</td>
<td>57.7% (45.4, 68.6)</td>
<td>81.6% (80.4, 82.7)</td>
</tr>
<tr>
<td>Pap (ASCUS+)</td>
<td>54.1% (42.5, 70.9)</td>
<td>97.4% (96.9, 97.8)</td>
</tr>
</tbody>
</table>

*V* = vaginal sample (self-sample)  
*C* = cervical sample
Self-Sampling—an exciting new option

Acceptability of self-sampling

- Delhi 99%
- Hyderabad 90.7%
- Nicaragua 81.1%
- Uganda 99.5%
Treatment of Precancers

- **Cryotherapy** (freezing) is appropriate in most cases
  - 85% cure rate
  - Procedure is safe
  - Must be able to visualize and reach lesions on cervix
  - Requires cryotherapy equipment and gas supply
  - Requires trained staff

- When cryotherapy is not indicated, other therapies must be available (often at higher level facilities)
A New Dawn for Screening:

- VIA can be introduced almost anywhere—is more affordable and more sensitive than Pap
- Once HPV DNA becomes affordable, it could replace VIA as primary screening test.
- VIA then used for treatment selection.
- Self-sampling could dramatically increase screening rates; pelvic exam resources would be used only for high risk (HPV+) cases
- Cryotherapy is a safe, effective and affordable treatment option
- New programs could reduce mortality significantly
THANK YOU!

Dr. Usha Rani Poli
ushapoli@yahoo.co.in
Investing in our future: Update on HPV vaccine introduction across Asia

Kimberley Fox, MD, MPH
Expanded Programme on Immunization
WHO Regional Office for the Western Pacific

27 March 2012
Pilot HPV vaccination projects in Asia and the Pacific

Eleven countries in Asia and the Pacific have conducted or are currently conducting pilot HPV vaccination projects.

- Gardasil Access Program (GAP)
  - Bhutan
  - Cambodia
  - Fiji
  - Kiribati
  - Mongolia
  - Nepal
  - Papua New Guinea

- PATH
  - India
  - Viet Nam

- JHPIEGO Mother-Daughter Initiative
  - Philippines
  - Thailand
Status of HPV vaccine introduction in Asia and the Pacific

- Nineteen countries and areas in Asia and the Pacific have introduced HPV vaccine into their national immunization programmes
  - 2007: Australia
  - 2008: New Zealand
  - 2010: Malaysia, Singapore
  - 2011: Bhutan, Cook Islands, Kiribati
  - 2012: Fiji, Vanuatu, Japan, New Caledonia
**PATH demonstration projects**

<table>
<thead>
<tr>
<th>Country</th>
<th>Eligible population</th>
<th>Year</th>
<th>Number of girls who received at least 1 dose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peru</td>
<td>5th grade and 10-year-olds</td>
<td>2007-2008, 2010-2011</td>
<td>18,808</td>
</tr>
<tr>
<td>Uganda</td>
<td>10-year-olds and Primary 5</td>
<td>2008-2009</td>
<td>11,171</td>
</tr>
<tr>
<td>Vietnam</td>
<td>11-year-olds and Grade 6</td>
<td>2008–2010</td>
<td>6,404</td>
</tr>
<tr>
<td>India</td>
<td>10–14-year-olds</td>
<td>2009–2010</td>
<td>24,777</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td></td>
<td><strong>61,160</strong></td>
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Bhutan: pilot program followed by national scale-up

- **Pilot phase (Oct 2009-Apr 2010)**
  - Australian Cervical Cancer Foundation
  - GAP program donation of 9,600 doses
  - School-based (22)
  - 3,167 girls targeted, aged 11-13 years
  - 2,981 received all 3 doses (94% completion)

- **National scale-up (May-Nov 2010)**
  - GAP donation of 184,000 doses
  - Schools, 47,888 girls eligible, aged 12-18 years
  - 12 year olds: 6,801 dose 1; 6,579 dose 3 (97% completion)
  - 13-18 year olds: 37,613 dose 1; 36,248 dose 3 (96% completion)

- **National program (2011)**
  - Clinics, only 12 year olds eligible.

