Active case finding

Care Pathways: Seek-Find-Follow
Overview

• The HIV/AIDS epidemic in Cape Winelands
• The NSP indicators
• Care pathways
• Historical perspective of case finding: TB
• Historical perspective of HIV testing
• Human rights
Current HAST outcomes in CWD

- **HIV**
  - We tested 8,041 patients HIV+ in CWD in 2012
  - We did 1,589 Male Medical Circumcisions
  - We distributed 42 male condoms/male 15-49 years in 2012/13
  - We distributed 114,881 female condoms

- **PMTCT - in 2012/13**
  - 39/1429 babies were tested HIV+ at 6 weeks
    (2.7% vertical transmission rate)

- **ARV – by end March 2013**
  - 37 reporting facilities with total of 13,871 on treatment
  - 836 children on ART (6% of the total)
  - Average Remaining in Care at 12 months = 71%
  - By end 2012, CWD had put 3,991 new patients on ART, but we had also lost (to follow up) 1,568 patients

Dr L Philips
Current HAST outcomes in CWD continued

• **STI**
  - Very little information
  - Annual Antenatal HIV & Syphilis survey: CWD prevalence = 1.5% in 2010 (*decreasing over last 4 years*)

• **TB – in 2012/13**
  - 7,263 cases were recorded of all types of TB; 18% of these cases were in children < 7 years
  - Cure rate of 81% for smear + pulmonary TB
  - Default rate of 7% for smear + pulmonary TB
  - Known MDR TB cases 83 in CWD east
  - 75% of co-infected TB/HIV patients were placed on ART
## NSP and PFIP Impact indicators

<table>
<thead>
<tr>
<th>NSP Indicator</th>
<th>Baseline (2012)</th>
<th>Target (2016)</th>
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<tbody>
<tr>
<td>HIV prevalence among women and men aged 15-24</td>
<td>8.7%</td>
<td>50% reduction</td>
</tr>
<tr>
<td>HIV prevalence among key populations</td>
<td>No data</td>
<td>50% reduction</td>
</tr>
<tr>
<td>HIV incidence</td>
<td>0.94%</td>
<td>50% reduction (0.47%)</td>
</tr>
<tr>
<td>TB prevalence</td>
<td>795/100,000</td>
<td>397/100,000</td>
</tr>
<tr>
<td>TB incidence</td>
<td>981/100,000</td>
<td>490/100,000</td>
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<tr>
<td>TB mortality</td>
<td>50/100,000</td>
<td>25/100,000</td>
</tr>
<tr>
<td>Infants born to HIV positive mothers who are HIV positive at 6 weeks and 18 months post-partum</td>
<td>3.5% @ 6 weeks</td>
<td>&lt; 5% @ 18 months</td>
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<tr>
<td>Adult mortality due to HIV and TB</td>
<td>43.6%</td>
<td>50% reduction (21.8%)</td>
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<tr>
<td>Stigma index</td>
<td>To be determined</td>
<td>To be determined</td>
</tr>
<tr>
<td>People initiating ARV alive and on treatment @ 5 years</td>
<td>No data</td>
<td>70%</td>
</tr>
</tbody>
</table>
Care pathways

• *Diagnosis*: treating the right patient
• *Treatment*: treating the right patient right
• *Organisation*: treating the right patient right at the right time
• *Pathway*: treating the right patient right at the right time and in the right way.
HISTORY

- Earliest detection of TB in the remains of bison: 18000 BC
- TB identified as single disease for the first time: 1820
- 1st TB sanatorium opened in Germany; tx surgical (bronchoscopy & suction) pneumothorax: 1854
- Streptomycin discovered: 1943
- TB found in the spines of mummies: 2400 BC - 300 BC
- Disease named ‘tuberculosis’: 1839
- 24 March 1882 – Robert Koch identified the bacillus causing TB as Mycobacterium tuberculosis – Nobel prize 1905

PRESENT DAY

USAID FROM THE AMERICAN PEOPLE

ANOVA HEALTH INSTITUTE TRUST / SUPPORT / INNOVATE
South Africa – worst-case scenario:

*But worldwide*

- 1.4 mil people die/year - curable disease (160/hour)
- Treatment cost $30 dollars
- 3 million undiagnosed
- 65% case detection

Call: Zero deaths from Tuberculosis
Strategies to control of TB

• Case finding and treatment of active disease
• Treatment of latent TB infection
• Vaccination with bacille Calmette-Guerin (BCG)
TRANSMISSION FACTORS

• **Source factor:**
  Cough strength & frequency, positive smear, lung cavitation; effective RX, site.

• **Host factor:**
  Immunity, age, diabetes, medication, socioeconomic status, access to health care, crowded living, malnutrition, silicosis.

