Implementation of Collaborative TB/HIV Activities by ICAP: Success and Challenges

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14th Core Group Meeting of TB/HIV Working Group
November 11-12 2008
Integration of TB-HIV Services

A Common TB and HIV Paradigm

- National TB Program
  - TB Services
    - Sputum collection
    - DOT
    - Treatment Support
    - Contact Tracing
    - LTBI Screening
    - IPT
  - HIV Services
    - C&T
    - Antiretrovirals
    - OI Rx and Px
    - Adherence Support
    - Community Support
    - HIV Prevention

- National HIV Program

An Alternative TB and HIV Paradigm

- Collaboration of Programs
  - Communication
  - National TB Program
  - National HIV Program

- TB Services
  - Sputum collection
  - DOT
  - Treatment Support
  - Contact Tracing
  - LTBI Screening
  - IPT

- HIV Services
  - C&T
  - Antiretrovirals
  - OI Rx and Px
  - Adherence Support
  - Community Support
  - HIV Prevention

Integration of Services
Majority of New TB Patients Tested for HIV

- Mar 07: 77% (n=7,444)
- Jun 07: 69% (n=6,921)
- Sep 07: 81% (n=7,512)
- Dec 07: 85% (n=7,326)
- Mar 08: 83% (n=10,403)
- June 08: 94% (n=8,448)
Increasing Proportion of Newly Enrolled HIV Patients Screened for TB at Enrollment

New HIV patients

- Mar 07: 8,685
- Jun 07: 13,950
- Sep 07: 17,563
- Dec 07: 19,085
- Mar 08: 23,992
- Jun 08: 24,702
Which model for collaboration?

TB

HIV

Partial integration

TB/HIV

‘One stop service’ for TB patients with HIV

Referral

International Center for AIDS Care and Treatment Programs
Columbia University Mailman School of Public Health
ICAP-Mozambique: Enhanced Referral between TB and HIV Services

- Nicoadala Health Center
- Rural
- Zambezia province
- Serves 273,810 people
TB/HIV Integration at Nicoadala Health Center

- July 2007: TB/HIV Workshop for 25 HC health workers
- ART facility
  - TB screening questionnaire to improve case finding
  - Prompt access to TB treatment
- TB service
  - Counseling and testing for all patients
  - Referral to HIV care and treatment facility for CTX, ART
- Nurse designated as focal point
  - Accompanied patients between services
  - Reinforced counseling
- Improved TB/HIV data collection in charts, registers
Active TB Case Finding among HIV Patients

Oct-Dec 2007

- **88%** (309/353) of new HIV patients screened for TB
- **40%** (123/309) of screened patients identified as suspects
- **19%** (23/123) of suspects and **7%** (23/309) of screened patients diagnosed with TB
- ICAP TB screening tool adapted and adopted by the Moz-MoH as national tool in 2008
HIV Testing of TB Patients

Oct-Dec 2007

- 61% (56/92) of new patients had unknown HIV status
- 80% (45/56) HIV tested at TB clinic
- 49% (22/45) HIV positive
- 87% (19/22) enrolled in HIV facility
- 53% of HIV+ started ART
- 84% started cotrimoxazole

TB Day 2008 Nicodoala Health Center
Challenges

• Scarcity of human resources
• TB services and ART facilities often physically separated
  – Referral between services
  – Patient tracking
• Patient’s difficulty accepting a dual diagnosis
ICAP-Rwanda
One-Stop Model for TB/HIV Integration

- ICAP-Rwanda worked with Rwandan Ministry of Health
- One-stop model piloted at 2 ICAP-supported Model Centers
- Now adopted on national scale with ICAP technical support
One-Stop Services for TB/HIV Co-Infected Patients through TB Service

- Provider-initiated HIV counseling & testing
- Enrollment into care (or shift file to TB service)
- Venipuncture for CD4 count
- Medical consultation
- Prescription of CTX, ART
- Referral and accompaniment to ART clinic at end of TB treatment
Model for TB/HIV Integration: HIV Clinic

- TB screening with a 5 question checklist
- Transfer/Accompany TB cases to TB Clinic for treatment
- Screening for TB at community level by peer educators

Questionnaire for intensive TB screening in HIV+ patients

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Prolonged cough &gt; 3 weeks?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Presence of night sweats &gt; 3 weeks?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Weight Loss &gt; 3 kg of body weight in the last 4 weeks?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Fever &gt; 3 weeks?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. History of close contact with sputum SSP pulmonary TB</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- If "yes" to one or more questions:
  Do sputum examination and continue evaluation according the TB diagnostic algorithm of the national TB program and according to clinical signs
- If "no" to all questions:
  Stop TB investigations and repeat screening at the subsequent visit (every 3-6 months)
HIV testing, CPT and ART in Patients with TB in Rwanda, 2004-2007

- On CPT: 8% in 2004, 42% in 2006, 61% in 2007
- On ART: 10% in 2004, 30% in 2006, 39% in 2007
TB was detected in:

- 2.2% (268/12,179) of new HIV patients
- 0.6% (189/31,959) of patients in care for > 6 months
Program Challenges

• TB detection among PLWHA is lower than expected
  – Diagnostic workup may not follow national guidelines
  – Diagnostic capacity at health facilities is weak
  – Recording of TB screening process and diagnostic work-up is often inadequate

