Engaging the Research Community to Address Research Gaps

Jonathan Golub
Johns Hopkins University
Center for Tuberculosis Research

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ICOHRTA

• International Clinical Operational Health (Services) Research Training Award
  – NIH Fogarty International Center
  – JHU, FURJ and other Brazilian partners

• 8th year – 600+ trainees in Brazil

• Last year expanded to Mozambique
  – Ivan Manhiça, Ministerio da Saude,
    Programa Nacional de Controlo da Tuberculose

• Companion program in South Africa (SATBAT) with UNC and S. African partners
What has research answered?
(a small sample)

- Does ART reduce TB risk? **YES**
- Does early initiation of ART reduce risk? **YES**
- Does IPT reduce TB risk in HIV-infected patients? **YES**
  (TST+ only?)
- Does IPT reduce TB risk at the population level? **Unclear**
- Does case finding help the individual? **Most likely**
- Does case finding impact TB at the population level? **Unclear**
- Does HIV/TB integration work? (Is integration needed?) **Unclear**
Why Operational Research?

- Huge gap between knowledge and practice
- Implementation (or translation) of “best” practices is not simple...
  - and barriers (expected and unexpected) often emerge
- Thus, well designed operational research is necessary to maximize impact of these practices / strategies
Why Operational Research?

• Research with delivery and impact in mind

• Implementing guidelines / recommendations requires formal epidemiologic assessment
  – ICF, IPT, LAM, Xpert...

• Assessing barriers to implementation

• Cost-effectiveness analysis
  – Financial resources are a problem everywhere
    • Compare strategies (IPT, ICF, Combined, community DOT, etc)

• Qualitative research (mixed-methods approaches)
Current Implementation Challenges

• Active (Intensive) Case Finding
  – New guidelines say do it
  – Many already have... but few have properly evaluated it

• Proper research methodologies required if policy is truly to change
  – Study design
  – Appropriate outcomes
  – Publish results
  – Inform policy

  – Local level “fitting” is required as one size does NOT fit all
Current Implementation Challenges

• Scaling up IPT for HIV-infected patients
• Why hasn’t it been done?
1. All of these concerns / issues have been proven UNTRUE by research!
Research is Needed to Reduce the Global Burden of TB

- Improved diagnostics (↑ case finding)
  - Better tests / better implementation of new tests
    - (Xpert, LAM)
  - Find prevalent cases earlier
    - Active/Intensive/Enhanced Case Detection

- Improved therapy (↑ treatment success)
  - Shorter duration regimens to assure adherence
  - New drugs for MDR/XDR TB (finally Bedaquiline)
  - Strategies to increase adherence

- Preventive therapy
  - Who? How long? MDR preventive therapy? With ART?

- Infection control

- Community level interventions
Final Thoughts...

• Research and Implementation MUST go hand-in-hand

• Collaborating with a research partner is important
  – Partnering with academia
    • HIV/TB Programs – have the patients... have the data... have the understanding...
    • Academia has the research training...
    • Work together to identify gaps (at local level)

• Developing Research Capacity is even more important
  – MEPI
  – ICOHRTA
  – IUATLD/Medecins Sans Frontieres
“We will know we have performed enough research into controlling TB only when we have controlled it.”

“It ain’t over till it’s over.”
- Yogi Berra
Acknowledgements

• Richard Chaisson
• Anthony Harries
• Rony Zachariah
Current WHO Case Detection Policy

(Current/Old) Assumptions

- Smear is best/only diagnostic available
- Smear negative patients are non-infectious
- Smear negative patients become smear positive
- Most patients seek care when symptomatic
- Health system strengthening will work
- ACF too resource intensive

New Reality

- Smear is NOT the best technology available
- Smear negative patients ARE infectious
- Smear negative patients DIE before becoming smear positive
- Patients often do NOT seek care
- Health system strengthening has NOT been adequate
- New & old evidence may suggest otherwise