Identifying Contribution of Community-based DOTS in Treatment Outcome of TB Patients in Four Provinces of Afghanistan

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Objectives

• To present the community-based DOTS (CB-DOST) approach that applied in Afghanistan from 2009 to 2012

• To review results from community health workers’ (CHWs) contribution to TB patients' treatment adherence through community-based DOTS
Background

• The USAID-funded TB CARE I project launched CB-DOTS in 2009

• Trained 3,000 CHWs from Badakhshan, Baghlan, Jowzjan, and Hirat in:
  ➢ TB suspect identification and referral,
  ➢ Health education for the community and TB patients,
  ➢ Direct Observed Treatment (DOT) provision, and
  ➢ Follow up examinations

• Role of CHWs in treatment outcome was not measured
TB CARE I Presence in Afghanistan
Method

• **Study design:** Prospective cohort

• **Data collection tool:** collected gender and treatment outcomes

• **Study site:** Four provinces in Afghanistan

• **Study subject:**
  - **Intervention group:** new sputum smear positive (SS+) TB patients who were diagnosed and received DOT from CHWs
  - **Control group:** new SS+ TB patients who received DOT at health facilities or treatment supporters
Method (cont.)

- **Sample size:** 4,058
  - Intervention group: 853
  - Control group: 3,205

- **Confidence interval:** 95%

- **Statistical power:** 95%

- **Relative risk:** 1.1

- **Odds ratio:** 1.7

- **Proportion of exposed to unexposed:** 3.6
Results

• Enrollment:
  • Intervention group: 853
    ➢ Female: 587
    ➢ Male: 266
  • Control group: 3,205

• Treatment outcome in intervention group: 97.65%
  ➢ p<0.00001
## Results (cont.)

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<tbody>
<tr>
<td>Treatment success rate</td>
<td>833 (98%)</td>
<td>2,909 (90.7%)</td>
<td>11,624 (91%)</td>
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<tr>
<td>Cure rate</td>
<td>822 (96.4%)</td>
<td>2,855 (89%)</td>
<td>11,175 (87%)</td>
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<tr>
<td>Completion rate</td>
<td>11 (1.2%)</td>
<td>54 (1.7%)</td>
<td>449 (4%)</td>
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<td>Death rate</td>
<td>10 (1.1%)</td>
<td>57 (1.8%)</td>
<td>257 (2%)</td>
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<tr>
<td>Default rate</td>
<td>3 (0.4%)</td>
<td>54 (1.7%)</td>
<td>244 (2%)</td>
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<tr>
<td>Failure to treat rate</td>
<td>3 (0.4%)</td>
<td>25 (0.8%)</td>
<td>122 (1%)</td>
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<tr>
<td>Transfer-out rate</td>
<td>4 (0.4%)</td>
<td>160 (5%)</td>
<td>550 (4%)</td>
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Conclusion/Recommendation

• DOT provision by CHWs resulted in a significant improvement in treatment success rate of new TB SS+ patient.

• Deaths, default, and failure rates declined significantly.

• It is recommend that National TB Program (NTP) scale-up CB-DOTS into similar settings
Thank you
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