

The Union/ MSF Model of Operational research Training

The Union, Paris, France

MSF, Brussels, Belgium



International Union Against Tuberculosis and Lung Disease



Union / MSF proposal for a new type of course [2009]

Purpose: To teach the practical skills for conducting and publishing operational research

Approach:

- Product –oriented [a submitted research paper]
- Participants go through whole research process
- Milestones must be achieved to stay in course
- Trained participants should become facilitators



Three modules

- Module 1: research questions, protocol development and ethics (5 days) – August
- Module 2: Data management and data analysis (5 days) – October
- Module 3: Paper writing, peer review and policy implications (5 days) – June



Target Audience

- Operational research fellows (mandatory)
- Successful applicants (doctor, nurse, paramedical officer, data analyst)
- No more than 12 participants in total per course. All three modules to be completed and these are funded through the Union



Strict criteria for selection:

- Defined criteria:-
 - Engaged in **programme work** and will return to this work
 - **Supervisors endorsement** -time and opportunity for research
 - Competent in **English** and computer literate
 - Have done **MPH or equivalent** or come strongly recommended
 - There is a stated and acceptable **mentor at country level**
 - **Funding for the research** can be acquired through other sources
- Application:-
 - Submit curriculum vitae plus two references
 - Complete application form with 1/2 page written on programme problem and research question



Applications for Paris course: 12 places

- **2009 course:** 96 applicants
- **2010 course:** 48 applicants
- **2011 course:** 55 applicants



Module 1 – Protocol development

- **Define the research question**
- **Protocol development** – authorship; aims and objectives; study population and sampling; definition of variables and outcomes; ethical issues; draft questionnaire or data collection instrument; logistics and budgets
- **Outcome: draft protocol written by each participant and draft completed EAG form**



Tasks between Modules 1 and 2

Each participant should submit final protocol within two weeks along with the completed Union EAG form to The Union Ethics Advisory Group (EAG)

First Milestone



Module 2 – Data management and analysis

- **Purpose:** efficient quality-assured data
- **Content:** analysis and presentation of data
- **Outcome:** draft instrument for electronic data entry

Practical examples to be completed in class



Tasks between Modules 2 and 3

Each participant must have completed their study, entered their data and validated their data set

Each participant asked to do data analysis and encouraged to prepare Tables / Figures

Third Milestone = Study Completion



Module 3 - Paper writing

- Principles of writing scientific papers
- How to write: title, abstract, introduction, methods, results, discussion, references, acknowledgements, key words
- How to do on-line submission
- How to deal with peer review, point-by-point responses and revision of paper
- How the research should influence policy/practice

Outcome: draft paper



Tasks after Module 3

- Finalise draft paper with mentor's support
- Submit paper to peer-reviewed journal within 4 weeks of completing module 3
- **Final Milestone - Certificate of completion** only given to those who have achieved this final task



OR Course is work in progress

- Need more time for individual work during Modules 1 and 3 (less didactic lectures)
- Plenary sessions very important for learning in Modules 1 and 3
- Bring Module 2 nearer to Module 1
- Data analysis is always a problem in Module 3 (need more facilitation support)



Does the Model work?





First Course: 2009-2010

Aug 2009: 12 participants from Africa and Asia developed research protocol

April 2010: 11 participants submitted 14 papers to international journals

Sep 2011: 12 papers accepted for publication



Second Course: 2010 - 2011

3 participants from first OR Course facilitate on second OR Course





2nd Course: 2010–2011

Aug 2010:

12 participants from Africa, Asia, Brazil developed research protocol

June 2011:

12 participants submitted 13 papers to international journals

Sep 2011:

9 papers accepted



Third Course: 2011 - 2012

3-5 participants from first / second OR Course facilitate on third OR Course





International Union Against
Tuberculosis and Lung Disease
Health solutions for the poor



Centre for Strategic Health Information and Operational Research

Certificate of Completion

This is to certify that

Mauro Niskier Sanchez

has successfully completed the

Operational Research Course Paris, France

Module 1: 30 August-3 September 2010
Research question and protocol development

Module 2: 25-29 October 2010
Efficient, quality-assured data capture and analysis

Module 3: 9-13 May 2011
Writing a paper for publication

Prof Anthony D. Harries
Director, Department of Research
The Union

Prof Hans L. Rieder
Consultant, Department of Tuberculosis
The Union

Dr Anthony Reid
Medical Editor
Médecins Sans Frontières

This Provisional PDF corresponds to the article as it appeared upon acceptance. Fully formatted PDF and full text (HTML) versions will be made available soon.