Data courtesy of Mr. Joe Toome, CEO, ACCF and Ms. Lisa Tapert, VP, Global Access, Axios International.
HPV vaccination programme in Malaysia

- Introduced in mid-2010
- Primarily school-based delivery
  - community health centres for missed girls or out-of-school girls
- Extensive communications preparation: electronic media, radio, newspapers, posters, pamphlets
- Strong monitoring system
- HPV vaccination well accepted by communities and parents
Sources of funding for HPV vaccination programmes: Seven middle-income countries in the Western Pacific Region

- HPV vaccine
  - Government budget plus donated funds: 5 countries
  - Donor or donated vaccine: 2 countries
- Operational costs
  - Government budget: 7 countries
Both the quadrivalent and bivalent vaccines are used
Ages 9-13 years or subset (12-13y, 10-11y, etc) targeted
  – Catch-up sometimes offered for older girls and young women
Source of funding mostly donors and/or donated vaccine (except for US- and France-affiliated Pacific Islands)
Mostly school-based vaccination, with back-up vaccination through health centres
Lessons learned in implementing HPV vaccination programmes so far…

- High uptake of HPV vaccine can be achieved
- HPV vaccine is acceptable
  - Decision-making is complex: parents need time and correct information.
  - Indirect communication should be supplemented with direct communication opportunities.
  - Build education messages on positive attitudes towards vaccines, prevention of cancer, and vaccine safety.
- A variety of delivery strategies are feasible
  - Strong coordination between health and education sectors is essential.
  - Eligible population should be easily identified (by age or grade).
  - Extra work can be acceptable.
  - Pulsed, three-visit schedule may impact system less.
- Start-up costs can be high, but…
  - Will decrease over time, with personnel and transport costs comprising the largest share of recurrent expenses.
Acknowledgements

• Immunization programmes in the Western Pacific and Southeast Asia Regions

• WHO country office immunization focal points

• PATH and other partner organizations
GAVI Alliance Update

Tania Cernuschi
Senior Programme Manager
Accelerated Vaccine Introduction

Cervical Cancer Action webinar
March 2012
Opening the HPV window:
global disease burden

Courtesy of Progress in Cervical Cancer Prevention:
The CCA Report Card, August 2011
Why GAVI opened a funding window:
Status of vaccine introduction worldwide

Status: July 2011

Source: Courtesy of Progress in Cervical Cancer Prevention:
The CCA Report Card, August 2011
Comparison of cervical cancer incidence and mortality by country-income

The GAVI Alliance Board decision - November 2011

Opened a funding window for HPV country proposals provided that:

- Secretariat secures acceptable price commitments from industry for HPV vaccines
- HPV proposals demonstrate the ability of the country to deliver HPV vaccines to the new target population, including through successful demonstration projects

Requested Secretariat to work with technical partners to develop HPV demonstration projects
GAVI eligible countries and experience with HPV vaccine

Source:Courtesy of PATH – preliminary assessment of country readiness
Pathways for country HPV applications

1 – National introduction based on demonstrated ability

Key eligibility criteria:
- Qualified experience in delivering complete multi-dose series to adolescent population
- At least 50% coverage post final-dose

Implementation scenarios:
1) “Full-blown” national introduction
2) Phased implementation

IRC reviews:
HPV review schedule is synch with those of other vaccines per GAVI regular process

2 – Demonstration program

Key eligibility criteria:
- Insufficient experience in immunizing adolescent population (single-dose campaigns, low coverage, etc.)

