Background

The Technology, Research, Education and Technical Assistance for TB (TREAT TB) initiative aims to facilitate changes in international standards and practices in ways that serve country needs. Its key focus is on research that benefits global, regional, and country tuberculosis (TB) control efforts. Operational Research (OR), or research that enhances the programme in which it is being conducted, offers an effective way to ensure quality health services and practices. OR plays a key role in generating evidence needed to inform stakeholders about important public health issues and also contributes to policy change. As a result, operational research skills are vitally important for public health practitioners and researchers. In an effort to strengthen OR skills of local researchers, the initiative has published guidebooks and online tools while providing hands-on experience and training to clinicians, scientists, and other professionals in high-burden settings.

Child lung health, including lung health in neonates and adolescents, is an important global public health issue. TB, pneumonia, and asthma account for significant morbidity and mortality in children and adolescents. Globally, the World Health Organization estimated there were 1 million cases of TB in children less than 15 years in 2014, with an estimated 136,000 deaths. Adolescents (10-19 years) are known to be at particular risk for TB, but the actual burden of TB in this age group is currently not known. Pneumonia, one of the leading causes of hospitalization among children, accounts for 15% of all deaths in infants and children under 5 years old, with an estimated 922,000 deaths in 2015. Asthma is the most common non-communicable disease among children, and asthma-related deaths are more common in low- and middle-income settings compared to high-income settings. There are surprisingly limited data from the Southeast Asian region. Improved knowledge of the epidemiology as well as the delivery of effective and appropriate management for these common conditions are major challenges for the Southeast Asian region.

The TREAT TB OR course on child lung health aims to enable clinicians, health professionals, and programme staff new to OR to conduct a research study and generate evidence that relates directly to goals set by national programmes aimed at improving lung health in neonates, children and adolescents.

1. **Purpose**
   To develop the practical skills for conducting operational research and publishing the findings.

2. **Course curriculum and expected outputs**
   The course is composed of three practical modules of 6-7 days each and is conducted over a period of 8-10 months as follows.

<table>
<thead>
<tr>
<th>Module 1. Research questions and protocol development / Date: 13 Feb- 17 Feb, 2017</th>
</tr>
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<tbody>
<tr>
<td>The purpose of this six-day module is to develop a thorough understanding amongst participants about what operational research is about and to ensure that a draft research protocol and an ethics submission form is produced before they return to their own countries. The teaching will be through lectures, discussions, exercises, and use of completed and published operational research. Most important, the participants will develop their research questions and written protocols during the week with the support of the facilitators.</td>
</tr>
<tr>
<td><strong>Brief content overview</strong></td>
</tr>
<tr>
<td>- Introduction to operational research</td>
</tr>
<tr>
<td>- Research terminology</td>
</tr>
<tr>
<td>- Asking the right research questions</td>
</tr>
<tr>
<td>- Aims and objectives</td>
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<tr>
<td><strong>Output:</strong> Draft protocol and ethics submission form from each participant</td>
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<tr>
<th>Module 2. Data management and analysis / Date: 20 Feb – 24 Feb, 2017</th>
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<tbody>
<tr>
<td>The purpose of this module is to ensure that participants understand the importance of good data quality, have the skills to produce an efficient electronic data entry form, based on principles adaptable to their specific needs, and understand data analysis.</td>
</tr>
<tr>
<td><strong>Brief content overview</strong></td>
</tr>
<tr>
<td>- Importance of good data quality</td>
</tr>
<tr>
<td>- Designing an efficient data entry instrument (Epi Data)</td>
</tr>
<tr>
<td>- Making an efficient computer data entry questionnaire</td>
</tr>
<tr>
<td>- Entering and validating data entry</td>
</tr>
<tr>
<td>- Applying the knowledge to specific needs of individual participants</td>
</tr>
<tr>
<td>- Introduction to data analysis</td>
</tr>
<tr>
<td>- Exercises</td>
</tr>
<tr>
<td><strong>Output:</strong> Draft instrument for electronic data entry for each participant</td>
</tr>
</tbody>
</table>
Module 3. Writing a scientific paper / Date: TBD

The purpose of this module is to help participants perform a final analysis and interpretation of the results of their studies and turn these into a scientific paper for submission to a national or international peer-reviewed journal for publication. Participants will also learn about the on-line submission process, and how to address editors’ and reviewers’ comments.