Identification of losses to follow-up in a community-based antiretroviral therapy clinic in South Africa using a computerized pharmacy tracking system

BMC Infectious Diseases 2010, 10:329 doi:10.1186/1471-2334-10-329

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INT J TUBERC LUNG DIS 14(10):1303-1309
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Completeness and consistency in recording information in the tuberculosis case register, Cambodia, China and Viet Nam

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Transactions of the Royal Society of Tropical Medicine and Hygiene 105 (2011) 52-57



Contents lists available at ScienceDirect

Transactions of the Royal Society of
Tropical Medicine and Hygiene

Journal homepage: <http://www.elsevier.com/locate/trstmh>



Lost to follow up from tuberculosis treatment in an urban informal settlement (Kibera), Nairobi, Kenya: what are the rates and determinants?

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^c Médecins Sans Frontières - Operational Centre Belgium, Operational Research Department, Dupuisstraat 94, 1000 Brussels, Belgium

Characteristics and Programme-Defined Treatment Outcomes among Childhood Tuberculosis (TB) Patients under the National TB Programme in Delhi

Srinath Satyanarayana^{1,2*}, Roopa Shivashankar³, Ram Pal Vashist⁴, Lakhbir Singh Chauhan⁵, Sarabjit Singh Chadha⁶, Puneet Kumar Dewan⁶, Fraser Wares⁶, Suvanand Sahu⁶, Varinder Singh⁷, Nevin Charles Wilson², Anthony David Harries¹

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Tropical Medicine and International Health

doi:10.1186/1363-3154-2010-02809-a

VOLUME 15 SUPPL. 1 PP E2-89 (JUNE 2010)

Early active follow-up of patients on antiretroviral therapy (ART) who are lost to follow-up: the 'Back-to-Care' project in Lilongwe, Malawi

Hannock Twyaa^{1,2}, Dickman Gareta¹, Fredrick Chagwera¹, Anne Ben-Smith³, Justin Mwenyemasi², Fred Chipunula¹, Matthew Boxshall⁴, Ralf Weigel^{5,6}, Andreas Jahn^{5,6}, Mina Hosseini-pour⁴ and Sam Phiri¹

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INT J TUBERC LUNG DIS 15(11):137-139
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SHORT COMMUNICATION

Performance of culture and drug susceptibility testing in pulmonary tuberculosis patients in northern China

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LUXEMBOURG
July 2011



Operational Research Training Courses

2011

35 participants

**Africa, Asia, Europe, Latin America,
Oceania**

All 35 completed First Milestone

**UNION INTERNATIONALE
CONTRE LA TUBERCULOSE ET LES MALADIES RESPIRATOIRES**



PARIS
August 2011



FIJI
September 2011

Research Projects undertaken in 5 courses

Research Project Subject	Number
Tuberculosis / HIV	34
Maternal and Child Health	7
HIV/AIDS	6
Malaria	3
Malnutrition	3
Other [smoking, NCD, Cancer]	9
TOTAL	62

Preferences for publication:

Open Access Journals:

- *PLOS One; PLOS Medicine*
- *BMC Public Health; BMC Medicine; BMC Health Services; BMC Infectious Diseases*
- *Public Health Action (PHA)*



Justify the emphasis on papers

- Quality control standard
- International Guidelines evidence based
- Critical way to disseminate knowledge
- Author input / peer review → strong paper
- Paper writing makes authors “experts”
- Credibility



Ancient Roman Proverb

“Scripta manent, verba volant”

**“Spoken words fly away
Written words remain”**



***“If you do not write about it,
it did not happen”***
Virginia Woolf



Costs of each Module in Paris

- **64,000 USD** per module – covers facilitators, participants, logistics
- 34,000 USD for travel
- 14,000 USD for accommodation
- 11,000 USD for per diem
- 5,000 USD for miscellaneous
- Will be cheaper if we decentralise



Should the Model change?

