Make The Cut

Using soccer to increase uptake of voluntary medical male circumcision

Grassroot Soccer
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Background

Grassroot Soccer
- Grassroot Soccer uses the power of soccer to connect young people with the mentors, information and health services they need to thrive.
- Single sex and mixed sex programming
- Diverse set of funders and partners

Sport-based HIV prevention**
- Systematic review conducted in 2012
- Few studies assessed service uptake
- Three RCTs completed in 2013-2014

Intervention Design
- Short, scalable soccer-based activity
- Behavioural and logistical reinforcement

** Kaufman, Spencer and Ross (2013) in AIDS and Behavior
Original MCUTS Trial (2013)

Results
Cluster-randomized trial of Make The Cut in 2013

- 60-minute session with adult soccer teams (age 18+)
- 736 adult males from 47 soccer teams in Bulawayo, Zimbabwe

9-fold increase in uptake of VMMC (p=0.06)*
- 4.2% uptake in intervention group over 3m vs 0.5% in control

Findings suggested that effect varied with age
- No clear trend by age; numbers small

MCUTS II (2014): Study Design

Secondary schools randomised into two groups in Bulawayo, Zimbabwe
- 26 secondary schools (13 intervention and 13 control)
- Stratified by public vs. private
- Male students aged 14-19 years (n=1226)

Primary outcome: VMMC uptake over 4 months
- Clinic register and consent form: matched via first name, last name, DOB, age, address, phone number, next of kin’s name
- Random-effects logistic regression, adjusting for school-level clustering

80% power to detect a 3-fold increase in VMMC uptake
- Assuming 2% control group uptake (i.e. 6% vs. 2%), p<0.05

Baseline surveys using Open Data Kit
- Self-administered on Android smartphones
- Assessing reported MC prevalence, knowledge, intentions
Findings

- **Strong evidence** of higher VMMC uptake in Intervention Group (p=0.014)
  - Approximately **2.5-times higher uptake**
  - Est. Uptake in uncircumcised: **12.2%** (intervention) vs. **4.6%** (control)
  - Consistent results in sensitivity analyses

- **Suggests MTC is effective in increasing VMMC uptake** among adolescent male students

- ~48% of participants **“already circumcised”**
  - Helping reach “late adopters”

- **Small incentive appears somewhat motivational, yet difficult to implement and monitor**
Primary Trial Results (uptake of VMMC)

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Intervention (n=565)</th>
<th>Control (n=661)</th>
<th>Comparing groups*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Participants not reporting being already circumcised (non-MC-at-baseline)</td>
<td>304</td>
<td>53.8</td>
<td>371</td>
</tr>
<tr>
<td><strong>1. VMMC Uptake (all participants)</strong></td>
<td>41</td>
<td>7.3</td>
<td>19</td>
</tr>
<tr>
<td>Restricted to non-MC-at-baseline</td>
<td>37</td>
<td>12.2</td>
<td>17</td>
</tr>
<tr>
<td><strong>2. Definite links</strong></td>
<td>30</td>
<td>5.3</td>
<td>12</td>
</tr>
<tr>
<td>Restricted to non-MC-at-baseline</td>
<td>27</td>
<td>8.9</td>
<td>11</td>
</tr>
<tr>
<td><strong>3. Definite or Probable Links</strong></td>
<td>37</td>
<td>6.6</td>
<td>18</td>
</tr>
<tr>
<td>Restricted to non-MC-at-baseline</td>
<td>33</td>
<td>10.9</td>
<td>16</td>
</tr>
<tr>
<td><strong>4. Definite, Probable or Possible Links</strong></td>
<td>45</td>
<td>8.0</td>
<td>21</td>
</tr>
<tr>
<td>Restricted to non-MC-at-baseline</td>
<td>38</td>
<td>12.5</td>
<td>18</td>
</tr>
</tbody>
</table>

Absolute effect: Intervention 46.2% to 53.5% circumcised vs. Control 43.9% to 46.7% circumcised

* Via random-effects logistic regression, adjusted for clustering. Analyses are by intention-to-treat.