**Brief content overview**
- Conduct data analysis and construct tables and figures for the papers
- Learn the principles of writing a scientific paper in a step by step manner
- During the module, write a scientific paper
- Understand the online submission and peer review process

**Output:** Draft manuscript

### 3. Selection criteria for successful applicants

Applicants must satisfy the following strict selection criteria:

a) Be involved in the running of a national, state, or NGO programme or a major health institution in a programme or disease specific field related to child lung health. An advanced degree is not a requirement to apply for this course. Staff from programmes, including TB, maternal and child health, and pneumonia programmes, are strongly encouraged to apply.

b) Provide written commitment to attend all three modules of the training course, return to their programme or institution after the course, and implement course knowledge at programme level for a minimum of at least 18 months.

c) Provide a written statement from the coordination/operations or relevant authority attesting to the investment of resources and granting the applicant permission to have time and opportunity to carry out operational research.

d) Provide a written statement from a mentor (if available) describing how the mentor knows the candidate and how the mentor proposes to provide support to complete the course successfully.

e) **Outline one page of text that a) describes a problem related to child lung health that the candidate has identified within a given programme and b) formulates a research question that is proposed to be developed into an operational research project. Please note that the research questions using already available routine programme data are preferred as prospective studies are unlikely to fit into the time-line and expected outputs of the course.**

f) Be fluent in written and spoken English.

g) Be computer literate.

h) Be from low- and middle- income countries that are ASEAN members (Cambodia, Indonesia, Laos, Myanmar, Philippines, Viet Nam) or candidate members (Papua New Guinea, Timor Leste).

### 4. Research Questions – guidance

- In your application you will be asked to formulate and submit a research question related to child lung health based on a perceived problem within the programme or health system in which you
work. The research will have to be carried out within a 6 - 8 month time frame and therefore we strongly encourage simple research projects that are based on monitoring and evaluation data that are already collected and available in registers or treatment cards or electronic data sets.

- Prospective studies and studies involving patient interventions and patient questionnaires are less likely to be accepted as suitable for this course as they cannot usually be completed within the time frame.

5. **Approach to training**
   - This is a target-oriented training with defined milestones and expected outputs. Failure to fulfil the expected outputs linked to each module implies the candidate does not return for the next module.
   - Participants go through the whole research process and complete the course with a defined product, which is a peer-reviewed manuscript to be submitted for publication.

6. **Faculty for the course**
   - The course will be conducted by experienced and reputed faculty from The Union, and collaborating university partners.

7. **What does the participant gain?**
   - Practical skills for undertaking the entire operational research process from concept to publication.
   - The experience of learning and sharing knowledge within a team of motivated participants and talented facilitators in operational research (who act as mentors) from different countries. Facilitation is currently provided by a selected group of facilitators from The Union and a number of universities. All facilitators have extensive programme experience in conducting and mentoring operational research.
   - An opportunity to excel and gain visibility in operational research and to prepare for increased research responsibilities in their country or institution.

8. **What does the participant’s organisation or institution gain?**
   - A person who is well trained in operational research and can help their programme or institution undertake relevant operational research to identify challenges and improve programme performance in a sustainable manner.
   - The initiative would also foster medical staff-retention and attract qualified staff and reduce turn-over which may hamper continuity of research initiatives.

9. **Course follow-up**
   - Participants will be contacted intermittently after course completion to determine accomplishments and policy and practice impact of their studies.
   - Course facilitators will be available to provide advice upon request.

10. **Sponsorship**
    - A full scholarship will be offered to **successful applicants**. The scholarship includes all tuition fees, travel expenses, meals and accommodation. Receiving this scholarship implies commitment to the
institution where the candidate works and specific conditions if applicable would be outlined after selection.

11. Application deadline: 30 September, 2016

Applicants should email their completed application and supporting documents to skozikott@vitalstrategies.org by 30 September, 2016

For any queries, please contact

Samantha Kozikott
Technical Officer, Research Division
Vital Strategies (An affiliate of The Union)
61 Broadway, Suite 1010
New York, New York 10006
Tel: +1 212.639.0041
Fax: +1 347.772.3033
E-mail: skozikott@vitalstrategies.org
Child Lung Health in Southeast Asia
Operational Research Course
Application Form
Deadline: 30 September, 2016
Location: Singapore

COURSE CURRICULUM

<table>
<thead>
<tr>
<th>Module</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module 1</td>
<td>What is OR? Research questions and protocol development Dates: TBD</td>
</tr>
<tr>
<td>Module 2</td>
<td>Data management and analysis Dates: TBD</td>
</tr>
<tr>
<td>Module 3</td>
<td>Writing a scientific paper Dates: TBD</td>
</tr>
</tbody>
</table>

COURSE VENUE
The Union Asia Pacific Office
146 Robinson Road, #06-01
068909 Singapore

SECTION ONE

1. Applicant Information
Please fill in your name exactly as it appears on your passport.

Title:  Prof ☐ Dr ☐ Mr ☐ Ms ☐
Male ☐ Female ☐

Family name (surname)........................................ First (given) name ........................................
Home address.................................................................................................................................
City (+city code) ....................................................... Country .........................
Tel ................................................................. Fax ..................................
E-mail .........................................................

Place of work ..............................................................................................................
Work address ..............................................................................................................

City (+city code) ....................................................... Country .........................
Tel ................................................................. Fax ..................................
E-mail .........................................................

Citizenship (passport) .......................... Passport No. .................................
Date of birth .............................................................. Place of birth (city, country) ..............................................................

