Cervical cancer – an avoidable NCD with gross inequities (Globocan 2018)
May 2018: WHO Director General’s Call to Action to Eliminate Cervical Cancer
WHO life course approach to cervical cancer control

**Primary Prevention**
- Girls 9-14 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
  - “Screen and treat” – single visit approach
    - Point-of-care rapid HPV testing for high risk HPV types
    - Followed by immediate treatment
    - On site treatment

**Tertiary Prevention**
- All women as needed
  - Treatment of invasive cancer at any age and palliative care
    - Ablative surgery
    - Radiotherapy
    - Chemotherapy
    - Palliative Care
Global snapshot – cervical cancer control

HPV vaccine introduction

- 70% of high income countries
- 20% of middle income countries
- 6% of low income countries

Screening

- 12% of countries have screening participation rate >70%
- African region 40% of countries have coverage less than 10%

Pathology and treatment services

- 98% of high-income countries compared to 35% in low-income countries
- 90% of high-income countries compared to 30% of low-income countries
- 25% of countries reported having no public radiotherapy centers
- Five year probability of surviving – 13% in Uganda, compared to 79% in South Korea

Palliative care through primary care

- 66% of high income countries, 19% of low income countries
Immediate Activities

- Definition of cervical cancer elimination goals and by when can it be reached?

- What are the intermediate targets to be on the path of elimination?
  - What are potential vaccination, screening and treatment scenarios to reach the target?
  - Strategies for special groups e.g. women living with HIV; gender-neutral etc?
  - Financial/economic resources required to reach the target?

- How to accelerate plans towards the elimination of cervical cancer?
Collaborative modelling group
Data from 78 countries; framing scenarios

- **S1 - Scenario 1:**
  - Girls-only vaccination (90% coverage, 9-14 yr old)
  - No change in Screening

- **S2 - Scenario 2:**
  - Girls-only vaccination (90% coverage, 9-14 yr old)
  - High Screening ramp-up (45%, 70%, 90% in 2023, 2030, 2045, respectively)
  - 1 lifetime screen at 35 yrs old

- **S3 - Scenario 3:**
  - Girls-only vaccination (90% coverage, 9-14 yr old)
  - High Screening ramp-up (45%, 70%, 90% in 2023, 2030, 2045, respectively)
  - 2 lifetime screens at 35 and 45 yrs old

- **All scenarios:**
  - Screening: HPV testing, 100% treatment efficacy, 10% Lost to follow-up
  - Vaccine: Lifelong duration, 100% efficacy, HPV16/18/31/33/45/52/58
OVERALL CONCEPTUAL FRAMEWORK

- Elimination goal 1
  - Cervical cancer cases/100,000
  - Current vaccination and screening
  - Very intensive screening & vaccination
  - Intensive vaccination

- Elimination goal 2

Timeline:
- 2020
- 2030
- 2120
Proposed definition and 2030 targets

Vision: A world without cervical cancer

Goal: below 4 cases of cervical cancer per 100,000 woman-years

2030 TARGETS

90% of girls fully vaccinated with HPV vaccine by 15 years of age

70% of women screened with an HPV test at 35 and 45 years of age and all managed appropriately

30% reduction in mortality from cervical cancer

The 2030 targets and elimination threshold are subject to revision depending on the outcomes of the modeling and the WHO approval process.
Getting organised, building momentum

**Steering Group**
(Heads of Agencies, Experts and Donors)
Co-chairs: WHO and TBD

**Technical Task Team**
(Membership: Co-Chairs of the 7 Working Groups)

- **WG 1** Cervical Cancer Elimination Strategic Documents and Action Plan
- **WG 2** Advocacy, comms and civil society mobilization
- **WG 3** WHO recommendations (internal group only)
- **WG 4** Impact Modeling, Costing and Financing
- **WG 5** Increasing Access to Interventions
- **WG 6** Monitoring and Surveillance
- **WG 7** Research

**WHO-led Secretariat**
## Acceleration plans towards the elimination of cervical cancer: working groups & sub-groups

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<td>Management</td>
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<td>• Test &amp; Treat Introduction</td>
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</tbody>
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[World Health Organization Logo]
How to get involved?

CIG_CCElimination@who.int

Thank You
Responding to the Elimination Challenge

– Facilitating Acceleration

Groesbeck Parham
University of North Carolina / University of Zambia
Top challenges for low Human Development Index countries

- To approach cervical cancer as a disease of poverty
- To develop a systems approach towards disease elimination
- To minimize opportunities for resource mismanagement
- To impose stringent mechanisms for quality assurance and performance
- To incentivize and inspire the workforce
We Can Achieve High Coverage of HPV Vaccination – The Experience of Rwanda

UWINKINDI Francois, MD, Msc Epi
Director of Cancer Diseases Unit, Rwanda Biomedical Center/Ministry of Health
Country profile