• TB screening during follow-up visits is not routinely done

• Must establish adequate human resources to supervise and monitor program outcomes
ICAP-South Africa: Model TB Infection Control Program

2 Eastern Cape facilities

- **Motherwell CHC**
  - Catchment 350,000

- **Cecilia Makiwane**
  - Level 1 and 2 services
  - Catchment > 1 million
  - 760 beds
  - ART accredited in 2004

- Motivate health facility staff to protect themselves
Baseline Assessment Using Structured Questionnaire and Observation

- Infrastructure
- Infection control management
- Triage
- Cough Etiquette
- TB diagnosis
- TB treatment & referrals

- Environmental Control measures
- Personal respiratory protection
- Occupational health
- Staff knowledge, attitudes, beliefs
Unused Courtyard: Possible waiting area for patients with suspected TB?

Motherwell Community Health Centre

Cecilia Makiwane Hospital HIV clinic

High ceilings
Windows inaccessible
Unused exhaust system
Infection Control Related Activities

- Establish Infection Control committee
- Use ICAP template to develop TB Infection Control plan
- Train all cadres of staff in TB infection control
- Implement Infection Control procedures
- Procure of essential supplies
- Renovate facilities
- Educate patients, families
- Mobilize community
# TB Infection Control: Triaging versus TB screening

<table>
<thead>
<tr>
<th>What?</th>
<th>Triaging</th>
<th>TB screening</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>What?</strong></td>
<td>Screening for chronic cough</td>
<td>Asking about TB symptoms</td>
</tr>
<tr>
<td><strong>Why?</strong></td>
<td>To identify potentially infectious PTB patients To reduce transmission of TB in the clinic to other patients and staff</td>
<td>To diagnose patients with any type of TB To treat TB in the patient To prevent IRIS (Immune Reconstitution Inflammatory Syndrome)</td>
</tr>
<tr>
<td><strong>When?</strong></td>
<td>On arrival at the clinic</td>
<td>At every consultation</td>
</tr>
<tr>
<td><strong>By whom?</strong></td>
<td>Triaging staff at front desk</td>
<td>Nurse or doctor</td>
</tr>
</tbody>
</table>

| What do you ask? | “Have you had a cough for more than two weeks?” “Are you being investigated for TB?” “Are you taking treatment for TB?” | TB screening questionnaire: Do you have the following symptoms or signs: 1. Weight loss 2. Cough for more than 2 weeks 3. Night sweats for more than 2 weeks 4. Fever for more than 2 weeks 5. Swollen lymph nodes 6. Chest pains or other chest symptoms |

| What do you look for? | Patients who are coughing on arrival/in the waiting areas | Patients with signs/symptoms of any form of TB (including extra-pulmonary TB) |

| What next? | • Give the patient tissues • Educate on cough etiquette • Instruct patient to wait in a separate, well ventilated waiting area • Move the patient to the front of the queue • Make sure sputum specimens (for AFB/TB culture) are collected in a safe way | Do the appropriate investigations, for example:  - Spumum for AFB/TB culture  - Chest X-ray  - Lymph node aspirate  - Abdominal ultrasound |
| What else? | • Give the patient a return date • Make sure the patient starts on TB treatment immediately if diagnosed • Make sure the patient completes TB treatment |  |

**Diagram:**

- HIV+ patient
- Triage on arrival
- Chronic cough
- Under investigation for TB
- TB patient on treatment
- Educate on cough etiquette
- Give tissues
- Move patient to separate waiting area
- Screen for TB with symptom questionnaire
- Screen negative
- Screen positive
- Investigate for TB
- TB not diagnosed
- TB diagnosed
- Start TB treatment
## TB Infection Control Patient Triage Form

1. **Health Service that patient requires today (Tick all that apply by indicating with a v):**

   - Medical Clinic
   - HIV Care and Treatment
   - Pharmacy/Medication Refill only
   - TB Clinic
   - Family Planning/Contraception
   - Antenatal Care Clinic
   - Other: Specify

2. **Ask the patient the following questions, indicating the patient’s response with a v:**

   1. Have you had a cough for more than 2 weeks? [ ] YES [ ] NO
   2. Are you currently under investigation for TB? [ ] YES [ ] NO
   3. Are you currently receiving treatment for TB? [ ] YES [ ] NO

**If the patient answers “Yes” to ANY question:**

- Give patient a tissue
- Instruct on Cough Etiquette
- Direct patient to separate waiting area (if available)
- Direct patient to front of the queue

### Patient Information

<table>
<thead>
<tr>
<th>Time</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient arrival (Triage staff)</td>
<td></td>
</tr>
<tr>
<td>Patient consultation (Doctor/Sister)</td>
<td></td>
</tr>
<tr>
<td>Patient departure (Pharmacist)</td>
<td></td>
</tr>
</tbody>
</table>
Ukugquma ukhohlokhohlo kungakhusela ubomi babantu

Covering Your Cough Saves Lives

stop tb
Challenges

• Ensuring ownership of policy
• Instituting triage
• Poorly designed facilities
• Reluctance to keep windows open
• Ensuring the safety of HIV+ work force