Current Profession (Job title) ......................................................................................
Job Description ............................................................................................................
.................................................................................................................................

2. Knowledge of English
Spoken:    Excellent □   Good □   Average □
Written:   Excellent □   Good □   Average □

Up to what level have you studied English? * ...........................................................
Number of years?  ........................................................................................................
* Elementary school, secondary school, college/university, professional

3. Computer Literacy
Word:     Proficient □   Intermediate □   Beginner □   Never used □
Excel:     Proficient □   Intermediate □   Beginner □   Never used □
Internet:  Proficient □   Intermediate □   Beginner □   Never used □
Epi Info/EpiData:  Proficient □   Intermediate □   Beginner □   Never used □

How often do you use the computer in a week? ......................................................
How many hours in a day do you use the computer? ..............................................

Kindly note that all participants are required to bring a laptop (Windows compatible, English keyboard) to the course
Being computer literate means daily usage of and familiarity with your PC Windows laptop. You are required to have
(i) an up-to-date patented virus protection software program
(ii) proficiency in file and folder management
(iii) knowledge of computer organisational structure
(iv) familiarity with the role and concept of file names and extensions
(v) ability to set up display of relevant file information (file name, extension, size, and date)
(vi) understanding of short-cut keys and ability to use these for efficient copying, pasting, searching, and replacing file elements
(vii) openness to learn new methods to improve. No prior knowledge of course software is required.

4. Have you ever attended other operational research training programmes or courses?
   Yes ☐ No ☐
   If yes, please indicate the name of the programme
   ……………………………………………………………………………………………………………………………
   Year ………………. Conducted by (organisation) ………………………………………
   ……………………………………………………………………………………………………………………………

5. Supervisor (Programme Manager/Medical/Operational Director)
   Name…………………………………………………………………………………………………………………………
   Title ……………………………………………………………………………………………………………………………
   Organisation………………………………………………………………………………………………………………
   Address …………………………………………………………………………………………………………………
   ……………………………………………………………………………………………………………………………
   City (+ city code) ……………….. Country …………………………………………………
   Tel …………………………………………… Fax ……………………………………………
   E-mail …………………………………………………………………………………………………………………

6. Mentor (Experienced technical adviser, who will take charge, guide and support the applicant) (if available)
   Name…………………………………………………………………………………………………………………………
   Title ……………………………………………………………………………………………………………………………
   Organisation………………………………………………………………………………………………………………
   Address …………………………………………………………………………………………………………………
   ……………………………………………………………………………………………………………………………
   City (+ city code) ……………….. Country …………………………………………………
   Tel …………………………………………… Fax ……………………………………………
   E-mail …………………………………………………………………………………………………………………

7. Sponsorship The Union (Paris) will provide a full scholarship, which includes all tuition fees, travel expenses, meals and accommodation.
SECTION TWO

Please send with your Application Form the following documents:

1. Detailed Curriculum Vitae

2. One page of text that a) describes a problem related to child lung health that you have identified within your programme and b) formulates a research question that you propose to develop into an operational research project during the course. Please note that the research questions using routine programme data are preferred and prospective studies are generally not accepted as they are unlikely to fit into the time-line and expected outputs of the course. (You may have already begun such research, in which case you should describe what you have started and how you intend to continue).

3. Written statement from your direct supervisor/officer/operations department attesting to the investment of resources, and the granting of permission for you to have the time and opportunity to carry out operational research including publishing the findings in a peer-reviewed journal with you as first author. The direct supervisor should also indicate his/her willingness to assist the applicant with completing course milestones.
4. Written statement from a mentor (if available) describing how he/she knows you and how he/she proposes to support you to complete the course successfully

5. Written statement confirming your commitment to participate in all three course modules, to return to your current country project/disease-control programme, or health institution following the course, and to apply the knowledge gained at programme level for a minimum of 18 months (Please see page 6 of the application)

6. Written commitment that you will mobilise the funds if required, to carry out operational research related to child lung health at programme level during the course (Please see page 7 of the application)

Please note that all supportive documents must be in Word or PDF format.

Application Deadline: 30 September, 2016

Applicant’s signature: ........................................ Date: ..............................................................

Email your complete application to:

Samantha Kozikott
Technical Officer, Research Division
Vital Strategies (An affiliate of The Union)
61 Broadway, Suite 1010
New York, New York 10006
Tel: +1 2126390041
Fax: 3477723033
E-mail: SKozikott@vitalstrategies.org
Statement of Commitment (1)

I commit to participate in all three course modules, to return to my current country project /disease-control programme, or health institution following the course, and to apply the knowledge gained at the programme level for a minimum of 18 months.

Applicant’s signature: ...........................................  Date: ..................................................

Supervisor’s signature: ...........................................  Date: ..................................................
Statement of Commitment (2)

I commit to mobilise the funds if required, to carry out operational research related to child lung health at the programme level during the course.

Applicant’s signature: ..................................  Date: ..................................................

Supervisor’s signature: ..................................  Date: ..................................................