Preventive Treatment of Cervical Precancer: Past, Present and Future

STRATEGIES FOR FOLLOWING UP PATIENTS: IMPROVING SCREENING OUTCOMES WITH ACCESS TO EFFECTIVE TREATMENT

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SDG 2030 / NCD GLOBAL ACTION PLAN
Goals, Targets and Indicators

SDG 3 Goal: Ensure healthy lives and promote well-being for all at all ages

- Reduce mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease (30%)

NCD Prevention and Control Global Action Plan

- Proportion of women between the ages of 30 –49 screened for cervical cancer at least once, or more often, and for lower or higher age groups according to national programs or policies

- **Availability and affordability of quality, safe and efficacious essential non communicable disease medicines and basic technologies required to treat** major NCDs in both public and private facilities (80% Target)
Screening Program and Cervical Cancer

Substantial investments in screening and treatment of positives have made Cervical Cancer a rare disease in Nordic countries

Vacarella et al., *50 Years of Screening in Nordic countries: Quantifying Effects of Screening on Cervical Incidence*, Br J Cancer, 2014

Traditional Cervical Cancer Screening Pathway
Cytology-based programs

1. Concern over risk
2. Seek service
3. Access service point
4. Pap smear
5. Smear to laboratory/woman wait
6. Laboratory test
7. Results to service point
8. Receive results
9. Referral for treatment
10. Appointment for treatment
11. Return for appointment
12. Receive treatment
13. Return for follow-up
Screen and Treat for Cervical Cancer Prevention Pathway

1. **Concern over risk**
   - Seek service

2. **Access Facility**
   - Screen Service
     - VIA
     - HPV

3. **Screen Positives**
   - Screen Positive Treat
     - On-site
     - Same visit
   - Screen Positive Treat
     - Out/Refer
     - Next care level

4. **Screen Negatives**
   - Followup 5 yrs

5. **Suspect Lesions**
   - Refer for more tests

6. **Treated**
   - Followup 12 mos
   - Repeat test
## CECAP Results on Key Indicators: 6 Countries
### Service Delivery Statistics – Jhpiego Supported Programs

<table>
<thead>
<tr>
<th>Country</th>
<th>Data time period</th>
<th># of new VIA screenings</th>
<th>% (#) new VIA positive</th>
<th>% of new women referred for large lesions</th>
<th>% (#) of new women who received cryotherapy on the same day as screening (SVA)</th>
<th># of people trained</th>
</tr>
</thead>
<tbody>
<tr>
<td>Côte d’Ivoire</td>
<td>Oct 2009 Mar 2014</td>
<td>16,420</td>
<td>7% (1,134)</td>
<td>34%</td>
<td>71% (529)</td>
<td>124</td>
</tr>
<tr>
<td>Mozambique</td>
<td>Feb 2010–Dec 2013</td>
<td>129,931</td>
<td>8% (10,182)</td>
<td>11%</td>
<td>56% (5,088)</td>
<td>151</td>
</tr>
<tr>
<td>Burkina Faso</td>
<td>Sep 2010–Dec 2013</td>
<td>12,280</td>
<td>9% (1,069)</td>
<td>19%</td>
<td>67% (580)</td>
<td>28</td>
</tr>
<tr>
<td>Tanzania</td>
<td>Apr 2010–Dec 2013</td>
<td>30,611</td>
<td>8% (2,384)</td>
<td>12%</td>
<td>95% (1,992)</td>
<td>100</td>
</tr>
<tr>
<td>Zambia</td>
<td>Sep 2013–June 2014</td>
<td>1,303</td>
<td>3% (41)</td>
<td>24%</td>
<td>87% (27)</td>
<td>11</td>
</tr>
<tr>
<td>Guyana</td>
<td>Jan 2009–Jun 2012</td>
<td>21,597</td>
<td>13% (2,806)</td>
<td>14%</td>
<td>85% (1,938)</td>
<td>71</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>Jan 2009–Dec 2013</strong></td>
<td><strong>211,871</strong></td>
<td><strong>8% (17,613)</strong></td>
<td><strong>11 – 34%</strong></td>
<td><strong>79% (10,153)</strong></td>
<td><strong>485</strong></td>
</tr>
</tbody>
</table>
Woman’s Journey: Navigating Cervical Cancer Prevention Service

Concern over risk
Seek service
Access Facility

Screen Service
- VIA
- HPV
- Cytology

Screen Negatives
- Followup 5 yrs

Screen Positive Treat
- On-site
- Same visit

Screen Positive Treat
- Refer
- Next care level

Suspect Lesion
- Refer for more tests

Barriers and Hurdles
- Social/Cultural, Personal Belief
- Behavioural
- Opportunity and Economic
- Geographic
- Health System
  - Readiness
  - Capability and Capacity
  - Effectiveness
  - Cost

Community and Primary Health Care Level

Next Level of Care – District, Province Regional Facilities
# Barriers and Hurdles
## Health Systems – access to treatment

<table>
<thead>
<tr>
<th>SYSTEM</th>
<th>ISSUE/S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>• Screening priority over access to treatment</td>
</tr>
<tr>
<td></td>
<td>• Limitation of who, where, when and how of treatment</td>
</tr>
<tr>
<td>Technique</td>
<td>• Limited treatment option eg. cold knife, LEEP</td>
</tr>
<tr>
<td>Service Model</td>
<td>• Treatment considered specialty care and accessible only at referral hospitals and specialists</td>
</tr>
<tr>
<td></td>
<td>• Screen and refer</td>
</tr>
<tr>
<td>Human Resources</td>
<td>• No to limited Task shifting and task sharing</td>
</tr>
<tr>
<td></td>
<td>• Inadequate number of competent providers</td>
</tr>
<tr>
<td>Referral Resources</td>
<td>• Capacity issue</td>
</tr>
<tr>
<td></td>
<td>• Geographic distance</td>
</tr>
<tr>
<td>Financing</td>
<td>• Out of pocket cost to patient – direct and indirect</td>
</tr>
<tr>
<td>Monitoring</td>
<td>• No to minimal resources for patient tracking and follow up</td>
</tr>
</tbody>
</table>
Barriers and Hurdles
Equipment and Supplies for Cryotherapy

