EVALUATING & SUPPORTING TB-IPC IN PUBLIC HEALTHCARE FACILITIES IN THE WESTERN CAPE
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PURPOSE

To strengthen TB-Infection Prevention & Control (IPC) in public sector health care facilities in the Western Cape Province, SA
OBJECTIVES

• Strengthen TB-IPC in at least 2 district hospitals
• Strengthen TB-IPC in at least 4 Primary Health Care (PHC) facilities
• Document the process & lessons learnt followed by recommendations for improving, sustaining & scaling-up IPC measures
• Disseminate findings with the aim of strengthening TB-IPC measures in SA
## PROJECT SETTING

### Table 1  Project healthcare facilities (N=8)

<table>
<thead>
<tr>
<th>District</th>
<th>Hospital</th>
<th>Community Centre (CHC)</th>
<th>Health Centre (CHC)</th>
<th>Community Day Clinic (CDC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cape Metropole</td>
<td>-</td>
<td>Delft</td>
<td></td>
<td>Hout Bay Harbour</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kleinvlei</td>
<td></td>
<td></td>
</tr>
<tr>
<td>West Coast</td>
<td>Vredenburg</td>
<td>Louwville</td>
<td>Hanna Coetzee</td>
<td>-</td>
</tr>
<tr>
<td>Eden District</td>
<td>George</td>
<td>-</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Overberg</td>
<td>-</td>
<td>Grabouw</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2</strong></td>
<td><strong>5</strong></td>
<td></td>
<td><strong>1</strong></td>
</tr>
</tbody>
</table>
METHODOLOGY

Project Activities

(1) Baseline TB-IPC measures (completed)
(2) Training Intervention (completed)
(3) TB-IPC knowledge transfer & guideline implementation at participating health facilities (current)
(4) 6-mnth follow-up TB-IPC assessment
(5) Data Analysis & Dissemination of findings
Baseline TB-IPC Assessment

Comprehensive Assessment Tool with 5 inter-linked parts:

*Form A* - Obtains General Information about the HCF

*Form B* - Examines health care workers (HCW) knowledge & perceptions of IPC
METHODOLOGY cont...

*Form C*-Documents IPC provisions at HCF level

*Form D*-Oberves HCW application of IPC in clinical practice

*Form E*-Identifies TB-IPC related experiences of patients
RESULTS

FORM A

Table 2: Annual patient load & number of staff

NB. Dentist & dental assistance. No info = information not available.
<table>
<thead>
<tr>
<th>Staff</th>
<th>George Hospital n (%)</th>
<th>Vredenburg Hospital n (%)</th>
<th>Hanna Coetzee CHC n (%)</th>
<th>Louwville CHC n (%)</th>
<th>Grabouw CHC n (%)</th>
<th>Delft CHC n (%)</th>
<th>Kleinvlei CHC n (%)</th>
<th>Houtbay Harbour CDC n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dr</td>
<td>67</td>
<td>7</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>No info</td>
<td>2</td>
</tr>
<tr>
<td>Nurses</td>
<td>299</td>
<td>74</td>
<td>6</td>
<td>4</td>
<td>26</td>
<td>137</td>
<td>No info</td>
<td>7</td>
</tr>
<tr>
<td>Other HCW</td>
<td>71</td>
<td>0</td>
<td>6</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>No info</td>
<td>2</td>
</tr>
<tr>
<td>Care givers</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>No info</td>
<td>9</td>
</tr>
<tr>
<td>Dental</td>
<td>1+1*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient load</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admissions/pts seen</td>
<td>69387</td>
<td>10200</td>
<td>39600</td>
<td>33000</td>
<td>156000</td>
<td>No info</td>
<td>No info</td>
<td>39600</td>
</tr>
<tr>
<td>HIV (% of patients seen)</td>
<td>1399 (2%)</td>
<td>No info</td>
<td>No info</td>
<td>No info</td>
<td>No info</td>
<td>3000</td>
<td>334 (0.8%)</td>
<td></td>
</tr>
<tr>
<td>TB (% of patients seen)</td>
<td>400 (0.57%)</td>
<td>220 (2.1%)</td>
<td>350 (0.8%)</td>
<td>No info</td>
<td>561 (0.35%)</td>
<td>912</td>
<td>134</td>
<td>5 (0.14%)</td>
</tr>
<tr>
<td>MDR (% of TB patients seen)</td>
<td>12 (3%)</td>
<td>No info</td>
<td>8 (2.3%)</td>
<td>15</td>
<td>39 (4.3%)</td>
<td>15 (11.2%)</td>
<td>No info</td>
<td></td>
</tr>
</tbody>
</table>
RESULTS cont…

- **IPC Staffing**: Only George Hospital (GH) had a dedicated IPC nurse practitioner.
- **Written IPC Policy**: Only GH & Kleinvlei CHC had one-revised in past 12 mnths.
- **Occupational Health Service**: provided in 6 out of 8 facilities on site. The 2 clinics with non-site services referred staff to local hospital.
RESULTS cont...

