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Operational Research in Tuberculosis Care and Control

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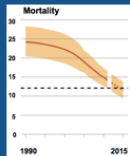
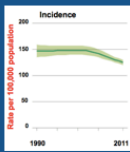
International Union Against Tuberculosis and Lung Disease



Outline

- Need for Operational Research (OR)
- What is Operational Research? Objectives? Examples of OR
- Operational Research Landscape – Where are we? What needs to be done?

Need for Operational Research



✓ 51 million patients cured, 1995-2011

✓ 20 million lives saved since 1995

✓ 2015 MDG target on track: global TB incidence rate peaked in early 2000s and declining

➔ BUT, TB incidence declining too slowly

➔ 1.4 million people still dying

➔ 8.7 million cases every year; Only 2/3 reported

➔ TB/HIV epidemic still rampant in Africa

➔ MDR-TB response slow

➔ Un-engaged private sector

➔ Gaps in financing

New Tools
Diagnostics
Drugs
Vaccines

Are they enough?

“What” is operational research (OR)?

Research into

interventions, strategies, tools or knowledge,
that can enhance the **performance** (quality, coverage, effectiveness, efficiency) of the **program** (and improve health outcomes)

Lancet ID 2009, 9:711-717

Jargon: 'Implementation Research'; 'Action Research'; 'Operations Research'; 'Health Systems Research'; 'Health Services Research'; 'Translational Research'

Objectives of Operational Research

- ✓ **Assess feasibility** of new strategies or interventions in specific settings or populations
- ✓ **Advocate for policy change**
- ✓ **Improve programme outcomes** in relation to medical care or prevention

Improving program outcomes:

Voluntary counselling, HIV testing and adjunctive cotrimoxazole reduces mortality in TB patients in Thyolo, Malawi
AIDS 2003, 17:1053-1061



In both districts, the package was associated with a reduction in case fatality from 36% to 28%

Country-wide, expansion of HIV testing and cotrimoxazole for TB patients

HIV Testing and CPT in TB patients in Malawi

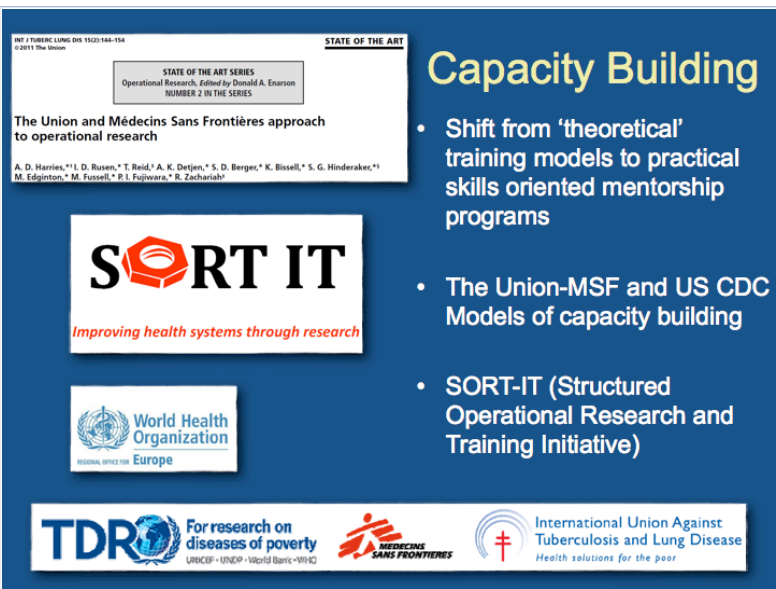
MALAWI	2003	2004	2005	2006	2007	2008
TB patients	26,836	26,136	26,019	26,659	25,767	25,688
HIV tested	15%	26%	47%	66%	83%	84%
HIV positive	69%	72%	69%	66%	69%	63%
Started CPT	87%	97%	92%	98%	97%	96%

Harries *et al.* BMC Public health 2011, 11:593

National TB treatment outcomes in new smear-positive PTB

Year	Treatment Success	Death	Other
2002	71%	19%	10%
2003	70%	19%	11%
2004	71%	16%	13%
2005	74%	15%	11%
2006	79%	13%	8%
2007	83%	9%	8%
2008	86%	7.5%	6.5%

Harries *et al.* BMC Public health 2011, 11:593



Monitoring the impact of OR

Is operational research delivering the goods? The journey to success in low-income countries



Rony Zachariah, Nathan Ford, Dermot Maher, Karen Bissell, Rafad Van den Bergh, Wilma van den Boogaard, Tony Reid, Kenneth G Castro, Bertrand Draguez, Johan von Schreeb, Jeremiah Chakaya, Rifat Atun, Christian Lienhart, Don A Enarson, Anthony D Harries

Operational research in low-income countries has a key role in filling the gap between what we know from research and what we do with that knowledge—the so-called know-do gap, or implementation gap. Planned research that does not tangibly affect policies and practices is ineffective and wasteful, especially in settings where resources are scarce and disease burden is high. Clear parameters are urgently needed to measure and judge the success of operational research. We define operational research and its relation with policy and practice, identify why operational research might fail to affect policy and practice, and offer possible solutions to address these shortcomings. We also propose measures of success for operational research. Adoption and use of these measures could help to ensure that operational research better changes policy and practice and improves health-care delivery and disease programmes.

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- Effective Dissemination
- Policy and Practice change
- Publication
- Health Outcomes

CONCLUSION

- Operational research has a key role to play in:
 - Meeting health needs by filling the “know-do” or “implementation gaps”
 - Improving health outcomes
- Measuring and reporting its success is essential

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