ZAMSTAR TB Prevalence Survey

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ZAMBART Project
Primary Objective

➤ Measure the effect of the ZAMSTAR interventions on TB prevalence by comparing the prevalence of TB across study arms
Secondary Objectives

- Determine the prevalence of culture positive tuberculosis in the study sites
- Measure the prevalence of risk factors for TB (HIV, diabetes, smoking, indoor air pollution, alcohol & SES)
- Determine the prevalence of people with current TB (self-reported)
- Determine health care seeking behavior of people with respiratory symptoms
ZAMSTAR: The Zambia/South Africa TB and AIDS Reduction Study-Overview

- A study designed to find out whether combinations of community-based interventions aimed at increasing case finding of TB and implementing packages of combined TB/HIV care can reduce TB

- Interventions were implemented for 3 years from 2006-2009

- Prevalence of TB across study arms is one of the end points
Study Setting

ZAMSTAR
ZAMSTAR Sites in Zambia

Sites

Luapula
- Mansa District-Senama, Central

Copperbelt
- Ndola District-Chifubu and Chipulukusu
- Kitwe District-Chimwemwe, Ndeke

Central Province
- Kabwe District-Makulu, Ngungu/Bwacha

Lusaka Province
- Lusaka District-Chawama, Kanyama, Chipata, George

Southern Province
- Choma District-Pemba and Shempande
- Livingstone District-Maramba and Dambwa
Prevalence Survey-Sample Size & Enumeration

- 24 sites, 16 in Zambia and 8 in Western Cape-SA
- Sample size
  - 80 000 Zambia
  - 40 000 Western cape
- Enumeration
  - SEA are randomly visited
  - Every HH in the SEA is visited and enumerated
Data Collection

- Field data is collected using PDA
- Data is downloaded everyday and sent to HO via internet
- Data is available in real time (some delays occur) - used for monitoring progress, quality checks and supervision
Current Status

- Survey in process, started Dec 2009
- Expected to end Dec 2010
- 41 thousand recruited
- Male under representation-35%
- HIV testing average is 67%
- HH consent average is 80%
- Adult consent average is 70%
Monitoring & Quality Assurance

- Team leaders are responsible for day to day supervision
- Monthly field visits by HO based supervisors
- QA of randomly sampled HH using QA form
- Monitoring of data and feedback to teams (consent rates, HIV testing etc)
- Use of GIS to map visited HH per SEA
Community Involvement

➢ Pre-Survey
  – Existing CABs informed about next steps for ZAMSTAR study
  – Dissemination meetings for ZAMSTAR trial held in each study site, partners and community members part of meeting
  – Brochures developed for distribution to community members
Community Involvement

During survey

– Mapping and defining borders of enumeration areas done in conjunction with CAB members
– Sensitisation is done one week before team moves into SEA
  • Door to door with distribution of brochures (staff with community members)
  • Drama- use of sketches designed by ZAMSTAR teams
  • Song and Dance- songs designed to inform about survey
Drama sensitisation
**Brochure**

**Used in door-to-door sensitisation**
HIV Testing

- Prevalence of HIV is also being measured
- All participants informed about HIV testing during informed consent process (counselling starts here)
- Opt-out option is given but study participants encouraged to test (high risk in setting, benefits of testing are told)
- Testing is offered to all including those known to be HIV positive
- Testing is done within the household using rapid tests
HIV Testing - Rationale

- Zambia is high HIV burden country (13-23% in adults)
- Currently less than 20% adults know HIV status
- Opportunity to increase testing uptake and test acceptability of HIV testing offered in the home
- Reduce delay in diagnosis of HIV - thus improve outcomes of ART?

- Routine testing TB pts/suspects is policy
- HIV is highest known risk factor for TB
  - Comparing prevalence of TB across study arms should also consider HIV prevalence
HIV Testing-Pre Survey

- Training and certification of lay counsellors to carry out HIV testing
- Field simulations (piloting)
  - Timings
  - Acceptability
- Training step by step field procedures including when HIV test should not be done
Step by Step Training-HIV Testing

Pre-Survey training (in-house)
- Counselling procedures
- Handling results and giving back results
- Confidentiality
- Recording results
- Referrals for further care or testing
- Bio safety-Universal precautions for handling biological samples
Challenges of Field HIV Testing

- Participant crisis due to unexpected HIV positive result
- Referrals sometimes not attended to early due to overburdened health services
- Slows down recruitment process due to counselling
- May reduce consent rate but:
  - Opt out option given to all participants
Laboratory Capacity

- 4 containerised laboratories put in place
- Each lab can handle 100 samples a day and services 4 sites
- Staff recruited and trained
- On going monitoring and retraining of staff during the survey
Lab Challenges

- Coordination - labs are in four districts (monthly visits to labs are required), sometimes more
- Collection of lab data centrally
- Transportation of samples, furthest sites 800km
- Transportation of isolates for archiving
- Laboratory supplies - all stored centrally in Lusaka
- Furthest lab is 600Km from Lusaka
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