- **Size:** 26,388 Km², East Africa nation,
- **Population:** 12 million people
- **Life expectancy at birth m/f (2016):** 66/70 years
- **GDP per capita (2017):** $748
- **Health expenditure (% of GDP) in 2015:** 7.9%
- **Cancer incidence:** ~10,704 cases/year (globocan 2018)

Source: National Institute of Statistics, World Bank, WHO, IARC
Rwanda HPV Vaccine Introduction Timelines and achieved coverage

2011-12
MERCK Donation; Campaign mode:
2011 - Coverage: 93%; 2012 - Coverage: 97%

2013-14
Continue campaign mode: 2013 - Coverage: 97% and HPV testing activity started / ended; GAVI; 2014 - Vaccine coverage: 99%; VIA screening started

2015
Routine immunization mode + Schools:
2015 - Coverage: 90%

2016
2016 - Coverage: 93%

2017
2017 - Coverage: 93%
Why this successful implementation/high coverage?

✓ Political will and support from highest level leadership- First Lady at vaccine launch,

✓ Commitment from the Government and Partners; Merck 3-year donation and GAVI beyond 3 years.

✓ Strong collaboration with other public institutions during the implementation
  o Ministry of Education
  o Ministry of Local Government
  o Ministry of Gender and Family Promotion

✓ Strong collaboration with in country partners (WHO, UNICEF, UNFPA, CSOs,…)

✓ Combination of delivery strategies: Campaigns at the beginning, School based vaccination, Integration into routine immunization

✓ Strong community health system_ Great network of CHWs

✓ Health system with a strong outreach communication capacity (CHWs, Media, Local leaders, drama,…..)

✓ Well-established vaccine delivery system

✓ Encouraging results from the first year of implementation kept up the momentum
How to maintain the high coverage?

- Continued commitment from the Government and partners to fund the program
- Integration into the routine immunization program and RMCH services
- Ownership of health facilities and local leaders
- Continued awareness in the community by CHWs
- Continued involvement of the Ministry of Education
What international support is needed to accelerate implementation in Africa?

- Political will and commitment very important
- Clear implementation plans should be in place before starting the implementation
- Long term commitment to fund the program
- Integration into existing health system and use of government funding channels
- HPV immunization should be part of the routine immunization program,
- Involvement of all relevant stakeholders in the country
- National wide scale up vs Pilot projects!
THANK YOU

Uwinkindi Francois, MD, Msc Epi
Director of Cancer Diseases Unit
Rwanda Biomedical Center/Ministry of Health
E-mail: francois.uwinkindi@rbc.gov.rw
Tel: +250788854473/+250738854473
Engaging the Community to Scale Cervical Cancer Screening Service

– The Experience in Zambia

Sharon Kapambwe
Assistant Director Non Communicable Diseases, Ministry of Health (Zambia)
Three-Phase National Scale-Up

1. Provincial hospitals
   - Nursing schools, functioning theatre
   - VIA, Cryotherapy, LEEP

2. District hospitals
   - VIA, Cryotherapy +/- LEEP

3. Health facilities
   - VIA, Cryotherapy
Political Will

- Engagement at highest level
- President hosting the cervical cancer elimination side event at UNGA
- First Lady’s office involved in cervical cancer work
- OAFLA
- Hosting the Cervical cancer conference
- Ministers’ spouses coming for cervical cancer and breast early detection
- Members of Parliament, Female Parliamentarians, Parliamentary Committee on Health, District Commissioners
Community Leaders engagement

- Using existing sociocultural channels
- Hosting the first ever Traditional Chiefs annual meeting
- Engaging the chiefs during outreach campaigns
- Best practices shared
- Religious leaders engagement
- Healthy lifestyle adoption in churches
- Media engagement
- TV and Radio
Continued Scale Up

- Integration and leveraging
- Maternal Health, Adolescent health, NCDs, HIV
- Innovative outreach with strong follow up
- New technologies (HPV Testing, Self sampling, Wellness centres, artificial intelligence)
- mHealth (Leverage existing mobile technology for awareness and monitoring)
- Quality, Quality, etc.
International support

- Technical support in costed National Cancer Control Plans
- NCC plans must have the local input
- Capacity building across the spectrum (advocacy, resource mobilization, awareness, data management, screening, surgery, treatment and palliative care)
- Capacity which can grow
- Financial support
- Exchange programs among countries
Working as a Network to Build Capacity and Quality of Treatment and Care

– The Experience in India

Supriya Sastri (Chopra)
Professor, Radiation Oncology, Tata Memorial Hospital (India)
17% of the world’s burden of cervix cancer and 19% of the world’s mortality.
Low Uptake of Screening at National Level

National Technical Advisory Group of India recommended Vaccine in 2018.

Final Approval from Ministry Pending. Not part of UIP.

Challenging to have a major impact on mortality in India in next decade.