** Based on probabilistic matching as well as blind review of probable/possible matches
Lessons learned
Uptake among boys 14-19 years

• A short intervention can increase VMMC uptake
• Cost per new person seeking circumcision lower than $50 within the trial
• Coach-player relationship important
  – Phone calls, transport, coach accompaniment to clinic
• Need for strong communication with partners
• Involvement of girls and women
### Scale & Sustainability

‘Make The Cut’ as an integral component of comprehensive VMMC initiatives

#### SCALE-UP

- VMMC as part of comprehensive HIV response
- Indirect implementation with Partners
- Direct implementation in GRS Flagship sites

#### Feasibility Study: Swaziland

<table>
<thead>
<tr>
<th>Swaziland</th>
<th>Over 2,500 circumcisions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males 10-65</td>
<td>Soccer teams</td>
</tr>
</tbody>
</table>

#### Feasibility Study: Uganda

<table>
<thead>
<tr>
<th>Uganda</th>
<th>23% VMMC uptake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys 14-19</td>
<td>Schools</td>
</tr>
</tbody>
</table>

#### Randomized Controlled Trial

**2014**

- **Zimbabwe**
  - Boys 14-19
  - Schools
  - 2.5-fold increase in uptake of VMMC (p=0.01)
    - 12.2% uptake in intervention group vs. 4.6% in control
    - Coach accompaniment important
  - 60-minute session
  - Phone follow-up
  - Coach accompaniment

**2013**

- **Zimbabwe**
  - Men 18-35
  - Soccer teams
  - 10-fold increase in uptake of VMMC (p=0.06)
    - 4.2% uptake in intervention group vs. 0.5% in control
    - More effective with younger men
  - 60-minute session
  - SMS follow-up

**2012**

- **Zimbabwe**
  - 46 percentage point increase in VMMC knowledge
  - Zimbabwean professional players, GRS coaches go for VMMC
  - Formative research, curriculum development

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**Proof of Concept**

- GRASSROOTSOCCER
Partners

- Bill & Melinda Gates Foundation
- London School of Hygiene & Tropical Medicine
- CHAPS
- Doris Duke Charitable Foundation
- 3ie
-.uvri: Uganda Virus Research Institute
- UNC Gillings School of Global Public Health
- Brown
ANNEXES

1. Detailed trial results: uptake of VMMC by age
2. Costing & cost effectiveness
3. Recommendations for scaling intervention
VMMC Uptake by Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Intervention (n=552)</th>
<th>Control (n=640)</th>
<th>Odds Ratio*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n/N</td>
<td>%</td>
<td>n/N</td>
</tr>
<tr>
<td>14-15 years</td>
<td>14 / 229</td>
<td>6.1</td>
<td>5 / 246</td>
</tr>
<tr>
<td>16-17 years</td>
<td>23 / 283</td>
<td>8.1</td>
<td>9 / 341</td>
</tr>
<tr>
<td>18+ years</td>
<td>4 / 40</td>
<td>10.0</td>
<td>5 / 53</td>
</tr>
</tbody>
</table>

- Highest % uptake in 18y+, but few students and no significant intervention effect in this age group
- OR >3 in both 14-15y and 16-17y

* Via random-effects logistic regression, adjusted for clustering. Analyses are by intention-to-treat.

Based on probabilistic matching as well as blind review of probable/possible matches
Cost-effectiveness

• Total costs of intervention = $1,121.83
  – Training, materials, airtime, transport, coach stipend
  – Includes 15% overhead

• Cost per participant = $1.99
  – 565 intervention group participants

• Cost per VMMC in intervention arm = $27.36

• Cost per new VMMC generated = $48.63
  – Does not include supply-side costs
Our Vision for Scale

Make The Cut as an integral component of comprehensive VMMC initiatives

• Prime partners and local governments integrate soccer-based demand creation component into overall strategy

• GRS to provide intervention design, technical support and unique access to soccer community

• Link interventions with mass media campaign and events involving international and local pro soccer players

• Programme Structure modeled after previous successful GRS partnership models (e.g. HCP - Sports for Life)

• GRS direct implementation in Bulawayo, Lusaka and Livingstone

• Partners implement in other 14 WHO/UNAIDS priority countries, including Peace Corps