Scale-up/transition scenarios:
Apply to national introduction after completion of demo and “Go/No Go” decision

IRC/or other committee reviews:
Relatively straightforward review
Decision flow for Pathways

Country applications

Not approved
Natnl Intro (Pathway 1)
Approved
National Intro

Demonstrated ability needed

Country applications

Not approved
Demo Program (Pathway 2)
Approved
Scale-up “Go/No-Go”?
“Go”
“No Go”

Not Ready

Applications from another pathway
HPV introduction timeline

- **Jun-12**: Demo Programme Window opens Q3 tbd
- **Sep-12**: IRC Review National Applications
- **Dec-12**: Board Decision on Ntlns App.
- **Sep-13**: Vaccine introduced in demo area
- **Jun-14**: Ntln Intro Application opens
- **Sep-15**: Vaccine Introduced Nationally

- Deadline for country applications
- National Intro Application opens
- Vaccine introduced Nationally
Demonstration projects

- Primary Objectives – *learn by doing*: assess potential delivery strategies & develop tools to be used for future national introduction.

- Secondary Objectives – *integrated approach*: test an integrated approach to vaccine delivery, in particular a comprehensive adolescent health package and a comprehensive approach to cervical cancer.

- Enlarged partnership – WHO NCDs, RHR, MNCAH, UICC, UNAIDS, UNFPA, ACCF, ACS, IPPF, Jhpiego, CEDPA, PRRR.
Opportunities: what can be achieved by 2030

- Avert over 2 million future deaths from cervical cancer
- Immunise almost 159 million girls
- Introduce HPV vaccines into the routine immunisation of 47 low-income countries
- Strengthen comprehensive cancer prevention and control
- Synergies with family planning, HIV and adolescent health
Shaping the Road Ahead
Next steps as advocates for cervical cancer control in Asia
Opportunities for global and regional advocacy

The UN High Level Meeting on NCDs in Sept 2011 represents the highest level recognition of the personal, social and economic impact of cancer and other NCDs

• Recognition across the continuum of care
  • HPV vaccination
  • Early detection (multiple modality)
  • Access to diagnosis and treatment and care

➢ Make sure your national NCD Alliance supports CxCa (info via advocacy@uicc.org)
2012 think global, act local push for targets & UN-partnership

Converting words of the political declaration on NCDs into action

• WHO to propose (1) targets and indicators (2) UN-partnership options
  • raise political awareness of CxCa
  • align services with international norms for CxCa
  • showcase opportunities to link CxCa interv. to existing services and strengthen health systems

➢ Commend current successes and encourage gov to champion CxCa targets
Care HPV available in 2012, dependent on regulatory approval
Using the CCA report card – preventing infection with HPV

3.1 INTRODUCTION OF HPV VACCINE
STATUS: JANUARY 2012

GAVI eligible countries can apply for support of national programmes – 9 pilot roll outs planned in 2012
Opportunities and challenges

GAVI eligible countries can apply for HPV vaccine to support national programmes

• Beginning in 2012; GAVI will partner with civil society groups

• Look to early adopters in the region for models and best practice for phased introduction

• Understand gov pressures eg new vaccines pneumococcal and rotavirus and regionally specific Japanese encephalitis and typhoid

Plan how you can lever GAVI and CareHPV announcements nationally
Reasons to be optimistic about funding avenues

• Call for innovative funding mechanisms starting to create leaders e.g., Denmark "fat tax" on high fat foods in Oct 2011
• NCD-push for global solidarity tax on tobacco use; extend to high fat, sugar, salt foods? *(Thailand model)*
• Every Woman, Every Child 40 new announcements of commitments
• Pink Ribbon Red Ribbon; funders follow the lead of high profile donors
Opportunities to lever change

• NCD Alliance at country level
  ensure CxCa is positioned strongly, work with NCD advocates to make the case for investment in NCDs

• CCA tools and report card
  use to lever champions globally and extend best practice locally (GAVI, CareHPV)

• UICC links to members and partners across health systems (PNCMH)

• UICC fellowships/workshops
Useful links

- www.who.int/nmh/events/un_ncd_summit2011/en
- www.ncdalliance.org
- http://www.gavialliance.org/results/countries-approved-for-support/
- http://www.everywomaneverychild.org/commitments/all-commitments
- http://www.who.int/pmnch/en
- http://www.uicc.org/fellowships

Asia-Pacific Cancer Society Training Grants