- Connectivity
- Reliability and Durability
- Repairability and spare parts
- Maintenance
- Quality and access to CO2
- Portability
- Cost
# Barriers and Hurdles

## Woman and her community

<table>
<thead>
<tr>
<th>Woman’s</th>
<th>ISSUE/S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge/Belief</td>
<td>Knowledge my be discounted by belief or lack of trust with their provider</td>
</tr>
<tr>
<td>Fear/Anxiety over Result/Tx</td>
<td>Stress/fear may either motivate to act or to deny</td>
</tr>
<tr>
<td>Gender Equity</td>
<td>Gender dynamics may deter woman from deciding treatment in consideration of the husband’s approval</td>
</tr>
<tr>
<td>Fertility</td>
<td>Reservations about the treatment’s impact on future childbearing prospects</td>
</tr>
<tr>
<td>Work/Childcare</td>
<td>Conflicts with scheduling treatment follow up or with deciding to be treated</td>
</tr>
<tr>
<td>Cost</td>
<td>Unaffordable out of pocket direct cost</td>
</tr>
<tr>
<td>Transportation</td>
<td>Distance to treatment center and implications on cost, work and childcare</td>
</tr>
</tbody>
</table>
### Strategies for improving access to treatment

**Patient Level Interventions**

<table>
<thead>
<tr>
<th>PRE-SCREENING</th>
<th>DURING SCREENING</th>
<th>AFTER SCREENING</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Trained CHW engage women about the screening and treatment</td>
<td>• Counseling emphasizes key message provided by CHW</td>
<td>• Post procedure instructions orally and in writing provided to woman</td>
</tr>
<tr>
<td>• Distributes client focused brochures and encourages discussion with husband</td>
<td>• Trained provider provides comprehensible information during screening</td>
<td>• When treatment is deferred, plan for follow up with or w/o the CHW navigator</td>
</tr>
<tr>
<td>• CHW identifies themselves as navigators</td>
<td>• Involves the CHW in planning for referral or treatment (with consent from client)</td>
<td>• When treatment referral is needed, use list of facilities with established linkage for services</td>
</tr>
<tr>
<td>• CHW trained as navigators</td>
<td>• Interpersonal communications skills for rapport and meaningful talk</td>
<td>• Explore communication technologies for patient tracking</td>
</tr>
</tbody>
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## Strategies for improving access to treatment
### Health Systems Level Interventions

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<tr>
<th>SYSTEM</th>
<th>ISSUE/S</th>
<th>INTERVENTION</th>
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<tr>
<td><strong>Policy</strong></td>
<td>• Screening priority over access to treatment</td>
<td>• Equivalent significance of treatment to screen numbers</td>
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<td></td>
<td>• Limitation of who, where, when and how of treatment</td>
<td>• Strategy for accessible treatment</td>
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<tr>
<td><strong>Technique</strong></td>
<td>• Limited Tx option eg. cryotherapy, cold knife, LEEP</td>
<td>• Expand options</td>
</tr>
<tr>
<td><strong>Service Model</strong></td>
<td>• Treatment considered specialty care and accessible only at referral hospitals and specialists</td>
<td>• Tiered level of care with cryo/thermal ablation available at POC or near POC</td>
</tr>
<tr>
<td></td>
<td>• Screen and refer</td>
<td>• Focus on screen and treat</td>
</tr>
<tr>
<td><strong>Human Resources</strong></td>
<td>• No to limited Task shifting and task sharing</td>
<td>• Prepare CHW as navigators</td>
</tr>
<tr>
<td></td>
<td>• Inadequate number of competent providers</td>
<td>• Push for task shifting and sharing</td>
</tr>
</tbody>
</table>
| **Referral Resources** | • Capacity issue  
• Geographic distance                      | • Tiered level of care with referral centers strictly for advance care       |
| **Financing**     | • Out of pocket cost to patient – direct and indirect                   | • Insurance cover for ambulatory care                                         |
| **Monitoring**    | • No to minimal resources for patient tracking and follow up             | • Explore mobile technology                                                  |
|                   |                                                                        | • Use CHW as patient navigator/reporter                                       |
Strategies for improving access to treatment
Unblocking Equipment and consumables barrier

<table>
<thead>
<tr>
<th>TECHNOLOGY</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
</table>
| Thermal Coagulator | • Ablates by heating cervix up to 120 C  
• Runs on electricity  
• Currently about USD 7000-8000/unit but new version expected at USD 1000  
• IARC, PATH field testing |
| Cryopen           | • Ablates by freezing cervix to – 60 C  
• Does not use gas or liquid  
• Electricity for cooling the pens  
• Currently about USD 7000/unit but new version expected less $$  
• Several NGOs(PATH, BHI) field testing |
| CryoPop           | • Ablates by freezing cervix to – 60 C  
• Dry ice from liquid CO2 from medical to food grade quality  
• 5 lbs CO2 = 15-20 Cryotherapy doses  
• 2-3 years to commercialization; target price USD 800/unit  
• Jhpiego, CBID |
HUB and SPOKE Framework: Screen and Treat

OPTIONS FOR SAT PROVISION
1. Full screen and treat on site; refer for other findings
2. Screen at HCF/Same day treatment at nearby Tx facility
3. Fully Mobile screen and treat services
4. Partially mobile screen and treat services
Thank You

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worldcancercongress.org