- **IPC Training**: this was done as a form of regular in-service staff training
- **TB Management**: All HCFs had a written provincial TB policy although only 2 had a written TB-IPC Policy
- **Decontamination & Sterilization of Medical Devices**: The 2 hospitals had a dedicated sterile department with SOPs & serviced the surrounding clinics
RESULTS cont…

Form B: Hospitals & CHFs

Training in IPC

Table 3: Training in IPC-% of HCWs trained in aspects of IPC in Hospitals

Table 4: Training in IPC-% of HCWs trained in aspects of IPC in Clinics
<table>
<thead>
<tr>
<th>Hospitals</th>
<th>Hand hygiene</th>
<th>Appropriate PPE</th>
<th>Injection safety</th>
<th>Sharps disposal</th>
<th>PEP policy</th>
<th>Cleaning of medical devices on wards</th>
<th>Sterile services</th>
<th>Healthcare waste management</th>
<th>TB management</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=25</td>
<td>8</td>
<td>5</td>
<td>3</td>
<td>9</td>
<td>9</td>
<td>7</td>
<td>6</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>%</td>
<td>32.0</td>
<td>20.0</td>
<td>12.5</td>
<td>36.0</td>
<td>0</td>
<td>29.2</td>
<td>25.0</td>
<td>36.0</td>
<td>32.0</td>
</tr>
<tr>
<td>Training of HCW in clinics</td>
<td>Hand hygiene (HH)</td>
<td>Personal protective equipment</td>
<td>Safe use of sharps</td>
<td>PEP policy</td>
<td>Waste management</td>
<td>TB management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
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<td>-------------------------------</td>
<td>-------------------</td>
<td>-----------</td>
<td>-----------------</td>
<td>--------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N = 45</td>
<td>17</td>
<td>19</td>
<td>16</td>
<td>13</td>
<td>14</td>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>%</td>
<td>37.7</td>
<td>42.2</td>
<td>35.5</td>
<td>28.8</td>
<td>31.1</td>
<td>51.1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Results cont…

Knowledge of:

- *Hand hygiene*: H-high (76%); CHFs-88.6%
- *Use of alcohol rub*: H (40%); CHFs (16%)

- *Use of Protective Clothing*: Glove usage well known & consistently practiced for both H & CHFs. Gowns, aprons & so on were inconsistently/randomly used for both groups
Results cont...

**Knowledge of cont...**

- *Injection safety & sharps disposal*: High level of K for both groups

**Occupational Health & Safety**

- Staff from H&CHFs had good knowledge

**Cleaning of Medical Devices**

- Staff from H&CHFs were very aware
Results cont…

Knowledge of:

• *Healthcare waste management*: H-good but CHFs-unclear

• *TB Management*: low use of protective clothing & equipment (e.g. face mask)

*Form C*

*IPC provision*: Generally good in H but not for containment of TB cases. Generally poor in CHFs
RESULTS cont…

**Form D**

- *IPC Practice*: Discrepancy between Knowledge & Practice (unsafe behaviour) in H but better in CHFs

**Form E**

- *TB patient knowledge*: Patients at both H&CHFs had a good knowledge of TB transmission prevention (e.g. imp of mask use)
CONCLUSION & RECOMMENDATIONS

Baseline results highlight the importance of on-going planning & training for IPC at HCFs in the ffg. areas:

• Awareness of/skills for cleaning & sterilization of medical devices esp. at clinic level
• Appropriate wearing of personal protective equipment & discarding after use
• SoPs for high-risk procedures
CONCLUSION & RECOMMENDATIONS cont…

• Use of safety engineered devices & when to use them
• Use of alcohol rub for hand hygiene

*Training of staff*: The areas of concern detailed above were addressed during the training activity of the project.

*Follow-up @ 6months*: Same tool used at baseline will measure improvement against baseline data & impact of training
POLICY RECOMMENDATIONS

• There is an existing IPC policy, however....

• This project highlights the potential for “tailor-made training intervention” for all public health care facilities in the province & possibly the country

• Argument will be stronger once the results of the follow-up phase are known

THANK YOU