Cervical screening and early diagnosis in low- and lower-middle-income countries (LMICs): current situation

Michael H. Chung, MD, MPH
Professor, Department of Medicine
Emory University
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Cervical Cancer Burden

- Fourth most common cancer among women worldwide
- Highest incidence in LMICs
- Second most common cancer among women in LMICs
- 90% deaths due to cervical cancer in LMICs

Vaccarella et. al, Int J Cancer, 2017
Reduced Screening in LMICs

Gakidou et al, PLoS Medicine, 2008
Barriers to Screening

- Economic
- Competing priorities
- Social
- Political
Principles for Screening in LMICs

- Needs space accessible to general population
- Does not rely on highly trained doctors or lab personnel to perform
- Results can be obtained immediately
- Is associated with treatment
Cervical Screening Methods

- Cytology
  - Visual inspection with acetic acid (VIA)
  - HPV testing
HPV Tests

- CareHPV
- Xpert HPV - Cepheid
### HPV Testing in LMICs

<table>
<thead>
<tr>
<th>OPPORTUNITIES</th>
<th>CHALLENGES</th>
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<tbody>
<tr>
<td>• Decreased risk of subjective interpretation</td>
<td>• Remains expensive</td>
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<tr>
<td>• Easier to administer</td>
<td>• Requires equipment and supply chain</td>
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<td>• Point-of-care with immediate results</td>
<td>• Batch testing may be necessary</td>
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<tr>
<td>• Coupled with VIA to triage</td>
<td>• Still requires access to treatment</td>
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HPV Vaccine

- Available since 2006
- Protect against 2, 4, or 9 types of HPV
- WHO recommends for girls ages 9 to 14 years
Continued Screening Need - Incidence

Brisson et al, Lancet, 2020
Continued Screening Need - Mortality

Canfell et al, Lancet, 2020
Cervical Screening in Kenya
Awareness Campaigns

#SmearMyWoman
A smear in time saves my woman

CERVICAL CANCER
SCREENING
GUIDELINES

WHY ARE SO MANY WOMEN DYING OF CERVICAL CANCER?
Kenya Ministry of Health Support

Despite >20 years recommendations and strategies, only 16% of women in Kenya have been screened for cervical cancer

Nganga, BMC Public Health, 2018
HPV Vaccine Rollout in Kenya

**CAPITAL HEALTH**

Kenya To Launch HPV Vaccine Friday In Efforts To Combat Cervical Cancer

By MUTHONI WAWERU
Published October 17, 2019

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Archbishop Martin Kivuna of the Catholic Diocese of Mombasa addresses journalists during the launch of the cervical cancer vaccine campaign at Ziwaani Primary School in Mombasa on October 18, 2019. PHOTO | WACHIRA MWANGI | NATION MEDIA GROUP

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Health CS Sicily Kariuki witnesses the vaccination a 10 year old girl with HPV vaccine at Othaya Health Centre in Nyeri County on Thursday, October 24. By receiving the HPV vaccine now, 10 years old girls are protected from developing cervical cancer later in life/MoH
Current Situation
Summary

- LMICs shoulder disproportionate burden of cervical cancer
- Economic, social, and political barriers impede screening
- HPV testing is a promising, but challenges remain
- Despite HPV vaccine, screening remains important to reduce incidence and mortality
- COVID-19 will likely impact screening and vaccination efforts for years to come
Treatment, Research and Expert Education - Nairobi
- Evans Malava
- Catherine Kiptinness
- Judith Lukorito
- Christine Njiru
- Mercy Wanjiku
- James Munyao
- Julia Njoroge
- Reinhard Wanakacha
- Peter Juma
- Dennis Omondi
- Grace Achieng
- Norah Matheka
- Betty Muchai

Aga Khan University
- Marleen Temmerman
- Stanley Luchters

University of Washington - Seattle
- Nelly Mugo
- Grace John-Stewart
- Barbra Richardson
- Sharon Greene
- Dara Lehman
- Nelly Yatich
- Kara Marson
- Tony Trinh
- Tony Cagle
- Christine McGrath
- Scott McClelland
- Rochelle Garcia

International Agency for Research on Cancer - Lyon
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- Silvia Franceschi

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- Sara Forhan
- Cathy Ruto
- Tanya Jennings
- Elizabeth Unger

Coptic Hope Centre - Nairobi
- Samah Sakr
- Bishop Paul
- Sherry Eskander

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