• **Environmental factors:**
  Ventilation, room volume, humidity, UV, contact time.

• **Microbial factors:**
  Genetic virulence
Find people with TB:

- The more untreated TB cases
- The greater the chance that people will be exposed to TB repeatedly
- Leading to more infections and more TB activation
- High level exposure and transmission sustain high incident of TB

- We need reduce the number of people with undiagnosed TB in the communities
Passive case finding (PCF)

- Detecting active TB disease among symptomatic patients who present to medical services for diagnosis of symptoms.
- Part of WHO recommended DOTS strategy
- Active and enhanced case finding (ACF and ECF) require a special effort to increase the detection of TB in a given population.
History of TB case finding strategies:

- **Pre-chemotherapy era:** Mass radiography – isolate active TB patients in sanatorium
- **Beginning of chemotherapy:** Effective treatment at home - move from detection and isolation to detection and treatment
- **Beginning of 1960:** new strategies relying on detection of symptoms. Study in India found that 70% of sputum + and 80% of CXR + were aware of TB symptoms and > 50% sought care for symptoms
- **A strong health system could detect most symptomatic TB cases**
- **1970 to 1980:** treatment and TB control activities part of general out-patient care
- **The recommendation in 1980 stated that PCF (Passive case finding) was adequate for TB control and that TB was becoming a minor global problem.**
TB case detection/finding strategies:

- As a result, case finding and treatment were not monitored closely, and the TB programs were unprepared to cope with the AIDS pandemic starting in the 80's.
- Failure of the control strategies to reduce TB incidence in the HIV era, stimulate the interest in Active and Enhanced case finding (ACF and ECF).
- ACF and ECF are defined as strategies: to bring people with TB into treatment who have not sought diagnostic services on their own initiative.
- The difference between ACF and ECF is the level of direct interaction with the target population.
- ACF is often more labour intensive, involving face-to-face contact and onsite evaluation.
- ECF makes population aware of TB symptoms (through publicity and education) and encourage self-presentation to medical services.
The ZAMSTAR Study:

- 24 communities across Zambia and Western Cape
- High TB and HIV burden
- Each community was randomly allocated to receive 1 of 4 interventions
  1. Clinic based TB and HIV interventions
  2. Enhanced case finding
  3. Household interventions
  4. Combination
- Result: The household intervention reduced the prevalence of culture positive TB by 22% as compared to communities not receiving the intervention.
Principles of bioethics

• *Respect for autonomy*: Self rule
• *Beneficence*: Risk of causing harm
• *Non-maleficence*: Net benefit to patient with minimal harm
• *Justice*: Moral obligation to act fair between competing claims
Passive case finding and human rights

• Rely on people presenting at clinics
• People in the community do have enough knowledge to go to the clinic
• Accessibility and availability of health care facilities
• People have the right to appropriate care
• The fear that many of society's most vulnerable members will not receive treatment unless actively supported
Old Assumptions:  TB TESTS

- That smear is the best and only diagnostic available
- That smear negative patients have been considered to not be very infectious
- Smear-negative patients will eventually become smear-positive
Old Assumptions:

- Most patients seek care when symptomatic
- Health system strengthening will work
- Active case-finding is too resource-intensive
- The basic DOTS strategy:
  Is one of the most cost-effective public health interventions
- First get the basic stuff in place!
HIV testing

• Became available in 1985
• Ethical concerns centred on the right of patients not to be tested, since an HIV diagnosis provided few medical benefits and posed serious risks of stigma and discrimination
• 3-Cs: counselling, voluntary informed consent and confidentially
HIV testing in era of ART’s

• Availability of ART’s, growing evidence that ART can prevent transmission of HIV, strengthened public health arguments for scaling up testing.
• Testing the gateway to prevention, treatment and care.
• 2007 WHO recommended PITC (provider-initiated counselling and testing)
• Other testing strategies: Stand-alone sites, self testing, one-off annual campaigns.
• POPART Study: Door to door testing
The debate in human rights

• Routine PITC, door to door testing threaten:
• The fundamental rights to voluntary, informed consent and confidentiality,
• Will confidentiality be protected,
• Adequate post test counselling
• Support linkages to treatment
• Benefits would overweight the risk of stigma, rejection and spousal abuse
Human rights debate

• HIV-positive individuals rights and the need to prevent transmission to others and to diagnose partners living with HIV

• Concerns about how to ensure equitable access to testing and treatment for those who face barriers to testing and care, particularly the most at risk groups.
If science and education are the brains and nerves system of civilisation, health is the heart

F.T. Gates
It's not enough that we do our best; sometimes we have to do what's required.