YES

Bring data handling and EpiData into Module 1

Omit Module 2

Bring more analytic facilitator support to Module 3

Two Modules (9 months apart) of 10 days - 5 days



Operational Research Alumni Network

Web-based organization

Annual email follow-up

Assist with OR paper reviews

Assist with facilitation and mentorship

Become Professors!



Conclusion about Training

- This is target-orientated training
- Product = papers that can influence policy and practice
- Long term vision = capacity building and development of leadership in operational research.



Research activities in The
Union South-East Asia
Regional Office

New Delhi, India



Flayesh, Viora



The Approach

- Predominantly focused on ‘operations research’ under the overall guidance and support from Center for Operations Research, Paris
 - 7 Participants in the The Union MSF Paris OR course from 2009-11
- Conducting research under various on-going USEA-projects/programmes
- Capacity building of individuals within and outside the organization on operations research with training programmes
- Identification and collaboration with various partners to address research needs in the country/region
- Support wide-spread dissemination and policy uptake

Progress so far

- Documentation of experiences in various on-going projects/ programmes
- 3 operations research capacity building trainings
 - Protocol Development workshop
 - Sept, 2009 at NTI, Bangalore (TREAT-TB supported initiative)
 - 1 year Operations research capacity building workshop
 - COR- Public Health Foundation of India (June, 2010- May, 2011)
 - NTP-USEA-WHO-CDC Operations Research capacity building training programme (Sept, 2010 to Aug, 2011)
- In 2011, till date
 - 44 researches completed
 - 30 manuscripts submitted for publication
 - 17 published/in press

Re-treatment TB notifications (2009)

Globally,

- TB notifications - 6 million,
- Re-treatment TB notification: 0.6 million (~10%)

India,

- TB Notifications- 1.5 million
- Re-treatment TB notification: 0.3 million (~19%)

Source of Previous Treatment for Re-Treatment TB Cases Registered under the National TB Control Programme, India, 2010

Kuldeep Singh Sachdeva¹, Srinath Satyanarayana^{1,2*}, Puneet Kumar Dewan³, Sreenivas Achuthan Nair², Raveendra Reddy³, Debasish Kundu³, Sarabjit Singh Chadha², Ajay Kumar Madhugiri Venkatachalaiah^{1,3}, Malik Parmar^{1,3}, Lakhbir Singh Chauhan¹

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Results Out of the 1712 patients

- 784 [**44%** (95% CI: 38-50)] -Previously treated outside NTP
- 958 [**56%** (95% CI: 50-62)]-Previously treated under NTP

From Where Are Tuberculosis Patients Accessing Treatment in India? Results from a Cross-Sectional Community Based Survey of 30 Districts

Srinath Satyanarayana^{1,2*}, Sreenivas Achutan Nair¹, Sarabjit Singh Chadha¹, Roopa Shivashankar³, Geetanjali Sharma¹, Subhash Yadav¹, Subrat Mohanty¹, Vishnuvardhan Kamineni¹, Nevin Charles Wilson¹, Anthony David Harries^{2,4}, Puneet Kumar Dewan⁵

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- Cross sectional community based survey (750 million pop)
- Nearly 370,000 household members surveyed from 75,000 Households in 30 districts
- 761 TB patients identified, 609 (80%) TB patients interviewed
- 46% (95% CI: 34-57) treated outside the Indian NTP
- People in rural areas, with < \$100/month household income likely to be treated outside the NTP

TB OR Training Project

- Collaborative project NTP, Union, WHO, CDC
- 3 module course
 - Sept-10, Mar-11 and Aug-2011
- 88 research concept notes received
 - 17 selected (33 participants)- On NTP priority areas
- 15 researches completed
 - 5 submitted for publication, 10 drafted and to be submitted very soon
- Next year course planned starting in Feb, 2012

Lessons Learned/ Next steps

- Guidance and support from Center for Operations Research, Paris
- Need for establishing a research unit
 - To support and co-ordinate all related activities
- Huge in-country demand for Operations research trainings
 - To be met by organizing capacity building courses through the Global Fund, COR Regional OR Course and 1 OR course under TREAT-TB
- Qualitative studies and Cost effectiveness studies
- To be able to undertake Community based Randomized Control Trials

Thank You

Acknowledgements

Dr Nevin Wilson

Colleagues in the Union South-East Asia Regional
Office