“Treatment for All” with Cervix Cancer BACKBONE for mortality reduction in next decade.
Tata Memorial Centre

Apex Cancer Centre. Annually 1300-1500 cases of cervix cancer

13 Teletherapy Units, 2 HDR Brachytherapy

550-600 cervical cancer patients treated, others referred out.

Excellent outcomes at par with international standards.
25-30% difference in survival by optimal implementation of care
Poor Access to Treatment Facilities and Implementation

Translating Care for All

Tata Memorial Centre, 2014-2015 Cohort

12 Multi-Institution Audit, Nandakumar, 2015
Radiation and Chemotherapy as backbone of cervical cancer treatment in India
Implementation Assessment Framework

Compliance to cervical cancer chemoradiation guidelines: A multi-centric implementation audit and resource assessment initiative of National Cancer Grid of India.

Hypothesis

Non-adherence to standard guidelines for concurrent chemoradiation is associated with adverse outcomes in patients with cervical cancer

Study Aims

Aim 1: To report on multi-institutional compliance to National Cancer Grid cervical cancer guidelines for chemoradiation for curative patients

Aim 2: To report on common factors impacting compliance to standard guidelines for curative patients

Aim 3: To report state-wise adequacy of infrastructural and manpower requirements for optimal treatment with chemoradiation for cervical cancer in India
## State wise Cervix Cancer Heat Map

### Range of incidence

- **<500**
- **500-5000**
- **5000-10000**
- **10000-20000**
- **20000-30000**
- **30000-40000**
- **>40000**

### Colour code

- Green
- Yellow
- Orange
- Red

## Cervix Uteri Cancer Burden in India

<table>
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<th>Registry</th>
<th>Year</th>
<th>CS</th>
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<td>12.7</td>
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<tr>
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<td>Kolkata</td>
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<td>2010-13</td>
<td>5.8</td>
<td>5.5</td>
</tr>
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ASR: Age standardized rate per 100,000

1) NCRP-ICMR Three Year Report of PBCHR: 2012-2014
2) Population Based Cancer Registries Chandigarh and Punjab State Report for the Year 2015-16
3) Annual report of Tata Memorial Centre: 2015-16
4) Karnawar Population Based Cancer Registry Report: 2010-2013

Courtesy: A Budukh, R Shukla
State based incidence from PBCR or resource data

Globocan 2018: 14/100,000 and 97,000/year

<table>
<thead>
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<td>41 and above</td>
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National Resource Deficit Mapping for Cervical Cancer Radiation

**TELEThERAPy DEFICIT IN REFERENCE TO STATE INcIDENCE CERVIX CANcER**

**BRACHYThERAPy DEFICIT IN REFERENCE TO STATE INcIDENCE CERVIX CANcER**

Assumes 10% Machine Space for Cervical Cancer Patients on Tele-therapy units

**Financial Investment plan for “Treatment for All” for Cervical Cancer**

Chopra S, Shukla R, Work in Progress, Not to be used without permission
What Additional Cost Investment is Needed?

Investment in 5 Proton Units in India

= 

Treating additional 27,000 women

= 

Treating All Women with Cervix Cancer.
Implementation of Treatment Guidelines

Resource Deficit- Feedback to National Cancer Grid

Resource Linkage- Resource Enhancement

Target 2035: Treatment for All
Towards Elimination of Cervical Cancer

Summary & Next Steps

André Ilbawi, MD
Medical Officer, Cancer Control
World Health Organization
ilbawia@who.int
Audience Input Review

Elimination achievable?

Targets by 2030

- Vaccine coverage rate >90%
- Screen & treat >70%
- Mortality reduction >30%

Challenges

- Limited supply of the HPV vaccine
- Vaccine not affordable incl delivery cost
- After intro, coverage low (e.g. delivery strategy, insufficient comms & hesitancy)

Challenges

- Expensive & complex techn complicate scaling-up
- Fragmented service delivery methods

Challenges

- Late stage diagnosis; inaccessible or low quality diagnosis and treatment
- Catastrophic health expenditure
- Access to palliative care is almost non-existent
Next Steps & Engagement

National Strategies & Adaptations

Regional Dialogues

Multi-sectoral dialogue
Getting organised, building momentum

**Steering Group**
(Heads of Agencies, Experts and Donors)
Co-chairs: WHO and TBD

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**WHO-led Secretariat**

Get involved: CIG_CCElimination@who.int
Thank you for joining the movement
*Towards the Elimination of Cervical Cancer*
Elimination:

– Inspiring an integrated approach to cervical cancer prevention and treatment for all

Julie Torode, Union for International Cancer Control (UICC)
A World Free of Cervical Cancer
National perspectives in response to a bold call to action
Our panellists

World Cancer Congress
Kuala Lumpur, Malaysia
1—4 Oct 2018

Strengthen
Inspire
Deliver

Track 1

Disclosure of interest: None declared
Towards Elimination of Cervical Cancer

– A Call to Action

Princess Nothemba Simelela, Assistant Director General for Family, Women, Children and Adolescents

World Health Organization (Switzerland)